United States District Court,
E.D. Michigan, Southern Division.

DURR SYSTEMS, INC,
Plaintiff.
v.
FANUC LIMITED et al,
Defendants.

No. 05-CV-71268-DT

Oct. 31, 2006.

Background: Patent holder brought action against competitor alleging infringement of patent directed toward method for repositioning paint spraying device and resuming paint spraying process after interruption in movement of robot and conveyor during painting process. Parties submitted claim construction briefs and court conducted claim construction hearing.

Holdings: The District Court, Cleland, J., held that:
(1) preamble did not limit patented invention only to situations where interruption was caused by power failure to robot-painter, conveying device, and connected equipment;
(2) phrase "movement interruption" referred to any unscheduled occurrence which caused spraying device and conveying device to halt in non-specific terminal positions;
(3) "synchronizing the movements of the spraying device and the conveying device using a stored processing program" meant correlating movement of spraying device and conveying device based upon instructions from stored processing program;
(4) phrase "stored processing program" meant set of instructions retained on computer;
(5) "storing the positions of the spraying device and the conveying device at the moment of a movement interruption" meant retaining data on electronic storage medium that was representative of spraying device and conveying device locations at moment of movement interruption;
(6) "storing the positions of the spraying device and the conveying device after movement of the spraying device and conveying device has ended" meant retaining data on electronic storage medium that was representative of spraying device and conveying device locations after inertial drift of spraying device and conveying device had ended;
(7) "repositioning the spraying device relative to the conveying device to the relative synchronized position based upon the stored positions" meant moving spraying device, conveying device, or both to reestablish correlation between spraying device and conveying device based upon stored positions; and
(8) scope of patent was not coextensive with preferred embodiment.

Ordered accordingly.

5,225,239. Cited.

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CLAIM CONSTRUCTION OPINION AND ORDER

CLELAND**, District Judge.**

This matter is before the court for construction of United States Patent Number 4,810,538 pursuant to Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). Claim construction briefs have been submitted by Plaintiff Durr Systems, Inc. ("Durr") and Defendants FANUC Limited and FANUC Robotics America, Inc. (collectively, "FANUC"), and the court conducted a claim construction hearing on September 25, 2006. In this order, the court will set forth its construction of the disputed terms at issue, as well as its analysis supporting that construction.

I. INTRODUCTION FN1

FN1. The facts set forth in the Introduction section are intended purely to provide background and context to this opinion. Nothing in this section should be interpreted as supplementing or supplanting the court's construction as set forth in Section IV., *infra*.

Durr and FANUC are competitors in the business of supplying equipment to the automotive industry for painting automobiles and automobile parts. In this action, Durr asserts that FANUC is infringing United States Patent Number 4,810,538 (the "'538 Patent") FN2 which is assigned to Durr.

FN2. There were originally two patents at issue in this lawsuit: the '538 Patent along with United States Patent No. 5,225,239 (the "'239 Patent"). After the parties submitted their claim construction briefs, however, the parties resolved their dispute related to the '239 Patent. *(See* 9/25/06 Stipulated Order.)

The '538 Patent, entitled "Method for Automatic Coating of Workpieces," was issued on March 7, 1989. (Durr Opening Br. at 2; FANUC Opening Br. at 1.) The Patent relates to automotive paint spray robots which are programmed to move in synchronization with a conveyor carrying workpieces such as motor vehicle bodies. (Durr Opening Br. at 2.) The '538 Patent is directed to a method for repositioning a paint spraying device and resuming the paint spraying process after an interruption in the movement of the robot and conveyor during the painting process. (Id.) Durr explains that "[w]hen a movement interruption occurs due to, for example, a loss of power to the drive motors, the robot and conveyor can drift in differing amounts due to inertia, and therefore will no longer be synchronized." (Id.) According to Durr, "[i]n prior synchronized systems, when such an aburpt movement interruption occurred during the course of a paint sequence, the painting process was not resumed for the vehicle body being painted at the time of interruption [and c]onsequently, that vehicle body generally had to be scrapped." (Id.) Thus, the '538 Patent deals with the problem of reestablishing synchronization after a movement in the painting process, resulting in a way to avoid scrapping partially painted vehicle bodies and components. (Id.)

II. STANDARD

[1] [2] Under Markman, a court conducting a patent infringement analysis must undertake a two-step process. First, the court must determine the meaning and scope of the protected patents. This is known as the claim construction phase and is a question of law for the court. Markman, 52 F.3d at 976, 979. Once the court has interpreted the claims at issue, the second step requires comparing the properly construed claim and the accused device to determine whether the accused device is infringing. Id. at 976. The infringement analysis generally is for the jury.

[3] "The construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims." Embrex, Inc., v. Serv. Eng'g Corp., 216 F.3d 1343, 1347 (Fed.Cir.2000) (quotation omitted). In construing the claim, the court should keep in mind that "the language of the claim defines the scope of the protected invention." Bell Commc'ns Research, Inc. v. Vitalink Commc'ns, Corp., 55 F.3d 615, 619 (Fed.Cir.1995). For this reason, " 'resort must be had in the

first instance to the words of the claim,' words [which are ascribed] their ordinary meaning unless it appears the inventor used them otherwise." Id. at 620 (quoting Envirotech Corp. v. Al George, Inc., 730 F.2d 753, 759 (Fed.Cir.1984)). Further, "it is equally 'fundamental that claims are to be construed in light of the specifications and both are to be read with a view to ascertaining the invention.' " Id. (quoting United States v. Adams, 383 U.S. 39, 49, 86 S.Ct. 708, 15 L.Ed.2d 572 (1966)).

[4] [5] In construing a claim, the court begins with an analysis of the ordinary meaning of the disputed claim terms. The terms used in the claims bear a heavy presumption that they mean what they say, having the ordinary meaning that would be attributed to those words by persons having ordinary skill in the relevant art. Texas Digital Systems, Inc. v. Telegenix, Inc. 308 F.3d 1193, 1202 (Fed.Cir.2002). The court can then look to other intrinsic evidence, including the specification, and the prosecution history if in evidence. Interactive Gift Express, Inc. