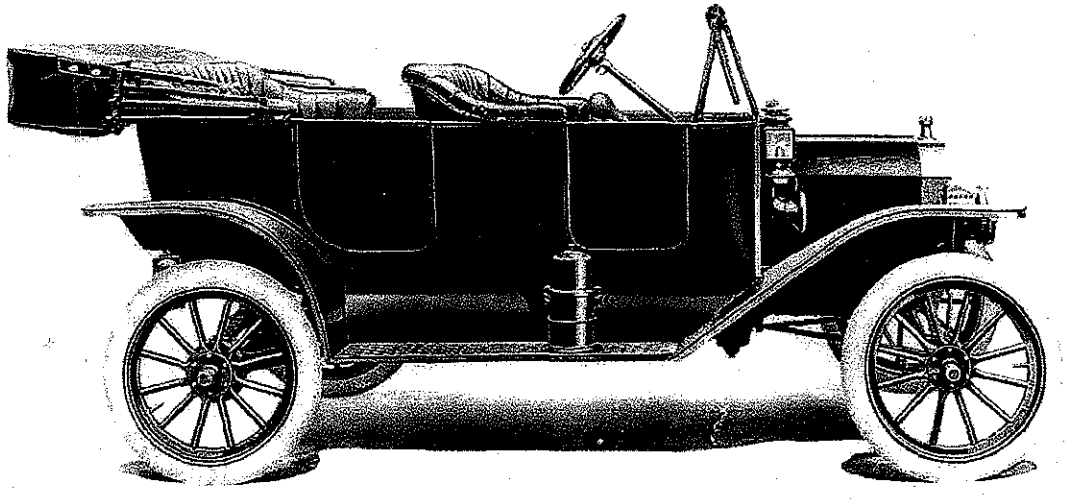
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THE THIRTY-FOURTH INTERNATIONAL CONGRESS

MARRIOTT DEARBORN INN HOTEL DEARBORN

OCTOBER 14-17, 2003



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PIPA 34th INTERNATIONAL CONGRESS
Marriott Dearborn Inn Hotel
Dearborn, Michigan
October 14-17, 2003

PROGRAM

Tuesday, October 14

3:00-6:00 pm:	Registration
6:00-8:30 pm:	Grand Reception

Wednesday, October 15

7:00-9:00 am:	Breakfast
8:00-9:00 am:	Registration

Opening Ceremonies

9:00-9:45 am:	Welcoming Address: Edward Blocker, President, American Group Review of last year's activities: Manabu Inoue, President, Japanese Group Introduction of Board, Program Coordinators, Committee Chairs, Honored Guests
9:45-10:15 am:	Keynote Speaker : The Honorable John Conyers, Jr., Representative from the Michigan 14th U.S. Congressional District, Ranking Member of the House Judiciary Committee & House Sub-Committee on Courts, the Internet, and Intellectual Property
10:15-10:30 am:	Coffee Break
10:30-11:00 am:	Guest Speaker: Nicholas P. Godici, Commissioner for Patents, United States Patent and Trademark Office
11:00-11:30am:	Guest Speaker: Toshimichi Moriya, Director General, 3rd Patent Examination Dept., Japan Patent Office
11:30am-12:00pm:	Presentation of 2003 PIPA Award to Ben Cadenhead
12:10-1:00pm:	Lunch

Plenary Session I: Global Patent Acquisition/Procedural Issues

American Group Program Coordinator: Soonhee Jang
Japanese Committees 1 and 3 chairs: Shinji Kubota and Masayoshi Urayama

1:00-1:20pm:	*"Protection of Software – Related Invention in Japan, U.S. and Europe"* by Yusuke Kanehira
1:20- 1:40pm:	*"Analysis for Examination Practice Relating to Object-Oriented Software Inventions"* by Yuichi Takamiya
1:40-2:00pm:	*"Outreach and Support Programs for Entrepreneurs and SMEs in Korea-Experiences of KIPO"* by CHOI Gyu-Wan, Esq., Patent Attache, Korean Embassy, Washington, D.C.
2:00-2:20pm:	*"Study on Quality Framework for International Search and Preliminary Examination"* by Kimio Tomidokoro

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2:20-2:40pm:	"Analysis of Requirement for Disclosure of Information on Prior Art Documents" by Taro Tameyama
2:40-3:00pm:	"Method for Globally Expediting Patent Prosecution " by Yui Tada
3:00-3:20pm:	Coffee Break
3:20-3:40pm:	""Harmonization: Can We Move to an Objective Global Standard" by Larry Welch
3:40-4:00pm:	*"Study and Recommendations on the Substantive Patent Law Treaty"* by Takashi Ishihara
4:00-5:00pm:	Panel Discussion *"Selected Topics of Patent Harmonization: What constitutes public prior art? Globalized or national prior art in view of internet and information age? Global grace period? First to file versus first to invent system?* by Soonhee Jang, Lawrence Welch, Jeff Hawley, CHOI Gyu-wan, Yuichi Ishihara, Takamasa Otake, Kimio Tomidokoro, Yusuke Kanehira and Masayoshi Urayama

Evening activities: Informal networking dinners between American and Japanese groups

Thursday, October 16

7:00 – 9:00 am: Breakfast

Plenary Session II: Global Licensing and Legislative Issues

American Group Program Coordinator: Jack Slobod
Japanese Group Committee 2 chair: Naoki Nakao

9:00-9:20am:	*"US Intellectual Property Legislative Update"* by Jeff Hawley
9:20-9:40am:	*"Patentee's Participation in Standards Setting (the Rambus Case)"* by Jack Slobod
9:40-10:00am:	*"Specific Issues to Consider When Drafting Patent Applications and Hybrid Licenses for Transactions in Asia"* by Jon Wood
10:00-10:20am:	*"Patent Asset Management and Licensing"* by William T. Ellis
10:20-10:40am:	Coffee Break
10:40-11:00am:	*"Preparation and Negotiation for Patent Licensing"* by Masanori Niwa
11:00am-12:00pm:	Panel Discussion "Current Trends in Enforcement and Negotiation in US, Europe and Japan" *by Jack Slobod, Edward Blocker, William T. Ellis, Jon Wood, Masanori Niwa, Masaki Ito, Chiga Yoshikawa and Naoki Nakao*
12:00-10:00 pm:	*Social Outing*

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For attendees and guests:

12:00-5:00pm:	Greenfield Village (90 acre outdoor museum including historic buildings, parlors, workshops, storefronts, and farms from America's past-memorable events, historic re-creations and live demonstrations of American ingenuity and crafts - ride in a Model-T)
5:00-6:00pm:	Return to Marriott Dearborn Inn (freshen-up)
6:00-10:00pm:	Rotunda Lounge (atop the Hyatt Regency Hotel) - Group Dinner, Karaoke

Friday, October 17

7:00– 9:00am: Breakfast and Checkout

Plenary Session III- Enforcement and Anticounterfeiting Issues

American Group Coordinators: Nelson Blish and Soonhee Jang
Japanese Group Committees 3 and 4 chairs: Masayoshi Urayama and Tatsuya Izukawa

9:00-9:30am:	*"IP Strategy for Corporations"* by Tetsuya Morita
9:30-9:50am:	*"Indirect Infringement"* by Osamu Nomura
9:50-10:10am:	*"IP Management for the Corporate Reorganization"* by Yoshiaki Kumazawa
10:10-10:30am:	*"The Employed Inventor's Compensation Law in China"* by Professor Bing Wang, Tsinghua Univ., China
10:30-10:45am:	Coffee Break
10:45-11:05am:	*"The US Economic Espionage Act and its Extraterritorial Reach"* by David Simon
11:05-11:25am:	*"Combating Trademark Counterfeiters and Copyright Pirates in Chinese East Asia: Forward? Backward? or Sideways?"* by William O. Hennessey, Franklin Pierce Law Center
11:25am-12:15pm:	Panel Discussion "Anti-Counterfeiting in Southeast Asia" by Jeff Hawley, David Simon, William O. Hennessey, Nelson Blish, Bing Wang and Kiyoshi Tanabe
12:15-1:15 pm:	Lunch and Closing Ceremonies

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William O. Hennessey

(1) Title: Protection of Software-Related Invention in Japan, U.S. and Europe

(2) Date: October 2003 (The 34th International Congress in Dearborn)

(3) Source:
1) Source: PIPA
2) Group: Japan
3) Committee: 3rd Committee

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Software-related invention, Computer, Program, Patentable subject matter, Statutory subject matter, Claim, Scope of claim, Effect of patent right, Indirect infringement, Contributory infringement, Japan, U.S., Europe

(6) Statutory Provisions:
Japanese Patent Law: Article 2, paragraph 1; paragraph 3, item 1, 3 and 4; Article 29, paragraph 1; Article 68; Article 101; U.S. Patent Law: Article 101; Article 112, paragraph 6; Article 271; European Patent Convention: Article 52, paragraph 2(c), paragraph 3

(7) Abstract:
With regard to protection of software related inventions by patents, discussions have been actively held since old times. However, it is a technical filed in which there are stormy changes from a legal viewpoint, and for example, there are several big movements such as revisions of a definition provision of invention to be protected and acts of working (Article 2), and a provision of indirect infringement (Article 101) in 2002 revised Japan Patent Law, 2002 European Directive on the patentablity of computer-implemented inventions, and so on. Also, a distribution form of software is such a field that there are trends of big changes in both business and technology, due to popularization of the Internet and so on. In view of these trends, we will consider with regard to patentable subject matter and effective scope of a patent right in Japan, U.S. and Europe, and study them by use of hypothetical examples for which distribution forms of software in these years were considered, and make recommendations.

1. Introduction

A computer program (software) is one in which instructions for having a computer operated were described. In 2002 revised Japan Patent Law, which newly provided a definition provision of a "program", the "program" is defined to be "an instruction to an electric computer, and combined ones so as to be able to obtain one result".

Therefore, in a very real sense, a computer program is simply one in which an instruction to a computer was described, and up to around the middle of 1970's, it was not considered as a subject matter to be protected of a patent law.

However, since program development requires tremendous investment, in advanced countries including Japan, U.S. and Europe, demand of protection of software by use of patents becomes extremely strong, and as a result, in 1980's, a software-related invention has become a subject matter to be protected of a patent law in various countries.

Furthermore, having entered into 1990's, the Internet was popularized explosively, and computer technologies are not only things for industries but also, in individual's life, a computer has become one which is indispensable to human life. In so-called personal computing, what determines relative merits of its business is not only hardware performance but also whether or not any software is usable, which is extremely important. That is, to the extent that it is said that a person who conquers software conquers computer industry, importance of software has been heightened more and more.

Also, generated is a flow for strongly opposing to grant of patents for software-related inventions, for the reason that software should be public property that anybody can use, such as an open source software movement etc. including Linux™ in these years.

In such a situation with stormy changes, viewing attitudes of Japan, U.S. and Europe to software-related inventions, each of Japan, U.S. and Europe treats a software-related invention as a subject matter to be protected of a patent law, but there are considerable differences with regard to what is made to be a subject matter to be protected (so-called patentable subject matter), depending upon differences in history and attitude to a software-related invention in each country.

For example, in Japan, by 2002 revised Japan Patent Law, it entered into a situation that a computer program as such is protected as an invention of "a product", but a country which is indicating protection of a program as such in this manner is not found in the world except Japan in major countries.

Also, a software-related invention can be protected by a patent in each country, but, depending on a difference of provisions of indirect infringement, scope that a patent granted to a software-related invention can be protected differs with respect to each country.

In view of the foregoing, in this paper, with respect to software-related invention, firstly, we will review laws and legal systems in Japan, U.S. and Europe. Next, we will study about what kind of subjects become a subject matter to be protected in Japan, U.S. and Europe. Finally, we will add consideration from viewpoints of effects of patent rights and costs, and will present guidelines for judgment in scenes of obtaining patents.

2. Laws and Legal Systems in Japan, U.S. and Europe regarding Patentable Subject Matter

For the purpose of later discussion, we will review about what can be a patentable subject matter in Japan, U.S. and Europe, from aspects of a legal system and its history.

Japan

Japan Patent law has a definition provision of inventions, and on the basis of the definition provision, patentablity of a subject matter is judged by a fact of whether or not it corresponds to "creation of technical ideas by which a law of nature is utilized". This is a point which is different from those in U.S. and Europe having no definition provision of inventions in such express terms.

And, in examination guidelines in Japan, in order to meet the requirement "a law of nature is utilized", it is necessary that software (computer program) is one which utilizes hardware resources of a computer that is a physical apparatus.

Concretely speaking, by a fact that "information processing by software is concretely realized by use of hardware resources", "a law of nature is utilized" is realized, and by a fact that "software is read into a computer, and software and hardware realize calculation or processing of information in accordance with intended uses by concrete means, and thereby, a specific information processing apparatus (machine) and its operation method in accordance with intended uses are developed", it can be said that "concretely realized".

Also, in 2000 revised examination guidelines, it has been already permitted to claim a "program" as such, but it was expressly provided in 2002 revised Patent Law that it is protected as "an invention of a product". This is epoch-making revision for an entire legal system in Japan in which "a product" means "tangible goods" traditionally.

There exist cases in U.S. and Europe that it was allowed to claim a computer program product etc., but Japan is the only one of the three Offices, which allows to claim a computer program as such squarely. (In addition, a computer program product, which is allowed in U.S. and Europe, is not allowed as a patentable subject matter in Japan because of ambiguity of a subject matter thereof.)

U.S.

Speaking from practical feeling, we have an impression about a patentable subject matter of a software-related invention in patent practices in the U.S. that literally "everything under the sun can be patented", as compared to those in Japan and Europe.

Under Article 100 of U.S. Patent Law, it is provided that "invention" in the U.S. Patent Law means "invention or discovery", but there exists no concrete definition provision with regard to "invention", and "discovery". On one hand, under Article 101 of U.S. patent Law, as an invention for which a patent can be obtained, 4 categories of process, machine, manufacture, or composition of matter are cited, and inventions which belong to these become subject matters to be protected. Also, by judicial precedents, it has been established that an invention type which corresponds to any one of 3 categories of

1. law of nature

2. physical phenomena

3. abstract idea

is outside of subject matters to be protected of Patent Law, as a non-statutory subject matter.

Further, Article 101 of U.S. Patent Law charges a requirement of utility to a subject matter which seeks for patent protection, and there is a necessity that a subject matter which seeks for protection is a practical application.

Also, from the above-described concept of a non-statutory subject matter, with regard to a software-related invention, discussions about patentablity of algorithm (in particular, mathematical algorithm) have been held.

On this point, there is a judgment of Benson case in 1972 that, in case that a patent will be substantively granted to algorithm itself, it can not be patented. The U.S. Patent and Trademark Office stands on its thought that patentablity of all algorithm was denied by this judgment, and has rejected inventions which include algorithm.

However, by Diehr case judgment in 1981, made was such a judgment that one which protection by patent was denied in Benson case judgment is not general algorithm but mathematical algorithm, and practices in U.S. Patent and Trademark Office was changed significantly.

After that, in Alappat case judgment in 1994, shown was such a judgment that practical applications of mathematical algorithm, which generate "useful, concrete and tangible results", are patentable.

With regard to a form of claim description in the U.S., Warmerdam case judgment and Lowry case judgment, in which patentability of a memory which stores data having a specific data structure was identified, were issued one after another. To that end, in 1996, U.S. Patent and Trademark Office announced to the public "Examination Guidclincs of Computer-Related Invention" which says that a recording medium in which a computer program was recorded corresponds to "manufacture" which is a statutory subject matter to be protected, and thereafter, in accordance with the guidelines, examinations of software-related inventions have been conducted.

Europe

In Europe, European Patent Office requires in its examination guideline with regard to a subject matter which are not limited to software-related inventions but all inventions to have "technical character".

In the past, on the occasion of judging presence or absence of this technical character with regard to software-related invention, European Patent Office has employed a "technical contribution" approach in which it is decided on the basis of whether a claimed invention has contribution from conventional technology, but there was such criticism that, since judgment about patentable subject matter is conducted by contradistinction with prior art, it is difficult to understand a difference with an inventive step of an invention.

After that, in T769/92 (SOHEI decision) dated May 31, 1994, DG3(Boards of Appeal) of European Patent Office introduces a concept of "technical consideration" in judgment about

patentablity of a software-related invention, and by such a reason that, in case that "technical consideration" regarding means for solving a problem of an invention is required to realized an invention, the technical consideration gives a technical nature to an invention, and also, a technical problem which is resolved by a potential technical nature in such a case, it permitted patentablity of an invention.

By this decision, patentablity of a software-related invention in European Patent Convention becomes to be judged, not by contradistinction with prior art but only by a nature of a claimed invention, and we can say that it is an epoch-making decision which changes conventional approach of technical contribution.

Also, in T1173/97 (IBM decision) dated July 1, 1998, DG3(Boards of Appeal) of European Patent Office showed such a judgment that a computer program product having technical nature becomes a patentable subject matter and "[normal] physical interaction between software and hardware" is recognized, and in case that there is "further technical effects" surpassing that, it can be said that the technical nature exists.

Also, in IBM decision, willingly shown is such judgment that the concept of "technical contribution" which was used for conventional judgment about presence or absence of technical nature is appropriate for examination of inventive step, and is not appropriate as judgment of whether being a patentable subject matter or not.

In response to the above-described decision, practices of European Patent Office has been moving forward in a direction that patentability of a software-related invention is widely recognized. However, at a diplomatic conference for discussing about revision of European Patent Convention in 2000, it was proposed to delete "computer program" from a non-patent list of Article 52(2)(c), but majority agreements could not be obtained, and acceptance of proposed revision of Article 52(2)(c) was shelved.

On one hand, from a framework of European Union (EU), a committee of EU proposed "Directive of the European Parliament and of the Council on the patentability of computer-implemented invention" in February 2002.

In a proposed directive, it is shown that member countries confirm that a computer-implemented invention is claimed as an "programmed apparatus" or a "process which is carried out by an apparatus through execution of software", and a computer-implemented invention belongs to a field of technology, i.e., is one which has a technical nature, and a technical contribution should be considered in judgment of an inventive step.

In addition, as for assessments of the proposed directive in various sectors, since it is one which clearly specifies a software-related invention as a subject matter of a patent, assessments from open source-related organizations, which oppose software patents are not so high. Also, in the past, it was possible for a computer program product to becomes a subject matter of a patent, but in the proposed directive, it is probable that one in execution becomes a subject matter of a patent, and there ware criticisms from software industry, saying that there is almost no value for obtaining such patents.

With regard to the proposed directive, votes in European Parliament are scheduled on June 30, 2003, but the votes was postponed since an agreement in opinions was not reached. The

postponement was until September, and such a current situation in Europe that opinions are drastically opposed with regard to grant of patents to software-related invention became apparent.

3. Patentable Subject Matter in Practices in Japan, U.S. and Europe

Hereinafter, with regard to subject matters of a patent (mainly, form of a claim) in practices in Japan, U.S. and Europe, examination guidelines, judgments, decisions and so on in Japan, U.S. and Europe will be reviewed.

Japan

According to examination guidelines of Japan Patent Office, software-related inventions are classified into 4 types of "program", "recording medium", "apparatus", and "method".

<1> Program

"Program", which identifies a plurality of functions that a computer realizes, can be described in a claim as "an invention of a product".

Even if ending of a claim which is described in a specification of a computer-related invention is other term than "program" (e.g., OO software, OO printer driver, OO compiler etc.), in case that, when technical common knowledge at the time of filing an application is considered, an invention relating to a claim is clearly a "program" which identifies a plurality of functions that a computer executes, it is treated as "program". However, in case that a patent is claimed as program signal (row) or "data signal (row)", it is impossible to identify "an invention of a product" or "an invention of a process", and therefore, it is rejected as ambiguous description.

Also, a computer program list is simple presentation of information, and is not "creation of technical ideas by which a law of nature is utilized", and therefore, is not an invention.

In addition, it is clearly described in the examination guidelines that a program product is not accepted as a patent.

In the examination guidelines, 3 types described in the following table are recommended as a method for describing a program claim.

Example 1	A program for having a computer execute a sequence A, a sequence B, a sequence C, ...
Example 2	A program for having a computer function as means A, means B, means C, ...
Example 3	A program for having a computer realize a function A, a function B, a function C, ...

<2> Recording Medium

It is possible to describe "A computer-readable recording medium in which a program was recorded", or "A computer-readable recording medium in which recorded was data having a structure" by which processing contents, that a computer executes, are identified by a structure of recorded data, in a claim as "an invention of a product".

In addition, in Japan, with regard to a transmission medium, normally, it means a medium having a function for transmitting information of a communication network and so on. Therefore, to describe that a specific computer program is being transmitted on somewhere of a

transmission medium at any time does not mean that a transmission medium was identified as a "product", and as a result that there is no technical relation between items for identifying an invention, an invention becomes ambiguous, and it is rejected as ambiguous description.

In the examination guidelines, 4 types described in the following table are recommended as a method for describing a recording medium claim.

Example 1	A computer-readable recording medium in which a program for having a computer execute a sequence A, a sequence B, a sequence C, ... was recorded
Example 2	A computer-readable recording medium in which a program for having a computer function as means A, means B, means C, ...was recorded
Example 3	A computer-readable recording medium in which a program for having a computer realize a function A, a function B, a function C, ... was recorded
Example 4	A computer-readable recording medium in which data having A structure, B structure, C structure,... was recorded

<3> Apparatus

A software-related invention can be claimed as an apparatus or an equipment having hypothetical means as elements which is realized by cooperation of software and hardware resources. In addition, a computer system, equipment and so on are included in this category.

<4> Method

A software-related invention, when it can be expressed as a series of processes or operations which are connected in chronological manner, that is, as a "sequence", can be described in a claim as "an invention of a process" (including "an invention of a process of manufacturing a product") by identifying "sequences" thereof.

On the occasion of describing a software-related invention in a category of a method, there is a necessity to clarify whether that step is conducted by a person or by a computer. (e.g., as to "step for selecting OO" etc., since an examiner may point out that it is not clarified about whether that step is conducted by a person or by a computer, and therefore, caution is needed.)

U.S.

In the U.S., in February 1996, guidelines to a computer-related invention was announced, and in accordance with it, examinations have been conducted. In the guidelines, statutory subject matters which are patentable, and non-statutory subject matters which are not patentable are explained, respectively. Summary of statutory subject matters and non-statutory subject matters which are explained in the guidelines, are as follows.

<1> Statutory Subject Matter

In case that a claim defines a useful machine, product by combination of hardware and software, it is a statutory subject matter as a product claim.

A claim of a computer program recorded on a medium, which has data structure/functional

interrelationship among functional descriptive materials, is a statutory subject matter.

In case that a process requires a physical operation in manipulation outside a computer and is independent from steps which are executed by a computer in which a program operates, and these operations manipulate physical subject matters, and a result thereof is one which gives a physical attribute, and structure, this process is a statutory subject matter.

<2> Non-Statutory Subject Matter

Among functional descriptive materials, a list, which represents data structure and a program of a claim being away from a legible medium, is not a statutory subject matter.

As a descriptive material having no function, a descriptive material, which can not show a functional interrelationship with execution of computation processes, is not a statutory subject matter since it does not figure out a machine, a manufacture and combination of them.

A claim of a computer-related invention which is configured only by a descriptive material is a non-statutory subject matter, in the same manner as art etc.

A descriptive material in which fact data such as music, literature etc. are simply laid out and edited is not a statutory subject matter since there is no functional interrelationship with a calculation processing process etc. and it is simply stored.

One which handles only an abstract concept, or a purely mathematical algorithm is a non-statutory subject matter even if there exists a fact that it has some utility.

In addition, As a claim which was actually patented, firstly, an apparatus claim, a method claim, and a recording medium claim are permitted as a matter of course. A program product claim (e.g., claim 13 of USPN6587833), a transmission medium claim (e.g., claim 17 of USPN5826021), and a signal claim (e.g., claim 36 of USPN6343321) which are not allowed in Japan are also permitted.

Europe

As described before, in the past, in European Patent Law, an invention of a computer program is put into a non-patent list regardless of a content thereof, and a patent right was not granted thereto. However, in decisions of T935/97, and T1173/97, the guidelines was revoked, and it was judged that a computer program becomes a subject matter of a patent.

In this decision, "as such" which means "itself" is construed rigorously, and it was decided that a patent application is excluded only about a program itself ("as such"). That is, it is possible to make a decision that a patent is allowed if it is one which is not "as such" and has a technical nature.

What is important here is what is the technical nature. The technical nature means as follows.

<1> There exists a technical problem to be solved.

<2> There exists means for solving that technical problem.

<3> There exists a technical advantage of an invention.

<4> In order to use it by a computer, technical consideration/technical knowledge are

necessary.

In order that a computer program is found to be an invention which can be patented, necessary is a further technical effect which surpasses a normal interaction which is obtained by having a computer program operated on hardware. This "further technical effect" is a technical character, and speeding up on the occasion of executing a program, and speeding up of data transfer also correspond to this.

Also, With regard to a medium claim, after the decisions of T935/97 and T1173/97, it was judged that a computer program, which was recorded therein, is approved as a patent, if it has a technical nature.

In addition, as a claim which was actually patented, firstly, an apparatus claim, a method claim, and a recording medium claim are permitted as a matter of course. Besides that, a program product claim (e.g., claim 10 of EP0802478), a transmission medium claim (e.g., claim 15 of EP081386), and a signal claim (e.g., claim 1 of EP0624042) which are not allowed in Japan are also permitted in the same manner as in the U.S.

Comparison of Japan, U.S. and Europe

Examination guidelines, and actual examples for describing claims in each country were described, and will be summarized as follows.

Category	Japan	U.S.	Europe
Program	O	Δ*	Δ*
Program product	X	O	O
Signal (row)	X	O	O
Recording medium (manufacture)	O	O	O
Transmission medium	X	O	O
Apparatus, system	O	O	O
Method	O	O	O

* In U.S. and Europe, there exists an example that a program claim is patented, but a predominant case is a case that it is described as a program product claim.

Comparing patentable subject matter about software-related inventions, we feel that there are many cases in which subject matters are not permitted with regard to Japan, as compared to U.S. and Europe. We are of the thought that this is because it relates to whether a software-related invention is judged as a matter of form, or judged substantively. Hereinafter, we will express our view briefly.

In Japan, there is a definition provision in Article 2, paragraph 1 of Patent Law. In current Patent Law and examination guidelines, an invention as "creation of technical ideas utilizing a law of nature" is judged depending upon whether an invention described in a claim utilizes hardware resources or not. That is, if someone wants to obtain a right in Japan, the invention has to be one utilizing a law of nature as a matter of course. However, in U.S. and Europe, there exists no definition of "creation of technical ideas utilizing a law of nature".

In contrast to this, in a software-related invention in the U.S., we has an impression that one of any style is approved as a patent, if it is a patentable subject matter at the same time. In Europe, it appears that a patent is approved if it has the "further technical effect" which is obtained by operating a computer program on hardware substantively. That is, we feel that, in both of U.S. and Europe, a software-related invention is substantively judged as a content thereof.

In Japan, a definition provision of an invention is provided, but, what becomes an issue in particular by this is an application from overseas by PCT. In PCT, it is impossible to make changes of a specification as a matter of fact in a stage of transferring to a domestic phase. There is no problem if, on the occasion of filing an application in foreign countries, filing an application also in Japan is considered from the beginning, and the description is made by taking "creation of technical ideas utilizing a law of nature" into consideration. However, in case of description in which the definition provision in Japan is not considered, there may be a case that amendment is not allowed in a stage of transferring to Japan and it is not possible to obtain a right.

As above, conceivable is a case that even an invention which is judged to be patentable in U.S. and Europe, is judged to have no patentablity since it is judged as a matter of form by the definition provision of an invention which is provided in Japan. We feel that implementation of a formal judgment by this definition provision of an invention is a reason that it becomes difficult to obtain software-related patent in Japan as compared to U.S. and Europe.

From a viewpoint of realizing international harmonization of patent laws, we feel that there is a problem in this definition provision of an invention. We are of the thought that judging an invention more substantively also in Japan to, as a result, grant a right for a software-related invention to be protected further promotes inventions, and thus, contributes to development of industry. To that end, we think it necessary to focus on a substantive judgment not but a formal judgment of a definition provision etc. of "creation of technical ideas utilizing a law of nature" etc.

4. Merits of Describing in Each Claim Form

(1) Legal Systems in Japan and U.S. regarding Effect of Patent Right

As a premise for a later study, we will review scope provided in Japan Patent Law, to which effect of a patent right is extended. In addition, with regard to European patents, since it is provided that "any infringement of an European patent shall be dealt by national laws (EPC Article 64(3))", because of space limitations, we will avoid to enter into a study of national laws in Europe and refer only to a patent right in Japan.

Japan

Under Japanese Patent Law, a patentee shall have an exclusive right to commercially work the patented invention (Article 68). Concrete acts of working are provided in Article 2, paragraph 3 classified into "an invention of a product" and "an invention of a process". Therefore, those acts of an unauthorized person as business directly infringe a patent right.

In case of an invention of a product, a direct infringement is configured by a fact that an unauthorized person manufactures, uses, assigns etc., imports or offers for assignment etc. of the product. In 2002 revised Patent Law, it is clarified that a program is treated as "a product", and to provide a program through a network corresponds to "assign" and an act of infringement, which is important from a viewpoint of a software-related invention.

In case of an invention of a process, only using that process constitutes an act of infringement. However, in case of an invention of a process of manufacturing a product, besides that, to use, assign etc., or import, or offer for assignment etc. of a product which was produced by that process also configures an act of infringement. In 2002 revised Patent Law, a program is treated as "a product", and therefore, for example, with regard to an automatic generating method of programs and data (compile etc.), it is important that effect of a patent right extends also to selling a program and data which was produced by using that process.

Also, even not corresponding to direct infringement, certain acts are deemed to infringe a patent right as indirect infringement.

Concretely speaking, firstly as one mode of conventional indirect infringement, it is said that, with regard to an invention of a product, commercial acts of manufacturing, assigning etc., or importing or offering for assignment etc. of, a product which is used only for manufacturing of that product, and with regard to an invention of a process, commercial acts of manufacturing, assigning etc., or importing or offering for assignment etc. of, a product which is used only for use of that process, configure indirect infringement.

As one which was newly provided in 2002 revised Patent Law, even if it is one which is indispensable for resolution of a problem by an invention, in case of manufacturing, assigning etc. or importing or offering for assignment etc. of, other things than one which is generally widely distributed in Japan, in case that it was known that the product is used for working of the invention and the invention is a patented invention, it becomes indirect infringement.

In relation to a software-related invention, since "a program" is included in "a product" in Patent Law, for example, acts of manufacturing etc. a module as a component of a program may correspond to the latter indirect infringement.

U.S.

In U.S. Patent Law, a patent gives to a patentee a right (exclusive right) which excludes other persons from manufacturing, using, selling, or offering for sale of, or importing in the U.S., an invention which was claimed in the patent, in the U.S. during a period of patent duration. In case that these acts were conducted, it becomes direct infringement of a patent right.

In U.S. patent Law, modes of direct infringement of a patent right are not provided classified into an invention of a product and an invention of a process as in Japanese Patent Law, but "Sale of an apparatus does not become sale of a process, and a process claim is directly infringed only by working a patented process"(Joy Technologies, Inc. v. Flakt Inc. (Fed. Cir. 1993). Thus, sale of a product, in which use by other persons becomes working of a patent, raises an issue of "contributory infringement" which will be described later.

Also, with regard to a process patent, in case that a product which is not patented is

manufactured by a process which is patented, acts of importing, selling or using the product without any authority becomes infringement of a patent right in question.

U.S. Patent Law provides 2 kinds of modes of "indirect infringement" of "Contributory Infringement" and "Active Inducement of Infringing Act" besides the above-described "direct infringement".

With regard to the "Contributory Infringement", in case of selling a constituent element of an invention, in case that the constituent element is an important portion of the invention, and particularly manufactured or re-modeled for use in the patent infringement, and the constituent element is not a commercial product or a generalized product which can be used without infringing a patent right, and in case that a seller knows existence of the patent right and a use intention of the constituent element by a purchaser, the seller accepts responsibility as an indirect infringer.

Also, in case that a person encourages and assists acts of infringements by other persons knowingly, it constitutes the "Active Inducement of Infringing Act", and the person who made such encouragement etc. takes responsibility as an infringer.

(2) Advantage of Describing in Each Claim Form

In Japan, by a 2000 revised examination guidelines, it became possible to describe a claim of a software-related invention in "a program" form. Roughly classifying claim forms of a software-related invention, a claim of a category of a product is "program", "recording medium", and "apparatus", and a claim of a category of a process becomes "method". In general, since an infringement product actually exists as a product, it is easy for a claim of a category of a product to be asserted than a claim of a category of a process. However, in case that service acts by a service company are considered, it is also conceivable that it is easy for a claim of a category of a process to be asserted than a claim of a category of a product. Furthermore, scopes to which effect is extended do not match with each other between mutual claims which belong to a category of a product ("program", "recording medium", "apparatus").

With regard to the "program", in Japan, further, by 2003 revision of Patent Law, it was clarified that it is included in a category of a product from a viewpoint of 2000 revision of Patent Law (Article 2, paragraph 3, item 1). In contrast to this, in the U.S., it has not yet become even a subject matter to be protected. On this point, in the U.S., by describing it as a "program product" claim, it appears that a program is captured as "a product", and permitted as a subject matter to be protected. With regard to a program product claim, scope that effect is reached has not yet been clarified at current stage by judicial precedents, but it is considered to be a concept representing an entirety of ones which use a program as a product. For example, it is a package product, one which is soled through a network and so on. Also, it appears that it is construed so as to include also a hardware apparatus etc. in which the program was installed. Adversely, in Japan, by such a reason that a subject product is indefinite, a program product claim is not permitted as a form of describing a claim. Also, with regard to a "signal (row)" claim and a "transmission medium" claim, in Japan, they are not permitted as a form of describing a claim, but are permitted in the U.S. The signal (row) claim is one which expresses signals (row) such

as computer signals, and the transmission medium claim is one which expresses a medium in which computer signals etc. are transmitted. A reason that claims of these forms are not permitted in Japan is that, as to the former, a category that an invention to be patented belongs to is ambiguous, and as to the latter, there is no technical relationship between items for identifying an invention.

As above, in addition to a fact that scope that effect is reached differs with respect to each claim form, claim forms which can be described in Japan / U.S. differ. Furthermore, as will be described hereinafter, even in case of the same claim form, scope that effect is reached differs between Japan and U.S.

With regard to an invention of a product, a provision of acts of working in Japanese Patent Law provides acts of manufacturing, using, assigning etc., or importing or offering for assignment etc. of, the product" (Article 2, paragraph 3, item 1) as patent infringement. In contrast to this, a provision of acts of working in U.S. Patent Law provides process, machine, manufacture, composition of matter as subject matters to be protected and provides that "whoever makes, uses, offers to sell, or sells or imports any patented invention" (Article 271(a)) infringes a patent. Therefore, with regard to an invention which was described by claim forms of a recording medium and an apparatus, protection can be obtained similarly in both of Japan and U.S. Also, with regard to an invention of a process, it is apparently separated from an invention of a product in Japan, and it is provided that "acts of using the process" (Article 2, paragraph 3, item 2) configure patent infringement. On one hand, in the U.S., not separated from an invention of a product, it is covered by "use" in Article 271(a). Therefore, although there is a legislative difference as described above, also as to a claim which was described by a process form, protection can be obtained similarly in both of Japan and U.S.

However, between Japan and U.S., scope to which effect of a patent right is extended differs from a legal viewpoint. For example, in U.S. Patent Law, permitted is a method of describing a claim by a means-plus-function form (Article 112, paragraph 6). In case of having described in this form, scope to which effect of the patent right is extended is construed in a limited way to an embodiment which was described in a specification and its equivalents. On one hand, in Japan, permitted is a method of describing a claim by connecting "means for ...". However, scope to which effect of the patent right is extended is not necessarily construed in a limited way to an embodiment which was described in a specification and its equivalents. Furthermore, with regard to indirect infringement, in U.S. Patent Law, it is captured as "Contributory Infringement" and "Active Inducement of Infringement Act" (Article 271 (b), (c)). Also in Japan, by 2002 revision of Patent Law, an objective requirement is deleted, and a text of adding a subjective requirement is added so that formation requirements of indirect infringement was alleviated (Article 101, item 2, item 4). In more detail, by deleting the term of "use only for ...", deleted was a requirement that a physical object of indirect infringement is limited to an exclusive use product to a direct infringing product. Therewith, added are subjective requirements that <1> an infringer knows existence of a patented invention and <2> an infringer knows that the product itself is used for working an invention. As above, it was revised to a content similar to the "Contributory Infringement" in U.S. Patent Law. In addition, on a point

that there exists no concept of "Active Inducement of Infringing Act", it is distinct from indirect infringement in the U.S.

As a concrete example in which the above-described difference occurs, we will think about distribution of computer programs through a network.

In case that assumed were modes of working such as transmission and download of a program, in Japan, it is possible to prepare a "program" claim, whereas, in the U.S. it is popular to prepare it as a "program product" claim. However, in the U.S., it is possible to prepare the "signal (row)" claim and the "transmission medium" claim. In the U.S., in case of describing a claim of means-plus-function form, scope to which effect of the patent right is extended is construed in a limited way to an embodiment which was described in a specification and its equivalents, and therefore, caution is needed. With regard to indirect infringement, in Japan wherein there exists no way of thinking of "Active Inducement of Infringing Act", there is a necessity to prepare a claim assuming this separately.

As above, advantages that a software-related invention is described in each claim form differs vastly between both countries. In this connection, in the following "5. Study by use of Hypothetical Examples", by use of hypothetical examples which are proper to a software-related invention, it will be studied about what form of claims should be prepared to be useful in Japan, U.S. and Europe with respect to each example. We would appreciate if a reader would read it from a viewpoint of studying by what form of claims business values are appropriately protected.

In addition, with regard to also Europe, a claim form which can be described differs from those of Japan and U.S. However, with regard to scope that effect of a claim is reached, it is not provided by European Patent Convention taking the circumstances of each country into consideration, but left to a legal system in each country. In this connection, in Europe, we will not consider indirect infringement and will consider only about direct infringement.

5. Study by use of Hypothetical Example

(1) Act of Installing Program in Hardware such as Computer

With regard to an act of installing a program, it will be studied about whether an act of a program provider constitutes infringement or not. Also, an act of installing a program in hardware is an act of storing a program in a hard disc (recording medium) of hardware, but it will be considered including whether providing a program for that purpose constitutes infringement or not.

Since treatment differs between <1> one having a nature pre-installed in hardware such as an operating system (OS) and <2> one such as a game for individual user having a nature installed by a user, they will be studied distinctly.

Japan

<1> Act of Pre-installing in Hardware

It corresponds to direct infringement (act of manufacturing) to a program, a recording medium or an apparatus claim. For a process claim, a fact that a program was executed (act of

use) becomes a requirement of direct infringement. In this case, a person who executes a program is a user and execution of a program by a user is not an act "as business" (commercial act). Therefore, an act of providing a program does not correspond to indirect infringement. In addition, with regard to indirect infringement, a so-called independent theory in which it is an essential requirement that there was direct infringement and a so-called dependent theory in which presence or absence of direct infringement is not required stand face to face, but in a judgment of 2001 (NE) No. 240 of Osaka High Court dated August 30, 2001, issued was a judgment for supporting the dependent theory, and therefore, the dependent theory is employed here.

<2> Act of Installing by User

With regard to whether this act constitutes infringement or not, from a handling viewpoint, it is classified into a package product (P) and a product which is downloaded through a network (N). In case of the package product (P), it corresponds to direct infringement for a program, or a recording medium claim (act of assignment), and does not correspond to both of direct infringement and indirect infringement for an apparatus, or a process claim. In case of the product (N) which is downloaded through a network, a recording medium claim does not correspond to both of direct infringement and indirect infringement, which point is different from the package product.

U.S. and Europe

In the U.S., a program claim is not permitted as a form of description, but as one which corresponds to this, a program product claim is permitted as a form of description. Therefore, both of <1> act of installing in hardware and <2> act of installing by a user correspond to direct infringement to a program product claim, in the same manner as a program claim in Japan. In Europe, if "further technical effects" are found, both <1> and <2> correspond to direct infringement for each of a program claim and a program product claim.

Also, in both of U.S. and Europe, a signal (row) claim and a transmission medium claim can be prepared as claim forms of description. With regard to a signal (row) claim, each act of <1> and <2> becomes direct infringement, and for a transmission medium claim, only the product (N) which is downloaded through a network corresponds to direct infringement.

Furthermore, in Article 271 of U.S. Patent Law, since working "as business" (working commercially) is not provided as a requirement of patent infringement, with regard to the act of <1>, indirect infringement is established for a process claim. Also, in the same manner, with regard to the act of <2>, indirect infringement is established for a recording medium, an apparatus, or a process claim.

Conclusion

Summarizing the foregoing, the following table is obtained. In the table, "<1>" represents an act of pre-installing in a hardware, "<2>P" represents an act of installing by a user (package product), and "<2>N" represents an act of installing by a user (downloaded product), "O" represents direct infringement, "Δ" represents indirect infringement, "X" represents

non-infringement, and "-" represents a claim form whose description itself is not permitted. In addition, with regard to the U.S., there is an example that a program claim was permitted, but since it is not common, it is treated as "claim whose description itself is not permitted".

Claim Form	Japan			U.S.			Europe		
	<1>	<2> P	<2> N	<1>	<2> P	<2> N	<1>	<2> P	<2> N
Program	O	O	O	-	-	-	O	O	O
Program Product	-	-	-	O	O	O	O	O	O
Signal (row)	-	-	-	O	O	O	O	O	O
Recording medium (manufacture)	O	O	X	O	O	Δ	O	O	X
Transmission medium	-	-	-	X	X	O	X	X	O
Apparatus, System	O	X	X	O	Δ	Δ	O	X	X
Process	X	X	X	Δ	Δ	Δ	X	X	X

From the above-described result, in Japan, in order to have each act of <1> and <2> included in scope of claim, it is effective to prepare a program claim. However, from a viewpoint of amount of damages, it is desirable to also prepare an apparatus claim and a recording medium claim. In U.S. and Europe, from a viewpoint of easiness of enforcement of a right, a program product claim is useful, but depending on situations, it is good to prepare other claims.

(2) Act of Transmitting and Downloading Program

In the same manner as the example of (1), with regard to an act of transmitting/downloading a program, it will be studied about whether an act of a program provider constitutes infringement or not. Also, since an act of transmitting/downloading a program is accompanied with an act of storing a program in a hard disc (recording medium) of hardware, it will be considered also including whether provision of a program for that purpose constitutes infringement or not.

Japan

Any act of transmitting/downloading a program corresponds to direct infringement for a program claim (act of assignment), and does not correspond to both of direct infringement and indirect infringement for a recording medium, an apparatus, or a process claim.

In addition, in this example, it is assumed that a person who receives a program (program receiver) is an ordinary user, but in case that a program receiver uses etc. a program "as business (commercially)", with regard to each claim form of description, it is characterized on a point that provision of a program (act of a transmitter) corresponds to indirect infringement, and download of a program (act of a receiver) corresponds to direct infringement.

U.S. and Europe

In the U.S., it corresponds to direct infringement, instead of a program claim, for a program

product claim. In Europe, if "further technical effects" are found, for each of a program or a program product claim, it corresponds to direct infringement. In both of U.S. and Europe, it is possible to prepare a signal (row), or a transmission medium claim, and for these forms of claims, it corresponds to direct infringement. In the U.S., it corresponds to indirect infringement for a recording medium, an apparatus, or a process claim.

Conclusion

Claim Form	Japan	U.S.	Europe
Program	O	-	O
Program product	-	O	O
Signal (row)	-	O	O
Recording medium (manufacture)	X	Δ	X
Transmission medium	-	O	O
Apparatus, System	X	Δ	X
Process	X	Δ	X

In Japan, in order to prevent these acts, there is a necessity to prepare a program claim. Also, in case of preventing a download act "as business", from a viewpoint of amount of damages, it is good to also prepare claims of other forms of description. In U.S. and Europe, since there are a plurality of claim forms of description by which direct infringement is formed, it will be studied to prepare a claim of form which depends on situations. In the U.S., taking indirect infringement also into consideration, it is one of methods to prepare a recording medium, an apparatus, or a process claim. In addition, if there is a program or an apparatus claim, it appears that a recording medium claim is not necessary.

(3) Act of Executing Program on Hardware such as Computer

As typical examples, a compiler of a program and a generator of data are cited. In this example, it will be studied focussing on these.

Japan

An act of executing a program on hardware corresponds, in Japan, to direct infringement to any form of claims (act of use).

In particular, with regard to a process claim, in case that an invention is characterized on a compiling method of a program and a generation method of data, it is possible to treat it equally with a process patent. That is, even if there is no feature on a program and data as an end product, if it can be proved that an infringer uses a compiler or a generator for working the process patent, it is possible to identify an infringing act.

U.S. and Europe

Also in U.S. and Europe, except for a transmission medium claim, direct infringement is configured.

Conclusion

Claim Form	Japan	U.S.	Europe
Program	O	-	O
Program product	-	O	O
Signal (row)	-	O	O
Recording medium (manufacture)	O	O	O
Transmission medium	-	X	X
Apparatus, System	O	O	O
Process	O	O	O

In both of Japan, U.S. and Europe, from the meaning that an act of interest constitutes infringement, any forms of claims are equivalent. From a viewpoint of amount of damages, it is good to prepare an apparatus claim. Also, considering easiness of enforcing a right to a business mode of providing services, a process claim is useful. In case that there is a feature on a compiling method of a program and a generation method of data, a process claim is useful also from a viewpoint described above. In addition, if there is a program or an apparatus claim, it appears that a recording medium claim is not necessary.

(4) Act of Providing Application on Network (ASP-Application Service Provider)

From a user to ASP, it is instructed to execute an application. At the ASP side, the application is executed, and its result is provided to a user. That is, it is an act of having a user use a function of a program without transmitting a program.

Japan

From a viewpoint of "as business (commercially)", it is studied focussing on whether or not an act of ASP side corresponds to an act of infringement.

In Japan, for any form of claims, it appears that it corresponds to direct infringement (act of use or act of leasing). However, there remains a doubt as to whether or not an act of having a user use corresponds to use or lease of a product by an ASP service provider. In the same manner, it is doubtful whether or not an act of having a user conduct processes relating to a program corresponds to use of a process by an ASP service provider. On this point, if it is studied about whether indirect infringement is applicable, an act of having other person "use" or a product or an act of having other person "execute" a process does not become a subject matter of Article 101 of Patent Law, and does not correspond to indirect infringement. However, in ASP services, it is apparent to use the program etc. as business, and everybody is waiting for a legal system in which infringement is clearly formed even in case that it is described in any category. In addition, in case that a user conducts the act as business, it appears that it corresponds to direct infringement for claims of any categories.

U.S. and Europe

U.S. and Europe is in the same manner as in Japan. The act of interest corresponds to direct infringement for a signal (row), or a transmission medium claim.

In the U.S., an act of having a user use a program etc. or an act of having a user execute processes relating to a program corresponds to Active Inducement of Infringing Act. Therefore, comparing to Japan and Europe, existence of infringement including indirect infringement becomes more apparent.

Conclusion

Claim Form	Japan	U.S.	Europe
Program	O	-	O
Program product	-	O	O
Signal (row)	-	O	O
Recording medium (manufacture)	O	O	O
Transmission medium	-	O	O
Apparatus, System	O	O	O
Process	O	O	O

They constitute direct infringement for claims of all description forms, but as described above, since there is a portion wherein a doubt remains, it is desirable to additionally describe claims of other description forms. Also, it is preferable to prepare an apparatus claim from a viewpoint of amount of damages. In case that the act is understood as a service act, it is also conceivable that a right is easily enforced if a process claim is prepared. Also, if it is considered that a result product by ASP service is returned to a user, also from a viewpoint of catching the result product, significance of preparing a process claim is big. In addition, if there is a program or an apparatus claim, it is considered that a recording medium claim is not necessary.

(5) Dedicated Machine having Equivalent Function to Program of Interest and its Act of Use

Functions which are equivalent to those of a program which becomes a subject matter of an invention are constituted as hardware of an electronic circuit etc.

Japan

For an apparatus claim, direct infringement is constituted, and with regard to an act of using the dedicated machine, direct infringement is constituted also for a process claim. Since a program itself is not used, for a program, or a recording medium claim, without room for argument, infringement is not constituted.

U.S. and Europe

They are in the same manner as in Japan. With regard to also a signal (row) or a transmission medium claim, since a program itself and a transmission medium are not used, in the same manner as a program, or a recording medium claim, infringement is not constituted.

Conclusion

Claim Form	Japan	U.S.	Europe
Program	X	-	X
Program product	-	X	X
Signal (row)	-	X	X
Recording medium (manufacture)	X	X	X
Transmission medium	-	X	X
Apparatus, System	O	O	O
Process	O	O	O

In Japan, U.S. and Europe, in case of preventing an act of this mode, it is necessary to describe an apparatus claim at minimum. Also, it is necessary to describe a process claim depending on situations.

(6) Act of Agency of Program Distribution by Provider

For a certain program which is freely distributed on a network, in case that the program is an patent infringement product, there is a problem of how responsibility of a provider as an agent is considered. For example, it is a case that a mail service provider transmitted an electronic mail through a mail service, i.e., a case that the mail service provider carries out a service of accepting an electronic mail in which a program as a patent infringement product from an assignor, and of transmitting it to a final receiver through a plurality of servers on a network.

Japan

In case that a server on a network is simply a passing point of an infringement products, an act of agency by a provider does not infringe for claims of any forms of description. However, on the occasion that a provider goes between, it appears to be rare as an actual case, but, in case that so-called subjective requirements of indirect infringement are satisfied, there is a possibility that indirect infringement can be asked for a program, or a process claim.

As another example, the same is a provider etc. which provides a web hosting service (service for providing a system environment of a server, an application and so on, and for conducting operation/management/maintenance etc.), a chasing service, a shopping service and so on, or an Internet connection service for that purpose.

U.S. and Europe

For a program product, a signal (row), a recording medium, an apparatus, or a process claim, direct infringement is not constituted. However, in the U.S., with regard to a program product, a signal (row), or a process claim, there may be a case that indirect infringement is constituted in the same manner as in Japan. Also, in both of U.S. and Europe, with regard to a transmission claim, it corresponds to use, and direct infringement is constituted.

Conclusion

Claim Form	Japan	U.S.	Europe
Program	Δ	-	X
Program product	-	Δ	X
Signal (row)	-	Δ	X
Recording medium (manufacture)	X	X	X
Transmission medium	-	O	O
Apparatus, System	X	X	X
Process	Δ	Δ	X

In Japan, it is difficult to prevent an act of this mode, but considering that there is a possibility to be able to prevent as indirect infringement, it is good to prepare at least a program, or a process claim. In U.S. and Europe, it is essential to prepare a transmission medium claims, and furthermore, in the U.S., considering that there is a probability to be able to prevent as indirect infringement, it is good to study about preparation of a program product, a signal (row), or a process claim.

(7) Acts by a Plurality of Companies

This is an issue of how responsibility is considered in case that a plurality of companies infringe one patent in their entirety. For example, it is a case that a plurality of companies have modules as program components in respective servers, and they are cooperated through a network so that they infringe one patent.

Japan

Any claims of any forms of description do not correspond to direct infringement. In case that so-called subjective requirements of indirect infringement are satisfied, for a program, or a process claims, it corresponds to indirect infringement.

U.S. and Europe

In the same manner as in Japan, any claims of any forms of description do not correspond to direct infringement. In the U.S., in case that requirements of indirect infringement are satisfied, for a program product, a signal (row), or a process claim, it corresponds to indirect infringement. Also, in case of an act of cooperating through a network, for a transmission medium claim, it corresponds to indirect infringement.

Conclusion

Claim Form	Japan	U.S.	Europe
Program	Δ	-	X
Program product	-	Δ	X
Signal (row)	-	Δ	X
Recording medium	X	X	X

(manufacture)			
Transmission medium	-	Δ	X
Apparatus, System	X	X	X
Process	Δ	Δ	X

In Japan, U.S. and Europe, even if claimed in any form of description, it is impossible to prevent the act as direct infringement. Considering a case of preventing it as indirect infringement, it appears to be good to prepare a program claim (program product claim in U.S. and Europe), or a process claim.

In addition, if possible, Claims should be prepared with respect to each server to be cooperated. In such a case, there occurs a possibility to be able to catch data etc. as an intermediate product in a process claim.

[References]

1. Examination Guidelines for Patent and Utility Model Part VII, Examination Guidelines in Specific Fields, Chapter 1, Computer Software-related Inventions", Japan Patent Office
2. "Computer-Related Invention, Examination Guidelines, Final Version", United States Patent and Trademark Office
3. "European Patent Office Examination Guidelines", European Patent Office.
4. "General Observations of Patent Law (Ver.13)", written by Kosaku YOSHIFUJI/revised and enlarged by Kenichi KUMAGAYA (YUHIKAKU Publishing Co., Ltd.)
5. "Commentary of 2002 Revised Industrial Property Right Law", edited by System Revision Deliberation Office, General Affairs Section, General Affairs Department, Patent Office (Japan Institute of Invention and Innovation)
6. "ELEMENTS OF UNITED STATES PATENT LAW/English-Japanese parallel translation, American Patent Law and its Procedures (Revised Ver.2)", written by Donald S. Chisum/translated by Toshiko TAKENAKA (Yushodo Co., Ltd.)
7. "Study of 2002 Revised Patent Law - From Viewpoint of Software-Related Invention -", corporate juridical person Association of Business Machine and Information System Industry, Software Patent Working Group
8. "Protection of Software-Related Invention - Recent Trend and Judicial Precedent in Japan, U.S. and Europe", Japan Intellectual Property Association, Software Committee

(1) TITLE: ANALYSIS FOR EXAMINATION PRACTICE RELATING TO OBJECT-ORIENTED SOFTWARE INVENTIONS

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(5) KEYWORDS:

SOFTWARE, OBJECT-ORIENTED TECHNOLOGY, UTILIZATION OF LAW OF NATURE, REQUIREMENTS OF INVENTION, REQUIREMENTS OF DESCRIPTION, REASONS FOR REJECTION, and EXAMINATION GUIDELINES

(6) PROVISIONS:

Japanese Patent Law Section 29, Paragraph 1, the main Paragraph and Section 36

(7) OUTLINE

This paper will analyze the examination practices of description requirements of the claims in Japan for object-oriented software-related inventions and the protections as inventions by comparing Japan and the United States.

An object-oriented technology is one of methods for software development. Since the object-oriented technology uniquely allows the logical interactions between objects, the relation with hardware may be unclear. The characteristic may not satisfy the requirement for "cooperative work between hardware and software" required by Japanese software examination guidelines.

Therefore, this paper will specifically (i) study examination practices of description requirements of the claims in Japan and analyze the matters pointed out by examiners, (ii) study registrations in U.S. and compare claims and (iii) compare Japan and the United States from the viewpoint of patent protection and discuss how it should be.

For the analysis of the examinations in Japan, cases rejected for the reasons unique to the object-oriented technology were extracted. Most of the extracted cases were patented in the United States, and, from the point of view, the United States is superior in the protection of object-oriented software-related inventions. Because of this, the examination guidelines and examination practices in Japan should relax the requirements for description of the claims in view of the essence of the object-oriented technology.

ANALYSIS FOR EXAMINATION PRACTICE RELATING TO OBJECT-ORIENTED SOFTWARE INVENTIONS

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ANALYSIS FOR EXAMINATION PRACTICE RELATING TO OBJECT-ORIENTED SOFTWARE INVENTIONS

1. Introduction

1.1 Software System Development Using Object-Oriented Technology

An "object-oriented" technology is one of software development methods. A group of related data and the procedures are collectively managed as one object. A software system is established by combining the objects.

More specifically, models mentioned below are created:

- Static Model: Definitions for classes and relations among classes. A class is a type or template for an object. The definition of a class includes a definition of data ('attribute') for controlling the object and a definition of an operation ('method') to be executed by the object on the attribute of the object. Therefore, the definition of a class essentially defines a behavior of the object.
- Dynamic Model: A sequence for method calling from one object to another object. This dynamic model implements a system as if each object as an entity can interact with the other objects.

The object-oriented technology is a mainstream of software development methods because the object-oriented technology can facilitate the software modularization and the reuse and handling of modules as parts. The recent new software development methods including "distributed object-oriented", "component-oriented" and "agent-oriented" technologies are also based on the object-oriented technology.

1.2 Problems in Patenting Object-Oriented Software Inventions

This paper defines an invention relating to software developed based on the object-oriented technology as "object-oriented software invention". In the process for object-oriented software development, technical ideas inherent to object-oriented software inventions are created in models such as "class and relation among classes" and "interaction between objects" as described above.

In order to patent an object-oriented software invention in Japan, the existence of the "Examination guidelines Relating to Computer Software Related Invention" (called "software examination guideline" hereinafter) provided by Japan Patent Office must be considered. A software invention is admitted as "a creation of technical ideas utilizing a law of nature" which is one of requirements for legal inventions when "information processing by software is concretely realized by using hardware resources", that is, "hardware and software cooperatively work" as required in the examination guidelines.

Here, object-oriented software will be studied in comparison with traditional software development methods from a hardware (computer) point of view. In a traditional programming

method, variables indicating memory areas and procedures as computer executing functions are written. On the other hand, object-oriented software has following characteristics: First of all, a system includes objects created from templates ('classes') instead of variables and/or procedures reflecting hardware. From a computer point of view, an object is "a logical set of a memory area and a procedure". A system operation is established as an interaction between objects. An attribute of one object is concealed from the other objects (that is, object encapsulating). Thus, one object does not directly access to the internal construction of the other object in the interaction between the objects. The hardware construction has no relationship with the description of interactions between objects. As described above, the object-oriented technology is a kind of abstracting method and is essentially a technology for concealing the relation between hardware and software.

In this way, the essence of the object-oriented technology is directly opposite to the requirements of the examination guidelines in Japan with respect to the relation between hardware and software. Therefore, whether description of the claims can satisfy the examination guidelines or not is a main issue for patenting object-oriented software inventions in Japan.

1.3 Contents of This Paper

In view of the background as described above, this paper will review the state of examinations with respect to descriptions of the claims of object-oriented software inventions. More specifically, first of all, examination cases in Japan will be studied with respect to descriptions of the claims and the tendencies of matters pointed out by examiners will be analyzed. Furthermore, the state of registration of applications in the United States corresponding to cases examined in Japan will be studied, and the descriptions of the claims will be compared. Furthermore, the way that the protection over the object-oriented software inventions should be will be discussed, and some suggestions will be made against the examination guidelines and examination practices in Japan.

2. Analysis of Cases Examined In Japan

2.1 Cases to be Analyzed

Applications relating to object-oriented software inventions were extracted and selected in two steps.

(1) Primary Extraction

The Patent Gazette Database was searched in the primary extraction for extracting:

1. Extraction Population: Japanese Unexamined Patent Application Publications and Patent Gazettes;
2. Full-text Search: those including "object";
3. Sub-class of International Patent Classification (IPC): G06F;

4. Priority Country: the United States of America (for comparing the states of patenting between Japan and U.S.);
5. Date of Final Decision: January 1, 2001 and thereafter (for extracting cases applying the revisions of Japanese software examination guidelines); and
6. Reasons for Rejection: Cases rejected under Japanese Patent Law Section 29, Paragraph 1, the main paragraph and Section 36 (for extracting reasons for rejection relating to description of the claims).

Based on these requirements, 87 rejected cases and 145 cases as assessed for registration (hereafter referred simply to patented cases) were extracted.

(2) Secondary Extraction

The cases extracted in the primary extraction included applications not relating to object-oriented software inventions. Therefore, we checked inventions by reading Gazettes of the cases extracted in the primary extraction and extracted applications relating to object-oriented software inventions. As a result, 10 rejected cases and 6 patented cases were extracted.

2.2 Point of Analysis

We obtained the file wrappers of all of the extracted cases in the previous paragraph, and analyzed the prosecution history of the extracted cases. More specifically, we analyzed whether the pointed matters relating to description of the claims, that is, the matters pointed out by examiners in Notification of Reasons for Rejection or reports on Final Decision for Rejection or pretrial reexamination under Patent Law Section 29, paragraph 1, the main paragraph and Section 36 include a tendency inherent to or deeply relating to the object-oriented technology or not. Furthermore, by checking responses from applicants of the extracted cases and the examination results (especially of the patented cases), we analyzed whether there is any useful suggestion on measures that the applicants should take.

The application numbers of the analyzed cases will be listed under Section 8.1 together with the states of patenting in Japan and the U. S. and the types of reasons for rejection.

2.3 Tendencies of Reasons of Rejection

As a result of the analysis from the above-described point of view, reasons of rejection inherent to or deeply relating to the object-oriented technology were divided into three categories[1]:

1. Lacking of cooperative working between hardware and software;
2. "Object" is not A subject; and
3. A claimed subject is not clear, and the description is contrary to the category.

These categories will be described below in detail.

[1] Reference Document [4] is a paper describing the tendencies of reasons for rejection relating to description of the claims relating to business method patents and the solutions and can be applied to the entire software inventions.

2.3.1 Lacking of Cooperative Work Between Hardware and Software

This category refers to a case against Patent Law Section 29, Paragraph 1, the main paragraph because a claimed invention does not satisfy the requirement for the "invention" in Patent Law, that is, "a creation of technical ideas utilizing a law of nature" since "information processing by software is not concretely realized by using hardware resources".

<Description Examples of Claims>

A method for causing a computer to execute a procedure for instantiating a new application subclass of an application base class for existing application code in an object-oriented programming system (OOPS) application that includes at least one said application base class and one or more creator subclasses of at least one creator base class, each said creator subclass, recognizing a predetermined application input and instantiating an application subclass of said application base class, said method comprising the steps of:

(a) registering to said OOPS application a new said creator subclass having methods for recognizing and registering to a memory a new said predetermined application input and for reading out said application input from the memory and instantiating said new application subclass;

(b) updating a dynamic list object having methods for maintaining a list of references to said creator subclasses by executing said list maintaining methods to add a reference to said new creator subclass; ...

(Claim 1 after the first amendment of JP-A-08-140440)

<Matters Pointed Out by Examiner>

The claimed invention is only based on an artificial arrangement and does not utilize a law of nature. A computer is used as indicated by the descriptions, "causing a computer to execute" and "registering to a memory", but advancing the processing by storing and reading data to/from a memory is only the obvious form in computer processing. Since the claimed invention does not have a technical matter beyond the obvious form, which cannot satisfy the requirement, "information processing by software is concretely realized by using hardware resources."

<Regarding Response by Applicants>

In all of the cases pointed out as described above, the description in the claims of the obvious form of computer processing such as "causing a computer to execute" and "registering to a memory" only clarified that the "processing" was performed by a computer instead of a human being and could not avoid the lacking of the cooperative work between hardware and software.

2.3.2 "Object" Is Not A Subject

<Description Examples of Claims and Matters Pointed Out by Examiners>

This category refers to cases violating Patent Law Section 36, Paragraph 6(2) because "the invention is not clear" the claim describing an operation of which the subject is the object of the invention, as indicated in the description, "an object executes ...".

In the reasons for rejection, the examiner asserted "since the subject of the execution is a computer, the object, which is software, is the target of the execution and cannot be the subject of the execution." This pointed-out matter is unique to the object-oriented technology and is therefore extremely distinctive.

<Regarding Response by Applicants>

Four cases have been rejected based on the above-described pointed-out matter and received the final decision for rejection or were pending at appeal trial.

However, the reason for rejection based on the above-described pointed-out matter was overcome in one case (JP-A-09-154688) as a result of the amendments for describing an apparatus as a subject by using the description, "an apparatus functioning as an object" in the apparatus claims and method claims when one object was bound to one apparatus. Therefore, as described above, for such cases, the claims may be described conventionally.

2.3.3 Subject Of Claims Is Not Clear and Description Is Contrary To Category

This category refers to cases against Patent Law Section 36, Paragraph 6(2) because "the invention is not clear" since the subject of the claims is not clear and/or the description of the claims is contrary to the category.

(1) Case Pointed Out As The Subject of Claims Being Not Clear

<Description Example of Claims>

"A message processing method for executing by an agent community which includes a regular agent for sending a message packet to request processing of said message packet, a plurality of service provider agents for processing said message packet and a facilitator agent for managing service provider agent identification information and service provider agent classification information, said method comprising the steps of:

(a) receiving a message packet sent from said regular agent;

(b) determining whether or not said received message packet conforms to a predetermined format;

(c) inquiring of said facilitator agent to determine whether or not a service provider agent having a predetermined service provider agent classification information is available; ...

(JP-A-09-154688, Claim 1).

<Matters Pointed Out by Examiners>

The subject or subjects of the steps such as "receiving" and "determining" of the invention are not clear. Furthermore, since the "agent" may refer to a human agent, the targets of the steps may be an action (human mental activity) and/or operating steps (artificial arrangement) by a human being (operator). Therefore, the entire invention may not use a law of nature since elements of the claim may include steps to be performed by a human being.

<Regarding Response by Applicant>

"Each agent" was defined as "a function of one apparatus". The pointed steps were rewritten as steps to be performed by an apparatus defining particular agents. Because of the description, the reasons for rejection were overcome.

(2) Description Contrary to Category of Invention

<Description Example of Claims>

"An object-oriented programming system having at least one application comprising:

an application base class;

one or more creator subclasses of a creator base class, each said creator subclass having methods for recognizing a predetermined application input and methods for instantiating an application subclass of said application base class; and ... " (JP-A-08-140440, Claim 4)

<Matters Pointed Out by Examiners>

The invention relates to a system only including software such as "classes" and "methods", and the construction of the invention is not clear as an invention of a system, that is, of a product. Furthermore, the concrete case that the "system" includes software such as "classes" cannot be determined.

<Regarding Response by Applicants>

In the "system", "classes" and "methods" are registered in the "memory". Therefore, the "memory" was described as a element of the "system". Because of the description, the reason for rejection was overcome[2].

3. Comparison between Japan and the U.S.

This section will study the states of registration and description of the claims of the U.S. applications corresponding to the above-described pointed-out Japanese applications and will compare the applications between the United States and Japan for each of the above-described categories.

3.1 Lacking of Cooperative Work Between Hardware and Software

Nine of the ten pointed applications were registered in the United States. The requirement, "cooperative work between hardware and software" is not clear in the description in the claims of all of the registered inventions.

In other words, software may be more protected in the United States in that software itself is

[2] However, "registering to a memory" "classes" and "methods" is only an obvious case in computer processing, and it was pointed out that the lacking of cooperative work between hardware and software could not be avoided (against Patent Law Section 29, Paragraph 1, the main paragraph).

protected without cooperative working between hardware and software.

3.2 "Object" Is Not A Subject

All of the U.S. applications being the priority applications of the four pointed-out Japanese Applications were registered. All of the claims describe objects as the subjects of the execution.

3.3 Subject of Claims Is Not Clear and Description Is Contrary To Category of Invention

The cases pointed out that the subject of the claims was not clear received final decision for rejection and were pending at appeal trial. The U.S. applications being the priority applications of the cases were registered in the United States. The claims of the U.S. patents clearly describe that the subjects of steps are particular agents but do not define each of the agents as a function of a particular apparatus.

The cases pointed out that the descriptions were contrary to the categories of the inventions received final decision for rejection and were pending at appeal trial. The U.S. applications being the priority applications of the cases were registered in the United States. The claims of the U.S. patents describe that inventions relating to "systems" include "classes" and "methods".

4. Consideration

This section will review the causes and influences of the clarified differences between Japan and the United States in the previous section.

4.1 Object To Be Protected As Patents

In Japan, Patent Law provides that an "invention" is "a highly advanced creation of technical ideas utilizing a law of nature (Section 2, Paragraph 1)" and requires an invention to be "industrially applicable (Section 29, Paragraph 1, the main paragraph)". As stated in Section 1.2., the examinations in Japan follow the software examination guidelines. The software examination guidelines state that software is applicable to "a creation of technical ideas utilizing a law of nature" when "information processing by software is concretely realized by using hardware resources". On the other hand, examination guidelines exist for software inventions also in the United States (MPEP2106). This U.S. examination guidelines describe a method for determining whether or not a "computer-related invention" is applicable to a statutory subject matter to be protected under 35 USC 101. For example, when a computer-related invention is described in a process claim, and when the description of the claim is limited to the practical application of the technology, the invention is the statutory subject matter.

The object to be legally protected of software inventions will be compared between Japan and the United States. In Japan, the claims must describe "concrete means in which software and hardware resources are cooperatively working". On the other hand, in the United States, the claims only need to imply "novel, effective and practical application" and are not required to

describe "concrete means in which software and hardware resources are cooperatively working". Therefore, the requirements for description in the claims for the object to be protected as patents relating to software inventions in the United States are milder than those in Japan.

4.2 Protection for Object-Oriented Software Inventions

Furthermore, protections for object-oriented software inventions will be reviewed. Here, cases relating to two of the three pointed-out categories described in Section 2 will be reviewed as follows. The reviewing of claims relating to the remaining one category (Section 2.3.3) will be omitted since the cases are few.

(1) Cases Relating To The Point "Lacking of Cooperative Working Between Hardware and Software"

In the United States, software itself is protected without the description for "means in which software and hardware resources are cooperatively working". The object-oriented software inventions may be protected more than in Japan.

As described in Section 1.2., because of the characteristic of the object-oriented technology that the relation between hardware and software is essentially concealed, the cooperative work between hardware and software is difficult to express. Therefore, more cases were pointed out because of this point.

(2) Cases Relating to The Point "Object is not a subject"

As described in Section 2.3.2, the examiner points out "the subject of the execution is a computer and the object, which is software, cannot be the subject of the execution." This point may be based on Example 2 of Section 1.1.3 (1) of the software examination guidelines. However, as described in Section 1, in the object-oriented technology, an object as a subject interacts with the other object so that an operation as object-oriented software can be logically executed. This is extremely naturally realized by persons skilled in the art. Therefore, a gap may occur in Japan between the software examination guidelines and technical ideas realized by persons skilled in the art and may be pointed out by examiners as described in Section 2.3.2.

On the other hand, in the United States, inventions with descriptions of an "object" as a subject are patentable. Therefore, in the United States, the essential technical points of object-oriented software are protected, and the software industry can be more protected.

5. Suggestions

This section will make suggestions against the examination guidelines and examination practices in Japan from the above-described analysis and reviews.

5.1 Regarding "Cooperative Work Between Hardware and Software"

When a claimed invention is clearly "software" in the description, the satisfaction of one of the requirements for satisfying the invention, "utilizing a law of nature" should be determined. In other words, the requirement, "cooperative work between hardware and software" required for

"utilizing of a law of nature", required in the examination guidelines should be deleted. That is, the description in the claims precludes operations by a human being and when the claimed invention is clearly software, it is a common sense for persons skilled in the art that the software operates by using hardware such as a CPU and a memory in a computer. Therefore, the satisfaction of the requirement, "utilizing a law of nature" should be regarded.

The creativity in object-oriented software inventions is exhibited not for the part relating to the cooperative work between hardware and software but for the action, function, nature or characteristic of the software itself. Therefore, the creation of a unique function, characteristic or the like should be originally protected. In other words, requiring the cooperative work with hardware, which is less related to the creativity of persons skilled in the art and is hardly recognized by them, does not cause object-oriented software inventions to be protected properly. Especially, handling object-oriented software as a component and advancing the functionality of the component make full use of the creativity for the function, characteristic or the like of the software itself as a component, apart from hardware. When this is not properly protected, the imitation of software components may be facilitated.

In order to achieve the cooperative work between hardware and software in description of the claims, an operation by hardware such as "executed by a CPU" and "stored in a memory" involved in software processing may be described in detail. However, the details are only additional information to technical common senses, which is meaningless to persons skilled in the art.

5.2 Regarding "Object" As A Subject

The description of an object as a subject should be admitted in claims.

An examiner pointed out in reasons for rejection as follows: "From a technical point of view, software itself is a target of the execution by a computer but not a subject of the execution. In other words, an invention describing software itself as an action only claims a model itself of an abstracted object (JP-A-09-329906)".

However, it is extremely a common sense that a software developer designs a software system by writing interaction between objects as if the objects are a subject based on the object-oriented technology. This is a characteristic of the object-oriented technology. In other words, the expression, "model itself of the object" as pointed out by the examiner is important for technical ideas to engineers developing software based on the object-oriented technology. Therefore, the expression describing an object as a subject is clear to persons skilled in the art as technical ideas and should be actively protected as an invention. Conversely, refusing the expression may lack the protection of inventions relating to object-oriented software.

The point, "from a technical point of view, a computer is a subject of the execution, while software itself is a target of the execution by a computer but not a subject of the execution", pointed out by the examiner is certainly true. However, even when the expression describing an object as a subject is admitted, and when the related invention is a software invention clearly in description of the claims, persons skilled in the art may not consider the claimed invention is unclear or

technically contradicts.

5.3 Regarding Construction of Examination Guidelines

The description of the Japanese examination guidelines is a factor of examination practices implying "patented if written like this" or "refused if not written like this" and imposes a large constraint on applicants. An increase in the degree of freedom in description by only providing the minimum matters like the U.S. MPEP may properly protect object-oriented software inventions as technical ideas based on the recognition by the inventors.

6. Conclusion

As described above, in this paper, the prosecution history in Japan of description of the claims relating to object-oriented software was analyzed, and the states of registration were compared between Japan and the United States. In accordance with the analysis and the comparison, in view of the sense of the object-oriented technology to persons skilled in the art, and from a viewpoint that object-oriented software should be actively protected, suggestions were made against the examination guidelines and examination practices in Japan. The object-oriented technology may be the main scope or background of software inventions from now on. Hopefully, this paper helps patent practitioners handling software inventions.

Finally, we deeply appreciate Mr. Shinsuke IUCHI, TOSHIBA CORPORATION, who has given great advice on the review of the present theme and the writing of this paper.

7. References

[1] Bertrand Meyer, "Object-Oriented Software Construction, " Prentice Hall, 1997.

[2] JPO, "TOKKYO/JITSUYO SHINAN SHINSAKIJYUN, DAI VII BU TOKUTEI GIJYUTSUBUNYA NO SHINSAKIJYUN, DAI 1 SHO COMPUTER SOFTWARE KANREN HATSUMEI (PATENT/UNITY MODEL EXAMINATION GUIDELINES, Part VII EXAMINATION GUIDELINES FOR PARTICULAR TECHNOLOGY FIELDS, Chapter 1 Computer Software-Related Inventions)", December 2000"
(JPO website: http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/Guidelines/PartVII-1.pdf)

[3] USPTO "Manual of Patent Examining Procedure (MPEP)- 2106 Patentable Subject Matter - Computer-related Inventions"
(USPTO website: http://www.uspto.gov/web/offices/pac/mpep/documents/2100_2106.htm)

[4] IUCHI et al. "Bijinesu Hoho Tokkyo No Kisai Ni Kansuru Kento (Description Requirements of Business Method Patents in Japan", Chizaikanri, Vol. 53, No. 6, pp. 897-pp. 911, June 2003.

8. Appendix

8.1 List of Cases

No.	Applications in Japan				Applications in U.S.		Pointed Matter in Examination in Japan		
	Application No.	Title of the Invention	Patenting	Patent No.	Patenting	Patent No.	1	2	3
1.	H06-109838	Method and apparatus for executing remote objects	o	3365576	o	5613148			
2.	H06-522405	Method for using computer system	j	-	o	5912665 6034682	x		
3.	H07-342273	Method and system for calling subroutine from object	x	-	o	6202098			x
4.	H07-502764	Operating system with object-oriented printing interface	o	3347329	o	5495561			
5.	H08-005754	Method and system for representing a people-oriented work environment in data processing system	o	3162991	o	5836011			
6.	H08-140440	Highly-functional creator class pattern, machine executing procedure and object-oriented programming system	j	-	o	6163813	x	x	x
7.	H09-152400	Computer system, message monitoring method and associated message transmission method	j	-	o	6289325	x	x	x
8.	H09-154688	Message handling method, Message handling apparatus, and memory media for storing a message handling apparatus control program	j	-	o	6338081	x		x
9.	H09-183388	Apparatus and method for managing and distributing design and manufacturing information throughout a sheet metal production facility	o	3265233	o	5886897	x		
10.	H09-329906	Computer system and method for metering objects	x	-	o	5970498	x	x	x
11.	H09-518642	Information handling system for allowing multiple different protocol type servers to access a general web browser	o	3381926	-	-			
12.	H10-071828	Computer system, memory medium and method for executing software constructing process	j	-	-	-	x		
13.	H10-121038	Query processing system and method and memory medium storing the program	o	3362770	o	6122627			x
14.	H11-032596	Method, system and memory medium for distributing programs	j	-	o	6324543	x	x	x

15.	H11-115027	Method for managing selection of user structure	x	-	o	6205476	x	x	x
16.	2000-002202	Method and data processing system for managing electronic commerce	x	-	o	6405176	x		

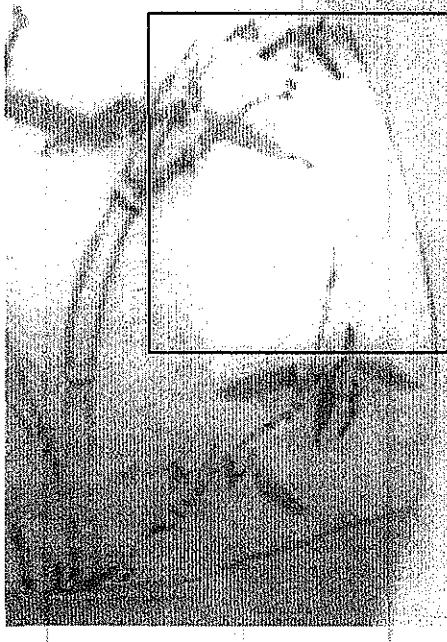
Legends:

1. In the column, "Patenting",
   - o: Registered, x: Final decision for rejection, j: Pending at appeal trial, and -: not available
2. In the column, "Pointed-out Matters in Examination in Japan":
   - 1: "Lacking of the cooperative work between hardware and software", 2: "Object is not a subject", and 3: "Subject is not clear"
   - x: Pointed Out, Empty: Not Pointed Out

Concluded

Title:	Outreach and Support Programs for Entrepreneurs and SMEs in Korea
Date:	October 15-17, 2003, 34th International Congress, Dearborn, MI, USA
Source:	Source: PIPA Group: USA
Author:	Mr. Chaho Jung, Korean Intellectual Property Office (KIPO)
Keywords:	KIPO; Small and Medium-Sized Enterprises (SMEs); IPRs
Abstract:	Current status of SMEs in South Korea will be discussed. In particular, the presentation will focus on Kilo's assistance to SMEs in the areas of IP acquisition campaign for SMEs; assisting in the creation of IP; reducing the cost of acquiring APRs; activating the marketing of APRs; and supportive measures for commercialization

PIPA 34th INTERNATIONAL CONGRESS



Marriott Dearborn Inn Hotel
Dearborn, Michigan
October 14-17, 2003

0039

Outreach and Support Programs for Entrepreneurs and SMEs in Korea

- Experiences of KIPO -



Chaho JUNG, Esq.
Director
Precision Machinery Examination Division
Korean Intellectual Property Office

0040

- Contents -

O Part 1

- Current Status of SMEs in Korea

O Part 2: KIPO's Assistance to SMEs

(1) IP Acquisition Campaign for SMEs

(2) Assisting in the Creation of IP

(3) Reducing the Cost of Acquiring IPRs

(4) Activating the Marketing of IPRs

(5) Supportive Measures for Commercialization

Current Status of SMEs in Korea

O Importance of SMEs in the Korean Economy

- Serving as main engines for national economy
  * number of SMES: 99.7% of total companies (2000)
  * employees: 83.9% of total employees (2000)
- Share of SME economic activities expected to increase

O Role of SMEs in Korea

- Driving force for economic revolution
  * sharp increase of IT, BT-related venture start-ups
- Contributing to job creation
- Playing a leading role in advancing high technology
  * knowledge-intensive industry more appropriate for SMEs

Current Status of SMEs in Korea

O Importance of IPR Acquisition by SMEs

- IPR acts as a key weapon to secure technological edge in mega-competition world of 21st century
  * leading to continuous technological innovation by providing stimulus for reinvestment of R&D
  * means for paying-off investment cost for R&D
  * key assets of business management

O How many IPRs are owned by SMEs

- Ownership ratio by SMEs (including individuals)
  * 14.8% of entire IPRs
- 1.7% of SMEs own more than one IPR

Current Status of SMEs in Korea

O Why the ownership ratio by SMEs is low

- **Difficulties in obtaining IPRs**
  - * top managers of SMEs has poor recognition for IPRs
  - * lack of IPR experts
  - * lacking infrastructure to support creation & usage of IPRs
- **Bottlenecks in commercialization**
  - * shortage of funds
  - * difficulties in marketing
  - * hard to estimate market value

KIPO's Assistance to SMEs

O Launch of Outreach & Support Program 4 SMEs

- Goal
  * induce all SMEs with more than 5 employees to have at least one patent or utility model

- Basic direction
  * activities for enhancing awareness of importance of IPRs
  * integrating to all kinds of government support measures for IPRs

KIPO's Assistance to SMEs

O Implementation of the Program

- "IPR Acquisition Campaign for SMEs"
- Assisting in the creation of IP
- Reducing the cost for acquiring IPRs
- Activating the marketing of IPRs
- Supportive measures for commercialization

KIPO's Assistance to SMEs

O "IPR Acquisition Campaign for SMEs"

- conducting nation-wide explanatory meetings
- offering IP training programs for SMEs at the IIPTI and KIPA
- including IPR subject in training programs of SME-related institutes
- setting up relationship b/w SMEs & KIPO examiners

KIPO's Assistance to SMEs

O Assisting in the Creation of IPRs

- Information service for IPR creation
  - * free internet database (9.2 million hits in 2002)
  - * IPR Call Center for overall IPR questions
  - * regional Patent Information Centers
  - * distributing patent maps & high-tech analysis reports

- Diagnosis of IP
  - * provides appropriate direction of R&D
  - * before commencing R&D
  - * KIPO assists 75% of the cost
  - * designates 17 institutes as expert groups
  - * 20-40 cases every year

KIPO's Assistance to SMEs

O Reducing the Cost of Acquiring IPRs

- Reduction of official fees
  - * application fee, exam. fee & registration fee for first 3 years
  - * 70% reduction for individuals and small enterprises
  - * 50% reduction for medium-sized enterprises
- Offering a free patent attorney's service
  - * free service for a first-filed application
- Financial support for overseas filing fees
  - * funding assistance to individuals and SMEs
  - * patent or utility model applications
  - * up to 3 applications per capita, U$2,000 per application

KIPO's Assistance to SMEs

O Activating the Marketing of IPRs

- Supporting the evaluation of IPRs
  * backing up the transaction or commercialization of IP technology by objective estimation of the market value
  * estimating the technical effect and profitability of IP
  * supporting the expenses for individuals or SMEs, up to 80%
  * designated 26 institutes as technical expert groups

KIPO's Assistance to SMEs

O Activating the Marketing of IPRs

- Operating patented-technology markets

  * Internet IP Mart (on-line)
    - opened April 2000
    - 50,000 cases on the database
    - successful transactions of 81 cases

  * IP Market (off-line)
    - opened November 2000
    - display of 66 cases
    - changes of display items every 3 months
    - successful transactions of 111 cases so far

KIPO's Assistance to SMEs

O Supportive Measures for Commercialization

- Expansion of fund assistance

  * set up of the "Consultation Committee on Commercialization"
    - close cooperation with the MOCIE, SMBA and KIPO
    - provide fund for R&D start-ups, transactions of IPRs
    - amount of financing: U$100 million (2002)

  * match-making b/w right holders and patent angels

  * direct investment by KIPO
    - takes part in organizing investment funds
    - about U$2 million (2003)

KIPO's Assistance to SMEs

O Supportive Measures for Commercialization

- Assisting in the manufacture of pilot products
  - * manufacturing and testing pilot products before commercialization
  - * amount of assistance
    - individuals: up to 90% of total cost
    - SMEs: 80%
    - 20-40 cases financed a year
- Supporting sales of patented goods
  - * making up for the weakness of marketing ability of SMEs
  - * opening patent product exhibitions 3-4 times a year
  - * selecting excellent patent products and advertising through home shopping TV, newspaper, etc.

KIPO will be happy
to share its experiences and
to cooperate with other IP Offices
regarding SME support programs.

Thank you!

(1) Title: Study on Quality Framework for International Search and Preliminary Examination

(2) Date and year: October 2003 (Thirty-fourth International Meeting at Dearborn)

(3) Committee: PIPA Japanese Section, Third Committee, Second WG

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(5) Key words: Patent Cooperation Treaty, PCT, reform of the PCT, enhanced International Search and Preliminary Examination system, International Search, International Preliminary Examination, international phase, national phase, common quality framework, International Search and Preliminary Examination Guidelines, quality management system, QMS, resource, feedback, review mechanism

(6) Provisions: PCT Rules 36 and 63

(7) Outlines:

In September 2002, the United Kingdom proposed establishment of a "common quality framework" in order to reduce duplication of work at the international phase and national phase by enhancing the international phase of the PCT.

In this article we have summarized the history from the proposal made by the United Kingdom to an agreement of the WG on Reform of the PCT with respect to a "common quality framework for the International Search and Preliminary Examination" and have disclosed our proposal for improvement of ISR and IPER that are more reliable, by pointing out issues of the "common quality framework" currently scheduled.

1. Introduction

Under the Patent Cooperation Treaty (PCT) that has 120 Contracting States as of July 3, 2003, more than 100,000 international applications (IAs) a year are filed today. The International Application system is supported by such organizations as receiving Offices (ROs), designated Offices (DOs), elected Offices (EOs), International Searching Authorities (ISAs), International Preliminary Examining Authorities (IPEAs), and the International Bureau (IB). With the increase of the number of international applications, workload taken on by the above authorities is increasing as well.

An idea of "Reform of the PCT", proposed by the United States at the PCT Assembly (hereinafter referred to as the "Assembly") in autumn 2000 tries to reduce workload taken on by authorities involved in international applications by means of simplification and streamlining of proceedings, in which revision of rules as well as the Treaty is included.

Reform of the PCT is carried out at the first stage and the second stage separately. At the first stage a subject that can be accomplished in a short term is discussed. The World Intellectual Property Organization (WIPO) organized the Committee on Reform of the PCT in order to efficiently proceed with reform of the PCT, and established the Working Group on Reform of the PCT (hereinafter referred to as the "PCT Reform WG") in the Committee in order to energetically promote reform.

In April 2002 Article 22(1) of the PCT was amended. Before this amendment, the time limit for national phase entry used to vary according to whether International Preliminary Examination (IPE) was demanded or not, but currently time limit for national phase entry regarding all international applications, whether International Preliminary Examination (IPE) was demanded or not, is thirty months from the priority date. In January 2003, a rule (PCT Rule 49.6), which provided restoration of the right under specific conditions even if a time limit for national phase entry expired, became effective so as to conform to the Patent Law Treaty (PLT). In January 2004, the new designation system (automatic designation of all Contracting States) and the enhanced International Search and Preliminary Examination system will be started. The PCT Reform WG continues to discuss further accomplishment of streamlining and simplification regarding international application proceedings.

As aforementioned, in January 2004 the enhanced International Search and Preliminary Examination system will be started. This new system is significant in that ISA's written opinion as to patentability of all international applications will be prepared simultaneously with preparation of a traditional International Search Report (ISR), as a procedure mentioned in Chapter I of the PCT. Introduction of this system will contribute to reduction of workload taken on by international authorities at the international phase, and it is expected to strongly support issuance of patent to international applications by a designated Office not having sufficient examining capability.

Under the existing International Search and Preliminary Examination system, each designated Office may use a result of the works at the international phase, i.e., an ISR prepared by

an ISA and an International Preliminary Examination Report (IPER) prepared by an IPEA at the national phase. However, as the quality of those reports that are prepared in the international phase varies according to which authority prepares them, those reports are not sufficiently trustable, and some of those reports are not efficiently utilized in the national phase. In other words, although an ISR has been prepared, the prior art search may be conducted by the designated Office again. The examination also may be conducted by the designated Office again, although an IPER has been prepared. Duplication of work of search and examination at the international phase and national phase has been pointed out. This issue will extend to the new enhanced International Search and Preliminary Examination system, and the Offices of many Contracting States desire to settle this issue by enhancing the international phase. On the other hand, applicants of international applications desire to acquire stable rights in each of the designated states at low cost and in a short time by using the international application system, and therefore the enhancement of the international phase is very important for applicants.

In the Assembly in September 2002, the United Kingdom proposed establishment of a "common quality framework" as part of Reform of the PCT in order to settle the above issue, and the Assembly decided that this issue should be discussed further in the PCT Reform WG. In accordance with this decision the PCT Reform WG discussed this issue in the meetings held in November 2002 and May 2003 and made an outline of the "common quality framework for the International Search and Preliminary Examination".

In this article we have summarized the history from the proposal made by the United Kingdom to an agreement of the PCT Reform WG with respect to the "common quality framework for the International Search and Preliminary Examination" and have disclosed our proposal for improvement of ISR and IPER that are more reliable, by pointing out issues of the "common quality framework" currently scheduled.

2. Common Quality Framework

2-1 History

In the Committee on Reform of the PCT the United Kingdom proposed "establishing a common quality framework and a system for monitoring results"[(1)].

In the Assembly in September 2002 the United Kingdom proposed an outline of the "common quality framework"[(2)]. The assembly decided that this issue should be further discussed in the PCT Reform WG[(3)].

In November 2002 the United Kingdom proposed "A PROGRAMME FOR SUSTAINED QUALITY AND EFFICIENCY"[(4)] on the basis of

- International search and examination standard
- Quality management system
- Validation mechanism

The PCT Reform WG examined the above proposal made by the United Kingdom, decided that

"international search and examination standard" should be included in the International Search and Preliminary Examination Guidelines, and decided that "other matters" should be discussed in the "Virtual Task Force" to be organized[5].

In April 2003 the United Kingdom submitted the "Initial Task Force Repot" that summarized the result of "Virtual Task Force". In May 2003, that report was examined in the 8th session of the Meeting of International Authorities (MIA) under the PCT and the 4th session of the PCT Reform WG[6]. The PCT Reform WG generally agreed to the above report made by the United Kingdom[7].

2-2 Details

Herc wc are going to show an outline of the "common quality framework for the International Search and Preliminary Examination" that is currently discussed by the Committee on Reform of the PCT, together with the change thereof.

[1] Quality Standards for International Search and Preliminary Examination[8]

For the preparation of the enhanced International Search and Preliminary Examination system, which was adopted at the Assembly in November 2002, to be started in January 2004, the following baseline quality criteria are proposed.

However, even if the common quality standards for the search and examination are established, it is not necessary for all the Contracting States to accept the same opinion as to patentability.

(a) Search Standards

"Search standards" are the requirements ISA should try to satisfy, and the followings further providing for "minimum requirements" of PCT Rule 36 are likely to be the basis of such requirements.

(i) The adoption of an appropriate search strategy
(ii) The effective implementation of such a strategy
(iii) The identification and selection of related documents
(iv) The clear recording and rcporting of the results and necessary information
(v) The appropriate handling of plurality of invention
(vi) The revision and publication of an abstract which provides an effective search tool

(b) Examination Standards

"Examination standards" are requirements that should be satisfied when IPEA evaluates novelty, inventiveness, disclosure, unity and support, and the followings further providing for "minimum requirements" of PCT Rule 63 are likely to be the basis of such requirements.

(i) The raising of appropriate objections
(ii) The clear communication of objections with appropriate explanation
(iii) The appropriate defense or retraction of objections

Details of the standards are examined by MIA.

[2] Quality Management System (QMS)

Each Authority should establish and maintain a quality management system (QMS) which sets out the basic requirements with regard to resources, administrative procedures, feedback and communication channels required to underpin the search and examination process. The QMS established by each Authority should also incorporate a quality assurance scheme for monitoring compliance with these basic requirements and the International Search and Preliminary Examination Guidelines.

Adoption by the Authorities of common QMS requirements, which are recognized by all Authorities and national and regional Offices, should help achieve a consistent approach. This, in turn, should help build confidence among national and regional Offices in the work done by the Authorities. It will be for each Authority to ensure that the measures they have taken to meet the requirements are effective and appropriate[(6)].

(A) Resources

ISA and IPEA should be able to accommodate changes in workload and should have an appropriate infrastructure to support the search and examination process and comply with the QMS requirements and Search and Examination Guidelines.

The followings are examples of the kind of "resources" which ISA and IPEA should consider establishing.

= Proposals agreed =

(a) **A complement of staff sufficient to deal with the inflow of work and which maintain the technical qualifications to search and examine in the required technical fields and the language facilities to understand at least those languages in which the minimum documentation referred to in PCT Rule 34 is written or is translated**

(b) **Appropriately trained/skilled administrative staff, resources at a level to support the technically qualified staff and facilitate the search and examination process**

(c) **Appropriate equipment and facilities, such as IT hardware and software, to support the search and examination process**

(d) **Possession of, or access to, at least the minimum documentation referred to in PCT Rule 34, properly arranged for search and examination purposes, on paper, in microform or stored on electronic media**

(e) **Comprehensive and up-to-date work manuals to help staff understand and adhere to the quality criteria and standards and follow work procedures accurately and consistently**

(f) **An effective training and development program for all staff involved in the search and examination process to ensure they acquire and maintain the necessary experience and skills and are fully aware of the importance of complying with the quality criteria and**

standards

(g) A system for continuously monitoring and identifying the resources required to deal with demand and comply with the quality standards for search and examination

= Change from the initial proposal =

In accordance with each state's comments on the initial proposal made by the United Kingdom in September 2002, the following three points in connection with resources are amended.

First of all, the biggest amendment is that, while in the initial proposal made by the United Kingdom the above resources were the requirements that ISA and IPEA "should have", in the proposal finally agreed, such resources were changed to be "examples of the kind of resources".

This seems to greatly reflect several comments from Offices in Europe (EPO, Spain, and Sweden) "it is impossible for each international authoritics to always satisfy the requirements of resources, and it is rather important to be in a position to react to such fluctuations" and "resources should not be bound by the requirements shown in the proposal made by the United Kingdom, but should be a mere 'example' of resources that needs to be maintained." Japan and the United States did not give particular comments on it.

The second amendment is that, although in the initial proposal made by the United Kingdom the clause (b) kept a certain number in mind, i.e., "sufficient numbers of competent administrative staff", in the proposal finally agreed such certain number was deleted and stated as, "appropriately trained/skilled administrative staff".

This seems to reflect comments from the United States and Canada "although we agree to an idea that sufficient numbers of administrative staff and facilities are required, but an interpretation of the word 'sufficient' should be left to each international authority, but should not be decided by any external authorities." In this connection, the United Kingdom stated in connection with this comment from the United States "a decision should be made by each international authority," and the United States stated in its second comment "it agreed to the statement made by the United Kingdom."

The third amendment is that, although a new clause "a scheme for periodically testing all staff for knowledge of the requirements and standards of search and examination" was added to the final draft of the initial taskforce report(6), which was not shown in the initial proposal made by the United Kingdom, this clause was deleted from the proposal finally agreed immediately thereafter in accordance with each state's consent (PCT/R/WG/4/14, Paragraph 80(d))

This seems to derive from the proposal made by the United States in its second comment "not only experience and skill but also knowledge are required for the search and examination" and to be reflected by the United Kingdom in the above final draft, however any specific reason of deletion in the final agreement immediately thereafter has not be disclosed so far.

The followings are outlines of each state's comments that have not been reflected directly in the amendment.

Japan gave its comment "although we agree to clauses (a) to (d) because they conform to

PCT Rules 36 and 63 and they directly give influence to the quality control, but clauses (e) to (g) should be discussed by international authorities individually and flexibly according to the actual circumstances in each case. Effect to be given to the quality control is doubtful as well." In this connection, Singapore gave its comment, which was contrary to the Japanese comment, "the initial proposal is sufficient for improving the quality of search and examination."

Australia gave its comment "those resources have been already prepared and maintained in Australia," and the Netherlands gave its comment "technical aspect, which needs urgent discussion, and managing aspect should be separately discussed."

Russian Federation proposed creating an intensive training course, such as "General Course in Intellectual Property" in WIPO World Academy, where all staff involved in the search and examination process is educated and trained.

= Comments from authors =

First of all, it is regrettable, from the viewpoint of users, that the "resources", which were so-called "prerequisite condition" in the initial proposal made by the United Kingdom, was finally changed to "examples of kind." As far as users are concerned, the requirements shown in the proposal finally agreed did not seem very difficult, and we wonder if improvement of the quality control might be more likely if the above requirements have certain legal binding force.

Secondly, it is also regrettable that, although the clause "a scheme for periodically testing all staff" was added at the final stage that was likely to contribute to realistic and prompt quality improvement (at least to quality maintenance), that clause was deleted from the final proposal, which did not satisfy resources to be prepared and maintained by each international authority for the purposes of quality management and quality improvement of the International Search and International Preliminary Examination. As far as users are concerned, credibility of each international authority and its report would be improved if users knew each international authority periodically tested all of its staff.

After all, from the time when the initial proposal made by the United Kingdom was submitted, it did not seem, in connection with resources, to drastically amend the minimum requirements of ISA and IPEA provided for in current PCT Rules 36 and 63. For example, PCT Rule 36 provides that "the national Office or intergovernmental authority must have at least 100 full-time employees with sufficient technical qualifications to carry out searches." From the viewpoint of such target number as "at least 100," it may be better to have specified the target number that should be at least satisfied in the initial taskforce report (the cost of maintaining resources must not be shifted onto users, though).

In addition, users expected minuter and stricter requirements as each international organization repeatedly reviewed and discussed the requirements of resources spending one year. It is doubtful whether resources shown in the proposal finally agreed can rapidly and promptly improve the quality simply by being referred to by each international authority. Stricter requirements would enable continuous improvement of the quality and maintenance of the

infrastructure to be realistic.

Finally, although Offices in Europe actively gave their comments on the initial proposal made by the United Kingdom, it is regrettable that Offices in Asia, excluding Japan, submitted few comment thereon probably because of the characteristics of "virtual task force" on the web site of WIPO. It might be better that the web site of WIPO had been made in a user friendly form, like Japan Patent Office inviting public comments on the front page of its web site.

(B) Administration

= Proposals agreed =

An Authority should have in place the following minimum practices and procedures for handling search and examination requests and performing related functions, such as data-entry and classification.

(a) Effective control mechanisms regarding timely issue of search and examination reports in accordance with a quality standard consistent with the Search and Examination Guidelines

(b) Appropriate control mechanisms regarding fluctuations in demand and backlog management

(c) An appropriate system for handling complaints and taking corrective and preventative action appropriately, and the application of monitoring procedures for measuring user satisfaction and perception and for ensuring to meet their needs and legitimate expectations

= Change from the initial proposal =

With respect to the clause (a), the initial proposal was "effectively controlling mechanisms to assure that the search and examination report is submitted in a fixed time scale." EPO was reluctant to agree to such "assurance", and the clause (a) became less strict because EPO's opinion was approved.

With respect to the clause (b), the initial proposal was "appropriately control mechanisms to cope with fluctuations in demand in a specific area, and to effectively control and minimize backlog." This was partially amended by taking possible realization into consideration.

With respect to the clause (c), "preventative action" was added to the initial proposal.

(C) Quality Assurance

= Proposals agreed =

An Authority should have procedures regarding timely issue of search and examination reports of a quality standard in accordance with the Search and Examination Guidelines. Such procedures should include:

(a) An effective internal quality assurance system for self assessment, involving verification, validation and monitoring of searches and examination work for compliance with the

Search and Examination Guidelines and channeling for feedback to staff

(b) A system for measuring, recording, monitoring and analyzing the performance of the quality management system to allow assessment of conformity with the requirements

(c) A system for verifying the effectiveness of actions taken to address deficiencies and to prevent issues from recurring

(d) An effective system to assure continuous improvement of the established process

= Change from the initial proposal =

Initially that "an international authority should have the following proceedings in order to assure that the search and examination report will be issued within a fixed time scale in accordance with the agreed standards" was proposed, but an opinion that "requirements to assure issuance of the search and examination report within a fixed time scale" should be relaxed was expressed, and this opinion was approved.

With respect to clauses (a) and (b), the change similar to the effect of main text was approved. Clauses (c) and (d) were supplemented pursuant to the proposal made by Australia in case of defective quality and as treatment for continuous improvement of the quality control process.

(D) Feedback

= Proposals agreed =

To help improve performance and foster continual improvement, each Authority should:

(a) Communicate the results of their internal quality assurance process to their staff to ensure that any necessary corrective actions is taken and for the dissemination and adoption of best practice, and

(b) Provide for effective communication with WIPO and designated and elected Offices to allow for prompt feedback from them so that potential systemic issues can be evaluated and addressed.

= Change from the initial proposal =

With respect to clause (a), the initial proposal made by the United Kingdom proposed a system coping with the feedback from an external "Quality Evaluation Committee" to each authority on the assumption that evaluation should be made by such Committee. However, as many states opposed introduction of evaluation by external authority, it was replaced by the feedback system to the staff in the authority in connection with internal evaluation result in each authority. With respect to clause (b), an opinion made by Canada "we support joint ownership of the best practice in the authority and it should be left to each authority for appropriate disposal" was approved and communication between WIPO and designated/elected Offices was provided for.

= Comments from authors =

In "review mechanism" hereinafter explained, internal evaluation and external evaluation are discussed. Can internal feedback promote election and dissemination of the most appropriate

practice? In addition, it says that feedback is given in connection with a result of the quality assurance process, but how does the quality assurance process is constructed by each authority? Is such quality evaluation process disclosed to users? Some system to make such process appropriate will be necessary so that feedback may function effectively.

(E) Communication and Guidance to Users

= Proposals agreed =

An Authority should have in place the following arrangements for ensuring effective communication with users:

(a) Effective communication channels so that enquiries are dealt with promptly and that appropriate two-way communication is possible between applicants and examiners

(b) Clear, concise and comprehensive guidance and information to users (particularly unrepresented applicants) on the search and examination process which could be included on each Authority's website as well as in guidance literature

= Change from the initial proposal =

Particular amendment to the initial proposal made by the United Kingdom was not made.

= Comments from authors =

Although it is very important to assure communication to users, it is more important to disclose to users how each authority reflected a result of such communication. Users would desire that a result of such communication should be made visible because they feel uneasy if they do not know whether their opinions are reflected or not.

[3] Review Mechanism

= Proposals agreed =

In the quality framework[6][7] to which the PCT Reform WG agreed, each ISA and IPEA (hereinafter collectively referred to as each Authority for the sake of convenience) are required to evaluate whether the QMS constructed in each Authority conforms to the requirements shown in this framework and the search and examination guidelines and to report a result of such evaluation. If the QMS constructed in each Authority does not conform to the requirements shown in this framework and the search and examination guidelines, each Authority should promptly take measures to continuously improve the QMS constructed in each Authority so that such QMS constructed in each Authority conforms to the requirements shown in this framework and the search and examination guidelines.

Each Authority establishes internal review arrangements to conduct such evaluation in each Authority. Each Authority can decide how such internal review arrangements should be formed, and each Authority must form such internal review arrangements to monitor, record and measure that the requirements shown in this framework and the Search and Examination Guidelines are

observed. Basic elements to be possessed by such internal review arrangements are explained in this framework as examples. According to this framework, such internal review arrangements established in each Authority review at least on the basis of information on (a) whether the QMS established in each Authority is conformed with the requirements of this framework and the Search and Examination Guidelines or not, (b) any corrective and preventative action taken to eliminate the cause of non-compliance, (c) any follow-up action from previous reviews, (d) the effectiveness of the QMS constructed in each Authority, (e) feedback from customer, including designated and elected Offices as well as applicants, (f) recommendations for improvement. It is particularly important, at the time of review, to measure the degree of customer's satisfaction. Customer's satisfaction should include opinions of designated and elected Offices, applicants and their attorneys.

Review result is reported to the senior manager of each Authority. As a result, each Authority can recognize necessity of improving the QMS constructed in each Authority.

Each Authority submits an initial report to MIA describing what it has done to implement the QMS. This initial report is intended to help disseminate best practice among Authorities. MIA submits a general report on progress to the PCT Assembly. Each Authority prepares an annual report after submitting the initial report. In such annual report, proposals based on measures taken and evaluation is reported. Disclosure of this report to other authorities or to the public in connection with the actual status of the QMS constructed in each Authority, together with identification of each Authority, will be discussed in the future.

= Change from the initial proposal =

Quality framework shown in the initial proposal made by the United Kingdom was different from the above quality framework to which the PCT Reform WG agreed. That proposal planned to establish a review mechanism independent from each Authority, not in each Authority itself. This independent review mechanism is called Quality Review Panel (QRP) in this proposal.

The QRP has its purposes to review reports submitted by each Authority and to disseminate the best practice mentioned in the report to other authorities. The QRP can give feedback about matters to be improved by comparing reports received from each Authority.

This report has a function that each Authority tells to the QRP whether the QMS constructed in each Authority conforms to the requirements shown in this framework or not. This report must be minute and transparent. In the initial year when the QMS is constructed in each Authority, each Authority reports to the QRP whether the QMS satisfies the requirements shown in this framework. In the second year each Authority reports how it monitors whether the QMS satisfies the requirements shown in this framework, and in and after the third year each Authority reports a result of such monitoring each year. This gradually advancing measure is intended to give ample time to improve the QMS so that such QMS constructed in each Authority can conform to the requirements shown in this framework. As a result, the International Search and International Preliminary Examination process may become trustable.

The QRP consists of three persons or so elected from each Authority and three persons or so elected from the national Office, six persons or so in total, who are qualified and rich in experience. QPR member's term of office is for two years. The QRP members basically communicate electronically.

The QRP prepares an annual report based on the report submitted by each Authority. Purposes of this report are to report general progress as to whether the QMS constructed in each Authority satisfies the requirements shown in this framework or not. In this report a name of each Authority is not identified.

While Singapore, Holland, Hungary, New Zealand and FICPI agreed to the establishment of an independent review mechanism called the QRP, the United States, the EPO, Spain, Canada, Sweden and Japan opposed to it. Especially the United States raised a strong objection against it because it insisted that each Authority should have an authority to decide distribution of resources in each Authority. Those opposing states expressed the doubt as to realization of the QRP and opposed the cost to maintain the QRP.

Since major states raised an objection against it, the initial proposal to establish an independent review mechanism was replaced by the internal review arrangements to be established in each Authority.

In addition, the United States opposed to disclosure of the review result to the outside. Australia insisted that the review result should be available to the public or at least to other authorities. FICPI insisted that the review result should be disclosed to the public in order to assure transparency.

= Comments from authors =

There seem to exist mainly two points as to the subject of how the QMS constructed in each Authority should be evaluated. The first point is who evaluates the QMS constructed in each Authority, and the second point is how the result of evaluation is used.

(i) Who evaluates the QMS?

As to the first point, there is one opinion that a review authority established in each Authority should evaluate, and there is another opinion that review mechanism independent from each Authority should evaluate.

When the review authority established in each Authority evaluates, it will be able to have access to the QMS of each Authority promptly and cheaply and to easily acquire information necessary for evaluation because it is established in the Authority. This is an advantage in comparison with the case where the review mechanism independent from each Authority evaluates.

However, as such review authority belongs to each Authority possessing the QMS to be evaluated, each Authority is likely to exert pressure on such review authority to make more favorable evaluation result than actual circumstances. As each Authority is a national Office or inter-governmental organization that should behave fairly, it is difficult to assume that a review authority in each Authority will directly receive pressure. We however cannot completely deny

existence of at least such tacit pressure.

In addition, if each Authority has its own review authority and evaluate the QMS respectively, the evaluation standards used by each review authority will vary and it might be difficult to compare the review result respectively.

On the other hand, if a review mechanism independent from each Authority evaluates, such review mechanism is expected to objectively evaluate, unlike the review authority established in each Authority. Evaluation by the independent review mechanism unifies the evaluation standards, and it becomes easy to compare the review result of the QMS constructed in each Authority.

However, is it really likely to establish the review mechanism having sufficient capability to evaluate the QMS constructed in each Authority? It is necessary to collect information from each Authority in order to understand the condition of the QMS constructed in each Authority and to analyze such collected information. Establishment of the review mechanism that can review the QMS of all authorities needs qualified human resources and sufficient funds.

From an ideal point of view that an objective evaluation must be made with unified evaluation standards, it is desirable that an independent review mechanism should evaluate. However, it will be less easy to actually establish such review mechanism. Therefore, it is understandable that the PCT Reform WG agreed to the establishment of a review authority in each Authority.

(ii) How is the review result used?

As to the second point, to whom the review result should be disclosed matters. One opinion is that it is sufficient for each Authority to use the review result in order to improve the QMS constructed in each Authority, and another opinion is that the review result should be disclosed to the public so as to receive feedback from the public.

The very reason why the United Kingdom proposed this quality framework is that the QMS is established in each Authority and duplication of work between the international phase and national phase should be avoided in order to prepare high quality the ISR and IPER (see PCT/R/2/9, Paragraph 49). Therefore, the opinion that it is sufficient only for each Authority to use the review result in order to improve the QMS constructed in each Authority seems reasonable. However, we, users of the PCT, cannot agree to that opinion.

We often experience, in the examination by the designated or elected Office after the entry into the national phase, the citation of a prior art document not mentioned in an ISR and IPER. This is because each state's examination standards differ from others', and therefore it is natural that a prior art document not mentioned in the ISR and IPER is cited in the examination at the national phase.

However, one of the purposes of the PCT is to make protection of invention more simply and economically if protection of invention is sought for in two or more states, which must be taken into consideration (see preamble of the PCT). An obligation to find a prior art document, which is not mentioned in the ISR and IPER, by conducting an additional search at the national phase will be a

heavy burden for each designated Office, each elected Office and applicants of international applications. It does not make protection of invention in two or more states easier and more economical. As far as each designated or elected Office is concerned, it must suffer duplication of work to find a prior art document by conducting an additional search though the International Search or International Preliminary Examination has been conducted at the international phase. It will take longer time and higher cost for applicants to acquire patent right due to duplication of work. Increase of cost due to duplication of work should be transferred on the applicant, therefore resulting in a higher application fee. Furthermore, if a prior art document that has not been mentioned in ISR and IPER is often cited at the national phase, applicants tend to be reluctant to use ISR and IPER because they cannot rely on ISR and IPER for deciding patentability. Therefore, at any state's national phase, ISR and IPER that do not need further search have high quality.

We understand each Authority has endeavored to prepare high quality ISR and IPER, and we assume each Authority has appreciated quality improvement of ISR and IPER as a result of such endeavor. However, based on our experience, quality improvement of ISR and IPER so far is on the way to our complete satisfaction. Therefore, even if this quality framework is introduced in each Authority and the QMS is constructed, when the evaluation result is used only in each Authority, it seems difficult for the quality of ISR and IPER to reach the level satisfying applicants as the same as ever. Or, even if it reaches such level, applicants would have to wait for a long time. Applicants strongly desire the quality of ISR and IPER is promptly improved.

This quality framework was proposed because the QMS should be constructed in each Authority for the preparation of high quality ISR and IPER and duplication of work at the international phase and national phase should be avoided. We state it reasonable because of feasibility, as aforementioned, that evaluation of the QMS constructed in each Authority is conducted by an internal review authority, and we state that it would be difficult to promptly improve quality only if such evaluation result is used internally.

Without a scheme to promptly improve quality, introduction of this quality framework does not seem to make the circumstances drastically improved. If the quality framework does not make the circumstances drastically improved, introduction of the quality framework does not seem to be successful. It is necessary to discuss how to evaluate the QMS constructed in each Authority in order to promptly improve quality of ISR and IPER.

We think the evaluation result should be disclosed to the public so that each Authority's progress that has been made can be identified, and thereby feedback can be received from the public.

The public, as applicants, is greatly interested in the quality improvement of ISR and IPER, and therefore the public is suitable for being a checker for the evaluation results.

In addition, we stated that we are worried if a result of internal evaluation will be objectively conducted. Check by the public will give a favorable influence to the promotion of objective evaluation by each Authority.

Furthermore, we should remember that the system of the PCT is supported payment of the users. Each Authority is responsible for disclosing the internal evaluation result and explaining continuous efforts for the preparation of high quality ISR and IPER. Users should fully enjoy fruits of Reform of the PCT. Therefore, it is necessary to sufficiently explain improvement by means of the quality framework so that users can clearly understand the fruits.

Disclosure of the evaluation result should be done so that the circumstances in each Authority can be made clear. Information as to which level each Authority reaches rather than information as to general progress, seems to be more useful to users, because it leads to introduction of competition among each Authority, i.e., users can elect authority that is capable to prepare a higher quality search report. By clarifying which authority is relatively better, competition among authorities is promoted and the quality can be promptly improved. In this case disclosure to the public should be made in a unified format so that they can easily understand which authority's measure is better.

In the present framework, it is unclear whether each Authority discloses the evaluation result or not, and items to be disclosed are merely explained as examples, which is not sufficient. It should be further discussed. In addition, as the scheme of feedback from the public to an authority is not clear, it should be revised.

(iii) Beyond the quality framework

The purposes of the International Preliminary Examination are to show preliminary and non-binding opinion on the questions whether an invention appears to be novel, to involve an inventive step, and to be industrially applicable (Article 33(1) of the PCT). This provision clarifies that the final decision as to patentability leaves to each state's decision and this treaty does not infringe such state's right to decide patentability.

In this sense the International Preliminary Examination means a kind of technical evaluation service in connection with the invention mentioned in an international application. Is it really necessary that each state's governmental authority or inter-governmental authority exclusively conducts the International Preliminary Examination?

By the introduction of this quality framework, it was proposed that, in addition to the existing conditions the IPEA should satisfy, the requirements set forth in this quality framework should be the basic conditions the IPEA that can prepare high quality IPER should satisfy. We think an entity satisfying these basic conditions should be judged as having capability to prepare high quality IPER. In other words, it should be assumed that any entity satisfying these basic conditions could conduct the International Preliminary Examination. While the requirement should be conformed, by allowing anybody to participate in the International Preliminary Examination being a kind of technical evaluation service and introducing competitive situation, more prompt improvement of quality will be accomplished, we assume.

Since each IPEA is a national Office, it is requested by the society to promptly sweep examination backlog of national applications away as an emergency issue. We suppose a lot of

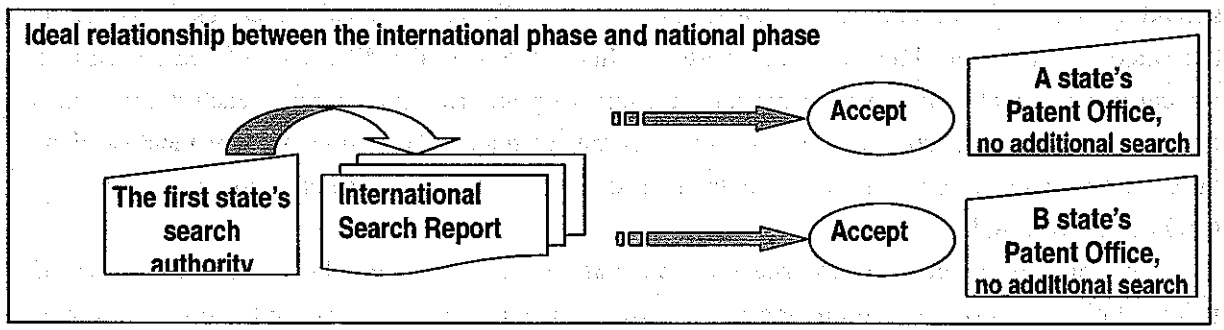
resources in an authority cannot be allotted to the International Preliminary Examination as a kind of technical evaluation service. In other words, it seems to be difficult, as a matter of fact, for the current IPEA to promptly construct a scheme in which higher quality IPER can be prepared.

Furthermore, once anybody can participate in the International Preliminary Examination and the competitive situation is introduced while the requirement should be conformed, various kinds of services are expected by an entity conducting the International Preliminary Examination, such as an entity good at examination of a specific field, entity conducting reliable examination by conducting the search in two or more languages, entity conducting economic evaluation simultaneously from the viewpoint of industrialization of invention. Business entities that can provide those services would be law firm, patent attorney firm, prior art survey firm, technical evaluation firm and so on.

When anybody can participate in the International Preliminary Examination freely, some companies will start business of evaluating and ranking the entity satisfying the basic condition so that applicants and national Offices know which entity can prepare high quality IPER. Transparent evaluation will naturally eliminate authority conducting low quality examination.

3. Consideration and proposal

A primary purpose for establishing a common quality framework is, as aforementioned, to reduce duplication of work at the international phase and national phase. This means established reliability of the search and examination at the international phase. Once this framework is established and each state's Patent Office pays more attention to ISRs and IPERs at the national phase, the above purposes deem to be accomplished. The more the search and examination at the national phase is reliable, the better applicants can evaluate patentability of the invention based on the above search and examination. This enables applicants to eliminate transition of international applications that are less patentable to national phase, and thereby applicants can reduce cost and enjoy great advantage.



Having said so, each state's Patent Office is unlikely to respect ISRs and IPERs immediately after this framework is established. Each state's Patent Office has given its comment on the proposal of this framework made by the United Kingdom, but users are completely unaware how each state's Patent Office responds to this framework. This framework, even if it is incorporated

into the PCT Guidelines, has no binding force upon each state's Patent Office to respect ISRs and IPERs. In accordance with these Guidelines, each state's Patent Office simply tries to improve the quality evaluation. How does it handle report of other search authority? For the Patent Office that has been effectively using ISRs and IPERs from the past, quality improvement will be very desirable. Establishment of this framework and gradual quality improvement will make a scheme in the future in which each state's Patent Office respects ISR and IPER. Therefore, establishment of this framework will be expected to accomplish its purposes in the long run.

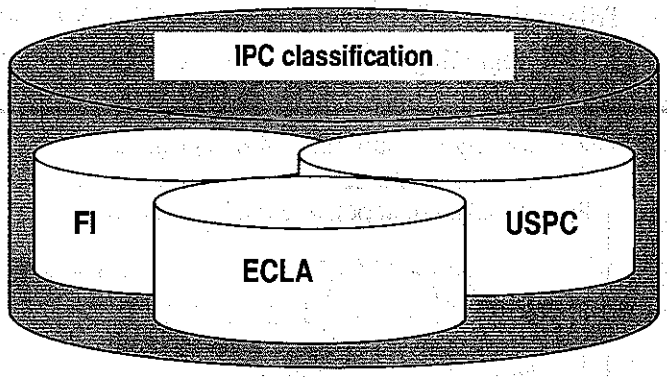
However, it is true, on the other hand, that some national Offices have conducted the national search independently notwithstanding existence of ISRs and IPERs. Japanese users must notice they often face such situation. Users expect immediate effect. Therefore, by establishing the framework, it must become necessary to create common quality framework which enables each state's Patent Office to respect ISRs and IPERs. Then, why cannot users expect immediate effect? It is because clauses to actually improve the current and serious problems are not incorporated in this framework. Clauses of the current framework simply and generally set forth resources and management as a target, and does not provide for anything to achieve the primary purpose. In addition, it is pointed out that they aimed to create review mechanism that was independent from each Authority, but finally it became an internal review mechanism. Can only each Authority's internal review enhance reliability of the search result at the international phase, pick out problems in order to reduce duplication of work at the international phase and national phase, and improve it? Isn't it necessary to pick out problems so as to eliminate duplication of work between the international phase and national phase and to incorporate definite provisions and measures for solving those problems into currently proposed framework?

= Problems in the International Search =

Ideal search at the international phase is that the same quality of the search result can be obtained irrespective of which search authority conducts it. And the common quality framework should exist to improve and maintain such same quality. However, actual search result cannot be the same quality. We think the main cause of this problem is the difference of search method among International Search Authorities and language of prior art. For example, each International Search Authority respectively adopts its own search method. The followings are mentioned in "IPC reform and harmonization of trilateral classification" of the magazine called "*Tokugikon*" (2003.3.2, No. 228, P.34-40).

As one of opinions as to trilateral cooperation made in many fields, harmonization of trilateral classification to be promoted is actively discussed. Notwithstanding there is a common classification, i.e., International Patent Classification (IPC), the Japan Patent Office (JPO) uses File Index (FI), the European Patent Office (EPO) uses European Patent Classification (ECLA) and the United States Patent and Trademark Office (USPTO) uses the United States Patent Classification (USPC) for actual retrieval, and therefore, they insist that construction of the international patent classification should be done so that each state's Patent Office can commonly use the same. As

seen in the figure, FI, ECLA and USPC exist in IPC classification. There may be patents that commonly exist in each field, but some patents are classified simply according to FI, and further some patents are not classified according to the three classifications.



In other words, the current Patent Office in each state adopts individual search method, although there is a common classification called IPC. Individual classification does not classify patents throughout the world, and therefore the search scope is restricted. Under these circumstances, we cannot expect to receive the result of the same quality.

The second problem is language of prior art. As far as users know, there are only a few cases where a document in other than Japanese is reported in the International Search conducted by the Japan Patent Office. Likewise, there are only a few cases where a document in Japanese is reported in the International Search conducted by the European Patent Office and United States Patent and Trademark Office. However, in the "minimum documentation" (b) and (c) of PCT Rule 34, the national patent documents are provided to be the minimum documentation. PCT Rule 34 (e) provides that, if an official language of ISA is not Spanish, Japanese or Russian, patent document written in Japanese whose English summary is not generally available can be excluded from the minimum documentation. However, some Japanese patent documents are generally available together with its summary, and now mechanical translation of publication gazette is prepared. Furthermore, the followings are mentioned in the Guidelines for the International Search under the PCT, Chapter III, III-2, "scope of the International Search" III-2.3.

> "These mean that, first of all, the international search authority must search, irrespective of its language, age and type of document, all documents in the relevant classification unit included in the search documents."

In other words, it provides a guideline that all documentation should be searched, irrespective of languages. However, we do not realize the search without language problem. We assume this is caused by the fact that the search authority does not satisfy the following requirements set forth in resources (a) to be provided for in this system.

(a) Staff who is sufficient to deal with the inflow of work and has the technical qualifications to search and examine in the required technical fields and the language facilities to understand at least those languages in which the minimum documentation referred to in PCT Rule 34 is written or is translated

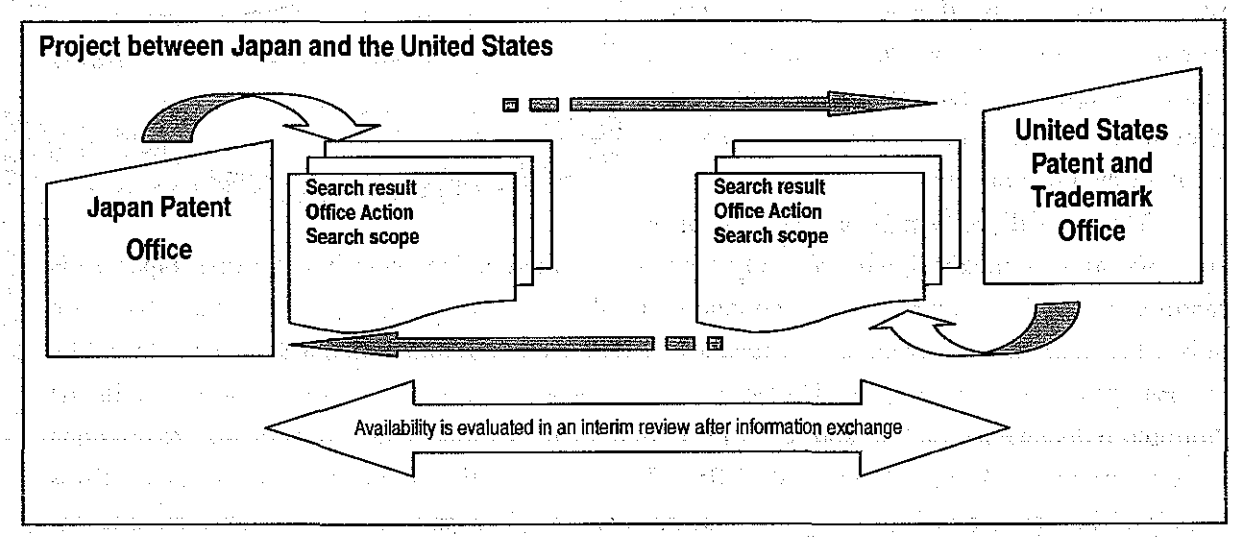
Does this framework require each search authority to prepare and maintain a system that can improve the above problem? Compared with the initial proposal, details of this framework seem

to change from a request to a target of effort and evaluation remains to be improved.

= Improvement of common quality framework =

Here is information that is useful for improvement of common quality framework. At the Trilateral Patent Office Conference, held in Vienna on 4th to 8th of November 2002, the following project regarding the examination cooperation between Japan-United States Patent Office was announced.

The following is a summary of this project.



Project (the main point)

1) Both Offices shall start the first stage of the trial joint project in January 2003 and conduct an interim review in May 2003.
2) Both Offices shall extract list of applications through Paris Convention to be covered by exchange of search results (up to fifty in total) from all technical fields.
3) Office receiving an application to be covered earlier shall provide the other Office the following information by using hardcopy (in connection with a. only, information from the Japanese Patent Office should be translated in English.
   a. Office Action
   b. Cited non-patent document (to be pointed out)
   c. Search scope (including FI and F term, United States classification and corresponding IPC). Online search retrieval formula if non-patent documents are searched online.
   d. Claim to be covered by Office Action
4) Both Offices shall evaluate availability of exchanged information at the interim review. After review is conducted, the second stage of the project shall be started under the fixed term and conditions, and the result thereof shall be evaluated at the end of 2003.
5) Both Offices shall mutually exchange information for the follow-up evaluation in connection

with Office Action against an application to be covered by the search result exchange.

With these points, fifty search results, elected from Japan and the United States, will be exchanged from the Office firstly receiving the document to the other Office for reference and information will be mutually exchanged for follow-up evaluation in connection with further examination. This is very useful example for ideal existence of the review mechanism in the common quality framework. This current framework assumes evaluation by the internal review mechanism. However, since the evaluation is not compared with those of other countries in the framework, it is difficult to improve search qualities in each country to common quality level. It should be necessary for comparison with search evaluation for patent with similar content conducted by another searching Authority which is a third party. It is important that pointing out problems and measures thereof are conducted based on the comparison result, thereby evaluating for accomplishment of common quality by means of the measures. This mechanism should be incorporated into feedback or review mechanism.

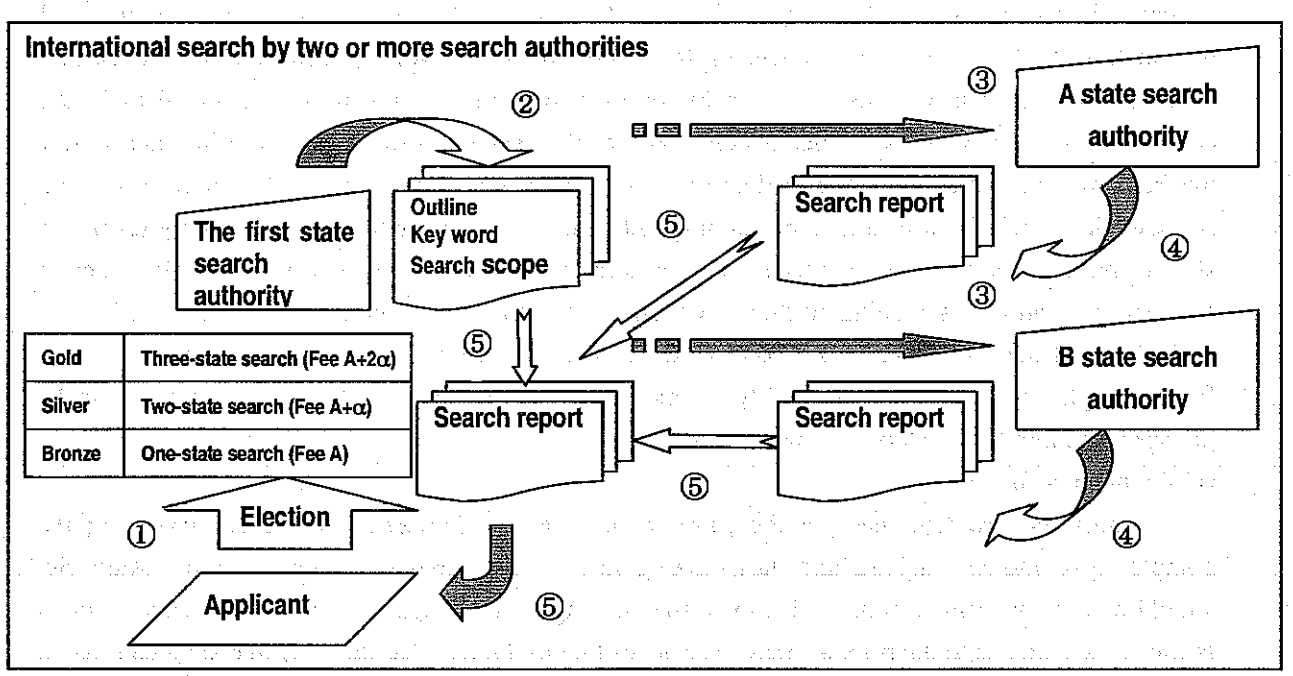
= Language problem =

Language problem must be the most difficult at the international phase. By using the completely common database and harmonizing how to use keyword, each searching Authority should receive the same results. However, the language matters again. Even if the same result is obtained decision as to the prior art may vary according to the fact that the staff in charge can read it or not. Establishment of database that enables searchers to conduct search and understand the details of all prior arts worldwide in whatever language is ideal. If this ideal comes true and review mechanism becomes strong, common quality framework will function effectively. However, it seems difficult to prepare data as aforementioned in connection with cost and time.

As a method to solve this problem, although discussion may be out of the framework, the International Search can be considered, like an International Patent Office, which consists of two or more search authority and two or more searchers using different language. The aforementioned problem is in connection with search classification, search method and language. If two or more search authorities conducted search at the international phase, additional search at the national phase will not be necessary. Users can receive highly trustable search result at the international phase, which makes decision of national phase entry easier.

To explain more in detail, staff in charge of search in the first state search authority decides an abstract, key words and search scope to request for searching in other languages to several searching Authorities. The method is that staff in charge of search in other language searches based on the information of outline, key words and search scope received in accordance with the language, decides and feeds back the result to the first state searching authority. However, this method may be not practical for all of international applications because of problems of capability in the searching Authority and increased fee for the great number of search. Therefore, a method may be acceptable that search type such as gold, silver or bronze is provided to correspond to the number of state searching Authority to conduct search so that the fee is set based on the type and

users can select a type according to how important the application is.



By this method more reliable search can be expected without language problem by expanding the search scope. Users, as applicants, can elect a type of search according to how important the invention is and by taking transition in the future into consideration.

International search method using two or more search authority needs the change of the International Search itself beyond the common quality framework which is currently discussed. In order to reduce duplication of work at the national phase and provide reliable International Search, the above drastic improvement will be necessary in the future.

4. Conclusion

In this article we discussed the common quality framework for the purposes of reducing duplication of work at the international phase and national phase. For the Patent Offices who use ISR and IPER, improvement of the quality will bring about big advantage. By improving the quality of each search authority, all the Patent Office throughout the world may respect the report and can expect the effect in long period.

However, users of the international applications strongly desire to accomplish the above purposes. This framework that has no immediate effect does not seem to satisfy such users.

We, accordingly, believe that it is necessary to reconsider resources, to exchange and evaluation of the search result by each International Search Authority, to establish feedback system and review mechanism thereof, and to set specific method and measure for the accomplishment of

the above purposes in order to promptly accomplish visible outcome, i.e., reducing duplication of work at the international phase and national phase.

5. References

(1) WIPO document PCT/R/2/9
(2) WIPO document PCT/A/31/8
(3) WIPO document PCT/A/31/10
(4) WIPO document PCT/R/WG/3/4
(5) WIPO document PCT/R/WG/3/5
(6) WIPO document PCT/R/WG/4/12, PCT/MIA/8/5
(7) WIPO document PCT/R/WG/4/14
(8) WIPO document PCT/R/WG/3/4 ANNEX

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(1) Title: Analysis of Requirement for Disclosure of Information on Prior Art Documents

(2) Date: October, 2003 (The 34th International Congress in Dearborn)

(3) Source: (a) Group: Japan
(b) Committee: #1

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(5) Keywords:
prior art, prior art documents, prior art search, materials for examination, reason for refusal of the application, duty of disclosure, timing of disclosure, 2002-Revised Patent Law of Japan, IDS, acceleration for examination, grant of rights, candor and good faith

(6) Statutory Provision:
Japanese Patent Law Section 36(4)(ii) and Section 48 septies, US Regulation 37CFR, §1.56, §1.97 and §1.98, Australian Patent Law Section 45, 101, and 102, Patent Law of People's Republic of China Section 36, German Patent Law Section 34(7), EPC Article 124

(7) Abstract:

With the ever-lengthening time required for patent examination, and the acceleration of examination being recognized as a common problem among the major countries, Japan has put into force, a system for disclosure of information on prior art documents for the purposes of implementing accelerated and appropriate examination proceedings by utilizing information on prior art documents, that is known to applicants, during patent examination, and granting strong patent rights by considering the information on prior art documents. On the other hand, although various forms of such a system for disclosure of information on prior art documents have already been in force in various countries, including the IDS of US, there are various efforts being underway to review the regulations in order to give them substantial effectiveness. It is believed that these movements in the world are suggesting the future direction of the system for disclosure of information on prior art documents. Accordingly, the committee has analyzed those systems for disclosure of information on prior art documents in respective countries, summarized the timing of the disclosure of such information by dividing the time scale into the period before filing applications and the period after filing applications, and by considering the significance of the respective issues, discussed how the system for disclosure of information on prior art documents shall be operated and what would be the difficulties we may encounter in the future. As a result of the discussion, it was found that those systems providing the duty of disclosure at the time of filing applications, such as ones represented by the Japanese newly implemented system, may sufficiently contribute to the acceleration for examination and improvement in patent quality etc. as long as the system can actually be effectuated. Furthermore, we discussed significance of the duty of disclosure after the time of filing applications.

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§1. Introduction

The number of patent applications is globally increasing, in part, because of globalization of business activities and pro-patent policy of respective nations. As a result, the lengthened time period required for examination has now become a common problem, and therefore a way to accelerate the examination procedure is desired more than ever. With such a condition provided, a system for disclosure of information on prior art documents had come into practice in Japan on September 1, 2002. The purposes of the system is to implement prompt and appropriate examination by allowing the utilization of information on prior art documents that are known to applicants, during patent examination, and to grant a strong patent right by considering the information on the prior art documents.

On the other hand, prior to the execution of the above Japanese system, various forms of the system for disclosure of information on prior art documents have already been in practice in various nations, such as those represented by the IDS of US. Also, as for the adaptation to the actual operation, various efforts are being made to review the regulations, so that it is believed that such movements in the world are suggesting where the Japanese system should be directed in the future.

Accordingly, the committee discussed the problems of the current systems and how the future systems ought to be, in order to realize the acceleration of examination and grant of strong patent rights through consideration of the results of the summary on the systems for disclosure of information on prior art documents in respective countries.

§2. Overview of Japanese System for Disclosure of Information on Prior Art Documents

2.1 Background

Currently, the number of patent applications is being increased year by year, demanding further acceleration for examination.

However, although the disclosure of information on prior art documents (see the note below) that backs the prior art of an invention described within a patent specification had been recommended in the regulations under the Patent Law of Japan, there still were very large number of applications that did not include information on such documents although many of those applications disclosed the contents of the prior art (hereinafter referred to as "prior art information") as their prior art, so that the decision rate of grant of patents for these applications had been low.

Under such condition, applicants are now obliged to disclose information on prior art documents mainly for the purposes of allowing "appropriate and prompt examination through the effective use of information on prior art documents that an applicant possesses" and "applicant to strictly select applications with thorough understanding of prior art".

Furthermore, the system allows sufficient consideration of information on prior art documents so that we may expect patent rights to be strong and stable.

Note 1: Information on prior art documents means; information (bibliographic data) which allows ones to specify the location of technical information "*which can be obtained from a publication in which the invention publicly known through a document is described or through electric telecommunication lines.*" (Japanese Patent Law Section 36(4)(ii))

Note 2: "system" is used as same meaning of "Requirement for Disclosure of Information on Prior Art Documents".

2.2 Overview

(i) Where an applicant for patent knows, at the time of filing a patent application, any prior art which is related to the invention described in the scope of the patent application, the detailed description of the invention shall contain the information on the prior art documents describing the prior art (Patent Law Section 36(4)(ii)).

Where the information on the prior art documents are disclosed, it helps the examiner to understand the prior art, and as a result, facilitates the examiner to grasp the significance of the invention, thereby allowing the examiner to perform an adequate prior art search.

This system provides a duty to include within the specification any information on prior art documents that are already known to the applicant at the time of filing, and it is not meant to impose an obligation to newly perform the prior art search on the applicant.

(ii) Where an applicant fails to satisfy the requirement for disclosure of information on prior art documents within a specification, the examiner shall give a prior notice to require the disclosure of the information on such documents (Patent Law section 48 septies). If the applicant does not satisfy the requirement despite this prior notice, a reason for refusal of the application shall be sent by the examiner to the applicant (Patent Law Section 49(5)).

The case where this prior notice is issued may possibly falls under the either condition where "information on prior art documents are not included within the specification" or where "information on prior art documents are included, but no information on the documents relevant to the invention is included". Any applicant who received the notice is requested to submit an amendment in order to add the information on the subject prior art documents in case that he/she knows there exists such information on prior art documents that are relevant to the invention as described in the scope of claims, or if no relevant information on prior art documents exist, he/she shall file an argument to notify the examiner of such fact.

Where the applicant does not respond to the prior notice, a reason for refusal of the application is sent to the applicant. If the applicant does not appropriately disclose the identification of the document accordingly in response to the notice, it shall be final decision for rejection.

(iii) Failure to disclose the information on prior art documents shall not be a reason for opposition or invalidation. If the failure of disclosure could constitute a reason for opposition or invalidation, there would possibly be so many trials for opposition and invalidation accusing the failure to meet the disclosure requirement. Accordingly, the failure to satisfy the disclosure requirement had been made to constitute only a reason for rejection.

2.3 Consideration

(i) The Significance of Avoiding Strict and Specific Standards [except for only two points as for the scope of prior art to be disclosed (condition), namely, "inventions which are related to the invention for which a patent is sought" and "ones that are known at the time of filing an application"]

The disclosure of information on prior art documents is now required by the system, which provides the following four criteria as for such information on documents to be disclosed.

#1: Invention having become publicly known documents

#2: Invention related to the invention for which a patent is sought

#3: Invention known to a person desiring a patent
#4: Invention known at the time of filing the application

The above criteria represent rather an "ideal goal", or "effort-supporting type goal". That is, it allows to have an applicant willingly and spontaneously disclose those inventions that he/she knows at the time of filing the application, and that are thought to be advantageous in asserting the superiority of the invention for which patent is sought, while it is not a so-called "bottom-line" provision which demands "some bottom-line matters to be included within the disclosure" since the criteria "related" is not strictly defined.

This is because any information that is higher than that bottom line will not likely be disclosed if the bottom line is provided, so that the level of information disclosure will be degraded. Accordingly, it is presumed not to provide strict and specific criteria in order to allow an applicant to act at his/her own will, so that those applicants who are strongly determined for obtaining patent rights for their inventions will, naturally, disclose useful information on prior art documents. This, in turn, leads to the acceleration for examination and improvement in patent quality.

In a case where an applicant is a company, the applicant is deemed to have the knowledge of those patent applications filed by other departments of that company, that are related to the invention and any prior art related to the patent application, so that this system demands a larger scope of individuals to know the information on prior art documents than *"each individual associated with the filing and prosecution of a patent application"* as provided by the US *"duty to disclose material prior art"*. Accordingly, these examination criteria are very strict for companies, especially those companies that are involved in various technical fields and having a large number of departments, because all applicants (all employees of the company) are demanded to be able to grasp the information on all of the patent applications that the company has filed, and all information on the prior art.

(ii) Significance of Not Immediately Notifying a Reason for Rejection for Violation of Disclosure Requirement, and Significance of Not Rejecting All Applications Indiscriminately that Do Not Disclose Prior Art

There are significances of; preventing delay of examination procedures that may otherwise be resulted from subject all the violations of disclosure requirement to be a reason for rejection; and not placing excessively heavy burdens on applicants.

When an applicant, who has the knowledge of the prior art of the own company but decided that a prior art made by another company to be closer to the invention for which a patent is sought, comes to disclose the prior art made by another company in the specification, such a conduct will not be treated as a "violation of the disclosure requirement". However, if the applicant, who has the knowledge of prior art of the own company, does not disclose any information on prior art documents including those made by other companies, then of course, such a conduct may not be found as satisfying the disclosure requirement.

2.4 Current Status etc.

The current status after the system came into force will now be explained below based on the information collected from interviews in the Japan Patent Office (JPO) and from IP-related source.

(1) Cases of Prior Notice Based on the Japanese Patent Law Section 48 septies

There have been no cases where the prior notice is issued due to the insufficient time period

since the introduction of the system. The actual start of issuance of such prior notices to the applicants will presumably be after the JPO determines that the system has become well-recognized.

(2) The Number of Patent Application After the Introduction of the System

The number of those applications to which patent rights are less likely granted (especially those business model-related ones) seems to be decreased after the introduction of the system. Under the influence of the temporary boom of business model patents, there had been an increased number of patent applications that lacked patentability (application filed without conducting thorough search over publicly-known cases), however, after the introduction of this system, the number of patent applications, that lacked patentability, decreased partly due to the additional task of including information on prior art documents within specifications that is demanded by the system.

(3) Utilization of Information on Prior Art Document

Any information on prior art documents disclosed by an applicant seems to be utilized effectively by the examiners for gaining understanding over the contents of the invention and in conducting prior art search.

(4) Decision of the Disclosure Requirement of Information on Prior Art Documents

As for the decision whether the disclosure of information on prior art documents is sufficient or not, there could be a certain level of differences in the decisions between examiners and between technical fields. Accordingly, as to any cases that are subject to such variation in the decision, the leveling efforts on the criteria for the decision will presumably be attempted through outputting decisions by a collegial body consisting of members from the same examination department including the managing class.

(5) Examination Criteria vs. Light Penalties

It is presumed that the JPO has meant to provide "effort-supporting" type examination criteria like this because there has been no cases of such examination at this point, and there is a fear that applicants may only strive to meet the bottom line of the standard when any bottom line is indicated by the standard.

It seems that the JPO has no intention even in the future to clarify the bottom line of the examination criteria, and even if any violation occurs, the JPO would correspond only by sending the prior notice under the Patent Law Section 48 septies. It seems that the JPO even thinks that no penalty is needed as long as applicants follow the system. That is, the aim of the JPO is to indicate applicants a goal to be strived for, and place penalties on only those applicants who do not follow the system at all.

§3. Systems for Disclosure of Information on Prior Art Document in Other Countries

3.1 United States

(1) Overview

In US, each applicant had a duty of candor and good faith under the case law in the past, which was materialized into the provision of duty to disclose information in 1977. Those *"individuals associated with the filing and prosecution of a patent application"* as provided by the provision have a duty to submit all information that is important to patentability of the

application continuously until the decision to grant a patent.

(2) Details

According to the rule, *"individuals associated with the filing and prosecution of a patent application"* are the ones who have the duty of candor and good faith, and following individuals are included.

(i) Inventor

(ii) Attorney or agent

(iii) Any other person who is substantively involved in the preparation or prosecution of the application, who is associated with the inventor or with the assignee, or to whom the application has to be assigned

Any patent obtained by an applicant through violation of this duty of information disclosure will be deemed to have been obtained through inequitable conduct, and will not be able to be enforced. Formerly, examination on the violation of the duty of disclosure and cancellation of patent rights therefor have been practiced during examination procedure, but after the manifest of adverse effect (requiring longer time until decisions to be made), such decision making-during examination stage had been done away in 1988.

An applicant fulfils the duty of information disclosure through submission of Information Disclosure Statement on which the information subject to disclosure is listed to the United States Patent and Trademark Office (USPTO). The Information Disclosure Statement shall include a list of all information to be disclosed, and at the same time, shall be attached with clear copies of the information to be disclosed.

As for the submission of Information Disclosure Statement, there are four stages.

(i) Within three months of the filing or before mailing of the first Office action;

(ii) Before mailing of the final Office action or notice of allowance (statement or fee required);

(iii) Before the date of payment of fee (statement and fee required)

(iv) It is possible to bring it into the examiner's attention by filing a continuation application only if it is before issuance of the certificate of patent (statement and fee required). Even after the issuance, it is possible to have it filed for later litigation.

Any prior art cited in search reports of a foreign patent office in a counterpart application must be submitted within three months after the date of citation.

3.2 Australia

(1) Overview

Since the enforcement of the revised patent law of Australia on April 1, 2002, the disclosure of prior art search results is required.

Any applicant must disclose all the search results for patentability examination within and outside the country during the pendency of the application in Australia. This is applied to all applications that have been pending as of April 1, 2002 which is the date of enforcement of the revised law. When an applicant violates this provision, the applicant cannot make any amendments after the grant of the patent to satisfy novelty and inventive step requirements with respect to the document he/she did not disclose. In this case, there may be a higher possibility that the patent be cancelled or invalidated through an opposition or invalidation trial.

The current system in Australia is deemed as one of the strictest systems for disclosure of information on prior art in the world like US, since it does not differentiate whether it is practiced by applicants or by patent offices in respective countries, and mandates the submission of all the search results regardless of whether or not it is relevant to the invention for which a patent is

sought. However, problems due to such strictness have been pointed out and there is a movement for further revision to alleviate the duty.

(2) Details

Before the revision (up to March 31, 2002), there had neither been the clear provision relevant to the method of including prior art within specifications, duty of an applicant to disclose prior art nor duty to disclose information on documents on which the prior art is described (information on prior art documents). It was so understood that any prior art would be ones to be included to help understanding inventions. Accordingly, even if prior art was not included within a specification intentionally, there had been no severe penalties such as ones imposed under the US law system.

However, upon the enactment of the Patent Amendment Act 2001 No.160 which came into force on April 1, 2002, the disclosure of all the search results intended for patentability examination within or outside the country during the pendency of patent application in Australia is required (Section 45(3), Section 101D). The search results to be disclosed here include the results of search conducted individually by an applicant. Furthermore, the disclosure of all the search results is required regardless of the relationship between the invention for which a patent is sought and the contents of the disclosure of the documents. This point differs from that of the IDS system in US which requires the disclosure of only those documents that are important (related) with respect to the patentability. Since it requires submission of all documents regardless of the relevance, it may impose excessive burden on applicants, that is even heavier than the IDS system in US.

The due for submitting search results to the Australian Patent Office is the latest of the following; (i) a date on which the request for examination was filed; (ii) within 6 months after the completion of search; and (iii) January 1, 2003. Accordingly, after January 1, 2003, search results that had been obtained more than 6 months before the request for examination must be submitted along with a written request for examination. Further, the extension of the term is not allowed. The term of transitive information disclosure limit in the above (iii) was extended until June, 2003 or later.

When this duty of disclosure is violated, an applicant will be imposed of a penalty that disables the applicant to make an amendment to fulfill novelty or inventive step with respect to the documents that have not been disclosed (Section 102(2C)). If the patent is held pending at the opposition or invalidation trial, there is a higher possibility of cancellation or invalidation due to this penalty, so that it may impose a detrimental effect on the applicant.

As for the present revised law (the current law), there seems to be some opinions pointing out a problem that it imposes an excessive burden on applicants. Accordingly, a revision of the law (Intellectual Property Laws Amendment Act 2003 No.48) is scheduled to be enacted, which is intended to narrow down the scope of information that has to be submitted in order to alleviate the burdens on applicants.

According to the new revision, the scope of search results required to be disclosed as a duty of applicants will be limited to those results of search conducted by foreign patent offices for corresponding foreign applications. However, the requirement for submission of all results of related search conducted prior to the grant of patents for applications placed in Australia regardless of the relationship, and the provision to impose penalty of limiting amendments when violated are not changed from the former. Furthermore, PCT international search report and international preliminary examination report will most likely be deemed outside the scope of duty of submission since they are published records. The due for search results is expected to be 6

months after the completion of search.

3.3 China

(1) Overview

Any prior art with respect to an invention etc. to which a patent is sought shall be submitted at the time of filing, and any reference materials relevant to the invention, upon the time of request for examination. However, the provision is only limited to an extent that the prior art shall be cited only if possible. Where there is a corresponding foreign application, the examiner may request the submission of examination documents thereof.

(2) Detail

(i) Disclosure of Prior Art

As for prior art, those that may serve to facilitate the understanding of the invention etc., and those that serve as reference for search and examination procedure are required and mandated by implementing regulation to be identified within the specification at the time of filing the application. However, it is not mandated to specify the names of the documents, but it only requires to cite the documents that include descriptions relevant to the prior art that has been identified in the specification when it is possible (Implementing Regulation of the Patent Law of The People's Republic of China Rule 18).

There is no provision (reason for rejection, reasons for invalidation, penalty etc.) against not identifying the prior art within the specification.

(ii) Submission of Documents Necessary for Examination as to Substance

It is provided that any applicant must furnish pre-filing date reference materials concerning the invention (Patent Law of the People's Republic of China Section 36).

Furthermore, after the time of requesting examination, if an application for a patent for the same invention has been filed in a foreign country, National Paten Administration may demand the applicant the submission of materials that has been searched by that country for examination or materials as a result of the examination within a designated period of time (Patent Law of the People's Republic of China Section 36).

In this way, the applicant shall have to submit reference materials relevant to the invention spontaneously at the time of requesting examination, and further, he/she is requested to submit examination materials for corresponding foreign application upon request of the examiner. As for these regulations, when an applicant failed to submit the reference materials spontaneously in the former case of the above, any action (reason for rejection, reason for invalidation, or penalty etc.) against it is not specifically provided, however, when the applicant failed to respond to the request in the later case, that is, when the applicant did not submit the materials within the term provided without any justified reason, a severe penalty, the withdrawal of the application, is provided (Patent Law of the People's Republic of China Section 36).

However, there is a remedial provision (Implcmenting Rcgulation of the Patent Law of The People's Republic of China Rule 49) that, if the applicant cannot submit such documents with justified reasons, he/she shall write a statement to the National Patent Administration and submit the documents when the documents become available.

Furthermore, the contents of "reference materials" (types and scopes etc.) to be submitted upon request for examination are not specifically provided. According to practical operation, submission of 2 or 3 types of materials that the applicant regards as highly relevant may be deemed sufficient. Also, only about 20 to 30% of applications are requested for the examination materials of corresponding foreign applications by examiners.

Patent Law of the People's Republic of China Section 36 is the one that had been revised in

August 2000. Prior to the revision, it provided that *"The applicant for a patent for invention who has filed in a foreign country an application for a patent for the same invention shall, at the time of requesting examination as to substance, furnish documents concerning any search made for the purpose of examining that application, or concerning the results of any examination made, in that country. If, without any justified reason, the said documents are not furnished, the application shall be deemed to have been withdrawn"*, so that it had required strict application management that somehow resembles the IDS system in US. However, it had been revised as follows; *"the Patent Administration Department under the State Council may ask the applicant to furnish within a specified time limit..."*.

The aforementioned former provision had been provided probably because there had only been poor accumulation of prior art documents data at the time when China established its patent system on April 1, 1985, and examiners needed the support by applicants due to luck of their searching capability. As of today, with sufficient accumulation of prior art documents data and the search system being upgraded, there is less need for requiring applicants to provide such strict management as before, and China seems to have come to the conclusion that the present provisions will do. This is explained within "Houkaisei no Kaisetsu (Comments on the Law Revision)" edited by the State Intellectual Property Office of the People's Republic of China、and in reality, the perceptions among Chinese patent practitioners do not contradict what is written in that comments.

3.4 Taiwan

The disclosure of both prior art and information on the corresponding foreign applications is required, and all of these shall be disclosed within the specification upon filing of the application (Taiwan Patent Law Article 22). Furthermore, where such prior art is a patent gazette material of the domestic or a foreign country, the application specification shall include the name of the country, application number and publication date (Enforcement Rules of the Patent Law). In addition, where a patent has already been applied in a foreign country before a patent application is filed in Taiwan, the date and serial number of the foreign application shall be stated in the specification, and where it is deemed necessary, submission of relevant documents evidencing the foreign application is required (Enforcement Rules of the Patent Law Article 17).

However, even if these are not included in the specification, it will not particularly serve as a reason for rejection etc. As for examination information for the corresponding foreign application, any duty or request for submission is not essentially provided, so that it would not work to accelerate the examination even if they are submitted.

The Taiwan Patent Law had been revised in 1997 and 2003, however, any relevant portions of the law had not been revised.

3.5 EPC

There is no duty to submit (disclose) spontaneously any prior art (contents of prior art, bibliographical matters of prior art documents) which the applicant came to know, not only at the time of filing, but also during pendency of the application.

As for any prior art cited at the examination stage in domestic or foreign patent office, the applicant must indicate such prior art to the Patent Office only when the Patent Office requests the disclosure thereof (EPC Article 124). Where the applicant fails to reply to that request, the application shall be deemed to be withdrawn. Furthermore, under the EPC Article 123(2) and Guidelines Part C, VI. 5.2-5-12, any prior art determined by the applicant to be necessary in order to properly understand the invention, may be added in amendment to the specification.

3.6 Germany

There is no duty to submit (disclose) spontaneously any prior art (contents of prior art, bibliographical matters of prior art documents) which the applicant came to know, not only at the time of filing, but also during pendency of the application.

Under the old system, prior to the revision of Section 34 German Patent that was put into force in January 2002, applicants had the duty of disclosure of prior art before the patent office.

However, because of the fact that extensive amount of information submitted by applicants had rather caused examination delay, and since prior art is sufficiently disclosed on application specifications, the Law was amended to provide a system that requires inclusion of prior art to the applicant's knowledge in the detailed description of the invention fully and truthfully only when the patent office requires (Revised Section 34(7) German Patent Act and Enforcement Regulation Rule 5).

Where the applicant fails to respond to the request for disclosure, the application is deemed to be withdrawn. In reality, however, there are only a few cases where the Patent Office requires applicants to newly disclose prior art since such disclosure of information on prior art within application specifications is already sufficiently practiced.

Example of Bibliographical Matters of Prior art:
Title, Name of the Author, Publisher, Date of Publication, Publication Number (where the document is a patent document etc.)

3.7 Canada

In Canada, where an examiner has reasonable grounds to believe that there is a corresponding foreign application, the examiner may request the applicant for submission of the patent number and prior art documents etc. (Patent Rules Section 29). The violation of the Section 29 will not stand a reason for rejection, and in contrast with the IDS in US, response is required only when requested. However, where the applicant fails to respond in good faith, it is deemed to be withdrawn (Patent Act Section 73(1)(a)).

As for the result of the applicant's spontaneous search, it is only required to explain the background art at the time of filing (Patent Rules Section 80), and no identification of the name of documents is required. There is no demand for submission of the results of search conducted after the date of filing.

One practical thing that should be noted when citing the names of documents within a specification is the provision that "the description shall not refer to a document that does not form part of the application", and especially those documents that are not available to the public such as patent applications not yet being published, are treated as if they did not exist.

§4. Comparison Between the Japanese System and Systems in the Other Countries

4.1 Superiority of Japanese System

When those systems in the other countries described in §3 are reviewed, there are a number of countries, which once attempted to facilitate the examination procedure by introducing strict provisions, but decided to abolish or alleviate the provisions due to various operational reasons, such as China and Germany. Furthermore, there are countries which are attempting to alleviate the provision because the excessive obligation imposed on applicants was pointed out, such as Australia. There also are countries (regions) which do not require applicants the duty to

spontaneously disclose information on prior art documents, such as Europe.

On the other hand, Japanese current system includes the penalty provision that holds any violation of the duty of disclosure as a reason for rejection, however, this provision is operated rather flexibly for the time being, that is, we may say that it will not substantially include any penalty provision that may affect applicants critically. Also, when comparing the timing when the disclosure is required, only the information on prior art documents that an applicant comes to know until the date of filing is subject for disclosure, and the duty for disclosure will not occur on those found after the filing date, so that the obligation the applicant must bear is relatively small. Accordingly, prima-facie primary advantage may be recognized in the current system in Japan, when compared with those in other countries, as it is less likely to impose excessive burden on an applicant.

However, it is true that there are some opinions that a stricter system for disclosure of information on prior art documents, such as the IDS in US, should be implemented also in Japan. That is the movement aiming to revise the system to impose heavier penalties, such as inability to enforce a patent after patented, on those applicants who do not comply the duty of disclosure, and to revise the time period to require the disclosure to be "during the pendency of examination" that includes the time after filing of the application in addition to "at the time of filing". In the event where the introduction of such a strict system is actually considered, that will need extremely careful correspondence, which sufficiently accounts the heavier obligation that may be imposed on applicants.

The further details of the superiority of limiting the timing to require the disclosure for information on prior art documents to be "at the time of filing" will be discussed in §5.

4.2 Distinctiveness of US System

The system in US was discussed in §3, 3.1. Here, the distinctiveness of the US system is discussed when compared with the systems of the rest of the countries.

(1) Purport of Introducing the Disclosure System

The purport of introducing the US IDS system is to attach importance to "a duty of candor and good faith" as mentioned above. The current US patent law, naturally, adopts this idea. By considering such purport of introduction of the system, even if there is an aim to "accelerate examination procedure" as a part of the duty for disclosure of information on prior art documents under the US patent system, that is the collateral goal thereof, and it is more natural to think that the actual aim of the system is to achieve the reliable prosecution of the "duty of candor and good faith". This point is clearly different from other disclosure systems in other countries including Japan, in which the "acceleration of examination" is most valued.

(2) Scope of Individuals Who Bear the Duty of Disclosure

The US IDS system imposes the duty of disclosure of information on prior art documents on all the "individuals associated with the filing or prosecution of a patent application". However, since an "applicant" in terms of US patent law, is an inventor, so that those individuals who are subject to the duty of disclosure would be limited to, all the inventors, all the patent attorneys who prepare or prosecute the application, and in the case of a service invention, personnel in charge who belongs to the intellectual property department of a firm. On the other hand, under a system where the duty of disclosure is imposed on "applicants", such as the Japanese system, the ones who have to bear the duty of disclosure in the case of a service invention would be a firm which is deemed as an "applicant". According to the viewpoint of the JPO, where the applicant is a firm, the firm is deemed as having the knowledge of all the

information relevant to its applications. Accordingly, a "firm" here, may mean all the employees, and because they belong to that firm, they all may be "deemed to have the knowledge" of information relevant to the prior art of the application.

Provided that, in Japan, the system is revised to something equivalent to the IDS which imposes the duty of disclosure also after the filing of applications in addition to the time of filing while the scope of individuals subject to the duty of disclosure is left as it is as "applicants", any firm must keep an eye on all of its employees whether they all have come to possess the knowledge of the information on prior art documents relevant to all of its patent applications, even after the filing of the applications, and such a situation does not make sense. To put it another way around, the operation of a strict system like the IDS is effectively possible in US because the clarity exists as to who must bear the penalties, due to the distinctiveness of the US system which the Japan system lacks, in which the scope of individuals subject to the duty of disclosure is limited to a feasible extent.

(3) Effectiveness of Duty of Disclosure in Judging Inventive Step (Nonobviousness)

Under the US patent law, any application is examined for not only novelty, but also for inventive step with respect to published prior applications (a published prior application by another that had not been published at the time of filing as provided in 35 USC §102(e)). This point is clearly different from that of Japan which only requires novelty with respect to the prior application that has later been published. We have discussed whether such difference in the law systems would cause any difference in the effectiveness of disclosure of information on documents between US and Japan, especially after filing. The Japanese system sufficiently works by imposing the duty of disclosure at the time of filing applications. We have discussed whether the US system works effectively in judging inventive step (nonobviousness) of the application by imposing the duty of disclosure not only at the time of filing, but also after the filing. The details of this subject are discussed in §6.

4.3 Comparison Between Systems of Different Countries by Timing When Disclosure is Required

While the above discussed the distinctiveness of the system in each country and performed the comparison among them, the following classifies the discussion based on the timing when the requirement for disclosure is issued. Further, it is summarized in the table below.

(a) Countries that Require the Duty of Disclosure at the Time of Filing

Japan: Violation may be a reason for rejection, but easily dissolved.

US: Disclosure is required at any time, and the violation thereof shall cause a severe penalty which results in the inability to enforce a patent after patented.

Taiwan: Inclusion of bibliographical matters is required, but there is no penalty provision.

(b) Countries that Require the Duty of Disclosure During the Period between Filing and Request for Substantive Examination

US: Disclosure is required at any time, and the violation thereof shall cause a severe penalty which results in the inability to enforce a patent after patented.

Australia: Disclosure is required upon the request for substantive examination, and the violation thereof shall cause a penalty which results in the inability of correction as a result of an invalidation trial etc.

China: Disclosure of reference materials is required upon the request for substantive examination, but there is no penalty provision.

(c) Countries that Require the Duty of Disclosure After Request for Substantive Examination

US: Disclosure is required at any time, and the violation thereof shall cause a severe penalty which results in the inability to enforce a patent after patented.

Australia: Disclosure is required within 6 months after the completion of search. The penalty upon violation is the same as that for the violation of the duty at the time of request for substantive examination.

China: Disclosure is required only when demanded by the examiner. The penalty upon violation is the withdrawal of the application.

EPC/Germany: Disclosure is required only when required by the examiner. The penalty upon violation is the withdrawal of the application.

Canada: Disclosure is required only when required by the examiner. The penalty upon violation is the deemed abandonment.

Note that since there is no system for request for substantive examination in US, US shall not necessarily be included in the above (b) and (c) categories. However, that such inclusion was intended because both the categories (b) and (c) may be classified as "post-filing".

Systems for Disclosure of Prior Art Documents in Respective Countries
(comparison based on the timing when the disclosure is required)

	Upon Application		Before Request for Examination		After Request for Examination	
		Penalty		Penalty		Penalty
Japan	Spontaneous disclosure is required	(Reason for Rejection)	*No Requirement*	-	*No Requirement*	-
US	**Spontaneous disclosure is required**	**Unable to enforce**	**Spontaneous disclosure is required**	**Unable to enforce**	**Spontaneous disclosure is required**	**Unable to enforce**
Aus.	*No Requirement*	-	**Spontaneous disclosure is required**	**Unable to Amend**	**Spontaneous disclosure is required**	**Unable to Amend**
China	*No Requirement*	-	Spontaneous disclosure is required	No provision	Disclosure upon request by the office	Withdrawal
Taiwan	Spontaneous disclosure is required	No provision	*No Requirement*	-	*No Requirement*	-
EPC/ Germany	*No Requirement*	-	*No Requirement*	-	Disclosure upon request by the office	Withdrawal
Canada	*No Requirement*	-	*No Requirement*	-	Disclosure upon request by the office	Deemed Abandonment

Normal type: Requiring spontaneous disclosure with a severe penalty upon violation
Bold type Requiring spontaneous disclosure without a severe penalty upon violation, or requiring disclosure only upon request by the office

§5. Disclosure of Information on Prior Art Documents at the Time of Filing

5.1 Disclosure of Document Information

As mentioned in §4 of this paper, there are many countries having a system that demands spontaneous disclosure, within the specification, of any contents of technologies that may be

identified as prior art of an invention for which a patent is sought. Among them, especially those major nations like US and Europe demand the disclosure of the technical contents along with specific information on the documents. The system for disclosure of information on prior art documents implemented in Japan in 2002 is the one that demands the description of the location of prior art information known to an applicant at the time of filing, as the names of the documents within the specification. This system clearly imposes the applicant a duty to disclose the information on the documents that can specifically identify that technical contents, in addition to the prior requirement which demanded the applicant to disclose the contents of the prior art in comparison with the invention for which a patent is sought, so that the system may be seen as the most obvious as the systems that demand applicants the disclosure of information on prior art documents at the time of filing.

For an applicant, the fact that he/she has a duty to disclose, not only the contents, but also the location of the prior art as the document information both clearly and specifically, can mean, in an extreme analogy, that he/she is imposed of the duty to perform prior art search, or, at least, there is more need than even for any applicant to perform spontaneous search so as to extract adequate prior art.

We think that a system that results in the disclosure of prior art as information on documents in a concentrated manner at the time of filing, such as those systems represented by the system for disclosure of information on prior art documents in Japan, is the most effective and superior system for both patent offices and applicants. And such a system for disclosure of information on prior art documents at the time of filing may, solely, serves to sufficiently achieve goals in various aspect such as the acceleration for examination or improvement in patent quality, if the provisions and their operations are well discussed to give them validity. Accordingly, the superiorities of the system that demands the disclosure of prior art as the information on documents at the time of filing will be discussed below from the viewpoint of significance of the system.

5.2 Significance of Disclosing Information on Prior Art Document at the Time of Filing

(1) Primary Selection of Invention By the Applicant Him/Herself At the Time of Filing

Any decision on patentability (especially for novelty and inventive step) is always made in comparison with prior art. As for these prior art to be compared with an invention for which a patent is sought, many countries adopt a system to demand description of the contents of prior art within specification at the time of filing. However, although the description of the contents of prior art is demanded, if the disclosure of the specific information on documents is not required, and if an applicant believes that his/her invention has patentability, he/she might, in many cases, assert its patentability subjectively by comparing its technical superiority with, for example, schoolbook-like prior art.

On the contrary, where the prior art must be disclosed as the information on specific documents, the applicant is obliged to disclose prior art that is, objectively, the closest to the invention for which a patent is sought. In this case, even the invention that the applicant has subjectively believed to have patentability, now must be shown, objectively, as having patentability by performing prior art search and in comparison with the prior art that has been extracted as a result of the search before the applicant can file it.

Where the applicant must think how he/she may add more objective patentability to his/her invention, the applicant will file the application after thorough study on the scope of claim, and if he/she could not find patentability, he/she may even give up filing the application.

Accordingly, there is a significance in demanding disclosure of prior art as specific

information on documents at the time of filing because it allows applicants to initially determine the patentability of his/her own patents at the time of filing.

In the case of Japan, even if sufficient information on prior art documents is disclosed as a result of the implementation of the system for disclosure of information on prior art documents, the examiners will not likely carry out their examination based on only that presented information on prior art. It is believed that there are more cases in which the examiners separately perform search on prior art for examination.

With this respect, the introduction of the system will not significantly reduce the task of the prior art search for each of individual applications. However, as mentioned above, an applicant him/herself will pay more attention to the patentability at the time of filing.

That is, many of inventions will, from now on, be first determined by applicants based on their own search results as to whether they are worth filing. As a result, those inferior applications, including a scope of claim without any consideration given on the prior art, will be screened out, thereby to leave only "those inventions that are worth examining".

Accordingly, applicants themselves (without any intervention of examiners) will first select only inventions that are worth examining out of a large number of inventions, and in this sense, there is a significance that accelerated examination and improved quality of applications may be achieved.

(2) Acceleration for Examination through the Improvement in Understanding on the Content of Invention

Any prior art obtained as a result of prior art search conducted by an applicant relevant to his/her invention for which a patent is sought, and disclosed within the specification as a result of selection, is the one which had been intensively studied in order to solve problems which are similar to the problems that the invention for which a patent is sought attempts to solve, and thus, may be said to be a group of technologies that are the closest to the invention for which a patent is sought. And the invention for which a patent is sought shall be the one which improves those state of the art technologies.

Accordingly, the contents of such state of the art technologies will be more clearly understood when the presence (information on documents) thereof is disclosed. For examiners, it becomes easier to understand the content of the art represented by those technologies and the trend thereof, by grasping the technical contents of the technologies disclosed within those documents. As a result, the contents of the invention for which a patent is sought, and its superiority over the prior art will be understood in a shorter period of time. Furthermore, when the information on prior art documents disclosed by the applicant is sufficiently adequate, there is a possibility that the examiner can omit a part of search over the subject field that the examiner must otherwise carry out, and cut down the time required for the preparation for the search.

Accordingly, there is a significance of the examination on each of individual applications being accelerated and the rate of grant of patent being improved.

5.3 System for Disclosure at the Time of Filing

As mentioned above, the system for disclosure prior to the date of filing, such as one represented by Japanese newly introduced system, is a superior system in terms of the acceleration for examination and improvement of patent quality because, as a result of allowing an applicant to spontaneously conduct prior art search upon filing, and to consider, objectively, the patentability of the invention based on the result of the search, the system will result in; (i) filing of only inventions worth examining; (ii) filing of inventions that have been paid more

objective consideration on their patentability; and (iii) inventions more easily understood by examiners because of documents disclosed, improving the granting rate of patent among applications filed.

§6. Disclosure of Information on Prior Art Document After Date of Filing

6.1 Acceleration for Examination

(1) Spontaneous Disclosure by Applicants After Filing

As explained in §3 and §4, there are many countries that request applicants (assignees) to offer some sort of information on prior art after filing of applications for the purpose of accelerating examination. In Japan, currently, the disclosure of information on prior art documents is demanded only at the time of filing, however, there is an opinion asserting that the term for the duty of disclosure shall not be limited to the time of filing, and shall be extended up to the time of request of substantive examination or grant of patent.

Accordingly, we have discussed whether the disclosure of prior art information by an applicant after the time of filing, especially the disclosure accompanied by spontaneous search by an applicant him/herself, is effective or not from the viewpoint of acceleration for examination.

(2) Change in the Significance between Before and After the Time of Filing

There are mainly two purposes of prior art search conducted spontaneously by an applicant him/herself after the time of filing in addition to the one conducted before the time of filing. One is to search prior art that had not been published at the time of filing but later was published. The other is to supplement the incomplete search.

However, it should be noted that there is a large difference depending on the law systems of the respective countries with respect to the above first purpose searching the prior art that had not yet been published at the time of filing. For example, in Japan, only novelty is demanded with respect to any non-published prior application, but inventive step is not demanded. On the contrary, in US, both novelty and nonobviousness (that corresponds to inventive step in Japan) are demanded. Naturally, the influence of non-published prior application over the patentability of a subject patent is larger in US where nonobviousness is also demanded. Furthermore, where there is no publication system for specifications filed, there is a concern that any prior art unknown to the applicant can, anytime, be published.

In a country such as Japan where only novelty is demanded with respect to any prior art that had not been published at the time of filing, and where all applications will be published after the elapse of a year and half, there is no much significance to conduct the prior art search once again after the date of filing when prior art search has once been conducted at the time of filing.

(3) Accuracy of Search by Applicants and Others

In order to examine a patent application, some sort of document search on prior art is necessary. At this point, one may assume that there are two types of entities for performing the search, that are, an applicant who hopes the grant of patent and non-applicant who may be anybody other than the applicant. More specifically, examination organization of the patent office etc. who attempts to investigate that there is no reason for rejection to that application, or any third party who desires to prevent the grant of patent of the application may be named as non-applicant. Accordingly, we will discuss which of the entities, the applicant or non-applicant, can perform more precise search and allow the grant of stable right in terms of search conducted for prior art documents after the filing of application where the claims have already been

determined.

First of all, as to whether there is any difference between the search results, it is anticipated that the applicant would only repeat the same search since the applicant may re-use the database and searching formula used once at the time of filing. Any new prior art found in this case would only be the information that had not been published at the time of filing. On the other hand, where non-applicant performs the search, there is a higher possibility to find another prior art that had already been known prior to the date of filing in addition to the information on prior art that had not been published due to the different data base and searching formula. Assuming the non-applicant to be the patent office etc., the patent office typically has superior searching capability over applicants. With the same amount of money and time, it is assumed that non-applicant such as the patent office etc. will yield more precise search results than an applicant since it has divisions dedicated for search. Furthermore, the applicant is in a situation to hope the grant of patent. Even if higher level of search is demanded to the applicant by imposing penalty etc., inevitably the search to be less forthgoing would be performed by the applicant than the one performed by the non-applicant.

In consideration of the forgoing, the search by the applicant is expected to be less precise than the one conducted by the non-applicant. Accordingly, in order to grant a patent right that has no defect, it is necessary for a non-applicant to perform the parallel search even though duty of search after filing is imposed on an applicant. In terms of efficiency of the search, it seems to be more efficient to have only the non-applicant perform the search after filing.

(4) Reducing the Burden of Patent Office

Prior art search conducted prior to the date of filing has an effect of reducing the number of patent applications, and the number of patent application under the current Japanese system for disclosure of information on prior art documents is expected to reduce by approximately 5%.

Where even after the date of filing there is an examination system, it is believed to have the same effect for reducing the obligation of the patent office and accelerating examination. However, as explained in the above, in order to obtain prior art documents of higher quality, search is preferably carried out by a non-applicant rather than by an applicant. Accordingly, even when the purpose of the system is to decrease the number of request for substantive examination, it is expected that the system to demand search prior to examination in which the non-applicant performs the search instead of the applicant, and let applicant know of the result prior to request for substantive examination, is more effective.

Furthermore, there is a means to emphasize the collateral economical merits in order to reduce the burden of the patent office. Raising the application fee or fee for requesting examination will allow the purpose to be sufficiently achieved. To required an applicant for performing prior art search etc. is thought to be a solution in another way around.

(5) Merits for Acceleration for Examination

As described above, from the viewpoint of acceleration for examination, there is very small merit in demanding applicants the disclosure of prior art continuously even after the date of filing, in a country such as Japan where only novelty is demanded with respect to non-published prior applications, and which adopts a publication system.

6.2 Granting Reliable Patent Right

(1) Standpoint of Applicant

Disclosure of information on prior art by an applicant after the date of filing has, in addition

to acceleration for examination, a meaning of providing auxiliary information in order to grant more indisputable patent right. As mentioned in §5, a system that demands the disclosure of information on prior art documents is an effective system for both applicants and ones who examine, such as the patent offices. However, there is a problem that any prior art information recognized after the date of filing is not necessarily be effectively utilized by applicants.

For example, when any prior art that might deny the patentability of an invention is found before filing, the applicant has a chance to further review it to add further inventions and effects to the application. This is because the applicant can make any changes to the specification as he/she desires. However, where the applicant finds any prior art after filing of the application, there exists the specification at the time of filing, limits are imposed on the applicant in terms of time period and contents so that the applicant is not likely able to add any further inventions and effects by utilizing the information found. There still is a chance where the specification is not yet published at, however, things become more difficult after it is published.

However, the handling of the limits imposed on applicants after the time of filing largely varies from a country to another. Between US and Japan, for instance, there are following differences. It is far more difficult in Japan for an applicant to add new discoveries and effects after filing of application than in US.

(i) Limits in Terms of Time Period

As for a means to newly add inventions and effects while partially or entirely taking advantage of the prior application, US has the continuation-in-part application system etc. and Japan has the internal priority application system. What is common in these two systems is that both allow to take over the benefit of the prior filing date. However, while the US continuation-in-part application is possible over a long period of time, the internal priority application of Japan is limited to a short time period, that is, within 1 year after the date of filing.

(ii) Limits in Terms of Contents

There is especially a large difference in asserting inventive step (nonobviousness) by adding "an unexpected result that has not been disclosed" in a specification of an initially filed application. Such an assertion for results is often effective against any new prior art relevant to inventive step, and to an applicant, whether or not he/she can take the benefit of the filing date has a significant meaning.

In US, *"the general rule is that an applicant or patentee may rely on such an advantage if it occurs inherently when the invention is used as disclosed in the specification"* ["Amerika Tokkyoho To Sono Tetsuzuki (Elements of United States Patent Law)" authored by Donald S. Chisum, paginal translation by Toshiko Takenaka, 2nd Rev. Yushodo Shuppan (2000)1442]. Even in a case where the result that has not been disclosed is added in a continuation-in-part application, if the prior application fulfils the requirement of disclosure provided in 35 USC §112, it may receive the benefit of the filing date of the prior application. The US law is permissive for the use of facts found later on for the assertion of nonobviousness. For example, it may allow an assertion of auxiliary consideration matters such as a success in business.

In Japan, on the other hand, results are strictly limited to the scope within the description of the specification at the time of filing. Even those results are what the invention would naturally possess, if they are not disclosed within the specification at the time of filing, they are deemed to be new matters. Even with an internal priority application, there is only a benefit from the later filing date.

(2) Embodiment of Duty of Candor and Good Faith

There is an idea to demand disclosure of information on prior art after the date of filing as a result of embodiment of a duty of candor and good faith. However, there is an aspect that the disclosure of prior art document after filing would demand an applicant to disclose facts that would be detrimental to the applicant himself (disadvantageous evidence), and there will occur many problems in carrying out sanctions to realize equity and effectivity, especially when the sanctions are reinforced. It should also be noted that, it is highly possible that the reinforcement of such sanctions results in increase in the number of disputes.

In Japan, the IDS of US is often discussed as an example of embodiment of a duty of candor and good faith. However, as can be seen in the discussion of (1), under the system of US, even where an applicant obtained information on prior art during the continuation of examination, the applicant may receive the benefit from the date of filing. In US, such information on prior art, even found after the date of filing, is useful information, although not retroactive to the time before the date of filing, so that such information is not completely disadvantageous to the applicant like in Japan. Even if Japan implements a system of "a duty of candor and good faith" in US-like sense, it is desirable to limit the time period up to the date of filing or, at most, up to the end of time period in which priority claim is possible.

Furthermore, as can be seen from the fact that there always is a difference between the views of applicants and the patent office as to whether or not to deny the patentability over prior art, the issues ultimately include many subjective factors. Where, like in Japan, there is no discovery system such as that in US, there still is a question whether or not any adequate sanction can be imposed on such the subjective judgments.

(3) Examination Reports from Other Countries

There is a system to demand, not the information searched by an applicant etc., but the information on prior art that had been referred during examination by a patent office of another country in a case where an application is filed in multiple countries. Although such system is not adopted in Japan, we believe such a system is effective. The examination report may easily be searched by use of a patent family etc., which is a benefit for both applicants and non-applicants that it will result in granting indisputable patent rights. Furthermore, the facts would be clear since no subjective factors by an applicant are included, sanctions may be easily imposed.

However with the current telecommunication environment, a duty to report shall not be imposed on applicants. It is more desirable to build a database among patent offices of respective countries. In addition, there is a problem that a large obligation imposed on applicants such as the provision of translation of search results into local or English language. There are many issues expected to be solved including the implementation of machine translation.

6.3 System for Disclosure After Date of Filing

It is not effective, in terms of acceleration for examination, to continuously demand an applicant the disclosure of prior art documents after the date of filing when the applicant has already disclosed information on prior art at the time of filing. Furthermore, under the system, such as one in Japan, where novelty is only demanded with respect to any non-published prior application, and where applications are published after a year and half, there is no much significance for the applicant to continue to conduct prior art search after the date of filing.

Where a duty to report after the date of filing by an applicant is made into a system as a part

of embodiment of a duty of candor and good faith, it is necessary to balance between the sanction and benefit of the applicant.

§7. Summary

In this paper, the Japanese system for disclosure of prior art documents is discussed with respect to the similar systems in various countries.

By reviewing the systems of the countries that we studied this time, we have found that there are countries which once implemented strict provisions but later abandoned or alleviated the provisions, such as China and Germany. Australia is also attempting the alleviation of such provisions. On the other hand, US has strict provisions demanding the submission of all information that is relevant to the patentability of an invention continuously until the decision to grant a patent. On the contrary, it is also true that there are countries in which such a provision itself does not exist at all such as Europe and current Germany.

However, in consideration of the problem of the increase in backlogs in the US, Europe and Japan trilateral patent offices due to the recent leaps in the number of applications, acceleration for examination is a big responsibility of the countries, and the introduction of the system for disclosure of information on prior art documents in Japan is inevitable.

Based on the above presupposition, we discussed the current Japanese system for disclosure of information on prior art in terms of, especially, the timing of disclosure.

First of all, we believe that the current system that demands the disclosure of information on prior art documents at the time of filing will contribute to the realization of accelerated examination and grant of strong patent right. That is because inventions that are not worth examining are screened out through comparison with prior art, and only those inventions that are left as a result of the screening are filed, so that the number of valueless inventions will be reduced, and at the same time, the disclosed information on documents will help examiners understand the inventions. Even prior to the implementation of the current system, most applicants performed prior art search before filing applications, so that the inclusion of the results of search within the specifications will not impose much obligation on those applicants. Therefore, the system may be said to be extremely superior system even in respective of the balance between the acceleration of examination and the obligations on applicants.

On the other hand, by assuming a case where the disclosure of information on prior art documents is demanded even after the date of filing, the significance of such case was discussed. US which provides strict provisions, demands a duty of disclosure continuously from the date of filing to the date of grant of patent. It is true that we cannot compare simply by using a same scale, the present Japanese system provided for the purpose to accelerate examination etc. and the US's provision for a duty of disclosure of information that is provided for the purpose of a duty of candor and good faith, however, at least under the Japanese system in which only novelty is demanded with respect to non-published prior applications, the disclosure of information after filing shall be deemed to have no significant effectiveness. According to the Japanese Patent Office, where an applicant is a company, the applicant is deemed to have the knowledge of all the information on applications that the company has filed. If the duty of disclosure is imposed, not only at the time of filing, but also after the time of filing, the company must continuously monitor all of its employees whether or not they actually have the knowledge of any prior art relevant to all the applications the company filed. That is not realistic.

Accordingly, imposing the duty of disclosure of information even after the date of filing will not get along with the Japanese law system, and the current system, which limits the

disclosure timing only at the time of filing, is thought to be more adequate.

However, the demand for submission of examination information on corresponding foreign applications after the start of examination may be operable as it only imposes a light obligation to applicants. It is more desirable, if the operation of a global examination-information sharing system is realized by the patent offices of respective countries as it may lighten the burden on applicants.

Under the current Japanese system, the penalty upon violation of the duty of disclosure may be a reason for rejection, and it will not stand for a reason for opposition nor invalidation. If a severer penalty provision is to be provided, that may cause a delay in examination because of the introduction of the examination on the violation of the disclosure duty within examination proceedings. Further, there is a possibility that the number of arguments on the violation of the duty of disclosure during litigations will increase. Based on the above considerations, under the system whose purport is the acceleration for examination and grant of stable patent right, it is more adequate to limit the penalty to only reason of rejection.

§8. Conclusion

The present system has been operated for a year from the date it was enacted, and there yet are almost no samples that may be used for analysis. However, there is a possibility of the decisions to be varied depending on the examiners or the subject technical fields since many of examination criteria are determined at examiners' own discretion. We would like to keep a close eye on the future examination results.

Acknowledgement

We would like to thank Mr. Yoshiaki AITA and Mr. Satoshi MURAKAMI of Examination Standard Office of Japan Patent Office for sparing their time to answer our questions on the current examination status and criteria.

Reference

§1

- "Questions and Answers regarding the Examination Guidelines on the Requirement for Disclosure of Information on Prior Art Documents and Major Changes to the Guidelines" Administrative Affairs Division of First Examination Office, Japan Patent Office (referred to on September 1, 2003)
  URL: http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/pdf/prior_art_faq.pdf

§2

- "Publication of the "Examination Guideline on Requirement for Disclosure of Information on Prior Art Documents"" July 31, 2002, Examination Standards Office, Japan Patent Office (referred to on September 1, 2003)
  URL: http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/prior_art_doc.htm
- "Examination Guidelines on Requirement for Disclosure of Information on Prior Art Documents" (referred to on September 1, 2003)
  URL: http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/pdf/prior_art_doc.pdf
- "Questions and Answers regarding the Examination Guidelines on the Requirement for Disclosure of Information on Prior Art Documents and Major Changes to the Guidelines" (referred to on September 1, 2003)
  URL: http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/pdf/prior_art_faq.pdf

§3

- The legal information retrieval system of Australian Attorney-General's Department "SCALEplus", (referred to on July 16, 2003)
  URL: http://scaleplus.law.gov.au/

§6

- "Research and Study on Applicant's Rights and Duties in Patent Application Procedures", Tatsuya Misawa, IIP bulletin 10, Institute of Intellectual Property, 2001, Vol.10, pp.140-155
- "Amerika Tokkyoho to Sono Tetsuzuki (Elements of United States Patent Law)", authored by Donald S. Chisum, pagenal translation by Toshiko Takenaka, 2nd Rev., Yushodo Shuppan, September 30, 2000

§7

- "Report Presented by the Intellectual Property Committee of the Industrial Structure Council", Industrial Structure Council, December 2001, (referred to on September 1, 2003)
  URL: http://www.jpo.go.jp/shiryou_e/toushin_e/shingikai_e/pdf/bukai_report_e.pdf

(1) Theme: Method for Globally Expediting Patent Prosecution

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- Working Group for Expedition of Patent Prosecution, 1st Committee

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(6) Provisions: Article 48.6, Japan Patent Law

(7) Outline: This paper introduces the system and operation for expediting patent prosecution adopted in Japan, US, Europe and other Asian countries, and proposes the method for utilizing those systems. In respect of those systems in Japan, we analyze prosecutions of the patents registered in 2001 for which the accelerated examination or preferential examination was requested, and study the method for utilizing these systems. In respect of the "Make Special" provisions of US and "PACE" adopted in Europe, we propose the method for utilizing both systems on account of the past data and other factors. In respect of Asian countries, we introduce the preferential examination system of Taiwan and Korea and the operations conducted for expediting the patent prosecution in other countries. Taking the above analyses and studies into consideration, we make a proposal for expediting patent prosecution from the global perspective.

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List of References

- JPO (Japan Patent Office) Home Page
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- KPO (Korea Patent Office) Home Page
- Intellectual Property Office of Republic of China (Taiwan) Home Page

1. Introduction

Recently, due to the rapid growth of technological innovations, corporations are required to promote creative technology development, promptly use the fruit of research and development and engage themselves in global economic activities. In order to maintain unchallenged industrial competitiveness in the market of Japan, US, Europe and Asian countries, obtaining of global intellectual properties is essential.

This paper will study what type of systems should be taken and how should be responded during the prosecution after the filing of patent applications in order to approach the issue of global expedition of patent prosecution. The systems for expediting the patent prosecution in Japan, US, Europe and Asian countries are introduced, and then the preferred method to utilize those systems in consideration of the past data is proposed. In respect of the system in Japan, the patents for which the accelerated examination or preferential examination was requested are extracted and then the prosecutions are analyzed to study the matters to be noted in utilizing both examination systems and the effective use of such systems. In respect of US, Europe and Asian countries, the systems for expediting patent prosecution adopted in those countries are introduced by presenting various data in relation to the expedition of patent prosecution. Taking the above analyses and studies into consideration, a proposal for promoting the method for expediting patent prosecution most suitable to the intellectual property strategy of private corporations is made.

2. Outline of System for Expediting Patent Prosecution in Each Country

1) Japan

In Japan, we have accelerated examination system and preferential examination system for the purpose of expediting patent prosecution. The followings are the outline of these systems:

(1) Accelerated examination system:

The JPO introduced an accelerated examination system and accelerated appeal system against final rejection in January 1986 to speed up the examination and appeal process of patent and utility model applications. After several revisions of operations, the operation of the accelerated examination and appeal systems under the "New Guideline for Accelerated Examination and Appeal" became effective as of January 1, 1996 allowing the foreign-related patent applications, which have been filed in more than one other country besides Japan, to become the object of accelerated examination. This operation based on the agreement made during the US-Japan Economic Framework Talks. In July 2000, the object of applicants who may use the accelerated examination system was expanded so as to the applications filed by a small-or-medium-sized enterprise, venture business, university, public research institute, etc. On top of that, the detailed description about the working situation in the "Explanation of circumstances concerning accelerated examination" has become simplified, whereby making the accelerated examination system easy to use. As a result, the use of the system has become increased year by year, and the cases where the accelerated examination system were requested was 4,097 cases in FY2002 (approximately 2% of the whole cases for which the request for examination was filed).

(A) Substantive requirements for accelerated examination:

Patent applications that are the object of accelerated examination are required to meet the conditions of the following (i) and (ii):

(i) Application for which the request for examination has been filed.
(ii) Application that meets any one of the following conditions:
<1> An application in which an applicant or a person who has been granted a working license has exploited the invention (working-related application) (including the cases where the working of the invention commences within two years from the submission of "Explanation of circumstances concerning accelerated examination").
<2> An application for an invention that has been filed not only to the Japan Patent Office but also to other offices (overseas-related application).
<3> An application for an invention all or part of which an applicant is a university, a junior college, a public research institute or an approved TLO or an authorized TLO.
<4> An application for an invention all or part of which an applicant is a SME (small or medium sized enterprise), or an individual.

(B) Submission of the request for accelerated examination:
When a request for an accelerated examination is made, a copy of "Explanation of circumstances concerning accelerated examination" must be submitted on an application-to-application basis. In this "Explanation of Circumstances", an applicant must select any one of the Items <1> through <4> in Section (ii) above that is applicable to the subject application, and then describe the comparison of the subject application and prior art. Only the applicant of the application may submit the request for accelerated examination, and no extra fee is required.

(2) Preferential examination system:

The preferential examination system is similar to the above-mentioned accelerated examination system. The substantial difference is in that the object of the preferential examination must be laid open and that the invention claimed in the patent application is commercially worked by a third party (Article 48.6). The purpose of this system is to protect the applicant's right where the invention claimed in the application is commercially worked by a third party with the applicant's right not yet finalized. The second purpose of this system is to protect a third party's right by finalizing the decision of rejection earlier where such third party working the invention receives a cease-and-desist letter from the applicant but believes that the invention claimed in the application is lacking patentability requirements.

Due to the unique requirement of "the working of the invention by a third party", the preferential examination system has been rarely used. There were 23 cases in FY2002, not so different from around 30 cases in these years.

(A) Substantive requirements for preferential examination:
Patent applications that are the object of preferential examination are required to meet the conditions of the following (i) to (iii):
(i) Application for which the request for examination has been filed.
(ii) Application that has already been laid open.
(iii) The invention claimed in the patent application has been commercially worked by a third party.

(B) Submission of the request for preferential examination:
Either the applicant of the patent application or any third party who is working the applied patent may submit the request for preferential examination. When a request for preferential examination is made, a copy of "Explanation of circumstances concerning preferential

examination" must be submitted. In this "Explanation of Circumstances", an applicant must describe the circumstances concerning the working of the invention, effect of the working by a third party or other detailed situations, and attach a copy of the cease-and-desist letter, if any, or any document that might support and prove the fact of working of the invention. No extra fee is required.

2) US

In US, it is common to use the procedure of the Petition To "Make Special" that is almost the same as to the accelerated examination system of Japan when an applicant desire to expedite the patent prosecution. The followings are the outline of "Make Special" provisions:

(1) Outline of procedures for making use of the Petition to "Make Special":

Each patent application is usually examined in turn by each examination section (37 CFR 1.102(a)), provided, however, that applications wherein the inventions are deemed of peculiar importance to some aspects of public interest may be subject to the "Make Special" provisions and advanced for examination (37CFR 1.102(b)), and a petition to make an application special may be filed (37 CFR 1.102(c) and (d)).

(2) Substantive requirements for filing a petition to "Make Special":

(A) Applications that will be made special without the need for filing a petition:
All applications relating to superconductivity are currently "make special" due to a presidential decree. Those applications are "make special" at request of the applicant who shall identify his application as a superconductivity-related application (37 CFR 1.102(b), MPEP § 708.02).

(B) Applications that will be made special upon the filing of a petition without fee:
Applications applicable to any of the following conditions shall be "make special" upon filing of a petition without any fee (37 CFR 1.102(c), MPEP § 708.02):

i) The applicant is 65 years of age, or more;
ii) The state of health of the applicant requires advanced examination (any evidence showing the state of health, such as a doctor's certificate or other medical certificate will be required);
iii) The patent application is for an invention which materially enhances the quality of the environment (such invention must be the one to enhance the quality of the environment of mankind by contributing to the restoration or maintenance of the basic life-sustaining natural elements, i.e., air, water, and soil).
iv) The patent application is for an invention which materially contributes to the development or conservation of energy resources (such invention must be the one to contribute to the development of energy resources or to the more efficient utilization and conservation of energy resources).

(C) Applications that will be made special upon the filing of a petition accompanied by the fee:
A petition to make an application special on the following grounds must be accompanied by the petition fee ($130) set forth in Section 1.17(h) (37 CFR 1.102(d), MPEP § 708.02).

i) Invention relating to recombinant DNA;
ii) Invention relating to AIDS and cancer;
iii) Invention relating to counter-terrorism measures;
iv) Applications relating to biotechnology filed by applicants who are small entities.

(D) Applications that will be made special upon the filing of a petition accompanied by the fee and upon conducting the prior art search:

A petition to make an application special on the following grounds must be accompanied by the petition fee ($130) set forth in Section 1.17(h) as well as the search of prior arts (37 CFR 1.102(d), MPEP § 708.02).

i) The applicant is a prospective manufacturer of the invention (the applicant is required to have made a careful and thorough search of the prior art or has a good knowledge of the pertinent prior art).;

ii) Actual infringement (but not for prospective infringement) of the invention is being made (the applicant is required to have made a careful and thorough search of the prior art or has a good knowledge of the pertinent prior art);

iii) The applicant submits a statement that a pre-examination search was made in respect of a new application (one which has not received any examination by the examiner) and a detailed discussion of the references, which discussion points out how the claimed subject matter is patentable over the references.

3) Europe

Under the European patent application system, there is a program almost the same as to the accelerated examination system of Japan. The Programme for Accelerated Prosecution for European patent applications is now called "PACE", and published on EPO Journal as the Notice from the President of the European Patent Office. PACE targets not only the expedition of examination procedure but also of the issuance of search reports.

(1) Outline of procedures to make use of PACE:

PACE does not require the conditions that the application must be a working-related application or a foreign related application as is required under the accelerated examination system of Japan. Any application shall be the object of accelerated prosecution as long as the request is made using a designated format and identifying for which application the accelerated prosecution is requested. No fee is required for such a request.

When a request for accelerated examination has been filed, the examining division of the Office will make every effort to issue the first examination report within three months of receipt of the request for accelerated examination (namely, PACE). The three-month term is not a statutory obligation.

Due to the nature of the program (PACE), in which the EPO assists the applicants requiring rapid search or examination, any application shall be excluded from the object of PACE if the applicant fails to comply with the scheduled due date for filing a reply and further fails to comply with any matter designated by the examining division of the Office.

(2) Substantive Requirements for PACE:

PACE is applicable to any and all European patent applications (including Euro-PCT applications).

4) Asian Countries

(1) Outline

There is no other Asian country that adopts the accelerated examination system similar to that of Japan. However, Korea and Taiwan have the preferential examination system as a method to expediting the patent prosecution.

The preferential examination system of Taiwan is almost equivalent to the preferential

examination system of Japan, considering that it requires the invention claimed in the patent application has been commercially worked by a third party. On the other hand, the preferential examination system of Korea is rather similar to the accelerated examination system of Japan, considering that it dose not require the invention claimed in the patent application has been commercially worked by a third party.

In China, an applicant may file a request of an expedited examination to the Chinese Patent Office accompanied by a document certifying the necessity of expedited patent prosecution (such as the necessity because of planning to construct a plant in the local site by the applicant) which you have requested the provincial government to issue. However, this procedure is not an official process in China, and in fact, there has not been many cases where they granted the expedited examination.

(2) Expedition of Patent Prosecution in Korea

(A) System for Expediting Patent Prosecution:

Korea Patent Office does not adopt the accelerated examination system, but an applicant may make use of the preferential examination system (Article 61, Patent Law).

(B) Object of the preferential examination:

The preferential examination system requires the conditions that a person other than the applicant is commercially and industrially working the invention claimed in a patent application after the laying-open of the application or otherwise the Commissioner of the Korean Industrial Property Office deems it necessary to settle urgently. The scope of applications that are allowed to become the object of preferential examination has been enlarged step by step, from the perspective of industrial policy and protection of individual interests. The followings are currently the object of preferential examination (Article 9, Patent Law Enforcement Order):

- Patent application in the field of defense industry
- Patent application useful for pollution control
- Patent application directly relating to export promotion
- Patent application relating to duties of the central government, local authorities
- Patent application filed by an enterprise confirmed as a venture business
- Patent application relating to a resultant product of nation-assisted new technology development or quality certification business
- Patent application which is the basis of claiming priority under the Paris Convention (it is restricted to the cases where the corresponding application based on this priority application is being prosecuted by any overseas patent examining authority)
- Patent application for which a patent applicant is working or is preparing to work the invention
- Patent application directly relating to e-commerce

As long as the application belongs to any one of the above, the invention for which the application is filed is not required to be commercially worked by a third party.

The preferential examination in Korea has some aspects similar to the accelerated examination of Japan, in that the system is applicable to the working-related applications (worked or prepared to be worked by an applicant) as well as to the applications which are the basis of claiming priority under the Paris Convention.

However, it should be noted that you would be required to make use of the earlier publication system when you desire to expedite the prosecution of a patent application which has not been laid open, because unlike the accelerated examination system in Japan,

the preferential examination system of Korea requires that the application has been laid open. It should be also noted that the accelerated examination of Japan covers the applications filed with the JPO based on an application that had been filed in any patent office other than the JPO, but the preferential examination system of Korea requires a condition that the application which is the basis of claiming priority has been filed in the Korea Patent Office.

(C) Procedures for requesting preferential examination:
An applicant is required to submit a request for preferential examination and an explanation of circumstances concerning preferential examination that supports the necessity of such measure. The description of the explanation of circumstances may vary depending on the application for which the request is to be filed.
An applicant is also required to pay the fee for requesting preferential examination, and additional fee shall be required depending on the number of claims.

(3) Expedition of Patent Prosecution in Taiwan

(A) System for Expediting Patent Prosecution:
The Taiwanese Patent Office does not adopt, like the Korea Patent Office mentioned above, the accelerated examination system equivalent to such system of Japan, but an applicant may expedite by requesting a preferential examination in respect of the applications filed on and after October 26, 2002 (Article 36.4, Patent Law).

(B) Object of preferential examination:
The preferential examination system requires the object patent application to be laid open, and further require that the invention for which the application has been filed is commercially worked by a person other than the applicant, which conditions are just the same as those of preferential examination system of Japan.

(C) Procedures for requesting preferential examination:
An applicant is required to submit a request for preferential examination and other relevant documents. The applicant may file a request for preferential examination without fee.
It should be noted that an applicant would be required to make use of the earlier publication system when he desires to expedite the prosecution of a patent application which has not been laid open, because the preferential examination system of Taiwan makes it an essential requirement that the application has been laid open.

(4) Other Asian Countries

(A) Malaysia
There are two types of examinations in Malaysia, which are the "Substantive Examination" and "Modified Substantive Examination". If the corresponding application (in AU, GB, US, EP or JP) has been granted for patent, the applicant may make the prosecution in Malaysia easier by modifying the specification filed in the Malaysian Patent Office according to the specification of such granted foreign application and filing a request for "Modified Substantive Examination".

(B) Singapore
If the corresponding application (in AU, CA, NZ, GB, US, JP or EP (designating GB)) has been granted for patent, the application filed in the Singaporean Patent Office shall also be

granted for patent upon submission of the certificate of patent issued in the country where the corresponding application has been granted.

5) Summary

The systems for expediting patent prosecution are summarized in the Table 1 below.

Table 1

Item \ Country	Japan	US	EP	Korea	Taiwan
Target Applications	* Accelerated Examination - Working-related application - Foreign-related application - Application in which an applicant is a university, a junior college, a public research institute or an approved TLO or an authorized TLO - Application in which an applicant is a SME or an individual * Preferential Examination - Application under which the claimed invention is commercially worked by a third party	- The inventor is 65 years of age or more - The inventor has a certain health problem - Application relating to energy, environment or superconductivity - Invention relating to HIV/AIDS and cancer - Invention relating to recombinant DNA - Invention relating to counter-terrorism measures - The applicant is a prospective manufacturer of the invention or the application is actually being infringed. - The applicant has conducted a search for prior art and examined the patentability in detail.	No reason required	- Application which is commercially worked by a third party - Application in the field of defense industry - Application useful for pollution control - Application relating to export promotion - Application relating to duties of the central government, local authorities - Application filed by an enterprise confirmed as a venture business - Application relating to a resultant product of nation-assisted new technology development or quality certification business - Application which is the basis of claiming priority under the Paris Convention - Application for which a patent applicant is working or is preparing to work the invention - Application directly relating to e-commerce	Application which is commercially worked by a third party
Required Documents	* Accelerated Examination - Explanation of circumstances concerning accelerated examination* Preferential Examination - Explanation of circumstances concerning preferential examination - Attachments for proving that the working of the invention is actually made	Petition	Designated format (Specified in EPO Home page)	- Petition - Explanation of circumstances concerning preferential examination	Petition
Who should file the request?	* Accelerated Examination - Applicant * Preferential Examination - Applicant or any person who works the invention	Inventor (Applicant)	Applicant	No restriction (Central government or relevant local government in case of an application concerning the duties of the central government or relevant local government)	No restriction
Fee	No fee required	Fee may be required or not required depending on required conditions	No fee required	Fee required	No fee required

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3. Use of Systems for Expediting Patent Prosecution in Each Country and Matters to be Noted

1) Japan

(1) Research method for checking out the use of accelerated examination and preferential examination:

The following conditions were provided for extracting the target patents.

- Patents registered in 2001;
- Patents registered within two years from the filing of the request for examination; and
- Patents for which the request for accelerated or preferential examination was filed.

As a result of extracting the patents that comply with all the above three conditions, there were 1261 cases for which the request for accelerated examination was filed, and 9 cases for which the request for preferential examination was filed. PATOLIS was used as a database for extracting data, and made study and analysis in respect of those extracted data.

Approximately 100 cases were arbitrarily selected out of the 1261 patents for which the accelerated examination was requested, and the prosecution history of each case was checked out by inspecting the file wrapper. The prosecution histories of all cases with respect to the patents for which the preferential examination was requested were checked out.

(2) Accelerated Examination System:

In the JPO's website on the Internet, the data concerning the number of the request for accelerated examination filed and the term from such request to the issuance of 1st Action can be found as shown in Table 2 below.

Table 2

Number of Request for Accelerated Examination Filed*1				Examination Period*2			
1999	2000	2001	2002	1999	2000	2001	2002
1,296	2,152	2,895	4,097	3.6 months	3.1 months	3.3 months	2.7 months

*1: Number of cases where "Explanation of circumstances concerning accelerated examination" was filed.

*2: Average period of the cases to which the accelerated examination was applied. The period commencing on the filing of the request and ending upon the issuance of the 1st action by the examiner.

According to the data shown above, the number of cases where the accelerated examination is requested is increasing year by year, and the number of such cases in 2002 was approximately 4,100. The average period from the filing of the request to the issuance of the 1st action by the examiner is roughly 3 months.

Under the normal examination system, it takes 22 months on average (from the 2001 statistics presented by JPO) from the filing of the request for examination to the issuance of the 1st Action. It is obvious that the period is much shortened by using the accelerated examination system.

As the circumstance for requesting the accelerated examination, there are the published data concerning the result during the January to July 2002, showing: "Working-related application" 45.0%, "Foreign-related application" 29.9%, "Application filed by SME" 17.8%, "Application filed by an individual" 6.4% and "Application filed by a university or TLO" 0.9%.

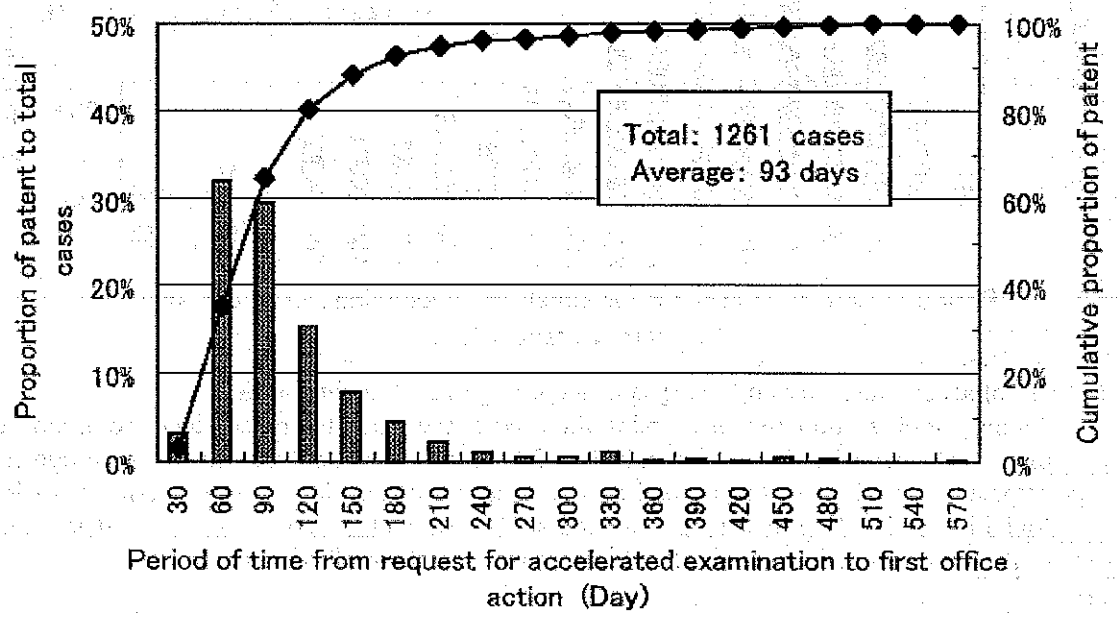
Using the above extracted data, the use of the accelerated examination system is analyzed as shown in the below.

(A) Examination period where accelerated examination system is used:

i) Period from the filing of a request for accelerated examination to the issuance of 1st Action:

In respect of the 1,261 cases extracted as mentioned above, the distribution of the periods from the filing of a request for accelerated examination to the issuance of 1st Action is shown in Fig. 1 below. The average period is approximately 93 days, showing that the result corresponds to the data reported by the JPO in most part. It demonstrates that the extracted result has no bias.

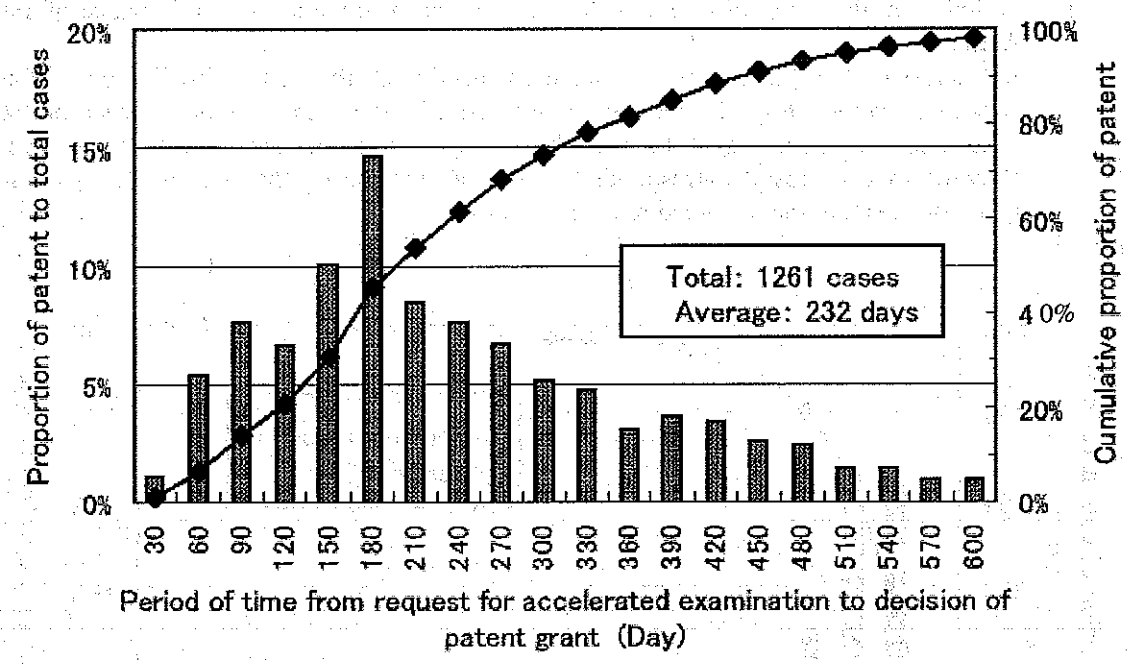
FIG. 1



(B) Period from the filing of a request for accelerated examination to the decision of a patent grant:

The distribution of the periods from the filing of a request for accelerated examination to the decision of the patent grant is shown in Fig. 2 below. The information from Fig. 2 is only for referential purpose, since the patentability of each application and the responses taken by each applicant significantly affect the prosecution. The average period was approximately 8 months. According to the JPO's information, it takes approximately 29 months from the filing of the request for examination to the decision of a patent grant under the normal examination procedure, and therefore, the applicants may shorten the prosecution period to the decision of a patent grant by approximately two years by way of using the accelerated examination system.

FIG. 2



(C) Use of accelerated examination system according to each technical field:

Taking a look at the major IPC codes allocated to the extracted patent data, the proportion of patent in each Section is shown in Fig. 3 below. The vertical axis shows the proportion of patent in each class to the total classes. The use of accelerated examination is mainly found in Section-G (Physics) and in Section-H (Electricity), and it is observed that the use of the system concerning these Sections accounts for the half of the total classes.

FIG. 3

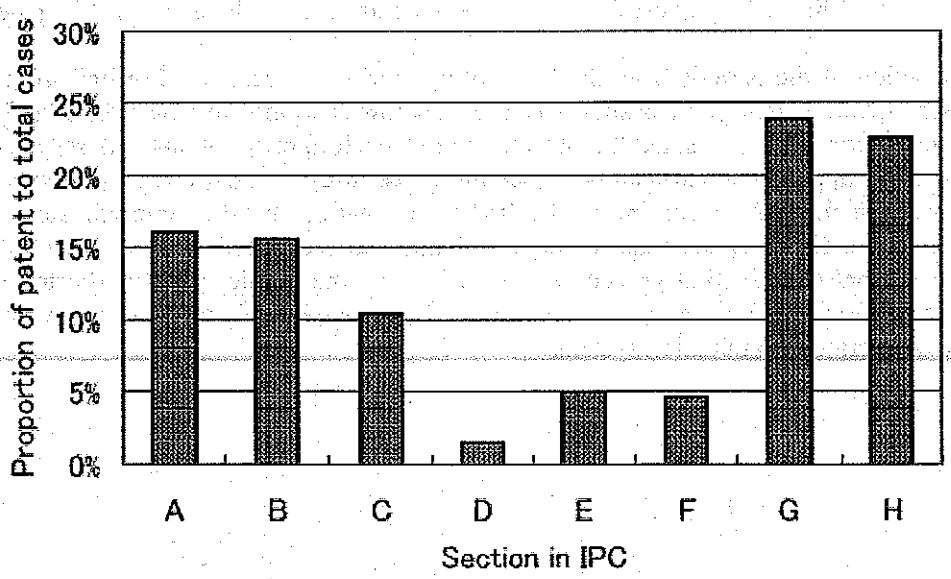


Table 3 shows the IPC codes of applications for which the accelerated examination was often requested and the number of cases extracted according to each IPC codes. The fact that the request for accelerated examination is filed in many cases that are classified into H04 and G11 may reflect the rapid development of Information Technology these days. Particularly, the filing of request for accelerated examination was remarkable under the classification of H04N (PICTORIAL COMMUNICATION, e.g. TELEVISION; 67 cases) and G11B (INFORMATION STORAGE BASED ON RELATIVE MOVEMENT BETWEEN RECORD CARRIER AND TRANSDUCER; 111 cases). The data shows a trend of expediting patent prosecution in these technical fields due to the active movement for the formulation of industrial standards regarding the communication system, graphical data compression technology, or the recording system using recording media such as an optical disc or DVD. The data also shows the trend that particular manufacturers file a lot of requests for accelerated examination at a time. There were 46 cases for which the accelerated examination was filed in the field of H01L (SEMICONDUCTOR DEVICES; ELECTRIC SOLID STATE DEVICES NOT OTHERWISE PROVIDED FOR), representing cutting-edge technologies like semiconductor technology.

Also, the filing of a request for accelerated examination is increasing under the classification of G06F (43 cases) in connection with increase in the filing of patent applications of software-related inventions.

In the medical field, there were approximately 30 cases for which the accelerated examination was requested under the classification of A61K (PREPARATIONS FOR MEDICAL, DENTAL, OR COSMETIC PURPOSES). Although a product in this field may take time to develop because of the necessity of clinical test, it is observed that the accelerated examination system is frequently used in this field compared with other classifications.

Table 3

IPC Codes	Description	Number
H04	ELECTRIC COMMUNICATION TECHNIQUE	113
G11	INFORMATION STORAGE	112
H01	BASIC ELECTRIC ELEMENTS	102
A61	MEDICAL OR VETERINARY SCIENCE; HYGIENE	69
G06	COMPUTING; CALCULATING; COUNTING	50
G01	MEASURING; TESTING	46
B65	CONVEYING; PACKING; STORING; HANDLING THIN OR FILAMENTARY MATERIAL	37

(D) Use of interview with examiner:

Traditionally, it is said that the use of the interview with examiner as well as the accelerated examination is effective when an applicant desires to expedite the patent prosecution. In order to prove the effect of the interview with examiner, The extracted data in respect of the period from filing of a request for accelerated examination to the decision of a patent grant is studied from the view point whether the interview was conducted or not.

The result of the study is shown in Fig. 4 and Fig. 5. Fig. 4 shows the cases under which the 1st Action was the notice of decision of a patent grant. Fig. 5 shows the cases under which the notice of reasons for rejection is issued as the 1st Action and subsequently the

decision of a patent grant is issued without receiving another notice of reasons for rejection. In Fig. 5, the term "Without interview" indicates the cases for which no interview was conducted during the prosecution, and the term "With interview" indicates the cases for which a notice of reasons for rejection was issued within 40 days from the date of interview.

FIG. 4

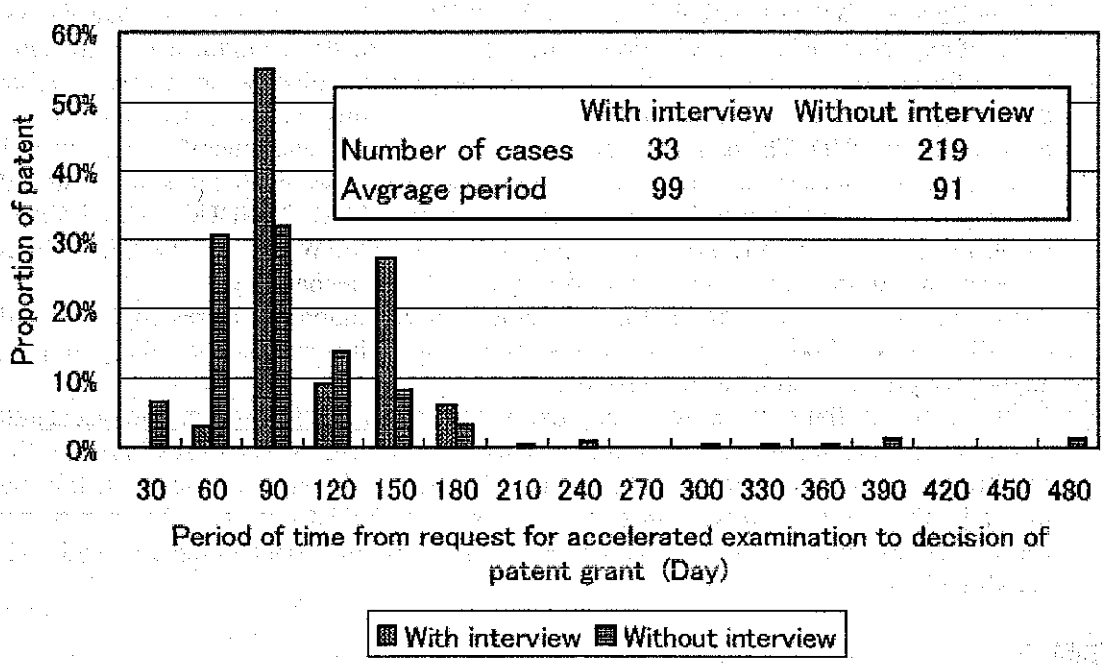
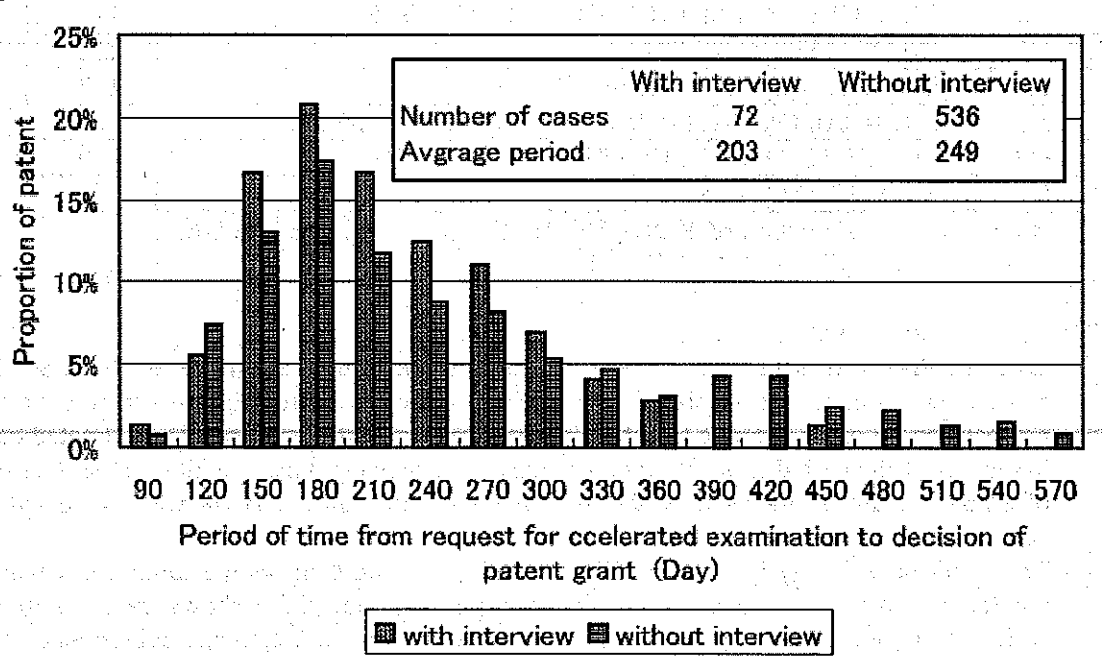


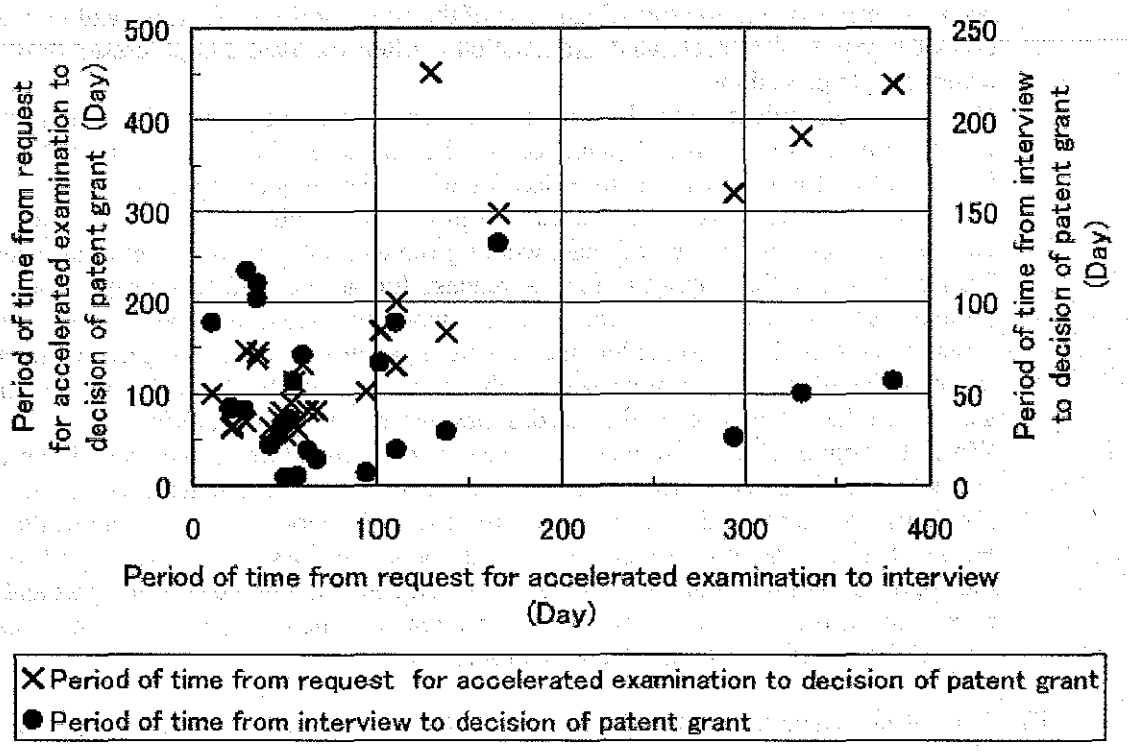
FIG. 5



As shown in Fig. 4, in respect of the cases under which the 1st Action was the decision of a patent grant, it makes almost no difference in the period from the filing of a request for accelerated examination to the decision of a patent grant whether the interview had been conducted or not. However, there is no case that took extremely much time where the interview was conducted. From Fig. 5, it can be found that the period of prosecution becomes shorter by approximately 1.5 months by conducting an interview.

On the other hand, there are some cases where an interview was conducted but it took long time from the filing of a request for accelerated examination to the decision of a patent grant of. A research was made to find out the cause of such prolonged prosecution as shown in Fig. 6. In the cases taking long time from the filing of a request for accelerated examination to the decision of a patent grant, most of the period is occupied by the period from the filing of a request for accelerated examination to the date of interview. On the other hand, the period from the date of interview to the decision of a patent grant is mostly within the scope of 2 to 3 months after the interview. This indicates that the main cause of prolonging the period from the filing of a request for accelerated examination to the decision of a patent grant is the late timing of the interview. Therefore, if the applicant desires to expedite the patent prosecution, it would be effective to conduct an interview with the examiner as soon as possible after a request for accelerated examination is filed.

FIG. 6



(E) Matters to be noted for using the system for accelerated examination:

As shown in the above, it is effective to make use of the accelerated examination system to expedite a patent prosecution. This section summarizes the matters to be noted for using

the accelerated examination system.

About 100 cases of the registered patents for which the accelerated examination was requested were selected. Then, the description of the explanation of circumstances for accelerated examination were examined. Further, a judicial precedent by the Supreme Court under which the description of said explanation of circumstances for accelerated examination actually became the issue was found. Taking account of the results of the above investigations, the matters to be noted in preparing the description of "Explanation of circumstances concerning accelerated examination" (hereinafter "Explanation of Circumstances") is discussed below.

i) Description in "Explanation of circumstances concerning accelerated examination"

The major description requirements are (i) the circumstances and (ii) the comparison with prior art.

In respect of the "Circumstances", the application must satisfy any one of the "working-related application", "foreign-related application" or "application filed by a university, TLO, SME or an individual". In this section, it is assumed that the subject application is either "working-related application" or "foreign-related application" as the "circumstances".

Firstly, in case of the "working-related application", the applicant may omit the additional search and the explanation of comparison required in the "Explanation of comparison with prior art" on the ground that the comparison with the prior art has been properly made in the specification as of the filing of the application, and in many cases the request for accelerated examination is often received and processed through a very simple procedure.

However, the applicant must be very careful when he makes a description that "the invention is worked" in the Explanation of Circumstances. More specifically, if there is a patent that is used by the invention for which the subject application is filed, in other words, if such invention utilizes said patent, the applicant might be deemed to have acknowledged that he had been working the technology covered by said patent. Therefore, when the applicant files a request for accelerated examination on the ground that the subject application is a "working-related application", he must research the technical information and prepare a patent map concerning the peripheral technologies of the subject invention to check out the patents owned by other parties and reduce the risk that such other parties may enforce their patent right.

When the applicant files a request for accelerated examination on the ground that the subject application is a "foreign-related application", he would have not so many problems as mentioned above as in the case of "working-related application". However, if the patent office of the relevant country has issued a search report, then the applicant will be required to submit all documents cited in the search report and to make comparison in respect of all cited references. Therefore, it would cost much labor if the search report has cited a lot of references.

ii) Judicial precedent where the description in the search report and the explanation of comparison became the issue:

The phrase "accelerated examination" was searched in the website of the Supreme Court. As a result, a remarkable case holding a decision that the description in the Explanation of Circumstances may affect the decision under the doctrine of equivalents was found.

The decision made in the Case Number 268 (*ne*) of 2001, a lawsuit demanding the confirmation of no right to demand injunction for a patent right, and an appeal demanding an injunction of patent infringement, that the amendment made in the Explanation of Circumstances is an essential feature of the subject invention. The applicant amended the claim with adding a description for clarifying the feature of the invention. As a result, the infringement under the doctrine of equivalents was not acknowledged.

That is, the applicant must confirm that the description made for the comparison with a prior art should not carelessly limit the scope of right of the subject invention (by emphasizing, for instance, the effect or operation of the invention in the comparison with the prior art).

(3) Preferential Examination System

The JPO has reported the data shown in Table 4 below with respect to the number of cases for which the preferential examination was requested and to the period from the filing of a request to the issuance of 1st Action by the examiner. The data concerning the examination period is just the same as the data shown in Table 2 above, and the JPO has reported the average value mixing the cases of the accelerated examination and the cases of the preferential examination.

Table 4

Number of Request for Preferential Examination Filed				Examination Period			
1999	2000	2001	2002	1999	2000	2001	2002
25	34	30	23	3.6 months	3.1 months	3.3 months	2.7 months

As shown in Table 4 above, around 30 requests for preferential examination have been filed each year during the term 1999 to 2002. The number of requests filed is much lower than that of the request for accelerated examination, and it is observed no tendency of increase that can be observed in the accelerated examination.

The data of preferential examination out of the above application data for which the preferential examination was filed in the same manner as used in the study of the accelerated examination was extracted, and 9 cases were found in 2001. As a result of further investigation in detail, it is found that 3 cases out of 9 were not accepted as the object of the preferential examination, and that the preferential examination system effectively served for the benefit of the applicants only in 6 cases. The reason for not accepting the above cases as the object of preferential examination was as follows: in two cases on the ground that the working by a third party or its effect is unidentified, and in one case on the ground that the subject application is about to be examined by the Office under the normal examination procedure.

The Explanation of Circumstances to be submitted upon filing of the request is required to describe the evidence supporting the fact of working of the subject invention by a third party and to identify the effect of such working. It seems that this descriptive requirement is strictly examined by the selection committee of the JPO.

The following comparison was made using the above extracted data in order to further examine the use of the preferential examination system.

(A) Period from the filing of a request for preferential examination to the issuance of 1st Action:

The data of extracted 6 cases are shown in Table 5 below. The average period of 6 cases is approximately 77 days, meaning that the period is still shorter than that of the accelerated examination. Moreover, in respect of the 5 cases excluding the case for which the request was filed by a third party who worked the invention, the average period is approximately 56 days, indicating that the period is shorter than that of the accelerated examination by approx. one month.

(B) Period from the filing of a request for preferential examination to the decision of a patent grant:
In respect of the 6 cases, the period from the filing of a request for preferential examination to the decision of a patent grant is approximately 253 days (appx. 8 months) on average. In respect of 5 cases for which the request was filed by the applicant, the average period is approximately 178 days (appx. 6 months). The examination period under the preferential examination system is almost equivalent to the period under the accelerated examination, although we have only a limited number of samples for the preferential examination and it is difficult to compare with the investigation result of the accelerated examination.

Table 5

Case No.	Filing of a request for preferential exam to the issuance of 1st Action	Filing of a request for preferential exam to the issuance of the grant of patent	Note
1	39	158	
2	46	200	
3	46	200	
4	54	166	
5	97	167	
6	181	629	Request filed by the person who worked the invention
Average of cases 1-6	77	253	
Average of cases 1-5	56	178	(Unit: Day)

Upon examiuing the data in Table 5, the cases are identified either as filed by the applicant or by a person who worked the invention. When the request for preferential examination is filed by a person who worked the relevant invention, such request is mostly accompanied by additional materials that may affect the patentability of the invention, since this person intends to hamper the establishment of the patent. That's why it takes time until the 1st Action is issued for processing clerical works relating to submitted materials. Further, in case of Case No.6 in Table 5, it took time until the issuance of the grant of a patent because the prosecution extended to the appeal trial against a decision of final rejection.

(C) Matters to be noted for making use of the system for the preferential examination:
The description of the Explanation of Circumstances for the preferential examination is

required to set forth the circumstances of the working of the invention, effect of the working by a third party or other necessary matters, and it must be accompanied by a copy of the cease-and-desist letter or any other document evidencing the fact of the working of the invention. According to the Guideline issued by the JPO, the JPO will not require additional explanation by the person who submitted the Explanation of Circumstances, and such person will not be awarded an opportunity submit additional materials. It should be noted that, since the treatment of the preferential examination is up to the sole discretion of the Commissioner of the JPO, the person who filed a request for preferential examination may not present any objection even if the request is not accepted. Therefore, an applicant must be very careful in complying with the description requirements of the Explanation of Circumstances.

The followings are the matters to be noted either by the applicant or by the person who worked the invention, respectively.

i) Filing of a request for preferential examination by the applicant:
When an applicant makes use of the preferential examination system, he should submit the Explanation of Circumstances accompanied by any product, catalogue, sample, photograph or other material sufficiently describing the fact that the invention is being worked by a third party. Although the Guideline issued by the JPO provides that a copy of the cease-and-desist letter should be attached, but some cases are qualified as the object of preferential examination only by describing that the letter is under preparation. It seems that a copy of the cease-and-desist letter is not necessarily required.

ii) Filing of a request for preferential examination by a person who worked the invention:
A third party may make a request for examination to the Commissioner of the Patent Office (Article 48.3, Patent Law) in order to prevent any damage caused by an application for which the request for examination has not been filed and the right based on which has not been finalized. It is desirable that such risk of damage is solved as soon as practicable, but the accelerated examination may be filed only by the applicant and no third party is allowed to make use of the system. The third party may, however, expedite the prosecution to finalize the attribution of the right by way of making a request for the preferential examination.
For the third party to make a request for preferential examination, it is necessary to prove the fact that he actually works the invention in the description of the Explanation of Circumstances. Further, such third party must submit a written document describing the ground for claiming that the invention covered by the subject patent application lacks the patentability requirements, accompanied by any publication or other documents supporting the lack of patentability.
It should be noted that the subject application shall not be qualified as the object of preferential examination if the person who worked the invention receives the grant of license from the applicant.

2) Use of the system(s) in other countries

(1) Use of the system in US

(A) Actions on "Make Special" petitions to the director of the USPTO:
Actions on "Make Special" petitions (FY1998-FY2002) are shown in Table 6 below.

Table 6

Year	Number of Cases filed
1998	1,332 (4)*
1999	1,502 (0)
2000	1,574 (0)
2001	1,498 (0)
2002	1,576 (3)

* The numbers shown in the toenails indicate the examinations in relation to infringement or manufacture (from "Performance & Accountability Report, Fiscal Year 2002")

As shown in Table 6, actions on "Make Special" petitions to the director of the USPTO show the trend of slight increase, and almost no request is being made in respect of the applications in relation to infringement or manufacture.

(B) Matters to be noted upon petition:

The requirements for filing "Make Special" petitions are similar to those of the accelerated examination of Japan. The difference is in that the applicant is not allowed to make a request for the "Make Special" on the ground that the corresponding application has been filed in any foreign patent office.

The most commonly stated grounds for making a request for filing a "Make Special" petition would be that "The applicant has conducted a search for prior art and examined the patentability of the subject invention in detail". Therefore, the level of difficulty in making a request for accelerated examination should depend on to what extent the applicant is required to conduct a detailed examination of the patentability of the subject invention in comparison with prior arts. The explanation on the comparison with prior arts may be considered as equivalent to that of the accelerated examination system in Japan. However, it should be noted that it is doubtful that an applicant may use the explanation on the difference between the subject invention and prior art described in the patent specification, if any, as he is allowed to do so in Japan.

(2) Use of the system in Europe

(A) Number of the request for accelerated examination filed:

i) Data in FY2001

Despite a noticeable increase in the number of requests for accelerated search and substantive examination, the PACE programme, which enables more rapid completion of the grant procedure without additional cost, was seldom used in the period under review.

The Office was asked for accelerated procedure for 1,935 searches (+3.1%), and 4,287 examinations (+8.8%) under the PACE programme. The programme accounted for 2.8% of the European searches and 5.4% of the whole substantive examinations under the European examinations requested (by 2001 Annual Report: Business Report).

ii) Data in FY2002

In 2002, The Office was asked for accelerated procedure for 3,400 searches (+88%), and 5,000 examinations (+24%) under the PACE programme which thus accounted for 4.9% of the European searches and 5.9% of the European examinations requested (by 2002 Annual Report: Business Report).

(B) Transition of the use of the system

As shown in the above, the use of PACE increased in FY2002 compared with the data of FY2001. It seems that the EPO is actively appealing for the use of PACE. Considering the fact that the use of PACE in the search procedure increased by 88% in FY2002 compared with FY2001, the enterprises intending to decide whether to pursue the patent right depending on the search result are strategically making use of PACE.

(C) Promotion of the use of Search Report

For European patent applications claiming no priority (first filings), the EPO ensures that as a rule applicants obtain their search reports within six months of the filing date. In such cases, accelerated search is automatically performed; no separate request for the application of PACE is required.

For European patent applications claiming priority, accelerated search can be requested in writing when the application is filed. In such cases, the EPO makes every effort to issue the search report as soon as possible. An applicant cannot enjoy the benefit of the accelerated search unless he files such European application in the early stage during the priority period.

(D) Matters to be noted upon filing of a request:

An applicant can file a request for accelerated examination more easily compared with the cases in Japan, because he may make such request without cause. An applicant should be particularly aware that the accelerated examination should not apply to the application if the applicant requests an extension of term for filing a response, since the applicant as well as the EPO is required to cooperate in the accelerated examination.

(3) Use of the system in Asian Countries

In Korea, it takes approximately 23 months from the filing of an application to the issuance of the grant of a patent under the normal examination procedure, but an applicant may obtain a patent right in about 5 months from the filing of an application if he make use of the preferential examination system. In 2001, the request for preferential examination was filed for 1,027 cases, and 964 cases (approximately 94%) were examined under the preferential examination procedure. Looking at the request for preferential examination filed in 2001 according to each ground for such request, 464 cases were filed on the ground that the application is filed by a venture business, which is the most frequently stated ground, and the secondly stated ground was that the application is being worked (or prepared to be worked) by the applicant, and there were 247 cases stating such ground.

In Taiwan, the accelerated examination is applicable only to the applications filed on or after October 26, 2002, and the present use is unknown.

3) Summary of Use in Each Country

The use of the accelerated or preferential examination system is summarized in Table 7 below.

Table 7

Item \ Country	Japan	US (USPTO)	Europe (EPC)	Korea
Number of cases for which an accelerated or preferential examination was conducted	- Accelerated Examination 4,097 cases (in 2002) - Preferential Examination 23 cases (in 2002)	1,600 cases (in 2002)	Search: 3,400 cases Examination: 5,000 cases (in 2002)	1,027 cases (in 2001)
Normal examination period	29 months (in 2002)	24 months (in 2002)	46.1 months (in 2001)	Approximately 23 months (in 2001) (from the filing of an application to the issuance of the grant of a patent)
Period from the filing of an application to the issuance of the 1st Action under normal prosecution	24 months (in 2002)	16.7 months (in 2002)	20.7 months (in 2001)	22.6 months (in 2002)
Period from the filing of an application to the issuance of the 1st Action under accelerated or preferential examination	- Accelerated Examination 2.7 months - Preferential Examination 2.7 months	Unknown	Unknown	Approximately 5 months (in 2001) (from the filing of an application to the issuance of the grant of a patent)

0123

4. Aiming at Expediting Patent Prosecution from Global Perspective

1) Expedition of Patent Prosecution in Japan

As a method to expedite a patent prosecution in Japan, an applicant may choose the accelerated examination system or the preferential examination system. The applicant may make use of either of the accelerated or the preferential examination system if the applicant suffers from the working of the subject invention by a third party after the laying-open of the application, but otherwise only the accelerated examination system is available. The applicant may further expedite the prosecution by way of having an interview with the examiner. Our recommendation is to make use of the accelerated examination on the ground that the subject application is an application currently worked or to be worked by the applicant himself or on the ground that the application is a foreign-related application, even if the applicant may choose either the accelerated or the preferential examination, because the procedure he has to take is much easier.

Upon making a request for an accelerated examination, what is most important to be noted by the applicant is the description of "Search report and explanation of comparison" in the Explanation of Circumstances. The description of this section not only burdens the applicant but also has possibility of causing the technical scope of the invention to be unreasonably construed in a limited manner.

Under the 2002 revisions of the Patent Law, the operation of the disclosure system on prior art document information was commenced. Article 36.4(ii) of the Patent Law stipulates that, upon filing of a patent application, the applicant is required to describe, to the extent as the applicant is aware, any information concerning the known invention (as set forth in Article 29.1 (iii) of the Patent Law) which is relevant to the subject invention for which the application is filed, such information may include the title of the published document containing the relevant invention or the whereabouts of any other information concerning such known invention (prior art information). The requirements upon the disclosure of the prior art information is not as strictly stipulated as in the provision concerning Information Disclosure Statement (IDS) in the US, but the revised provision of the Japanese Patent Law requires that such prior art information should be described in the detailed explanation of the invention. Therefore, an applicant may make use of the description made in this section to the "search report and explanation on comparison" in the Explanation of Circumstances.

2) Aiming at expediting patent prosecution from global perspective

As the method for expediting the patent prosecution for an invention created in Japan, the cases by dividing into an invention before filing of an application and an invention after the filing of an application are studied.

(1) If the applicant desires prompt prosecution prior to the filing of an application:

If the applicant desires prompt prosecution prior to the filing of an application, the applicant should promptly prepare the English version of the specification and file all corresponding foreign applications on the same timing as the domestic application to the extent as possible, and make use of the system for accelerated or preferential examination in each country in order to obtain patent rights within the shortest possible period. Now, the case where the foreign applications claiming priority are to be filed one year after the filing of the basic application is examined. Naturally, it goes without saying that the applicant may enhance the probability that the 1st Action by the examiner is the decision of the a patent grant, by way of preparing claims based on sufficient search of prior art before the filing of the application.

In Japan, an applicant should make a request for accelerated examination on the ground that the application is a "foreign related application" promptly after the filing of the foreign applications, and further conduct the interview with the examiner at an early stage. Since the applicant is required to disclose the prior art document as from FY2002, the applicant may make use of the description of such disclose of prior art document for the description made in the explanation on comparison with prior art. In respect of the corresponding European application, the applicant should make use of PACE, and also he should file a petition for "make special" in respect of the corresponding US application promptly after the filing of the respective applications. By using the patents granted in JP, EP or US, you may expedite the prosecution of the corresponding patent applications in other Asian countries.

If the applicant desires to expedite the prosecution of an invention for which the applicant has not conducted sufficient prior art search, the applicant may choose to file a PCT application for the first instance, and use the search report issued for the PCT application. A year later, the applicant may file a convention application (Paris route) on an each-country-basis, after referring to the search report issued for the PCT application, and take the same strategy as mentioned above, thereby enabling prompt prosecution of the case.

An applicant may also choose to file the basic application with the EPO, because a basic patent application filed with the EPO without claiming priority will be automatically subject to PACE, and the search report for such application is issued in an early stage. A year later, the applicant may file a convention application (Paris route) on an each-country-basis, after referring to the search report issued for the European application, and take the same strategy as mentioned above, thereby enabling prompt prosecution of the case.

(2) If the applicant desires prompt prosecution after the application is transferred to the patent office of each country:

In some cases, the applicant may be unable to make use of the accelerated examination system, but basically it should be possible for the applicant to expedite the prosecution by using

the accelerated examination system in each country. However, it should be considered that if the search report is issued by any patenting authority the applicant might further expedite the prosecution by taking appropriate steps in view of the search result.

5. Conclusion

The purpose of this paper was to study the method of expedite patent prosecution from the global perspective and to introduce the systems for accelerated or preferential examination in Japan, US, Europe and other Asian countries. We also proposed effective method for utilizing each such system in view of the past cases and judicial precedents.

We hope this paper will serve as a guide for corporations to examine the method for effectively expediting the patent prosecution from the global perspective.

(1) Title: Patent Law Harmonization: Can We Move to an Objective Global Standard?

(2) Date: October 14-17, 2003, 34th International Congress, Dearborn, Michigan, USA

(3) Author: Lawrence T. Welch, Eli Lilly and Company

(4) Source: PIPA American Group

(5) Statutory Provisions: Substantive Patent Law Treaty (SPLT), Paris Convention, 35 USC 102(e), 35 USC 102(b)

(6) Keywords: Harmonization, prior art, first to file, Substantive Patent Law Treaty (SPLT), Hilmer provision

(7) Abstract: Substantive Patent Law Treaty (SPLT) discussions are stalled, with no meetings planned until mid-2004. The reasons for this include a resistance by offices to be seen as the first to give concessions, an insistence that certain practices not desired by users are best practices, and efforts by developing countries to insert unrelated provisions into the treaty. However, discussions between Non-governmental organizations (NGOs) suggest that support exists for a limited harmonization proposal involving a global definition of prior art and a grace period for disclosures emanating from the inventor.

PIPA Congress
Dearborn, Michigan
15 October 2003

Harmonization: Can We Move to an Objective Global Standard?

0123

Lawrence T. Welch
Eli Lilly and Company

Harmonization Discussions Are All Too Predictable

- First to file is the "elephant in the room" which is not supposed to be discussed, but somehow is always on everyone's mind

- A global grace period is desired by many user groups, but government negotiators fear an unworkable standard; some users may desire "quick kills" of competitor patents

- All offices are straining at the increased workload, and are looking for some simplification in global approach which might ease their burden, but do not want to change their national laws

- No office wants to be the first to give "concessions," and thus argue that provisions in their national laws which many countries desire to be changed are "best practices"

0129

User Groups Watch in Dismay as the Discussion Proceeds and Opportunities are Lost

- There are clear points of agreement between user groups, despite official patent office positions
- Some areas may be more difficult to solve (e.g., patentable subject matter)
- Some discussions simply do not belong in the harmonization arena (e.g., genetic resources, traditional knowledge)

0130

Consider this proposal

Discussion with other groups suggests that there would be support for the following harmonization elements:

US Changes

- Awarding patents to the first to file (This is desired by all other countries; most major US IP user groups, including IPO, AIPLA, BIO, ABA, NAM have expressed support in certain contexts)
- Removal of the *Hilmer* provisions in US law, making prior art effective for all purposes regardless of where the application is filed

European/Japanese Changes

- One year grace period for disclosures emanating from the inventor
- Global prior art, applicable from application filing date for both novelty and obviousness/inventive step

0131

What Would Result From Such a Proposal?

- Harmonization might move forward without being bogged down with problematic issues
- Further, with a common understanding of:
  - The applicable art,
  - The timing of filing, and
  - The safeguards applicable for inadvertent disclosures, …
- Offices could more easily give credit to search and examination from other offices
- Users should better be able to predict outcomes of global patent prosecution

0132

Two Questions:

What should global patent laws look like after implementation of a substantive treaty on patent law harmonization with just these provisions?

- Answer: Simpler, more certain and predictable, faster patentability determinations, greater reliability in rights granted, more economical to use, cheaper to undertake enforcement.

What benefits, short term and long term, should be sought and can be expected to emerge from these harmonization efforts?

- Answer: Greater international patent office cooperation, basis for "full faith and credit" during examination, and reduced costs in global procurement of patent rights.

01133

"Big Picture" Objectives for Further Patent Reform Efforts –

Simplicity, simplicity, simplicity.

Minimal formalities.

Streamlined disclosure requirements.

Patent Office examination that is typically complete and final.

Minimal "inventor/owner"-specific discovery issues.

Scope of protection is legally certain and equitably fair.

All patentability and/or patent validity requirements are requirements of *law*, not *fact*.

01134

Novelty:

The subject matter of a claim in an application for patent or a patent issuing on the application shall be validly patentable to the applicant as a matter of national law of each Contracting Party, unless one or more of the following requirements of law is not satisfied–

(d) [Lack of Novelty]–an identical and adequate disclosure of such subject matter is set out in a single prior art disclosure;

- **"Prior art disclosure" with respect to a claim means a single "public prior art disclosure" or a single "prior patent filing disclosure."**
- Embodies principal of use of a "single reference" only, except for inherent disclosure and common understanding of skilled artisans in reading prior art reference.
- Objective standard – law, not fact.

01135

Public Prior Art Disclosure:

- "Public prior art disclosure" with respect to a claim means **a disclosure that is made reasonably and effectively accessible to persons skilled in the art**
  - (1) more than one year prior to the priority date of the claim or
  - (2) if the disclosure not made directly or indirectly by or on behalf of the inventive entity of the claim, at any time before the priority date of the claim.
- Completely objective, unified standard for public prior art.
- Maintains one-year "grace period."

0136

"Globalization" of Prior Art?

Current U.S. law has both national and globalized prior art concepts.

- "Patents and printed publications" are global.
- "Use" and "knowledge" must be "in this country."

Internet and information age have blurred the lines between the two.

- A modern definition of prior art would look to "accessibility."
- Location of knowledge for electronic disclosure is meaningless.

Public policy issue is what a skilled artisan could know.

- IPO, for example, has proposed a "reasonably and effectively accessible" standard.

01137

Prior Patent Filing Disclosure:

"Prior patent filing disclosure" with respect to a claim of an applicant means subject matter disclosed in a patent issued by a Contracting Party or application for patent published by a Contracting Party where such disclosure in the issued patent or published application was filed

(1) By the same applicant more than eighteen months prior to the priority date of the claim applicant, or

0138

Prior Patent Filing Disclosure (Cont'd)

(2) if the prior issued patent or published application was not filed by the applicant, at any time before the priority date of the claim;

provided that, to the extent the subject matter was disclosed in a priority application for which the issued patent or published application was entitled to a right of priority, it shall be deemed that such disclosure was filed on such priority date for the issued patent or published patent application.

Thus, an applicant with related disclosures could file them all within the 18 month publication window

0139

Effects of "Prior Patent Filing Disclosure"

Prior-filed application of another patent owner becomes prior art as of the priority date, once published.

- Result effectuates a "first-inventor-to-file" system.

Prior-filed application of *same owner* is prior art only at time of 18-month publication.

- **Removes possibility for European-style "self-collision."**
- **Allows for U.S.-style C-I-P practice to readily continue for up to the 18-month publication date, but publication (*In re Ruscetta)* bar applies at 18 months.**
- **Creates possibilities for "double patenting" by the same applicant during the 18-month window because of elimination of "self-collision" bar to second patent, but term of second patent would need to be co-extensive with the first patent.**
- **Simplest and least technical way to permit "same assignee" to build portfolio of patents without pitfalls and traps.**

0140

Implications for the *Hilmer* doctrine:

In a "first-to-invent" system, the prior art effect given the filing of a patent application is merely a doctrine of *convenience* – where "prior invention of another" is prior art in any event.

In a "first-inventor-to-file" system, the prior art effect given the filing of a patent application is what determines the rights of the first filing.

The only residual *Hilmer* issue is what effect to give a foreign (or domestic) priority application – novelty-only or prior art for non-obviousness purposes.

- Treating all disclosures equally is the simplest.

0141

"Prior Art" Definition –

"Prior art" with respect to a claim in an application for patent means –

(a) any prior art disclosure that is pertinent to the subject matter of the claim or

(b) any combination of such pertinent prior art disclosures where a person of ordinary skill in the art would have been motivated to combine such disclosures.

- Wholly objective determination on scope and content of the prior art.

0142

Using objective criteria that don't require inventor/assignee discovery:

All issues can be completely examined in the patent offices.

- The issue of "derivation" – where rival applications seek to patent the same patentable invention – might require current US interference practice to be retained for this purpose.

All issues could be addressed in reexamination and/or opposition proceedings.

- Problematic issues are gone – e.g., "public use/on sale" issues that require intensive inventor/assignee discovery.

All issues may be tried before the court, not jury.

- Patentability/patent validity issues of *law* don't require juries.
- Enforcement should proceed with greater economy and certainty.

0143

Changes in European patent law needed

The failure to provide for an effective, one-year "grace period,"

The doctrine of absolute "self-collision," i.e., a draconian "double patenting" law that needlessly invalidates claims if not presented in an applicant's first filed patent application in which the claim is adequately supported,

The limitation on published patent applications and issued patents as "prior art" from their filing dates by precluding the use of this art for obviousness considerations (e.g., imposing a strict and highly technical "novelty-only" rule);

The ability to rely on publicly inaccessible, private disclosures (i.e., any non-confidential "divulgations") as prior art

0144

Changes in US law needed

Provide a "first-inventor-to-file" priority system, ending *Hilmer*.

Replace the domestic geographic restriction on non-published disclosures as prior art with a new, globalized standard that relies on disclosures reasonably and effectively accessible to persons skilled in the art for any disclosure (*e.g.*, including "oral disclosures") to have the status of prior art.

Remove of the "forfeiture" and "secret prior art" aspects of the "in public use and on sale" bar to obtaining a valid U.S. patent (*i.e.*, retaining as "prior art" under 35 U.S.C. § 102(b) only prior art resulting in a disclosure that is reasonably and effectively accessible to persons of ordinary skill in the art).

0145

Next steps ...

Develop a coalition in support of effort.

Communicate with government and patent office representatives.

Begin outreach to independent inventors.

Achieve full globalized private sector consensus.

0146

Is it possible?

•There is a narrow window for success.

• US consensus on patent law changes may be hard to achieve. Recent comments by USPTO are hard to interpret, but many US organizations are in favor of first to file as part of a harmonization package (some as a stand alone principle)

• Japanese and European support for grace period and anti-self collision may be problematic

• Global private sector consensus needed.

• Commitment needed for years.

01147

0148

Title	Study and Recommendations on Substantive Patent Law Treaty
Date	15- 17 October, 2003 (34th International Convention in Dearborn)
Committee	First Working Group, 3rd Subcommittee, PIPA Japan
Co-authors	Takashi Ishihara (Matsushita Electric Industrial Co., Ltd.)
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	Takamasa Otake (Fuji Xerox Co., Ltd.)
	Hiroshi Watanabe (Nippon Telegraph and Telephone Corporation)
Keywords	WIPO; Substantive Patent Law Treaty; correction; grace period; claim; industrial applicability; new and useful; grounds for invalidation
Related Provisions:	WIPO SPLT SCP 9/3 Articles 3; 7; 7bis; 9; 11; 12; 13 and 14
	Japan Patent Law Articles 30; 36(6)(i) and 126
	U.S. Patent Law Articles 102(b); 112 and 251
	European Patent Convention Article 84

Summary: The Working Group has considered the ideal SPLT for users by following the discussions at WIPO/SCP.
This year, the Working Group especially studied in detail Articles 7bis (Amendments or Corrections of Patents), 9 (Grace Period), 11 (Claims); 12 (Conditions of Patentability), 13 (Grounds for Refusal of a Claimed Invention) and 14 (Grounds for Invalidation or Revocation of a Claim or a Patent) of SPLT to submit related recommendations.

1. Introduction

Upon establishment in June 2000 of Patent Law Treaty (which aims to harmonize different "formal requirements" applied in countries in the world for granting patents), WIPO/SCP (Standing Committee of the Law of Patents) resumed drafting process of Substantive Patent Law Treaty (SPLT). For the benefit of applicants seeking for worldwide patent protection, SPLT is expected that more than one patent offices will deliver the same decision as a result of respective examination procedures to reduce expenses relating to application procedures, allow applicants and others to anticipate whether or not a patent will be granted and ensure other effects.

The Working Group has tried to consider the ideal SPLT for users by following the discussions at WIPO/SCP and especially studied following Articles of SPLT in detail to submit recommendations:

Articles 7bis	Amendments or Corrections of Patents,
Article 9	Grace Period,
Article11	Claims,
Article 12	Conditions of Patentability,
Article 13	Grounds for Refusal of a Claimed Invention and
Article 14	Grounds for Invalidation or Revocation of a Claim or a Patent.

2. Terminology of Substantive Patent Law Treaty (SPLT); Regulations, Practice Guidelines

SCP has discussed draft SPLT twice a year, and the last discussion, the 9th session, was held on May 12 – 16, 2003. Based on the discussion and agreement at the session, the draft SPLT will be revised at the WIPO International Bureau and provided to SCP for the next session.
The first draft SPLT was introduced to the 5th session of SCP (held in 14-19, May, 2001) and this article refers to each version of the draft as SPLT-X in accordance with the number (X) of session which discussed the draft.

SCP has also discussed "Regulations" and "Practice Guidelines" based on SPLT. Draft documents of such instruments are also prepared and revised based on the discussion and agreement at each session by WIPO International Bureau. This article refers to each version of the draft Regulations and draft Practice Guidelines as REG-X and PG-X, respectively, in accordance with the number (X) of session in which the draft documents is discussed.

Minutes of each session have been published as Reports. This article refers to the Report of each session as REPORT-X in accordance with the number (X) of session.

Also this article refers to, if necessary, a specific provision in a specific version of the draft documents in such ways as "SPLT-X Article-Y" and "REG-x Rule-y."

3. Article 7bis (Amendments or Corrections of Patents)

3-1. Article 7bis and Article 3

(1) The delegation of U.S., PIPA and other countries and organizations had proposed at the 7th session that provisions relating to corrections and amendments of post-grant patent be necessary. (See paragraph 54, REPORT-7) Based on the proposal, the WIPO International Bureau inserted a new provision as 7bis in the draft for the 8th session. (Article-7bis, SPLT-8)

The newly inserted 7bis provided that patent claim(s) may be changed to the extent that such change would correct clear mistakes (paragraph (3)) while it remained not clear for the provision if a change broadening the scope of the claim(s) would be allowed as is the case with a U.S. reissue patent application.

The 8th session first discussed whether SPLT should regulate changes in patents, and the International Bureau indicated that the dividing was not between "pre-grant procedures" and "post grant procedures" but between the "grant and validity of patents" and the "enforcement of patent rights." (See paragraph 144, REPORT-8)

In addition, while some agreed on provisions relating to limitation of extent of protection (paragraph 1) and correction of clear mistakes (paragraph 2), others expressed negative views relating provisions allowing broadening of extent of protection (paragraph 3).

Since they were newly inserted provisions, it was decided that the draft would be modified based on the discussion at the 7th session and the maintenance or deletion of the provision would be discussed at the next session (See paragraph 169, REPORT-8)

(2) Meanwhile SPLT-9 Article 3 provided the types of applications/ patents (such as divisional applications and continuation applications) to which SPLT should apply. And REG-9 Rule 3 provides the applications/ patents to which SPLT should not apply.

The first draft SPLT was introduced to the 5th session of SCP. In SPLT-5, "Applications and Patents to Which the Treaty applies" were provided in Article 1bis. And one delegation (whose name is not known from paragraph 19 of REPORT-5) indicated in as early as the 5th session that re-issue applications and patents should be excluded from application of the Treaty.

In SPLT-6 and thereafter, "Applications and Patents to Which the Treaty Applies" were provided in Article 3, and "Applications and Patents to Which Exception Applies" in Rule 3. Rule 3(ii) of REG-6 was reserved blank with respect to which the U.S. delegation stated, in accordance with the report, that it "was in fact needed to exclude re issue and re examination proceedings from the scope of the Treaty." (See paragraph 63 of REPORT-6)

Rule 3(ii) remained blank in REG-7. As long as we can see from the report, there was not much discussion on Rule 3(ii) in the 7th session while, as stated in (1) above, the proposal of inserting provisions relating to corrections of post-grant patents was made in the 7th session.

Rule 3(ii) still remained blank in REG-8 though statement of the U.S. delegation in the 6th session was added (in exactly the same way as the excerpt indicated above). In 8th session, the U.S. delegate clearly requested to exclude re-issue procedures and re-examination procedures

from application of the draft Treaty. (See paragraph 54 of REPORT-8) As the delegation of Canada proposed "except for Article 7bis, applications for re issue" be excluded from the draft SPLT, (paragraph 53 of REPORT-8) it was disputed whether not only re-issue applications but also re-issue patents should be excluded from the draft Treaty, as a result of which it was agreed in the session to cover only "applications for re-issue." (See paragraph 59 of REPORT-8)

(3) As a result, the latest Rule 3(ii) of REG-9 includes "applications for re-issue," due to which, for some reason or other, "Additional Changes to Claims That May be Allowed" was excluded from Article 7bis in SPLT-9.

At the 9th session, discussions relating to 7bis were mainly focused on the meaning of including "Corrections of Post-grant Patents" in SPLT without considering whether or not Article 7bis(3) in SPLT-8 should be deleted, while discussions relating to Rule 3(ii) were limited to definitions of "re-issue" without generating a new agreement.

3-2. Corrections of Patents and SPLT

One of the aims of Substantive Patent Law Treaty has been indicated as that "the patent Offices will deliver the same examination results for facilitating greater mutual recognition of search and examination results by patent Offices". (See paragraph 5 of "SUGGESTION FOR THE FURTHER DEVELOPMENT OF INTERNATIONAL PATENT LAW," SCP/4/2). Allowing national laws to freely provide treatment of corrections of post-grant patents seems not to accord with this goal.

In the U.S., re-issue patent system allows a granted patent to enlarge the scope of the claims of the original patent (35 USC 251). In Japan, on the other hand, voluntary corrections are allowed only when such corrections limit the scope of protection. (Article 126 "Trial for Correction") And no means of correcting a granted patent is provided to the patentee of a European patent even if the patentee found a defect in the patent.

It means that when an application for re-issue is filed in the U.S., the U.S. Patent Office shall have to start examination from scratch though it once relied on the examination results at the Japanese or European Patent Office. If it will be the case, the workload of the U.S. Patent Office would hardly be reduced although it can refer to the search results and prosecution history at the Patent Office who made original examination. And the applicants would regard SPLT system as not very attractive since they need to take different measures in different countries with respect to post-grant procedures as long as countries have different systems.

The worldwide rejection to corrections of a granted patent may be one solution in view of harmonization. But such a solution will not be easily accepted under the concept of patent system because under such solution, a great invention, for instance, to which a patent was granted without any rejection during the patent prosecution may not be appropriately protected. From the viewpoint of a user of patent system, a system that will give the best protection as possible to an invention is desired.

Thus we believe that SPLT should maintain the benefit of mutual recognition of examination results (that is, allowing re-examination by the patent Office in charge of the original examination) through realization of a harmonized system allowing a wide range of corrections including those enlarging the scope of claims.

As we indicated in 3-1 above, the discussions relating to 7bis (Amendments or Corrections of Patents) have just started and not fully made. In this connection, we considered why corrections of patents should be included as follows though it may go off from the purpose of this article of following the discussions of SPLT to provide related recommendations.

3-3. Introduction

Article 7bis(2) of SPLT-9 provides that "No amendment or correction in a patent may be permitted ... where the amendment or correction would result in the disclosure contained in the patent going beyond the disclosure ...on the filing date." It provides the relation between the correction and disclosure at the time of filing date in correcting claim(s) in a patent while it does not provide the relation between the scope of protection conferred based on granted claim(s) and that conferred based on corrected claim(s).

Sometimes, however, corrections enlarging the original scope of protection are required after grant of a patent. Moreover, the pro-patent policy which weighs heavily on protecting patentees will allow, for the purpose of protecting the essence of an invention, patentees to make corrections enlarging the original scope of protection to cover as broadly as possible the original disclosure even after grant of a patent as long as the corrections do not go beyond the disclosure on the filing date.

Thus we examine whether or not provisions allowing amendments or corrections of granted patents or claim(s) enlarging the scope of protection should be included in Article 7bis.

3-4. Latest Provisions

Draft SPLT for the 8th session contained the revised provisions that "SPLT shall not apply to applications for re-issue" (SPLT-8 Article 3(2), and REG-8 Rule-3), as a result of which SPLT-8 Article-7bis (3) (provisions allowing corrections enlarging the scope of protection) was deleted. Thus, current Draft does not allow corrections enlarging the scope of protection.

We believe, however, that renewed considerations should be made to allow corrections enlarging the scope of protection taking into account the following examples.

3-5. Corrections of a Claim Possibly Enlarging the Scope of Protection

The followings may occur:

(1) where corrections of a mistake (Artilce-7(3), (a "mistake" is actually defined in Rule-7(2) (a "clear mistake")) lead to enlargement of the scope of protection;

(2) where corrections for clarifying the scope of a claim lead to enlargement of the scope of

protection;

(3) where an unnecessary claim limitation is found after grant of patent; and

(4) where patent was granted without necessary amendments during the examination procedure.

3-6. Advantage and Disadvantage of Allowing Corrections Enlarging the Scope of Protection

(1) Advantage

Since claims are described by the applicant(patentee) by him/herself as "Claim(s)," some say that the scope of protection defined by him/her should not be subject to voluntary correction enlarging the scope of protection after grant. In view of promoting pro-patent policy, however, allowing corrections enlarging the scope of protection in the case of (3) above will provide a chance of relief for the patentee to correct a granted patent to counter against a revocation action or to prevent others from potential infringement. (See comments at SPLT-9 Article-7bis)

(2) Disadvantage

On the other hand, allowing corrections enlarging the scope of protection will result in enlargement of the scope of protection after grant, preventing a third party from anticipating the scope of protection.

Moreover, a request by patentee to make such a correction will require the Patent Office to decide the adequacy (i.e., examine the patentability of a corrected claim) which requires more personal resources at the Patent Office. The new type of examination may also delay examination procedure at the Patent Office on the whole.

3-7. Measures to Disadvantages

While there are both advantages and disadvantages in allowing corrections enlarging the scope of protection as discussed above, we propose to introduce the following measures to reduce the disadvantages.

(1) To limit the time period, two years after registration, for instance, during which a correction enlarging the scope of protection may be accepted;

(2) To grant intervening right to a third party who happens to infringe the corrected claim as a result of designing his/her product based on the pre-corrected claim. In other words, intervening right is the right granted to a third party who implements an invention which was not covered by (not infringing) the scope of protection conferred by pre-corrected patent claim but is covered by (infringing) the scope of protection conferred by corrected patent claim.

(3) To apply the doctrine of estoppel, which means that corrections reviving the scope eliminated during the prosecution history will be rejected; and

(4) To set higher fees for correction-related procedures to prevent any abuse of the process.

3-8. Case Study of Allowing Corrections Enlarging Scope of Protection

Here we examine a few cases that may occur in allowing corrections enlarging the scope of protection:

(1) Prior patent with element ABC is corrected to have element AB while there is a later patent with element ABD:

In this case, both patents were properly granted and the later patent didn't infringe the prior patent until the correction was made. When, however, the prior patent was corrected to have element AB, the later patent consisting of ABC would be deemed as an invention using the prior patent consisting of AB, preventing the patentee of the later patent to use his/her patent without infringing the prior patent. Thus how to save the patentee of the later patent needs to be considered. We believe that the patentee of the later patent should be granted intervening right if he/she has carried out his/her invention ABD in good faith prior to the time when corrected patent AB was registered.

(2) When a patent with element ABC becomes subject to a dispute over whether or not ABC' (C' is an alteration of C) carried out by others, is equivalent to the patent, the claim is corrected to have element AB

Use of ABC' will be deemed, without considering the possibility of equivalence, as falling within the scope of protection conferred by the corrected patent consisting of AB. At first glance, it seems reasonable that intervening right for the corrected patent AB should be granted to the user of ABC' who commenced to exploit his/her invention believing that the patent consisted of ABC, i.e., his/her product would not constitute infringement. Granting intervening right, however, should be decided depending on the relationship of implemented ABC' and pre-corrected patent ABC, and we should consider whether or not allegedly infringing product is found (by the court) as falling within the scope of equivalence. That is to say:

- If ABC' is found as not equivalent to ABC, no special problem will occur by granting intervening right for exploitation of ABC' (as is the case with (1) above);
- If ABC' is found as equivalent to ABC, granting intervening right for exploitation of ABC' may prevent, when ABC is corrected to AB, claim AB from being enforced against the user of ABC' which should have been possible before the correction.

Accordingly, we believe that intervening right based on corrected patent AB should not be granted for implementation falling within the scope of pre-corrected claim (including implementation falling within the scope of equivalence) because the intervening right is something that can be granted to a third party who implements an invention which was not covered by (not infringing) the scope of protection conferred by pre-corrected claim but is covered by (infringing) the scope of protection conferred by corrected claim

3-9. Required Modifications to SPLT to Incorporate Our Proposal

Introducing our proposal to SPLT will require the following modifications to the

provisions:

(1) deletion of the phrase "amendments and corrections in order to limit the extent of the protection" in Article 7bis(1) of the underlined part;

(2) introduction of new and express provisions relating to "corrections enlarging the extent of protection" including limitation on time period and intervening rights (reviving SPLT-8 Article-7bis(3); and

(3) deletion of REG-9 Rule-3 of the phrase "this Treaty does not cover applications for re-issue."

3-10. Conclusion

This Article has discussed the appropriateness of allowing corrections enlarging the scope of protection. We believe that, as stated above, provisions allowing corrections enlarging the scope of protection after grant to the extent of disclosure on the filing date, are reasonable from the viewpoint of promoting pro-patent policy seeking to protect the essence of an invention. Moreover, the interest of patentee and that of the public can be balanced by taking appropriate measures such as limiting the time period for corrections and providing intervening rights, to offset any possible disadvantages caused to a third party by the enlarged scope of protection.

We hope that introduction of our proposal will help the patent system develop further providing more protection to inventors and patentees even though it may require difficult decisions (as to, for instance, whether the alleged product falls within the scope of protection or whether or not intervening right should be granted) in individual cases.

4. Article 9 (Grace Period)

Last year we studied on SPLT-7 Article-9 and examined alternative A which was similar to provisions of Article 30 of Japan Patent Law and alternative B similar to Article 102(b) of US Patent Law.

As a result, we concluded to support alternative A due to the following reasons.

(a) The alternative B was not suitable for first-to-file system as the provisions exclude disclosure of an invention made independently by a third party from prior arts, which is too much exceptions under first-to-file system.

(b) We are in favor of grace period to make the most of defensive disclosure but such a too much exceptions make defensive disclosure difficult.

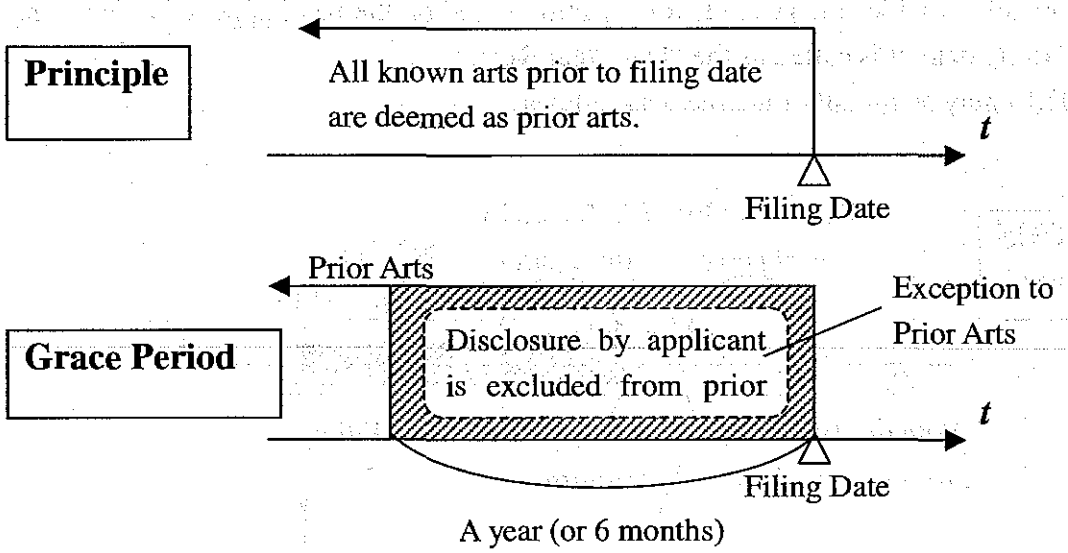
As we found revisions in Article-9 after SCP 7th session, we continued to study on grace period in succession to last year. Rather big modification was made between "SPLT-7 Article-9" and "SPLT-8 Article-9" but the difference between "SPLT-8 Article-9" and "SPLT-9 Article-9 was minor so that we mainly examined SPLT-9 Article-9.

In the following, we begin with indicating "the features of grace period scheme under

first-to-file system" and "Article 102(b) of US Patent Law," and make comparison between them. Next we introduce SPLT-9 Article-9 (1) and comments of US delegates with respect to that Article. Then we examine the appropriateness of US comments and finally submit our proposal.

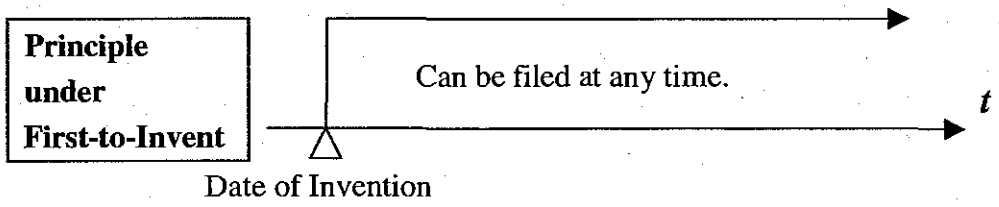
4-1. Grace Period under First-to-File System

Under first-to-file system, technologies and information known prior to the filing date will be all treated as prior arts. The grace period in the first-to-file system constitutes the exception to the principle, excluding disclosures made by (for instance) the applicant for a prescribed period of time prior to the filing date from treating as prior arts even though those were known prior to the filling date. In other words, it is the scheme for making "an exception to prior arts."



4-2. US Patent Law 102(b)

In the US which applies first-to-invent system under which "patent is awarded to the person who was the first to make the invention," novelty of an invention is decided based on the date of invention, not the filing date. Thus, simply speaking, a patent application may be filed at anytime after the invention is made.



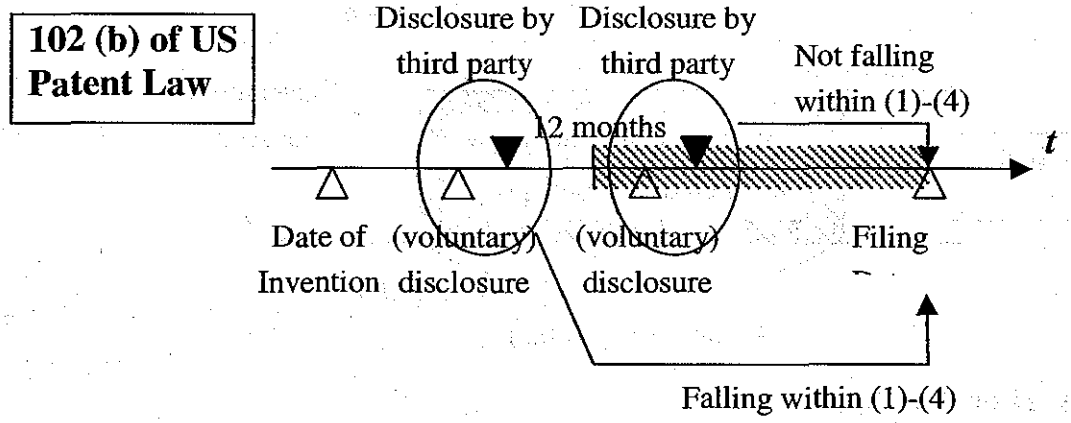
If, however, novelty of an invention is always decided based on the date of invention, an adverse effect may be that the inventor keeps his/her invention secret on purpose. Thus the US

Patent Law provides, while taking in principle the position of fist-to-invent system, "criteria of decision based on filing date" (Article 102(b)) under which an invention may not be patented if the any of the following facts existed at least 12 months prior to the filing date:

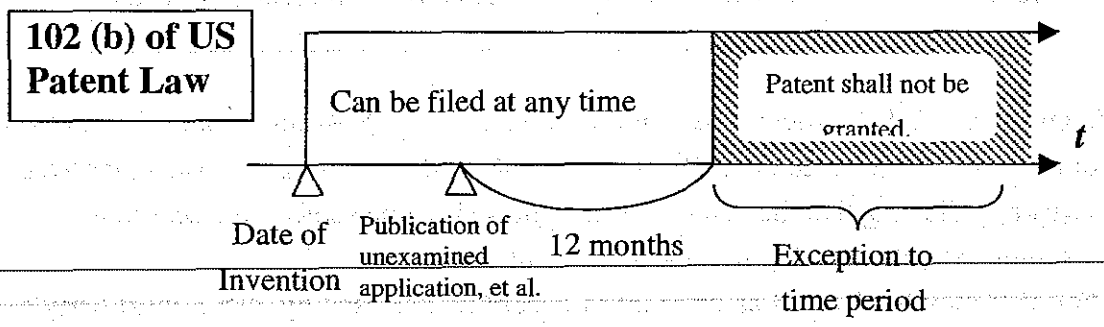
(1) that the subject invention was patented in the United States or other countries in the world;
(2) that the subject invention was published in printed matter in the United States or other countries in the world;
(3) that the subject invention was publicly used in the United States; or
(4) that the subject invention was sold in the United States.

Since the Article provides the grounds for rejection based on the fact happened at least one year prior to the filing date, it is called as the "One-Year Rule."

Article 102(b) may be literally illustrated as follows:



One-Year Rule seems similar to the grace period under first-to-file system because the decision is made based on the filing date. When, however, considering the principle of first-to-invent system under which "a patent application may be filed at any time (an application does not need to be filed earlier than other similar applications), Article 102 (b) may also be illustrated as follows:



That is to say, Article 102(b) of US Patent Law does not provide exception to prior arts that became known prior to the filing date but provides exception to the period during which an application should be filed to be awarded patent. It is understandable when considering the fact that 102(b) was made to deal with the "adverse effect of keeping an invention secret" as we discussed above.

In other words, the grace period under first-to file system provides "exception" during the prescribed period prior to the filing date while 102(b) does not provide anything relating to the prescribed period prior to the filing date during which period the first-to-invent principle still controls.

4-3. SPLT-9 Article-9

Draft SPLT provides similar rules to Article 30 of Japan Patent Law in that the grace period applies in principle only to disclosure made by the inventor and information that became known to the public against the inventor's will.

SPLT-9 Article-9
Information Not Affecting Patentability (Grace Period)

(1) [General Principle]

Information which otherwise would affect the patentability of a claimed invention shall not affect the patentability of that invention, in so far as the information was made available to the public anywhere in the world in any form during, or included in the prior art under Article 8(2) on a date during, the [12] [or six] months preceding the priority date of the claimed invention,

(i) by the inventor,

(ii) by an Office and the information was contained

(a) in another application which was filed by the inventor **[and should not have been made available to the public by the Office]**, or

(b) in an application filed without the knowledge or consent of the inventor by a third party which obtained the information directly or indirectly from the inventor,

or

(iii) by a third party which obtained the information directly or indirectly from the inventor.

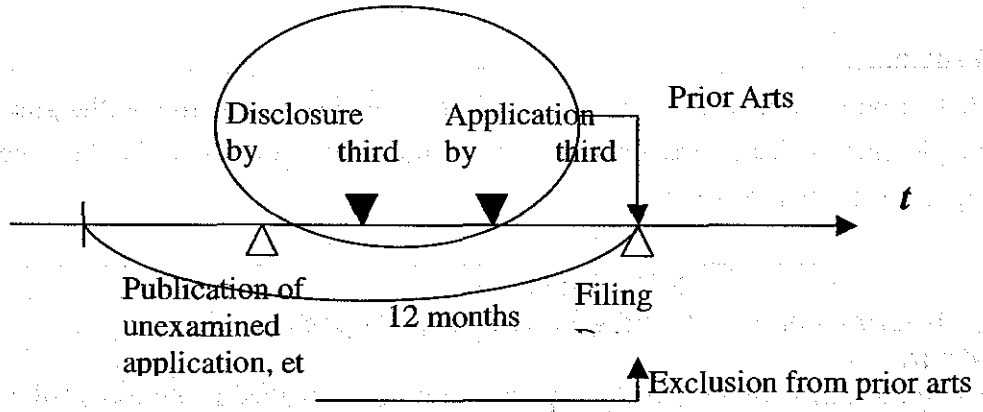
Alternatives A and B in SPLT-7 Article-9 have not seen since SPLT-8 Article-9, and the phrase "and should not have been made available to the public by the Office" have been instead inserted in paragraph (1)(ii)(a) indicating that the deletion of the phrase became subject to discussion.

First we examine why the deletion became an issue of discussion.

Information that may be deemed as prior art is generally disclosed by <1> a third party's patent application (including publication of its unexamined application); <2> a third party's general publication; <3> inventor's own patent application (including publication of its unexamined application); or <4> inventor's general publication.

Now let's assume that the grace period provided in SPLT-9 Article-9 is 12 months. Under the U.S. way of understanding, the inventor whose invention became the subject matter of at third party's patent application or publication may claim himself as the first inventor if he/she files a patent application within 12 months after such disclosure. That is to say, none of disclosure by <1> to <4> above will be deemed as prior art.

It goes without saying, however, that the concept cannot be brought in to SPLT which aims for first-to-file system under which novelty is decided based on the filing date, thus treating information disclosed within 12 months prior to the filing date by <1> and <2> above as prior art.



U.S. (and other countries as well) seems to be against SPLT that is far from their current system and hopes that they can maintain the current system as much as possible. However, U.S. delegates did not stick to first-to-invent system in the discussion over SCP because their insistence on first-to-invent system would prevent any progress of the discussion. Such an attitude is also seen from their non-persistence with alternative B in SPLT-7 Article-9. Accordingly they made a concession accepting <1> and <2> though it will be far from the current U.S. system.

Information made available by <4> will not cause any problem as it is the main focus of application of grace period.

Among <3>, Inventor's patent application prior to publication will basically not cause any problem as REG-9 Rule-9(3) (anti-self-collision) provides that such a disclosure is not deemed as prior art.

Thus the remaining issue seems to be "whether or not publication of inventor's patent application should be subject to the grace period scheme."

4-4. Considerations

Now we consider whether the position is appropriate or not.

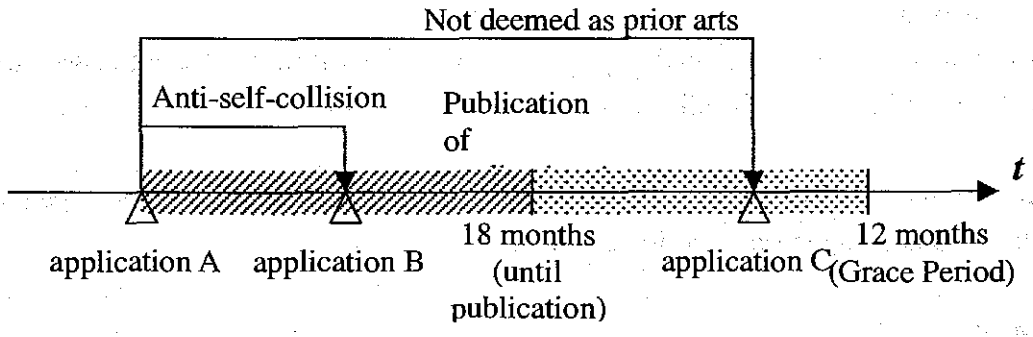
SPLT-9 Article-9 (1)(i) provides that the information voluntarily disclosed by the inventor will not be deemed as prior art. If it is the principle, it seems unnatural to exceptionally exclude the publication of inventor's own application from the scope not deemed as prior art.

The problem is that the publication of unexamined application will have complicated effects on other patent applications or patents as it is a "patent application."

First, the draft SPLT should provide prohibition of double patenting, which is not expressly provided now, to exclude publication of unexamined application filed by the inventor from prior arts. It is necessary just like double patenting was prohibited in introducing anti-self-collision to REG-9 Rule 9(3). Prohibition of double patenting causes another problem for SPLT that it has to provide criteria to tell what kind of similarities between two patent applications are permitted and what kind of similarities are not.

However, that problem has already been present since the introduction of "anti-self-collision" provisions and does not constitute a new issue.

Another problem may be that an applicant files applications one after another adding new elements so that decision of identical inventions will be avoided and extended patent protection period will be awarded. Assuming that an unexamined application is published 18 months after the filing date and that there is a grace period of 12 months, similar patents may be granted for the total of 30 months. Commencing from the time when the anti-self-collision rule is applied and ending at the expiration of the grace period during which the publication of unexamined application by the inventor is not deemed prior art. The period of 30 months cannot be ignored when considering the term of patent protection, which is 20 years in most countries.



On the other hand, excluding publication of unexamined application from application of grace period will undermine the function of grace period as safety net.

For instance, individual inventors and engineers who are not familiar with the patent law may easily think that the grace period will give them "the grace period for anything disclosed by themselves" though only publication of unexamined applications is excluded. As a result, the law provision which was expected to serve as the safety net may help increase of failing applications.

While similar patents may give advantages to major companies, we believe that the safety net should be an easily understandable system for small- and middle-sized companies and individual inventors.

Based on the foregoing discussion, we conclude to support deletion of the phrase "**and should not have been made available to the public by the Office**." Though there is a concern over need for correction of SPLT with respect to the Prior Art Effect and abuse of similar patents, we think the grace period system should cover the publication of inventor's application from the viewpoint of seeking a more friendly system to cover everything disclosed by the inventor.

5. Article 11(Claims), Rule12 (Details Concerning Claims), and Rule 13 (Interpretation of Claims)

SPLT-9 Article-11 and REG-9 Rules-12 and 13 provide description requirements and interpretation of claims.

Article-11(1) provides the contents of claims and states that the claims shall define the subject matter for which protection is sought in terms of the features of the invention.

In Article-11(2) which provides the style of the claims and states that the claims shall be clear and concise both individually and in their totality.

Provisions in paragraphs (1) and (2) are seen in many countries in the world as description requirements for claims and generally supported in SCP.

Article-11(3) provides relationship of claims to the disclosure, stating that claimed invention shall be fully supported by the disclosure. While many countries have certain

provisions relating the relationship of claims to the disclosure, the contents vary in many respects. Here we examine the relationship of claims to the disclosure as provided in 3 major countries or region, the U.S., EPC and Japan.

5-1. SPLT-9 Article-11(3)

5-1-1. Provisions on Relationship of Claims to the Disclosure in 3 Major Countries

Provisions on Relationship of Claims to the Disclosure in 3 Major Countries

	U.S.	EPC	Japan
Article	112	84	36(6)(i)
Criteria of Decision	Whether the applicant is in possession of the invention as of the filing date	Whether the claims contain essential technical features	Whether the claims are described in the description
Ground for Refusal	O	O	O
Reasons for Opposition/Revocation	O	×	O

In the U.S., the relationship of claims to the disclosure is provided in Article 112 and known as requirement of written description which is established by the case law as the requirement to clarify that the applicant is fully in possession of the claimed invention on the filing date. In EPC, relationship of claims to the disclosure is provided in Article 84 that all claims must be supported by the specification and that the scope of claims may not be broader than the scope of specification and drawings. In Japan, on the other hand, Article 36(6)(i) provides that claims must be described in detailed descriptions of the subject invention. It means that under the US Law the issue is not whether the claims simply described in the specification but whether the claimed invention was owned at the time of filing date. It can be said that the Japanese Law which weighs on whether or not terms used in the claims are described in the specification at least in the practical level, provides formal rules while the US Law may be deemed as substantive provisions.

In addition, there are difference in the part which supports the claims. Under the US Law, the whole application documents including claims are the supporting part while only specifications and drawings other than claims are the part in Japan and EPC.

5-1-2. Latest Draft SPLT

After considering these differences among countries and regions, SCP concluded that no practical difference in decisions exists among various countries, as a result of which the latest draft provision is provided mixing the provisions of US Law and EPC. While it requires those more familiar with the Japanese Law providing the formal matter to be a little careful, Japan

Patent Office seems to be considering of reviewing its examination standards to change the formal requirements to more substantive requirements taking into account the fact that inappropriately broad claims cannot be rejected simply based on the requirement of enablement in the unpredictable fields such as biotechnology. In addition, granting patent for an invention beyond the scope recognition on the filing date is not preferable in promoting appropriate protection of invention. Thus we agree with the draft Treaty providing substantive requirements relating to relationship of claims to the disclosure.

5-1-3. Discussions at SCP

SCP generally supports the requirements relating to relationship of claims to the disclosure. Disputes remain, however, with respect to whether or not claims should be included in the supporting part. We believe as follows:

5-1-4. Proposal on Support of Claims

When considering the nature of claims and specifications that claims define what will be examined and what the patent covers and specifications describe the claimed invention in detail, it may be natural to consider that claims should be supported by specifications which do not contain claims. However, the idea may not necessarily be appropriate depending on the criteria to decide whether claims are supported by the disclosure. That is to say, if whether claims are supported by the disclosure is decided based on the ownership of the claimed invention on the filing date such as under the US Law, it will be appropriate to decide based on the application documents including the claims on the application date in their totality. If, on the other hand, consistency of claims with specifications is simply required, the specifications not including claims will be the only subject to support. In this respect, REG-9 Rule-12(2) provides that "[t]he subject matter of each claim shall be supported by the [claims,] description and drawings in such a manner as to allow a person skilled in the art to extend the teaching therein to the entire scope of the claim, thereby showing that the applicant does not claim subject matter which he had not recognized and described on the filing date" to provide the basis for deciding whether claims are supported." That is to say, the Rule provides the substantive requirements similar to that of US Law with respect to relationship of claims to the disclosure. Accordingly, it seems reasonable that claims be supported by the whole application documents.

In relation to the issue of the supporting, WIPO stated in the report for the requirement concerning relationship of claims with the disclosure, that "it is not a major issue since what is disclosed in the claims can always be included in the specification by amendments." However, claims do not need to be excluded from the supporting part anyway if formal amendments are required.

For reference, the draft Treaty contains the following comments:

"Following the discussion at the eighth session of the SCP, the word "claims" is added, in

square brackets, for further consideration by the Committee. The insertion of the word "claims" would mean that the basis of the subject matter of every claim may not always be found in the description and that the scope of the claims may be broader than that of the description. Further, since many offices that do not examine novelty and inventive step examine the disclosure requirement and the requirements concerning claims, subject matter which is disclosed only in the claims could be included in the description through an amendment. On the other hand, it should be noted that, according to draft Article 10, the "application" (not the "description") shall disclose the claimed invention in an enabling manner. If the word "claims" was deleted and draft Rule 12(2) maintained, a patented claim may be revoked on the sole grounds that the teaching in the description and the drawings is not extended to the entire scope of that claim (even if the teaching in the description, drawings and other claims show that the applicant does not claim subject matter which he had not recognized and described on the filing date)."

5-1-5. Appropriateness of Using This Provision as a Ground for Invalidation

In connection with relationship of claims to the disclosure, some disputes also exist over whether the requirements may be used as a ground for invalidation. While patent laws of various countries provide the requirement as the ground for rejection, it is not necessarily provided as the grounds for invalidation. Under EPC, for instance, it constitutes the ground for rejection but not that for invalidation.

If the requirement is used as ground for invalidation, unnecessary disputes may occur and stability of law may be lost, undermining the appropriate protection of invention. As long as SPLT-9 Article-11(3) is the provision to exclude inappropriately broad claims not recognized by the inventor on the filing date, there is no positive reason to exclude the requirement from the grounds for invalidation. Thus we believe that if it can be used as a ground for invalidation, appropriate protection for the right holder should also be secured. An applicant naturally tries to describe claims as broadly as possible to fully protect his/her invention though it is difficult for him/her to fully disclose his/her recognition of whole scope of the claimed invention on the filing date. If that is the case, it will be significantly tough on the right holder to allow invalidation of the claims solely because the claims include invention that was not recognized on the filing date.

Thus separate provisions should be added as defensive measures against invalidation such as corrections of claims after grant. If, however, only corrections are allowed so that the patent claims only the subject matter disclosed clearly in the specification on the filing date, the claims may cover extremely a narrow scope not sufficiently covering the originally recognized subject matter. If, on the other hand, only corrections are allowed so that the elements that was not recognized on the filing date are excluded from the claims, repeated corrections will be required every time an element not recognized on the filing date is found, blurring the scope of protection. In either case or when corrections are made as defensive measures, further considerations are required to give full protection to the right holder.

5-2. SPLT-9 Article-11(4)(a)

Article-11(4) provides interpretation of claims stating that the scope of the claims shall be determined by their wording. REG-9 Rule-13 further provides the details of claim interpretation. What should be noted here is that Rule-13(4) provides the interpretation of so-called means-plus-function claims, stating that a claim defining a means or a step in terms of its function or characteristics will be construed as defining any structure et al which performs the same function or has the same characteristics. That way of interpretation goes against the US way of interpretation limiting such a functional description to embodiments. Interpreting claims broadly in such a way is not necessarily preferable during the prosecution though it will give advantages to the patentee after grant in that claims will not be narrowly interpreted as in the US. It should be noted, however, that the draft SPLT does not provide requirements in relation to infringement as expressly provided in SPLT-9 Article-2, and that thus the provisions on interpretation of means-plus-function claims do not directly apply to the construction of the scope of claims after grant.

5-3. SPLT-9 Article-11(4)(b)

Article-11(4)(b) provides in relation to claim interpretation that the scope of protection will be decided taking into account the scope of equivalence, to the elements expressed in the claims. The provision declares to apply so-called doctrine of equivalence which has recently been applied in many countries in the world as one of the methods of interpreting claims. We don't deny doctrine of equivalence itself. When considering, however, that the Treaty aims to substantially harmonize different procedure among the countries in the world for granting a patent, it is questionable if specific provision referring to equivalence is necessary. In addition, the concept of equivalence is relating to infringement and SPLT-9 Article-2 provides the general principle that "nothing in this Treaty and the Regulations shall limit the freedom of a Contracting Party to apply any requirements in relation to infringement." Thus provision referring to equivalence may go against the general principle, with respect to which further discussions are required at SCP.

6. SPLT-9 Article 12 (Conditions of Patentability)

----- Limitation of Technical Areas and Industrial Applicability -----

Draft provisions relating to conditions of patentability as set forth in Article 12 are outlines below. There are disputes over whether the phrase [in all fields of technology] should be inserted to the provisions relating to subject matter and over provisions relating to industrial applicability.

6-1. Summary of Article-12

(1) Subject matter eligible for protection

(a) Products and processes [, in all fields of technology,] which can be made and used in any field of activity will be the subject matter eligible for protection.

(b) Exceptions

Discoveries, abstract ideas, scientific and mathematical theories, and aesthetic creations are excluded from the subject matter.

(2) Novelty

~~A claimed invention must be novel.~~

(3) Non-Obviousness

A claimed invention must involve an inventive step.

(4) Industrial Applicability

A claimed invention must be industrially applicable. It shall be considered industrially applicable if it:

Alternative (A)

can be made or used for exploitation in any field of [commercial] [economic] activity;

Alternative (B)

can be made or used in any kind of industry. "Industry" shall be understood in its broadest sense as in the Paris Convention

Alternative (C)

has a specific, substantial and credible utility.

6-2. Limitation relating to Technical Fields

Here we discuss on whether terms stipulating technical fields should be inserted:

The disputes may dwindle in the future if all business activities are assisted by computers as computers will be essentially used to the business activities as the technical means. Currently, however, means claims and abstract claims sometimes cause confusion in practice since they often cover mere human activities. Provisions lacking in limitations on technical fields and stating that the process applicable to any activities may be the subject matter of an invention, may be construed as covering even human activities themselves. In other words, a patent may be granted to social arrangements, rules, natural activities of human being, business methods and economic policy (if they satisfy the conditions of novelty and non-Obviousness).

Thus the discussions become focused on whether the patent law should cover social arrangements, rules, natural activities of the human being, business methods and economic policy for protection. We do not oppose to giving certain protection to such matters, but isn't it nonsense to protect the wide range of subject matters under patent law?

Patent term, for instance, was provided as 20 years as a result of balancing the needs for preventing concealment of technology that is otherwise prone to be concealed and incentives for disclosure. In limitation to technical fields, a simple question arises on whether it is appropriate to protect for the same time period an improvement of "One Click" invention which is a famous

business model patent and basic invention relating to sovereign remedy for cancer (though extension as pharmaceutical products is available.). Some further argue that the appropriate term of protection should differ from industry to industry.

When it comes to other issues beyond the technical fields, the question over patent term becomes even bigger. Is it appropriate to directly apply important issues as such including right to seek injunction and computation of royalties? We suspect that the industry will be confused and the system may rather impede the development of industry unless those new questions are fully considered. Confusion seems unavoidable with rampant misuse of patents unless a considerable amount of case study and case law is accumulated to grant patent to every activities since there still remains various problems such as treatment of business method (not limited to technical method) as well as methods of medical treatment.

Here we propose to maintain the provision on technical fields as it will be more important with respect to SPLT to promptly reach an agreement with respect to broad framework and discuss addition of new subject matters for patent protection at the time of revising the framework with accumulated opinion and cases.

We do not oppose to expand the subject matters of patent protection beyond the technical in the future. And we do agree to grant patent to a wider range of subject matters as a result of satisfactory discussion for it will be quite exciting for us, the patent practitioners, to expand the activities to the new fields.

6-3. Industrial Applicability and Utility

6-3-1. Study by WIPO International Bureau

3 alternatives are indicated as to industrial applicability. After 8th session, the International Bureau surveyed on national laws relating to industrial applicability and utility, of which results may be summarized as follows:

a) Industrial Applicability

Major features of national law provisions relating industrial applicability are as follows:

Many countries require technical factors and deem personal/ private use as not industrial use. However, the requirement of industrial applicability is met if an invention is made in the industry or even if it is used only on a personal basis. Also many countries exclude medical methods and require industrial applicability especially with respect to sequences of a gene. In addition, utility is also considered in finding industrial applicability. Not a small number of countries also deem inventions applied only to non-spiritual activities in the personal sphere as not industrially applicable. In relation to the personal sphere, many companies give limitation at the time of enforcement. Inventions against the laws of nature are deemed not industrially applicable in many countries. Many countries require certain relationship of the concept of industrial applicability to the actual world.

b) Utility

Major features of utility seem to be as follows:

In many countries, utility will not be found if an invention does not operate at all. A patent application claiming too non-realistic or comprehensive use compared to the disclosed invention will be found as lacking in utility.

c) Commonalities and Difference Between Industrial Applicability and Utility Requirements

One of the common characteristics of two requirements is that an invention which does not operate will be deemed as lacking in industrial applicability or utility. In addition, disclosure lacking in descriptions of specific applicability and merely providing the general use of the invention will also be deemed in the same way. Difference of the two requirements is that an invention which is applied only for the personal use will be deemed as not industrially applicable but as having utility.

6-3-2. Discussion

Based on the commonalities and difference as stated above, providing industrial applicability in SPLT will result in exclusion of inventions applied solely for purely personal use as not meeting the patent requirements while providing industrial utility will result in inclusion of inventions applied solely for purely personal use. Now we discuss the difference:

Protecting inventions applicable solely for the personal use may not bring any substantial advantage. In other words, even if the inventions are used solely personally, the requirements will be satisfied if they are made industrially. It is rare that a single type of activities is limited to purely personal activities with no relation with industrial activities. Thus if the limitation of personal use is introduced, subject matter should be made in a certain industry. Inventions applied solely in the personal sphere and not using any specific item made in the industry may be limited, as we have discussed above in the item for technical limitation, to the personal activities not limited to technical methods. Accordingly, simply providing industrial applicability may suffice.

Problems occur, however, when filing a lawsuit alleging direct infringement with respect to the purely personal act/ use and contributory infringement against the person who sold the product mainly used to the personal actively implying how to use it. Sometimes, for instance, patent is not granted with respect to a product but to the method of using when the product itself is not novel but the method of using it is new. In such a case, if the invention of purely personal use does not meet patent requirements, claims relating to both the product and method of use will not be granted, depriving the right holder of the chance to enforce his/her rights. The result will cause a great inconvenience preventing from filing a lawsuit against a person who sold products with actively implying the method of use for indirect infringement.

Accordingly, we propose not to use the term "industrial applicability" that excludes inventions solely for the personal use but to use "industrial utility" so that inventions relating to purely personal act will be found as meeting patent requirements.

7. SPLT-9 Article 13 (Grounds for Refusal of a Claimed Invention) and SPLT-9 Article 14 (Grounds for Invalidation or Revocation of a Claim or a Patent)

Draft provisions relating to grounds for amendments/ invalidations in Articles-13 and 14 may be summarized as follows. In addition to the draft provisions, the Articles contain alternatives proposed by various countries with respect to whether or not other grounds may be inserted into statutory prohibition of other requirements.

7-1. Summary of Article 13

(1) Grounds for Refusal: An application will be refused where it does not meet any of the following requirements:

i) provision relating to application filed by a person other than the inventor or the true successor in title of the inventor (Article-4);

ii) provision relating to unity of invention, requirements of detailed description and patentable subject matter (Article-6, Article-11(2) and (3) and Article-12)

iii) provision relating to formality of specification and requirement of enablement (Article-5 and Article-10)

iv) provision relating to limitation of amendments Article-7(3) .

(2) Addition of other requirements is prohibited.

Alternative of (2) Compliance with the applicable law on public health, nutrition, ethics in scientific research, environment, access to genetic resources, protection of traditional knowledge and other areas of public interest in sectors of vital importance for their social, economic and technological development may be required.

7-2. Summary of Article 14

(1) Grounds for Invalidation: An application not complying with the following requirements may be invalidated:

- any of the requirements referred to in Article 13(1) as grounds for refusal
- except for requirements set forth in Article-6 and REG-9 Rule-5 (unity of invention and formality of claim description)

(2) Addition of other requirements is prohibited.

Alternative of (2) Compliance with the applicable law on public health, nutrition, ethics in scientific research, environment, access to genetic resources, protection of traditional knowledge and other areas of public interest in sectors of vital importance for their social, economic and technological development may be required.

7-3. Whether exceptions to limitative listings should be permitted or not

The problem here is whether the Contracting Country can freely add other grounds to statutory limitative grounds for amendments/ invalidation. The draft Treaty prohibits Contracting Country to add further grounds to those listed in the provision. On the contrary, the alternative provides that each Contracting Country can decide whether or not to exclude additional matters based on the applicable law on areas of public interest with a considerable level of importance.

It seems that the exclusion of certain areas is requested because otherwise a problem affecting the safety of a country and its citizens may occur should, for instance, a person who owns a pharmaceutical patent that may control the human life, can freely enforce his/her right of prohibition of marketing and manufacturing in a certain country. Exceptional, additional grounds for rejection may also be requested to prevent license or sale for hefty royalties or fees so that obtaining a license or selling patented product will be virtually impossible.

It is true that certain limitation to monopoly is necessary in the vital area. Here we examine the appropriate extent or type of limitation.

If grounds for refusal are used to the limitation, inventions falling within the grounds will not be patented without question, which means that no royalties will be paid to the patentee and similar goods will flood in the market. The more subject invention is vital as affecting the human life or basic, the more it is likely to fall within the grounds for rejection, causing more similar goods in the market. Since the invention is rejected during the prosecution, there is no way of filing a new application.

However, areas relating to the public interest with a considerable level of importance may be changed during the 20 years of patent protection. That is to say, an invention that seemed relating to such public interest at the time of filing date may become not so vital after 10 years. Applicants usually give up filing an application for such an invention at the very start, and it is no use requesting a patent after the situation has changed.

Some say that other requirements may be replaced by securing the national government or a third party to obtain a non-exclusive license for consideration. That is to say, the government may forcibly obtain a non-exclusive license for an invention falling within the requirements so that reasonable royalties may be computed. Thus, if a patent is not offered for license, the government can intervene and make it exploited by a third party. This way of limitation will allow flexible response even if the areas relating to the public interest with a considerable level of importance change.

Accordingly, we believe that it will be more reasonable to deal with the issue of limiting monopoly in the areas of public interest with a considerable level of importance by allowing the government to forcibly obtain a license, not by adding further requirements.

8. Conclusion

This year we tried to grasp the entire picture of SPLT through the overview.

We found from the whole discussions that the U.S. tries at every turn to maintain its existing system based on the first-to-invent system though it does not necessarily stick to the first-to-invent system.

While the U.S. is the only country in the world that applies first-to-invent system, its contribution to the creation of new technologies and its market size overwhelm any other country. It must be prevented that discussions easily proceeded based on majority vote without taking into account the U.S. opinion lead SPLT to another deadlock. We strongly wish that SPLT will be established in the near future as a result that countries applying the first-to-file system compromise wherever possible taking into account the U.S. standpoint.

Bibliography

[1] WIPO SCP -related documents - 9th session (http://www.wipo.int/scp/en/)
- Draft Substantive Patent Law Treaty(SCP/9/2)
- Draft Regulations Under the Substantive Patent Law Treaty(SCP/9/3)
- "Industrial Applicability" and "Utility" Requirements: Commonalities and Differences(SCP/9/5)
- Draft Report(SCP/9/8)

[2] WIPO SCP-related documents - 8th session (http://www.wipo.int/scp/en/)
- Draft Substantive Patent Law Treaty(SCP/8/2)
- Draft Regulations Under the Substantive Patent Law Treaty(SCP/8/3)
- Report(SCP/8/9)

[3] WIPO SCP-related documents - 7th session (http://www.wipo.int/scp/en/)
- Draft Substantive Patent Law Treaty(SCP/7/3)
- Draft Regulations Under the Substantive Patent Law Treaty(SCP/7/4)
- Report(SCP/7/8)

[4] WIPO SCP-related documents - 6th session (http://www.wipo.int/scp/en/)
- Draft Substantive Patent Law Treaty(SCP/6/2)
- Draft Regulations Under the Substantive Patent Law Treaty(SCP/6/3)
- Report(SCP/6/9)

[5] WIPO SCP-related documents - 5th session (http://www.wipo.int/scp/en/)
- Draft Substantive Patent Law Treaty(SCP/5/2)
- Draft Regulations Under the Substantive Patent Law Treaty(SCP/5/3)
- Report(SCP/5/6)

[6] WIPO SCP-related documents - 4th session (http://www.wipo.int/scp/en/)
- Suggestions for the Further Development of International Patent Law(SCP/4/2)

[7] Bostyn, et al., "International Harmonization of the Patent System,"AIPPI(2002)Vol.47 No.5、pp.320-348

[8] Takenaka, "International Harmonization from the Standpoint of US Patent Law," AIPPI(2002)Vol.47 No.5, pp.302-319

(1) Title: US Intellectual Property Legislative Update

IP-Related Bills Introduced in the 108th Congress

(2) Date: October 14 -17, 2003

(3) Source: 1) Source: PIPA, handout originated by IPO

2) Group: USA

(4) Authors: J. Jeffrey Hawley – Eastman Kodak Company

(5) Keywords: Legislative Update, IP-Related

(6) Statutory Provisions: various

(7) Abstract: A handout listing IP Related Bills in the 108th Congress by bill number, bill description, and status.

U.S. Intellectual Property Legislative Update

2003 PIPA Meeting, Dearborn

I am delighted to be here today. It has been several years since I have had the opportunity to attend a PIPA meeting. It has been still more years since I've had the honor of being asked to speak.

My topic today is a difficult one from the point of view that it is very difficult to keep up-to-date on legislative issues. Things tend to move very slowly for long periods of time, then very fast. I'm going to speak for a few minutes about various bills that are before the United States Congress and then I would like to take this opportunity to say a few words about what the future may bring in the way of legislation.

Before I say a few words about several of the more important to bills now pending before Congress, I would like to draw your attention to the handout that summarizes current legislative action taking place in the 108th Congress. This handout is current as of the middle of August and I want to express my deep appreciation to IPO (Intellectual Property Owners Association: www.ipo.org) for the opportunity to provide this summary for you today. More particularly I would like to particularly thank Dana Colarulli for his tireless efforts in keeping this information up-to-date. Dana is the Government Relations and Legislative Counsel for IPO.

The most controversial and important bills before the current Congress relate to the possibility of a new fee structure for the USPTO. On one side, most users of the U.S. patent system are extremely frustrated that, over the past several years, the fees that have been collected by the USPTO have not been used in their entirety for USPTO work. This so-called "diversion" of fees has been taking place since 1992. Based on current projections through 2004, more than $750 million will have been diverted from the USPTO fees to unrelated government programs. But for the diversion of these funds, the USPTO would already be realizing the efficiencies associated with electronic processing and the user community would not now be confronted with the present crisis in patent

quality and long pendency. However, it is widely viewed that the USPTO is indeed facing a serious crisis and needs considerable additional funding in order to modernize its operations and improve the quality of patents that are issued. Most current users of the patent system in the United States would support reasonable fee increases provided that the money was indeed used to provide improved service. There are those, while supporting reasonable fee increases, who would not support **any** increase if there were **any** divergence to unrelated government programs.

The legislative system in the United States is obviously highly political. Those in Congress who actually appropriate money have a great deal of power. The Administration can propose a budget but it is up to Congress to actually appropriate the money. While the views of the Administration are not controlling they are nevertheless important to help set the policy direction and tone of government spending. It was very encouraging for the patent community to hear the U.S. Secretary of Commerce, in a speech on March 8, 2003, state:

> "To support technology innovation and provide for intellectual property protection, the Department is working to eliminate the practice of using USPTO revenues for unrelated federal programs. Making more fees available sooner will enable the agency to increase the quality of patents and trademarks issued."

This is the highest Administration official so far to acknowledge the problems associated with fee diversion and to take a stand towards eliminating it.

There are several bills that relate to USPTO fees. For example, HR 2799 provides for appropriations for fiscal year 2004 and was passed by the House on July 23rd. This bill would set funding for the USPTO at $1.24 billion. However, the bill that has drawn the most attention is HR 1561. This bill increases and restructures USPTO fees. It is estimated that the fees for an average patent application, under the provisions of this bill, would increase by about 25 percent, maybe a little less. The bill has been the subject of a House IP Subcommittee hearing held on April 3rd. The president of IPO, John

Williamson, testified and his testimony is a good summary of the views generally held by the user community.

There have been several attempts to deal with the diversion issue. One interesting attempt is HR 909, originally introduced and 107th Congress as HR 5522. That bill would require that the Director of the USPTO adjust the fees in any fiscal year to just equal the amount appropriated. Another attempt to send a strong message regarding the divergence of fees is include in the bill a "sunset" provision. Briefly stated, this would require that any fee increase be temporary and the fees would revert to previous levels after a period of time, for example three years. One argument is that the USPTO needs additional money to put new systems in place but once they are in place and working, costs, and therefore fees, should go down.

Increased funding for the USPTO, according to Congress, was contingent upon the USPTO coming up with a strategic plan that would comprehensively restructure the USPTO and improve service. In response, Director Rogan, throughout late 2001 and the early part of 2002, worked diligently on such a comprehensive plan. That plan was published and was subject to a great deal of discussion and comment. As a result, significant changes to the original strategic plan were announced by the USPTO. For example, the original 21st Century Strategic Plan called for the imposition of punitive fees, well beyond the USPTO costs. In the current Plan, the punitive fees have been substantially eliminated. Other characteristics of the Plan were also changed, such as the requirement that the applicant provide and certify a novelty search. Based on these changes and the apparent willingness of the Patent Office to continue to work with the user community on improvements to the Plan, the Plan has received support from various organizations. Accordingly, fee increases, which could be used to implement plan, have also received support.

The current status is that HR 1561 as been approved by the full Judiciary Committee on July 25th 2003.

Turning now to a different topic I would like to draw your attention to HR 2344 which is entitled "Intellectual Property Protection Restoration Act of 2003". This act would provide for federal remedies for intellectual property infringement committed by individual states of the United States. More particularly, it would overrule federal court decisions that have held that states can claim immunity from intellectual property infringement suits brought under federal law, for example, patent infringement suits or copyright infringement suits. Copyright owners are particularly disturbed that software can be copied with immunity by a university, for example. In testimony before Congress, it was reported that an industry association was alerted to the piracy of hundreds of computer software programs on computers owned by a Maryland hospital center in Baltimore. With the hospital's approval and full cooperation, their computers were audited to determine the extent of the piracy. The audit revealed several hundred thousand dollars worth of unlicensed software. Unfortunately, the industry association subsequently received a communication from the Maryland state agency hospital asserting their 11th Amendment immunity and referencing the federal court decisions, more particularly a case known as "Florida Prepaid". The proposed bill would provide that any state that takes advantage of intellectual property federal protection, would waive any immunity for intellectual property infringement. Obviously, every state takes advantage of federal intellectual property protections.

A bill that is of great interest to the pharmaceutical industry is S 1225. This bill amends the Hatch-Waxman Act. This Act relates to a scheme by which generic pharmaceutical companies are enabled to enter the market as quickly as possible after the pertinent patens of a "name brand" company expire. Some say that the bill would strengthen a previous FDA proposal and would enable generic drug manufacturers to come to market quicker. The primary features of the bill include (a) limiting a name brand company to a single 30 month stay; (b) allowing generic companies to file counterclaims when sued by a name brand company: (c) and installing provisions in which the generic drug company would forfeit its rights to its 180 days of exclusivity if it previously brokered an anti-competitive deal with a name brand company.

On August 1, 2003 a Senate hearing was held on the bill. During the hearing, several witnesses testified, including the General Counsel of Eli Lilly, Bob Armitage. Bob's position was against the bill. His points:

> ""Generic exclusivity" as provided under S. 1 would rarely accelerate generic drug entry but will instead operate in a systematic fashion to create a separate, additional market-entry hurdle for competing generic companies."

> "[The bill] creates a new incentive for generic companies to bring early and entirely speculative patent challenges against the basic patents for a new medicine."

> "Innovators will incur substantial costs to defend these patent challenges, no matter how speculative or thin."

Whether you believe that the bill will increase competition and reduce drug prices or whether you believe that the bill will stifle innovation, it is an important bill even if you are not a pharmaceutical company. Many companies are facing rapidly increasing health-care costs. A large portion of the increase is in the cost of pharmaceuticals. It is in the interest of all companies to seek an appropriate balance between the need to provide generic pharmaceutical compositions when patent expires and the need to provide for the incentives to make the huge investments in pharmaceutical research.

I would like to now turn your attention to what the future may bring in the way of legislative initiatives in the U.S. IP organizations are looking at several areas of U.S. patent law that often result in substantial costs but without substantial benefit. Several organizations, for example, are looking at U.S. law as it relates to "notice". In Japan,

there is the concept of a "warning letter". In the United States, there are several times during a patent controversy where notifying your opponent establishes certain rights and obligations. Unfortunately, many find the law relating to "notice" to be confusing and inconsistent. For example, a patent owner can put a potential infringer on notice of patent infringement so as to start the period of damages while that very same notice is not necessarily sufficient to allow the potential infringer to clarify his rights using a declaratory judgment action. Many see this imbalance is being unfair to the potential infringer. In another aspect of "notice", U.S. patent law allows for the "marking" of a product with patent numbers thereby placing the public on actual notice that features of the article are patented. Many believe that many aspects of patent marking are not logical in the modern environment. I would expect to see proposed legislation in the area of notice, including patent marking, in the not too distant future.

Several organizations have also begun looking at the costs and benefits of "willful" infringement under U.S. law. This area of law can result in significant costs to potential defendants. With very little effort, a patent owner, even if the patent is questionable, can impose substantial costs on a large number of companies. When a company receives a notice of potential infringement of a particular patent, they are faced with the prospect of being found to be "willful infringers" resulting in the prospect of treble damages. As a result, the company will often undertake an extensive study including, potentially, the preparation of an expensive legal opinion. Oftentimes, the sole purpose of the extensive legal opinion is to eliminate the prospect of treble damages. An unscrupulous patent owner can send out literally hundreds of notice letters and then offer to settle for less than the cost of an investigation and opinion. We are seeing more and more of this kind of activity and modifying the law of willful infringement would help to reduce the effectiveness of this tactic. In the course of litigation, proving a state of mind is particularly difficult and expensive. Many believe that absent very obvious and egregious conduct, willfulness should not be an issue. Here again, I predict some legislate activity in the future.

No presentation at a PIPA meeting would be complete without at least a brief discussion of harmonization. Harmonization will require a great deal legislation in many countries. However, I leave you with one thought. How much would your company save if it could obtain worldwide patent protection with one application, one search and one examination? One application – one search – one examination, in the context of harmonization, represents an increasing order of difficulty. Conceptually, the user community should be able to convince the various patent offices to encourage the filing of one patent application that would not only be accepted but would not be financially penalized in one jurisdiction or another. It will be more difficult to revise the substantive law such that the prior art is defined the same in each jurisdiction - thereby allowing for one search. It will be still more difficult or to harmonize the substantive law so that patentably subject matter is the same in each jurisdiction - thereby allowing for one examination.

However, and there are signs that progress is being made. Unfortunately, there are signs that the patent offices do not yet understand the needs of users and continue to adopt inconsistent standards and fee structures that stand in the way of efficient systems.

In the interests of time, let me give you just one example. One barrier to establishing a "one application" international system is the various practices in the patent offices in the way that they charge for claims. The fee structure in Japan severely penalizes applications with more than about three claims. The European patent system almost encourages up to 20 and specifically seems to encourage multiple dependent claims. The U.S. patent system's fee structure strongly discourages such multiple dependent claims. Thus, when an attorney is preparing an application for filing, it is economically imperative that careful consideration be given to the claim structure for each jurisdiction for no other reason than the fee structures that exist in these jurisdictions. If the patent offices were to consider the needs of the international filing community, and not just their need to balance fees and somehow recover costs, a more efficient system could be easily achieved.

You can help. For each practice change that your patent office proposes, ask yourself "How might this change affect my ability to prepare a single international application?" For each legislative change that does not move towards harmonization, ask yourself if the possible benefit to one country to be different is worth the cost of erecting a barrier to the goal of **one application, one search, and one examination.** When you are preparing your comments to proposed changes, be sure to comment on how the change affects your ability to achieve **"The Goal"**.

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Intellectual Property Owners Association

IP-Related Bills introduced in the 108th Congress (most recent bills listed first)

Bill No.	Bill Description	Status
Introduced in the U.S. House of Representatives		
Approps: H.R. 2799	**Commerce-Justice-State Appropriations Bill** – *Provides appropriations for Fiscal Year 2004 for the USPTO and other agencies that fall under the three departments.*	Passed by the House on July 23 (H. Rep. 108-221). The bill sets funding at $1.24 Billion for the USPTO. It does not take into account the possibility of legislation passed this Congress which would increase fees by 15-25% (see H.R.1561 below).
H.R. 2752	**Author, Consumer, and Computer Owner Protection and Security Act of 2003 (ACCOPS Act)** (Rep. Berman) – *Seeks to enhance domestic and international enforcement of the copyright laws by providing additional anti-piracy tools to law enforcement and making it a Federal offense to provide misleading contact information when registering a domain name or to camcord a movie in a theater without authorization among other things.*	Introduced 07/16/2003.
H.R. 2601	**Public Domain Enhancement Act** (Rep. Lofgren, D-CA-16) – *Amends Title 17 to allow abandoned copyrighted works to enter the public domain after 50 years.*	Introduced 6/25/2003; Referred to the House Judiciary.
H.R.2521	**Fair, Transparent, and Competitive Internet Naming Act of 2003** (Rep. Baird, D-WA-3rd) – *Requires the Comptroller General to study ICANN business practices, procedures, accountability, and administration and the Internet domain name system.*	Introduced 6/19/2003; Referred to the House Energy and Commerce.
H.R.2517	**Piracy Deterrence and Education Act of 2003** (Rep. Smith, R-TX-21) – *Seeks to enhance criminal enforcement of the copyright laws, educate the public about the application of copyright law to the Internet, and clarify the authority to seize unauthorized copyrighted works.*	Introduced 6/19/2003; Referred to the House Judiciary, IP Subcommittee.
H.R.2494	**United States-Cuba Trademark Protection Act of 2003** (Rep Rangel, D-NY-15) – *Promotes compliance with international intellectual property obligations relating to Cuba.*	Introduced 6/17/2003; Referred to the House Judiciary, IP Subcommittee. Section by section summary available at: http://www.ipo.org/2003_New/LB_cuba.pdf

01823

Bill No.	Bill Description	Status
H.R. 2391	**Cooperative Research and Technology Enhancement (CREATE) Act of 2003.** – *Amends 35 USC §103 to promote collaborative research involving research institutes and universities among others.*	Introduced: 06/09/2003; The House IP Subcommittee held a hearing on this topic on 6/10/2003. For testimony, see: http://www.house.gov/judiciary/courts.htm *Cosponsors (10): Reps. Baldwin (WI-2), Berman (CA-28), Boucher (VA-9), Coble (NC-6), Conyers (MI-14), Goodlatte (VA-6), Green (WI-8), Hart (PA-4), Lofgren (CA-16), Wexler (FL-19)*
H.R. 2344	**Intellectual Property Protection Restoration Act of 2003** (Rep Smith, TX-21st) – *"sovereign immunity bill" – Restores Federal remedies for intellectual property infringement committed by States.*	Introduced 6/5/2003. The House IP Subcommittee held a hearing on this issue on 6/17/2003. For testimony, see: http://www.house.gov/judiciary/courts.htm
H.R.2255	**A Bill to extend the suspension of certain payments to be made by noncommercial webcasters under 17 U.S.C. §§ 112 and 114.** (Rep Price, NC-4th). – *Extends suspension of royalties by certain webcasters for one year.*	Introduced 5/22/2003; Referred to the House Judiciary, IP Subcommittee.
H.R.2122	**Project BioShield Act of 2003 / Vaccine Compensation bill** (Rep Tauzin, LA-3rd) – *Provides incentives to industry to develop countermeasures for biological and chemical warfare. It seeks to enhance research, development, procurement, and use of biomedical countermeasures to respond to public health threats affecting national security.*	Introduced 5/15/2003; Passed by the House (421-2) on 7/16/2003.
H.R.1946	**A Bill to amend title 35 USC to clarify the applicability of certain provisions relating to railroad cars.** (Rep Walden, OR-2nd) – *Expands the infringement exemption at 35 USC §272 to state that use of an invention on a railroad car entering and leaving the U.S. on a recurring basis cannot infringe a patent among other things.* *This bill is related to litigation in the Eastern District of Pennsylvania, National Steel Car Ltd. v. Canada Pacific Railway, E.D. Pa., No. 02-6877, 1/6/03. This case is currently on appeal in the Federal Circuit.*	Introduced 5/1/2003; Referred to the House Judiciary, IP Subcommittee. Cosponsors: Reps. Blumenauer (OR-3) and Dicks (WA-6)

0183

Bill No.	Bill Description	Status
H.R.1561	**United States Patent and Trademark Fee Modernization Act of 2003** (Reps. Smith, R-TX-21st and Berman, D-CA, 28th) -- *Increases and restructures Patent and Trademark fees, enables the USPTO to retain all the user fees it collects until expended by the agency, and makes other miscellaneous changes to 35 USC §§ 41 and 42.*	Introduced (by request) on 04/02/2003; text based on proposed USPTO fee bill (revised Feb. 2003). The bill was amended (to address diversion and technical changes) and approved by the subcommittee on 5/22/2003. It was subsequently amended again by the Full committee (to address outsourcing) and approved by the Full committee on 7/25/2003. H.Rep. 108-241. *The House IP Subcommittee held a hearing on this bill on April 3 at which IPO President John Williamson testified. IPO's oral and written statements (and the bill) are posted on the IPO website at www.ipo.org.*
H.R. 1417	**Copyright Royalty and Distribution Act Reform Act** (Rep. Smith, R-TX-21st) – *Amends Title 17, United States Code, to replace copyright arbitration royalty panels (CARP) boards with a Copyright Royalty Judge.*	Introduced 3/25/2003; referred to House Judiciary Cosponsors: Reps. Berman and Conyers *The House IP Subcommittee held a hearing on this bill on April 1.*
H.R. 1066	**Benefit Authors without Limiting Advancement or Net Consumer Expectations (BALANCE) Act** (Rep. Lofgren, D-CA-16th) - *reintroduced from 107th Congress (H.R. 5522) -- Amends Federal copyright law to address fair use protections as they relate to the lawful use and manipulation of analog or digital transmissions of copyrights works.*	Introduced 03/04/2003 – Referred to House Judiciary Committee
H.R. 909	**Patent Fee Bill** (Rep. Rohrabacher, R-CA-46th) – *reintroduced from 107th Congress (H.R. 2415) –Amends Federal patent law to require the Director of the Patent and Trademark Office to adjust user fees collected in any fiscal year to equal the amount appropriated.*	Introduced 02/25/2003 - Referred to House Judiciary Committee
H. R. 828	**Pharmaceutical Fiscal Accountability Act of 2003** (Rep McCarthy, D-NY-4th) – *Amends the FDA Act to allow generic drug applicants to be eligible for a 180-day exclusivity period and require the Comptroller general to study the effects of pharmaceutical patent extensions and market exclusivity periods on delays in introducing generic drugs.*	Introduced 2/13/2003 – Referred to the House Energy and Commerce, Subcommittee on Health. *Cosponsors (5): Reps Emanuel (IL-5), Israel (NY-2), Norton (DC), Owens (NY-11), Rahall (WV-3)*
H.R. 242	**Plant Breeders Equity Act** (Rep. Issa, R-CA-49th) – *reintroduced from 107th Congress (H.R.5119) – Relaxes the printed publication bar for plant patents.*	Introduced 01/08/2003.

0164

Bill No.	Bill Description	Status
H.R. 107	**Digital Media Consumers' Rights Act** (Rep. Boucher, D-CA-9th) – *reintroduced from 107th Congress (H.R.5544) – Amends the Federal Trade Commission Act to prohibit digital music disc products that are deceptive or mislabled from entering the market. Also amends copyright law to exempt persons researching technological protection measures from the anticircumvention provisions of the copyright law. The bill also declares that fair use protections extend to persons who circumvent but do not infringe and those who distribute products capable of circumventing encryption technology.*	Introduced 01/07/2003.
H.R. 25	**Fair Tax Act of 2003** (Rep Linder, D-GA-7th) – *Amends the tax code to include an Intangible Property Antiavoidance Rule (Title II, §201).*	Introduced 01/07/2003; referred to the House Committee on Ways and Means.
H.R.1	**Medicare Prescription Drug and Modernization Act of 2003** (Rep Hastert, IL-14th) – *Title XI of the bill, "Access To Affordable Pharmaceuticals" includes patent related provisions. See **S.1225**, the Greg/Schumer Amendment, for these provisions which were added to the bill prior to conference.*	Introduced 6/25/2003. Passed by the House 6/27/2003; S.1 passed by the Senate on 7/7/2003 and amendments incorporated into H.R.1; Bill moved to conference.
Approps: H. J. Res. 2 / S.Amdt. 1	**FY2003 Omnibus Appropriations** (Rep Young, R-FL-10th)	Signed into law by the President on 2/20/2003 as Public Law 108-7. The law provides for **$1.182 billion** in funding for the USPTO in FY2003.
Approps: H.R. 247	**Commerce-Justice-State (CJS) FY2003 Appropriations Act** (Rep. Wolf, R-VA-10th)	Introduced 01/09/2003.

0185

Bill No.	Bill Description	Status
Introduced in the U.S. Senate		
S.1225	**Greater Access to Affordable Pharmaceuticals Act** (Sens. Gregg, R-NH and Schumer, D-NY) - *Overhauls certain provisions of Hatch-Waxman (drug patent laws) and strengthens a previous FDA proposal that enables generic drugs to make it to market faster. The primary features of the bill include: (a) limiting a name-brand company to a single 30-month stay; (b) allowing generic companies to file counter-claims when sued by a name-brand company; (c) installing provisions in which a generic drug company would forfeit its rights to its 180-days of exclusivity if it previously brokered an anti-competitive deal with a name-brand company; and other provisions.*	Introduced 06/10/2003; passed by the Senate 6/11/2003. The bill was also offered as an amendment to the Medicare bill, S.1. The Senate Judiciary Committee held a hearing on this bill on 08/01/2003 in which FTC Chairman Tim Muris, USPTO Deputy Director John Dudas and Elly Lilly General Counsel Bob Armitage testified among others. For witness lists and submitted testimony, see: http://www.judiciary.senate.gov/hearing.cfm?id=891 Text of this bill in large part was adopted by the House.
S. 1191	**Intellectual Property Protection Restoration Act of 2003** (Sen. Leahy, D-VT) – *"sovereign immunity bill" – Restore Federal remedies for intellectual property infringement committed by States.* Bill reintroduced from previous Congress: S.2031, 107th	Introduced 6/5/2003 and referred to the Senate Judiciary Committee. The House IP Subcommittee held a hearing on the House Companion bill (H.R.2344) on 6/17/2003. For a witness list and copies of witness testimony, see: http://www.house.gov/judiciary/courts.htm
S.946	**Drug Competition Act of 2003** (Sen. Leahy, D-VT) – *reintroduced from 107th Congress -- Enhances competition for prescription drugs by increasing the ability of the Department of Justice and Federal Trade Commission to enforce existing antitrust laws regarding brand name drugs and generic drugs.*	Introduced 4/29/2003; Referred to the Judiciary Committee. *Cosponsors (6): Cantwell (D-WA), Durbin (D-IL), Feingold (D-WI), Grassley (R-IA), Kohl (D-WI), Schumer (D-NY)*
S.692	**Digital Consumer Right to Know Act** (Sen. Wyden, D-OR) -- *Requires the Federal Trade Commission to issue rules regarding the disclosure of technological measures that restrict consumer flexibility to use and manipulate digital information and entertainment content.*	Introduced 03/24/2003; referred to Senate Commerce Committee.
S. 671	**Miscellaneous Trade and Technical Corrections Act of 2003"** – *Title 3 of this act seeks to enhance and strengthen protection of US IP rights abroad through harmonizing IP rights criteria in various trade preference acts, establishing a formalized USTR petition process and making technical corrections affecting WTO/TRIPS cases brought against countries subject to trade action under Section 301.*	Approved by the Senate Finance Committee, 02/27/2003. Placed on Senate Calendar with written report Sen. Rep. 108-28. Related House Bill: H.R. 1047 ***Bill Text:*** http://finance.senate.gov/sitepages/leg/leg022603.pdf

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Bill No.	Bill Description	Status
S.54	**Greater Access to Affordable Pharmaceuticals Act of 2003** (Sens. Schumer, D-NY & McCain, R-AZ) – *reintroduced from the 107th Congress; Seeks to close loopholes to expedite generic drug approval; Sections 3 and 4 of include language requiring the filing of patent information with the FDA and a limitation of one 30-month stay to certain patents.*	Introduced 01/08/2003; referred to the Committee on Health, Education, Labor, and Pensions.
S.7	**Prescription Drug Benefit and Cost Containment Act of 2003** (Sen. Daschle, D-SD) – *Includes language similar to S.54 on filing with the FDA and the 30-month stay limitation (§§ 201 & 202).*	Introduced 01/07/2003; referred to the Committee on Finance.
S. 2	**Senate Jobs and Growth Tax Act of 2003** - *Sec. 364 of the bill reported out of the Finance Committee to the Senate was titled, "Limitation Of Deduction For Charitable Contributions Of Patents And Similar Property." – the section would eliminate the tax benefits to Corporations who make patent donations.*	This bill was reported out of the Senate Finance Committee in the nature of a substitute bill on 5/9/2003 and was passed by the Senate. The final tax bill did not include this provision and was signed into law on 5/28/2003 as Public Law 108-27. IPO sent a letter on this issue to Sen. Grassley on 5/21/2003 which is posted on the IPO website at: http://www.ipo.org/PosStatement.html

NOTE: *Text and status information on the legislation cited above can be found on the IPO Website at: http://www.ipo.org/issues.html*

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(1) Title: Patentee's Participation in Standards Setting (the Rambus Case)

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(5) Keywords: Standard-Setting Organizations, SSO, Duty to Disclose, Equitable Estoppel, Implied License, Fraud, Unfair Methods of Competition

(6) Statutory Provisions: Section 5 of the Federal Trade Commission Act

(7) Abstract: Standard-Setting Organizations (SSOs) have established rules not only obligating participants to license patents which are essential to a standard, but also requiring participants to disclose their essential patents prior to adoption of the standard. The traditional risk flowing from failure to comply with SSO patent disclosure rules is that such essential patents may be held unenforceable against standard compliant products under the doctrine of equitable estoppel. The recent *Rambus* case and the prior *Dell* case show that the consequences of non-compliance also include possible charges of fraud, or action by the U.S. Federal Trade Commission (FTC) concerning unfair methods of competition. These cases are discussed and suggestions are made for the content of SSO rules and for the approach companies should take to standard setting activities to minimize risks.

PATENTEE'S PARTICIPATION IN STANDARDS SETTING (THE RAMBUS CASE)

By Dicran Halajian and Jack D. Slobod [1]

Background

Standard-Setting Organizations (SSOs) have proliferated in recent years and are increasingly being established for emerging technologies in the electronics industry to ensure the interchangeability and interoperability of computer, consumer electronics, and telecommunication equipment of different manufacturers. Companies participate in SSOs for a variety of reasons, none the least of which is to monitor the emerging standards and plan to produce products that would be covered by the standards.

SSOs have established intellectual property (IP) rules because of concern that patent rights of third parties which are necessarily infringed when making or using standard compliant products (so-called "essential" or "necessary" patent rights or claims) may be used to block or inhibit effective implementation of the standard. Despite the important implications of IP rules of SSOs, little has been written about such rules generally. [2] SSO IP rules take a variety of forms, and may impose obligations on participants in standard setting activities and/or members of the SSO to disclose their essential patents prior to adoption of the standard, and to license such essential patents on a particular basis.

The majority of SSOs allow participants to retain their essential IP rights, but may require participants to undertake to license such rights for standard compliant products on reasonable and nondiscriminatory terms (RAND). An example thereof is the European Telecommunications Standards Institute (ETSI),[3] which further seeks to adopt standards which are not blocked by IPR of a member not willing to license.[4] However, SSOs requiring royalty free licensing to attempt to achieve a so-called "open standard" are also appearing, such as *Bluetooth*™.[5] The SSO rules may include saving or escape provisions allowing participants to use their essential IP rights in a counterclaim if they are sued for patent infringement arising from compliance with the standard,[6] and/or providing a right of withdrawal prior to adoption of the standard to avoid the licensing obligation.[7]

The risk usually considered as flowing from a company's failure to comply with the IP disclosure rules of an SSO is that the relevant patents of the company may be held

unenforceable against standard compliant products on account of equitable estoppel.[8] Equitable estoppel does not require affirmatively misleading statements and applies to silence where conduct and circumstances render "a clear duty to speak" as indicated in the seminal *Aukerman*[9] case where the court stated that equitable estoppel applies if:

> A patentee, though misleading conduct, leads the alleged infringer to reasonably infer that the patentee does not intend to enforce its patent against the alleged infringer. Conduct may include specific statements, action, inaction, or silence where there was an obligation to speak.[10]

It may also be argued that a patentee's conduct in standard setting activities or concerning standard compliant products have given rise to an implied (usually royalty-free) license. A finding of implied license is based on contract law and focuses on the relationship between the parties and the objective expectations flowing from their conduct.[11] An implied license may be found where a patentee invites a use that would otherwise infringe its patent.[12] The conduct of a patentee in standard setting activities may produce analogous situations. For example, if a patentee extols the benefits of a proposal without disclosing its IP position, and it is expected from the relationship of the parties that disclosure of intent to enforce the patent should have been made, it may be argued that the patentee has invited royalty-free use of products or methods compliant with its proposal.

Recent cases have served to sensitize companies of the heavy obligation falling upon engineers and scientists of a company participating in an SSO to comply with the IP rules of the SSO in regard to disclosure of IP rights, and the consequences of actual or perceived non-compliance. As will be apparent from the discussions herein, these consequences can include not only unenforceability of patent rights on account of equitable estoppel or implied license, but also charges of actual fraud, violation of the Racketeer Influenced and Corrupt Organization Act (RICO)[13], monopolization or attempt to monopolize in violation of the Sherman Act[14], or violation of section 5 of the Federal Trade Commission Act[15].

The Rambus Case

In *Rambus, Inc. v. Infineon Techs AG*, (2001)[16] after Rambus' patents were held not infringed by Infineon's products implementing the Synchronous Dynamic Random Access Memory (SDRAM) and the Double Data Rate SDRAM (DDR-SDRAM) standards adopted by Joint Electronics Devices Engineering Council (JEDEC),[17] a jury exonerated Rambus on the RICO claim[18] but found Rambus guilty of fraud and awarded punitive damages[19] based on Rambus' failure to disclose relevant patent applications to JEDEC. On a post-trial judgment as a matter of law (JMOL), the District Court for the Eastern District of Virginia permitted the fraud verdict on the SDRAM standard, finding that Rambus had a duty to disclose patent applications related to an SDRAM standard-setting effort promulgated by JEDEC, "(notwithstanding the absence, until 1993, of an explicit reference to pending patents in the JEDEC manual), [since] all members, at all times here pertinent, had a known duty to disclose patent applications that related to the SDRAM standard-setting effort" as proved by clear and convincing evidence.[20] However, the District Court set aside the fraud verdict on the DDR-SDRAM standard, finding that Rambus withdrew before the duty of disclosure was triggered, namely, before the JEDEC Committee began working on the DDR-SDRAM standard.[21]

Thereafter, the U.S. Court of Appeals for the Federal Circuit (CAFC) overturned the jury verdict of fraud in regard to Rambus' failure to disclose patent applications related to the SDRAM standard.[22] The CAFC noted that there "is no indication that members ever legally agreed to disclose information" but treated the JEDEC policy[23] as imposing a duty to disclose. Nevertheless, Judge Rader writing for the majority noted that the disclosure duty focuses on patent claims since the language of the JEDEC policy "links the disclosure duty to patents or applications whose claims cover the proposed JEDEC standard."[24] The court found no breach of the disclosure duty since it accepted Rambus's argument that none of the pending claims read on the SDRAM standard despite Rambus's earlier mistaken belief that it had pending claims covering the standard, stating that such a mistaken belief "does not substitute for the proof required by the objective patent policy."[25] The dissent noted that there was no proof that Rambus' pending claims did not read on the SDRAM standard.[26] With respect to the DDR-SDRAM standard, the CAFC affirmed the District Court's decision holding that Rambus

had no duty to disclose since it withdrew from JEDEC in June 1996, and JEDEC did not begin formal work on the DDR-SDRAM standard until December 1996.[27]

Infineon also brought monopolization claims under the Sherman Act, where the district court, initially rejected Rambus' motion to dismiss for failure to state a cognizable claim, but ultimately dismissed Infineon's monopolization claims after ruling that Rambus' patents were not infringed as a matter of law. Because the CAFC reversed the district court's claim construction, Infineon's monopolization claims will be tried unless the Supreme Court reverses the CAFC. Analogous monopolization claims are pending against Rambus in another litigation.[28]

Although Rambus was ultimately victorious in defending the fraud counterclaims made by Infineon, that victory is viewed as a technical one since Rambus still faces an action by the U.S. Federal Trade Commission (FTC) concerning its conduct before JEDEC.[29]

The Dell Case

Rambus is not the first time the FTC dealt with a failure to comply with IP disclosure obligations to an SSO. The FTC addressed similar issues *In the Matter of Dell Computer Corporation*[30], where Dell was accused of acts or practices that constitute unfair methods of competition in or affecting commerce in violation of Section 5 of the Federal Trade Commission Act.[31] The facts were that a Dell representative, as member of the Local Bus Committee of the Video Electronics Standards Association (VESA), voted on July 20, 1992, to approve a preliminary proposal for the VESA Local Bus (VL-bus) standard. As part of this approval, the Dell representative provided a written certification that, "to the best of my knowledge," the proposal does not infringe any patents.[32] The same written certification was again provided on August 6, 1992, during the final approval of the VL-bus standard. One year earlier, in July 1991, Dell had received United States Patent number 5,036,481 which was not disclosed to VESA. After VESA's VL-Bus standard became very successful, Dell informed certain VESA members that the "implementation of the VL-bus is a violation of Dell's exclusive rights."

Despite a strenuous dissent and many commenters, FTC and Dell entered into a consent agreement pursuant to which the FTC issued an order that "prohibits Dell from enforcing its United States Patent number 5,036,481 against any company for such company's use of the Video Electronics Standards Association's VL-bus standard."[33] The Commission considered leaving this case to be decided by the courts based on equitable estoppel which requires intentional and knowing misleading conduct including silence, reliance on the misleading conduct, and material prejudice,[34] but found the remedy consistent with cases related to equitable estoppel since "there is reason to believe that Dell's failure to disclose the patent was not inadvertent."[35]

By contrast, the dissent noted that not only was it not shown that Dell's misleading conduct was intentional and knowing, but also there was no showing of either reliance or material prejudice by others. Thus, the dissent deemed the relief of barring Dell from enforcing its patent as "unnecessarily harsh."[36] The dissent noted that Dell did not have any great role in the development and promulgation of the VESA VL-bus standard, such as proposing or sponsoring the standard, urging others to vote for the standard, participating in drafting the standard, or having any hand whatsoever in shaping the standard.[37] According to the dissent, the logic of the majority of the Commissioners leads to "a strict liability standard, under which a company would place its intellectual property at risk simply by participating in the standards-setting process."[38]

In view of this, the dissent found particularly odd the fourth allegation in the complaint that Dell's actions unreasonably restrained competition since they "chilled" willingness to participate in SSOs. Rather, the dissent pointed out the chilling effect of the Order on participating or voting in SSOs. "The danger that voting on a standard might result in the loss of a company's intellectual property rights may dissuade some firms from participating in the standards-setting process in the first place."[39]

Because of the chilling effect on SSO participation, the American National Standards Institute (ANSI), which accredits standards development organizations, was one of seven (out of eleven) commenters who strongly opposed the imposition on SSO participants of any duty to disclose patents. ANSI supported liability only if a company intentionally and deliberately fails to disclose relevant patents. The American Intellectual Property Law Association (AIPLA) also agreed with ANSI noting that the Dell remedy is

too drastic as it amounts to a forfeiture of patent rights and that patent estoppel litigation is a better forum. Requiring intent was also endorsed by other commenters including the Electronic Industries Association (EIA), the Telecommunication Industry Association (TIA), the Standards Board of the Institute of Electrical and Electronic Engineers (IEEE), and the Alliance for Telecommunications Industry Solutions, Inc. (ATIS).[40]

The Commission contrasted the VESA policy with the policy of ANSI, noting that ANSI does not require a certification as to conflicting IP rights and thus, unlike VESA, does not create an expectation that there is no conflicting IP.[41] The dissent also discussed the patent policy of ANSI and other organizations, noting that the AIPLA supported the reconciliation of the rights of standards users and IP owners as set forth in ANSI's patent policy. ANSI specifically addresses the situation where relevant IP rights are discovered after the standard is adopted by requiring the same assurance as if the IP rights were disclosed prior to the standard adoption, namely, a written assurance that the IP will be licensed royalty-free or based on RAND. Otherwise, the standard may be withdrawn.[42]

Other commenters included the American Committee for Interoperable Systems (ACIS) who favored the imposition of a duty to search and disclose relevant IP, arguing that the IP holder is best positioned to determine if its patents read on the standard. ACIS downplayed the chilling effect on participating in SSOs since such participation is motivated by commercial self-interest. Bay Networks, Inc., also supported a strict standard of identifying and disclosing relevant IP rights or waiving them. Bay Networks argued that requiring a license based on RAND may not be sufficient, because firms may disagree about the meaning of RAND.

A similar action under Section 5 of the FTC Act is also pending against Union Oil Company of California (Unocal) [43] where, instead of an SSO, a state regulatory body is involved, namely, California Air Resources Board (CARB), which initiated rulemaking proceeding in the late 1980s to determine cost-effective regulations and standard governing the composition of low emission, reformulated gasoline (RFG). Unocal obtained patents during the pendency of the CARB RFG proceedings while representing that it had no patent rights. After adoption of Unocal's patented technology by CARB, Unocal began enforcing its patent rights.

Despite having no patent policy or disclosure requirement of patents or pending applications, the FTC filed charges that look very much like equitable estoppel. The charges against Unocal include actively participating in the CARB RFG rulemaking proceedings; engaging in a pattern of bad-faith and deceptive conduct; concealing material information that enabled it to undermine competition and harm consumers; and illegally monopolizing attempting to monopolize, and otherwise engaging in unfair methods of competition. The complaint alleges that Unocal made materially false and misleading statements such as representing to CARB and other participants that its emission research results were nonproprietary, in the public domain, or otherwise available without disclosing that Unocal intended to assert its patents related to the research results. Further, the complaint alleges that Unocal made knowing and willful misrepresentation to CARB that its predictive model, concerning automobile exhaust emissions and CARB phase 2 regulations, would be "cost effective" and "flexible", and that absent these misrepresentations, CARB would not have enacted the RFG regulations that overlapped with Unocal's concealed patent claims.

Suggestions

Lessons should be learned by both SSOs and member/participants from *Rambus*, where the CAFC noted that "there is a staggering lack of defining details in the EIA/JEDEC patent policy ... JEDEC could have drafted a patent policy with a broader disclosure duty. It could have drafted a policy broad enough to capture a member's failed attempts to mine a disclosed specification for broader undisclosed claims. It could have. It simply did not."[44] The need for a clear policy was reiterated in the dissent, where the complexity of determining whether claims read on a standard was noted.[45] Thus, the onus is on the SSO to have a clear and unambiguous patent policy. Accordingly, potential members should review SSO IP policies and demand clarification if needed. Further, SSOs themselves should review and clarify their IP policies as needed. In addition, companies involved in the formation of new SSOs should make sure that clear and written IP policies are put in place.

In addition to a need for clarity in SSO IP rules, it should be appreciated that the rules should not be too burdensome and should not produce significant risks from

inadvertent non-compliance, since that would chill participation. Some basic premises that should be generally acceptable to participants and members include the obligations that:

(1) all members and participants agree to license standard compliant products on no worse than a RAND basis under patent rights that are essential to the standard, but retain the right to assert such patent rights against a third party who has refused to license on such terms; and

(2) any participant making a proposal to the SSO will disclose patents and patent applications it is aware of as being essential to the proposal.

An issue related to disclosure includes whether a participant has to search its entire patent portfolio for relevant patents. It is believed that such an obligation is too burdensome for companies having large patent portfolios. The more sensible approach is that the disclosure obligation be as to patents and patent applications that a company is aware of as being relevant to the standard. Such an approach should be satisfactory since typically the individuals participating on the SSO on behalf of the company are aware of the most relevant patents and applications. If relevant patents or applications are later uncovered, there should be a continuing obligation to bring them to the attention of the SSO. In such event, there should be the obligation to license such patents or applications in accordance with the license obligation, but no penalty or loss of rights.

A further issue is what remedies are available to a member, e.g. if it is alleged that a member obligated to license on RAND terms has demanded unreasonable terms. It is believed that an SSO is in no position to be the arbiter of whether specific terms comply with the RAND obligation. Consequently, it is suggested that the bylaws of the SSO indicate that the members are third party beneficiaries of such obligations. This would allow a dispute, as to the compliance with an SSO licensing obligation, be dealt with entirely between the parties involved.

Case law strongly suggests that the act of joining an SSO constitutes consent to be governed by the SSO bylaws.[46] Consequently, companies should not take lightly joining an SSO, and once they join, they should set up procedures to make sure they comply with SSO requirements. Further, the obligations and risks should be clearly understood

including possible relinquishment of IP rights when joining an SSO or loss of IP rights for not complying with SSO disclosure rules. It is therefore essential that prior to joining an SSO the IP department be consulted and an IP attorney designated to review SSO rules, bylaws, membership application and any license agreement, in order to explain any risks and benefits.

The company, in conjunction with the IP department, should develop a policy as to when and under what circumstances the company can become involved in an SSO, whether joining as a member/participant or as an adopter/founder, including setting the level of participation. It is also advisable that a lead IP attorney oversee the implementation of the company policies regarding SSOs, and to provide advice particularly when exceptions to the policy are sought. Similarly, a lead technical person should be designated with respect to each SSO to insure consistency in having the same technical people be involved throughout a particular SSO committee. The lead technical person should be in close contact both with the designated IP attorney and the rest of the technical team involved with the SSO.

Having lead IP and technical people, as well as having continuity in the personnel involved with an SSO, insures compliance with SSO rules, such as the disclosure rules. A lead technical person, who is made aware of the SSO rules and company responsibilities by the IP attorney, can in turn more easily monitor the rest of the technical team to prevent inadvertent non-compliance with the disclosure requirements of SSOs.

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[1] The authors are Senior and Principal Attorneys, respectively, Intellectual Property and Standards, Philips Electronics North America Corporation. The recommendations or opinions expressed herein are solely those of the authors.

[2] See Lemley, "Intellectual Property Rights and Standard-Setting Organizations" 90 Calif. L. R. 1889 (2002), discussing the importance of SSO rules related to IP issues, and noting that there is little legal literature on the subject.

[3] ETSI Directives, April 2003, Annex 6: ETSI Intellectual Property Rights Policy, section 6.1, Availability of Licenses, requires "[w]hen an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an undertaking in writing that it is prepared to grant

irrevocable licenses on fair, reasonable and non-discriminatory terms and conditions." Available at http://portal.etsi.org/directives/directives_apr_2003.doc (last visited August 29, 2003).

[4] ETSI Intellectual Property Rights Policy, Annex 8.1.1 requires "[w]here a MEMBER notifies ETSI that it is not prepared to license an IPR in respect of a STANDARD or TECHNICAL SPECIFICATION, the General Assembly shall review the requirement for that STANDARD or TECHNICAL SPECIFICATION and satisfy itself that a viable alternative technology is available for the STANDARD or TECHNICAL SPECIFICATION which:

- is not blocked by that IPR; and
- satisfies ETSI's requirements."

[5] *Bluetooth*™ is a standard developed by the Bluetooth Special Interest Group (SIG) related to connectivity solution based on wireless technology, where the Bluetooth Patent/Copyright License Agreement, Sections 5(a) and 5(b), requires Promoter Members and Associate or Adopter Members to grant each other "a nonexclusive, royalty-free, perpetual, irrevocable, nontransferable, nonsublicensable, worldwide license under its Necessary Claims...". Available at https://www.bluetooth.org/foundry/sitecontent/document/Patent_and_Copyright_License_Agreement (last visited August 29, 2003).

[6] *Id.* at Section 5(b) provides: "In the event that a Bluetooth SIG Member ("Member A"), other than a Member who has Necessary Claims, files suit against another Member ("Member B") for patent infringement arising from Member B's manufacture, use or sale of products and systems that are compatible with the Bluetooth Specification(s) and/or Foundation Specification, and such suit is not defensive based on a patent infringement claims or suit by Member B, then Member B shall have the unilateral right to change the license grant set forth in Section 5(a) or (b) above under Necessary Claims, if any, from a royalty-free license to a reasonable royalty bearing license with respect to Member A and be able to collect such royalty retroactively commencing on the date that Member A filing such suit is alleging Member B commenced the infringement which is the basis of the suit." (Emphasis added).

[7] *Id.* provides at Section 7(b): "Effect of Withdrawal. If an Associate or adopter Member withdraws from or is terminated from Membership in Bluetooth SIG: ...(iv) Section 5 of this License shall continue in full force and effect with respect to all Bluetooth Specification and Foundation Specification adopted **prior** to the effective date of withdrawal or termination." (Emphasis added). Section 7(b) (iii) provides for licenses between the withdrawing Member and Bluetooth Licensees after the effective withdrawal date as follows: "With respect to Contributions from withdrawing Member which are included in any Bluetooth Specification which is adopted after the effective date of withdrawal or termination, such Member shall be entitled to receive a license from all Licensees regarding all such Bluetooth Specifications (i.e. all those which include such Member's Contributions) under the terms of Section 2, but only if and when such Member agrees to and grants a license under the terms of Section 5(b) to all Licensees with respect to all such Bluetooth Specifications." (Emphasis added). Further, Section 7(a) provides a grace period to withdraw after the adoption of a standard and thus preserve IP rights for a licensing program of the withdrawing member as follows: "If an Associate or Adopter Member withdraws within three (3) weeks following its receipt of notice of adoption of a Bluetooth Specification, the effective date of such withdrawal shall be immediately prior to such adoption."

[8] *Wang Labs Inc. v. Mitsubishi Elecs. Am., Inc.* 29 U.S.P.Q. 1481 (C.D. Cal. 1993), aff'd, 103 F.3d 1571; 41 U.S.P.Q.2d 1263 (Fed. Cir. 1997), cert. denied, 1997 U.S. Lexis 4726 (1997) (finding implied license based on equitable estoppel where Wang promoted its single in-line memory module (SIMM) design as the official industry standard through the Electronics Industries Association's (EIA) standardization group known as JEDEC, indicated to JEDEC it was not seeking patents, did not inform JEDEC or Mistubishi of its ongoing pursuit of patent rights, and coaxed Mistubishi into the adopting Wang's SIMM format); *Stambler v. Diebold Inc.*, 11 U.S.P.Q.2d 1709, 1714 (E.D.N.Y. 1988), aff'd, 878 F.2d 1445 (Fed. Cir. 1989) (even in the absence of an express duty to disclose, equitable estoppel applied broadly based on conduct, thus preventing the silent party from later enforcing its patent).

[9] *A.C. Aukerman Co. v. R.L. Chaides Construction Co.*, 960 F.2d 1020, 1041-43; 22 U.S.P.Q.2d 1321 1335-37, (Fed. Cir. 1992) (in banc), *on remand*, 29 U.S.P.Q.2d 1054 (N.D. Calif. 1993) (Estoppel bars prospective and retrospective relief. "Where equitable estoppel is established, all relief on a claim may be barred.")

[10] *Id.* at 1028. However, it is difficult to prove reasonable reliance on the patentee's silence. See *Sony Electronics, Inc., v. Soundview Technologies, Inc.* 157 F. Supp. 2d 172, 178-79 (D. Conn. 2001), involving *V-chips*, where Sony could not prove reliance.

[11] See *Withington-Cooley Mfg. Co. v. Kinney* 68 F. 500, 506 (6th Cir. 1895)

[12] One example is where the patentee is found to have granted an implied royalty-free license for the use of its patented process based on its sale of a patented product specially adapted for use with the process. See *United States v. Univis Lens*, 316 U.S. 241 (1942)

[13] 18 U.S.C. § 1961 *et seq.* See e.g., *Morley v Cohen*, 888 F.2d 1006, 1009 (4th Cir. 1989), where elements of civil RICO violation include associating with or participating in the conduct of an enterprise (that is engaged in interstate commerce) through a pattern or racketeering activity and, as a result thereof, causing harm to the plaintiff.

[14] 15 U.S.C. § 2. See e.g., *United States v. Grinnell Corp.*. 384 U.S. 563, 570-571 (1966), where elements of monopolization under the Sherman Act includes having monopoly power in the relevant market, acquiring or maintaining that monopoly power through restrictive or exclusionary conduct, engaging in activities that occurred in or affected interstate commerce, and injuring the opposing party as a result of the monopolist's conduct.

[15] 15 U.S.C. § 45:

(a)(1) Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful.

(a)(2) The Commission is hereby empowered and directed to prevent persons, partnerships, or corporations . . . from using unfair methods of competition in or affecting commerce and unfair or deceptive acts or practices in or affection commerce.

[16] 164 F Supp. 2d 743 (E.D. Va. 2001)

[17] *Id.* at 746. The parent organization of JEDEC is the Electronic Industry Association. See also https://www.eia.org and https://www.jedec.org

[18] *Id.* at 747. The Jury returned a verdict in favor of Rambus on the RICO claim after the district court rejected several motions by Rambus for summary judgment since misleading an SSO can constitute "participation in the conduct" of an enterprise; and when conducted over several year using mail or wires, a scheme to defraud an SSO can constitute a "pattern of racketeering activity."

[19] *Id.* at 747. The Jury awarded nominal damages of $1.00 for each fraud claim and punitive damages of $3,500,000, which was reduced by the District Court to $350,000.)

[20] *Id.* at 752

[21] *Id.* at 765

[22] *Rambus, Inc. v. Infineon Techs AG*, 318 F.3d 1081, 65 USPQ2d 1705 (Fed. Cir. 2003)

[23] *Id.* at 1097-8. JEDEC committee minutes indicate that members were shown the "patent policy" recorded in Appendix E which reads: "EIA/JEDEC PATENT POLICY SUMMARY: Standards that call for the use of a patented item or process may not be considered by JEDEC committee unless all of the relevant

technical information covered by the patent or pending patent is known to the committee, subcommittee, or working group" where 'pending patent' was added in October 1993. Appendix E also required that patentees or applicants agree to license others under a patent that reads on the standard.

[24] *Id.* at 1098-9

[25] *Id.* at 1104

[26] *Id.* at 1118, where Judge Prost, dissenting-in-part, indicated that Rambus failed to prove that its pending claims did not read on the SDRAM standard, thus requiring disclosure. "[S]ubstantial evidence supports a finding that Rambus failed to disclose pending patent applications that might be involved in the SDRAM standard."

[27] *Id.* at 1106

[28] See Micron Tech., Inc. v. Rambus Inc., Case No. 00-CV-792 (D.Del)

[29] F.T.C. Docket No. 9302. See also Parloff, "Technical Win for Rambus in Patents Case", IEEE Spectrum, April 2003.

[30] Docket No. C-3658, Federal Trade Commission, 121 F.T.C. 616; 1996 FTC LEXIC 291, COMPLAINT, May 20, 1996.

[31] n.15 *Supra*

[32] n.30 *Supra* at 315 "I certify that I am the VESA member listed at the top of the ballot, or am authorized by such member to submit this ballot. By casting this vote I also certify that, to the best of my knowledge, this proposal does not infringe on any trademarks, copyrights, or patents, with the exception of any listed on the comment page. I understand that my vote and any comments will become public."

[33] *Id.* at 303

[34] n.8 *Supra*

[35] n.30 *Supra* at 307, 318 citing *Potter Instrument Co. v. Storage Technology Corp.*, 207 U.S.P.Q. 763 (E.D.Va. 1980), aff'd, 641 F2d. 190 (4th Cir. 1981), 211 U.S.P.Q. 493 (4th Circ. 1981), *cert. denied*, 454 U.S. 832 (1981); and *Wang Labs,*n.7 *Supra*

[36] *Id.* at 327

[37] *Id.* at 316

[38] *Id.* at 320

[39] *Id.* at 326-7

[40] *Id.* at 331-4

[41] *Id.* at 309

[42] *Id.* at 332-335. The ANSI patent policy provides that the patent holder must supply ANSI with either:

1. A general disclaimer to the effect that the patent holder does not hold and does not anticipate holding any invention the use of which would be required for compliance with the proposed standard, or
2. A written assurance that either:
    a) a license will be made available to applicants desiring to utilize the license for the purpose of implementing the standard without compensation to the patent holder, or

b) a license will be made available to applicants under reasonable terms and condition that are demonstrably free of unfair discrimination.

[43] F.T.C. Docket No. 9305. *In the Matter of Union Oil Company of California, a corporation*, 2003 FTC LEXIC 19, COMPLAINT, March 4, 2003.

[44] n.22 *Supra* at 1102

[45] *Id.* at 1118, "JEDEC's disclosure policy required its members to disclose patents and pending applications that "might be involved in the work they are undertaking." While the majority rejected this standard as unbounded, nothing required JEDEC to formulate its policy with precision and clarity. And, while the majority may believe that JEDEC's "might be involved" standard is impossibly amorphous, the majority's restatement of the JEDEC policy might prove impossibly complex. The majority's application of its rule arguably requires a Markman claim construction, application of the doctrine of equivalents, a Festo analysis, and perhaps even a Johnson & Johnston analysis before anyone can say for sure whether a claim reads on a standard. As a result, an action for fraud will become more a federal patent case than a case arising under state law."

[46] n.2 *Supra* citing e.g., *Imel v Zohn Mfg. Co.* 481 f2d 181, 183 (10th Cir. 1973) (The plaintiffs are bound by the constitution and bylaws of the Joint Board and Amalgamated having Local 263 as an affiliate, since the plaintiffs are members of Local 263); *Nelson v. Bell Fource Irr. Dist.*, 845 F. Supp. 1361, 1366 (D.S.D. 1994) (Since a member of the irrigation district, plaintiff is bound by the districts board's bylaws rules and regulation that dictate plaintiff rights to receive and use water); *Laguna Royale Owners Ass'n v. Darger*, 174 Cal. Rptr. 136, 138 (Cal. Dist. Ct. App. 1981) (As owners of a unit in the project, the Dargers automatically became members of the Association and bound by its bylaws).

(1) Title: Patent Asset Strategy and Management

(2) Date: October 15-17, 2003 34th International Congress

(3) Source: 1) Source: PIPA
2) Group: USA

(4) Author: Mr. William T. Ellis - Foley & Lardner

(5) Statutory Provisions: U.S. Patent Law

(6) Keywords: Strategic Patent Portfolio, Brainstorming; Continuations; Continuation-in-part; Mini-Portfolios

(7) Abstract: A summary of the six keys to generating a strategic patent portfolio based on brainstorming sessions to create future market positions and building mini-patent portfolios using continuation, continuation-in-part, and reissue strategies. Key Federal Circuit Court of Appeals cases are referenced.

0200

PATENT ASSET STRATEGY AND MANAGEMENT

34th International Congress
Pacific Intellectual Property Association
October 15-17, 2003

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Washington, DC

0201

Patents are Serious Business

1. $925,000,000 Settlement: Polaroid v. Kodak (1990)
2. $120,000,000 Jury award: Stac v. Microsoft (1994)
3. $300,000,000 Settlement: U. of Minnesota v. GlaxoSmithKline (1999)
4. $120,000,000 Jury Award: Litton v. Honeywell (2001)
5. $440,000,000 Settlement: Pitney Bowes v. HP (2001)
6. $300,000,000 Settlement: Intergraph v. Intel (2002)
7. $520,600,000 Jury Award: Eolas Tech. v. Microsoft (2003)
8. $271,000,000 Jury Award: Cordis v. Medtronic (2003)

THE SIX KEYS TO A STRATEGIC PATENT PORTFOLIO

1. Determine Company Strategic Direction in Markets of Future
2. Analyze Portfolio Weaknesses and Strengths for future
3. Brainstorming and Harvesting Inventions
4. Determine the Key Pending Applications and build mini-portfolios around them
5. Use your key patents aggressively to obtain access to important technologies of competitors and to even playing field with copiers and fend off aggressive competitors
6. Invent your place in future markets in advance of R&D

0203

Determine the Strategic Direction of Your Company

1. Determine your company's Current product/service markets and company revenue % per product/service
2. Predict/Project Future markets and how company would like to be positioned in each market by revenue %
3. Is Market evolving? Or could there be a revolution resulting in whole lines of products becoming obsolete?
4. Update quarterly

0204

Brainstorming & Harvesting Inventions (Future Markets)

1. At least every six months hold formal retreats with design engineers, strategic planners, salesmen to brainstorm future products
2. Include experts in complementary technologies that may affect you in the future
3. Conduct focus groups with customers--Find out what they really want? What do they complain about?
4. Brainstorm important market products five years out, ten years out
5. Patent into that predicted market space in advance of R&D

Practice Tip: for speculative inventions in a predicted new market direction, consider filing initially as a PCT in English to create 102(e) prior art in United States

Brainstorming & Harvesting Inventions (Current Markets)

1. Opportunity to focus engineers on patenting their new or recently implemented designs for current products--Protect the current R&D
2. Patent choke points (connection interfaces) for important products
3. Make your product smart and patent it (Automated web controlled) (Alerts), (Communication capability)
4. Patent smart software algorithms for new product functionality
5. Aftermarket – patent the volume replacement parts
6. Patent product user interfaces (GUI) (Trademark, copyright opportunities)
7. Assemble new bundles of old functions (Particularly easy to do with software)
8. Focus on implementation details – important for patentability/validity

0206

Determine your Key Pending Applications and Build Mini-Portfolios Around Them

1. Hold periodic sessions to select key pending applications using current and future revenue projections for covered products (Market data and projections should be available at Notice of Allowance)
2. Continuation Strategy

   Maintain pending applications for very important inventions to re-focus claims as competitors design new products. That strategy is approved by Federal Circuit.

   In re Bogese (Fed. Cir. 2002)

   Kingsdown v. Hollister, Inc. (Fed. Cir. 1988)
3. Target each player individually in stream of commerce (competitors)(suppliers)(customers)
4. Continuation-in-part strategy
5. Re-issue and Re-exam strategy

Continuation Strategy Details (1)

1. Fix festo problems: Narrowing arguments/amendments made in original patent's Prosecution can be fixed by using NEW CLAIM TERMS with different point of view to define invention

   Omega Engineering, Inc. v. Raytek Corp

   (Fed.Cir. 2003)

2. Claim subject matter disclosed but not claimed in patent. Otherwise dedicated to the public:

   Johnson & Johnson Assoc. Inc. v. R.E. Service Co.

   (Fed.Cir. 2002)

3. If there has been a narrowing amendment in patent, add Means claims in continuation or original (if still pending) to get equivalents
4. Consider interviews to avoid Festo narrowing arguments

Continuation Strategy Details (2)

1. Make sure your claim is directed at a single infringer
2. Joint infringement by independent entities each contributing/performing different elements of claimed system/method may be a problem

   [No Federal Circuit cases directly on point]

   * All elements rule problem

     Pennalt Corp. v. Durand–Wayland, Inc.

     (Fed. Cir. 1987)

   * Contributory Infringement (35 U.S.C. 271 (c)) contradiction
   * Cases on agency or control relationship where one party is directing actions of 2nd party
   * Cases finding conspiracy to act jointly to perform steps of patented method. Difficult to obtain evidence of conspiracy

Continuation-In-Part Strategy

1. Add technology implementing trends into original disclosure
2. Add important new functionality developed in complementary fields into original disclosure
3. Example: Schneider Electronics v. Optonics. Schneider added remote Web control function into standard industrial controller
4. Can you descriptively trademark the invention

Reissue and Re-Exam Strategy

1. Broadening reissue available within (2) two years of issuance for disclosed subject matter

2. Re-Examination Option for close prior art

   * Statistics on maintaining broadest claim intact
   * Re-Exam Pendency Time Period (Wegner/Maebius study)

Fend Off Aggressive Competitors

1. Patent into their future market space using brainstorming techniques

2. You know they will be back in four years to negotiate an extension of your cross-license (Surprise them in their high revenue area!)

3. Getting a single patent that reads on substantial competitor future marketshare may completely change the dynamic of a negotiation

Patents will decide the long-term winners & losers in your industry

You can INVENT your company's position and potential prominence IN the marketplace of the future

This is an area you can control!

(1) Subject: Preparation and Negotiation for Patent Licensing

(2) Date: October 2003 (The 34th International Congress in Dearborn)

(3) Committee and others: 1 Japan Group
2 Committee #2

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(5) Key-Wards: Patent, Licensing, Negotiation, Scope of Claim, Risk, Legal means, Litigation, Exhaustion, Warning, Infringement, Royalty

(6) Applicable laws: Patent Law (Japan, U.S., Europe, etc.)
Civil Law (Japan)
Convention; Paris Convention, TRIPS Agreement,
Brussels Convention

(7) Summary:

Preparation and negotiation for patent licensing are studied mainly with regard to a position of a patent holder side. First, as a general statement, objectives and policy of licensing negotiation are discussed, and items to be studied are listed. After that, as items which should be particularly noted in the preparation, with regard to a conformation guideline of a claim scope, and limitation periods when claims can be amended, legal systems in various countries are sorted out, and points to keep in mind are indicated. Also, with regard to legal actions from an alleged infringer and a risk when doctrine of exhaustion is asserted, legal systems in several countries are investigated and studied. Furthermore, as debatable points at the time of negotiation, dispatch of a warning letter and royalty calculation methods are discussed.

1. Introduction

In these years, interest regarding intellectual property has been grown, and various discussions with regard to patent licensing have been held [1][2]. However, there is almost no case that patent licensing negotiation proceeds as expected. Because there are following reasons. Perfect preparation and investigation are impossible. There are also many choices for responding to an opposite party of licensing negotiation (hereinafter, referred to as "alleged infringer"). And a relationship between a patent holder and an alleged infringer is complicated and licensing is not limited to licensing of a patent which has become a subject (hereinafter, referred to "subject patent") with regard to an alleged infringing product which has become a subject (hereinafter, referred to as "subject product").

From a position of a practitioner of a patent holder side, we will study what kind of risks we should expect and what kind of preparations we should do for negotiation with an alleged infringer whose intention to obtain a patent license can not be confirmed. First, we will study in detail legal systems in various countries and debatable points which should be understood for world wide patent licensing negotiation. In particular, we will sort out a conformation guideline of claim scope and a limitation of amendment which are considered to be necessary in the preparation, and study defending actions which can be taken by an alleged infringer. Also, we will study basis for supporting assertions and techniques which can be taken for proceeding negotiations favorably. In particular, we will discuss dispatch of a warning letter, a relationship between a subject product and a patent, and a royalty calculation basis.

2. General Statement

For starting licensing negotiation as a patent holder, it is not unlikely that a person in charge of licensing in a corporation surely has questions of "What kind of preparations should be made?" and "To what extent, investigation should be conducted?". In this section, we will outline points to keep in mind for starting licensing negotiation, list items to be checked, and further discuss to what extent, each item should be deeply studied in a comprehensive manner.

2-1. Clarification of Objective and Policy of Licensing Negotiation

For starting preparation of licensing, it is extremely important for a patent holder to clarify what are its objectives, where a goal is, and what is a licensing policy for proceeding with a subsequent study of each item. If a patent holder is a company which obtains royalty incomes as a bread-and-butter job, a patent license agreement with an alleged infringer would become a unilateral and simple one. But in case of a manufacturing company, profit from manufacturing and selling business of their own products has to be considered.[3] In these years, the number of companies which actively use patent license against an alleged infringer has been increasing in order to secure competitive priority in their own market through a cross license and a manufacturing license [4]. A person in charge of licensing is required to understand licensing objectives and start preparation based on the objectives.

2-2. Evaluation of Risk and Profit of Negotiation

In actual licensing negotiations, it is a rare event that can be settled peacefully by a patent holder and an alleged infringer. In most cases, assertions of both parties bump against each other more or less in the process of negotiation. And depending on the circumstances, they do not reach a settlement and are to take risks of being escalated into a dispute such as litigation etc. Therefore, at the time of prior study and negotiation, risks have to be evaluated with a consideration of a possibility of a dispute which may be occurred in the future. It makes sense that an alleged infringer evaluates risks of an injunction and an amount of damages of infringement. But it is a necessary for a patent holder to evaluate in advance risks of invalidation and a declaratory judgment as a defense by alleged infringer. In addition, risks of unenforceability due to inequitable conducts, compensation of damages which were given to an opposite party as a result of abuse of right, have to be further evaluated, in a particular country and a region such as the U.S. etc.

Also, if it is escalated into a dispute, a lot of costs and man-hours become necessary. It may become difficult to proceed a lot of licensing negotiations in parallel by the limited number of persons. Therefore, a handling policy is important to determine what kind of licensing negotiation should be given higher priority than others.

While, negotiation may be started, if a plenty of profits such as licensing income are expected even if risks are considered at the time of a prior study. Therefore, it is necessary to study in advance how much profit such as royalty income will be expected.

2-3. Points to be Checked in Prior Preparation

After compliance with a licensing policy was confirmed, we think that it is necessary for a patent holder that information regarding an alleged infringer and a subject product is corrected, and prior art search is carried out, in order to confirm certainty and extent of infringement and strength of one's own patent right. From the view point above, items that should be generally checked on the occasion of starting licensing negotiation are shown in Table 1.

Table 1: Items to be Checked on the occasion of Starting Licensing Negotiation

Big Item	Small Item
Objective	• Licensing income • Improvement of price competitive power of patent holder's products • Cross license • Business alliance • Compliance with license policy

Negotiating Partner	• Pecuniary resources, financial standing and scale of operation • With or without business relationship with alleged infringer competitor company, cooperation company, customer, group companies, assembling manufacturer, component manufacturer (supplier), industry organization, standard-setting organization, etc. • Whether a licensee is limited or not • Location of major business unit of alleged infringer, location of intellectual property division
Subject Product	• Sales of subject product, manufacturing place, selling place • Internal production or OEM?
Confirmation of Infringement (Scope of Claim)	• Investigation of infringement fact investigation by documents etc., investigation by real products investigation through litigation (factual finding during discovery) • Study of infringement whether literal infringement or infringement based on doctrine of equivalence, whether direct infringement or indirect infringement, expert (lawyer etc.) opinion • Confirmation of validity of subject patent re-search /reconfirmation of prior art amendment/correction, re-issue/re-examination etc., expert opinion
Advantage	• Royalty income • Improvement of price competitive power of patent holder's product • Securement of freedom of business expansion by cross license
Risk	• Patent invalid, unenforceability of patent right, reduction of scope of claim due to amendment • Defenses from alleged infringer (lacheses, estoppel, prior use right, doctrine of exhaustion, patent misuse etc.) • Declaratory judgment action (patent invalid/non-infringement) • Attack from an opposite party against one's own business
Timing of Sending Warning Letter	• Remaining period of patent right • Trend of market (growth phase, mature phase, decline phase)
Licensing Condition	• Subject product: broad range ↔ limited range • Whether exclusive or non-exclusive? • Restriction of licensee's right, sub-license of patent enforcement right • With or without cross license, grant-back • Subject region and period of the license • Royalty

2-4. Extent of Prior Preparation

There is no such a standard indicating what is sufficient to conduct investigation and study in advance. This is because, no matter how much investigated, an additional investigation may become necessary according to a response from an alleged infringer. While it is usual that contents which were investigated in advance are unnecessary in negotiation at all. A scope of the investigation and study may be determined by objectives of licensing negotiation, negotiation partner, and an expected royalty income. In addition, the scope may be restricted by preparation cost and business urgency as well. For example, preparation may be extended to 1 to 2 years for securing business priority against a competitor. On the other hand, under the situation that heated share competition is going on, the preparation is required to complete within one month in order to start negotiation as quickly as possible.

In contrast, if a conduct is performed internally in a factory of an alleged infringer in case of a process patent, it will not able to be confirmed unless a legal action is taken. In this case, the truth will be opened for the first time from an opposite party's internal documents which are submitted after negotiation or dispute starts.

Therefore, we think it is unimportant to discuss what extent investigation and study should be conducted in advance. However, even if scope of prior preparation is determined along with considering risk vs. performance with respect to each case, it is important to know what kind of risks there are in case of going to licensing negotiation under the situation that the investigation is not sufficient.

In the following discussions, we will consider risks in case where the investigation and study was not conducted, and discuss contents to be investigated and studied, and furthermore, additionally discuss points to keep in mind with regard to dispatch of a warning letter which is necessary at the time of actually starting negotiation.

3. Preparation

3.1 Confirmation of claim scope

It is strongly suggested for a patent holder to confirm claim scope of a patent as a preparation before licensing negotiation. The claim scope is defined by claim wordings. Since it can be amended based on various reasons, which are mentioned below, depending on legal system of each country, the scope of the claim or the scope of the patent right may be changed chronologically. In this paragraph, from a position of a patent holder, we will consider factors by which the claim scope can be changed and explain how to push licensing negotiation dominantly.

3-1-1. Amendment during Examination

<1> Fact

We investigated the possibility of expanding or changing a claim which was not filed based on contents described in the specification, with reference to patent laws of various

countries [5]. The results are shown in Column e of Table 2. In most countries, when the application is pending, it is possible to amend claims based on the contents described in the specification. But there is a country, such as Japan, where amendment of a claim after notification of final rejection is limited only to decrease the claim scope. And there also exist countries/regions, such as EPC, Norway, Spain, and Singapore, where amendment for broadening claims than originally filed is not allowed.

<2> Advisable Point for Licensing Negotiation

It is unlikely to use a pending application in licensing negotiation in a practical manner. But with regard to a patent application which will be definitely used in licensing negotiation in the future after allowance, a patent right should be strengthened during its examination. On that occasion, there exist a lot of cases wherein there is a necessity to expand a claim in a practical manner. With regard to a patent application in country/region wherein expansion of a claim after filing a patent application is not allowed, claims which are not required to be amended at later time should be prepared, and incorporated into a specification of the patent application.

3-1-2. Divisional Application

<1> Fact

A divisional application is one of important strategies in licensing negotiation, if a patent application which has plural inventions and is desired to be divide into individual patent claims, and if it is desired to quickly obtain a patent right with regard to an invention which has a high possibility to be issued as a patent. The divisional application is a right which is allowed to an applicant in member countries of the Paris Convention by rule of Article 4G of the Paris Convention. However, period when filing a divisional application is possible is limited according each country. Timing that a divisional application is available in respective countries [6] is shown in Column d of Table 2. In most countries, it is possible to file a divisional application until a patent is granted, but, in Japan, filing a divisional application is allowed only during a period when amendment is possible before an allowance. It can be said that Japanese system is special on an international basis.

<2> Advisable Point for Licensing Negotiation

By using a divisional application in a strategic way, it is possible to push forward licensing negotiation dominantly. A divisional application is a right of an applicant which is allowed in each country, but since period when filing a divisional application is possible differs in each country, it is necessary to be careful in case of filing a divisional application. Particularly in Japan, since a divisional application is not allowed after the patent is granted, there is a necessity to be careful of a fact that expansion/modification of scope of claim and addition of dependent claims are not allowed after the patent being granted.

3-1-3. Amendment After Allowance of Patent Right

3-1-3-1. Voluntary Amendment

<1> Fact

In licensing negotiation, there is a case that it is desired to amend a claim after a patent is allowed. In the U.S. and Canada, it maybe possible to expand the scope of the claim by filing a reissue application in a given period after grant of a patent. In other countries, such as Japan, amendment of expanding a claim after allowance is not allowed.

<2> Advisable Point for Licensing Negotiation

Expanding a claim scope by reissue is one of means for pushing forward licensing negotiation dominantly. However, with regard to the expanded claim of a reissue patent, an intervening right is allowed to a third party, which has already used an expanded right portion, is permitted to continuously use it [7].

3-1-3-2. Correction for countervailing to Patent Invalidation

Since each country employs a patent invalidation process, it should be assumed that there may be arise a dispute on the invalidity of a patent. On that occasion you may try to amend scope of claim, against reasons for invalidating a patent, and it becomes a factor by which scope of claim is decreased.

Patent invalidation process in major respective countries are investigated, and reasons for invalidating a patent that an alleged infringer can raise on the occasion of conducting licensing negotiation are considered, and a possibility of decrease of claim scope in patent invalidation is studied.

<1> Fact

Reasons for invalidation in major respective countries are summarized in Column g of Table 2. Hereinafter, major reasons for invalidation will be considered.

A. Novelty

In each country, it is possible to pick up lack of novelty as a reason for invalidation. Materials for judging novelty in major respective countries are described in Column c of Table 2. As a big difference among respective countries, the U.S. and Australia employ domestic public knowledge, and there is a possibility that evidence which becomes a reason for invalidation in other countries does not become evidence in The U.S. and Australia. In addition, since The U.S. employs a first invention system, it is necessary to be careful also on a point that one year rule is employed with regard to a judgment of novelty. With regard to reasons for invalidation in view of novelty, submission of evidence is indispensable, and depending upon the suchlike evidence, there is a necessity to make an

amendment of claims, claim deletion and so on.

B. Inventive step

Reasons for invalidation due to obviousness are employed in each country. Also, in a non-examination system country such as Italy, Netherlands, and so on, it is possible to raise a reason for invalidation which is based upon inventive step. In the same manner as reasons for invalidation due to novelty, there is a necessity to make an amendment of a claim, claim deletion and so on by evidence.

C. Industrial Applicability (Utility)

With regard to reasons for invalidation in view of utility, each country has commonality on a point that industrial applicability can be discussed as a reason for invalidating a patent. However, there are few cases that a reason for invalidation is raised on the basis of industrial applicability as a debatable point, and an amendment of a claim and so on would not be made by this reason.

D. Lack of written description requirement

In most countries, it is possible to raise reasons for invalidation due to lack of written description requirement. And reasons for lack of written description requirement are arisen when a person with an ordinary skill in the art can not manufacture and use the invention on the basis of written description, and when description of a claim is ambiguous. As a point having strong uniqueness, particularly in the U.S., when an inventor who implements an invention does not describe a best mode, it becomes a reason for invalidation as lack of written description requirement. In case that clarity of a claim scope becomes a debatable point, out of reasons for invalidation due to lack of written description requirement, it can become a factor for amending a claim. However, in reasons for invalidation due to lack of written description requirement, since a right is granted through an examination stage in each country, as long as a reason of lack of written description requirement is not so strong, it is unlikely to reach to a case that a claim must be amended.

E. Other Reason for Invalidation

Reasons for invalidation which are unique to each country are described in Column i of Table 2. A point to be noted in particular is that, in the U.S., it is possible to argue unenforceability due to violation of equity (violation of duty of submitting an information disclosure statement (IDS) etc.) at a court. In Taiwan, it is not possible to argue invalidity of a patent by an identical reason and identical evidence to those used in its examination. Each of them is not of a nature that a reason for invalidation can be avoided by amendment of a claim, and is not a reason for invalidation which is influence on scope of claim.

<2> Advisable Point for Licensing Negotiation

As shown in Column g of Table 2, reasons for invalidation differ with respect to each country. There are such cases that an evidence for invalidating a patent in a certain country does not become an evidence for invalidating a patent in other country, and that a patent is invalidated by a reason for invalidation which is unique to each country such as violation of duty of information disclosure. But a case with a highest possibility that amendment of a claim is required by a reason for invalidation is a case in view of novelty/unobviousness.

Also, there are such cases that, in licensing negotiation, the negotiation is conducted on the basis of a patent registered in a certain country, and its family applications have not been registered yet in other countries, and amendment of a specification is possible, and that a possibility of amendment of a specification by reissue of a patent remains even after the registration. In this case, a specification should be strengthened in such a manner that family applications in other countries are not invalidated by reasons for invalidation which were cited with regard to a subject patent in licensing negotiation. In addition, in the U.S., prior to licensing negotiation, a patent holder itself should conducts a prior art search, and file a request for re-examination. The validity of the clams re-examined and maintained in the U.S. P.T.O is presumed. And the standard of proof for invalidation is raised from "preponderance evidence" to "clear and convincing evidence". Thus, the patent is more difficult to be invalidated. In case that licensing negotiation goes to litigation, it is possible to overcome a defense argument on the basis of invalidity of a patent due to prior art from an alleged infringer, and it is also possible to make a good impression to jury members.

3-1-4. Opposition

<1>Fact

With regard to an opposition system, 11 countries (regions), out of 20 countries (regions) to be investigated adopt the system. Countries which are adopting the opposition and periods for opposition in that case are shown in Column f of Table 2. Reasons for opposition in countries which are adopting the opposition are almost identical to reasons for invalidation, and it is common that a period for opposition is provided. Also, anyone can file an opposition, and there is also a case that only a party concerned can raise reasons for invalidation. Also, in Japan, the opposition system will be abolished by legal revision from January 1, 2004, and united with an invalidation trial.

<2> Advisable Point for Licensing Negotiation

In countries (regions) which are adopting the opposition system, they have such commonality that a period of about 3 months to 9 months in which an opposition is allowed is defined. Consequently, in case of licensing in a country which employs an opposition system, it is better to conduct licensing negotiation with paying attention to a period which is allowed for opposition.

Table 2: Patent System Overview in Major Countries

Country Name	Column a			Column b		Column c			Column d	Column e				Column f		Column g							Column h
						Novelty Judgement				Amendment for Right Expansion (responses are described in examples)				Opposition		Reasons for Invalidation							
	Paris Convention	PCT	EPC	Examination system	Non Examination System	Domestic Public Knowledge Domestic Printed Publication	Domestic Public Knowledge Domestic and International Printed Publications	Domestic and International Public Knowledge Domestic and International Printed Publications	Timing that divisional application is possible	Timing that amendment for expanding a right is possible	Before Examination	During Examination	After Examination	System Existed	Period of Opposition	Novelty	Inventive step	Utility	Lack of Written Description	Violation of Requirements for Amendment	Identical to Earlier Application	Other Column i	Remarks
Japan	O	O		O				O	Period in which Amendment can be submitted (until dispatch of first notification of reasons for refusal, after dispatch of notification of reasons for refusal, specified period, 30 days after request for trial) *44	Until dispatch of first notification of reasons for refusal (but, if a divisional application is filed concurrently, amendment is possible if it is within a period for submitting Amendment) *17, Trial for correction does not allow substantive expansion of right	O	Δ	X	O	6 months	O* 29-1	O* 29-2	O Industrial Applicability *29	O* 36	O* 17-2	O* 29.2	Transfer of Right *123-6 etc.	Patent Invalid →§123
USA	O	O		O			O		Before issuance of a patent based upon an original application (but, also after Re-issue, a divisional application is possible)	Up to 2 years after issuance of a patent (Re-issue)	O	O	O	X		O* 102	O Nonobviousness *103	O* 101	O* 112		O* 102	Delay of filing, misrepresentation of inventor (*256), violation of duty of information disclosure (*37 CFR 1.56), possible to show that a patent holder abandons an invention	Reexamination exists, Filed with a court as to validity
Canada	O	O		O				O	Before issuance of a patent based upon an original application (but, also after Re-issue, a divisional application is possible *Art.47(3))	Amendment is possible until issuance of a patent. But, up to 4 years after issuance of a patent, it is possible to make amendment for substantive expansion by taking a procedure of Re-issue (*47)	O	O	O	X		O* 28-2	O* 28-3	O* 27-8	O* 27-3, 53-1	O* 38-2	O* 28-2		Reexamination →§48 Reasons for invalidation →§59
France	O	O	O	O				O	Until a day that a patent is granted (*Reg.612-35*)	As to voluntary amendment (amendment for expanding a right), until document search is initiated in preparation of a search report. But, until a day that a right is granted, opened is a possibility of submitting claims (*612-13*)	O	O	X	X		O* 611-10	O* Active Inventive *611-11 O* Industrial application *611-10*		O* 612-1	O (*Reg.612-36*)	O* 611-11	Transfer of Right, illegal of division (*613-25*)	Invention for which a patent can be obtained →§611-10. →§612-12

Country name	Column a			Column b		Column c			Column d	Column e				Column f		Column g							Column h
						Novelty Judgement				Amendment for Right Expansion (responses are described in examples)				Opposition		Reasons for Invalidation							
	Paris Convention	PCT	EPC	Examination system	Non Examination System	Domestic Public Knowledge Domestic Printed Publication	Domestic Public Knowledge Domestic and International Printed Publications	Domestic and International Public Knowledge Domestic and International Printed Publications	Timing that divisional application is possible	Timing that amendment for expanding a right is possible	Before Examination	During Examination	After Examination	System Existed	Period of Opposition	Novelty	Inventive step	Utility	Lack of Written Description	Violation of Requirements for Amendment	Identical to Earlier Application	Other Column i	Remarks
United Kingdom	O	O	O	O				O	Until a day that a patent is granted	Before a patent is granted, (1) it is not possible to make amendment until before an Examiner's report is sent to an applicant. (2) From the above report until dispatch of notification of reasons for refusal, amendment is possible at any time. (3) Within a given period after dispatch of notification of reasons for refusal, it is possible to make amendment. (4) In case that approval of Commissioner of Patent Office was obtained, it is possible to make amendment. (*Reg. Art.36*) But, it is impossible to make amendment for addition of new matter (**19.76*) After issuance of a patent, in case that litigation procedure is pending before a court, impossible to make amendment, and in other cases, possible to make amendment by filing a motion.	Δ	Δ	Δ	X		O*2	O*3	O Industrial application *4	O* 18	O* Expansion by amendment (**72-1e, 76*)	O*2	Person who does not have eligibility to obtain a patent (**72-1b*)	Power to cancel a patent →§72
Germany	O	O	O	O				O	Until decision regarding grant of a patent (**39*)	As to one in which a subject of an application is not expanded, until decision regarding grant of a patent. Correction of clerical errors, amendment of claims are possible during a period the examination is going on (**38*)	O	O	X	O	3 months	O*3	O High level, technical progress *4	O*1	O* 21-1-2	O* 21-4	O*3	Illegal abstraction (**21-1-3, 81-3*)	Reason for invalidation §21,Invalidation procedure §81-§85
Italy	O	O	O		O* Formality, Unity, Patent requirements, Partial novelty judgement Exist			O	In case that unity is not satisfied, within a response period of notification of reasons for refusal in which its reason was described (**29*)	Before decision of grant of a patent (*Reg.26*)	O	O	X	X		O* 14	O* 16	O* 17	O* 59-2	O* 59-3		Transfer of right (**59-4*)	Reason for invalidation Art.59
Netherlands	O	O	O		O* Novelty search report			O	Until time when described in Patent Original Record (**28*)	Until time when described in Patent Original Record (**28*)	O	O	X	X		O*2	O*2	O* 2,7	O* 75C	O After grant of a patent, expansion of right *75d	O*4	Transfer of right *75e	Filed with a court as to invalidity

Country Name	Column a			Column b		Column c			Column d	Column e				Column f		Column g							Column h
						Novelty Judgement				Amendment for Right Expansion (responses are described in examples)				Opposition		Reasons for Invalidation							
	Paris Convention	PCT	EPC	Examination system	Non Examination System	Domestic Public Knowledge Domestic Printed Publication	Domestic Public Knowledge Domestic and International Printed Publications	Domestic and International Public Knowledge Domestic and International Printed Publications	Timing that divisional application is possible	Timing that amendment for expanding a right is possible	Before Examination	During Examination	After Examination	System Existed	Period of Opposition	Novelty	Inventive step	Utility	Lack of Written Description	Violation of Requirements for Amendment	Identical to Earlier Application	Other Column i	Remarks
Sweden	O	O	O	O				O	Until a day of grant of a patent (*Reg.22*)	After grant of a patent, no particular provision	O	O	Δ	O	9 months (After grant)	O*2	O*2	O*3	O*8	O *13, After grant of a patent, expansion of right *52-4	O* 2-3	Transfer of right (only oneself)	Reason for cancellation →§25 Reason for invalidation →§52, filed with a court as to invalidity
Norway	O	O		O				O	Before the grant of a patent (*Reg.27*)	Amendment of scope of claim has to be related to restriction of a patent (39a)	X	X	X	O	9 months	O*2	O*2	O*2	O* 25-2	O Expansion of subject of patent *5,52-4	O*2	Transfer of right *25-3, violation of requirements for patent *1	Opposition →§25 Reason for invalidation →§52, filed with a court as to invalidity
Finland	O	O	O	O				O	Before issuance of notification of allowance of a patent (*Reg.22*)	Until before right, amendment is possible in case that there is a necessity to make amendment (*Reg.19*), but it is not possible to add a request for protection of a subject which is not claimed at the time of filing (*13).	O	O	X	O	9 months	O*2	O*2	O Industrial application *3	O* 25-2, 25-3	O Claim expansion (*Reg.19*)	O Inherently different (*2)		Opposition →§25 Reason for invalidation →§52, filed with a court as to invalidity
Spain	O	O	O	O				O	Until a day of grant of a patent (*Reg.34*)	Unless clear descriptive error exists, not possible to make amendment. (*Reg.33*)	X	X	X	O	6 months	O*4	O*8	O Industrial applicability *9	O* 112b			Transfer of right *10-1	Patent invalid →§112
Taiwan	X	X		O				O	Until it is reexamined by a reexamination organization (*32)	Before grant of a patent, by filing a motion, obtain permission (*44) Even after grant of a patent, in case that a claim is too broad, and in case that there is ambiguous description, and so on, possible to make correction by trial for correction, but impossible to broaden a right (*67)	O	O	X	O	3 months	O* 20	O* 20	O* 20	O* 71-3, 71-4		O* 27	Transfer of right (only oneself), impossible to file a request of trial for invalidation, by use of identical facts and identical evidences.	Patent cancel →§71, Opposition →§41
Thailand	X	X		O				O	Possible to file a divisional application by notification of an examiner, but impossible to file a voluntary divisional application.	Possible to amend a specification of an application, but impossible to make amendment for addition of a substantive factor (*20)	O	O	Unclear	O	90 days	O*6	O*7	O*8			O*6	Transfer of right, in case that an applicant is not an applicant in a country wherein a patent for citizen is permitted	Opposition →§31, Patent invalid →§54

Country name	Column a: Paris Convention	Column a: PCT	Column a: EPC	Column b: Examination system	Column b: Non Examination System	Column c: Novelty Judgement: Domestic Public Knowledge Domestic Printed Publication	Column c: Domestic Public Knowledge Domestic and International Printed Publications	Column c: Domestic and International Public Knowledge Domestic and International Printed Publications	Column d: Timing that divisional application is possible	Column e: Amendment for Right Expansion (responses are described in examples): Timing that amendment for expanding a right is possible	Column e: Before Examination	Column e: During Examination	Column e: After Examination	Column f: Opposition: System Existed	Column f: Period of Opposition	Column g: Reasons for Invalidation: Novelty	Inventive step	Utility	Lack of Written Description	Violation of Requirements for Amendment	Identical to Earlier Application	Other Column i	Column h: Remarks
Singapore	O	O		O				O	It is said that a divisional application is possible, but there is no provision in patent law and implementing regulations	Possible to make amendment during a period for responding to notification of reasons for refusal, but impossible to make amendment for expanding a right (*84)	X	X	X	X		O* 14	O* 15	O* 16	O* 80c	O* 80e	O* 14a	False declaration (foreign application information etc.), misrepresentation	Patent invalid →§80
Korea	O	O		O				O	During a period that it is possible to submit Amendment shown on the right	1 year and 3 months from filing. Same time with a request for examination, 3 months from a request by other person, during a period of response to reasons for refusal, a given period after trial against examiner's decision of refusal (*47)	O	O	X	O	3 months	O* 29-1	O* 29-2	O Industrial applicability *29	O* 42		O* 35	Transfer of right, violation of a joint application etc.	Opposition →§69
China	O	O		O				O	Before notification of grant of a patent right, possible at any time (even before a request for substantive examination, and even in the course of trial against examiner's decision of refusal), and in case of having received notification of grant of a patent right, possible to carry out within a period for registration process (2 months) from that day. But, even before notification of grant of a patent right, after decision of rejection was conducted, unless trial against examiner's decision of refusal is filed, impossible to make division.	Voluntary amendment can be conducted by filing a divisional application, after a request for substantive examination, within 3 months from a day when notification advising to enter into a substantive examination stage was received (*Reg.*51), and before notification of grant of a patent (*33).	X	O	X	X		O* 22	O* 22	O*1	O* 26	O* 33	O* 9,22	One which is not in conformity with relevant provisions	Patent invalid →§45, §46
Malaysia	O			O				O	Possible to make division within a given period (*26B) But, meaning of a given period is unclear from text of law	During a period that an application is pending (*26A)	O	O	X	X		O* 11,14	O* 11,15	O* 11,13, 16	O* 23		O* 14	Transfer of right, provision of incorrect information	Patent invalid →§56
Australia	O	O		O			O		Before a day of grant of a patent (*39-1, Reg.3-12)	Amendment of a complete specification is limited in a case of clerical error (*102). In case of removing a legal reason for refusal, permitted (*104)	Δ	Δ	X	O	3 months	O* 18	O* 18	O* 18	O* 40	O* 102	O* 23	Transfer of right, falseness	Patent invalid →§138

Country Name	Column a			Column b		Column c			Column d	Column e				Column f		Column g							Column h
						Novelty Judgement				Amendment for Right Expansion (responses are described in examples)				Opposition		Reasons for Invalidation							
	Paris Convention	PCT	EPC	Examination system	Non Examination System	Domestic Public Knowledge Domestic Printed Publication	Domestic Public Knowledge Domestic and International Printed Publications	Domestic and International Public Knowledge Domestic and International Printed Publications	Timing that divisional application is possible	Timing that amendment for expanding a right is possible	Before Examination	During Examination	After Examination	System Existed	Period of Opposition	Novelty	Inventive step	Utility	Lack of Written Description	Violation of Requirements for Amendment	Identical to Earlier Application	Other Column i	Remarks
Europe (EPC)	O	O	O	O				O	Until a day that an original application is granted as a patent *51-4, Rule.25*	Before receiving first notification, possible to voluntarily make amendment. After received the nolification, when Amendment is submitted at the same time of its response, possible to make amendment. Otherwise, impossible to amend. (Examiner's discretion(*86-3*). Possible to make amendment relating to European search report. Also within a response period of Rule 51-4, possible to amend. During a response period after an opposition was filed, possible to submit Amendment, but limited to one regarding limitation (*57(1), 58(2), 58(4), 123(3)*).	O	Δ	X	O	9 months from publication *99								Reasons for opposition are, novelty, unobviousness, industrial applicability etc.

3-2. Recognition of Risk

As cited in the Table 1, on the occasion of conducting licensing negotiation, there is a necessity to evaluate various risks in advance. In this paragraph, we will pick up a possibility of legal actions from an alleged infringer and a defense for patent exhaustion.

3-2-1. Legal Actions from the Alleged Infringer

Although it is the best that licensing negotiation will reach a conclusion peacefully by mutual discussions, in case that an alleged infringer is driven in a disadvantaged position, there is a possibility that an alleged infringer abandons continuation of the negotiation, and pursues any legal actions against a patent holder in order to make a breakthrough. In particular, under the following conditions, there can be a high possibility for the alleged infringer to take such option.

- Even if the negotiation was continued, there is a high possibility of disagreement, and drawbacks of the alleged infringer side is enormous in case of such disagreement.
- The alleged infringer wants the patent holder to come down on compromise and conclusion of negotiation.
- In case that it is likely that there remains no other choice than reaching a conclusion by litigation, it is desired to choose a more favorable venue.
- There is a necessity to regain trust by showing innocence (non-infringement) to customers promptly in some way.

In such case, even if a patent holder side desires to continue negotiation between parties, and does not assume nor desire to take a judicial procedure with this case, once legal actions are raised from an alleged infringer, the patent holder side has no other choice than dealing with it, and will be involved in an unexpected situation. Also, when litigation is filed by an alleged infringer, a patent holder side stands on a position of a defendant, and therefore, the alleged infringer side has the control of the litigation. Besides, in some cases, the judgment of such litigation may bring much unexpected effect on a patent holder side.

The followings are the defensive litigation that an alleged infringer side may take:

- Action for Declaratory Judgment of Patent Invalidity
- Action for Declaratory Judgment of Non-infringement
- Action for Declaratory Judgment of No Existence of the Right to Seek Injunctive Relief or Damages

We will pick up the laws of the U.S., Europe and Japan in relation to the defensive legal actions from an alleged infringer to understand the risks of such defensive legal actions. Also, based upon such laws, we will summarize the advisable points for reducing the risks of getting involved in such defensive legal actions.

(1) U.S.: Action for Declaratory Judgment of Patent Invalidity/Non-infringement

<1> Fact

A court in the U.S. may declare the rights and other legal relations of any interested party seeking such declaration so far as there is "Actual Controversy" between such parties. With regard to the issue whether such actual controversy presents, Court of Appeals for the Federal Circuit (CAFC) has shown the following judgmental standard [8][9].

- Whether there is present activity which could constitute infringement or concrete steps taken with the intent to conduct such activity.
- Whether there is an explicit threat or other action by the patent holder, which creates a reasonable apprehension on the part of the side of alleged infringer that it will face an infringement suit with a court or with International Trade Commission (ITC).

However, the standard above is not a rigid one, and the presence of actual controversy is flexibly determined in accordance with concrete contents (content of a warning letter, content of discussions in the course of negotiation and so on) of individual cases.

With regard to the patent invalidity declaratory judgment, all of patentability requirements in the U.S. patent law become a basis of validity judgment. But, since a patent right that the patent and trademark office granted is presumed to be valid under the U.S. patent law, in order to overturn this presumption and to seek for a patent invalidity declaratory judgment, "Preponderance of Evidence" is not sufficient, and corroboration by "Clear and Convincing Evidence", i.e., production of evidences with higher level, is required [10].

<2> Advisable Points for Licensing Negotiation

In case of sending a warning letter to an alleged infringer and pursuing licensing negotiation with an alleged infringer, a patent holder should always pay attention to the context and words. In other words, in a warning letter and negotiation, the patent holder should keep in mind not to use words that an alleged infringer may assert the reasonable threat being sued (including injunction). Please note that a simple offer of a license, discussion on technical matter pertaining to the patent in question, and negotiation on terms and conditions for the license may not entitle the alleged infringer to take a declaratory judgment action.

(2) Europe: Action for Declaratory Judgment of Patent Invalidity/Non-infringement

<1> Fact

With regard to patent litigation in Europe, "European Economic Community Convention on Jurisdiction and the Enforcement of Judgment in Civil and Commercial Matters" (commonly known as Brussels Convention, hereinafter, referred to as "BC") is applicable. According to BC, persons domiciled in a contracting country of BC shall, whatever their nationality, be sued in the courts of such country. A Person domiciled in a contracting country of BC may also be sued, if he or she is one of a number of defendants, in the courts for

the place where any one of them is domiciled, and, with respect to matters relating to tort, delict or quasidelict, in the courts for the place where a harmful event occurred (BC§2.1, §5.3 and §6.1). However, the invalidity declaratory judgment action (in case of disputing validity of a patent) must be brought in the court of the membership country of BC where the patent in question is registered (BC§16.4).

The best advantage that a plaintiff can obtain by applying BC to patent litigation is that a plaintiff will be able to, without filing litigation with respect to each country, obtain a judgment which covers entire subject countries within European area. This is because BC§26.1 provides a rule regarding enforcement of judgment that a judgment of a court in a contracting country is automatically confirmed by other contracting countries, and is also enforceable in other contracting countries.

Also, BC§21 regarding conflict of litigation provides that, in case that a lawsuit with identical subjects and identical causes is pending before a court in different contracting countries ("the first litigation"), a court with which a lawsuit is filed later ("the second litigation") has to cease procedures until jurisdiction of the court with which the first litigation was filed is fixed. Using this rule effectively, it becomes possible to take a litigation strategy which utilizes a litigation system (speed of litigation procedure, etc.) in each country [11].

On the other hand, even if the procedure in the second litigation ceases, it is possible to request for a temporary injunction to any court in accordance with the laws of each contracting country of BC (BC§24). Therefore, even if an alleged infringer filed a non-infringement declaratory judgment action precedent to later actions by a patent holder, it is impossible for such alleged infringer to countervail against a motion of a temporary injunction by the patent holder. A noteworthy temporary injunction procedure is the one called Kort Geding for which a Hague district court in Netherlands has an exclusive jurisdiction. This temporary injunction procedure is famous for favorable points to a patent holder that (i) procedures from filing until conclusion are completed for about 6 to 10 weeks, and (ii) enforcement is possible even if a defendant appealed. It is also famous for a point that there is a strong trend that thorough hearing of facts is not carried out because of hearing speed, and it is very troublesome subsistent to an alleged infringer. The Hague district court is, however, starting to show a restrictive stance to application of Kort Geding, and therefore, attention is applied to wave of the future.

<2> Advisable Points for Licensing Negotiation

In patent litigation in Europe, it is important to develop a litigation strategy by being always aware of judgments/orders of courts which have a cross border effect on the basis of BC. As a patent holder, if it is desired to reach a conclusion of the negotiation promptly by taking a legal action, it is desirable to file an action in a country of fast litigation speed. For example, if it is desired to enforce an injunction urgently, the above-described temporary injunction procedure Kort Geding in Netherlands would be the most useful. On the other

hand, as an alleged infringer, if time for settlement negotiations is necessary, taking a first move to file a declaratory judgment action in Belgium and Italy, wherein hearing requires long time, before a patent holder initiates litigation, would be a useful defensive means against the possible litigation for patent infringement by a patent holder. (However, as mentioned above, it is not possible to block a motion of a temporary injunction procedure by a patent holder.)[12]. As a patent holder, it is important to make an exact decision as to the contents of and the timing of actions such as litigation.

(3) Japan: Action for Declaratory Judgment of No Existence of the Right to Seek Injunctive Relief or Damages

In Japan, the validity of a patent lies outside the scope of a court, and a court can only judges solely presence or absence of infringement. However, a court does not grant injunction or compensation for damages to a patent holder when reasons for invalidity clearly exist in a patent (Kilby Judgment)[13].

When filing a declaratory judgment action in Japan, existence of actual controversy as required in the U.S. is not a necessary condition, and an alleged infringer can file a declaratory judgment action any time. In a declaratory judgment action, a plaintiff (alleged infringer) basically assumes a burden of proof with regard to a fact that a defendant (patent holder) does not have a right to seek injunctive relief based upon patent infringement, but practically, if a plaintiff clarifies its own conducts and proves that they are not within the scope of claim of the patent in question, then, a defendant (patent holder) may assume a burden of proof with regard to existence of right to seek such injunctive relief[14].

3-2-2. Defense of Patent Exhaustion

In patent infringement cases, an alleged infringer considers availability of various defenses. Representative examples are invalidity of patent, non-infringement of patent, license by virtue of prior use, license by arbitration decision, statute of limitation, estoppel, laches, patent exhaustion, and patent misuse. Among those defenses, we will pick up and discuss patent exhaustion in this paragraph.

The patent exhaustion is a legal theory that, once patented products are legally placed in the stream of commerce by a patent holder (or licensees of such patent holder), use or transfer of the patented products after such placement does not constitute infringement of a patent right. Doctrine of patent exhaustion is recognized as an established theory worldwide, and, in fact, the term of "exhaustion" is used in the text of the TRIPS agreement (Annex 1C of Marrakech Agreement establishing World Trade Organization - Article 6). In Japan, doctrine of domestic patent exhaustion has been recognized by the lower courts earlier (the "Bowling" case)[15], and recently the Supreme Court of Japan confirmed the doctrine of domestic patent exhaustion (the "BBS" case)[16]. In the U.S., the doctrine of patent exhaustion is recognized as First Sale Doctrine in judicial precedents, and, in each EU country, the doctrine of patent exhaustion

is also generally recognized. In China, defense of patent exhaustion is provided in Article 95 of the "Opinion on certain issues on finding patent infringement (trial implementation)"(October 9, 2001) which was announced by the High People's Court of Beijing.

However, although a basic idea of the doctrine of patent exhaustion is common in all countries, each country's laws and judicial precedents adopt a unique idea in specifics. Therefore, it is necessary for a patent holder to have deep understanding of the patent exhaustion doctrine so as not to face unanticipated defense of patent exhaustion from an alleged infringer. We pick up several, specific topics regarding the patent exhaustion doctrine, and discuss below some advisable points for conducting licensing negotiations.

(1) Case of Components making up Patented Products

<1> Fact

A patent holder, who manufactures and sells patented products, often sells replacement components and maintenance components (hereinafter referred to as the "replacement component") for such patented products, either. Such patent holder would desire to obtain fair return from a market of replacement components as well as from a market of patented products. Therefore, it is very important for such patent holder to obtain a superior competitive power in a market of replacement components. One measure to obtain such superior competitive power would be to enforce a patent right against competitors. However, if the patent covers only whole products (not components) (hereinafter referred to as the "product patent"), the patent holder has no choice but to allege indirect infringement against competitors; i.e., manufacture or sale of components by the competitors constitutes indirect infringement of the product patent. Under this scenario, very opposite results may occur in Japan and in the U.S. Patent holders should keep this in mind. If a patent holder holds a patent which covers a replacement component itself, he or she can simply enforce such patent against competitors and therefore need not care much about the discussion described below.

In Japan, in the "Sand Production Machine Hammer" case [17], the court held that, when someone distributes a replacement component and such replacement component is used exclusively for a patented product (having durable period of 2 to 3 years), such distribution constitutes indirect infringement of a product patent, even though such component has durable period of less than one week. On the other hand, in the U.S., a doctrine was established by judicial precedents that mere repair of a patented product does not constitute patent infringement. The "repair" doctrine means that, when a component of a patented product becomes weary for use and such component is replaced with legally-purchased replacement component, such replacement cannot be found patent infringement. This result is true even to the case where a worn-out component is exclusively used for a patented product. That is, a patent holder of a product patent cannot assert contributory infringement against competitors of replacement components as long as their supply of replacement components falls in the act

of repair as explained above.

In sum, there is a possibility that the same act of sale of replacement components may constitute indirect infringement if such sale occurs in Japan, but may be qualified as a defense of "repair doctrine" if it occurs in the U.S. [18].

<2>Advisable Points for Licensing Negotiation

For a patent holder who sells patented products and replacement components, the ability or inability to enforce a product patent against competitors of replacement components will give a big impact when he or she considers the structure of earnings from sale of patented products and replacement component and royalty income by licensing a product patent. A patent holder should be careful about the possible difference between the results in Japan and the U.S. as described in the above (1), when enforcing a product patent against competitors of replacement components.

(2) Restriction on Effect of Patent Exhaustion

<1> Fact

Among commercial products, there are those products which are not designed to be reused by purchasers, like disposable cameras and medical apparatuses such as injectors. If purchasers reuse such products against an intention of a manufacturer, such manufacturer would desire to prevent such reuse by enforcing a patent covering the products. Under the doctrine of patent exhaustion, when a patented product was legally distributed, a purchaser of the product is not liable for patent infringement no matter how the purchaser disposes of it. If a purchaser wants to reuse a used patented product, he or she may have to refresh it, more or less. Under the U.S. Patent Law, if such refreshment is just a repair of the used patented product, it is legal, and if such refreshment is essentially a reconstruction of a patented product, it constitutes patent infringement.

With regard to the reuse of a patented product, Japan and the U.S. take different approaches. In the U.S., several courts held that a patent holder has ability to restrict use of a patented product by a contract (Mallinckrodt case [19], etc.). Namely, a patent holder can restrict the effect of patent exhaustion by a contract when he or she sells patented products. For example, if a patent holder wants to prohibit reuse of a patented product by restricting the effect of patent exhaustion, he or she can effectively achieve such result by imposing a condition of "Only One-time Use" on the purchasers of the patented products. Because reuse of the product is prohibited by such condition, the patent holder can assert patent infringement against those who refresh the patented products for reuse (or those who reuse the refreshed products). It can be said that the U.S. courts have a tendency to hold that the effect of patent exhaustion can be freely restricted by a contract [18].

On the other hand, in Japan, there is at least one case which suggests that the effect of patent exhaustion has a limited scope and such limitation should be determined objectively.

This holding implicitly suggests that the effect of patent exhaustion cannot be changed freely by a contract. This case is the "Film Lens" case [20], in which the court held that "In case that a patented product ends its life of use from a viewpoint of social common senses, reuse of such product constitutes patent infringement". This holding pointed out two examples of the end of life from a common-sense perspective; one is "the case where reuse should be prohibited by virtue of public health" and the other is "the case where there is a general common view in society that the product is a disposable one". We have to wait for future cases to know what the other examples of such "end of life in social common senses" are. At lease for now, however, it is fair to say that Japanese case laws or theories have no tendency to recognize that the scope of patent exhaustion can be restricted by a contract freely.

<2> Advisable Points for Licensing Negotiation

In Japan, even if a seller of patented products (a patent holder) can agree with a purchaser on the restriction of the effect of patent exhaustion, this does not surely mean that the seller can get rid of the defense of patent exhaustion. It is not clear whether Japanese courts will entertain seller's argument that the effect of patent exhaustion could be restricted by a contract. A patent holder should be careful about this point.

(3) Parallel Import of Genuine Products

<1> Fact

Parallel import of genuine products means a situation where products which were legally distributed in a certain country are imported into another country. A manufacturer of commercial products would desire to obtain maximum profits by selling commercial products worldwide, with a price of each such commercial product being set in response to market conditions and commodity price level in each country. If the commercial products are imported from a country wherein they are sold at a low price to a country wherein the same are sold at a high price (i.e., parallel import of genuine products), the manufacturer would desire to block such parallel import by taking every measure. If he or she owns a patent in an importing country covering the commercial product, the manufacturer may be able to enforce the patent against importers to block parallel import. However, such enforcement is not allowed if the importing country recognizes so-called doctrine of international patent exhaustion.

In the U.S., the doctrine of international patent exhaustion has been denied in judicial precedents. In Germany and Switzerland, there are also judicial judgments denying the doctrine of international patent exhaustion (in the cases where parallel import from the outside of EC contracting states was at issue). If these countries are destinations of parallel import, a patent holder can effectively enforce a patent issued in those countries in order to block the parallel import. In this connection, a patent holder should note that, in EU, when patented products were distributed in one contracting state by a patent holder or a licensee, patent

exhaustion is effective throughout all EU contracting states by such distribution.

The Supreme Court of Japan considered the issue of parallel import of genuine products in the "BBS" case (which was mentioned above). In this case, the Supreme Court held that, unless there is explicit agreement to exclude Japan as the place of resale or use with respect to a patented product which was first distributed outside Japan, a holder of a Japanese patent covering such product is not able to enforce such Japanese patent against importers of the patented product. The idea of the Supreme Court in this case is regarded as being close to doctrine of implied license [21]. In United Kingdom in which the patent exhaustion is regarded as the doctrine of implied license, the same idea ruled in the BBS case may be applicable to the issue of parallel import.

<2> Advisable Points for Licensing Negotiation

If a patent holder holding a Japanese or U.K. patent desires to enforce such patent in Japan or United Kingdom to block parallel import of genuine products from the outside of the country, it is necessary for such patent holder to exclude Japan and United Kingdom from the place of resale or use when he or she distributed the products outside the country. If there is no such explicit exclusion, the patent holder may face defense of implied license.

4. Negotiation

4-1. Advisable Points for Preparation of Warning Letter

In this chapter, points of concern from a warning preparation stage until dispatch of a warning letter will be described. Warning is an important legal procedure for having an alleged infringer acknowledge a right of a patent holder and their infringement acts, so it is a big event in an initial stage of patent dispute. Further, sending a warning letter is susceptible to effect on finding willful infringement or calculating damages. On the other hand, as described in 3-2-1, careless warning tends to generate risks of being involved in unexpected litigation such as obstruction of business, claim for damages due to libel, or declaratory judgment actions of non-infringement and/or invalidity. In this paragraph, assuming litigation in the future, we will study the items which need to be conducted during the streams of confirming infringement acts, obtaining an expert opinion, forging a licensing (litigation) strategy and sending a warning letter, and their legal effects, so that we will be able to make some recommendation in order to proceed with litigation favorably to a patent holder.

4-1-1. Preparation of Warning Letter

(1) Investigation of Infringement

Prior to sending a warning letter, a patent holder needs to confirm patent infringement in subject products, however depending on a case, it may be difficult to confirm infringement, and especially the following case could be a problem.

- manufacturing processes need to be inspected

- it is not clear whether the subject products are products manufactured by an alleged infringer or OEM purchase products
- software and components (semiconductor) of the subject products need to be inspected.

We will refer to several ways, which could be performed by a patent holder in order to confirm infringement as follows;

A. Collecting Document Information

Most popular method is to collect information of specifications and functions from pamphlets of subject products. By this method, it is likely that a patent holder can confirm probability of infringement to some extent. Papers/reports regarding research/development of an alleged infringer are also important information sources. This is because manufacturing processes of products and technologies being used can be assumed by these information.

B. Collecting Market Information

If subject products are OEM products, and an OEM supplier burdens indemnification duty regarding patent infringement under OEM contract, there is a possibility that an alleged infringer stands off negotiation. Therefore, there would be a necessity to confirm whether subject products are manufactured by an alleged infringer itself in order to forge negotiation strategy. To confirm OEM relationship, it is worthwhile to refer to a market research report and also to retrieve Internet to check whether there are products which are similar to the subject products and sold under the brands other than alleged infringer's brand.

C. Product Analysis

If it is not possible to collect enough information through the reference of the documents described above, the subject product needs to be analyzed actually. The analysis may be conducted internally in a company, otherwise it may be entrusted to an external analysis company. The former could be performed internally, so it will not cost too much, whereas the latter has a merit of objectivity and fairness of a result of analysis. When litigation is likely to happen, it is worthwhile to use an external analysis company and retain a technical expert at the analysis company as a witness in discovery/deposition procedure.

Also in a practical matter, when software of subject products and semiconductors which are used as components have to be analyzed, considering time needed for the inspection, it tends to be more effective to entrust the inspection with an analysis company.

In addition, in case that infringement can not be confirmed by the above-described method, there is no alternative but to warn without identifying subject products to an alleged infringer. So naturally, an alleged infringer may demand against a patent holder to prove

infringement in subject products. In such a case, a patent holder may have to file litigation at first, and then attempt to collect information through discovery procedures so that infringement will be confirmed.

(2) Obtaining Expert Opinion

On the occasion of warning, it is essential that infringement of a subject product and validity of a subject patent be sufficiently confirmed. An expert opinion of infringement/validity is proof of how sedulously investigations of infringement and validity were conducted, and it becomes an important material to decide whether or not a patent holder seriously undertakes licensing negotiation and litigation.

In case that the above-described investigations are neglected and warning was conducted carelessly, risks of an accusation from an alleged infringer because of libel and claim for damages because of obstruction of business could be worried. For reference's sake, in United Kingdom, there is a concept called as Actionable Threat, and it is said to be able to claim damages to baseless warning [22].

Also, in U.S. litigation, there are risks that,

- in a lost case, a patent holder is required to prove that litigation is initiated based upon good faith, in order to avoid a burden of paying attorney fees to a prevailing alleged infringer (Article 285 of U.S. Patent Law).
- Rule 11 of Federal Rule of Civil Procedure permits sanctions to those who filed litigation without reasonable inquiry,

so it is desirable to obtain an expert opinion [23].

4-1-2. Dispatch of Warning Letter

If an opposing party is a pernicious counterfeit company, they may move to another place when a warning letter is sent to them. So there is a case that criminal accusation is appropriate without dispatching a warning letter. However, in many cases, it is likely that a warning letter is sent to an alleged infringer. Also, if a warning letter stops infringement acts, it is fast and easy solving means. Here, we will think of advantages of dispatching a warning letter in view of the following standpoints.

(1) Significance and Legal Effects of Sending Warning Letter

A. Creation of Impression

It is important in litigation to create a good impression for judges and jury members. There could be a risk that a patent holder is suspected that it lacks good faith of negotiation if a legal action is taken without sending a warning letter [24].

B. Claim of Damages

In the U.S., starting point of calculating damages with regard to a patent which lacks patent marking is the time of dispatching a warning letter (Actual Notice: Article 287(a) of

U.S. Patent Law). Also, in United Kingdom, it is not possible to claim past damages against those who did not know existence of a patent until the litigation is filed, therefore it is important to dispatch a warning letter in order to have the alleged infringer know the patent [22].

C. Proof of Willfulness and Negligence in Infringement

In Japan, it is provided that "A person who has infringed a patent right of another person shall be presumed to have been negligent as far as the act of infringement is concerned" in Article 103 of Patent Law, but there remains a possibility for an alleged infringer to prove that there was no negligence to overturn the presumption. In case that an alleged infringer still continues infringement acts even after receiving a warning letter, it is almost impossible for an alleged infringer to prove that its infringement acts are not based upon willfulness and negligence because it is obvious that the alleged infringer knows its infringement acts [2].

Also, a patent holder can easily prove bad faith of an alleged infringer in litigation for claiming a return of undue profit, and there is such an advantage that a patent holder can demand an amount for return which exceeds an amount in case of good faith (Articles 703 and 704 of Civil Law)[25].

The amended provision regarding indirect infringement (Article 101 of Patent Law) was effective from January 1, 2003, and the phrase "with knowing that the invention is patented and such invention is used for the subject product", which provides a subjective requirement for had faith of a performer, was newly added. Under the present situation, the warning letter is susceptible to become important because it is difficult to prove bad faith of an alleged infringer without sending a warning letter as a practical matter. In many cases, it is likely that a patent holder will just accuse indirect infringement for the acts made after the warning.

In the U.S., to determine willful infringement, it is important to confirm whether or not an alleged infringer studied the scope of the right in good faith and obtained a clear expert opinion regarding non infringement or patent invalidity when an alleged infringer acknowledges the existence of the right [25].

Since a warning letter is the one which has an alleged infringer know the existence of a right, it could be said that existence of a warning letter plays a big role for increase of amount of damages due to willful infringement.

D. Suspension of Statute of Limitations

In Japan, to dispatch a warning letter (claim for certain conducts) will suspend the statute of limitations of right to claim for damages (3 years) or right to claim for the return of undue profits (10 years)(in Taiwan, statute of limitation of right to claim for damages is yet shorter, 2 years)[26].

Also, in the U.S., if a patent holder does not enforce the patent with knowing infringement, a patent holder loses right to claim for past damages due to Laches [26].

In the above-described case, against the affirmative defense of Laches from an alleged infringer, a patent holder has to prove excuses of delay. Therefore, it is advisable that a patent holder dispatch a warning letter before 6 years will have passed at which point the burden of proving excuses of delay will transfer to a patent holder.

E. Avoiding Burden of Expenses of Litigation

In Germany, if a patent holder files litigation without dispatching a warning letter, and an alleged infringer immediately acknowledges a fact of infringement of the patent right after being filed, a patent holder has to assume a burden of expenses of litigation [27]. Considering such a case, it would be necessary to dispatch a warning letter, in order to avoid a needless burden of expenses.

(2) How to Send Warning Letter

As method of communication, the followings can be conceived

- oral warning
- newspaper advertisement
- ordinary warning in writing
- warning in writing by use of content-certified mail/delivery-certified mail.

In order to expect certainty of transmission, warning in writing by use of content-certified mail/delivery-certified mail is the most reliable way[2]. However, if there is a factor to be particularly considered between a patent holder and an alleged infringer such as commercial relation, there could be a way to use personal connections and hand in a warning letter directly to an opposing party and explain the contents of the warning letter orally so that equilibrium between the parties can be maintained.

Also, in case of dispatching warning letters to a plurality of alleged infringers, it is necessary to decide whether to dispatch them around the same time, or to dispatch them separately at different timings. In case of the former, the alleged infringers are likely to form a Joint Defense, etc.

(3) Contents of Warning Letter

A. Requirements as Warning Letter

It is common to concretely describe own patent rights and facts of infringement of an alleged infringer, and to request for a reply of an alleged infringer within certain period of time [2]. In the U.S. cases, if there is a description to the effect that a certain patent right is being infringed in specific products, it should be recognized as a warning letter (Actual Notice).

B. Effect generated by Dispatching of Warning Letter

As described in 3-2-1(1), when a warning letter which satisfies the above described requirements reached an alleged infringer, there is an Actual Controversy between a patent holder and an alleged infringer, and it becomes possible for an alleged infringer to file a declaratory judgment action. However, if the letter is simply showing existence of a patent, it is not possible to file a declaratory judgment action, and therefore, it is necessary to study contents of a letter carefully, depending upon whether resolution of dispute is carried out on negotiation basis or whether litigation is brought into view.

4-2. Royalty

4-2-1. General Rule regarding Calculation

As one of important conditions in a licensing negotiation, a condition regarding consideration (royalty payments) should be cited. As you might know, there are various ways of thinking with regard to how to evaluate a value for a licensed technology and patent. In this paragraph, each method for evaluating a value for an intellectual property and setting an appropriate royalty rate together with its pros and cons will be introduced.

A. Rule of Thumb (Business Practice Method)

Rule of thumb (a rough method of calculation based on practical experience) is a method which is generally used very often. "25% Rule" is one of rules of thumb in a licensing field, and this is such a way of thinking that 25% of gross profits raised from a business in conjunction with licensed intellectual properties is set as an amount of a royalty. However, under this rule, there is a problem that most of substantial factors for setting a royalty such as a correct definition of gross profits, business risks, and appropriate rate of returns on investments are ignored [22].

B. Development Costs

In order to calculate a reasonable royalty, since it is necessary to consider an appropriate profit-earning rate for a value of an intellectual property, there is a fear that to calculate on the basis of expenses for any developments is connected to a big mistake. The reasonable royalty returns rewards for a value of an intellectual property, and has nothing to do with actual development costs. Since a value of a patented technology is determined based on future economic returns, such a future benefit under a license contract should be determined on the basis of anticipated profits, risks and a period in which profits are expected. A development cost is simply one factor [27].

C. Royalty Approach

In case a patent is licensed to other companies on a basis of the economic value of the patent, individual royalties are determined in accordance with a license term and the number of

licensees so that a patent holder can recover the estimated value of the patent.

Also, on the occasion of determining a royalty, there may be a case that a role of a patent for contributing to expansion of industry is considered, besides a purpose for maximizing business value of its own company. Exclusive monopoly, a high amount of royalty and so on which are indispensable for many product developments lead to widely preventing an expansion of the industry. It can be said that a licensor determines a royalty over considering two aspects of a maximization of profits of its own company and an expansion of the entire industry [28].

D. Calculation Method based upon Economic Value

On the occasion of licensing, there are much more cases which employed royalty of receiving certain percentage of an amount of sales than that of receiving lump-sum payment on the basis of a value of a patent. This method is reasonable for licensees since royalty is paid per period for actual utilization of a patent. On the other hand, for a licensor, uncertainty of income is high since an amount of sales of a licensee per period fluctuates [28].

E. Scoring Method

This is a method in which stable factors which appear to affect to royalty (growth potential/size of a market, superiority of technology, development period, business risk, etc.) are converted into scores, and the scores are reflected on average royalty as a benchmark. Since factors which become a key for determining royalty are clarified, there are merits that it is easy to understand for everybody, and it is possible to proceed with licensing negotiation smoothly. On the other hand, there are demerits that there is no objectivity with regard to which factor is selected, and so on [28].

F. Industrial Standard Rate

Generally, there are many cases that a royalty in an individual license is not disclosed to the public, but in the U.S. and European countries, it is possible to obtain it from specialized magazines of a industry, results of voluntary surveys, judicial precedents in courts and so on. Also in Japan, it is possible to take a look at results of voluntary surveys with regard to royalty in "Evaluation of Intellectual Property" (interim report) of Association of the Institutes of Chartered Accountants [27]. In the table 3, royalty examples in case of licensing-out by voluntary surveys are cited and shown. Please note that with regard to telecommunications sector, there is only one sample surveyed, and we are of the thought that it is not appropriate to use it as a reference.

Table 3 Royalty Example in case of Licensing-Out by Voluntary Survey
(Examples in Foreign Countries)

Industrial Classification	Royalty Category						
	0-2%	2-5%	5-10%	10-15%	15-20%	20-25%	25%-
Aviation		40.0%	55.0%	5.0%			
Automobile	35.0%	45.0%	20.0%				
Chemistry	18.0%	57.4%	23.9%	0.5%			0.1%
Computer	42.5%	57.5%					
Electronics		50.0%	45.0%	5.0%			
Energy		50.0%	15.0%	10.0%		25.0%	
Food/ Consumption	12.5%	62.5%	25.0%				
General Manufacturer	21.3%	51.5%	20.3%	2.6%	0.8%	0.8%	2.6%
Government/ University	7.9%	38.9%	36.4%	16.2%	0.4%	0.6%	
Healthcare Equipment	10.0%	10.0%	80.0%				
Medical Products	1.3%	20.7%	67.0%	8.7%	1.3%	0.7%	0.3%
Communication				100.0%			
Other	11.2%	41.2%	28.7%	16.2%	0.9%	0.9%	0.9%

* 100% of communication is caused because there is only one subject company to be surveyed.
(Source Book) McGavock, et al., "Factors Affecting Royalty Rate" *Les Nouvelles*, June 1992, p107

In case of using so-called industrial standard rate, since it relies on information of how much rate competitors are laying on licensing of intellectual properties, several points (e.g. investment risk, net profit, market size, growth prospect and necessity of complementary resource) are not considered. Therefore it means to leave it to third party's judgment to evaluate various factors affecting a royalty [27].

From the foregoing, since there are various ways of thinking and patterns for a royalty calculation, it is difficult to cite a typical example, but speaking from a practical view point, it would be a starting point of a royalty calculation to measure an amount of profits raised from a licensed technology and to set certain percentage of its measured value as sum of consideration [29]. On the occasion of measuring said value, it has to be comprehensively judged, taking various factors (e.g. development costs which were required for development of a subject technology, costs for obtaining and maintaining a patent, market value of the subject technology, market superiority of products which used the subject technology and presence or absence of competing technologies) into consideration, but in any event, it is vital that a licensor and a licensee can expect fair and reasonable returns of profits.

4-2-2. Assertion by Both Patent Holder/Alleged Infringer

As described above, there are various ways to calculate a royalty, but there is also a case that a royalty is finally determined by industrial standard rate and power relationship and so on. Although it is slightly old, there is the following calculation formula shown in a judgment [31].

$$L = G \times \frac{c}{a+b+c} \times (1-H)$$

L = royalty, G = amount of profit, a = capital strength, b = marketing power, c = strength of patented technology, H = adjustment coefficient

This formula is convenient to qualitatively study about arguments for a royalty. Concretely, to increase royalty a patent holder can assert following points.

A. Amount of profit is big.

- Market is big.
- Profit rate is extremely high.
  - Added value is high, there is no competing products.
  - Cost of patented technology is very lower than that of alternative technology.

B. There is no problem even if capital is small.

- Products of an alleged infringer use only licensed technology.
  - Additional development cost/ royalty are not necessary or of small amount.
- Since technology is matured, additional research/development costs are not required or are small.

C. Marketing power is not required

- No competing products
  - There is no alternative technology.
  - It is basic technology and competing products can not be manufactured without this technology.
  - Since excellent technology can make competing technology of other company obsolete, it is possible to keep a monopoly of a market.
- Exclusive license
  - Because of exclusive license, there is no competing products, and therefore, it is possible to freely set price of products.
- A patent holder and an alleged infringer do not compete.

D. Strength of patented technology is high.

- It is basic technology or there is no alternative technology.
  - Competing products are not able to be manufactured without this technology.
- Excellent technology which can make competing technology of other company obsolete.
  - Since there is competitive power in cost/performance etc., it is possible to make a monopoly of a market.
- It covers even competing technology of other company.
  - Competing products do not come out from competing manufacturers.
- Countermeasures to counterfeit products are easy
  - It is difficult to manufacture counterfeit products.
  - It is easy to find/identify counterfeit products, and it is easy to enforce a right.
- It does not infringe a patent of other company.
  - For getting into business operation, additional royalty (and/or litigation cost) is not required.

E. Others

- In case an opposing party does not accept royalty offered, filing of litigation is suggested.
- Increasing amount of damages [31, 32]
  In Japan,
  - (Volume of sales of an infringer) x (Profit rate of a patent holder's product) = (Assumption of amount of damages of a patent holder)
  - "Ordinary" is eliminated from old provision that "ordinary royalty rate".
  - Judgment of a court is changed from net profit to marginal profit.
- If a royalty is lower than litigation costs, there is high possibility that an alleged infringer accepts the royalty.
- Research and development costs, patent filing/maintenance costs, potential costs of duties/indemnification coming up with a contract are of high amount.
- A patent holder obtains royalty of high amount from other licensees.
- There is little possibility that a patent is invalid.
- A patent term is long: a contract term is long.
- It is possible to recover investment of development etc. even if royalty is high, and also, it is possible to obtain profit.

An alleged infringer would assert reduction of royalty amount by reasons which are contrary to those described above.

5. Conclusion

We have been studied preparation and negotiation for patent licensing mainly from a

position of a patent holder side. As a general statement, we listed items to be studied, and discussed them from a comprehensive view point. After that, we sorted out legal systems of various countries with regard to a conformation guideline of claim scope, and limitation periods when claims can be amended. Also, with regard to legal actions to be raised from an alleged infringer and risks when exhaustion doctrine is asserted, we investigated and studied legal systems in several countries. Furthermore, as debatable points at the time of negotiation, we discussed dispatch of a warning letter and royalty calculation methods.

6. Literature Cited

[1] License Contract Practice Handbook, Japan Institute of Invention and Innovation
[2] YOSHIFUJI, KUMAGAYA, General Observation of Patent Law, YUHIKAKU PUBLISHING CO.,LTD.
[3] Practices of Patent Licensing Contract, written by Mitsuyoshi NOGUCHI, Japan Institute of Invention and Innovation
[4] Licensing Business, Shozo SAOTOME, Japan Institute of Invention and Innovation
[5] Foreign Industrial Property Right Statute Book, AIPPI Japan Group
[6] General Observation of Foreign Patent System, written Sota ASAHINA, TOYO HOKI Publishing Co., Ltd.
[7] U.S. Patent Litigation Strategy 2, Robert E. Lebrank, Kenneth E. Crozen, Henry Schur, Japan External Trade Organization
[8] EMC Corp. vs. Norand Corp., 89F.3d 807, 811 (Fed.Cir.1996), cert. denied, 117S.Ct.789 (1997)
[9] U.S. Patent Infringement Litigation Practice Manual, April 1999, Japan Intellectual Property Association
[10] U.S. Patent Law Clause-By-Clause Commentary(Ver.4), written by Henry KODA, Corporate Juridical Person Japan Institute of Invention and Innovation
[11] Europe Patent Infringement Litigation Practice Manual, April 1999, Japan Intellectual Property Association
[12] Recent Trend of Patent Infringement Litigation Crossing the Border in Europe, Dr. Guntram Rahn (October 13, 2000)
[13] April 11, 2000, No.3 Small Court Judgment, 1998(O)364
[14] International Patent Infringement Litigation, edited by Tamotsu AOYAMA, Yoshihiko SATO HOKEN Publishing Co., Ltd.
[15] Osaka District Court, June 9, 1969 (Intangible Property Right Judgment Book Vol.1 160)
[16] Supreme Court Judgment, July 1, 1997 (Civil Law Judgment Book Vol.51 No.6 2299)
[17] Osaka District Court, April 24, 1989 (Intangible Property Right Judgment Book Vol.21 No.1 279)
[18] New Litigation Practice System 4, Intellectual Property Related Legal Procedural Code P233-, SEIRIN Publishing Co., Ltd.

[19] Mallinckrodt Inc. v. Medipart, Inc., 976F.2d 700, 701-02, 706 (Fed. Cir. 1992)
[20] 1996(WA)No.16782
[21] Annotated Patent Law, Ver.3 Vol.Up, Nobuhiro NAKAYAMA
[22] Europe Patent Infringement Litigation Practice Manual, April 1999, Japan Intellectual Property Association
[23] Patent, March 2003, Vol.56, "Meaning and Utilization of U.S. Expert Opinion", Steven Roberts
[24] Federal Courts of the United States, Japan Institute of Invention and Innovation, Kenichi HATTORI
[25] T.A.Pelsue Co. v. Grand Enterprises, Inc., D. COL 1991, 25 USPQ 2d 1001
[26] Japan Patent Infringement Litigation Practice Manual, March 1999, Japan Intellectual Property Association
[27] Valuation of Intellectual Property and Intangible Assets, translated by Foundational Juridical Person Institute of Intellectual Property, supervised in translation by Junichi KIKUCHI, CHUOKEIZAI-SHA, INC.
[28] Valuation of Intellectual Assets, written by Daisuke YAMAMOTO and Tomoyo MORI, TOYO KEIZAI INC.
[29] Newly Revised Licensing Business, written by Shozo SAOTOME, newly revised by Masataka HASHIMOTO, Japan Institute of Invention and Innovation
[30] 1958(WA)No.6097, Tokyo District Court
[31] GRUR 1979,753
[32] 1993(WA)No.11876, Tokyo District Court

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(7) Abstract:

Recent years have seen intensified global competition and stronger intellectual property (IP) protection in the market. In order for companies to stay on a winning side in this market environment, the companies face the essential and challenging task of achieving higher R&D efficiency and corporate value by establishing an IP strategy that is integrated with their business strategy and R&D strategy. In the meantime, the Japanese government decided the Intellectual Property Policy Outline in July 2002, enacted the Basic Law on Intellectual Property in March 2003, and established the Intellectual Property Policy Headquarters in March 2003. The Headquarters decided the Program for Promoting the Creation, Protection and Exploitation of Intellectual Properties in July 2003. In this way, the government is encouraging corporate behavior that places emphasis on IP as part of the management strategy.

In light of these drastic changes in circumstances surrounding IP in Japan, this paper aims at proposing a desirable IP strategy, focusing on how IP divisions could take upstream participation in creative/business activities through internally disseminating information and proposing themes, based on the perspective of how IP divisions should break away from their conventional scope of activities and

aggressively conduct activities that are closely connected to formulation of business strategies and R&D strategies.

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1. Introduction

Recent years have seen intensified global competition and stronger intellectual property (IP) protection in the market. In order for companies to stay on a winning side in this market environment, the companies face the essential and challenging task of achieving higher R&D efficiency and corporate value by establishing an IP strategy that is integrated with their business strategy and R&D strategy. In the meantime, the Japanese government decided the Intellectual Property Policy Outline in July 2002, enacted the Basic Law on Intellectual Property in March 2003, and established the Intellectual Property Policy Headquarters in March 2003. The Headquarters decided the Program for Promoting the Creation, Protection and Exploitation of Intellectual Properties in July 2003. In this way, the government is encouraging corporate behavior that places emphasis on IP as part of the management strategy. Amidst such drastically changing circumstances surrounding IP, the IP activities and IP strategies are required to evolve into those that are not bound by conventional fixed ideas; they should evolve with the backing of the IP policies promoted by the government.

In light of these drastic changes in circumstances surrounding IP in Japan, this paper studies the "Desirable IP Strategy for Corporations" based on the idea that IP activities and IP strategies should evolve into those that are not bound by conventional fixed ideas. In particular, the paper aims at proposing a desirable IP strategy, focusing on how IP divisions could take upstream participation in creative/business activities through internally disseminating information and proposing themes. This approach is based on the perspective of how IP divisions should break away from their conventional scope of activities and aggressively conduct activities that are closely connected to formulation of business strategies and R&D strategies.

2. Current status of IP activities and IP strategies in companies

To study a desirable IP strategy for companies based on the current status of Japanese companies, a questionnaire survey was conducted to the PIPA member companies in Japan to understand the actual conditions of their IP activities and IP strategies. With regard to IP activities, the survey covered the situation of the IP division's participation in the creative/business activities for acquiring IP rights, the purposes of use of IP rights, risk management, and personnel development. As for IP strategies, the survey covered the relationships between the IP strategy and the management strategy, business strategy, and R&D strategy, as well as the current

situation of internal dissemination of information by the IP division. The number of companies that responded to the questionnaire was 26, of which 1 was from the metal industry, 6 were from the machine industry, another 6 were from the electric industry, 5 were from the chemical industry, 6 were from the pharmaceutical industry, and 2 from other industries.

2-1. Actual conditions of IP activities

(1) Acquisition of IP rights

The significance of the IP division's participation in creative/business activities for acquiring IP rights (participation in promoting creative/business activities from an IP standpoint before receiving proposals of inventions) is in developing IP rights that would serve as a weapon in the business strategy formulated for current businesses or new businesses. According to the survey results, the IP divisions of all the respondent companies participated in creative/business activities either "actively" or "upon request," indicating that such participation is already established as part of the operations of IP divisions. In response to a question of whether the IP division was strongly requested by business divisions or by the top management to participate in creative/business activities for acquiring IP rights, more than 80% of the respondents answered that they were "strongly requested." This clarifies that the IP division's participation in creative/business activities is considered extremely important in the companies. With regard to the current modes of participation, 80% of the respondent companies mentioned "participation in (holding of) meetings for finding dormant inventions," "strategic filing of IP applications for R&D themes and new products," and "aggressive acquisition of IP rights by gaining an understanding of the content of filed applications and the content of operations." In addition, more than 50% of the respondent companies answered that the IP division engaged in "creation of patent maps related to R&D themes and new products, as well as analysis/evaluation of the inventions," "participation in meetings on R&D themes and new products from an early stage and provision of advice from an IP viewpoint," and "investigation of the status of patent filings by other companies and provision of the information to the relevant divisions of the company." On the other hand, the IP divisions of less than 20% of the respondent companies engaged in "participation in selecting (deciding) R&D themes and new products," while none engaged in "proposal of R&D themes and new products by the IP division."

As for the modes of participation that are expected from IP divisions in the future, the top answer was "participation in selecting (deciding) R&D themes and new

products," accounting for 40% of the respondent companies, and 20% of the respondent companies answered "proposal of R&D themes and new products by the IP division." In this manner, a relatively large number of companies recognize the need for their IP divisions to take upstream participation in creative/business activities. Therefore, IP divisions are likely to be expected to engage in such modes of participation as deciding the R&D themes in the future.

(2) Utilization of IP rights

With respect to utilization of IP rights principally for securing the competitive advantage of their own businesses, 80% of the respondent companies answered that their current purpose for utilizing their IP rights was for "securing freedom of business by reducing risks and settling disputes." At the same time, companies that gave "monopolization of the market by utilization of exclusive rights" as the purpose accounted for 60% of the total. As for the purpose of utilization in the future, 80% answered "securing royalty income by licensing." Since licensing plays an important role in business strategies, all companies are promoting utilization of IP rights in association with their business strategies. Incidentally, 80% of the respondent companies were not satisfied with their current IP utilization rates. One of the assumable reasons for not being able to utilize IP rights sufficiently is the lack of awareness of IP utilization. Although some companies have a system to check the relationships of their patents with other companies' products, there is a need to take actions to develop an awareness of utilizing IP rights in business activities among all the members of the company from the management level to sales staff.

(3) Risk management

In terms of risk management, the survey showed that all the respondent companies were making efforts to prevent their products from infringing other companies' patents through investigation of other companies' IP rights. Thus, this activity was found to be established as part of the IP division's operations. The investigation of other companies' IP rights was conducted by the IP divisions in 50% of the respondent companies and by the R&D divisions in 40% of the companies. Looking by industry, more than 90% of the respondent companies in the pharmaceutical and electric fields conducted the investigation in their IP division, but only 20% of the respondent companies in the machine and chemical industries conducted the investigation in their IP division. It was also found that 90% of the respondent companies had appropriate patent practitioners in charge of IP litigation

secured in or outside the company to cope with the infringement lawsuits that are increasing in recent years. This indicates that they are steadily building the framework to deal with litigation, which is also expected to become an important factor in their business strategies.

(4) Personnel development

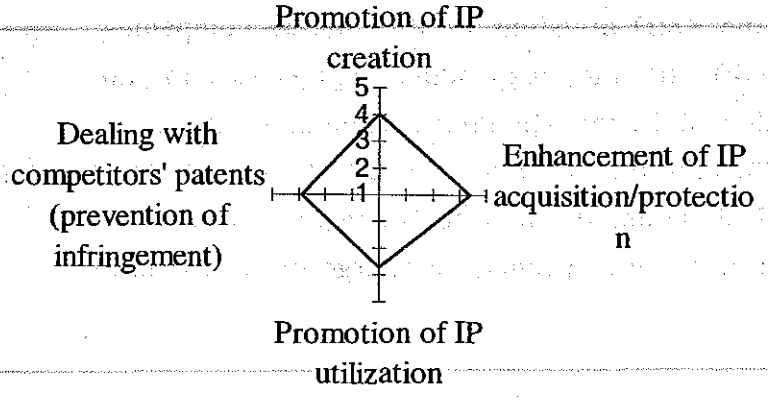
All the respondent companies had different educational curriculums for their in-house IP training by type of work and rank of employees. All companies provided IP training to their research staff and development staff, while 60% provided the training to their sales staff and clerical staff, and 10% provided the training to their management-level staff.

Only a few companies conducted two-way interchanges of personnel between the IP division and business divisions (or the division engaged in invention), and most of the companies merely sent personnel one-way from business divisions to the IP division. The companies still seem to have low awareness of the need to raise the basic technological skills of their IP staff through training on the company's technologies or the need to develop IP staff with a managerial mind so as to achieve upstream participation in creative/business activities.

2-2. Actual conditions of IP strategies

(1) Relationship between the IP strategy and the management strategy; formulation of the IP strategy

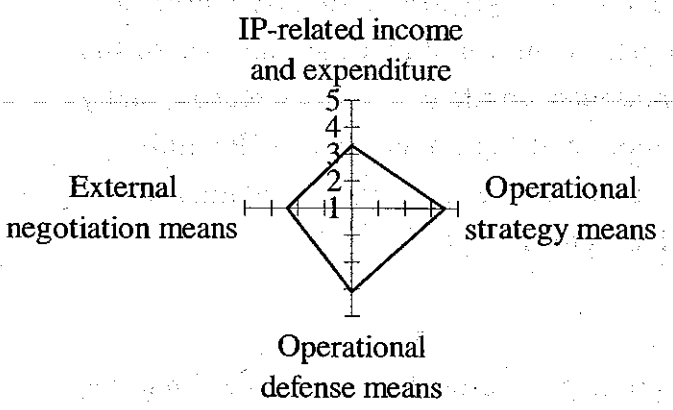
Reflecting the recent increase in the awareness of importance of IP in companies, the survey results showed that 80% of the respondent companies had actualized "a management policy that attaches importance to IP" ("IP-related matters are expressly stated in the corporate policy/vision" or "IP-related matters are expressly stated in the top management's addresses, instructions, etc."). The average degree of importance the respondent companies attached to the following four activities regarding IP strategies and IP policies are shown in the chart below: promotion of IP creation; enhancement of IP acquisition/protection; promotion of IP utilization; and dealing with other companies' patents (prevention of infringement).



As the chart indicates, a high degree of importance is attached to "enhancement of IP acquisition/protection" (there are no large gaps by industry). With respect to points that are given particular focus in IP strategies, 70% of the respondent companies mentioned "protection of the company's products," 50% mentioned "measures to prevent the company from infringing other companies' patents," and 35% mentioned "an increase in the number of inventions made for basic patents and key patents and in the number of such patents acquired." As the factors important in formulating an IP strategy, all companies mentioned "the company's management strategy, business strategy, and R&D strategy" and more than 40% mentioned "business trends of other companies."

However, with regard to the companies' evaluation of their IP strategies, although 30% of the respondent companies answered that "achievements have been gained," 70% answered that "the achievements are not necessarily sufficient." At the same time, 70% of the respondent companies answered that "there are calls for reforming the IP strategy or the IP division" and that they "think there is a need for reform."

In terms of things that are expected from IP in the respective companies, the companies' average awareness of the following four roles of IP is shown in the chart below: IP-related income and expenditure (income and expenditure such as royalty income, royalty expenditure for other companies' IP rights, the IP division's expenditure, personnel cost, etc., or their balance); business strategy means (means to eliminate other companies and activate the company's R&D to smoothly and promptly place the company's new products on the market); business defense means (defense of the existing products/business); and external negotiation means (means to be used in cross-licensing or alliance negotiations). As the chart indicates, the companies had strong awareness of IP as "business strategy means" and "business defense means."



Looking by industry, the electric, chemical, and pharmaceutical industries showed the tendency above, but only the machine industry showed a high degree of awareness for "IP-related income and expenditure" and "business strategy means."

The average IP stance of the respondent companies was

more toward "promotion of the pro-patent policy (promotion of the policy that attaches importance to patents, such as promoting IP creation, promoting enhancement of IP acquisition/protection, promoting IP utilization, and promoting prevention of IP infringement)" rather than "defense of the company's technologies." However, looking by industry, the chemical industry took a stance closer to "defense of the company's technologies."

(2) Internal dissemination of information by the IP division

According to the survey result, IP information, which serves as a beneficial and important tool in formulating management strategies, business strategies, and R&D strategies, was being provided to the management-level staff in all the respondent companies. With regard to specific types of IP information provided to the management level, 85% of the respondent companies mentioned "information on the company's IP" and 70% of the respondent companies mentioned "information on domestic and overseas IP trends." Not many companies provided other types of IP information, such as "the company's technology maps/history (analysis results of the strong points and weak points of the company)" and "other companies' technology maps/history (analysis results of the strong points and weak points of other companies)," and "patent search/analysis results assuming new business opportunities." This fact suggests that the current provision of information from the IP divisions is inclined to be passive. Therefore, in the future, IP divisions would be required to make active proposals of "what the company should do (should strengthen)" on their own initiative by making full use of IP information.

(3) Presence of the IP division

In terms of the presence of the IP division over the past three years, more than 70% of the respondent companies answered that it has "greatly or slightly increased." In addition, over 90% of the respondent companies answered that the presence of the IP division "should be greatly or slightly increased/strengthened." As its reason, many companies mentioned "penetration of the awareness of the importance of IP within the company." As indicated by the survey results, active internal dissemination of information is considered to be highly effective to these ends.

3. Desirable IP strategies in the future

In recent years, there has been rapid progress in globalization of the economy, advancement of information technology, and internationalization of business activities,

and in this era of mega-competition, a severe competition of technological development is taking place on a worldwide scale. Meanwhile, patents are becoming increasingly powerful as a source of large wealth and a highly effective means to gain an advantage in business negotiations. Companies are making desperate efforts to develop new technologies and acquire patents for them in a fight for survival. Under such circumstances, companies are required to take strategic and timely actions regarding patents, such as acquiring patent rights with higher added values, dealing with other companies' patents more precisely, and effectively utilizing patent rights.

The Japanese government, which has placed importance on IP as the key to reviving and increasing the competitiveness of companies, established the Strategic Council on Intellectual Property, decided the Intellectual Property Policy Outline, and promulgated/enforced the Basic Law on Intellectual Property in 2002. In March 2003, the government established the Intellectual Property Policy Headquarters and decided the Program for Promoting the Creation, Protection and Exploitation of Intellectual Properties (Program for Promoting Intellectual Properties) in July of the same year to encourage corporate behavior that places emphasis on IP as part of the management strategy. In other words, the government encourages the top management to clarify a management policy that attaches importance to IP and to formulate an IP strategy according to that management policy (integration of the IP strategy and the management strategy). Furthermore, the government sees that, in order for companies to stay on the winning team, it is indispensable for the companies to improve efficiency of R&D and business development and to increase the corporate value by formulating and promoting IP strategies that are combined with their business strategies and R&D strategies (building an IP strategy as part of the company's trinity strategy).

In this way, there are calls for evolving the corporate IP strategy into a new strategy or activity that is not bound by conventional fixed ideas as one of the major pillars of the management strategy and as a strategy that is integrated with the business strategy and the R&D strategy. Therefore, companies should take this opportunity to rebuild their IP strategies and establish a foothold for corporate reform, backed by the IP policies promoted by the government.

3-1. Desirable IP strategy

(1) Management strategy that attaches importance to IP

The top management should clarify a management policy that attaches importance to IP (corporate behavior that places emphasis on IP from a management

strategy viewpoint). Specifically, the management should expressly state IP-related matters in the company's annual policy, and medium/long-term policies/visions. In addition, IP-related matters should be included in the top management's addresses and instructions to clarify the management policy that attaches importance to IP and to penetrate the IP policy within the company.

(2) Formulation of the IP strategy

The company should formulate an IP strategy that is integrated with the business strategy and the R&D strategy according to the management policy.

First, the company's stance on IP should be made clear. It is necessary to clarify whether the company's stance is "promotion of a pro-patent policy" or "defense of the company's technologies," and whether the company expects from its IP an "business strategy means" (means to eliminate other companies and activate the company's R&D to smoothly and promptly place the company's new products on the market), "IP-related income and expenditure," an "business defense means (defense of the existing products/business), or an "external negotiation means" (weapon to be used in cross-licensing or alliance negotiations).

Next, the company's IP policy regarding the following four major IP activities should be clarified: promoting IP creation; enhancing IP acquisition/protection; promoting IP utilization; and strengthening efforts to deal with other companies' patents (prevention of infringement).

For instance, the points to be clarified for "promoting IP creation" could include: (a) proactive participation in the activities of the R&D divisions and business divisions; (b) reinforcement of the R&D framework and reform of the process of narrowing down the R&D themes; (c) proposal of research and (technological/product) development themes by the IP division to the management; (d) internal dissemination of information by the IP division; and (e) collaboration with universities and research institutes. The points to be clarified for "enhancing IP acquisition/protection" could include: (f) a shift from quantity-oriented to quality-oriented patent filings; (g) an increase in the number of inventions made for basic patents and key patents and in the number of such patents acquired; (h) protection of the company's products; (i) an increase in the number of applications filed for patents and other IP rights; (j) active filing of patent applications overseas; and (k) stronger IP activities compared to those of other companies (number of filings, number of registrations, etc.). The points to be clarified for "promoting IP utilization" could include: (l) an increase in royalty income; (m) IP-related income and

expenditure (balance); (n) bolstering the external negotiation means (as a tool for cross-licensing, etc.); (o) gaining profit from IP through sales or securitization; and (p) measures to prevent other companies from infringing the company's patents. The points to be clarified for "strengthening efforts to deal with other companies' patents (prevention of infringement)" could include: (q) measures to prevent the company from infringing other companies' patents. Apart from items concerning these four activities, there are items for actively developing the IP environment that is indispensable for achieving the four activities above such as: (r) expansion of the incentive scheme for researchers who accomplished outstanding achievements; (s) hiring and developing experts who plan the IP strategy; and (t) increasing and strengthening the presence of the IP division. These items should be clarified separately.

Furthermore, consideration should be given to the following aspects when formulating the IP strategy: (1) consistency with the company's management strategy, business strategy, and R&D strategy; (2) business trends of other companies; (3) other companies' attitudes toward IP; (4) technological development trends in specific fields or extensive fields; (5) trends in patent law amendment and in speeding up patent examination (both domestic and overseas); (6) development of patent dispute settlement systems; (7) strengthening of IP regulations against counterfeits and pirated copies overseas; (8) trends in the incentive schemes and the standard amount of incentive for inventors, court decisions, and law amendments; and (9) plans, content, and situation of implementation of IP policies by the Japanese government.

Moreover, in formulating the IP strategy, the IP division staff should coordinate the matters carefully and in minute detail. Then, the IP division staff should communicate sufficiently with the top management, the heads of the business divisions, the heads of the R&D divisions, and other people involved, and propose a strategy. The formulated IP strategy should be reported at management meetings, executive meetings of the business divisions, executive meetings of the R&D divisions, and meetings of the members in charge, in order to ensure that the IP strategy is sufficiently permeated throughout the divisions involved. The IP strategy should also be permeated and shared sufficiently within the IP division so that the IP division staff in charge can explain the strategy to the relevant divisions.

(3) Key points for actualizing the IP strategy

An IP strategy is a strategy to maximize IP values by transforming the intangible assets (incorporeal property) such as inventive ideas that exist or were

created in the company into "good patents," and to maximize corporate profits and increase corporate value by utilizing IP for the benefit of corporate management.

The key points for rebuilding a company's IP strategy are as follows:

(i) internal consensus on the basic policy, which is "to maximize corporate profits and increase corporate value by IP";

(ii) clarification and internal sharing of "good patents," and establishment of an internal system for making inventions for "good patents" and acquiring such patents;

(iii) assessment of IP values and making profits from IP;

(iv) IP actions for realizing strategic R&D and business development; and

(v) maximum utilization of IP and establishment of a system to that end.

(4) Key activity items (key words) in rebuilding the IP strategy

The key activity items in rebuilding a company's IP strategy are as follows:

- proposal of themes by the IP division;
- internal dissemination of information by the IP division;
- upstream support and participation;
- selection of R&D themes and involvement in deciding business development themes;
- drafting and approval of the company-wide strategy and business strategy;
- filing applications for basic patents, strategic patents, and key patents, acquiring such patents, and developing a web of patents;
- assessment of the IP values, clarification of the standards for "good patents," and internal sharing of such patents;
- taking the initiative in acquiring good patents;
- maximization of IP values;
- selection and focusing of inventions to be filed and applications to be patented, and optimization of resource allocation;
- stationing of IP staff at work fronts;
- conducting enterprising inventing activities such that IP staff could become inventors;
- IP strategy in the United States and IP strategy in Asia;
- evaluation of internal IP activities; and
- personnel development.

The following five items are explained in more detail below as "points to be

bolstered in actualizing the IP strategy":

- involvement in deciding themes;
- internal dissemination of information by the IP division;
- assessment of IP values;
  evaluation of internal IP activities; and
- personnel development.

3-2. Points to be bolstered in actualizing the IP strategy

(1) Involvement in deciding themes

This section focuses on discussions about "participation in selecting (deciding) R&D themes and new products" and "proposal of R&D themes and new products by the IP division," which have been identified in the survey results as the modes in which IP divisions would be expected to take upstream participation in creative/business activities in the future.

(A) Participation in selecting (deciding) R&D themes and new products

First of all, consideration is given to "participation in selecting (deciding) R&D themes and new products," which was the top answer for "the mode of participation that is expected from IP division in the future" in the survey.

In light that more than 80% of the respondent companies mentioned "participation in (holding of) meetings for finding dormant inventions" as a current mode of participation in creative/business activities, it is clear that the IP division is involved from the launch phases of new projects in most of the companies. Since the IP division consists of IP professionals, it needs to make the most of its abilities and participate in the creative/business activities from the launch phases of projects until the new products are placed on the market, and possibly even after that, in coordination with the business strategy. Therefore, the IP division plays a very significant role in selecting (deciding) R&D themes and new products.

The roles of the IP division in selecting (deciding) R&D themes and new products include:

(a) a patent filing strategy for the theme;

(b) analysis of other companies' trends on the theme from a patent perspective; and

(c) risk management (countermeasures).

More weight is likely to be placed on (a) and (b) in selecting R&D themes, and on (c) in selecting new products.

a. Patent filing strategy

Through prior art search, the IP division determines the scope of the network of IP rights the company would be able to construct for the theme in the market. If that scope is insufficient for eliminating other companies to a level expected by the business divisions, the company must make a decision on whether or not to proceed with the project by squarely facing that fact. Otherwise, the IP division identifies what is needed for constructing a network of IP rights that meets the expectations of the business divisions and suggests the matters necessary to that end to the R&D divisions, thereby promoting further invention and constructing the network of IP rights expected by the business divisions.

The network of IP rights that can be constructed for the theme could have an effect exceeding the level of eliminating other companies expected by the business divisions. At the same time, it may be possible to construct a web of IP rights that can eliminate a larger number of other companies by giving suggestions to the R&D divisions. It is extremely important to have the business divisions understand how effective the constructed or creatable network of IP rights is in the market. The expiration dates of the terms of IP rights should also be precisely informed to the business divisions. If there are multiple IP rights for the theme, the IP division should notify the business divisions of the expiration dates of the terms of the respective IP rights and the impacts of the lapse of the respective IP rights on the market, in other words, the extent to which other companies would be likely to enter the market.

The patent filing strategy should be formulated by also thinking about the situation after the theme is commercialized and placed on the market as a product. By discussing the effective product cycle assumable in the market with the business divisions, development of the next product should be launched from the start or in a timely manner. Since the same procedure must be repeated for the next product as well, once a project is launched for a theme, there would be no end to the patent filing strategy. The life cycle management is an important task of the IP division.

b. Other companies' trends

The IP division analyzes other companies' trends, conducting necessary investigations for creating patent maps and patent portfolios and for studying the strong points and weak points of other companies' technologies. Clarifying other companies' trends makes it possible to assess the value of the theme in the market, and if the value does not meet the expectations of the business division, it would be an

effective material for determining whether or not to carry out the project. It is also important to implement a patent filing strategy that would produce the profits expected by the company, based on the trends of other companies.

c. Risk management (countermeasures)

One of the most important tasks of the IP division is to identify other companies' possibly conflicting patents (patent applications) related to the theme and to study the countermeasures. When a possibly conflicting patent application has been identified and if the application is in the phase of being laid open, the IP division reviews the prior art to determine the validity of the application. If the application is determined to be patentable, the IP division finds out the scope of the patent that will issue. The IP division also conducts prior art search for applications that are already patented and tests the patentability and the scope of the patent by acquiring the file wrapper. In some cases, it is important to gain the opinions of external patent attorneys as well. The expiration dates of the terms of other companies' possibly conflicting patents are another important matter. The IP division should clarify the impacts that the scopes and terms of other companies' possibly conflicting patents have on a project on that theme, and precisely inform the level of risks involved to the business divisions.

While the company judges whether or not to conduct the project by considering the risks, it often makes a decision to carry out the project despite the risks involved. In such a case, the company needs to discuss whether: (i) to resolutely counter other companies' patents (patent applications) by trying to hamper patent issuance or invalidate patents through offer of information on prior art or through invalidation trials; or (ii) to conduct licensing negotiations. However, there are cases where the company owning a possibly conflicting patent does not agree to a licensing agreement. This is when that company judges it more economically profitable to increase dominance in the market than gaining royalty income. Accordingly, there could be the worst scenario of a project ending in total failure solely due to the presence of a single patent held by another company. The probability of the other company not agreeing to licensing must be determined in light of whether there are any rival product in the market, and if so, what economic risks would be imposed on the other party when the company's product goes on sale.

In certain fields, there is a need to explore the possibility of cross-licensing. In reverse, the company could be proposed an offer of cross-licensing by another company. In that case, the IP division should analyze and report the impact of the

patent right subject to the cross-licensing (the company's patent) on the theme project, in other words, the extent to which other companies would be likely to enter the market by conducting the cross-licensing.

In the questionnaire survey, up to 80% of the respondent companies mentioned "participation in (holding of) meetings for finding dormant inventions," "strategic filing of IP applications for R&D themes and new products," and "aggressive acquisition of IP rights by gaining an understanding of the content of filed applications and the content of business" as the current modes of participation in creative/business activities. In addition, more than half of the companies were engaged in "creation of patent maps related to R&D themes and new products, as well as analysis/evaluation of the inventions," "participation in meetings on R&D themes and new products from an early stage and provision of advice from an IP viewpoint," and "investigation of the status of patent filings by other companies and provision of the information to the relevant divisions of the company." These results indicate that many companies implement (a) formulation of a patent filing strategy for the theme, (b) analysis of other companies' trends on the theme from a patent perspective, and (c) risk management (countermeasures) to some extent, and the IP divisions are considered to be already playing a substantial role in selecting (deciding) R&D themes and new products in a large number of companies. The reason that not many companies mentioned "participation in selecting (deciding) R&D themes and new products" as the current mode of participation in creative/business activities in spite of such a situation might be that the IP division only discusses about (a) the patent filing strategy, (b) other companies' trends, and (c) risk management with individual R&D divisions and business divisions and does not participate in meetings for making overall decisions, such as those for selecting the themes and products. If so, there is a need to make way for creating systems in which the IP divisions can actively participate in meetings for selecting (deciding) R&D themes and new products in the future. This is because it is important to have the company's senior-level staff, or the entire company, recognize the importance of (a) the patent filing strategy, (b) other companies' trends, and (c) risk management in selecting R&D themes and new products.

(B) Proposals on R&D themes and new products by the IP division

Next, consideration is given to "proposal of R&D themes and new products by the IP division." The fact that no company mentioned "proposal of R&D themes and new products by the IP division" as the current mode of participation in

creative/business activities clearly illustrates that this item is an extraordinary type of operation. The necessity for "proposal of R&D themes and new products by the IP division" would differ depending on the type of business and size of the company, the number of IP division staff members, and the patent strategy of the company, but the potential of this task becoming a stimulant for the stagnating Japanese companies is discussed below.

What are the advantages of having the IP division propose R&D themes or new products? First is that IP division staff can state things from a different viewpoint based on the unique nature of their operations. IP division staff always look at matters by supposing "rights." Therefore, they have "ability" for picking out more useful things while considering the risks involved at the same time. In a sense, it is similar to a marketing expert having "ability" for picking out items. In addition, IP division staff always have the 20-year term of patent rights in mind, so they are able to give precise advice as to the most effective timing of filing a patent application in the course of development.

On top of that, IP division staff have a high level of technical knowledge, which may not match the level of researchers, but is still quite high. At the same time, they have extensive knowledge that has been acquired through the need to analyze patent gazettes on technologies in a large variety of fields. This aspect is important in proposing R&D themes and new products. The difference with researchers is that researchers have in-depth knowledge on their specializing fields and have exuberant imagination in those fields, but their limited benchmark hinders their imagination from expanding beyond those fields. In contrast, IP division staff are able to propose cross-cutting themes. The following is one example.

"Supposing researchers were studying chemical compound "AA" having function "A" toward developing a useful anticancer drug, and function "A" was not effective enough for resolving that theme, researchers would carry on with the research by making further improvements to compound "AA" in the direction of strengthening function "A." However, IP division staff, who noticed a patent gazette disclosing that substance "B" having function "A" was a suitable ingredient for a house-cleaning detergent, may hit on an idea that compound "AA," of which function "A" was much stronger than that of substance "B," could be used as a good house-cleaning agent. If the IP division staff were to find that it would be profitable to develop compound "AA" as a house-cleaning detergent after investigating other companies' trends, they could propose it as a new R&D theme or a new product."

In this manner, IP division staff can propose R&D themes and new products

that have been difficult for researchers to arrive at.

Moreover, as the IP division is constantly watching other companies' IP rights, it would also be able to propose which technology sources should be introduced to commercialize the company's technologies more efficiently and with which companies or universities the company should establish alliance. Apart from IP information, the IP division is also sensitive to the latest technology trends as it conducts searches of technical literature. Therefore, it knows information about innovative people and universities in specific fields. Today, external research institutions including universities carry out innovative technological development. Thus, it may be a good idea to invest for the future by proposing research themes to such people and universities. This may be close to an idea of venture business in a sense, but the enormous benefits it would bring to the IP division cannot be overlooked. Specifically, universities often engage in basic research. Therefore, an important question would be the timing in which the research findings should be protected as IP rights. By having universities study the themes proposed by the IP division, the IP division would be able to gain the feedback of the timing of the IP right filings, the impacts of the filings, as well as the research findings themselves for the company, thereby building up new IP rights and creating new business opportunities.

Unfavorable aspects in "proposal of R&D themes and new products by the IP division" would be the difficulty for the IP division to cope with such tasks when it is busy with its routine operations and the fact that the current system of the company is not suitable for the IP division to engage in such an operation. With regard to the former, there is a way to totally outsource the routine work. Routine work concerning prosecution that does not require the expertise of the IP division of the company, such as drafting specifications and conducting prior art searches, could be actively outsourced so that the IP division can spend the saved time for proposing R&D themes and new products. As for the latter, there is a need to create a system that would not cause conflicts with existing research laboratories. To this end, it is necessary to have the senior-level staff and R&D divisions of the company understand, as mentioned above, that proposals of themes by researchers and proposals of themes by the IP division are based on completely different viewpoints and that the proposals of themes by the IP division are very beneficial for the company.

This section has discussed about upstream participation of the IP division in creative/business activities, which is expected to become important in the future, with focus on "participation in selecting (deciding) R&D themes and new products" and

"proposal of R&D themes and new products by the IP division." As mentioned above, however, whether or not "proposal of R&D themes and new products by the IP division" should be included as part of the IP division's operations depends on the types of business and the size of the company. If it were to be included in the IP division's tasks, the company would have to upgrade the skills of IP division staff and must start placing emphasis on developing people who can propose themes. In some cases, it may be better to create a separate specialized division rather than having the IP division take on the task. An effective approach would be to constitute a specialized division from people chosen from different divisions. For instance, if people who are competent at proposing themes are selected from the IP division, the marketing division, the development division and the research division, it may open up the possibilities for more diverse and interesting R&D themes.

(2) Internal dissemination of information by the IP division

In order to achieve corporate management that attaches importance to IP, it is indispensable to formulate strategies and make decisions based on IP rights and IP information in various phases of corporate management, business development, and R&D. Thus, IP information can be considered as a beneficial and important tool for a company's strategy formulation and decision-making. In order for a company to formulate a management strategy, an R&D strategy, and an business strategy centering on IP, the company must internally share IP information. Since different information is required by the different positions of employees and divisions in the company, the IP division is expected to appropriately provide the information required by the respective positions and divisions. Active internal dissemination of IP information by the IP division would also be significant in having other divisions understand the activities of the IP division and creating an environment allowing lively mutual exchange of information. In this section, "IP information" refers not only to the IP information in the narrow sense that centers on patent information, but overall IP information that also includes domestic and overseas IP information, general IP information published in newspapers, IP maps of the company and other companies, and processed or analyzed IP information for such purposes as analyzing technological trends.

(A) Provision of IP information to the management level

IP information can serve as a beneficial and important tool for making management decisions, business decisions, decisions on R&D themes, decisions on

product development themes, business collaboration and M&A with other companies, management strategies and business strategies including analysis of technical capabilities, and R&D strategies. The important role of the IP division in making full use of this tool would be "to collect IP information, arrange it in a form useful for the company's management strategy, provide it in a timely manner to the top management and those responsible for the respective operations, make proposals in all stages of the business process cycle, and actively participate in formulating the company's business strategy."

In the questionnaire survey, all the respondent companies answered that they provided some kind of IP information to the top management. However, as suggested by the overall answers to the questions on "internal dissemination of information" in the survey, the actual content of the IP information provided seemed to be mostly limited to mere status reports. It cannot be said that IP information is being commonly provided in forms useful for formulating management strategies, business strategies, and R&D strategies. In view of this situation, this section examines the IP information that should be disseminated by the IP division, the method of the internal dissemination, and active proposals to the management level.

a. IP information to be disseminated

In response to a question on the actual information disseminated to the management level as general IP information, 70% of the respondent companies mentioned "information on domestic and overseas IP trends" and 85% of the respondent companies mentioned "information on the company's IP." The "information on domestic and overseas IP trends" and "information on the company's IP," which are the minimum amount of information that the IP division must report, allow little room for the IP division to weave in its intentions.

On the other hand, the following types of information, which were not mentioned by many companies in the survey, would be those that would not be disseminated without special requests from the management level or from other divisions, unless the IP division had a specific intention to disseminate it: "domestic and overseas patents/topics concerning new business opportunities (models)," "the company's technology maps/history (analysis results of the strong points and weak points of the company)," "other companies' technology maps/history (analysis results of the strong points and weak points of other companies)," "competitors' trends in specific domains (what they are trying to do, and the areas and the extent of their focus)" and "patent search/analysis results assuming new business opportunities

(models)." The fact that not many companies mentioned these types of information in the survey seems to indicate that IP divisions are only providing information passively and they hardly prepare and provide information autonomously with their own intention.

However, as mentioned above, in order to use IP information as a beneficial and important tool in formulating the management strategy, the business strategy, and the R&D strategy, the IP division should actively provide not only "information on domestic and overseas IP trends" and "information on the company's IP," but also other information that is judged necessary by the IP division in association with the content of the later-discussed "active proposals to the management level."

Since such information should naturally be provided in a timely manner, it is essential for the IP division to make constant effort to collect IP information in and outside the company and various information on the trends of the market, and have the required IP information in hand by determining which information should be provided from the IP division's own viewpoint.

b. Methods and means of dissemination

As there are a number of options for the methods and means of providing IP information to the management level, the IP division should choose the most suitable way according to the content of information and the timing of providing it. In the questionnaire survey, about 50% of the respondent companies respectively mentioned "oral reports at regular meetings, such as the board meetings to which the top management attends," "provision of information on paper, such as monthly reports or weekly reports," and "individual oral reports to the top management" as the means for disseminating information. Nevertheless, these means all have their advantages and disadvantages, so they should be carefully selected according to the type of provision of information. When there is time limitation or when offering simple information, use of paper or electronic media would be easy and very beneficial. On the other hand, when trying to gain a sufficient understanding of the management level on the activities of the IP division or when indicating the IP division's opinions on the IP strategy to the management level, it would be more effective to communicate with the management level by regularly holding occasions for giving explanations in person.

c. Active proposals to the management level

In the questionnaire survey, more than 90% of the respondent companies answered that the IP division was requested to actively disseminate within the

company information that is necessary for the creative/business activities, by analyzing and utilizing IP information on its own initiative. The IP divisions themselves also recognized the need to engage in proactive internal dissemination of information to the same extent. However, there still seem to be only a small number of companies that actually take a step further and have the IP division utilize the IP information that it has independently analyzed in order to make active proposals to or provide staff assistance to the management level. With this respect, the survey result indicated different trends by industry. While six out of the six companies in the electronic industry answered that their IP division made proposals as to "what the company should do (should strengthen)," four out of the six companies in the pharmaceutical industry answered that their IP divisions "made no proposals."

This disparity would be partly attributable to the differences in the ways in which the specific types of proposals were construed, but it is also likely to be greatly affected by the differences in the industrial environment. For example, in the electric industry where the overall number of patent applications filed is very large and the products are wide in variety with each model having a short lifecycle, the IP environment of the company and the competitors (the status of patent ownership, the licensing status, etc.) is very complicated. Therefore, the IP divisions are considered to have frequent opportunities to make proposals relating to IP information in various occasions in the company's management activities, business activities, and R&D activities. In contrast, in the pharmaceutical industry where registered patent rights are effectively used as exclusive rights, although it is highly probable for any patent infringer to become subject to an injunction, the overall number of patent applications filed is not as large as for the electric industry, and the IP environment may not be as complex as in the electric industry. Furthermore, in the pharmaceutical industry, companies usually conduct sufficient investigation of other companies' IP rights from the initial stages of development to identify and avert possible problems and risks in advance. Therefore, another factor could be that there has been little room for the IP divisions to make new independent proposals concerning the company's or competitors' IP to the management level.

However, it will become increasingly important for the IP division to not merely provide information, but to make determinations on its own initiative and make beneficial and important proposals upon formulation of the management strategy, business strategy, and R&D strategy. In addition, such proposals must be made in compliance with the direction of the IP-related matters expressly indicated in the corporate policy and vision, as well as the top management's addresses and

instructions. As a matter of course, the IP strategy is sought to be formulated according to the policy of the company's management strategy. Therefore, with the IP division making full use of IP information and offering new proposals by factoring in the policy of the management strategy, it will be possible to effectively utilize IP rights in the management strategy. Since interchanges such as information exchanges with the R&D divisions and business divisions are also indispensable for making such proposals, there would also be a need to establish a scheme that encompasses personnel exchanges.

(B) Provision of IP information to R&D divisions and business divisions

Although the IP divisions in most companies already provide IP information to R&D divisions and business divisions, they must make effort to internally disseminate organized information in a timely manner in order for the respective divisions to gain the awareness to utilize IP rights and IP information in R&D activities and business activities. In doing so, the IP divisions should try to avoid using technical IP terms and to make the information as easy to understand as possible.

The types of IP information relevant to formulation and promotion of the R&D strategy, which should be provided to R&D divisions and business divisions, include the following.

- For "formulation of the R&D strategy and analysis of the company's technical capabilities":
  - -> Information on patent filings by the company and other companies; information on the IP rights that were acquired by the company and other companies
- For "protection of the company's technologies" and "protection of the company's products":
  - -> IP information for promoting the IP right acquiring activities for protecting the company's technologies that are created in accordance with the R&D policy
  - -> IP information for promoting the patent acquiring activities for predicting alternative technologies and preventing market entry of other companies
  - -> IP information for promoting the IP right acquiring activities for protecting the company's products in the market
  - -> IP information for promoting the constructing of a network of patents for peripheral technologies such as the production facilities and manufacturing

methods of the company's products

- For "dealing with other companies' patents":
  -> IP information or analysis results for analyzing the company's IP position (information on patent filings and patents acquired by other companies in the R&D field; information on patent filings and patents acquired by other companies with respect to the products to be developed; gaining an understanding of the company's strong points and weak points)
  -> Information on the existence and validity of other companies' patents and information on the possibility of circumventing or other measures to be taken against other companies' patents

The types of IP information mentioned above are types of information that are beneficial for selecting and focusing R&D themes and business themes as well as for effective acquisition of IP rights. For the IP division of a company, the management level as well as other divisions such as the R&D divisions, business divisions, sales divisions, and public relations divisions are all "customers," and the IP division should provide high-quality IP information as a service to those "customers." Dissemination of easily understandable IP information from the IP division to other divisions including the R&D divisions, business division, marketing divisions, and public relations divisions would be effective for having other divisions sufficiently acknowledge the activities of the IP division and for raising the company-wide awareness of IP rights. It would also be possible to create a system in which the IP division not only disseminates information one-way, but receives technical information and information on other companies' products from R&D divisions and business divisions. Some companies seem to have a system where an engineer, upon finding another company's product to be infringing the company's patent, reports to the effect to the IP division and receives an incentive award from the IP division. However, it would be necessary to build a scheme for utilizing and sharing IP information, not only in such cases, but also widely among the divisions in the company, in coordination with R&D divisions and business divisions.

Electronic media such as the IP division's Web site and e-mail could be utilized to effectively disseminate IP information widely within the company, but it cannot be denied that too much dependence on such media would lead to one-way offer of information and a lack of communication. Therefore, in addition to utilizing electronic media such as the IP division's Web site and e-mail, the IP division should make effort to make closer communication by providing information through holding

regular meetings. Although IP information should be shared more widely within the company, IP information must naturally be handled with extra care since it sometimes includes highly critical content.

(3) Assessment of IP values

This section discusses the most representative IP right—the patent right.

(A) Need for and current status of assessment of IP values

a. Need for selecting inventions for which patent applications should be filed and assessment of patents for patent maintenance

Of the approximately 860,000 patent rights that are supposedly valid in Japan, only about one-third are said to be in use (source: Samejima Masahiro, *Tokkyo Senryaku Handobukku* (Patent strategy handbook) (Chuokeizai-sha)). Patent rights require costs to be acquired and maintained. Accordingly, they can be called assets as long as they are utilized as a result, but otherwise they could end up as mere costs. Thus, patent rights that are not likely to be used in the future should be abandoned, and preferably, patent applications should not be filed for inventions that will not be used in the future. One of the questions in the questionnaire survey was, "What are the points of particular focus in your company's IP strategy?" About 30% of the respondent companies selected "a shift from quantity-oriented to quality-oriented patent filings" from multiple options (there were no large gaps by industry). This could be taken as the companies' consideration of the above-mentioned fact that about two-thirds of patent rights in Japan are not in use. In order to abandon patent rights that are unlikely to be used in the future and refrain from filing patent applications for inventions that are unlikely to be used in the future, the values of inventions and patents need to be appropriately assessed.

b. Need for assessing IP values to verify the return on investment

Every activity of a company must be conducted for increasing the corporate profits, except in special cases such as environmental conservation and social contributions. IP activities are no exception. The filing of IP applications, acquisition of IP rights, and maintenance of those rights must naturally contribute to increasing the corporate profits. However, it is questionable how many companies actually understand the extent to which their patent rights contribute to increasing their corporate profits. The forms in which patent rights contribute to corporate profits are not simple. Patent rights can contribute to corporate profits in various modes, such as

generation of founder's profit by business monopoly, royalty income from competitors through licensing, and profits from selling the patent rights themselves. However, even when there was a royalty income, it could be the outcome of not being able to monopolize business, so that income cannot be directly considered as contribution to corporate profits. Thus, it is difficult to assess the extent to which a patent right has contributed to corporate profits. Nevertheless, assessment of IP values is essential, because the Japanese manufacturing industry, which faces intensive low-cost competition due to the catching up of developing countries, cannot spare any unnecessary costs, and such assessment is also required for judging whether or not appropriate investments are made.

c. Need for assessing IP values for information disclosure

No laws or accounting standards in Japan obligate companies to make their IP public. Therefore, most Japanese companies are said to include almost no information on their IP, such as patents, in their financial statements and provide no detailed information about their IP upon voluntary disclosure of information (investor relations). However, since IP values are increasing and IP rights are becoming more and more important for corporate management in the worldwide pro-patent trend, investors have come to focus more attention on IP. Therefore, the status of IP ownership has become indispensable information for investors in determining corporate values. In the questionnaire survey, a question was asked about managerial accounting of IP. In this context, managerial accounting of IP can mean clarifying the income and expenditure related to IP in the broad sense, and publication of the values of the company's IP in the narrow sense. According to the result, 15% of all respondent companies answered that they were currently conducting managerial accounting of IP, and about 30% answered that they were not currently conducting managerial accounting of IP, but were planning to introduce the system. As for the reason for conducting managerial accounting of IP, about 25% of the respondent companies mentioned "raising the corporate value (measure for shareholders)" and about 20% mentioned "cost management." These answers suggest that more companies will come to disclose the status of IP ownership on a monetary basis in the future, but in order to do so, they must first assess the values of their IP. The fact that the Ministry of Economy, Trade and Industry has summarized "A Pilot Model for Disclosing Patent and Technical Information" (March 14, 2003) and invited pilot test companies (April 14 to May, 16, 2003) also indicate the importance of disclosing patent/technical information.

d. Summary

This section has examined the need for assessing IP values from three aspects: for determining whether a patent application should be filed and whether a patent right should be maintained; for verifying the return on investment; and for information disclosure. Other aspects include increasing incentive for invention by properly assessing the values of patent rights and paying remuneration corresponding to those values to the inventors. At any rate, the need for assessing IP values is expected to grow further in the future.

When companies were asked, "Does your company recognize a need to assess IP values as an IP strategy?" in the questionnaire survey, 42% answered that they recognized such a need, and 46% answered they somewhat recognized such a need, with no companies answering that they recognized no such need. These answers support the importance of assessing IP values.

(B) Appropriate assessment of IP values

As mentioned above, the IP values are expressed based on the extent of contribution to corporate profits, and they are merely costs until they contribute to corporate profits. The following are assumable modes in which IP could contribute to corporate profits:

i) a mode in which the company can conduct business monopolistically and enjoy founder's profit;

ii) a mode in which the company cannot conduct business monopolistically, but can sell products at high prices or secure large sales volumes by monopolistically working differential technologies;

iii) a mode in which the company cannot conduct business monopolistically or work differential technologies monopolistically, but can gain higher profits than competitors since they need to circumvent the relevant patents in working equivalent technologies;

iv) a mode in which the company can enjoy more freedom in technological development by cross-licensing;

v) a mode in which the company can gain royalty income by granting licenses to other companies; and

vi) a mode in which the company can gain income by selling the IP.

In this manner, IP can contribute to corporate profits in a variety of modes. Regardless of the mode, however, it should be noted that a patent right, which is an

exclusive right, produces value only when another company takes interest in working that invention.

a. Assessing values of inventions for selecting the inventions for which patent applications should be filed

In assessing values of inventions for selecting the inventions for which patent applications should be filed, the method of assessment must be decided based on the patent filing strategy. This patent filing strategy is influenced by the type of business, the patent filing strategies of competitors, and other factors. Specifically, in an industry like the pharmaceutical industry where it is common to have one product for one patent, the patent filing strategy would place more focus on such matters as selection of the filing countries and the virtual extension of the terms of patent rights, rather than on selection of inventions. On the other hand, in an industry like the electric or machine industry where hundreds of patent rights are involved in one product, more emphasis would be placed on selecting the inventions for which patent applications should be filed. Furthermore, in the electric or machine industry, if the companies in the field of business only compete with respect to basic patents, management resources would be allocated to improve those basic patents. However, if there is a competitor that has a patent filing strategy to file hundreds of peripheral patents and demand cross-licensing in order to counter companies that have basic patents, even those companies having the basic patents would be forced to take a strategy to file a large number of applications for peripheral patents to fight against it. Nevertheless, considering the current situation where about two-thirds of the acquired patents are not in use, as mentioned earlier, such a strategy would apparently end up as a waste of management resources. Instead, companies that can appropriately assess the values of the inventions for which patent applications should be filed would undoubtedly be advantageous in low-cost competition. An invention is only a seed of a patent right, and it must cross many hurdles to become a patent right, let alone a valuable patent. In this way, it is highly uncertain whether an invention can become a valuable patent in the end.

It should also be noted that, as a patent right produces value only when another company takes interest in working the invention as earlier mentioned, the need to file a patent application is small unless another company is likely to take interest in working that invention in the future. Therefore, when selecting the inventions for which patent applications should be filed, the values of the inventions should be clarified based on whether or not another company would want to work that

invention in the future, that is, whether the problem to be solved by the invention is one that other companies would also have to solve in the future, whether there are alternative means to the means for solving the problem used in the invention, and if so, how advantageous the means used in the invention is compared to those alternative means. In other words, it is necessary to clarify the standards of the inventions for which patent applications should be filed. How effectively the values of inventions can be assessed to select the inventions that would be highly utilized in the future depends on how accurately one can predict the future market demands. Companies already seem able to predict the future market demands at present, but they will need to make those predictions even more accurate in the future.

b. Assessing values of patents for patent maintenance

Assessing values of patents for patent maintenance is easier than assessing values of inventions for filing patent applications, because it does not involve the uncertainty of patentability. However, it still involves uncertainty in that the future market demands must be predicted to determine whether or not the patent would be effective for eliminating other companies in the future. Therefore, there is a need to further increase the accuracy of prediction of the future market demands henceforth.

c. Assessing values of patents for determining the return on investment

When a company can conduct monopolistic business based on existence of a certain patent, the value of that patent can be considered as the business profit itself. However, how should the value of a patent be measured, when that patent does not allow the company to conduct monopolistic business, but allows it to sell products at a higher price than other companies by monopolistically working the differential technology? In addition, how can the value of a patent be measured when the patent is worked by another company by cross-licensing? Since IP contributes to corporate profits in diverse modes as mentioned earlier, the effects of IP that already contributes to corporate profits should be measured by deciding the appropriate value assessment method according to the respective modes and the effects of IP that are likely to contribute to corporate profits in the future should be measured as potential effects, in order to gain an understanding on whether the IP is bringing sufficient return on investment and is able to bring sufficient return on investment in the future. If sufficient return on investment has not been gained and is unlikely to be gained even in the future with the conventional level of investment, it would be necessary to change the level of investment so as to be able to gain a sufficient level of return on

investment.

d. Assessing values of patents for information disclosure

Presently-known methods of assessing patents for information disclosure include the market approach, cost approach, rule of thumb approach, parameter approach, and income approach (see Material No. 301 of the Japan Intellectual Property Association). All of these methods are based on many hypotheses, and it is difficult to compare their superiority on a single plane. However, if companies disclose information by using different assessment methods, investors may not be able to compare the companies and make appropriate decisions. Therefore, it is desirable that companies will come to disclose information by a common method as a result of future studies.

(4) Evaluation of internal IP activities

(A) Need to improve evaluation of IP activities

In the questionnaire survey, more than 80% of the respondent companies had already achieved "management policy that attaches importance to IP" (answering that IP-related matters are expressly indicated in the company's annual policy, medium/long-term policies, instructions by the management level, etc.) or planned to achieve "management policy that attaches importance to IP" in the future. This clearly indicates that companies have started to recognize the importance of IP in recent years. At the same time, over 90% of the respondent companies answered that the IP division's presence in the company "should be greatly or slightly increased/strengthened." Many of these companies mentioned the reasons as "to penetrate understanding and awareness of IP within the company, particularly in the management level" and "to facilitate coordination with the business divisions and development divisions by having them recognize the importance of IP."

In fact, with regard to the companies' evaluation of their IP strategies, about 70% of the respondent companies answered that "the achievements are not necessarily sufficient." At the same time, 70% of the respondent companies answered that "there are calls for reforming the IP strategy or the IP division" and that the IP divisions themselves thought there was "a need for reform." In other words, it is true that the IP awareness is heightening in companies due to the domestic environment where the Strategic Council on Intellectual Property was established in 2002 as a national strategy and greater emphasis has been placed on IP, and due to the increasing need to take a global IP strategy in line with the globalization of corporate activities. However,

the understanding and awareness of IP have yet to permeate sufficiently within companies. Therefore, although companies have adopted "a management strategy that attaches importance to IP," the strategy may not be sufficiently functioning within the companies in reality.

Nevertheless, if a company intends to carry out a management strategy and business strategy that attach importance to IP on a company-wide level, it is vital to get all employees including the management level and the business/development divisions, to gain a good understanding of the IP activities. Therefore, now when the importance of IP is beginning to be recognized, the IP division should strive to promote the understanding of IP by approaching the management level and the business/development divisions on its own initiatives and by conducting activities that would further raise the internal awareness and recognition of IP. With the rise in the internal awareness and recognition of IP activities, the IP division would also gain access to information related to the management strategy and business strategy, and consequently it would be able to plan and execute a timely IP strategy that meets internal needs.

(B) Roles of the IP division in raising the awareness and recognition of IP activities

The roles of the IP division in raising the internal awareness and recognition of IP activities are mentioned below.

a. Internal IP awareness raising activities

The IP awareness raising activities within the company differ in terms of method and content depending on the target divisions, so the activities will be discussed separately for the management level, R&D divisions, and other divisions.

(i) Management level

In the questionnaire survey, about 50% of the respondent companies answered that a management level employee or a director was "responsible for the IP strategy" in the company. However, it is doubtful whether there are people with good knowledge of IP in the management level of the remaining half of the respondent companies. In order to implement a management strategy and business strategy that attach importance to IP company-wide, the management level must have the intention to place emphasis on the IP strategy and have leadership within the company. Therefore, it is important to first have the management level improve their

understanding of IP. Companies in which a management level employee or a director is already responsible for their IP strategy merely need to promote the understanding and stress the importance of IP to other management level employees through that person. However, if a company does not have such a person, the head of the IP division should take on that task.

In the past, what companies used to seek in IP was " to keep a lot of options for business decision as possible as we can by protecting the inventions of the R&D by IP." Since there is a strong awareness that IP is a matter solely related to R&D and the content of IP is highly technical, it seems to be a field in which it is very difficult for the management level to understand. Nevertheless, while it is essential for Japanese companies to upgrade their technology level amidst the intensifying competition with European and U.S. competitors and with companies of Asian nations that are dramatically improving their technology level in recent years, it is extremely difficult to differentiate the technologies with the competitors. In such an environment, the management level now seems to be pressed with the need to differentiate the company from the competitors by adopting a management strategy that utilizes IP, which is increasing its market values, and it has no other option but to take interest in IP.

Under these circumstances, the management level must have the competence to precisely understand the information and proposals from the IP division, and by making comprehensive determination based on them and other management information, formulate management strategy and a business strategy that incorporate an IP strategy, and instruct implementation of those strategies company-wide. As indicated by the survey results, the awareness that IP is one of the key factors of management resources has come to diffuse to the top management and the division in charge of the management strategy. In order to achieve further penetration of this awareness, it is important to provide information and conduct awareness raising activities to the management level and seek an understanding of the importance of IP on a routine basis, so that the management level would position IP as a key management resource along with people, products, and money, and would always bear in mind how the IP can be effectively utilized in management.

Then, what kind of IP awareness raising activities should the IP division conduct toward the management level? Since IP activities do not appear on financial statements, it has been very difficult for the management level to see how the company's IP activities were contributing to corporate profits. Therefore, the first step should be to report the extent to which the IP activities are contributing to corporate

profits and whether the operations of the IP division are proving profitable as corporate activities, by using objective and numerical yardsticks that will be easily understandable by the management level. For example, it is possible to provide information on the filing fees, the expenses of the IP division such as filing fee and maintenance fee, the number of patent applications and patents issued, the number of licensing agreements, the number of oppositions filed against the third party's patents and the rate of winning in the oppositions, the number of warnings given, and litigation costs. It is also important to provide information on "the value the IP produced in corporate activities" such as the rate of working the patented inventions, the amount of royalty income, the extent of IP's contribution to acquiring market shares, the extent of IP's contribution to sales, profits from inhibiting entry of competitors, the extent of IP's contribution to raising the values added to products/services, and contribution to increasing the employees' motivations by the bounty system for employee's invention.

Some of the above information includes items that are extremely difficult to express in objective/numerical yardsticks. However, there is a company in which the IP division expressly indicated to the management level the degree of contribution made by the IP division to the company on a numerical basis as "the added value rate of the IP division," and thereby definitely increased the presence of IP division in the company, and consequently adopted an IP strategy in which is connected with the management strategy and business strategy.

What is more, in the case of the manufacturing industry in particular, it is necessary to provide "balanced and precise IP information" when conducting IP awareness raising activities to the management level. For instance, such information as royalty income of patents can be easily reflected upon corporate profits, so they are useful information for conveying the benefits of the activities of the IP division, as well as easily understandable by the management level and other divisions.

However, the primary business of a manufacturer is to create superior products by acquiring a technology level that surpasses that of competitors. Accordingly, by excessively providing unbalanced information as above, the company may come to focus its management strategy mainly on "earning by IP," which would be getting the priorities wrong.

(ii) R&D divisions

Cooperation between R&D divisions and the IP division is important in a company's basic IP activity, which is "protecting the company's technologies to keep

a lot of options for business decision as possible as we can" and IP decision should already be close connected with R&D divisions as a matter of course. However, when asked about the current situation regarding the R&D divisions, many companies answered in the questionnaire survey that "the R&D divisions have insufficient understanding of IP" and "closer information exchanges are necessary with R&D divisions."

In order to get an IP strategy to materialize that factors in the management strategy and business strategy, it is essential for IP division to coordinate with the R&D divisions, which are the source of the company's technologies. Nonetheless, as the IP division and the R&D divisions are not being able to mutually obtain each other's information in a timely manner at present, companies seem to be failing to get IP strategy to materialize sufficiently. In the manufacturing industry in particular, it is important to utilize IP in combination with the technological development strategy. To this end, not only the head of the IP division, but the respective IP division employees who regularly communicate with the R&D divisions should make active efforts to coordinate with the R&D divisions in order to understand the themes undertaken by the researchers and developers, the technical background of those themes, the problems to be solved by the inventions, and the future trends of the technologies. By doing so, the IP division would be able to get patent rights in compliance with the business strategy, as well as to propose effective utilization of the issued IP. In order to get a "management strategy that attaches importance to IP," to materialize the IP division must constantly pay attention to the needs of the management and provide necessary IP information corresponding to the R&D trends. To this end, the IP division must transform itself from the conventional passive "service division" that engages in protection of inventions and development into a division that encourages the R&D divisions to efficiently utilize IP information in the R&D activities, by proactively providing information such as competitors' technology trends that have been analyzed from IP information, and promoting thorough standardization of the IP clearance system for preventing infringements. This can only be achieved when the individual IP division employees recognize it and put it into action.

At the same time, the R&D divisions, which are the source of inventions, must cover new technologies by IP rights and conduct R&D activities without infringing the third party's patents by being constantly conscious of the patents. They often directly or indirectly obtain information on other companies' technologies and products as well. Therefore, it is necessary to have the R&D divisions become aware of the importance of patents and acquire the basic skills concerning the IP system in

general.

By developing such personnel, it would be possible to have the R&D divisions take on part of the operations that have been undertaken by the IP division. This would allow the IP division to participate in management and business strategy, attaching importance to IP strategy, which is a task the IP division is expected to take on in the future. These personnel should be developed by education through IP training or by increasing the IP awareness of R&D division employees through sending them to the IP division based on fixed-period job rotation or other schemes and having them engage in the basic routine operations. According to the survey results, most of the companies had such educational systems to develop personnel in the R&D divisions, indicating that they sufficiently recognize the importance of such personnel development.

(iii) Other divisions including the sales, production, and public relations divisions

If the IP strategy comes to be planned and materialized according to the management strategy in the future, IP-related problems (e.g., counterfeits, business model patents, service marks, trade dresses, copyrights and unfair competition) are likely to increase. Because the IP division will be required to exchange information with a larger number of divisions, an important task would be to establish contacts with the other respective divisions. It would be beneficial to create an internal communication system through which the IP division could obtain the needs at the front line of business activities, such as sales activities, and any derivative information in a timely manner, and could use such information in planning and carrying out the IP strategy. According to the questionnaire survey, about 50% of the companies provided IP training to divisions other than the management level and R&D divisions. In order to have other divisions, including the sales, production, and public relations divisions take interest in IP and pay attention to IP-related problems on a routine basis, it would be vital to conduct IP awareness raising activities to these divisions as well in the future.

In particular, the sales division, which directly contacts with customers, would receive complaints from customers when IP problems such as patent infringements occur. Conversely, it would be the first to find out about information on other companies' products that infringe our patent rights. Accordingly, it needs to learn about the basic concepts of IP, and must be able to make appropriate decisions as to what should be done to deal properly with the complaints or to effectively utilize our patents. For that purpose, it is important to provide education on the basic ideas of

IP-related problems through training on IP. According to the survey results, not many companies provided such training to sales divisions as mentioned above. Thus, there would be a need to develop the IP awareness of the sales division in addition to the R&D divisions in the future.

b. Other awareness raising activities

In order to have the entire company recognize the importance of IP activities in the company's management strategy, educational/awareness raising activities on IP must be conducted for all employees.

Therefore, the IP division should conduct in-house training, publish articles on public relations magazines, set up the IP division Web site, and internally disseminate IP information related to corporate activities, such as reports of court decisions, in order to make IP recognition penetrate throughout the company.

(C) Formulating an appropriate structure within the IP division

As mentioned above, the IP divisions are currently in transition of change, so many of them are expected to lack resources such as personnel and information for materializing an IP strategy in compliance with the management/business strategies. In order for the company to materialize a "management strategy that attaches importance to IP" in the future, the IP division must provide to the management level IP information including the information that assesses the present and future technology levels of the company and competitors, such as a patent portfolio of the like. To that end, the IP division needs to have the R&D divisions and business divisions provide information on the market conditions and other companies' technologies, and exchange opinions on the analysis results as required, to create accurate IP information.

Therefore, one of the future tasks of the IP division is to hold regular meetings with the R&D divisions and business divisions for exchanging information and conducting analyses, and have the attendants feed back and educate the other IP division employees about the method of analyzing information on the market or other companies' technologies learnt at those meetings, so that the entire IP division can gain not only expert IP knowledge, but also knowledge of technologies and management.

It would also be necessary for the IP division to carefully examine the current IP operations and operations that will become more important in the future by giving consideration to the company's future management policy and business policy, and to

outsource less important operations and routine work.

(5) Personnel development

As clearly indicated by the questionnaire survey results, companies' IP awareness has dramatically changed from the past in recent years, and companies have started to recognize the importance of IP. IP has critically influenced the company's management strategy in many cases. A company's attitude toward IP often greatly affects the fate of the company, and more frequently influences its sales activities. In such a situation, the role and function of the IP division sought in the company have also changed considerably, and as a matter of course, the abilities expected from IP division staff have also changed and diversified.

In the meantime, human capital management has come to be emphasized in personnel affairs of companies. It is a concept of considering personnel as "capital" (human capital) rather than "resources" (human resources). Thus, IP personnel are beginning to be viewed not as "resources" as in the past, but as IP creators that are "capital." The importance of creating an environment for developing personnel that will produce IP is gaining recognition also from such an aspect.

(A) Current status of personnel development

Analysis of the questionnaire survey results elucidated the following points with regard to the current status of personnel development.

- Most companies provided education centering on IP training to staffs of R&D divisions on the whole from new employees and middle-level employees to supervisory level employees. On the other hand, not many companies provided such education to staffs of sales divisions.
- Many companies conducted personnel interchanges (including job rotations) between the IP division and other divisions (business divisions and R&D divisions). However, only one-third of the companies conducted two-way interchanges, with most companies sending personnel one-way from other divisions to the IP division and no company sending personnel one-way from the IP division to other divisions.
- Only two companies provided training on the company's technologies to the IP division staff, and most companies did not have such a training system.

In light of these circumstances, the personnel and personnel development that would be sought in the future are discussed below.

a. IP division

(i) Roles expected from the IP division

In recent years, IP has grown into an important factor that has a serious influence on planning corporate strategies, such as the management strategy, business strategy, and R&D strategy, in companies. Thus, the IP division must not only take the initiative in planning the IP strategy, but must also be actively involved in planning the business strategy and R&D strategy as a division playing an important part in formulation of the management strategy, similar to the business divisions and R&D divisions. In line with that, the operations of the IP division must also shift from those centering on specialized practical work (acquisition of IP rights, utilization of IP rights, dealing with other companies' IP rights, dealing with contracts/disputes/litigation, etc.) to those centering on strategy planning.

For example, in planning corporate strategies, such as the management strategy, business strategy, and R&D strategy, the IP division would collect, analyze, and provide information on legal systems and their trends as well as technology information and IP right information of the industry and competitors from an IP perspective. In addition to these, it would also actively participate in the planning of the corporate strategies from the IP division's unique viewpoint using these information as an effective tool, and implement/promote those strategies.

Considering these circumstances, the following operations are likely to be emphasized in the IP division in the future.

- Formulation of the IP strategy; participation in the planning of corporate strategies, such as the management strategy, business strategy, and R&D strategy; and making proposals to the management level
- Coordination and negotiations with other divisions including the business divisions and R&D divisions; and formulation/promotion of the IP strategy that is compliant with the business strategy based on such coordination/negotiations
- Gaining an understanding of, analyzing, and planning countermeasures for the technology trends of competitors

Among the above important operations, the planning of corporate strategies and proposals to the management level are likely to be given more emphasis than ever in the future.

(ii) Personnel sought for the IP division

The personnel to be sought for these important operations, that is, the abilities (qualities) to be sought for the IP division in the future can be assumed as below.

These abilities (qualities) would not be sought entirely in one individual, but it would be sufficient to develop personnel so as to comprehensively gain these abilities (qualities) as the entire division in the end.

- Managerial sensitivity (entrepreneurship)

  An ability to: become involved in corporate strategies (management) not dependently, but autonomously; precisely understand the management policy; accurately recognize such trends as technology trends, market trends, domestic and overseas policy trends; and plan new corporate strategies (not only the IP strategy, but also the business strategy and R&D strategy) as well as cultivate the market based on precise assessments, such as IP assessment, technology assessment, and market assessment

- Strategy planning ability

  A strategic thinking ability to set precise goals based on a clear vision, and plan an effective strategy that links with such corporate strategies as the business strategy and R&D strategy

- External negotiation ability

  An ability to: resolve any problems in external relationships or human relationships promptly and appropriately by freely using the communication skills and understanding external relationships and human relationships; strengthen ties with other internal divisions and external organizations; and smoothly carry out the operations within the IP division

- Basic abilities and practical abilities concerning IP

  Basic abilities and practical abilities concerning IP in general such as: knowledge on the overall IP system; technical knowledge; the ability to search/analyze IP information; the ability to understand inventions; the ability to conduct the procedures for acquiring IP rights (practical abilities from discovering an invention, preparing the specification, filing the application, to acquiring a patent, and dealing with oppositions and invalidation trials); dealing with other companies' IP rights; dealing with contracts and litigation; and legal knowledge.

(iii) Personnel development means sought for the IP division

The IP division staff in supervising positions, particularly the head of the IP division, need to acquire such abilities (qualities) as a managerial sensitivity (entrepreneurship), strategy planning ability, and external negotiation ability. As a means for developing these abilities, it is important to: have the staff experience a wider range of operations by job rotations, etc.; have the staff attend important

meetings related to management in order to increase the opportunities to make reports to the top management; and increase the opportunities to contact the work fronts of R&D, technology development and business activities. It is also important to improve these abilities through educating subordinates, giving lectures in and outside the company, and participating in external training programs, as well as to have them expand access to information and human networks by encouraging them to actively get in touch with external companies and organizations.

As for basic abilities, the fundamental means would be to educate through on-the-job training as in the past, while it is also necessary to have the staff participate in internal and external workshops to acquire basic knowledge as supplementary means. It is also important to have them participate in various study meetings lead by people of learning and experience or have them study abroad for acquiring a higher level of knowledge and experience. Among basic abilities, technical knowledge is important in considering the ways in which strong IP rights can be developed and acquired in planning and implementing the IP strategy, or even corporate strategies. Therefore, the technical knowledge of IP division staff must be increased to a level that allows them to become inventors just like researchers through sending IP division staff to R&D divisions or providing education on the company's technologies to the IP division staff.

(iv) Outsourcing

When the planning of corporate strategies becomes the main objective and operation of the IP division in the future, consideration should also be given to outsourcing operations of relatively low importance and routine work. Operations related to basic abilities, such as filing of applications and acquiring IP rights, conducting prior art searches, operations pertaining to expert testimony and litigation, as well as maintenance and management of IP rights are types of operations that can be outsourced relatively easily. However, even when the planning of corporate strategies becomes the main objective and operation of the IP division, the basic abilities concerning IP in general, which have been required in conventional specialized practical work, are naturally indispensable for the IP division staff.

For example, when planning measures against other companies' patents, the method of forming a network of patents with the company's patents, and the licensing strategy based on the findings on the status of patents in a technical field that the company plans to enter, the IP division staff must be able to understand the technologies, assess the values of the patent rights, and construe the scopes of the

rights. Also when starting overseas advances to respond to the current globalization trend, the IP division staff need to understand and deal with the laws and systems of the respective countries based on the knowledge and experience of domestic procedures.

By being devoted to the IP strategy, the IP division could focus its attention on developing the above new abilities that would be sought in the future and overlook the need for the basic abilities. An excellent IP strategy only proves effective with the major premise of discovering good inventions and acquiring strong IP rights. Therefore, the basic abilities for putting the strategy into practice must not be neglected. It must be recognized that the above-mentioned new abilities to be sought in the future can only be demonstrated when backed by sufficient basic abilities.

4. Conclusion

In order to survive and stay on the winning side amidst the severe market environment, companies are pressed to evolve their IP strategy into a new strategy or activity that is not bound by conventional fixed ideas, as one of the major pillars of the management strategy and as a strategy that is integrated with the business strategy and the R&D strategy. In light of this situation, this paper discussed how IP divisions should break away from their conventional scope of activities and aggressively conduct activities that are closely connected to formulation of business strategies and R&D strategies, by focusing on "involvement in deciding themes," "international dissemination of information by the IP division," "assessment of the IP values," "evaluation of internal IP activities," and "personnel development" as points to be reinforced for actualizing the newly evolved IP strategy.

The current IP divisions of companies lack resources to actually reinforce these points, so improvements must be made to internal resource allocation. To achieve this end, it is essential to have the entire company, including the management level and business/R&D divisions, gain a good understanding of IP activities. The first necessary step would be to conduct internal IP awareness raising activities, such as reporting to the management level how much the IP activities are contributing to corporate profits, and to formulate an appropriate structure and develop personnel within the IP division.

Lastly, grateful acknowledgment is expressed to the PIPA members that cooperated in the questionnaire survey conducted for the analyses in this paper.

Reference

References were made to the following literature in compiling this paper.

(1) Material No. 279 of the Japan Intellectual Property Association

(2) Material No. 301 of the Japan Intellectual Property Association

(3) Samejima Masahiro, *Tokkyo Senryaku Handobukku* (Patent strategy handbook) (Chuokeizai-sha)

(4) Shunsuke Watanabe, *Chiteki Zaisan Senryaku/Hyôka/Kaikei* (IP strategy/assessment/accounting) (Toyo Keizai Inc.)

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(2) Date:	October 2003 (33rd International Congress in Dearborn)
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(7) Abstract:

Study of the revised provisions of "indirect infringement", resulting from the 2002 revisions of the Japanese Patent Law implemented as of January 1, 2003 from the viewpoint of subjective requirements and objective requirements, taking account of the backgrounds and purposes of the revision.

Upon studying said revisions, comparison with the conventional provisions and with the provisions concerning indirect (or contributory) infringement stipulated in the Western laws is made. Also, virtual decisions are made in respect of the legal precedents of Japan as well as precedents of US and UK by applying the revised provisions to such precedents for experimental purpose, in order to identify the meaning of the revision.

Then, the matters to be noted by the patent owners and by the alleged infringers upon exercising their respective rights, which are derived from the studies above, are discussed.

This paper further provides the comment on the problem concerning independent theory and dependency theory, which is seemingly unsolved by the revision.

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Introduction

As a result of the 2002 revision of the Japanese Patent Law that has been implemented as of January 1, 2003, the provisions of Article 101 was amended to extend the scope of "acts deemed to be infringement" to include the non-"exclusive" items in Japan.

One of the significant objects of these revisions was to "include the provisions for indirect infringement adopted by the Western laws that stipulates the preliminary or contributory infringement from the perspective of objective as well as subjective requirements"[i] in the indirect infringement provisions of Japan, which have been regarded as "quite alien"[i] compared with the Western laws.

The object of this paper is to examine the backgrounds, purposes and problems of the 2002 revision of the Japanese Patent Law by making comparison of the provisions prior to and after the revision with the Western laws, as well as by making virtual decisions on the legal precedents of Japan and of Western cases under the revised provisions.

Further, the matters to be noted by both patent owners and the alleged infringers, which are derived from the above studies, shall be discussed.

I. Outline of Revision

As a result of the 2002 revision, Article 101, the provision stipulating the indirect infringement, was amended to read as follows:

Article 101 (Acts deemed to be infringement)

The following acts shall be deemed to be an infringement of a patent right or exclusive license:

(i) in the case of a patent for an invention of a product, acts of manufacturing, assigning and the like, importing or offering for assignment and the like, in the course of business, articles to be used exclusively for the manufacture of the product;

(ii) in the case of a patent for an invention of a product, acts of manufacturing, assigning and the like, importing or offering for assignment and the like, in the course of business, articles to be used for the manufacture of the product (excluding those articles which are distributed widely and commonly in Japan) which is indispensable for attaining the object of the patented invention, with the knowledge that the invention is patented and that the articles will be used for the working of the patented invention.

(iii) [which has been Item (ii) prior to the 2002 revisions] in the case of a patent for an invention of a process, acts of manufacturing, assigning and the like, importing or

offering for assignment and the like, in the course of business, articles to be used exclusively for the working of the process.

(iv) in the case of a patent for an invention of a process, acts of manufacturing, assigning and the like, importing or offering for assignment and the like, in the course of business, articles to be used for the working of the process (excluding those articles which are distributed widely and commonly in Japan) which is indispensable for attaining the object of the patented invention, with the knowledge that the invention is patented and that the articles will be used for the working of the patented invention.

The structure of Article 101 after the revision can be said that Item (ii) was added to support the former Item (i) (in respect of an invention of a product) and Item (iv) was added to support the former Item (ii) (in respect of an invention of a process; corresponding to Item (iii) after the revision)

JPO comments on the 2002 revision that:

"Under existing legislation, activities to aid and abet the infringement of the patent right by providing parts or materials used therefor are included in the activities of infringement; however, there are not many judicial precedents in which infringement has been admitted since the subject of the law's application is limited to exclusive parts (i.e., materials used only for production).

From the viewpoint of reinforcing protection of the right, the amendment is intended to expand the scope of indirect infringement to include the activity of providing parts with malicious intent (knowing that it is a patented invention and that it is used for the purpose of infringement)." [ii]

As indicated in these comments, the significant points of the 2002 revision are:

Subjective Requirements: Include in the scope of the acts deemed as infringement the act of supplying components knowingly of the fact of infringement

Objective Requirements: Delete the term "exclusively", and include in the scope of the acts deemed as infringement the product or process (excluding those articles which are distributed widely and commonly in Japan) which is indispensable for attaining the object of the patented invention

The important points of these revisions are specifically discussed below.

I-1. Subjective Requirements

Subjective Requirements comprise the following three factors:

<1> The product or process is used for the working of the invention;

<2> The invention concerned is a patented invention; and

<3> The act is made knowingly of the above facts.

JPO sets forth its interpretation regarding the application of each of the above requirements as follows[i]:

<1> "The product or process is used for the working of the patented invention"

This requirement sets forth that the person engaged in the manufacture, assignment or otherwise of the component or other product or process is required to have the knowledge that such component or others is to be used by any third party for the working of a certain invention.

<2> "The invention concerned is a patented invention"

"Patented invention" means an "invention for which a patent has been granted" (Article 2(2) of Patent Law), and this requirement sets forth that the person is required to have the knowledge that a patent has been granted for the invention, namely, that a patent right is established for the invention.

<3> "The act is made knowingly of the above facts"

This requirement sets forth that the person is required to have the actual knowledge of certain facts (namely, the facts that "the product or process is used for the working of the invention" and "The invention concerned is a patented invention"). If the person doesn't have the knowledge of these facts, the provisions of infringement shall not be applicable even if the lack of knowledge is caused by negligence.

The cases of the lack of knowledge due to negligence were excluded because it would be tough for the suppliers (of components or others) if they are obliged to take care and assure of the purpose of use of such component or others by their clients where such component or others may have multiple purposes, and because such obligation may significantly hamper the safety of the transactions.

During the litigation procedure, the burden of proof to prove the above requirements is basically on the patent owner. One method to provide such proof is to send a cease-and-desist letter. This is the act of warning in writing against the party seemingly engaged in the acts constituting an indirect infringement prior to bringing the lawsuit. However, even if you send a warning letter, it does not necessarily mean that the above three requirements are met. You may

meet the requirements that "the product or process is used for the working of the invention concerned" and that "the invention concerned is a patented invention", but it does not necessarily support the requirement that "the act is made knowingly of the above facts". For example, assuming that the alleged infringer is a component supplier and does not know his client is working the patented invention at the time of receiving the warning letter, then the component supplier may be deemed to meet the three requirements only when he makes reference to his client and confirms that such client is working the patented invention.

In other cases, where the component supplier is engaged in the joint development of a certain product with his client, such component supplier might be deemed to meet the three requirements by merely receiving the warning letter because the supplier knows how such component would be used by his client. Or, the component supplier may come to know the content of the product through the product showcase or the briefing session of the product of the client side.

I-2. Objective Requirements

As a result of the 2002 revision, a new provision was added as an objective requirement, which provision excludes the limitation by the term "exclusively". However, this does not entirely exclude the limitations on the objective requirements, but certain objective requirements are required in the newly added provisions. Such objective requirements are as follows:

In cases of Item (ii) (where the patent is granted for an invention of a product);

1. an article to be used for the manufacture of the product (excluding those articles which are distributed widely and commonly in Japan);
2. which is indispensable for attaining the object of the patented invention; and
3. which is the subject matter of the acts of commercially manufacturing, assigning and the like, importing or offering for assigning and the like.

In cases of Item (iv) (where the patent is granted for an invention of a process);

1. an article to be used in the process (excluding those articles which are distributed widely and commonly in Japan);
2. which is indispensable for attaining the object of the patented invention; and
3. which is the subject matter of the acts of commercially manufacturing, assigning and the like, importing or offering for assigning and the like.

In order to prevent the problems that may result from merely deleting the limitation of the term "exclusively", the balance is maintained by adding the limiting factors "indispensable

for attaining the object of the patented invention" and "excluding those articles which are distributed widely and commonly in Japan" in the above objective requirements as well as in the above-mentioned subjective requirements.

JPO sets forth its interpretation regarding the meaning of said factors "indispensable for attaining the object of the patented invention" and "excluding those articles which are distributed widely and commonly in Japan" as follows[i]:

<1> "indispensable for attaining the object of the patented invention"

The concept of "indispensable for attaining the object of the patented invention" is different from the constituent features of the invention (invention-identifying-matters) set forth in the patent claims, and may include any apparatus or raw material used for the manufacture of the product or for the use of the process as well as the constituent features of the invention. On the contrary, even the constituent features of the invention set forth in the patent claims are not deemed as "indispensable for attaining the object of the patented invention" if such features had been necessary irrespective of the object to be solved by the invention. The component, apparatus, raw material or other factors, only by which the "object to be solved by the invention" is attained, shall be deemed as "indispensable for attaining the object of the patented invention".

The features "indispensable for attaining the object of the patented invention" are not limited to the articles to be used exclusively for the manufacture of the product or for the working of such invention, and therefore, a component or others that is important for the invention shall be included in the scope of the indirect infringement even if such component or others may have a non-infringing purpose as well, whereby making the scope of indirect infringement appropriate and balanced.

<2> "excluding those articles which are distributed widely and commonly in Japan"

The concept of "articles which are distributed widely and commonly in Japan" may include, for instance, screws, nails, electric bulbs, transistors and others that are generally available products widely used throughout Japan. The phrase "distributed widely and commonly" indicates that the articles are not custom-made but are standardized articles generally available in the market. Since it is not desirable that the manufacture or assignment (or otherwise) of such generally used articles be included as the object of indirect infringement from the viewpoint of securing the steady business, such articles were excluded from the newly added provisions of indirect infringement. The distribution areas were limited within the territory of Japan because, considering that the effect and scope of the patent right is limited only within the territory of Japan, it is not

necessary to consider the widespread use overseas from the viewpoint of securing the steadiness of business, and because the necessity of cessation for preventing infringement cases is significant if the articles concerned are not widely and commonly used in Japan. Where the provisions requiring the condition "articles to be used exclusively for..." (namely, Items (i) and (iii)) are applicable, the conditions for exception concerning the "articles which are distributed widely and commonly in Japan" are not provided because the general products or standardized products are not included in the scope of indirect infringement from the beginning.

Prior to the 2002 revisions, the decision on whether the allegedly infringing article constitutes an indirect infringement has been mostly the matter of "exclusively", namely, whether such article is used exclusively for the manufacture of the product (or for the working of the invention) except where it is decided there is no infringement including the direct infringement. However, as a result of the 2002 revisions, articles which are not classified as exclusive articles nor as staple articles and called the "neutral articles" (Article that is suitable for the working of a specific invention but has other usage[iii]) have become the object to which the provisions of indirect infringement is applicable. Accordingly, in respect of the non-exclusive article, the decision on whether such article can be classified as a staple article has become required and those decisions might become difficult, while prior to the 2002 revisions the decision was merely to decide as an exclusive article if it has no other purpose, or as a non-exclusive article it has any other purpose.

The standard for the decision on whether the allegedly infringing article can be classified as an exclusive article is not changed by the 2002 revisions in any manner, and the decisions can be made in the conventional manner. What has newly introduced by the 2002 revisions is the standard for the decision on whether the article decided as non-exclusive can be classified as a neutral article or as a staple article. At the moment, we have no legal precedent in respect of these matters, and therefore we cannot discuss in details. However, taking account of the descriptions set forth in the above-referenced "*Sangyo-zaisan-ho no Kaisetsu: 2002 (Commentary: 2002 Industrial Property Laws)*" and of the purpose of the 2002 revisions, the articles specified below, for instance, might be the standard for designating an article as "neutral article":

Neutral Article: In the case of a patent for an invention of product, articles having the function to be used exclusively for the manufacture of the product in the course of business; or in the case of a patent for an invention of a process, articles

having the function to be used exclusively for the working of the invention in the course of business.

It is assumed that each of the subject articles have various functions. As illustrated in Fig. 1(b-1) and (b-2), it can be considered that the article concerned should be classified as a neutral article as long as any function not required for any purpose other than the working of the invention is included as a part of such article, and that the article concerned should be classified as a staple article, as illustrated in Fig. 1(a), if any function not required for any purpose other than the working of the invention is not included in such article at all.

In such case, it could be considered that even the subject article having any function applicable to the working of the invention as a part of constituent features of the invention can be classified as a staple article as long as such function is applicable to any use other than the working of the invention.

For example, if the subject article is just a conventional screw or nail that has been existing, such article should be classified as a staple article because it only has the functions irrelevant to the invention. Even if said screw or nail is equipped with any structure or form complying with a part of the constituent feature of the invention, such screw or nail should be classified as a staple article because the equipped function can be applicable to the conventional purpose as long as such function has relation to any use other than the invention. On the contrary, if such function is not required for any purpose other than the working of the invention, the article should be classified as a neutral article because it is equipped with a function having no relation to any purpose other than the invention. However, it should be noted that the decisions should not be made depending only on this respect, but should be made taking account of the volume of such article actually manufactured and distributed and the effect such article may have in the market.

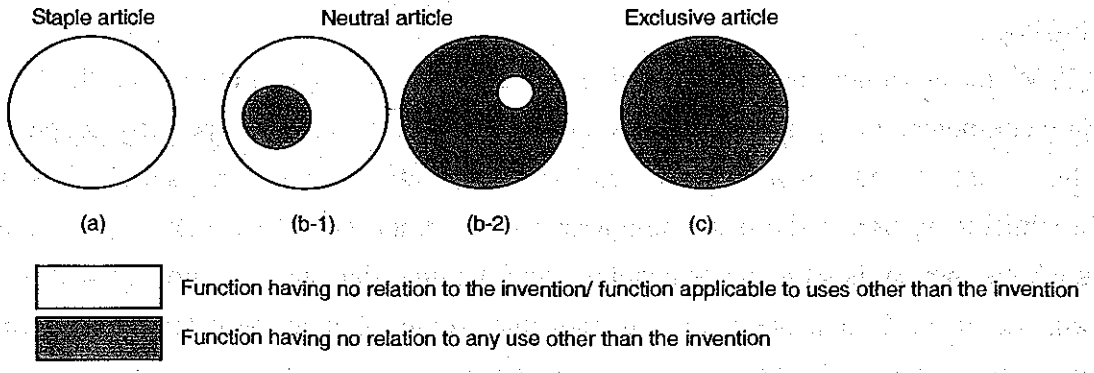


Fig. 1. Staple Article, Neutral Article, Exclusive Article

II. Comparison with Western Laws

In this chapter, we will examine the key point of the 2002 revisions, that is, two requirements comprising the subjective requirement and objective requirement from the perspective of the comparison with Western laws.

US Patent Law:

Under Section 271 (c) of the US Patent Law, the provisions concerning indirect infringement are set forth as follows:

> Sec. 271. - Infringement of patent
> (c) Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

A provision for exceptional cases where the components are sold uncombined in US and subsequently combined outside US is set forth in Section 27(f) as follows:

> (f) (1) Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.
> (2) Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

UK Patent Act:

Under Section 60(2) of the UK Patent Act, the provisions concerning indirect infringement are set forth as follows:

Section 60: Meaning of infringement

(1) Subject to the provision of this section, a person infringes a patent for an invention if, but only if, while the patent is in force, he does any of the following things in the United Kingdom in relation to the invention without the consent of the proprietor of the patent, that is to say -

(a) where the invention is a product, he makes, disposes of, offers to dispose of, uses or imports the product or keeps it whether for disposal or otherwise;

(b) where the invention is a process, he uses the process or he offers it for use in the United Kingdom when he knows, or it is obvious to a reasonable person in the circumstances, that its use there without the consent of the proprietor would be an infringement of the patent;

(c) where the invention is a process, he disposes of, offers to dispose of, uses or imports any product obtained directly by means of that process or keeps any such product whether for disposal or otherwise.

(2) Subject to the following provisions of this section, a person (other than the proprietor of the patent) also infringes a patent for an invention if while the patent is in force and without the consent of the proprietor, he supplies or offers to supply in the United Kingdom a person other than a licensee or other person entitled to work the invention with any of the means, relating to an essential element of the invention, for putting the invention into effect when he knows, or it is obvious to a reasonable person in the circumstances, that those means are suitable for putting, and are intended to put, the invention into effect in the United Kingdom.

(3) subsection (2) above shall not apply to the supply or offer of a staple commercial product unless the supply or the offer is made for the purpose of inducing the person supplied or, as the case may be, the person to whom the offer is made to do an act which constitutes an infringement of the patent by virtue of subsection (1) above.

Table 1 shows the comparison of the provisions setting forth the matters concerning the indirect infringement of Japan, UK and US in respect of the following four items:

Item 1: Whether the subjective element ("with the knowledge of a patented invention") is required for the establishment of indirect infringement.

Item 2: Whether the fact that the subject article has no use other than the working of the patented invention is required for the establishment of indirect infringement.

Item 3: Whether the subject feature is required to be the essential feature or major element of the invention.

Item 4: Whether the existence of an act of direct infringement is required for the establishment of indirect infringement.

Table 1. Provisions Concerning Indirect Infringement of Japan, UK and US

	Item 1	Item 2	Item 3	Item 4
JP[101(1),(3)]	No	Yes	No	?
JP[101(2),(4)]	Yes	No	Yes	?
UK	Yes (Note 1)	No	Yes	No
US	Yes	Yes (Note 2)	Yes	Yes (Note 3)

Note 1: Also applicable where it is obvious to a reasonable person in the circumstances.
Note 2: It is not required under Section 271(b).
Note 3: It is not required under Section 271(f).

These provisions of the Japanese Patent Law were, as already stated above, amended by adding new provisions to the existing provisions in respect of indirect infringement. Therefore, with respect to the relation between Items 1 and 2, it can be said that the combination of "Yes-No" applicable to the provisions after the amendment was added to the combination of "No-Yes" applicable to those provisions existing prior to the amendment. In other words, the exclusive article not requiring the subjective requirement and the neutral article requiring the subjective requirement constitute an indirect infringement.

These relations between the subjective requirement and objective requirement are illustrated by showing the scope constituting indirect infringement by screening with gray color as follows:

Table 2. Relation between Subjective Requirement and Objective Requirement of Japan, UK and US

Japanese Patent Law: Prior to 2002 Revisions

	"with the knowledge of the patented invention"	"without the knowledge of patented invention"
Exclusive Article		
Neutral Article		
Staple Article		

Japanese Patent Law: After 2002 Revisions

	"with the knowledge of the patented invention"	"without the knowledge of patented invention"
Exclusive Article		
Neutral Article		
Staple Article	(Note 1)	

UK Patent Act:

	"with the knowledge of the patented invention"	"without the knowledge of patented invention"
Exclusive Article		
Neutral Article		
Staple Article	(Note 2)	

US Patent Law:

	"with the knowledge of the patented invention"	"without the knowledge of patented invention"
Exclusive Article		
Neutral Article	(Note 3)	
Staple Article	(Note 3)	

Note 1: Excluding the article "widely and commonly used"

Note 2: Excluding the "supply of a staple commercial product" unless the supply is made for the purpose of inducing the person

Note 3: No application of Section 271(c) shall be made to the neutral or staple article, but any act of inducing an infringement may be the subject of Section 271(b).

It would be difficult to predict how the subjective requirement shall be treated under the revised Patent Law except where such subject requirement is supported by the fact of sending a cease-and-desist letter or others, since we have not had any actual legal precedents concerning such matters. The following comparison with the patent laws of US and UK is made only concerning the objective requirement.

- Existence of provisions setting forth the objective requirements only:

The Western patent laws necessarily requires the subjective element while the Japanese Patent Law reserves the provisions of Article 101 (1) and (3) that set forth the objective requirements only and do not set forth any subjective requirement, which makes the difference with the patent laws of Western countries.

The provisions of Article 101 (1) and (3) of the Japanese Patent Law have the disadvantage that these provisions cannot be applicable to the neutral articles, but have the advantage that it is not necessary to make decision on the subjective element and therefore it is easier for the patent owner to prove the establishment of infringement.

- Whether a staple article may constitute an indirect infringement (Inducing infringement / Contributory infringement):

In principle, the patent laws of US and European countries exclude staple articles from the subject of infringement, but the US Patent Law sets forth in Section 271(b) that "Whoever actively induces infringement of a patent shall be liable as an infringer" and UK Patent Act sets forth in Section 60(3) that "subsection (2) above shall not apply to the supply or offer of a staple commercial product unless the supply or the offer is made for the purpose of inducing the person supplied or, as the case may be, the person to whom the offer is made to do an act which constitutes an infringement of the patent by virtue of subsection (1) above." These provisions set forth the indirect infringement caused by inducement or contribution, enabling application of indirect infringement to staple articles under certain circumstances. On the other hand, Japanese Patent Law is different in that it has no provision to designate staple articles as constituting an indirect infringement. In Japan, you may claim for remedy under the provisions of Civil Code.

The provision of Section 271(b) of US Patent Law is especially a sort of general statement without any specific objective requirement, but according to the legal precedents, (1) guidance and promotion of infringement, (2) fixing of a infringing product, (3) licensing to implement an infringing product, (4) purchasing of an infringing product, (5) supporting the design of an infringing product and (6) publishing the technical information facilitating an infringement are held as the act inducing infringement[iv].

- Whether it is indispensable for attaining the object of the patented invention:

The phrase set forth in Japanese Patent Law "a product (or process) indispensable for attaining the object of the patented invention" and the phrase in UK Patent Act "any of the means relating to an essential element of the invention" can be interpreted as having the same meaning, but the phrase "a component of...constituting a material part of the invention" set forth in US

Patent Law has a different meaning. While the provisions of Japan and UK cover the articles indispensable for attaining the object of the patented invention, the provision of US Patent Law is deemed to cover a component constituting a material part of the invention equipped with an allegedly infringing product.

III. Virtual Decisions on Legal Precedents

III-1. Objective Requirements

As the examples of legal precedents prior to the 2002 revisions, we take "Camera lens case", a well-known precedent in the past, and "Case of control panel for water supply system" and "Acidic electrolyzed water case", recent cases holding the decision that "it cannot be decided as used exclusively for the subject article", and virtual decisions assuming the revised Patent Law are made for experimental purpose below.

Prior to the revision, there was no room for dispute whether the act was made "knowingly of the fact". Therefore, the following virtual decisions assume that the subject act was performed with the knowledge of the fact.

The following virtual decisions are made based only on the information derived from each case decision. It is expected that both patent owner and the alleged infringer would make a different claim of statement in the lawsuit under the revised Patent Law. Therefore, needless to say, the following virtual decision cannot be applicable as it is.

(1) Camera lens case[v]

[Outline of Case]

This case covers the dispute whether the changeable lens products of the defendant infringe the plaintiff's patent right concerning the single lens reflex camera with changeahle lens system having a changeable lens with automatic preset function ("Patent").

Although the changeable lens product of the defendant complies with all the constituent features of the Patent when the product is combined with a certain type of camera, such product can also be combined with another type of cameras and in such cases those combinations do not comply with the constituent features of the Patent.

The Tokyo District Court held that the product of the defendant has uses other than to use with the camera covered by the patented invention, and that the product cannot be decided that it is used "exclusively" for the production of the camera covered by the patented invention, taking account of the facts that (1) the changeable lens product of the defendant sufficiently performs its functions when it is attached to other types of cameras, although a part of the lens

mechanism is useless and cannot perform its function, (2) one of the sales points of the product is that the changeable lens can be used with various types of cameras, (3) the use of the manually changeable lens that cannot perform with the component with interlocking function of the camera is actively recommended as a form of use, and that (4) the product is designated, promoted and sold as a standard lens used with other types of cameras although a part of mechanism is useless and does not perform its function when it is used with such other cameras.

[Whether the subject article is "an article used for the manufacture of the product"?]

During the appeal procedure of this case, the court did not make any decision regarding the matters of indirect infringement, holding that the technical scope of the patented invention shall be construed by limiting to the constituent features originating from the camera itself.

Even in the original decision, the court concluded the case by making an assumption, in respect of whether the combination of the camera and lens belongs to the technical scope, that "Should the defendant's camera (comprising the camera and lens) belong to the technical scope of the patented invention..."

Therefore, although it may seem useless to discuss whether the defendant's product is "an article used for the manufacture of the product (camera, in this case)", we will examine the case on the same assumption as the original decision. Namely, as the interpretation of the technical scope, we exclude the interpretation that the constituent feature belongs to the camera itself, but assume that the defendant's camera (comprising the camera and lens) belongs to the technical scope of the patented invention, to examine whether the changeable lens of the defendant's product constitutes an indirect infringement under the revised Patent Law.

[Whether the subject article is "distributed widely and commonly in Japan"?]

The changeable lens product of the defendant has a feature used exclusively for operating with the patented invention, as is obvious from the fact that a part of mechanism of such product is useless when it is attached to a camera not constituting the patented invention. Therefore, it can be said that the changeable lens of the defendant is deemed as a neutral article, and not an article "distributed widely and commonly in Japan".

However, there was an opinion that you cannot deny the possibility that the defendant's product is deemed as "distributed widely and commonly in Japan", considering the statement set forth in the grounds for the decision "it is found that one of the features of the changeable lenses, adopters or conversion lenses like the defendant's products is that they can be used by attaching to various cameras (itself), and that those products are distributed by promoting the feature that they can be used with as many kinds of cameras as possible", and also considering the fact that

the defendant's changeable lens is designated, promoted and sold as a standard lens to be used for each camera even though a part of its mechanism is useless when it is attached to other types of cameras.

[Whether the subject article is "indispensable for attaining the object of the patented invention"?]

As already discussed above, although it may seem useless to examine this issue in view of the decision made in the appeal court (and in the court of third instance) on this case, it can be said that the changeable lens of the defendant is indispensable for attaining the "single lens reflex camera with automatic preset focus" under the patented invention, on the assumption of the original decision.

[Conclusion]

The manufacture or sales of the defendant's product may be decided as constituting an indirect infringement. However, you cannot deny the possibility that the provisions for the exceptions of "an article to be used for the manufacture of the product (excluding those articles which are distributed widely and commonly in Japan)" may be applicable to the defendant's product.

(2) Case of control panel for water supply system[vi]

[Outline of Case]

This case covers the dispute whether the defendant's products infringe the plaintiff's patent right concerning the water supply system equipped with the control device for maintaining the water in the tank at a controlled level. In this case, the plaintiff has brought an appeal requesting a judgement for revocation of the trial decision at the same time as this case, and the court dismissed the appeal one week prior to the judgement of this case.

The plaintiff brought a lawsuit alleging that the defendant manufactured and distributed a control panel to be used exclusively for the manufacture of the water supply system covered by the patented invention. The Osaka District Court held that, by taking a look at only the basic features of the defendant's product, it is obvious that such product has a practical use other than the working of the patented invention and that the product has uses other than for "public water supplied from the supply source pipe", which is a required condition of the patented invention, such as the practical uses for well water or non-drinking water, and therefore, it cannot be said that the control panel of the defendant is to be used exclusively for the working of the patented invention.

[Whether the subject article is "an article used for the manufacture of the product"?]

As described in the "Decision on the point in dispute", it is construed that there is no dispute in that the water supply system at issue belongs to the technical scope of the patented invention where such water supply system comprises the defendant's product. Therefore, there is no doubt that the defendant's product is deemed as "an article used for the manufacture of the product".

[Whether the subject article is "distributed widely and commonly in Japan"?]

Since the defendant manufactures and distributes the control panel as a finished product by adding various functions (such as an automatic switching function using weekly timer, etc.) to the basic circuit comprising CPU, D/A converter, water level fixing device and relay, etc., it can be said that the product is not deemed as "articles that are not custom-made but are standardized articles generally available in the market" as set forth by JPO. Therefore, the defendant's product can be said as "an article used for the manufacture of the product (excluding those articles which are distributed widely and commonly in Japan)".

[Whether the subject article is "indispensable for attaining the object of the patented invention"?]

The patented invention comprises a water supply system equipped with a water tank having water level sensor and controlling device, and could be deemed as "an article important for the invention" as stipulated by JPO, but it would be highly controversial if you decide whether such water level sensor and controlling device could be included as "an article conventionally required irrespective of the object to be attained by the invention".

In this case, as already stated above, the claim at issue of this lawsuit was invalidated on the grounds of lack of inventive step in the appeal requesting a judgement for revocation of the trial decision, which was brought to the court at the same time as this case. It can be said that the control panel of the defendant can also be used with the prior art which had been cited to deny the inventive step.

Considering the above, it is highly probable that the defendant's product is deemed as "an article conventionally required irrespective of the object to be attained by the invention".

[Conclusion]

It can be said that the act of manufacturing and distributing the defendant's product may be deemed as "an article used for the manufacture of the product (excluding those articles which are distributed widely and commonly in Japan)", but shall not be deemed as "indispensable for attaining the object of the patented invention", and therefore, such act shall not be deemed as

constituting an indirect infringement.

(3) "Acidic electrolyzed water case"[vii]

[Outline of Case]

This case covers the dispute on whether the device manufactured and distributed by the defendant infringes the plaintiff's patent right concerning the plaintiff's patent "Electrolyzed Sterile Water".

In this case, the court acknowledged the defendant's allegation and held that "the acknowledgement of 'other uses', which would prevent the establishment of an indirect infringement, should not necessarily requires a scientific proof of the effect of such other use, but it would be sufficient if such use is reasonably acceptable to and acknowledged by current social standards...", stating that the burden of proof is attributable to the plaintiff for proving that the defendant's device lacks commercially and economically practical use other than to generate the electrolyzed sterile water at issue.

[Whether the subject article is "an article used for the manufacture of the product"?]

There is no dispute in respect of the fact that the defendant's device can generate the electrolyzed sterile water covered by the invention. Therefore, the device can be deemed as "an article used for the manufacture of the product".

[Whether the subject article is "distributed widely and commonly in Japan"?]

According to the plaintiff's allegation, at least 128 units of the defendant's device had been sold. However, it is difficult to decide whether such sale is deemed as "distributed widely and commonly in Japan" only from the descriptions set forth in the decision. Under the disputes under the revised Patent Law, further evidence shall be required to determine whether such sale is deemed as "distributed widely and commonly in Japan".

[Whether the subject article is "indispensable for attaining the object of the patented invention"?]

The plaintiff's invention is construed that it found out the water with pH1.50 or more could have the equivalent sterilizing effect, under the condition that it has the electric-conductivity μS/cm within a certain range , to be used in place of the acid water with pH1.50 or less, which is difficult to generate.

However, the probability that the defendant's device is deemed as "indispensable for attaining the object of the patented invention" would be low since it is easy to attain acid water having the parameter within the technical range of the patented invention (namely, pH1.5 to 3.1

(both inclusive) and that the difference between the value of electric-conductivity of acid water after electrolyzation and that of the original water with the water-soluble ionized inorganic substance before the electrolyzation is 200-14,120 μS/cm) without the need to use the defendant's device.

[Conclusion]

It can be said that the act of manufacturing and distributing the defendant's product may be deemed as "an article used for the manufacture of the product", but shall not be deemed as "indispensable for attaining the object of the patented invention", and therefore, such act shall not be deemed as constituting an indirect infringement. However, it would require more detailed information to make decision on whether such article should be deemed as "distributed widely and commonly in Japan".

III-2. Subjective Requirements

As already stated above, there has been no dispute regarding the subjective requirements in the past cases dealing with indirect infringement in Japan. Therefore, we will try making virtual decision on the recent cases in UK and US by applying the revised Japanese Patent Law for experimental purpose.

(1) MentorTexas et al v. Misonix et al[viii]

The allegedly infringing product is a liposuction device of Misonix (Lysonix2000) using supersonic. In this case, the doctors who purchased the device through a distributor conduct an allegedly infringing act, namely, removing fat through a suctioning process. In respect of the act of Misonix, CAFC held as follows:

> "...Misonix knew of the existence of the patent because it was denied a license and received a cease-and-desist letter concerning it. Yet Misonix chose to continue selling the Lysonix 2000 devices to MDA/Lysonix pursuant to an agreement covering ultrasonic machines designed specifically for use in performing ultrasonic liposuction. Substantial evidence thus supports the jury's verdict that Misonix induced infringement because it sold the device with the intention that doctors would use it to perform the patented method."

CAFC held that Section 271(b) of US Patent Law is applicable to this case on the ground of the above.

If any situation similar to the above case exists in Japan, it can be considered that such situation would meet (apart from the discussion on the medical process patent and the matters of independent theory) the three subjective requirements discussed above (1. The article is to be used for the working of the invention, 2. Such invention is patented, and 3. With the knowledge of the patented invention).

(2) Pharmacia et al v. Merck & Co, Inc et al[ix]

This case is the dispute arising out of the tablet-based drug manufactured by Merch which is covered by European Patent 0 679 157 (by Pharmacia et al.) concerning nonsteroidal antiinflammatory drug. MK966 (tablet) manufactured by Merck, the defendant, is not a chemical compound within the scope of claim as it is, but becomes an enol compound set forth in the plaintiff's patent after it is metabolized in the patient's body.

The decision was held that the patent was invalid and unenforceable, and the following statement regarding the indirect infringement was stated in the decision:

> "In summary, the appellant puts its case on indirect infringement in two ways. First it is said that section 60(2) is infringed when MK966 is administered to the patient and is dissolved as an enol in the body. ...if the appellant is right, section 60(2) can be applicable where what happens is purely natural result of the administration of non-infringing matter which is the only active ingredient."

It can be considered that Merck would be deemed to meet the three subjective requirements discussed above if it performed an act similar to those stated in the decision in Japan.

IV. Matters to be Noted in Practice

IV-1. By Patent Owners

The most significant change caused by the revision is that you must prove the subjective requirements. As already discussed above, the most effective method to prove such subjective requirements is to send a cease-and-desist letter.

Therefore, as a patent owner, it would be important for you to reinforce the watching of infringement against your patent more than ever, as well as to send a cease-and-desist letter in a timely manner as soon as you come to know the fact of infringement.

In addition to the cease-and-desist letter to prove the knowledge of the conditions that

"the article is to be used for the working of the patented invention" and "the invention is a patented invention", you may also make use of the fact that, for instance, the patented invention is cited in the patent application filed by the alleged infringer as a prior art and the problem unsolved by the patented invention is the object to be attained by such invention to which the patent is pursued, or that the patentability is alleged during the prosecution of the application on the patented invention by citing it as a prior art. It would be easy to prove the three requirements if said patent of the alleged infringer is indicated on the product or in the promotional materials of the product.

Even if the subjective requirements can be proven, it is highly possible that your allegation may not be accepted in the dispute concerning the staple article and neutral article, as with the cases of the virtual decisions above on which the opinions were divided.

Therefore, it is all the same that the best way for the patent owners to protect their right is to draft an effective and unchallenged claim so that you do not have to resort to the application of the provision of indirect infringement.

IV-2. By Alleged Infringers

It would be especially important for the component or material manufacturers to be prepared for proving that the component or material to be supplied is not an article to be exclusively used for the manufacture of the product or for the working of the patented invention, and that those articles are "widely and commonly distributed". More specifically, it would be recommended that you should establish a certain method to prove the actual supply of those articles to plurality of customers.

Further, it would be recommended for the component or material manufacturers to confirm with their customers, to the extent as possible, that the component or material to be supplied is not used in any form or manner causing indirect infringement, as well as to clearly set forth in the distribution agreement which party is to take the liability upon the establishment of indirect infringement, in order to avoid any liability for damages.

One way or another, you are required to conduct sufficient research and prudent decision more than ever in respect of any project accompanied by large-scale investment such as the capital investment.

V. Other Problems: Concerning the necessity of direct infringement upon establishment of an indirect infringement

Finally, we will discuss the matter that may continuously cause contradiction between

Japan and Western laws because there was no amendment in this respect in the 2002 revisions; the provisions that require the establishment of direct infringement in order to acknowledge indirect infringement.

This issue includes the matter of the extraterritorial working of a patented invention and the matter of the individual use that becomes problem because of the limitation by "in the course of business" condition.

In Japan, we discuss the matter using the terms "dependency theory" that requires the establishment of direct infringement in order to acknowledge indirect infringement and "independent theory" that does not require direct infringement.

In the "Camera lens case" mentioned above, for example, the defendant alleged that "Most of the defendant's products are used by individual users for home use or exported to other countries, and therefore, indirect infringement cannot be established as long as the manufacture and distribution of most products may concern"(on the grounds of the dependency theory), while the court adopted the stance to deny the defendant's allegation (on the grounds of independent theory), holding the decision that "Considering the fact that the effect of the patent right is significantly reduced because such patent owner is not allowed to enforce its right because the above-mentioned assembly of the product is completed by the final user for his individual and home-use purpose, it can be construed that Article 101 (1) of the Japanese Patent Law acknowledges the establishment of infringement (indirect infringement) to the extent that the infringer manufactures and assigns "an article to be used exclusively for the manufacture of the product" in the course of business, whereby extending the enforcement of patent right to the acts that would not be deemed as infringing under the straight interpretation of the provisions."

The following discussions were made in respect of the 2002 revisions at the Legislative Affair Subcommittee of the Intellectual Property Committee of the Industrial Structure Council (4th Subcommittee: dated July 25, 2001):

> "The matter of dependency theory and independent theory is not mentioned in the revision. Does it mean that this matter shall not be expressly clarified just the same as before?"
> "For the moment, the matter of dependency theory and independent theory is not controversial in Japan, and we basically take the position that there is no need to expressly clarify this matter on the condition that this matter is reasonably treated in academic theories and also in the actual legal precedents. In Europe, Section 26 is provided to set forth the types of acts not constituting the direct infringement for the purpose of clarifying this matter. This provision clearly describes, in respect of the cases of home use within the scope of individual use and not extending to business, under certain circumstances the indirect

infringement is acknowledged although any direct infringement is established. It is true that we could have this kind of option"

In respect of the appropriateness of the independent theory and the dependency theory, there exists a widely-accepted theory that designate the former (independent theory) as appropriate[x], and the above discussion seems to take account of said theory.

V-1. Indirect Infringement in Case of Extraterritorial Working of Invention

Just after said discussion was made (August 30, 2001), however, the Osaka District Court held a decision in respect of the effect of a patent right against the products, all of which are to be distributed or exported overseas, that "In respect of the defendant's products to be exported and distributed overseas only, such products shall not be deemed as "an article to be used exclusively for the manufacture of the product (Item (1))" nor as "an article to be used exclusively for the working of the patented invention (Item (2))" as stipulated in Article 101 of the Patent Law", clearly affirming the dependency theory.[xi] The following citation from the decision is referring to the relationship with foreign patent laws:

"The plaintiff alleges that the patent laws of Germany, US or other countries expressly set forth the theory that the establishment of direct infringement is not required for the establishment of an indirect infringement (independent theory), and further alleges that the Japanese Patent Law should be construed in the same way as German or US laws.

However, even if the independent theory has come to be expressly established in other countries, it does not necessarily affect the construction of Article 101 of the Japanese Patent Law.

Considering the fact that the Japanese Patent Law adopts the territoriality principle stipulating that the patent right of Japan is enforceable only within the territory of Japan and that it is necessary to take care not to extend the effect of a patent right to an unreasonable extent upon deciding the establishment of an indirect infringement, it should not be allowed under the Patent Law to acknowledge the establishment of an indirect infringement where all the defendant's products concerned are exported overseas and just prohibit the manufacture and export of the defendant's products".

The plaintiff's allegation in the above case stating "the patent laws of Germany, US or other countries expressly set forth the theory that the establishment of direct infringement is not

required for the establishment of an indirect infringement (independent theory)" seems to refer to Section 271(f) of US Patent Law. Should the allegation of the plaintiff had been adopted and a domestic provision similar to Section 271(f) of US Patent Law had been applied to this case, it is highly probable that the plaintiff's allegation that the indirect infringement is established might have been accepted by the court.

In the recent US case, it was held by the court that, upon the application of Section 271(f)(2) of US Patent Law, the only requirement is that the infringer implies to assemble the constituent components, and that the law does not require actual assembly of such components (Waymark Corp. v. Porta Sys. Corp.)[xii]

> "...Thus, the language of 35 U.S.C.S. §271(f)(2) addresses the implications of extraterritorial enforcement consistently. The statute does not require actual assembly."

Moreover, the construction of the Patent Law regarding the establishment of an indirect infringement in case of Extraterritorial Working of Invention may cause a new problem in the field of software, demonstrated by the following UK case in relation to networking (Menashe Business Mercantile Ltd., Julian Menashe v. William Hill Organization Ltd.)[xiii].

In this case, the court held that the server system installed outside the United Kingdom may constitute an infringement of a patent if such server system causes the similar effects as those caused by a server system installed inside the United Kingdom. The decision reads as follows:

> "In the age that we live in, it does not matter where the host computer is situated. It could be in the United Kingdom, on a satellite, or even on the border between two countries. Its location is not important to the user of the invention nor to the claimed gaming system. ...For my part I believe that it would be wrong to apply the old ideas of location to inventions of the type under consideration in this case."

It can be said that this holding indicates that UK is ready to apply flexible concept of infringement to correspond to the networking society.

It would be worthy of attention to what kind of decision is held when the similar cases are presented in the court of Japan.

V-2. Necessity of "business" requirement

Under Section 271 (b) and (c) of US Patent Law, the stance to adopt the "dependency

theory" is solid and unchallenged. In the recent case (Anton/Bauer, Inc. v. Pag, Ltd.)[xiv] concerning a dispute on whether the direct infringement of an individual is established or not, the court confirmed the precedent requiring the proof of direct infringement was added.

> "There can be no inducement of infringement without direct infringement by some party. Upon a failure of proof of direct infringement, any claim of inducement of infringement also fails. A finding of contributory infringement likewise requires underlying proof of direct infringement"

Under the Japanese Patent Law, on the other hand, the enforcement of a patent right is limited to the application against an act performed "in the course of business". Therefore, if the working of a patent invention, as a precondition of an indirect infringement, is made on an individual basis, you cannot establish indirect infringement as long as you adopt the position to take the dependency theory.

There will be no problem as long as the independent theory, which is held in the above-discussed "Camera lens case", will be continuously adopted in the future. However, it might have been better to take the option to exclude the exception of "in the course of business" element in line with the provisions of Community Patent Convention, since both independent theory and dependency theory coexist in Japan.

We will carefully watch the legal decisions and academic theories under the revised Patent Law from now on in respect of the effect on the controversy regarding "independent theory" and "dependency theory", which effect would be resulting from the failure to expressly set forth the legal stance.

Ending

This paper discussed the provision regarding indirect infringement mainly under the revised Japanese Patent Law. There are still many issues to be discussed regarding the matter of indirect infringement in relation to the matters concerning cross-border injunction, matters relating to fixing and re-manufacturing, and matters relating to medical process patent.

We expect further discussion regarding these issues as well as the examination regarding the reasonability of this paper in view of the legal decisions to be accumulated under the revised Patent Law from now on.

Reference:

[i] "*Sangyo-zaisan-ho no Kaisetsu: 2002 (Commentary: 2002 Industrial Property Laws)*" by JPO: System Reform Examination Section, General Affairs Division, General Affairs Department

[ii] JPO press release: Revisions to Amend a part of Patent Law (Press release) (http://www.jpo.go.jp/torikumi_e/hiroba_e/hourei_e/patent__law.htm)

[iii] Report Presented by the Legislative Affair Subcommittee of the Intellectual Property Committee of the Industrial Structure Council (Draft) (http://www.jpo.go.jp/iken_e/pdf/sankoshine_coment.pdf)

[iv] *"Beikoku Tokkyo-ho Chikujou Kaisetsu (Article by article explanation of US Patent Law)"* by Henry Koda (4th edition) pp.282-283

[v] Tokyo District Court/ Case No. Sho.50(wa)9647, Patent Right (Civil Procedure)

[vi] Osaka District Court/ Case No. Hei.12(wa)8545, Patent Right (Civil Procedure)

[vii] Tokyo District Court/ Case No. Hei.11(wa)5323, Patent Right (Civil Procedure)

[viii] MENTOR H/S, INC. (now known as Mentor Texas Inc.), and SONIQUE SURGICAL SYSTEMS, INC., Plaintiffs-Appellants, v. MEDICAL DEVICE ALLIANCE, INC., LYSONIX, INC., and MISONIX, INC., Defendants-Cross Appellants. 58 U.S.P.Q.2D (BNA) 1321 April 9, 2001, Decided

[ix] Pharmacia Corporation and others v Merck & Co, Inc and another, COURT OF APPEAL (CIVIL DIVISION) [2001] EWCA Civ 1610, 14 DECEMBER 2001

[x] "*Tokkyo-ho Gaisetsu (Summary on Patent Law)*" by Yoshifuji (13th edition) pp.460-461

[xi] Osaka High Court/ Case No. Hei.13(ne)240, Patent Right (Civil Procedure)

[xii] WAYMARK CORPORATION and CARAVELLO FAMILY LP, Plaintiffs-Appellants, v. PORTA SYSTEMS CORPORATION, Defendant-Appellee. 58 U.S.P.Q.2D (BNA) 1456 April 6, 2001, Decided

[xiii] Menashe Business Mercantile Ltd., Julian Menashe v. William Hill Organization Ltd., COURT OF APPEAL (CIVIL DIVISION) [2002] EWCA Civ 1702, [2003] 1 All ER 279, 28 November 2002

[xiv] ANTON/BAUER, INC., Plaintiff/Counterclaim Defendant/Third Party Defendant-Appellee, and ALEX DESORBO, Third Party Defendant-Appellee, v. PAG, LTD., Defendant/Counterclaimant/Third Party Plaintiff-Appellant. 66 U.S.P.Q.2D (BNA) 1675, May 21, 2003, Decided

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2) 1st Working Group, Committee No. 4

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(6) Statutory Provisions: Sections 35, 102, 132 and 148 of the Patent Law, Article 42 of the Code of Civil Procedure, Articles 11 and 57 of the Trust Law, Article ? of the Trust Business Law, Article 72 of the Lawyers Law, Article 75 of the Patent Attorneys Law (All are Japanese laws.)

(7) Abstract:

In light of the progress in business restructuring in individual companies along with the changing social situation, this report examines advantages and disadvantages of two models of management modes with respect to three issues (compensation for invention, eligibility to become a party for enforcement and transfer of rights within a business group), using the management mode for patent rights adopted in each corporation (business group) as the first parameter and the reorganization of the corporation as the second.

More specifically, this report focuses on the allocation of patent right management functions and the ownership of patent rights with respect to the first parameter, and selects a model in which patent rights are centrally managed and owned by the parent company within a business group (Management Mode 1) and another model in which patent rights are centrally managed by the parent company but owned individually by the companies concerned within the group (Management Mode 2).

With respect to the second parameter, this report addresses four types of transformations—business acquisition, business consolidation, spin-off, and liquidation/bankruptcy.

This report also focuses on the securitization of patent rights and the use of trusts for patent rights, which have recently been attracting attention as new methods for managing and utilizing patent rights, and considers and makes recommendations on the advantages and disadvantages of these new methods in terms of the four types of transformations in comparison with the conventional management modes.

1. Introduction

In the midst of a deflationary spiral, the Japanese economy, and the manufacturing industry in particular, is suffering an attack by low-priced products from Southeast Asian countries as well as China. Under such circumstances, there is a growing need for positive acquisition and optimal utilization of Intellectual Property (IP) for the purpose of differentiating Japanese products from low-priced overseas products.

In connection with this, this report addresses two typical models of IP (patent right) management modes: Management Mode 1 in which patent rights are managed and owned centrally by a parent company within a business group; and Management Mode 2 in which patent rights are managed centrally by a parent company of a business group but owned individually by the companies concerned within the group.

Another model may be conceived as a management mode in which patent rights are owned and managed individually by the companies concerned within the group. However, this report does not refer to the third model because it intends to focus on the issues of centralized patent right management modes within a business group.

This report then addresses four types of expected Corporate Reorganization—acquisition, consolidation, spin-off, and liquidation/bankruptcy, and analyzes the advantages and disadvantages of conventional management modes with respect to the following issues.

(1) Compensation for inventions
(2) Eligibility to become a party for enforcement
(3) Transfer of rights within a business group

In addition to these typical patent right management modes, this report focuses on the securitization of patent rights and the use of trusts for patent rights, which have recently been attracting attention as new methods for managing and utilizing patent rights, and also considers the advantages and disadvantages of these new methods in comparison with the typical management methods.

The use of trusts for patent rights is currently under discussion with a view to being put into practice. This report examines whether it will be an effective method for overcoming the disadvantages of the typical management methods. The report also refers to the problems, if any, which should be resolved to this end.

2. Typical Management Modes

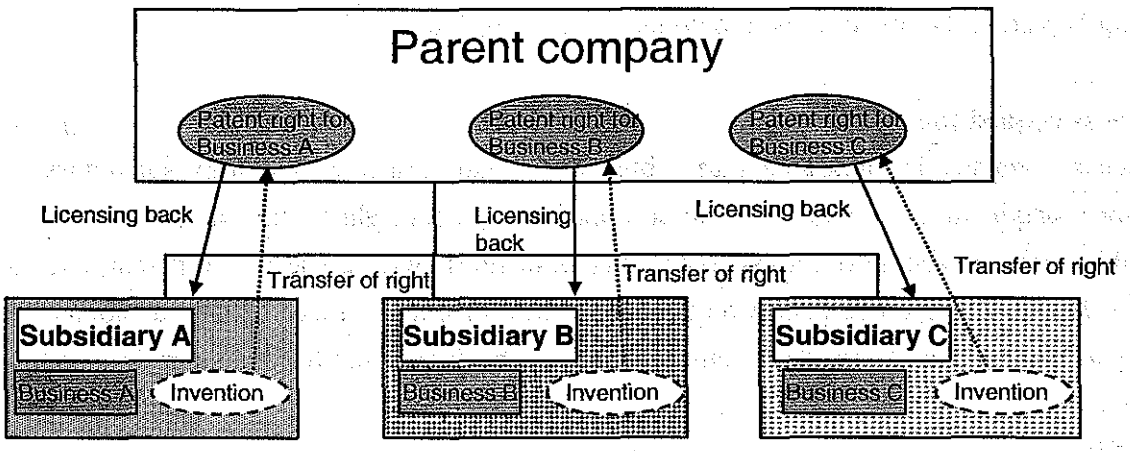
2.1 Premise

2.1.1 Management Mode 1

All patent rights generated within a business group are transferred to the parent company of the group and centrally managed under the name of the parent company (Fig.1).

(Fig.1)

Management Mode 1

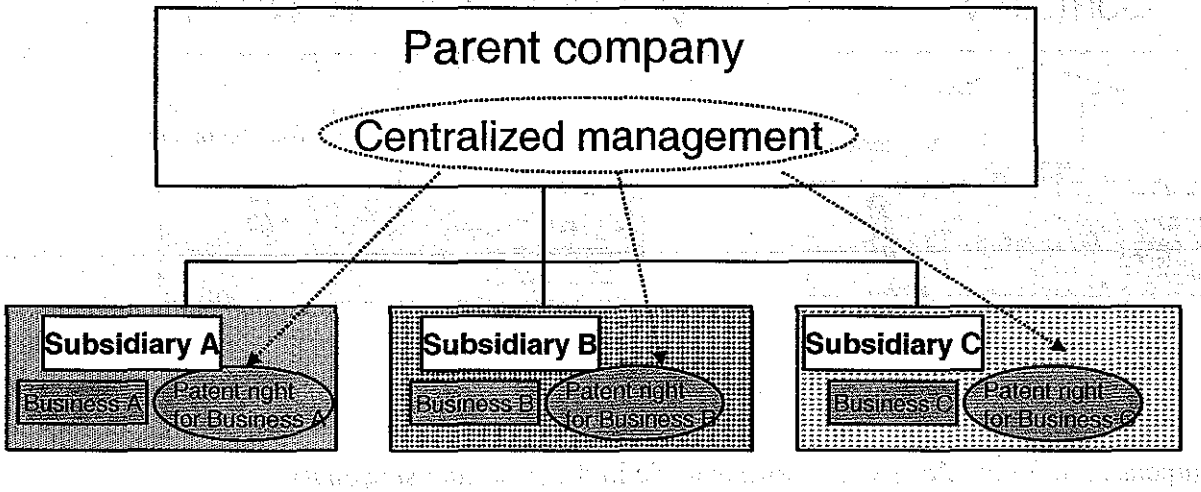


2.1.1 Management Mode 2

Patent rights generated within a business group are owned by individual subsidiaries and only managed by a parent company (Fig. 2).

(Fig. 2)

Management Mode 2



2.2 Detailed discussion

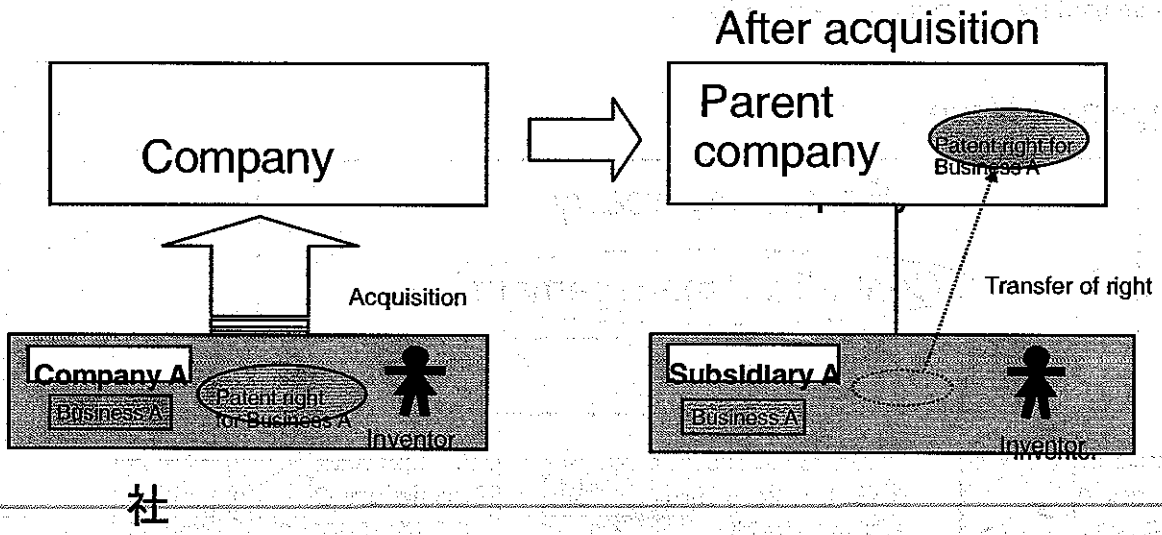
2.2.1 Advantages and disadvantages of Management Mode 1

The advantages and disadvantages of Management Mode 1 are analyzed on the supposition that, before a transformation occurs, (1) the subsidiary's patent right has already been transferred to the parent company and then a license on the patent right has been granted back to the subsidiary, (2) the tax affairs pertaining to the transfer of the right and the licensing-back have already been resolved between the subsidiary and the parent company, and (3) upon the transfer of the right from the subsidiary to the parent company, the compensation for the transfer is paid to the inventor, who belongs to the subsidiary.

2.2.1.1 Business acquisition

When a company is integrated into a business group as a new operating subsidiary through business acquisition, the company should transfer its patent right to the parent company (Fig. 3). In this case, the acquired company will start a business with a use of the patent, and changes occur in terms of the compensation for employees' inventions made in the subsidiary, the eligibility to become a party for enforcement, licensing-back after the transfer of rights, and tax affairs.

(Fig. 3)



(1) Compensation for employees' inventions made in the operating subsidiary

Within a business group that adopts Management Mode 1, the compensation for employees' inventions made in subsidiaries is provided on the premise that their patent rights

are transferred to the parent company, and this also applies to companies acquired as new operating subsidiaries. When a patent right is transferred from the acquired company to the parent company, the compensation for the transfer of the patent should be paid to the inventor. With respect to Management Mode 1 in which patent rights are transferred to the parent company, there exists a problem of how to assess a "reasonable remuneration" to be paid to the inventor when the invention that has originally been made in the subsidiary is transferred to the parent company. In the case of a transformation through business acquisition, it is unreasonable that the "reasonable remuneration" has already been paid to the inventor by the acquired company covers compensation for the transfer of the invention upon acquisition; therefore, it may necessary to pay compensation to the inventor for the transfer of the patent right upon acquisition.

When assessing the compensation for the transfer, it is unreasonable to apply any assessment criterion that was applied to the transfer of the invention made in the subsidiary to the parent company. As mentioned above, since the acquired company obviously did not expect a transfer when paying compensation for the employee's invention, compensation for the transfer should be paid to the inventor. However, at the time of acquisition, the acquired company is still the "employer, etc." that is to pay compensation for the employee's invention. It is impossible for the new parent company to pay compensation on behalf of the acquired company, and it is also unreasonable to apply the parent company's assessment criterion. Consequently, it is necessary to economically evaluate the patent right to be transferred in some way for the purpose of assessing compensation for the transfer.

On the other hand, is it possible for the parent company, which has become the new "employer, etc." upon acquisition, to pay compensation for the transfer to the inventor as an "employer, etc."? In this case, both the transferor and the transferee exist as "employer, etc.," and therefore, it is possible to understand that no profit has been generated from the transfer for "employer, etc." Even where profit is deemed to be generated from the transfer, it would be reasonable enough to apply the subsidiary's criterion for assessing compensation for the transfer. In cases where no profit is deemed to be generated from the transfer and where the amount of compensation for the employee's invention that was paid by the acquired company is larger than the predetermined amount of compensation to be paid for employees' inventions made in subsidiaries, it would be unnecessary to pay the consideration for the transfer to the inventor. In any case, there remains the possibility of causing a conflict with the inventor over the "reasonable remuneration."

The above argument is on the premise that there is a uniform criterion for assessing the compensation for transfer within a business group. If subsidiaries have different assessment criteria within a business group, rational reasons are further required for selecting a particular

assessment criteria. In other words, the issue arising from a transformation through acquisition is that it is necessary to economically evaluate a reasonable amount of compensation for the transfer for the purpose of paying an appropriate compensation for the employee's invention.

(2) Eligibility to become a party for enforcement

Since the acquired company has transferred its patent right to the parent company, it would be difficult for the parent company to claim damages that exceed the amount equivalent to the license fee (Section 102 (3) of the Patent Law) against a person who has infringed the patent right because the parent company itself is not engaged in carrying out a business with a use of the patent. If the acquired company has obtained an exclusive license from the parent company, it can claim compensation for the damage suffered by it. This issue is related to Management Mode 1 as well as connected with a transformation through acquisition in Management Mode 1.

Unlike the ordinary case of Management Mode 1 in which an invention made in a subsidiary is transferred to the parent company in the phase of the filing of a patent application and then the patent right is registered in the name of the parent company, if the acquired company has already started business with a use of the patent before transferring it to the parent company, the acquired company may already have suffered damage from an infringement of the patent right before the transfer. In this case, if it is stipulated in the transfer contract that the right to claim damages shall also be transferred to the parent company, it would be possible for the parent company to claim damages that were suffered by the acquired company before the transfer, provided that the right to claim damages has yet to be barred by prescription, or to claim an amount equivalent to the license fee as compensation for damage suffered by the acquired company after the transfer.

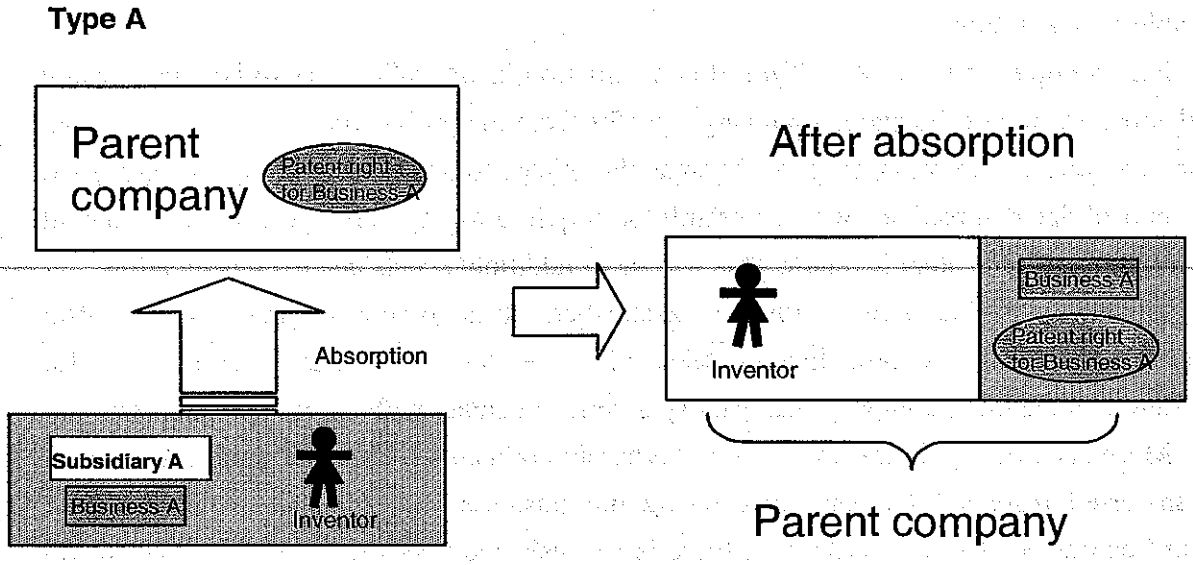
(3) Transfer of rights within a business group (and tax affairs concerning licensing-back)

When the acquired company transfers its patent right to the parent company, the acquired company should obtain a license from the parent company. Furthermore, if other subsidiaries within the same business group have already obtained a license from the acquired company before the acquisition, they should obtain a license again from the parent company upon acquisition. In either case, tax treatment for such licensing-back should be necessary.

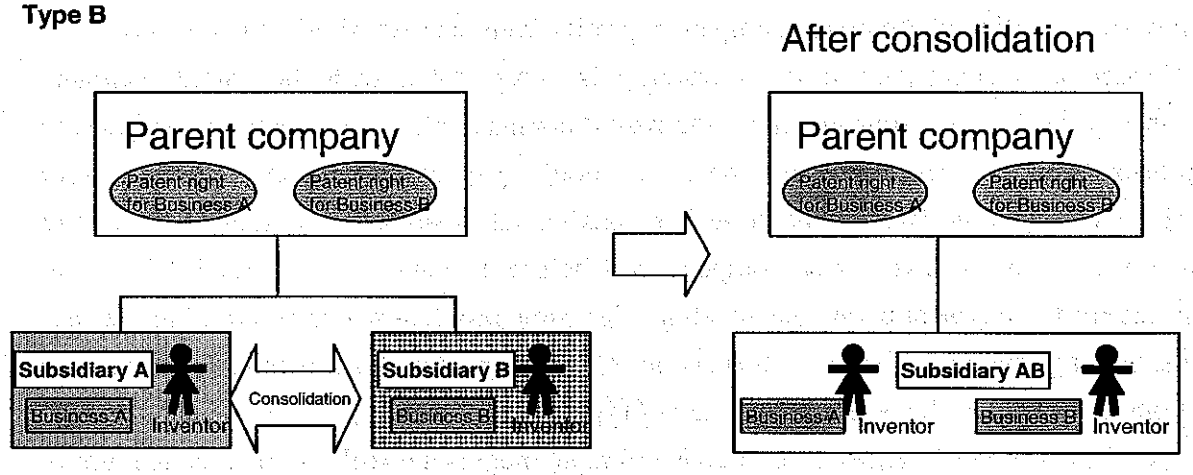
2.2.1.2 Business consolidation

There are two types of business consolidation. Type A is absorption of a subsidiary by the parent company (Fig. 4), and Type B is consolidation of two or more subsidiaries (Fig. 5). In either case, all patent rights generated in subsidiaries have been transferred to the parent company before the consolidation and they are not owned by the subsidiaries.

(Fig. 4)



(Fig. 5)



(1) Compensation for employees' inventions made in the operating subsidiary

There is no advantage with respect to the compensation for employees' inventions in either type of business consolidation, Type A or Type B. On the other hand, there may be the following disadvantages.

First of all, in either case, if the companies to be consolidated have different company rules for the payment of compensation, it is necessary to unify them upon consolidation. When the rules for the payment of compensation are to be unified between two companies, there may be no option but to compare individual provisions of the payment rules between the two and adopt those more favorable to inventors. If the payment rules become less favorable to

inventors due to consolidation, the parent company might be sued by the inventors for the "reasonable remuneration."

For example, in the case of Type B consolidation, if one subsidiary to be consolidated has paid some portion of the parent company's profits from the utilization of a patent right to an inventor as a "reasonable remuneration" whereas the other subsidiary has not paid such money, the new consolidated subsidiary would possibly be required to pay some portion of the parent company's profits to the other inventor. This will incur additional costs due to consolidation.

Furthermore, the new company established through consolidation may suffer unexpected costs when the consolidation takes place between a company that is liable for compensation and another company that is carrying out a business with the use of the patent.

More specifically, in the case where the parent company makes profits from the patent right transferred from a subsidiary by carrying out business with the use of the patent or receiving license fees from a third party, there is inconsistency between the entity that makes profits from the invention (parent company) and the entity that is liable for compensation for the invention (subsidiary = "employer, etc."). For this reason, it is often the case that the subsidiary fails to pay some portion of the parent company's profits from the invention to the inventor.

Under such conditions, if the subsidiary is consolidated with the parent company through absorption (Type A consolidation), the parent company after consolidation continues to make profits from the invention and therefore should pay compensation to the inventor according to such profits. Even if the subsidiary has already paid some portion of the parent company's profits to the inventor as compensation before consolidation, it may be forced to raise the rate for the payment upon consolidation. The same problem would be posed in the case where a subsidiary that is liable for compensation is consolidated with another subsidiary that is carrying out a business with the use of the patent (Type B consolidation).

As shown above, in either type of consolidation, there is a possibility that the amount of compensation to be paid by the new consolidated company will be larger than the amount actually paid by the subsidiary before consolidation. Such an increase in the amount of compensation occurs in the case where the rules for the payment of compensation are amended to more favorable rules for inventors. The increase also occurs in the case where a company that is liable for compensation is consolidated with another company that makes profits from the patent. It seems difficult for the accounting personnel to expect such an increase in costs at the stage of planning consolidation. If consolidation is conducted without giving any consideration to the potential increase in the amount of compensation due to consolidation, that might have an influence on the profit planning of the company established through consolidation.

(2) Eligibility to become a party for enforcement

Firstly, the advantages and disadvantages of Type A consolidation are examined.

In Management Mode 1, a patent right belongs to the parent company, and therefore nothing under procedural law will hinder the parent company from instituting an action as the right holder. However, the inventor or engineer often remains belonging to the subsidiary even after the patent right is transferred to the parent company. Under such circumstances, it is often desirable that the intellectual property department in the parent company cooperates with the inventor or engineer who belongs to the subsidiary in carrying out legal proceedings. This can be achieved if the parent company and the subsidiary institute a joint action or the subsidiary intervenes in the litigation that has been instituted by the parent company. However, such institution of a joint action and intervention in the litigation may not always be allowed.

In the case of Type A consolidation, both the intellectual property department and the inventor or engineer belong to the parent company after consolidation, and therefore they can cooperate with each other as members of a party, without instituting a joint action or intervening in the litigation.

In Management Mode 1, an infringement action may be instituted by a third party against the subsidiary that is carrying out a business with a use of the patent under the license obtained from the parent company. In this situation, as the subsidiary has no department for managing patent rights, it is often desirable that the parent company takes control of legal proceedings on behalf of the subsidiary. This can be achieved if the parent company intervenes in or takes over an action instituted against the subsidiary. However, whether these methods are applicable is not clearly stipulated under procedural law. Nevertheless, this problem will be resolved when Type A consolidation is conducted because the parent company after consolidation shall necessarily take over litigations in which the subsidiary is involved.

In Management Mode 1, the parent company owns the patent right whereas the business relating to the patent may be carried out not by the parent company but by the subsidiary. In this case, even if the parent company institutes an action against the patent infringer, it would be difficult for the parent company to claim damages that exceed the amount equivalent to the license fee because the parent company itself is not engaged in carrying out business. However, if the parent company absorbs the subsidiary's business through Type A consolidation, it may be able to claim damages based on the number of articles sold by the infringer (Section 102(1)) or damages based on the profits gained by the infringer (Section 102(2)).

Thus, Management Mode 1 has an essential disadvantage in that the parent company's personnel and the subsidiary's personnel should take approaches such as instituting a joint action, intervening in the litigation or taking over the litigation when they cooperate with each other in carrying out legal proceedings. However, through Type A consolidation, this disadvantage will be resolved either on the "offense" side or "defense" side. Another

disadvantage, the difficulty in claiming damages that exceed the amount equivalent to the license fee, will also be resolved if the subsidiary engaged in carrying out the business concerned is consolidated into the parent company. On the other hand, there is no particular disadvantage in Type A consolidation.

Next, the advantages and disadvantages of Type B consolidation are examined.

In the case of Type B consolidation, the parent company remains separate from the subsidiary. Therefore, when the parent company and the subsidiary are to cooperate with each other in the litigation, they still face problems concerning institution of a joint action, intervention into the litigation and taking over the litigation. The parent company may not be able to claim damages that exceed the amount equivalent to the license fee as in the case of Type A. Thus, there seems no particular advantage or disadvantage of Type B consolidation in terms of enforcement of patent rights.

The courts have not clearly presented their views on the liability for compensation according to the parent company's profits from the patent right that was transferred from Subsidiary A (See (1)). A brief analysis is shown below with respect to the advantages and disadvantages of business consolidation in the case where the inventor files an action for such compensation.

If Type A consolidation is conducted under such circumstances, the parent company becomes liable for compensation. Accordingly, the parent company shall definitely be liable to pay a "reasonable remuneration" to the inventor with respect to the profits that it makes from the patent after consolidation. As a result, the dispute over the liability for compensation shall cease to exist with respect to the parent company's profits made after consolidation.

The next possible case is that: (i) the parent company grants a non-exclusive license for free to Subsidiary A when obtaining the patent right from Subsidiary A, and (ii) the parent company also grants a license on the patent right to Subsidiary B and receives a license fee from Subsidiary B.

In this case, a dispute may occur over the liability for compensation with respect to the license fee that the parent company has received from Subsidiary B. If Subsidiary A is consolidated with Subsidiary B through Type B consolidation, the new consolidated subsidiary may be able to avoid paying the license fee to the parent company due to the free non-exclusive license granted to Subsidiary A. When the new subsidiary discontinues paying the license fee to the parent company, the parent company will make no profit from the invention after consolidation. As a result, the dispute over the liability for compensation shall cease to exist.

(3) Transfer of rights within a business group (and tax affairs concerning licensing-back)

In Management Mode 1, the patent right has already been transferred to the parent company, and additional transfer of the right will not occur in either type of consolidation. Thus,

there is no particular advantage or disadvantage in terms of the transfer of right through business consolidation.

The situation will be somewhat different in terms of licensing-back. It is often the case that the parent company grants a license to its subsidiaries under different conditions on the license fee. The parent company may grant a license for free to the subsidiary that has transferred the patent right to the parent company while requiring a license fee from another subsidiary. If these subsidiaries are consolidated with each other through Type B consolidation, the conditions on the license fee after consolidation may be automatically determined according to the mode of consolidation or license contract; otherwise, it is necessary to determine the conditions to be applicable to the new consolidated subsidiary. If the license fee is set unreasonably low, the license fee that is actually paid from the subsidiary to the parent company will fall under the market value of the license, which would be deemed as the parent company effectively donating the license to the subsidiary and thus cause tax problems.

Consequently, business consolidation may resolve the disadvantages of Management Mode 1 because (i) the consolidation may make it unnecessary to take an approach of instituting a joint action or other approaches when the parent company and its subsidiary cooperate with each other in carrying out legal proceedings, and (ii) the consolidation may make it possible to claim damages that exceed the amount equivalent to the license fee. On the other hand, new disadvantages will be generated in that (i) the amount of compensation for employee's invention may increase, and (ii) tax risks may occur when unifying license conditions between subsidiaries to be consolidated.

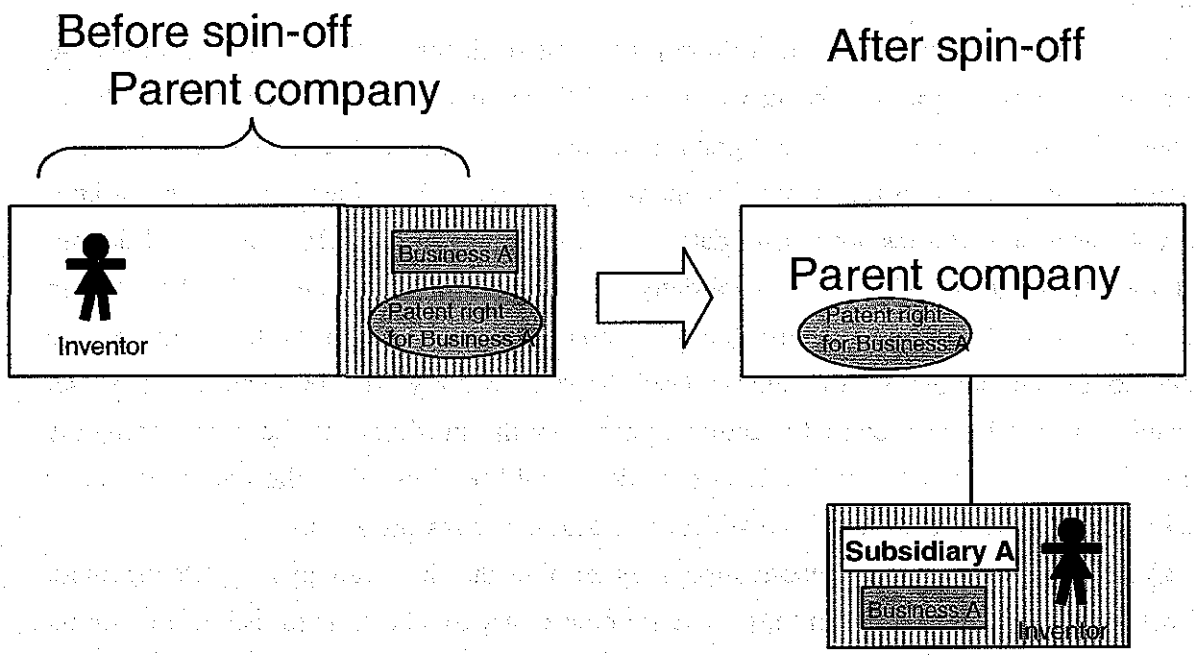
2.2.1.3 Spin-off

(1) Compensation for employees' inventions made in the operating subsidiary

The first assumed case is that the parent company, which manages a patent right in Management Mode 1, spins off the particular business relating to the right and establishes a new subsidiary.

In this case, the patent right that had already been transferred to the parent company before the spin-off will remain subject to management by the parent company (Fig. 6).

(Fig. 6)



With disregard to many unspecified factors at present, the analysis will be shown below on the assumption that the parent company should pay a "reasonable remuneration" while taking into account the profits made by Subsidiary A.

The inventor has the right to claim a "reasonable remuneration" for his invention from the parent company, whereas he shall not have the right to claim a "reasonable remuneration" from Subsidiary A even if Subsidiary A has been spun off with Business A from the parent company and then makes profits from Business A by carrying out a business with a use of the patent.

In this case, if Subsidiary A pays a license fee on the patent right to the parent company, the license fee may be the funds for paying compensation to the inventor. However, the amount of the license fee to be paid from the Subsidiary A to the parent company is often expected to be lower than the amount to be paid by a third-party licensee or the license may be granted for free, and the parent company would lack the funds for paying compensation to the inventor.

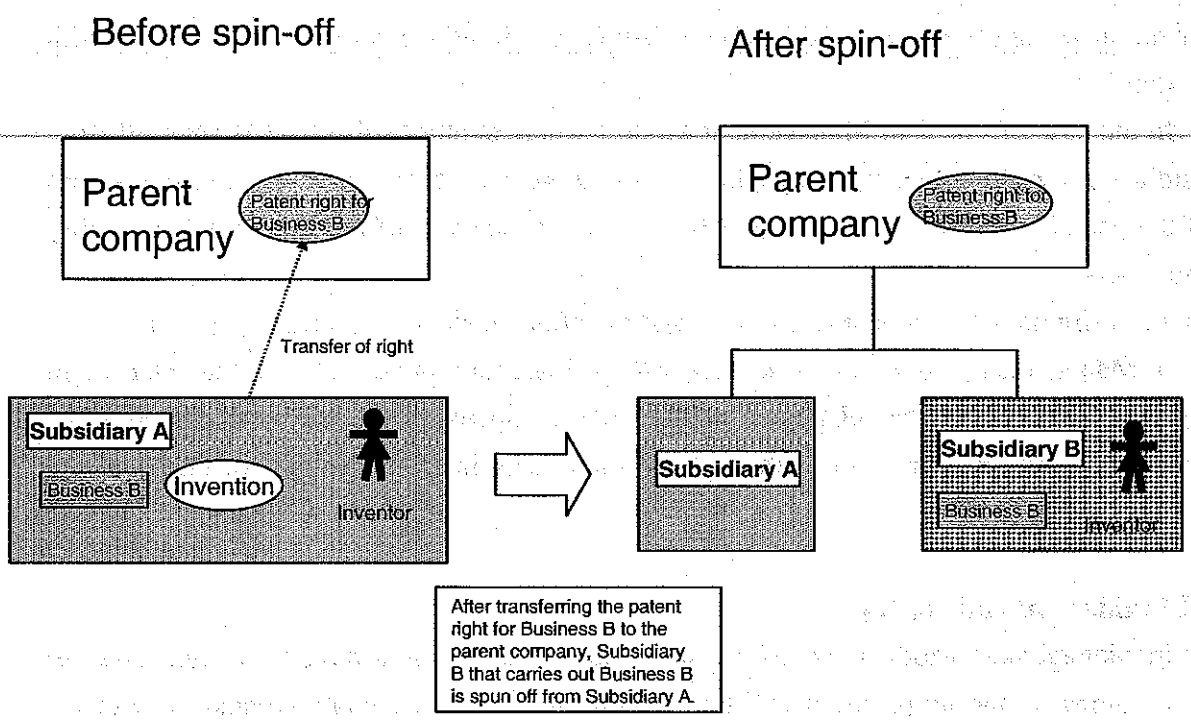
Thus, due to the spin-off, the parent company fails to secure the funds for paying compensation to the inventor, which could have been secured if the parent company carried out Business A and made profits from the business.

The next assumed case is the spin-off of another subsidiary from the subsidiary in Management Mode 1.

The invention relating to Business B that is carried out in Subsidiary A has been assigned from the inventor to Subsidiary A and then transferred to the parent company. Under

such circumstances, Subsidiary B that carried out Business B is spun off from Subsidiary A (Fig. 7).

(Fig. 7)



In this case, the inventor has the right to claim a "reasonable remuneration" from Subsidiary A. However, Subsidiary A cannot make profits as it does not carry out Business B and cannot receive the license fee from Subsidiary B as it does not own the patent right.

If Subsidiary A is to be required to pay a "reasonable remuneration" while taking into account the profits made by Subsidiary B, it will be necessary to make a system in which the funds for paying compensation to the inventor will be provided from the profits made by Subsidiary B.

(2) Eligibility to become a party for enforcement

In the case of Fig. 6 in Management Mode 1, the spin-off of the business to a Subsidiary A would generate two plaintiffs, the parent company as the right holder and the Subsidiary A as the actual victim of infringement.

The parent company, as the right holder, will not lose the eligibility to become a party for enforcement even after transferring the business to the Subsidiary A. However, since the parent company will not be the actual victim of infringement, it may only claim damages equivalent to the license fee.

On the other hand, the spun-off Subsidiary A is not eligible to become a plaintiff and

therefore cannot claim damages for itself unless it has obtained an exclusive license from the parent company.

It is unusual that the parent company spins off the business while the litigation claiming damages is pending. When spinning off a business is expected, it might be necessary to consider retransferring the patent right to the subsidiary or jointly owning the patent right with the subsidiary.

In the case of Fig. 7 in Management Mode 1 where another subsidiary is spun off from the subsidiary, the right holder is always different from the party that carries out a business with a use of the patent and there is no change before and after the spin-off in terms of the eligibility for enforcement.

(3) Transfer of rights within a business group (and tax affairs concerning licensing-back)

In Management Mode 1, it is necessary to evaluate the market value of the patent right when it is transferred from the subsidiary to the parent company. After being transferred to the parent company, additional transfer of the right will not occur in either the case of Fig. 6 or Fig. 7.

2.2.1.4 Liquidation/bankruptcy

In Management Mode 1, all of the subsidiary's patent rights have been transferred to the parent company, and no problem will be posed in the case of liquidation/bankruptcy of the subsidiary. Such remoteness of patent rights from the liquidation/bankruptcy of the subsidiary is one of the ordinary advantages of Management Mode 1.

2.2.2 Advantages and disadvantages of Management Mode 2

2.2.2.1 Business acquisition

(1) Compensation for employees' inventions made in the operating subsidiary

Even in the case where a company is integrated into a business group as a new operating subsidiary through business acquisition, the company does not need to transfer its patent right to the parent company but just changes its management system to have its patent right managed by the parent company, which will raise no particular problem (except for general problems concerning the provisions of Article 72 of the Lawyers Law and Article 75 of the Patent Attorneys Law in Management Mode 2).

However, if there are differences in the rules for the payment of compensation for employees' inventions between the parent company and its subsidiaries within a business group and such difference is likely to cause administrative problems within the group, it is necessary to achieve unification of rules between the parent company and its subsidiaries by changing the rules of the acquired company.

(2) Transfer of rights within a business group (and tax affairs concerning licensing-back)

In Management Mode 2, the centrally-managed/individually-owned model, the acquired company does not transfer its patent right to the parent company and therefore there is no particular advantage or disadvantage in terms of tax affairs concerning licensing-back. Though conflicts with the provisions of the Lawyers Law and the Patent Attorneys Law may occur with respect to the centralized management, this problem is inherent to Management Mode 2 and it is not a disadvantage that is newly caused by business acquisition.

2.2.2.2 Business consolidation

(1) Compensation for employees' inventions made in the operating subsidiary

In Management Mode 2, as the company that carries out a business individually owns the patent right for the business, no particular problem will occur with respect to compensation for employees' inventions as long as rules for paying compensation for employees' inventions are properly provided. In other words, the company can pay compensation to the inventor who is its employee out of the funds gained from the business concerned under the compensation rules. Thus, there is no particular advantage or disadvantage in this respect.

Similarly, no advantage or disadvantage will be found when a subsidiary is consolidated with the parent company because the subsidiary's compensation rules are usually consistent with the parent company's compensation rules. The same shall apply to the case of consolidation of two or more subsidiaries because their compensation rules are usually consistent with one another. However, if there is any inconsistency in the compensation rules between subsidiaries, unification of rules would be required. In this case, it is necessary to compare their compensation rules and decide the unified rules for the new consolidated company in a manner that will not be unfavorable to the inventors.

(2) Transfer of rights within a business group (and tax affairs concerning licensing-back)

In the case where a subsidiary is consolidated with the parent company or where two or more subsidiaries are consolidated, no problem will occur in terms of tax affairs concerning the transfer of rights or licensing-back; therefore, there is no advantage or disadvantage in this respect.

However, when two or more subsidiaries are consolidated, the new consolidated subsidiary will not transfer its patent rights to the parent company. Consequently, when the parent company intends to use the consolidated subsidiary's patent right, it should individually conclude a license contract with the subsidiary. If the parent company pays any license fee to the subsidiary, the parent company should report it as loss while the subsidiary as the licensor should report it as revenue.

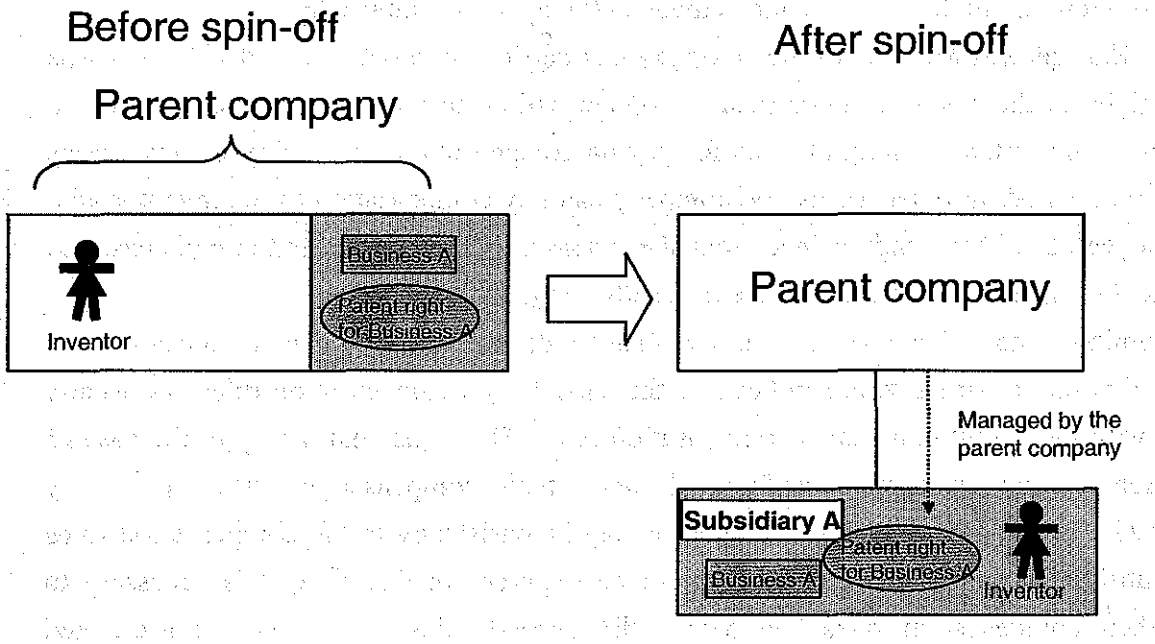
2.2.2.3 Spin-off

In the case of Management Mode 2, it is unusual to spin off a subsidiary from the parent company. But as a special case, we assume a following situation: (Fig. 8)

1) the parent company owns a patent right and is carrying out a business with the use of the Patent, and

2) a subsidiary is span off from the parent company and the said patent right is taken over to the subsidiary and the subsidiary succeeds the business that has been carried out by the parent company.

(Fig. 8)



(1) Compensation for employees' inventions made in the operating subsidiary

With respect to compensation for the employee's invention, if the patent right remains owned by the company in which the patented invention was made, the transfer of the patent right does not occur and the right continues to belong to the company that is its original right holder. Since the license fee (profit) arising from the patent right is naturally gained by the company to which the right belongs, the inventor may seek a "reasonable remuneration" from the company that owns the right.

Consequently, the parent company centrally manages all patent rights within the business group whereas the companies to which individual patent rights belong (the parent company and subsidiaries) should pay compensation to their employees under their own rules for paying compensation for employees' inventions with respect to the profits arising from individual patent rights.

Wherever the inventor currently belongs within the business group (or even if the inventor does not belong to the business group), it would be appropriate to pay compensation to the inventor under the compensation rules adopted by the company to which the patent right concerned currently belongs.

The same method may be applied in principle when another subsidiary is spun off from the subsidiary as long as the patent right remains owned by either company in which the patented invention was made. Before and after the spin-off, the patent right is always owned by the company in which the patented invention was made, so it would be appropriate for either the original subsidiary or the spun-off subsidiary, which owns the patent right concerned, to pay compensation for the invention.

On the other hand, unlike the above case, if the patent right is transferred to the subsidiary (or the subsequent subsidiary) due to the spin-off, the patent right will not be owned by the company in which the patented invention was made. In this case, should the inventor seek a "reasonable remuneration" from the "parent company (or subsidiary) in which the patented invention was made" or the "subsidiary (or the subsequent subsidiary) to which the patent right is transferred"?

If the inventor also transfers to the subsidiary (or the subsequent subsidiary) with the patent right for his invention, there will be no practical problem as long as the compensation rules are unified between the parent company and the subsidiary (or between the subsidiary and the subsequent subsidiary).

In other words, the inventor may seek "remuneration for his invention" from the company that carries out a business with a use of the patent under the compensation rules of the company.

However, where the inventor remains in the company in which the patented invention was made whereas the patent right is transferred to the subsidiary (or the subsequent subsidiary), problems would be raised even if the compensation rules were unified between the parent company and the subsidiary (or between the subsidiary and the subsequent subsidiary).

More specifically, when the inventor seeks "remuneration for his invention" from the parent company as his employer and the parent company pays such remuneration, tax problems (hindering profits) would be raised.

In conclusion, Management Mode 2 has a disadvantage with respect to compensation for employees' inventions in the case of spin-off within a business group in that inventors may not always obtain proper compensation due to the transfer of patent rights.

(2) Transfer of rights within a business group (and tax affairs concerning licensing-back)

In the case where the parent company spins off a subsidiary within a business group in Management Mode 2, the parent company can obtain consideration for the transfer of the patent

right to the subsidiary while the subsidiary can obtain a license fee when the parent company uses the transferred patent right. The same shall apply to the spin-off of another subsidiary from the subsidiary.

However, it goes without saying that it is necessary to assess the market value of the patent right to be transferred in the above case.

Furthermore, it cannot be denied that tax problems are likely to arise if the license fee paid by the parent company differs significantly from that paid by other companies.

Thus, there seems to be no particular advantage or disadvantage in terms of tax affairs concerning the transfer of patent rights in the case of the spin-off within a business group in Management Mode 2.

2.2.2.4 Liquidation/bankruptcy

(1) Compensation for employees' inventions made in the operating subsidiary

(i) The subsidiary is liquidated and the parent company waives the subsidiary's patent right (extinguishment of the right).

It will not be necessary to pay additional compensation (compensation for performance) to an inventor who belongs to the liquidated subsidiary.

(ii) The subsidiary is liquidated and the parent company obtains the subsidiary's patent right.

Even when the parent company uses the patent right obtained from the subsidiary within the business group (e.g. the parent company or other member company of the group carrying out a business with a use of the patent) or grants a license for the patent to a third party, it would be appropriate to consider that the inventor does not have a right to seek a "reasonable remuneration" from the parent company because the parent company is not deemed as the inventor's employer, etc.

(2) Transfer of rights within a business group (and tax affairs concerning licensing-back)

(i) The subsidiary is liquidated and the parent company waives the subsidiary's patent right (extinguishment of the right)

As the transfer of patent right does not occur, tax problems will not be raised in terms of licensing-back.

(ii) The subsidiary is liquidated and the parent company obtains the subsidiary's patent right.

If the liquidated subsidiary's patent right is transferred to the parent company, it will be necessary to assess the market value of the patent right.

Even if the parent company uses the patent right that is transferred from the subsidiary or grants a license for the patent to a third party, this does not involve licensing-back and therefore tax problems will not be raised.

If the parent company grants a license for the patent to its subsidiary, the subsidiary as

licensee should report the license fee as loss whereas the parent company as licensor should report it as revenue.

2.2.2.5 Eligibility to become a party for enforcement

In Management Mode 2, this issue is related to any case of business acquisition, business consolidation, spin-off or liquidation/bankruptcy.

In Management Mode 2, disadvantages may be caused in terms of the following matters for the reason that patent rights remain owned by the subsidiary even after the transformation, while they are managed by the parent company.

(i) Whether the parent company can intervene in an infringement action

Whether the parent company has an interest in conducting ancillary intervention (Article 42 of the Code of Civil Procedure) is the only point of issue concerning litigation.

Though the parent company and the subsidiary do not share the patent right itself, there is a possibility that the legal status of the parent company would be affected by the outcome of the litigation in which the subsidiary is involved as plaintiff or defendant, provided that a comprehensive service contract on intellectual property management has been concluded between the parent company and the subsidiary within the business group. According to the argument that the interest in conducting ancillary intervention is expanding, the parent company may be allowed to conduct ancillary intervention.

In civil litigation, an ancillary intervener (the parent company) can freely conduct acts of procedure in almost the same way as the party concerned, unless its acts conflict with the acts of procedure of the original party (the subsidiary). Therefore, if the parent company is able to intervene as an ancillary intervener in civil litigation, it can attain the objective of unified and centralized intellectual property management.

However, there is a limit to the advantages of ancillary intervention as it is impossible to completely free the subsidiary from procedural burdens to be born by the original party concerned (e.g. various duties in legal proceedings that are imposed on the party concerned, communication with lawyers, control of the progress of litigation, and payment of legal fees when the subsidiary has lost the case).

(ii) Whether the parent company can become a party to a suit

Where the parent company, which is not the original holder or joint holder of the patent right and effectively is not entitled to the right at all, files an action in the place of the operating subsidiary, which is the original right holder, that would be a typical case of filing a representative suit as a conventional agent to carry out legal proceedings under one's own name for a third party's interest.

In this case, the point of discussion will be whether the relationship of forming a single

business group is deemed to be a "common interest" required for using the appointed party system, which is a legitimate way of filing a representative suit as a conventional agent, or to allow the filing of such a representative suit.

For example, if the parent company or its intellectual property department has already established a "special relationship" in which the parent company provides support for the overall process from discovering inventions to filing patent applications and obtaining and utilizing patent rights (by concluding intellectual property management contracts or comprehensive legal service contracts (under the management guidance program) with its subsidiaries within the business group), it would be acknowledged that there is a "reasonable necessity" as required by courts or scholars and the parent company would be allowed to file a representative suit as a conventional agent.

However, in the case where a company is acquired and consolidated as a subsidiary into a business group, it is doubtful whether this would immediately be deemed as such a "special relationship," and even if it is deemed so, the "special relationship" should not be in breach of prohibitions including the principle of representation by lawyers.

(iii) Whether the parent company can intervene in a trial for invalidation in which the subsidiary is involved

If the requirement of "having an interest" for becoming an eligible demandant of a trial for invalidation of a patent right is broadly interpreted and the parent company of a business group to which the subsidiary (patentee) belongs is deemed as an eligible demandant, the parent company may be allowed to intervene in a trial for invalidation (under Section 148(1) of the Patent Law) as a "demandant" under Section 132 of the Patent Law, even though it is a special case where the parent company shares an interest with the subsidiary.

On the other hand, where the subsidiary is consolidated with the parent company or where the subsidiary is liquidated or becomes bankrupt and subsidiary's patent right is obtained by the parent company, the patent right is transferred to the parent company and the aforementioned disadvantage will be resolved.

2.2.3 Conclusion on Management Modes 1 and 2

2.2.3.1 Management Mode 1

In Management Mode 1, the parent company centrally owns and manages patent rights within the business group and IP experts are concentrated to the parent company to engage in the management. Therefore, it seems to be an effective and useful system for the purpose of increasing efficiency in intellectual property management and developing and increasing human resources.

However, this mode cannot avoid burdensome procedures for assessing the

market value of patent rights in the case of the transfer of the rights. It is highly difficult in reality to come to an assessed value of a patent right that is acceptable to everyone when transferring the right because an evaluation method has yet to be established and the assessed value is likely to vary significantly depending on the business models in which the right is used. Such difficulty will be a major obstacle to the achievement of prompt centralized management. Furthermore, even if the patent right were provisionally evaluated for the purpose of deciding the transfer price, the transfer would be deemed to be a donation or gift if the tax authorities point out the gap between the transfer price and the value of the right as assessed by the authorities.

There is also a risk concerning compensation for employees' inventions made in the subsidiary. Under the transfer system, on completion of invention, the right to obtain a patent for the employee's invention made in the subsidiary is transferred from the inventor (employee) to the subsidiary, and then transferred to the intellectual property management company, etc. for the purpose of centralized ownership of intellectual property rights or it may be utilized by another subsidiary. Section 35(3) of the Patent Law provides that a reasonable remuneration shall be paid to the inventor when he has passed the "right to obtain a patent" or the "patent right" on to the employer, etc. In the above case, it is necessary to consider how the value of the reasonable remuneration should be assessed and who should pay the reasonable remuneration to the inventor who belongs to the subsidiary. Recently, a spate of actions has been brought to courts with respect to remuneration for employees' inventions. Such actions cause uncertainty in management and increase management costs within business groups.

2.2.3.2 Management Mode 2

Management Mode 2, in which the parent company centrally manages patent rights within the business group, seems to be as effective as Management Mode I in terms of operating efficiency.

However, this mode raises issues such as whether the parent company's activities to obtain patent rights for inventions made in the subsidiary would conflict with the provisions on the affairs under the exclusive authority of lawyers and patent attorneys under the Lawyers Law and the Patent Attorneys Law and whether the parent company will be allowed to conduct licensing negotiations or file a representative suit as a conventional agent in the case of a patent infringement. According to the recent views of the courts and of academics, it seems to be becoming more likely that the parent company will be allowed to file a representative suit as a conventional agent, though it is not definitely assured.

Even if only the parent company is eligible to become a party to a suit, the amount of damages is expected to be limited to the amount equivalent to the license fee because the parent

company does not own the patent right. In this case, it is necessary to make arrangements to make the subsidiary eligible to become a party to the suit as the patentee.

3. Advanced Management Modes

3.1. Outline of Securitization of Intellectual Property

According to the amendments to the Law on Securitization of Assets in May 2000, securitization of intellectual property has become possible and it has been attracting attention as a financing means other than getting loans or issuing debentures. Securitization of intellectual property is a method for promoting liquidation of assets by separating intellectual property from the company that owns it and issuing securities not from the company's credit capability but from the revenues arising from intellectual property.

There are some specific examples of securitization of copyrights such as securitization of TV program broadcasting rights whereas there is only one case of securitization of a patent right in April 2003 by Pin Change Co., Ltd. (a subsidiary of Matsushita Electric Industries Co., Ltd.), which was the first case in Japan.

3.2 Outline of the Trust System for Intellectual Property

The Intellectual Property Policy Headquarters adopted the "Promotion Plan for Creation, Protection and Utilization of Intellectual Property" on July 8, 2003. Providing that "for the purpose of promoting centralized management of patents and brands in the case of a business group consisting of multiple affiliated companies, by the end of FY 2003, the Financial Services Agency (FSA) and the Ministry of Economy, Trade and Industry (METI) will take necessary legislative measures with the aim of developing ideal trustees that will be able to properly undertake management business in accordance with characteristics of intellectual property rights, while sufficiently discussing ideal trustees that will undertake such business," the Promotion Plan aims to develop a legal system under the initiative of the FSA and the METI so as to enable business groups to use the trust system as one of the methods for managing and utilizing intellectual property. Following this plan, the Financial System Council (The 2nd Subcommittee of the Sectional Committee on Financial System) published the "Interim Report on the Ideal Form of Trust Business" on July 28, 2003.

On the other hand, companies recommend that, for the purpose of achieving centralized management and utilization of intellectual property, and patent rights (and rights to obtain patent) in particular, as well as increasing efficiency in such management/utilization, thereby improving cost-competitiveness, the trust system should be made available for the management and utilization of intellectual property. The use of the trust system for the intellectual property management/utilization method will bring about more benefits than conventional

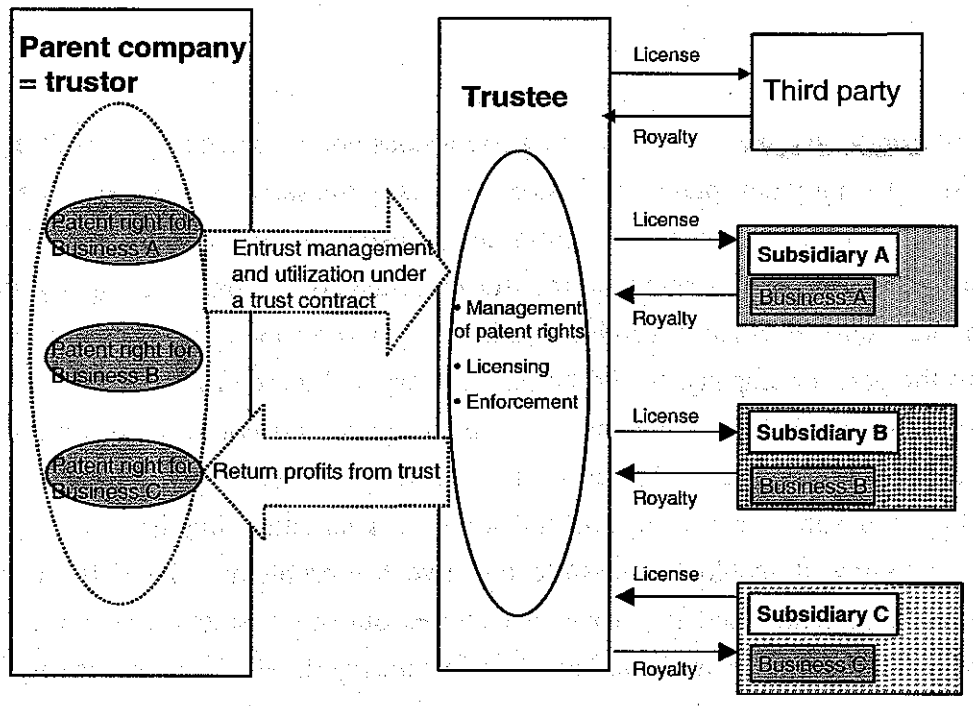
management/utilization methods as it can avoid tax problems concerning transfer tax and income tax.

The introduction of the trust system for intellectual property may involve a wide range of issues. Various discussions are required to develop a legal system that will be useful for companies.

3.2.1 Advantages and disadvantages of the use of the trust system in Management Mode 1

(Fig. 9)

Use of the trust system in Management Mode 1



The analysis below is concerned with the advantages and disadvantages of the use of the trust system in Management Mode 1 in which all patent rights are transferred to the parent company. Details of the method of entrusting all inventions made in subsidiaries to the trustee for centralized management, which is the case of Management Mode 2, will be provided in the next section. This section focuses on the advantages and disadvantages of the entrustment of management after patent rights are transferred to the parent company.

3.2.1.1 Business acquisition

Upon business acquisition, the same problems mentioned in 2.2.1.1 may occur due to

the transfer of patent rights. As the only difference arising from the use of the trust system is that patent rights are transferred to the trustee instead of the parent company, the trust system cannot solve these problems and therefore it will not bring about any particular advantage for centralized management.

3.2.1.2 Business consolidation

In Management Mode 1, patent rights are centrally managed by the parent company. Therefore, the use of the trust system will not bring any particular advantage for centralized management or for enforcement. It will be difficult to claim damages that exceed the amount equivalent to the license fee in the case where patent rights have been transferred to the trust company.

3.2.1.3 Spin-off

In the case of Fig. 6, the transfer of the patent right does not occur due to spin-off and therefore it is impossible to enjoy advantages such as no necessity to assess the market value of patent rights or avoidance of tax risks arising from the transfer. In the case of Fig. 7, if Subsidiary A entrusts the patent for Business B to the trustee instead of the parent company, the assessment of the market value of the patent right, which is required for the transfer of the right from Subsidiary A to the parent company, would be unnecessary and therefore tax risks arising from the transfer could be avoided. However, such an advantage would not be enjoyed if the right was entrusted to the trustee after being transferred to the parent company. On the other hand, in the case of Fig. 7, if Subsidiary A spins off Subsidiary B after entrusting the patent right to the management company, it would be possible to solve the problems arising from the inconsistency between the patentee and the party that carries out the business concerned by changing the beneficiary of the trust from Subsidiary A to Subsidiary B, which enables the party that actually carries out the business concerned to gain profits from the utilization of the patent right.

3.2.1.4 Liquidation/bankruptcy

Management by trust has an advantage in that it can separate and protect patent rights not only from the liquidation/bankruptcy of the subsidiary (as in the case of Management Mode 1) but also from that of the parent company. This advantage is related to the protection of the beneficiary rather than to the management of patent rights, and it may bring about advantages in terms of compensation for employees' inventions, which is mentioned later.

3.2.1.5 Compensation for employees' inventions made in the operating subsidiary

One of the methods for paying compensation for employees' inventions is to pay some portion of the beneficial interest in trust to the inventor as compensation for his invention. This method may be advantageous in that the amount of compensation does not vary before and after business consolidation if the trust company collects a uniform amount of license fee from all companies within the business group. Furthermore, the trust system will protect inventors as beneficiaries from being bothered by business transformations in obtaining compensation for inventions, which may enable companies to avoid disputes with inventors in quite a few cases. However, since the grant of beneficial interest is not deemed to constitute a "reasonable remuneration," it is necessary as a prerequisite to amend the provision of Section 35 of the Patent Law in order to introduce this method.

3.2.1.6 Eligibility to become a party for enforcement

The parent company's eligibility to become a party to a suit and right to claim damages are discussed in 2.2.1. As the situation will become more complex due to the transfer of patent rights to the trustee, the issues such as the trustee's eligibility and right to claim damages as well as the trustor's involvement in enforcement under the trust system will be discussed in detail in connection with Management Mode 2 in which the trust system can be used more effectively.

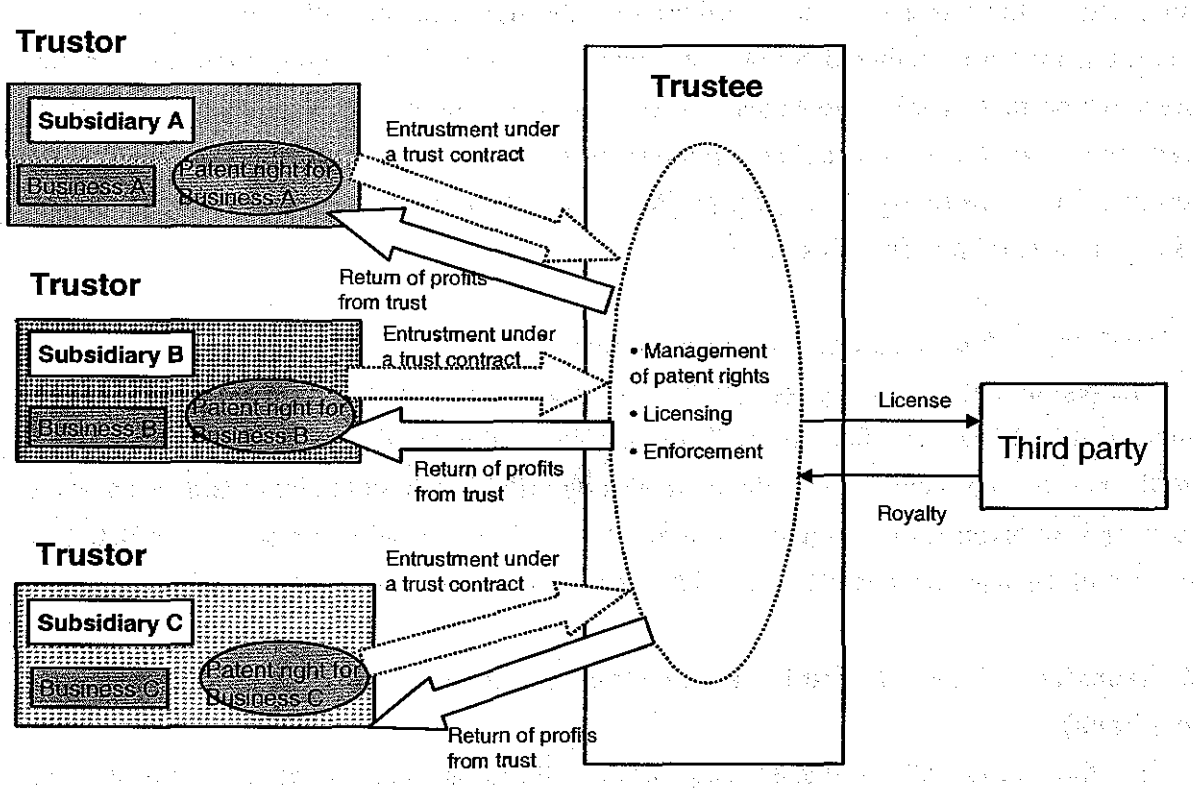
3.2.1.7 Transfer of rights within a business group (and tax affairs concerning licensing-back)

In the case of business acquisition, business consolidation, spin-off, or liquidation/bankruptcy, the trust system may have advantages in changing licensing conditions and avoiding tax risks upon such business transformations if the trust company establishes uniform licensing conditions for all subsidiaries within the business group.

3.2.2 Advantages and disadvantages of the use of the trust system in Management Mode 2

(Fig. 10)

Use of the trust system in Management Mode 2



3.2.2.1 Business acquisition

(1) Compensation for employees' inventions made in the operating subsidiary

When a company is integrated into a business group as a new operating subsidiary through business acquisition, if the company has already used the trust system, it is necessary to cancel the trust contract with the trustee and conclude another trust contract with a new trustee (the parent company).

Article 57 of the Trust Law provides that "in the case where the trustor is to receive all profits from a trust, the trustor or his successor may cancel the trust anytime." Accordingly, if the acquired company has already used a trust and it has been the trustor as well as the only beneficiary of the trust, it seems that the acquired company's trust contract may be cancelled upon acquisition.

In the case where the subsidiary has not used the trust system, it should conclude a trust contract with the trustee (the parent company). It is also necessary to use some portion of the beneficial interest in trust as the funds for paying compensation for employees' inventions made

in the subsidiary.

However, if there is difference in the rules for the payment of compensation for employees' inventions between the parent company and its subsidiaries within a business group and such difference is likely to cause administrative problems within the group, it is necessary to achieve unification of compensation rules between the parent company and its subsidiaries (by changing the rules of the acquired company).

(2) Eligibility to become a party for enforcement

According to Article 11 of the existing Trust Law providing that a trust established for the primary purpose of conducting acts of procedure shall be null and void, it seems to be inappropriate that the acquired company establishes a trust for its patent right while it is in litigation. However, the objective of Article 11 of the Trust Law is to prevent induction of litigation. Establishing a trust for the patent right that is the subject of the currently pending lawsuit shall not constitute such induction of litigation, and therefore it may not be in breach of the provision of Article 11 of the Trust Law.

Currently, the courts and academics agree that it will be allowed for the trustee to file a representative suit as a conventional agent if,

(i) the trustee is authorized by the right holder to carry out litigation, or

(ii) the trustee has an interest in the suit that would not deviate from the purposes of the principle of representation by lawyers and the prohibition of entrustment for litigation, which are restrictive regulations.

It will be necessary to enact a law or implement legal reforms in order to clearly stipulate that it shall not be in breach of the provisions of the Lawyers Law and the Patent Attorneys Law for the trustee to carry out acts of procedure.

(3) Transfer of rights within a business group (and tax affairs concerning licensing-back)

When a company is integrated into a business group as a new operating subsidiary through business acquisition, if the company has already used the trust system, it is necessary to cancel the trust contract with the trustee and conclude another trust contract with a new trustee (the parent company).

Under the trust system, trust property is deemed to actually belong to the beneficiary and therefore, according to the "principle of taxation on actual beneficiary," taxes such as consumption tax and income tax are imposed on the beneficiary of the trust. For this reason, even if a new trust contract is concluded within a business group, tax problems will not occur in terms of licensing-back.

3.2.2.2 Business consolidation

(1) Compensation for employees' inventions made in the operating subsidiary

In Management Mode 2, when the subsidiary is consolidated with the parent company or two or more subsidiaries are consolidated, the use of the trust system will not raise particular problems. In fact, it may bring about an advantage instead in that the amount of compensation will not vary even if the compensation rules are changed due to the consolidation, provided that some portion of the beneficial interest in trust is to be allocated for compensation for employees' inventions.

(2) Eligibility to become a party for enforcement

When the subsidiary is consolidated with the parent company, the use of the trust system will not bring about particular advantage or disadvantage.

When two or more subsidiaries are consolidated, the use of the trust system will in fact bring about an advantage instead in that it will enable the parent company or other company within the business group to actually intervene in the litigation through the trust company.

Furthermore, the trust system will also enable the management company in Management Mode 2 to avoid breach of the Lawyers Law and the Patent Attorneys Law when carrying out the activities to obtain patent rights.

In this respect, it is necessary to establish a trust system that will not be restrictive to trust-based centralized management of patent rights within a business group.

(3) Transfer of rights within a business group (and tax affairs concerning licensing-back)

When the subsidiary is consolidated with the parent company or two or more subsidiaries are consolidated, the trust system will not raise tax problems in terms of the transfer of rights or licensing back with the business group.

The trust system may in fact bring about an advantage instead because centralized management of licensing conditions by the trust company may facilitate negotiations on licensing conditions when the parent company or other subsidiary within the business group intends to use the consolidated subsidiary's patent right.

3.2.2.3 Spin-off

(1) Compensation for employees' inventions made in the operating subsidiary

Business groups in Management Mode 2 have problems concerning compensation for employees' inventions upon spin-off as mentioned in 2.2.2.4. The use of the trust system will not solve these problems and therefore it will bring about no particular advantage in this respect.

(2) Eligibility to become a party for enforcement

Under the trust system, the patent right is entrusted to the intellectual property management company. Accordingly, it is unnecessary to consider the issue of eligibility to become a party for enforcement because, despite the change in the title of the original patentee (from the parent company to its subsidiary/from a subsidiary to another subsidiary), the

intellectual property management company to which the patent right has been entrusted shall be eligible to enforce the right against infringers of the patent. This is an advantage of the use of the trust system.

(3) Transfer of rights within a business group (and tax affairs concerning licensing-back)

By using the trust system, it will be unnecessary to assess the market value of the patent right in the case of the transfer of the right (from the parent company to its subsidiary/from a subsidiary to another subsidiary), which will reduce relevant workload or costs. It will also be possible to avoid tax risks due to the transfer of rights. These points are the advantages of the use of the trust system.

3.2.2.4 Liquidation/bankruptcy

(1) Compensation for employees' inventions made in the operating subsidiary

(i) The subsidiary is liquidated and the parent company waives the subsidiary's patent right (extinguishment of the right)

It will not be necessary to pay additional compensation to the inventor who belongs to the liquidated subsidiary.

(ii) The subsidiary is liquidated and the parent company obtains the subsidiary's patent right

It does not seem to be advantageous for the parent company to bother to entrust the patent right to another trustee for the purpose of using the right within the group, having obtaining it from the liquidated subsidiary.

(2) Eligibility to become a party for enforcement

Obviously, the parent company shall not be eligible if the patent right is extinguished.

In the case where the parent company concludes a trust contract with a third party trustee (e.g. trust company) for the patent right that has been obtained from the liquidated subsidiary and obtains an exclusive license from the trustee, the parent company shall naturally be eligible to intervene in the litigation.

(3) Transfer of rights within a business group (and tax affairs concerning licensing-back)

When the patent right is transferred from the liquidated company to the parent company, it is necessary to assess the market value of the patent right. On the other hand, when the parent company grants a license to other subsidiary within the group with respect to the transferred patent right, this does not involve licensing-back and therefore tax problems will not be raised.

3.2.3 Conclusion on advanced management modes

3.2.3.1 Utilization of patent rights by securitization

In the State of Delaware in the United States, the state tax privilege scheme for intellectual property holding companies (IPHCs) has been established, and securitization of

intellectual property may be an advantageous financing method under such a scheme. However, this scheme is primarily designed for financing through securitization of intellectual property rather than for centralized management of intellectual property rights. Thus, its objective differs significantly from that of the patent management/utilization methods discussed in this report.

In Japan, securitization of patent rights involves various problems such as burdensome procedures for assessing the market value of patent rights, the possibility of patent rights being invalidated or becoming obsolete, and costs and labor for establishing special purpose companies (SPCs). Therefore, in the present circumstances, this method is not positively used though it is under consideration in some companies. It seems difficult to use this method for the purpose of centralized management of intellectual property within a business group. Furthermore, as there is no such tax privilege scheme in Japan as that available in Delaware, it seems difficult to consider securitization of patent rights as an effective financing means.

3.2.3.2 Utilization of patent rights by trust

(1) Use of trust in Management Mode 1

As mentioned in section 3.2.1, the use of the trust system is expected to bring about advantages when Subsidiary A spins off Subsidiary B (as the case of Fig. 7) after establishing a trust for the patent right ,and when some portion of the beneficial interest in trust is to be allocated for compensation for employees' inventions. It may also bring about advantageous in terms of tax affairs concerning licensing-back.

However, It will not be very advantageous to use the trust system for the purpose of centralized management of existing patent rights, Because patent rights are already centrally managed by the parent company in Management Mode 1.

(2) Use of trust in Management Mode 2

As mentioned in section 3.2.2, taxation for trust shall be subject to the principle of taxation on actual beneficiary. Therefore, despite the transfer of a "right to obtain patent" or a "patent right" or the change of title to such right, it will be unnecessary to assess the market value of the right upon the transfer. Compared with the transfer method, the trust system is expected to enable business groups, which are likely to create an enormous number of inventions, to significantly reduce burden and costs for centralized management.

If the trust system is used instead of Management Mode 1 as a centralized management system, tax risks due to provisional evaluation of rights may be avoided and various other problems arising from the transfer of rights may also be solved.

Furthermore, where there is no chance for the trustee to sufficiently utilize a patent right that is entrusted by a subsidiary, etc., the trust contract may be terminated if the trustor and the beneficiary are the same (Article 57 of the Trust Law) and the patent right may be

immediately returned to the trustor (subsidiary), which will enable the subsidiary to search for another way of utilizing the patent right. In this case, also unlike Management Mode 1, it is not necessary to assess the market value of a patent right to be transferred, and a patent right that is not utilized effectively by the trustee can easily be returned to the trustor.

Thus, the use of a trust for the centralized management of patent rights will realize an intermediate management system between Management Mode 1 and Management Mode 2, which will be able to solve various problems.

3.2.3.3 Problems to be solved

In the case of using a trust for patent management/utilization within a business group, many problems remain unsolved even though the "Interim Report on the Ideal Form of Trust Business" by the Financial System Council is taken into consideration.

(i) Rights to obtain patents and patent rights seem to generally satisfy the requirements for trust property (convertibility into money, existence/specificity, transferability and being as positive property). However, since there is no way to make public "rights to obtain patents," which raises an issue of "specificity," it will be necessary to discuss means of public notice.

(ii) There is also no means to make public technical know-how. However, in light of the current activities involving technology transfer and licensing, the use of the trust system would be less effective if a trust may not be established for technical know-how together with the patent right concerned. In such a situation, for example, a license for a patent right can be obtained from the trustee whereas a license for know-how must be obtained from the patentee.

(iii) It is also necessary to clarify whether the trustee is allowed to file a representative suit as a conventional agent in the case where the trustee is involved in a patent infringement as the infringing or infringed party. If it is not allowed to do so, it will be difficult to use the trust system for centralized management of patent rights within a business group. Furthermore, it will also be necessary to enact a law or implement legal reforms in order to clearly stipulate that the it shall not be in breach of the provisions of the Lawyers Law and the Patent Attorneys Law for the trustee to carry out the acts of procedure.

(iv) Lastly, the biggest problem at present is about the use of a trust for a patent right or a right to obtain a patent in a foreign country.

Even if Japanese law allows the establishment of a trust for a patent right or a right to obtain a patent in a foreign country, it would be impossible for the trustee to enforce the right in the place of the trustor (patentee) unless the trust is effective against a third party in the foreign country because requirements for enforcing a patent right against an infringement may differ among countries.

If it is possible to establish a trust for a patent right, a right to obtain a patent or

technical know-how only domestically, the trust itself is very unlikely to be available as a means for centralized management within a business group.

Thus, in order to ensure that the trust system will be able to be used as a means for centralized management of patent rights within a business group, it is desired to make legal amendments to the Trust Law and the Trust Business Law or to consider enacting a special law as soon as possible.

4. **Reference**

- Report on Utilization of Intellectual Property within a Business Group (March 2002, Institute of Intellectual Property)
- Report on Issues Concerning Use of Trust for Intellectual Property Rights (March 2003, Institute of Intellectual Property)
- Report on Securitization of Patent Rights (March 2002, Research Institute of Economy, Trade and Industry, et al.)

Report on Financing on the Patent Licensing Market (March 2002, Japan Techno-Mart)

(1) Title: The Employee Inventor's Compensation Law in China

(2) Date: October 14 to 17, 2003, 34th International Congress, Dearborn, Michigan, USA

(3) Source: 1) Group: USA

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(5) Statutory Provisions: Law of the People's Republic of China on Progress of Science and Technology; Patent Law of the People's Republic of China; Copyright Law of the People's Republic of China; Law of the People's Republic of China on Promoting the Commercialization of Research Achievement; Contract Law of the People's Republic of China.

(6) Keywords: Service invention-creation; Non-service invention-creation; National Prizes; Commercialization of invention-creation; Service work; Non-service work

(7) Abstract: Under the relevant laws of China, employee inventor can own non-service invention-creation, non-service work and some of service works, and be able to obtain the benefit emanating from them. The employee inventor can also obtain a part of the benefit arising from service invention-creation and some of service works. Employee inventors and their inventive contributions are respected fully by the State and whole society in China.

The Employed Inventor's Compensation Law in China

WANG, Bing *[1] MA, Jun *[2] October 17, 2003

China's population is about 1.3 billion. There are about 30 million scientific and technical workers in China. It has been a very important issue for Chinese legislator that how to stimulate Chinese people's, particularly scientific and technical workers', enthusiasm for making invention-creation. After the policy on reforming and opening to the world was implemented in China the commercialization of research achievement has become also an important issue. Therefore Chinese legislator has issued and implemented one by one a series of laws and regulations for regulating invention-creation activities and the commercialization of research achievement. Some of the important laws and regulations are: Law of the People's Republic of China on Progress of Science and Technology, Patent Law of the People's Republic of China, Copyright Law of the People's Republic of China, Law of the People's Republic of China on Promoting the Commercialization of Research Achievement and Contract Law of the People's Republic of China. One of the core contents of the laws and regulations is the employed inventor's compensation.

Inventor is respected by the State and whole society

Law of the People's Republic of China on Progress of Science and Technology was issued on July 2, 1993 and implemented on October 1, 1994 ("Law on Progress of Science and Technology"). The Item 2 of the Article 3 of the Chapter 1, General Provisions, of the Law on Progress of Science and Technology stipulates: *"The State and the whole society shall respect knowledge, esteem talent, value the creative work of scientific and technical workers, and protect intellectual property rights."*[3] Why does the Law on Progress of Science and Technology stipulate it at this time? General speaking, it is common phenomenon for the people in a lot of the countries around the world to respect knowledge and esteem talent. But in China the situation is different. Before 1957 the knowledge and its creator and propagator, in another words, intellectual, had been respected. But in 1957 some of intellectuals became rightist, one of the enemies of the State and society. The political position of whole intellectuals in China went down rapidly although their salaries were little higher than the salary of worker class. During the great cultural revolution all intellectuals became the capitalist class, one of the object of the proletarian dictatorship. At that time another title of the intellectuals in China is Chou-Lao-Jiu in Chinese pronunciation, that is, smelling ninth, the last one of the object of the proletarian dictatorship during that time. After the reforming and opening to the world, Mr. Deng Xiaoping at an important conference pronounced: "Chinese intellectuals are one part of the working class." This sentence made all Chinese intellectuals return to normal political position, that is, the position as the same as the working class. After that time the work of the Chinese intellectual had been respected by the State and whole society. There had been no political pressure to the Chinese intellectuals. Every one had been working very hard. The science, technology, economy and

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[3] Law of the People's Republic of China on Progress of Science and Technology, page 5, Chian Legal Publishing House, Jun, 2001.

society were developed greatly in China. But, in other hand the economic position of the most of intellectuals had almost no change until 1993. As one part of the working class Chinese intellectuals had obtained almost the same salaries as ordinary workers. It means that the State and society should respect further the knowledge, esteem talent. Therefore, the Law on Progress of Science and Technology stimulates some detail measures to raise the social status of intellectuals such as *"Scientific and technical workers constitute an important force in the socialist modernization drive. The State shall take various measures to raise the social status of scientific and technical workers, cultivate and bring up through various channels scientific and technical professional of various specialties and create favorable environment and conditions to being the role of scientific and technical workers into full play."*[4] (Article 37 of the Law on Progress of Science and Technology) and *"People's government at various levels, enterprises and institutions shall take measures to gradually improve the treatment given to scientific and technical workers, and better their working and living conditions; and special preferential treatment shall be granted to scientific and technical workers with outstanding contributions."*[5] (Article 38 of the Law on Progress of Science and Technology) After Law of China on Progress of Science and Technology and the relevant laws and regulations are implemented gradually Chinese intellectuals have obtained their reasonable political and economic position in the society of China. Therefore we should say that to be respected by the State and whole society is the biggest compensation for Chinese inventor.

Employed inventor can own his non-service invention

There are two kinds of inventors in China. The first one is called as individual inventors, that is, the inventors who are not employed by any institution, organization or enterprise. They made their inventions with their money and equipment or instruments. Therefore they can own their inventions and obtain benefit resulted from their inventions according to the relevant laws and regulations. The second one is called as employed inventors, that is, the inventors who are working in one of institution, organization or enterprise and made their inventions during their employment period. In the following discussion we will focus only on the compensation for the employed inventor.

The employed inventor can own his non-service invention according to Patent Law of the People's Republic of China ("Patent Law"). The employed inventor's invention-creations are divided into two kinds: service invention-creation and non-service invention-creation under Patent Law . The Article 6 of the Patent Law says: *"An invention-creation, made by a person in execution of the tasks of the entity to which he belongs, or made by him mainly by using the material and technical information of the entity is a service invention-creation. For a service invention-creation, the right to apply for a patent belongs to the entity. After the application is approved, the entity shall be the patentee.*

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[4] Law of the People's Republic of China on Progress of Science and Technology, page 23 , China Legal Publishing House, Jun, 2001.

[5] Law of the People's Republic of China on Progress of Science and Technology, page 23~24, China Legal Publishing House, Jun, 2001.

For the non-service invention-creation, the right to apply for a patent belongs to the inventor or creator. After the application is approved, the inventor or creator shall be patentee.

In respect to an invention-creation made by a person using the material and technical means of an entity to which he belongs, where the entity and inventor or creator have entered into a contract in which the right to apply for and own a patent is provided for, such a provision shall apply."[6]

In order to make this Article more clear Rule11 of the Implementing Regulations of Patent Law of the People's Republic of China lists some details: *"Service invention-creation made by a person in execution of the tasks of the entity to which he belongs" mentioned in Article 6 of the Patent Law refers to any invention-creation made:*

(1) in the course of performing his own duty;

(2) in execution of any task, other than his own duty, which was entrusted to him by the entity to which he belongs;

(3) within one year from his resignation, retirement or change of work, where the invention-creation relates to his own duty or the other task entrusted to him by the entity to which he previous belonged.

The entity to which one belongs mentioned in Article 6 of the Patent Law includes the entity one temporarily works for; 'material and/or technical means of the entity' mentioned in Article 6 of the Patent Law refers to entity's money, equipment, spare parts, raw materials, or technical data which are not be disclosed to the public."[7]

According to the Article 6 of the Patent Law and the Rule 11 of the Implementing Regulations of the Patent Law we can see that if an invention made by an employed inventor is satisfy with the conditions mentioned above it is service invention-creation. Otherwise the invention-creation is non-service invention-creation. Then the employed inventor will have right to file application for patent for the non-service invention-creation. After the application is approved the employed inventor will be the patentee of the non-service invention-creation. In practice, key points are how to identify employed inventor's own duty and task entrusted to him by the entity to which he belongs, how to justify an invention-creation is made by an inventor mainly by using the material and technical information of the entity and what does the word "mainly" mean. In the past years, a lot of invention-creations made by the employed inventors by using some materials or technical information of the entity to which they respectively belong have been identified as non-service invention-creations. Therefore there actually exist two kinds of non-service invention-creations, that is, the invention-creation made by employed inventor by using some materials or technical information of the entity and the invention-creation made by employed inventor without using any materials or technical information and in no execution of the tasks of the entity to which he

[6] Patent Law of the People's Republic of China, Trademark Law of the People's Republic of China, Copyright Law of the People's Republic of China (Chinese-English), Page 35~37, Law Press China, September, 2002.

[7] China Patents & Trademarks, page 86, No.3, Vol. 66, 2001, July 15, 2001, published by China Patent Agent (H.K.) LTD.

belongs. Obviously the Article 6 of the Patent Law and the Rules 11 of the Implementing Regulations of the Patent Law gives preferential treatment to the employed inventor rather than the entity. The purpose of this treatment is to stimulate employed inventor's enthusiasm for making invention-creation.

Following the regulations set up under the Patent Law, Contract Law of the People's Republic of China ("Contract Law) issued on March 15, 1999 and went into effect as of October 1, 1999 stipulates similarly: " *'Service-related technological result' refers to a technological result achieved in the performance of a task assigned by the legal person or any other organization. Or achieved primarily by making use of the materials and technical conditions of the legal person or any other organization."*[8] (Item 2 of Article 326 of the Contract Law) Also Article 327 of the Contract Law says: *"The right of use or transfer of a non-service-related technological result belongs to the person (s) achieving the results, and the person (s) achieving the non-service-related technological result may conclude a technology contract on that result."*[9]

Employed inventor can get compensation for service invention

Even the invention-creation is service invention-creation made by an employed inventor the inventor can still get good compensation under the Patent Law, Law on Progress of Science and Technology, Law of the People's Republic of China on Promoting the Commercialization of Scientific Achievement ("Law on Promoting the Commercialization of Science and Achievement")and Contact Law .

The Law of the People's Republic of China on Progress of Science and Technology sets up particularly one chapter on Science and Technology Awards to reward inventors including employed inventor. The Article 52 of the Chapter says: *"The State shall set up an awarding system for science and technology to reward citizens and organizations that have made important contributions in their activities in relation to scientific and technological progress."* [10]

As a part of the State award the inventor can get good honorary title, which is very important for intellectuals. Article 53 of the Chapter stipulates: "The State shall confer according to law national honorary tittles on citizens who have made outstanding contributions to the development of science and technology."[11]

Based on the feature of the nature of science and technology the national titles are divided into several different kinds of prizes. Article 54 of the Chapter prescribes: *"The State shall set up National Science Prizes, Technological Invention Prizes, Scientific and Technological Progress, International Scientific and Technological Cooperation Prizes, and, if necessary, other types of scientific and*

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[8] Contract Law of the People's Republic of China (Chinese-English), Page 142, Law Press China, September, 1999

[9] Contract Law of the People's Republic of China (Chinese-English), Page 142, Law Press China, September, 1999.

[10] Law of the People's Republic of China on Progress of Science and Technology, Page 31, China Legal Publishing House, June, 2001.

[11] Law of the People's Republic of China on Progress of Science and Technology, Page 31, China Legal Publishing House, June, 2001.

technological prizes."[12] In 1999 China set up National Supper Science and Technology Prizes. The inventor having non-service inventions can independently file application for the prizes and then can obtain the prizes if the application is approved by the national award organization. As to service invention-creation if an entity, which is the owner of the service invention-creation, is given the prizes and then at the same time the name of individual inventor or creator is listed on the certificate of the prizes as an inventor. In fact the money award, paid by Central Government, of the prizes is given to the individual inventors. And the entity obtaining the prizes gives the inventor more benefit including money award, house, car and opportunity to be promoted. For example, Professor WANG, Xuan, inventor of laser photography printing technology in Chinese version, obtained 2001's National Supper Science and Technology Prizes and five million Chinese Yuan given by the Chinese Central Government. Latter on, Peking University for which he is working gave him another five million Chinese Yuan and called him as "father of modern printing industry" and "modern BI Shen", an ancient inventor of movable Chinese character printing technology more than thousand years ago.

The Contract Law gives the person achicving technological result similar right. Article 328 of the Contract Law says: *"The person achieving a technological result has the right to indicate on the documents relevant to the technological result that he is the person achieving the result, as well as the right to obtain certificates of honor and rewards."*[13]

If a service invention-creation is commercialized, then some percentage of the profit resulted from the commercialization of the invention-creation should given to the inventor. Article 16 of Patent Law prescribes: *" The entity that is granted a patent right shall reward to the inventor or creator of a service invention-creation, and, upon exploitation of the patented invention-creation, shall give the inventor or creator a reasonable remuneration based on the extent the invention-creation is applied and the economic benefits it yields."*[14] Article 55 of the Law on the Progress of Science and Technology says: *" Enterprises and institutions shall, in accordance with relevant regulations of the State, draw a certain percentage from the retained newly-added profit generated from the application of scientific and technological achievement to reward individuals who have accomplished the technological achievements."*[15]

Similar regulation appears in the Contact Law. The item 1 of Article 326 of the Contract Law says: *"If the right to use or transfer of a service-related technological result belongs to a legal person or any other organization, the legal person or any other organization may conclude a technology contract on the said service-related technological result. The legal person or that organization shall deduct a certain*

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[12] Law of the People's Republic of China on Progress of Science and Technology, Page 31, China Legal Publishing House, June, 2001.

[13] Contract Law of the People's Republic of China, (Chinese-English), Page 142, Law Press China, September, 1999.

[14] Patent Law of the People's Republic of China, Trademark Law of the People's Republic of China, Copyright Law of the People's Republic of China (Chinese-English), Page 41, Law Press China, September, 2002

[15] Law of the People's Republic of China on Progress of Science and Technology, Page 33, China Legal Publishing House, June, 2001.

percentage of the proceeds from using and transferring the service-related technological result so as to give rewards or remuneration to the person (s) achieving the service-related technological result. ……" [16]

Law on Promoting the Commercialization of Scientific Achievement stipulates more details. Article 29 of the Law on Promoting the Commercialization of Scientific Achievement prescribes: *"If a entity, which has a service technological achievement, transferred the technological achievement to any other party, the entity shall give no less than 20% of the net income resulted from the transfer of the technological achievement to reward the person who made the technological achievement and the person who made important contribution to the transfer of the technological achievement."* [17]

Article 30 of the Law on Promoting the Commercialization of Scientific Achievement further stipulates: *"After the successful use of a technological achievement, which is made by an enterprise or institution independently or together with any other entity, in industry, the enterprise or institution shall give no less 5% of new-added profit resulted from the use of the technological achievement to reward the person who made the technological achievement and the person who made important contribution to the transfer of the technological achievement.*

The enterprise being share-holding system may convert the remuneration or reward given to the person who made important contribution in the research and development or commercialization of a technological achievement into share or percentage of the capital of the enterprise under relevant regulations of the State. The shareholder shall partake the profit of the share or percentage of the capital." [18]

According to the regulations mentioned above we can see that when the entity having service scientific and technological achievement obtains benefit resulted from the achievement, the entity should give a part of the benefit to the inventor or creator. That is, after an service scientific and technological achievement is licensed or transferred to any other party and the entity having the achievement obtains royalty fee or transfer fee, no less than 20% of the net income of the fee should be given to the inventor or creator who made the achievement and person who made an important contribution in the commercialization of the achievement or if the entity commercialized by itself or together with any other party an service scientific and technological achievement then no less than 5% of new-added profit resulted from the achievement should be given to the inventor or creator and person who made an

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[16] Contract Law of the People's Republic of China (Chinese-English), Page 142, Law Press China, September, 1999

[17] Law of the People's Republic of China on Popularization of Science and Technology, Law of the People's Republic of China on Progress of Science and Technology, Law of the People's Republic of China on Promoting the Commercialization of Technological Achievement, Chinese version, Page 51, China Democracy-Legality Public House, June, 2002, translated by WANG, Bing.

[18] Law of the People's Republic of China on Popularization of Science and Technology, Law of the People's Republic of China on Progress of Science and Technology, Law of the People's Republic of China on Promoting the Commercialization of Technological Achievement, Chinese version, Page 51, China Democracy-Legality Public House, June, 2002, translated by WANG, Bing .

important contribution in the commercialization of the achievement. It is particularly notable that the benefit rewarded by an entity to an inventor or creator and person who made an important contribution in the commercialization of the achievement can be changed into the shareholding or percentage of the capital of the enterprise, which is a joint-stock company or limited liability company and commercialized the achievement. Having the shareholding or percentage of the capital of the company the inventor or creator or person will get long-term benefit from the company. So it is a long-term compensation.

Employed inventor may commercialize service invention by himself

If the entity having a service invention-creation does not commercialize the invention-creation, the employed inventor who made the invention-creation can commercialize the invention-creation and obtain the benefit resulted from the invention-creation under an agreement signed between him and the entity. Article 14 of Law on Promoting the Commercialization of Technological Achievement stipulates: *"If a service technological achievement owned by a research and development institute or high education institution established by the State is not commercialized during a certain period by the institute or institution, the person who made the technological achievement or the participant who took part in the making of the technological achievement may conduct the commercialization of the technological achievement and share rights and benefit regulated under the agreement signed with the institute or institution, but the ownership of the technological achievement shall not be changed. The institute or institution shall support the commercializing activities of the above technological achievement."*[19]

We should note here that only the inventor who is working for research institute set up by the State or high education institution can commercialize the service invention-creation of the institute or institution. The employed inventor of any other kind of entities such as company has no this kind of right. Why is there such difference? Firstly, the institutes set up by the State and high education institutions in China are public entities. Their financial income comes mainly from the Chinese government at different level. The Government asks them to commercialize their service invention-creation and to benefit the public as more as possible. Secondly, since historic reason and the nature of the institutes and institutions they have no enough high initiative to commercialize their invention-creations. In order to make the invention-creations be applied in industry and benefit the public the Chinese government allows the inventor or creator or participant of the service invention-creations to commercialize the invention-creations when the institutes or institutions do not do it in certain period. In other hand, the companies in China at this present are different types such as State owned, collective, private and foreign invested and foreign, it is not possible for government to ask the companies to allow their employed inventor to commercialize their service invention-creations.

[19] Law of the People's Republic of China on Popularization of Science and Technology, Law of the People's Republic of China on Progress of Science and Technology, Law of the People's Republic of China on Promoting the Commercialization of Technological Achievement, Chinese version, Page 48, China Democracy-Legality Public House, June, 2002, translated by Bing Wang.

Secondly, as an intellectual property of the companies they will do their best to use and commercialize their service invention-creations.

We should note here also that the ownership of the service invention-creations is not changed when they will be or are commercialized by the inventor or creator or participant. They are sill owned by the institute or institution. All commercialization activities should be governed under the agreement signed between the inventor or creator or participant and the institute or institution. Of course, in this case the inventor or creator or participant can get more benefit than the commercialization of the service invention-creation by the institute or institution.

The employed inventor employed by any kind of entity has a specific priority when a service-related technological result will be transferred by the entity. The second paragraph of the item 1 of Article 326 of the Contract Law stipulates: *"When the legal person or that organization concludes a technology contract to transfer the service-related technological result, the persons (s) achieving the service-related technological result shall have the priority to acquire the transfer on equal conditions."* [20] This means that in this case the employed inventor can become the owner of the service-related technological result after the transfer is made to him and then the inventor can commercialize the service-related technological result.

Employed inventor can get the copyright of non-service work

Under Copyright Law of the People's Republic of China works can be divided into four kinds: individual author's work, service work, non-service work and entity's work. Among them service work, non-service work and entity's work are created by employed person. What is difference among these three kinds of works? The Item 3 of Article 11 of Copyright Law of the People's Republic of China says: *"Where a work is created under the auspices and according to the intention of a legal entity or other organization, which bears responsibility for the work, the said legal entity or organization shall be deemed to be the author of the work."*[21] In this case the work is called as an entity's work. The item 1 of Article 16 of the Copyright Law says: *"A work created by a citizen in the fulfillment of tasks assigned to him by a legal entity or other organization is a work created in the course of employment."* [22] In another word, it is a service work. This item implies also that a work created by an employed person by himself rather than in fulfillment of tasks assigned to him a legal entity or other organization for which he is working will be a non-service work. The main difference between the entity's work and service work is that the entity's work represents the intention of the entity and the service work represents the intention of the employed person although the work is created in the fulfillment of tasks assigned to him by the entity.

As similar as non-service invention-creation, if an employed inventor creates a

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[20] Contract Law of the People's Republic of China, Page 142, Law Press China, September, 1999

[21] Patent Law of the People's Republic of China, Trademark Law of the People's Republic of China, Copyright Law of the People's Republic of China (Chinese-English), Page 213, Law Press China, September, 2002

[22] Patent Law of the People's Republic of China, Trademark Law of the People's Republic of China, Copyright Law of the People's Republic of China (Chinese-English), Page 215, Law Press China, September, 2002

non-service work during the employment period then the copyright of the work should belong to the inventor since he is the author of the work under the item 1 of Article 11 of the Copyright Law, which says: *"Except where otherwise provided for in this Law, the copyright in a work shall belong to its author."*[23]

In practice the problem here is that how to identify which work created by a employed inventor is service work and which non-service work. The key point is only that whether a work is created in the fulfillment of tasks assigned by the entity to the inventor. If it is the fulfillment of the tasks then the work shall be service work. Otherwise the work will be non-service work.

Employed inventor can get the copyright of some of service work

The treatment of the copyright of service work is very different from service invention-creation. Under the Chinese Patent Law the ownership of a service invention-creation shall belong to the entity by which the inventor is employed. Under the Chinese Copyright Law some kinds of service work shall belong to the entity by which the inventor is employed and created the work and some belong to the inventor. The item 2 of Article 16 of the Copyright Law stipulates: *"In any of the following cases, the author of a work created in the course of employment shall enjoy the right of authorship, while the legal entity or other organization shall enjoy the other rights included in the copyright and may reward the author:*

(1) drawings of engineering designs and product designs, maps, computer software and other works which are created in the course of employment mainly with the material and technical resources of the legal entity or other organization and for which the legal entity or other organization bears responsibility;

(2) works created in the course of employment the copyright in which is, in accordance with laws, administrative regulations or contracts, enjoyed by the legal entity or other organization."[24]

Except the above cases, the copyright of service work shall belong to the employed person who created the work. The item 1 of Article 16 of the Copyright Law says: *"Subject to the provisions of the second paragraph of this Article the copyright in such work shall be enjoyed by the author; however the legal entity or other organization shall have priority to exploit the work within the scope of its professional activities. Within two years after the completion of the work, the author may not, without the consent of the legal entity or other organization, authorize the exploitation for the work by a third party in the same manner as the legal entity or other organization exploits the work."*[25] For these kinds of the works, if the author is inventor then the inventor shall have the copyright of the works.

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[23] Patent Law of the People's Republic of China, Trademark Law of the People's Republic of China, Copyright Law of the People's Republic of China (Chinese-English), Page 213, Law Press China, September, 2002

[24] Patent Law of the People's Republic of China, Trademark Law of the People's Republic of China, Copyright Law of the People's Republic of China (Chinese-English), Page 215~217, Law Press China, September, 2002

[25] Patent Law of the People's Republic of China, Trademark Law of the People's Republic of China, Copyright Law of the People's Republic of China (Chinese-English), Page 215, Law Press China, September, 2002

Generally speaking, the key principle under the intellectual property laws and regulations mentioned above is to take a lot of measures to stimulate employed inventor's enthusiasm for making and then commercializing invention-creation or other technological achievement. The legal scales in this field incline to the employed inventor rather than employers such as enterprise, entities and so on. The positive effect of this principle is to promote the creation of the invention or technological achievement, and in the present stage of China to propel the society and economy forward. But there are some negative effects: 1) a lot of potential service invention-creations are changed into non-service invention-creations and owned by employed inventors rather than by the entity to which they are employed. This is why about 75~80% of domestic patents or patent applications are owned by individual inventors rather than by legal entities or other kinds of organizations. 2) The basic research and academic environment in high education institutions are impacted. Since the commercialization of invention-creation or other technological achievement by employed inventor can bring more benefit to the inventor so he maybe is very interesting in it and pays more time and attention to the commercialization of the technological achievement than to do academic activities including teaching, conducting basic research which can not give professor or research fellow high income. If the authority of a high education institution does not take any measure to balance the teaching, basic research and commercialization of invention-creation or technological achievement and as the time is going on then the academic level of the high education institution will be lower. 3) The right to commercialize an invention-creation or technological achievement by employed inventor may delay the progress of the commercialization of the invention-creation or technological achievement since the inventor has often much less experience of commercialization than his employer. In many cases an invention-creation or technological achievement has been kept by the inventor for long time and then can not be used again.[26] But the key principle and its relevant laws and regulations are still in the present stage in China positive as whole. As the development of Chinese economy and the increase of the requirement for the technology and of capacity of technology development of Chinese enterprises, the key principle and its relevant laws and regulations maybe shall be changed a lot in order to make the commercialization of invention-creation or technological achievement faster and more effective. The legal scales maybe shall incline to the entity, which employed the inventor.

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[26] Wang Bing, Lian Youneng, Guang Zhicheng, 《Present Problems and Its Solving Approaches in Technology Transfer of Chinese Universities》, The proceedings of the Second International Conference on Technology Policy and Innovation, September, 1999.

(1) Title: The U.S. Economic Espionage Act and its Extraterritorial Reach

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(5) Statutory Provisions: The Economic Espionage Act, 18 U.S.C. §§ 1831, 1832

(6) Keywords: Economic espionage, Trade secret theft; Trade secret protection; Criminal law

(7) Abstract: The Economic Espionage Act of 1996 made the theft of trade secrets a federal crime. This paper summarizes the basic provisions of the Act, including the Act's definition of trade secrets and its criminal intent requirement, discusses government enforcement trends, and explains the global reach of the Act.

THE U.S. ECONOMIC ESPIONAGE ACT AND ITS EXTRATERRITORIAL REACH

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Background and General Provisions

The Economic Espionage Act ("EEA") prohibits foreign economic espionage and the theft of trade secrets. 18 U.S.C. §§ 1831- 1839. The act was passed in 1996 in response to a perceived need to close a gap in federal laws, and to better protect intellectual and intangible property. H.R. Rep. No. 104-788, reprinted in 1996 U.S.C.C.A.N. 4021, 4024, 4025.

The statistics cited in discussions regarding the need for EEA enforcement are eye-opening:

- The American Society for Industrial Security (ASIS) reported a 323% increase in trade secret related theft between 1992 and 1996. It estimated that one to six million U.S. jobs were lost as a result of such theft.
- A 1999 ASIS and PricewaterhouseCoopers study estimated that the theft of confidential and proprietary business information cost Fortune 1000 companies $45 billion dollars. Senator Arlen Specter estimated the losses at $100 billion per year.
- The Federal Bureau of Investigation has reported that at least 23 foreign governments actively target the intellectual property of U.S. corporations.
- An FBI study found that of 173 countries, 100 were spending resources to acquire U.S. technology, and, of those, 57 were engaging in covert operations against U.S. corporations.

See Chris Carr, Larry Gorman, "The Revictimization of Companies by the Stock Market Who Report Trade Secret Theft Under the Economic Espionage Act," 57 Buslaw 25 (Nov. 2001).

Despite the statistics, the EEA can be a double-edged sword for U.S. businesses – it protects them from trade secret theft, while at the same time exposing them to risks from the unsanctioned acts of their unscrupulous employees and suitors.

Specific Conduct Prohibited by the EEA

The conduct prohibited by the act is set forth in sections 1832 and 1831. Section 1832 prohibits the knowing theft of trade secrets related to or included in product placed in interstate or foreign commerce to the economic benefit of anyone other than the owner, intending or knowing that the offense with injure the owner of the trade secret. 18 U.S.C. § 1832. Section 1831 prohibits economic espionage for the benefit of a foreign government, foreign

instrumentality[1] or foreign agent. 18 U.S.C. § 1832. It provides harsher penalties than the criminal trade secret theft prohibitions of section 1832.

Paralleling one another, both of these sections specifically prohibit, stealing or appropriating trade secrets (subsection 1), copying, transmitting or conveying trade secrets (subsection 2), receiving, buying or possessing trade secrets (subsection 3), attempting to steal, copy, or possess trade secrets (subsection 4), and conspiring to steal, copy, or possess trade secrets (subsection 5). 18 U.S.C. §§ 1831-1832.

The Act's Definition of a Trade Secret

The EEA specifically defines "trade secret" to mean "all forms and types of financial, business, scientific, technical, economic, or engineering information" if "(A) the owner thereof has taken reasonable measures to keep such information secret, and (B) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, the public." 18 U.S.C. § 1839(3). Given these two prongs, any trade secret analysis will ultimately be fact-intensive.

The act's definition of "trade secret" is similar to, though somewhat broader than, that of the civil Uniform Trade Secrets Act. The EEA's protection reaches a wider variety of technological and intangible information. *United States v. Hsu,* 155 F.3d 189, 196 (3d. Cir. 1998). Nonetheless, the EEA does not confer an absolute monopoly on the person who develops a trade secret. Neither parallel development nor reverse engineering of a trade secret necessarily constitute a violation of the EEA. *See* www.usdoj.gov/criminal/cybercrime/EEAleghist.htm (Managers' Statement for H.R. 3723)

The Requirement of Criminal Intent

Both section 1831 and section 1832 are specific intent crimes. Section 1831(3) requires that a person (1) intend or know that the offense will benefit a foreign government or instrumentality, (2) knowingly receive or possess a trade secret, and (3) know that the trade secret was stolen or misappropriated. 18 U.S.C. § 1831(3). Section 1832(3) requires that a person (1) intend to convert a trade secret, (2) intend or know that the offense will injure the owner of the trade secret, (3) knowingly receive or possess the information that constitutes a trade secret, and (4) know that the information was stolen or misappropriated. 18 U.S.C. § 1832(3). Thus, and as explained in the U.S. Attorney's Manual, only "knowing" violations of the EEA should be prosecuted. *See* U.S. Department of Justice, U.S. Attorney's Manual, Section VIII "Theft of Commercial Trade Secrets," ("U.S. Attorney's Manual") at § B.2.b.

Nonetheless, to demonstrate a knowing violation, the government will not need to prove that the person knew that the information he or she was taking was a trade secret, as that term is used in the act. *Id.*; *see also United States v. Hsu*, 40 F. Supp. 2d 623 (E.D. Pa. 1999)

[1] "Foreign instrumentality" is defined to include "any legal, commercial, or business organization, corporation, firm, or entity that is substantially owned, controlled, sponsored, commanded, managed, or dominated by a foreign government." 18 U.S.C. § 1839(1).

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and *United States v. Krumrei*, 258 F.3d 535 (6th Cir. 2001). Such a requirement would make prosecutions nearly impossible. Instead, the government can prove that a violation was knowing by proving that a defendant was aware of "proprietary markings, security measures and confidentiality agreements." U.S. Attorney's Manual at § B.2.b. Put in other terms, the knowledge element can be satisfied by proof that the "defendant knew or had a firm belief that the information to be taken had the attributes of a trade secret" as described in 18 U.S.C. § 1839 – that is, the defendant believed that the information was valuable to its owner because it was not generally known to the public and that its owner had taken measures to protect it. *Id.*

Given the knowledge requirement, ignorance, mistake and accident are all appropriate defenses to an EEA indictment. In those cases, however, attention will certainly be placed on the reasonableness of a claim of ignorance and the steps that person took to ascertain the true status of the property at issue. *Id.*

In addition, the U.S. Attorney's Manual directs prosecutors not to bring EEA charges if there is a legitimate dispute over the ownership of the intellectual property at issue. It suggests that civil resolution of such disputes is more appropriate, especially if the party obtains and relies on the advice of counsel. *Id.* at § VIII.B.6.e.

Penalties

The EEA carries severe penalties. Individuals convicted of § 1831 violations may be fined $500,000 and imprisoned for up to 15 years. 18 U.S.C. § 1831(a). For § 1832 violations, the imprisonment term is limited to 10 years, with no specific limit on the fines. 18 U.S.C. § 1832(a). Penalties for violating the act may also include criminal forfeiture, 18 U.S.C. § 1834, the imposition of an injunction, 18 U.S.C. § 1836, as well as substantial fines for organizations. 18 U.S.C. §§ 1831(b), 1832(b). An organization's fine for a violation of § 1831 can reach $10 million, while the fine for a violation of § 1832 can got up to $5 million.

In light of 18 U.S.C. § 3571(d), and the absence of a specific exemption available under 18 U.S.C. § 3571(e), courts can allow for fines of up to twice the gain or loss resulting from the theft of trade secrets. At the time the provision was adopted, courts were encouraged to opt for the larger of the fines available under 18 U.S.C. § 3571(d) or the fines provisions of the EEA. *See* www.usdoj.gov/criminal/cybercrime/EEAleghist.htm (Managers' Statement for H.R. 3723).

The EEA does not preempt civil remedies which may also be imposed under other federal or state causes of action. While the EEA does not provide for equitable relief (other than injunctive relief) or legal damages, the act allows civil action under other acts, such as the Uniform Trade Secrets Act, in order to obtain monetary and other court provided awards.

Enforcement Trends

Approximately 30 cases have been successfully prosecuted since the EEA's enactment, against both individuals and the companies that stood to benefit from their conduct. The vast majority of the prosecutions have been directed against individuals, rather than U.S. corporations, who are more likely the victim of these crimes than the perpetrator.

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Examples of stolen trade secrets from EEA cases include:

- Engineering drawings and data
- Drug delivery system formulas
- Customer Information
- Securities broker account information
- Network switch plans
- DNA cell line
- Computer source code
- Software design documents
- Sales information and strategy
- Project information
- Access card control information
- Radiological machine information
- Turbine engine blueprints
- Seismic records
- Design specifications
- Sales forecasts
- Prototype computer processors
- Laminating process
- Mining machine blueprints
- Proprietary financial information
- Proprietary databases
- Shaving process

Most recently, the federal courts in California appear to be leading the charge in EEA enforcement. Those courts have announced indictments in five separate cases in the last year alone. www.usdoj.gov/criminal/cybercrime/eeapub.htm (surveying EEA prosecutions).

The Extraterritorial Reach of the EEA

While other federal laws, including the Foreign Corrupt Practices Act, are focused on criminal activity occurring outside of the United States, there is a general presumption against the extraterritoriality of United States criminal laws. To rebut that presumption, Congress made it clear that the EEA would apply to conduct occurring outside of the United States.

The EEA reaches conduct occurring outside of the United States if:

> (1) the offender is a natural person who is a citizen or permanent resident alien of the United States, or an organization organized under the laws of the United States or a State or political subdivision thereof; or
>
> (2) an act in furtherance of the offense was committed in the United States.

18 U.S.C. § 1837. These two statutory prongs present a relatively straightforward analysis, focusing on the status of the offender and the location where "acts in furtherance" are committed.

In an organizational context, any U.S. citizen employee of a corporation or its affiliates could be prosecuted for EEA violations (even if they occur abroad), and the corporation or its affiliates could be subjected to criminal liability if acts in furtherance of an EEA violation occur within the United States. *See* James H.A. Pooley *et al.*, "Understanding the Economic Espionage Act of 1996," 5 *Texas Intell. Property L. J.* 177, 204 (Winter 1997). Thus, "if a United States citizen residing abroad steals a Russian trade secret on behalf of the Chinese government, that act is in violation of the EEA even though there is no other connection between the misappropriation and the United States." *Id*.

The extraterritorial reach of the EEA has caused a fair amount of hand-wringing by legal scholars who worry about prosecutions relating to actions taken outside of the United States absent some definable national interest. *See, e.g.* Ellen S. Podgor, "Defensive Territoriality": A New Paradigm for the Prosecution of Extraterritorial Business Crimes," 31 *Ga. J. Int'l & Comp. L.* 1 (Fall 2002), and J. Thomas Coffin, "The Extraterritorial Application of the Economic Espionage Act of 1996," 23 *Hastings Int'l & Comp. L. Rev.* 527 (Spring Summer 2000). One commentator has argued that the extraterritorial reach of § 1831 is particularly expansive, since its requirement of intending to confer a "benefit" on a foreign party is to be interpreted broadly and provides no real impediment to prosecutors. *See* Coffin, 23 *Hastings Int'l & Comp. L. Rev.* 527, 531.

Nonetheless, we are unaware of a single EEA prosecution where the misappropriation itself did not take place in the United States or where the trade secret owner resided outside of the United States. *See generally* Chris Carr et al., "The Economic Espionage Act: Bear Trap or Mousetrap?" 8 *Texas Intell. Property L. J.* 159, 180-196 (Winter 2000) (surveying EEA prosecutions); *see also* U.S. Department of Justice website, www.usdoj.gov/criminal/cybercrime/eeapub.htm (surveying EEA prosecutions). On the other hand, many of the EEA indictments have been directed at foreigners, living and working in the United States, who have attempted to take protected material out of the country. *Id.*

Given the extraterritorial reach of the Act, U.S. corporations acting abroad must be particularly sensitive to the EEA, follow its enforcement trends, identify potential risk areas and maintain effective compliance policies. These policies must be well-documented and regularly reviewed. A good compliance strategy must also minimize the risk of liability for corporate and third-party conduct. Contractual safeguards and clear policies must particularly be directed to foreign affiliates, joint venture partners, distributors and agents, who might otherwise not be bound by the same legal requirements as the U.S. corporations.

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(7) Abstract" Piracy and Couterfeiting are endemic in mainland China, Taiwan, and in southeast Asian countries with significant ethnic Chinese populations. This paper explores the extent to which progress is, or is not, being made in combating piracy and counterfeiting in ethnic Chinese communities.

Combating Trademark Counterfeiters and Copyright Pirates in Chinese East Asia: Forward, Backward or Sideways?

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INTRODUCTION

An interesting recent news item from Australia reports that an anti-piracy campaign in mainland China resulted in the destruction of over 42 *million* pirated CDs.[1] More than 600 people, including consular officials from the United States and Australia, were invited to a ceremony in southern Guangdong province's Shanwei city, where 26 million illegal disks were shredded. While the report is interesting (and encouraging!) in it's own right, the explanation of Chinese government officials conducting the destruction was even more curious. According to the report, the official Chinese government announcement stated that 95 percent of the pirated CDs which were destroyed had somehow been smuggled in from outside mainland China. No mention was made of the putative provenance of the infringing items, however.

Intriguingly, the report mirrors comments the author has encountered among officials and lawyers in Indonesia, Thailand, the Philippines, and in Taiwan, who conversely, when asked about local trademark counterfeiting and copyright piracy activities, regularly and adamantly assert that the pirated and counterfeit goods in their jurisdictions originated *in* mainland China. What is the true source of pirated and

counterfeit goods in circulation in southern China, Taiwan, and southeast Asia? (The question could be extrapolated to Toronto and New York or London, for that matter.)[2]

This paper is a preliminary examination of the question of intertrade in pirated and counterfeit goods between China, Taiwan, Hong Kong and overseas Chinese communities in the southeast Asian countries in Indonesia, Malaysia, the Philippines, Singapore and Thailand, by Chinese ethnic actors and organizations within those communities. The conclusion of the author -- wholly impressionistic at this point (and in some ways unremarkable) – is that the question of *what country* the goods are being manufactured in is less important than the question of *who* the manufacturer/distributors are, the extent to which they also engage in *legitimate* ("formal") economic activity at the same time as they engage in *illegitimate* (either "informal" or criminal) activity, and *how* they distribute their goods internationally. The term "informal" economy (in the parlance of the economist Hernando De Soto) refers to the existence of pervasive economic activity within a society which is conducted outside the legal system and legal enforcement, relying on customary channels of trade, and usually beyond the reach of tax officials.[3] The "informal economy" is analytically distinct from economic crimes or the activities of criminal organizations in the areas of narcotics trafficking, organized IP piracy and counterfeiting, gambling, prostitution, money laundering, smuggling, and human trafficking ("snakeheads"). Intellectual property piracy and counterfeiting in developing countries spans a spectrum from small-scale "entrepreneurial" activity in the informal economy to large-scale transnational criminal networks. Not all copyright and trademark infringement rises to the level of criminal behavior in Asia any more than it

does in the United States. But the role of Asian criminal organizations ("AOC"), simultaneous legal and illegal activity by identical actors, official corruption and collusion, counter-intelligence (particularly between Taiwan and mainland China), and possible terrorist involvement in IP piracy and counterfeiting in Asia cannot be ignored. It should be emphasized that in no way is this paper meant to suggest that all (or even most) global intellectual property piracy and counterfeiting is the handiwork of Chinese organized criminal groups. But some of it -- and a not insubstantial some of it -- most certainly is.

THE CHINESE DIASPORA – PILLARS OF THE SOUTHEAST ASIAN ECONOMIES

The use of the terms "diaspora" and "Chinese southeast Asia" to refer to the ethnic Chinese inhabitants of southeast Asian nations is not uncontroversial and should not be misconstrued. "The Chinese diaspora has long been recognized as trade-based."[4] The overseas Chinese communities in Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam are important (and for the most part completely legitimate) actors in the economic and cultural life and in the historical development of these nations. Most of these ethnic Chinese diaspora communities have long become well acculturated to the local ethnic and linguistic populations of the region through education and intermarriage. Ethnic (Han) Chinese emigration from mainland China to Taiwan and to the countries on the rim of the South China Sea (*Nanyang*) has a long and rich history, beginning with political and economic refugees from northern and central China going back well over a thousand years, and following trade routes. Notwithstanding varying degrees of welcome or unwelcome from local governments (where such existed), these ethnic Chinese

communities have all been economic pillars of the societies in which they participate and have enriched them culturally, spiritually, and (not least) economically. (Four of the five largest Thai banks and three of the four largest Singapore banks are Chinese-owned. By contrast, the Chinese communities in Indonesia (especially) and Malaysia have suffered greatly from local hostility and discrimination.[5]) Important recent studies have attempted to dispel the notion of some all-encompassing Chinese identity for these communities.[6]

But the influence of the Chinese motherland to such communities cannot be gainsaid:

> "If the Chinese peopling of Southeast Asia in the nineteenth and twentieth centuries was the later phase of a Chinese commercial expansion that had begun much earlier, it was also the southward overspill of Chinese from their original homeland in central and northern China. ... Migration followed by colonization over the centuries had greatly extended the areas of Chinese settlement, Chinese culture and Chinese political power from their original core in the middle valley of the Yellow River. The Chinese world had grown ever larger by the absorption of what were once borderlands, and by the sinicization of their aboriginal inhabitants. The advancing frontier did not stop at the sea, but continued to offshore islands like Taiwan. Later it spread out of the southern shores still further along the trade routes to Southeast Asia. This southward movement throughout threethousand years of history (*sic*), a historian has written, 'has something in common with the westward movement of American history and the eastward movement of Russian history.'"[7]

The lure of the American West as a destination for Americans seeking personal or economic liberation from the teeming cities of the East is part of the American psyche. The lure of Nanyang and the "Old Gold Mountain" (San Francisco, USA) is as integral to the Chinese psyche in a way that central Asia and China's western hinterlands never have been.

Particularly after the ethnically Manchurian (i.e. non-"Chinese") Qing dynasty was formally established in 1644, the "overseas Chinese"(*Huaqiao, Haiwai Huaren*) phenomenon has been an important characteristic of all southeast Asian cultures. The

prior Ming dynasty (1368-1644) was the last imperial house of the majority Han Chinese, squeezed between the earlier Mongols and the later Manchus. An island home of an indigenous Polynesian culture under loose Chinese suzereinty, Taiwan, became an important base of Han emigration and resistance to the new Qing rulers under the irredentist leadership of Koxinga (Zheng Chenggong), "the son of a Japanese mother and a Chinese trader-buccaneer from Fukian (Fujian) province."[8] The many bays, islands, and inlets of the mountainous and "backward" province of Fujian, (about the size of England), wide open to the sea and blocked by mountains from the rest of mainland China, became ports of embarkation to the Ryukyu Islands, the Philippines and beyond. In the words of a common Chinese saying, "Heaven is high and the Emperor (in Peking) is far, far away."

In 1661, the Manchu rulers decreed the great Boundary Shift, ordering the populations of all the coastal regions of southeast China to be removed inland to form a *cordon sanitaire* to separate the Ming dynasty holdouts from their economic base. The ports of Fujian and Guangdong were laid waste, travel outside the country banned, and eventually the sea-roaming Ming loyalists in Taiwan and Fujian were subdued. Spanish, Portuguese, and Dutch traders took advantage of the vacuum created by the Qing's isolationist policies to move in. (The brick-walled Spanish (later Dutch) fort on the seacoast at Tam-sui north of Taipei is a relic of the period.) Deprived of their political autonomy, Chinese communities followed European trade routes (and sometimes European flags) across the South China Sea[9] The people of the Amoy region of southern Fujian (Hokkien), distinct ethnic and linguistic minorities such as the Hakka (*kejia*) (the

term means "wanderers") and Teochiu (Chaozhou) communities, Cantonese (Guangzhou), and Hainanese (Hailam) successively settled ubiquitously in southeast Asia throughout the parlous waves of mainland Chinese rebellions (Taiping and Boxer), war, revolutions (1911 and 1949) and famine in the 19th and 20th centuries, with the Hokkien (southern Fujian) becoming most prevalent in Malaysia, Hakka in Indonesia (Java), Teochiu in Thailand, and Hailam and Hokkien in the Philippines.[10] Imperial decrees from the Manchu court in Peking demanded that local Nanyang rulers repatriate the disobedient emigrants so they could be imprisoned or executed. (Fortunately, none seem to have been enforced.)

In the 20th century, Chinese tycoons such as Singapore-Malaysian rubber magnate Tan Kah Kee (1874-1961) not only established the education system of his peninsular community but was a key mover in the establishment of a university in his ancestral home in Amoy (Xiamen) China. [11]

In recent years, the scope of ethnic Chinese economic activity has been a matter of more than academic interest in many regions of southeast Asia.[12] A ten-year old study reveals the the extent of Chinese economic activity in southeast Asian nations (for non state-owned enterprises)[13]:

ETHNIC CHINESE ECONOMIC ACTIVITY IN ASEAN NATIONS

COUNTRY	POP 1991	%OF POP	%SHARE OF LISTED EQUITY
INDONESIA	5.81	3.5	73
MALAYSIA	5.33	29	61
PHILIPPINES	1.2	2	50
SINGAPORE	2.14	77	81
THAILAND	5.57	10	81

In some southeast Asian societies (such as Malaysia and Indonesia) this has had deeply divisive political and social ramifications.[14] But by and large, as Constance Lever-Tracey, David Ip, and Noel Tracy demonstrate in their trail-blazing 1996 study[15], the interactions between indigenous non-Chinese and immigrant Chinese populations on the one hand, and relations between the ethnic Chinese communities and their ancestral homeland, have been largely amicable and mutually beneficial. [16]

NEW OPPORTUNITIES FOR "INFORMAL" ETHNIC CHINESE BUSINESSES: *TONG* AND *TRIAD* - BENEVOLENT (or MALEVOLENT) ASSOCIATIONS?

In a universe parallel to the one described above, ethnic Chinese criminal organizations [AOC], organized according to place of origin, similarity of dialect, common surname, or other self-identifying characteristics, have followed virtually the same trade pathways as their legitimately operating countrymen. In some cases, a member of a "benevolent association" (or *tong)* may also be part of an AOC gang (in common parlance, *triad*). However, Chinese criminal organizations (triads) are organized quite differently from Western or Russian Mafia or Japanese Yakuza. The differences between AOCs and other organized gangs have been described as follows:[17]

Triads	Mafia/Yakuza
• loose-knit groups (gangs)	• Monolithic criminal organization
• Independent power base	• Power diffused from a central core
• Horizontal organization	• Rigid chain of command
• Chairperson – limited influence	• Chairperson – 'the Godfather'
• Full autonomy	• Central leadership
• Profit belongs to individual gangs	• Profit belongs to organization
• Disputes settled through fights or negotiations	• Disputes adjudicated by leadership
• Criminal fraternities	• Criminal enterprise

Since the late 1970's, the opening of mainland China's economy to the outside world and its commitment to economic "reform", its disjunctive, wrenchingly breakneck development over the past two and a half decades (particularly in the southeast provinces of Fujian and Guangdong), the continued poverty of China's interior and migration of laborers to the coastal provinces, the steady growth in manufacturing sophistication of the Chinese "little Tigers" (Taiwan, Hong Kong, Singapore) and in the diaspora Chinese communities of Indonesia, Thailand, Malaysia, and the Philippines, combined with liberalized global markets and the onward march of world brands and world media, have intersected to create business "opportunities" for copyright pirates and trademark counterfeiters able to manufacture cheaply and market worldwide. Chinese criminal organizations (popularly known as "Triads") have risen to the challenge.[18]

In Taiwan, pressures by the United States Trade Representative and American companies on the government to clean up rampant piracy and trademark counterfeiting have driven some local manufacturers to move their operations to the relatively safer obscurity of Fujian province, and to the mainland interior. (The local dialects of Taiwan and of southern Fujian are virtually identical.) Fujian officials themselves admit that they have "hitched their fortunes to Taiwan."[19] Vocal critics of foreign pressure in Taiwan, now emboldened by a robust democratic openness unavailable to their mainland counterparts, denounce American anti-piracy and anti-counterfeiting campaigns as imperialistic. Taiwan has long seen itself as an oppressed and isolated polity, made up of hardworking people who have moved from poverty to great wealth, but whose government and national identity, due to powerful political considerations, are utterly lacking in standing in the international community.[20]

Factories in Taiwan have been reported to manufacture legitimate products during the daytime and switch to manufacture of counterfeit goods after dark.[21] Software pirates "outsource" retail sales of their CDs to college students who have no knowledge of the source of the CDs or of the organizations producing them. Manufacturing operations may be moved "offshore" to avoid enforcement in Taiwan. Fishing and other vessels ply the Taiwan strait between the island and Fujian. Pirated and counterfeit goods recirculate through the same channels as the original outsourcing. Some Taiwanese operations in the mainland may be conducted through business fronts in Hong Kong to "sanitize" them from political risk. Because these entrepreneurs are not wedded to sluggish underperforming Chinese state-owned enterprises (unlike Western investors, who are often encouraged to form joint ventures with existing state-owned urban factories), these "insider" outsiders who speak the local dialect, have near or distant relations in the local community, and travel confortably back and forth from Taiwan to Fujian, have been able to leapfrog the SOEs, bypass city and provincial officials, move right to the rural areas, and concentrate on export-oriented industries (including IP piracy and counterfeiting) in the Chinese countryside.

In explanation (but not defense) of the local "entrepreneurial" ignorance of intellectual property rights, Taiwanese investors are abetted by local rural officials to speed up their investment in the local economy as quickly as possible. Unlike foreign direct investments in the big urban areas which are supervised by sector-specific government bureaucracies, local rural officials in mainland China are responsible for the finding employment for thousands, indeed millions, of underemployed but relatively

well-educated workers in whatever sector is willing to invest (textiles, electronics, consumer goods, apparel, whatever.) Job-creation is a more pressing issue than IP infringement. "Free competition" and government deregulation also imply freedom from the shackles of intellectual property rights. In its own best interests, the Chinese central government has a stake in reining in truly maverick manufacturing and IPR violators, since such operations rarely pay their share of taxes.[22] Western firms with production contracts, unable to rely on enforceable contract law, monitor their OEM's supply of raw materials to limit unauthorized production overruns.

But it is like Olde England's King Canute trying to hold back the onrushing tide. China's State Press and Publication Administration (SPPA) announced last year that companies selling CD production equipment to known pirates would be banned from China.[23] The Business Software Alliance announced that online software sharing has begun to rival disk-swapping.[24] Asia-Pacific software piracy levels which had dropped until 1999 increased in each year since then. China's software piracy rate has risen from 91 percent in 1999 to 94 percent in 2002, again according to BSA.[25] Former Chinese Premier Zhu Rongji identified "counterfeit and shoddy goods" as the primary problem in China's economy at the Fifth Session of the Ninth National People's Congress (NPC) on March 7, 2002.[26]

ILLUSTRATION: CHAOZHOU – "Imitation is the Sincerest Form of Flattery"

An important mainland organization in promoting brand consciousness is the QBPC, Quality Brands Protection Committee, whose members include 81 American companies. (The author has participated in several brand-awareness programs sponsored

by QBPC in southern China.) The lack of brand education and the amount of improvement in brand consciousness needed in mainland China is staggering. The problem, which is the problem of all developing countries with an "informal" economy, is the importance of making today's sale, whatever the stakes. A good example is a news report (found by the author, in Chinese) in 2002 of the tourist shops in the former Imperial Porcelain Works in Jingdezhen, Jiangxi province. Owing to the quality of the local clay, the traditions of workmanship, and hundreds of years of expertise and secret "know-how", Jingdezhen, the most famous purveyor of porcelains to the Ming and Qing imperial houses, has become a tourist mecca for shoppers. Shops selling "quality" "authentic" Jingdezhen porcelain line the streets of the town. Chaozhou, in northeast Guangdong province, is also a noted pottery producing center. The Chaozhou porcelain works have become known as a major manufacturing center for fake Jingdezhen porcelains, including the identical styles, colors and markings of the authentic Jingdezhen originals. The quality of the Chaozhou products and manufacturing process, however, are far inferior to that of Jingdezhen's. What the reporter (and this reader) found most shocking was not that consumers were purchasing phony porcelains in Chaozhou, but that the shopkeepers of Jingdezhen itself were traveling to Chaozhou to purchase counterfeit goods to sell in their own Jingdezhen stores! Such cannibalistic behavior, based upon the philosophy that "today's sale is the only sale", once rooted, is very difficult to extirpate. A sad result is the coarsening of the once-fabled distinctive regional products and folk arts of traditional China, so that cheap imitations of the same famous products are found in monotonous regularity in retail locations throughout the

entire country. Some of the most distinctive local food products, alcoholic beverages, and teas of China are now readily available in adulterated or completely fake versions at airport stores and from street vendors throughout the country. (With "friends" like the local Jingdezhen retailers, what brand needs enemies?)[27] Western brand owners who organized the QBPC suffer from egregious levels of counterfeiting, to be sure. But it is the Chinese motion picture and phonograph industries whose existence is threatened and the incipient and growing markets for Chinese quality brand owners which is suffering .[28]

Recently, the U.S. Department of Justice, Criminal Division, has begun to pay attention to the IP – organized crime connection. The events of 9/11 have heightened the visibility of international criminal activities and their possible terrorist connections. In testimony before the U.S. House Subcommittee on Courts, The Internet, and Intellectual Property on March 13, 2003, Deputy Assistant Attorney General John G. Malcolm stated:

> "Throughout Asia, organized crime groups operate assembly lines and factories that generate literally millions of pirated optical discs. These groups pirate a full range of products ranging from music to software to movies to video games. Anything that can be reproduced onto an optical disk and sold around the globe is available. There is also anecdotal evidence that syndicates are moving their production operations onto boats sitting in international waters to avoid law enforcement.
>
> Recently, an attorney from the Computer Crime and Intellectual Property Section visited Kuala Lumpur, Malaysia to conduct law enforcement training for Malaysian prosecutors and agents. According to Malaysian officials with whom he spoke, many, if not most, of the optical disk production facilities in Malaysia are owned and operated by organized crime syndicates, specifically very wealthy and powerful criminal gangs or "triads" from Taiwan which control a significant number of facilities not just in Malaysia but across Asia generally....
>
> Additionally, many organized piracy groups from Asia use south America, most notably Paraguay, as a transshipment point for pirated products. Industry groups have reported that organized crime from Taiwan and other parts of the world control much of the distribution of optical disks into Latin America through Ciudad del Este [on the Brazilian border.] It is also true that the pirated goods produced by organized crime syndicates enter into and are distributed through the United States. There is ample evidence, for example, that Taiwanese triad

> members import into the United States massive amounts of counterfeit software and other counterfeit products, such as "remarked" computer chips. The reach of these organized crime operations is undeniably global in scope."[29]

Among the triad gangs, according to Asia, Inc. magazine, the Taiwanese United Bamboo gang is alleged to have 10,000 members, mostly second and third generation mainland immigrants involved in construction, security services, debt collection, loan sharking, gambling dens, "hostess" clubs and "small businesses." Other mainlander expatriate gangs are the Sung Lian and Four Seas organizations. The Tian Dao Man gang is mostly Taiwanese-speaking.[30]

> "The Chinese gangs are best known for trafficking in heroin and opium, but they are in fact as diversified as the biggest multinational conglomerate. Among their other activities are arms smuggling, credit-card fraud, counterfeiting, software piracy, prostitution, gambling, loansharking, white-collar crime, home-invasion robbery, high-tech theft and trafficking in endangered animals and plants."[31]

The Washington Post reported in late 2000 that Chang An-Lo, one of the most wanted men in Taiwan as a leader of the United Bamboos, was freely circulating in Shenzhen and mainland China. The so-called "Black Gold (*hei jin*)" connection between organized criminals and corrupt officials is exacerbated by the usefulness of such actors in the ongoing political struggles between Beijing and Taipei, and in the propaganda wars.[32]

> "Although his activities might be anathema to officials on Taiwan and even in Beijing, the Chinese capital, here in Shenzhen, just north of Hong Kong, his ties to Taiwan and to potential dealmakers and smugglers abroad make him a potential ally to the rich and the aspirant rich alike. ... Taiwanese police estimate that at least 192 outlaws, including some convicted criminals, are hiding in China, mostly in Dongguan, Guangzhou and Shenzhen in Guangdong province; Xiamen and Fuzhou in Fujian province; Shanghai, and on Hainan Island. Chang's politics make him an attractive ally to Beijing despite his record. Born in Nanjing in 1948, one year before the Communist takeover, Chang is a committed proponent of Taiwan's reunification with China."[33]

WHAT ABOUT THE "TERRORIST LINK"? – ARE CHINESE PIRACY AND

COUNTERFEITING ACTIVITIES FUNDING TERRORIST ORGANIZATIONS?

In the United States, the FBI and federal prosecutors have taken an interest in the connections between organized crime and counterfeiting, but, for example, have yet to begin a criminal investigation in a big case involving expensive knock-off Cartier watches in New York.[34] The FBI did intervene along with the U.S. Attorney's office in Brooklyn in another case in April 2003 involving counterfeit Tiffany & Co. jewelry in New York's Chinatown.[35] But does a connection with organized crime indicate a connection with terrorist organizations? Without going into specifics, Ronald K Noble, the secretary general of Interpol, asserted a link between IP crimes, organized criminal groups, and terrorist organizations in testimony before the U.S. House Committee on International Relations on July 15, 2003.

> "The link between organized crime groups and counterfeit goods is well established. But Interpol is sounding the alarm that intellectual property crime is becoming the preferred method of funding for a number of terrorist groups."[36]

The following day, testimony of the President of the International Anti-Counterfeiting Coalition [IACC] before same Congressional subcommittee mentioned a "possible link" between IP piracy and counterfeiting and terrorist organizations, but hedged that it is the role of government and not private investigators to make the connection.[37] Anecdotes abound about black market profits from the sale of narcotics in Latin America being "rinsed" through investment in Asian pirate and counterfeit activities (rather than "fully laundered" into legitimate businesses), with the take going to fund Middle Eastern terrorist organizations through Syrian or Libyan trading companies. But until such connection is actually made, it is probably more prudent not to overstate the case.

CONCLUSION

Images of "Chinatown," "Fu Manchu" and "Charlie Chan" from the motion pictures, and gross (indeed, racist) generalizations about Chinese attitudes and Chinese cultural values in the war against intellectual property piracy and counterfeiting are ultimately counterproductive. The Chinese business community, whether in mainland China, Taiwan, southeast Asia, or anywhere else is predominantly a law-abiding, honest, and hardworking patch in the fabric of those societies.

But the evidence is incontrovertible that there are serious problems at the interface of the "informal economies" and organized crime in Chinese Asia. Recent changes in the Taiwan copyright law have been poorly received by copyright owners and the United States government.[38] Among the changes, minimum penalties were removed for some offences, and making unauthorized copies "not for profit" was decriminalized. Customs officials are hamstrung by their lack of police powers.

There is no lack of hopeful signs, however. One is the new Free Trade Agreement between the United States and Singapore. Chapter 16 of the US-Singapore FTA sets forth a high level of IP protection. Singapore has undertaken to enact a high standard of copyright protection and an Optical Disk law which will require source identification [SID] codes and a license for anyone manufacturing CDs.[39] Moreover, recent actions by US IP owners in Taiwan and mainland China are encouraging. A criminal investigation in Taipei targeting pirated copies of children's educational and English-teaching products sold by Disney Company's local licensee led to successful convictions.[40] Warner Brothers has taken a stake in the state-owned Paradise

Corporation operating motion picture theaters in Shanghai.[41] And on August 8, 2003, Vivendi Universal won a copyright infringement suit against two Chinese companies in Shanghai accused of selling pirated DVDs.[42] Gillette has formed a joint venture with a large state-owned safety razor company in Fujian. More controversially, in September 2002 it was reported that Microsoft had entered a Memorandum of Understanding with China worth $750 million for assistance, but which contained no copyright enforcement clause.[43]

Raids have been conducted in the Petaling Street district of Kuala Lumpur's Chinatown by Malaysian authorities.[44] Fears have been raised in Indonesia that heightened enforcement in Chinese communities of other southeast Asian countries such as Malaysia is negatively affecting levels of piracy in Jakarta's Chinatown (Glodok and Mangga Dua). "'Our concerns about the Chinatown area are on the copyright infringements' said one Western diplomat. 'Piracy, originally of music cassettes and CDs, has now moved to VCDs and ...DVDs. ... Indonesia has become a haven for lack of law enforcement in this area (copyright infringement) as in all other areas.'"[45] Unemployed youths and angry street vendors have rioted in the streets of Jakarta against the police to protest piracy crackdowns.[46]

What may not be readily understandable to an American audience is the extent to which piracy and counterfeiting in southeast Asian societies (or, for that matter, in any developing country) may be more a question of endemic problems of law enforcement in general rather than IP-specific. Article 41.1 of the TRIPS agreement mandates that Members shall take "effective action" against IP infringements. But the same Article

(41.5) expressly negates an obligation to provide a special mechanism for IP enforcement [47]

At one end of the spectrum, the issue in countries such as Indonesia, complicated by terrorist attacks in Bali and Jakarta, is not merely piracy and counterfeiting but the potential of a more fundamental breakdown in basic social order. At the other, in Singapore, social order is not a major problem and the piracy and counterfeiting problems have been alleviated to such an extent that the United States has completed negotiations on a Free Trade Agreement, including high-standard IP provisions. Taiwan's legal climate is in dire need of improvement, but it must be done with adherence to democratic processes, quite differently than in authoritarian states like China and Singapore. What is needed is for enforcement officials to sever the "informal" economy's link to organized crime, and vigorously pursue the latter without alienating entire local populations.

IMPROVE ENFORCEMENT OF EXISTING LAWS? OR "RAISE THE STAKES"?

A question that needs to be addressed is whether the United States should push for increasingly harsh laws or just encourage more effective enforcement of existing laws. Clearly, a copyright law such as Taiwan's which exempts infringers without proof of commercial intent is inadequate. But "hang 'em high" penalties applied to college students or small-time street vendors will be greeted in a way reminiscent to the attitudes of Iraqi homes by members of the U.S. military have recently been. At some point, going after small players becomes counterproductive.[48] Mindfulness of the harshness of

imperial Chinese law and the edicts cited earlier in this paper is necessary in fashioning an anti-piracy and anti-counterfeiting strategy which isolates and punishes truly criminal behavior – one which not only *sounds* effective but *is* effective in combating piracy and counterfeiting in Chinese Asia. Focusing efforts on quelling the "sideways" intertrade through effective customs enforcement may be a necessary precondition to putting a stop to rampant copyright piracy and trademark counterfeiting within these states.

"If you lead the people by regulations and keep them in order by punishments, they will flee from [your control] and lose all self-respect. But lead them by virtue and keep them in order by your own rightness, and they will keep their self-respect and flock to you.

Confucius, Analects II, 3

"The more laws and ordinances are promulgated, the more thieves and robbers"

Lao-tzu Tao-te-ching Ch. 57

[1] "China Shreds 42 Million Disks" http://australianit.news.com.au/articles/0,7204,6941302%5E15330%5E%5Enbv%5E15306-15319,00.html (visited and dated August 13, 2003) The International Federation of Phonographic Industries estimates that total production of pirated CDs in 2003 was 500 million.

[2] U.S.Customs seizures of counterfeit and pirate products in FY 2001 totaled $57,438,680, of which 65 percent originated in China (46%), Hong Kong (10%), Singapore (5%), or Taiwan (4%). *see* http://www.iacc.org/teampublish/109_467_2373.cfm, accessed (June 29, 2003) The U.S> Food and Drug Administration has recently reported on the possibility of counterfeit drugs such as fake Lipitor® entering the U.S. market through imports. http://www.fda.gov/oc/initiatives/counterfeit/backgrounder.html (accessed July 16, 2003) *see also* Criminal Intelligence Service Canada's [CISC]"Annual Report on Organized Crime in Canada 2002 at pp. 9-13 about activities of Fujian-based criminal organizations and Toronto's Big Circle Gang (*dai heun jai*)

[3]*see*, Hernando de Soto, The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else, (New York 2000)

[4] Laurence J.C. Ma, "Space, Place, and Transnationalism in the Chinese Diaspora", in Laurence J.C. Ma and Carolyn Cartier, The Chinese Diaspora: Space, Place, Mobility and Identity (New York 2003)

[5] Peter Janssen, "Jakarta's Battered Chinatown Stages a Comeback" Digital Journal, March 26, 3003 http://www.digitaljournal.com/news/?articleID=2652 (accessed July 28, 2003) *also see generally* the excellent geographical/sociological symposium in Laurence J.C. Ma and Carolyn Cartier, The Chinese Diaspora: Space, Place, Mobility and Identity (New York 2003)

[6]*see, e.g.* Michael W. Charney *et al.* (eds) Chinese Migrants Abroad: Cultural, Educational and Social Dimensions of the Chinese Diaspora (Singapore 2003)

[7] Lynn Pan, Sons of the Yellow Emperor: A History of the Chinese Diaspora, (Boston 1990) p. 9

[8] id. p. 7

[9] Wang Gungwu, A Short History of the Nanyang Chinese (Singapore 1959) p. 25

[10] Laurence J.C. Ma and Carolyn Cartier, The Chinese Diaspora: Space, Place, Mobility and Identity (New York 2003) pp. 20, 28. The great King Taksim (or Thaksim) of Thailand (r. 1769-1782), who moved the Thai capital from Ayutthara to a settlement across the Chao Praya river from modern Bangkok, was born of a Thai mother and Teochiu Chinese father and strongly encouraged further Teochiu immigration to Thailand. The Chinese and Thai populations of Bangkok have coexisted and intermarried in relative harmony ever since.

[11] Jamie Mackie, "Five Southeast Asian Empire-Builders: Commonalities and Differences", in Charney, *supra* pp. 6-9.

[12] William O. Hennessey, "Constitution and King in Malaysia's National Identity" unpublished ms. (1984)

[13] Constance Lever-Tracy, et al. The Chinese Diaspora and Mainland China: An Emerging Economic Synergy (New York 1996) p.15

[14] Tun Tan Siew Sin, a former president of the Malaysian Chinese Association, an assimilated Chinese who spoke Malay but no Chinese dialect, commenting on preferences for ethnic Malays in the Second Malaysia Plan of 1971-1975, is reported to have said "It will perhaps be agreed by all right thinking people, that, in the last analysis, it is better to have something less than 100 percent democracy than no democracy at all." *see* Karl von Vorys, Democracy without Consensus: Communalism and Political Stability in Malaysia (Princeton 1975) p. 381

[15] Constance Lever-Tracy, et al. The Chinese Diaspora and Mainland China: An Emerging Economic Synergy (New York 1996)

[16] Indonesia is the egregious exception; Malaysia illustrates the general rule. "It is widely known that the Chinese in Indonesia have been discriminated against for decades. Violent outbreaks occurred in 1960, 1965, 1974, and 1998. The riots of 1965 across Indonesia were particularly violent, leaving half a million Chinese dead and prompting tens of thousands of ethnic Chinese to flee the nation. On the other hand, the Chinese in Malaysia have fared somewhat better amidst policies of Malaysianizaion that have favored the Malays in employment and education." Laurence J.C. Ma and Carolyn Cartier, The Chinese Diaspora: Space, Place, Mobility and Identity (New York 2003) p. 35

[17] Peter Yam Tat-Wing, Assistant Commissioner (Crime), Hong Kong Police Force Headquarters, 116 International Training Course, Resource material Series No. 58, p. 29

[18] for a rather racy (but accurate) account of Chinese gangs in London and New York, *see* David Black, Triad Takeover (London 1991) *see also* "Black Dragon Triad Society: What is a Triad?" http://www.geocities.com/boohowdoy/tong.html (accessed July 28, 2003)

[19] Paul J. Bolt, China and Southeast Asia's Ethnic Chinese: State and Diaspora in Contemporary Asia (Westport 2000) p. 99, citing Maria Hsia Chang, "Greater China and the Chinese 'Global Tribe'", Asian Survey 35 No. 10 (October 1995) p. 963

[20] The sensitivity of the "Taiwan issue" in both mainland China and Taiwan is not unrelated to the island's rebellious past.

[21] According to some Taiwanese judges, this is because raids or civil seizures can only be conducted during the daytime under the civil procedure law.

[22] In an amusing report in the L.A. Times, the Development Research Center, a Chinese government think tank, was said to have estimated that $20 billion to $25 billion of fake products were sold in China in 2002, costing the government at least $24 billion in tax revenue. Evelyn Iritani, "Bootleggers Raise Stakes in Chinese Piracy Fight" Los Angeles Times (July 20, 2003) http://www.latimes.com/ (accessed August 14, 2003) One wonders how $25 billion in sales can generate $24 billion in taxes. Statistics by governments and interested parties have a way of becoming somewhat self-serving. *see generally* the classic work, Darrell Huff, How to Lie with Statistics (New York 1955)

[23] http://english.peopledaily.com.cn (August 28, 2002, accessed July 17, 2003) China's official position on the fight against piracy is on the Chinese Embassy's Warsaw website at http://www.chinaembassy.orf.pl/pol/43300.html

[24] http://news.com.com/2102-1027_3-1013483.html (June 5, 2003, accessed June 11, 2003)

[25]

http://www.wired.com/news/politics/0,1283,47617,00.html (October 17. 2001, accessed July 17, 2003) "According to *AsiaWeek*'s 2000 salary survey, a lawyer in China earns about $483 a month and a doctor can earn $242..."Is it fair for a doctor to spend his 3-month salary on a copy of Microsoft Office? Should an artist spend a year's salary on Adobe Photoshop?" BSA's Seventh Annual Piracy Study (July 2002) estimated US software piracy at 25 percent and Japan at 37 percent.

[26] "Premier Zhu Reports Government Work (II)" http://www.2002china.net/news/chinese_news-73.php (accessed July 28, 2003)

[27] The tea cooperative producers of Longjing ("Dragon Well") tea from Zhejiang province, rising in protest to the pervasive marketing of phony "Longjing" tea in 2001, refused to harvest a crop, demonstrating apodictically that that year's the Longjing tea in the Chinese marketplace was all counterfeit. It is the author's considered opinion that virtually all the expensive Chinese "antiques" -- often accompanied by "official certificates of authenticity" – purchased by gullible American tourists and erstwhile connoisseurs of *chinoiserie* -- is fake.

[28] Christine Mullen (President, Jackie Chan Fan Club of Australia), "Video Piracy: It's time to say NO MORE" 1998 http://geocities.com/Hollywood/Set/8801/jcnopiracy.html (accessed July 28, 2003) and Matthew Smith, "Taiwan's Piracy Blues" AsiaTimes Online http://atimes.com/atimes/China/DK01Ad04.html (recounting the difficulties mandarin pop singers ("Mando-Pop") such as Chang Hui-mei have as industry sales have shrunk from US$306 million to $170 million in just three years.) *see also* "Chinese Pop Stars Protest Piracy" (Reuters April 4, 2002) http://www.wired.com/news/culture/0,1284,51552,00.html (accessed August 17, 2003)

[29] "Justice Department Waging Global Campaign Against Hi-Tech Crime, http://www.hongkong.usconsulate.gov/uscn/others/2003/031.302.htm, accessed on July 22, 2003. A People's Daily report on March 3, 2002 reported reported a seizure of 4 million pirated CDs on two small fishing boats off the coast of Guangdong http://english.peopledaily.comn.cn/200203/03 and subsequently 5.2 million off Huizhou City, 2 million of which were pornographic. One boat captain was sentenced to 13 years in Jail and fined ¥3 million (US$ 361,500) http://english.peopledaily.com.cn/20-0206/28 (both accessed July 17, 2003) An August, 2002 BBC report of the CD piracy fight in Kuala Lumpur's Chinatown can be found at http://news.bbc.co.uk/1/hi/business/2217367.htm (accessed July 28, 2003)

[30]http://members.tripod.com/~orgcrime/taiwanstriads.htm (accessed July 22, 2003)

[31] http://www.msnbc.com/news/165145.asp?cp1=1 (accessed July 22, 2003)

[32] Ko-Chin Lin, Heijin: Organized Crime, Business, and Politics in Taiwan (Sharpe 2003)

[33] John Pomfret, "The China Connection: How Crime and Politics come together... Again", Washington Post, December 31, 2001 (as reported on an official Taiwanese website.) http:www.taiwandc.org/wp-2001-01.htm (accessed on July 22, 2003)

[34] "Marques Man", Forbes April 28, 2003 http://finance.lycos.com/home/news/story.asp?story=33862711 (accessed June 3, 2003) (reporting on the export of 100,000 to 300,000 counterfeit Cartier watches per month from Hong Kong to New York City) *see also* Cartier International et al. v. Sam Liu et al., 2003 WL 1900852 (S.D.N.Y. April 17, 2003) After a fall 2002 raid of a New York

warehouse, the defendants were back in operation in less than two months, having shipped 13,000 more watches. QUOTE: "The hardest part is not catching the bad guys" says Arnold, "but getting the good guys to do their job."

[35] Dow Jones: "FBI Acts on Sales of Counterfeit Tiffany Jewelry", April 21, 2003 http://news.morningstar.com/news/JD/M04/D21/1050943860953.html (accessed July 28, 2003)

[36] David Johnston, "Fake Goods Support Terrorism, Interpol Official is to Testify" New York Times http://nyutimes.com/2003/07/16/national/16TERR.html (accessed on July 16, 2003) Mr. Noble's testimony as reported did not specifically mention Chinese gangs, and while links between counterfeiting, piracy, and organized crime are rock solid, vague efforts to make the "terrorist connection" without a "smoking gun" (proffering as evidence the discovery of flight manuals in Arabic during a counterfeiting raid might be viewed somewhat cynically as "artificial intelligence." *but see* Steve Macko, "North Korean Government Deeply Involved With Organized Crime?" ERRI Intelligence Report, Risk Assessment Services (June 30, 1998) http://www.emergency.com/nkoreadg.htm (accessed July 22, 2003) (charging the North Korean government with narcotics trafficking and counterfeiting cigarettes) and Tony Thompson, "Ulster Terror Gangs Link Up with Mafia" Guardian, (June 15, 2003) http://www.guardian.co.uk/Northern_Ireland/Story (accessed August 1, 2003) (describing networks for pirate and counterfeit clothing, computer games, DVDs, CDs, videos, cigarettes, and specie, operating through Singapore)

[37] "International/Global Intellectual Property Theft: Links to Terrorism and Terrorist Organizations", written testimony of Timothy P. Trainer, July 16, 2003 http://www.iacc.org (accessed July 18, 2003)

[38] Bill Heaney, "Legal Revisions Hurt FTA Chances" Taipei Times August 13, 2003 http://www.taipeitimes.com (accessed August 14, 2003) Proposals for a Free Trade Area with Taiwan following the recent completion of the US-Singapore FTA were the subject of high level talks in visits of Taiwanese officials to Washington DC in July 2003. *see* Charles Snyder, "Referendum at top of agenda for delegation to US" Taipei Times (July 26, 2003) http://www.taipeitimes.com/ (visited August 14, 2003) Such an initiative would be vigorously opposed by the government of mainland China as another indication of American "hegemonic" intentions in the region.

[39] *see* Letter of the Minister for Trade and Industry, Singapore, to the United States Trade Representative, (May 6, 2003) Interestingly, Singapore is not obliged to impose "zone" technology preventing CDs from being used in different geographical locations or prohibit parallel imports of pharmaceuticals.

[40] Bill Heaney, "Disney Sting Earns Taiwan Praise for IPR Enforcement, (July 30, 2003) http://www.taipeitimes.com/news/biz/archives/2003/07/30/2003061578 (accessed August 14, 2003)

[41] "Warner Bros. Lands in Shanghai; Opens First Phase in Pirate War", AFP (Monday July 21, 2003) http://www.taipeitimes.com/news/biz/archives/2003/07/21/2003060268 (accessed August 14, 2003)

[42] AFP "Shanghai court finds firms guilty of IPR Violations" (August 9. 2003) http://taipeitimes.com/news/worldbiz/archives/2003/08/09/2003062963 (accessed August 14, 2003)

[43] Sam Williams, "Profits from Piracy: "Call it the strange case of *quid pro quo* without the *quo*" Boston Review, (September 26, 2002) http://www.salon.com (accessed July 17, 2003. The same article quotes the newsletter UK Register describing the market share argument as "Ballmer to China: 'Steal all the software you want, so long as it's ours'"

[44] "Malaysia Launches New Anti-Piracy Blitz, Illegal Producers Feel the Heat" http://quickstart.clari.net/qs_se/webnews/wed/dc/Qmalaysia-piracy.RZ3q_DyD.html (accessed July 28, 2003)

[45] Peter Janssen, "Jakarta's Battered Chinatown Stages a Comeback" Digital Journal, March 26, 3003 http://www.digitaljournal.com/news/?articleID=2652 (accessed July 28, 2003)

[46] Susan Sim, "Chinatown riot again, 2 Years Later" http://www.geocities.com/-budis1/glodok2000/chinatown_riot_again.htm (accessed July 28, 2003)

[47]"It is understood that this Part does not create any obligation to put in place a judicial system for the enforcement of intellectual property rights distinct from that for the enforcement of laws in general, nor does it affect the capacity of Members to enforce their laws in general. Nothing in this Part creates any obligation with respect to the distribution of resources as between enforcement of intellectual property rights and the enforcement of laws in general." TRIPS Article 41.5.

[48] for a general introduction to traditional attitudes in China toward "rule of law", *see* Derk Bodde and Clarence Morris, Law in Imperial China Exemplified by 190 Ching [Qing] Dynasty Cases (Philadelphia 1967) pp. 3-51.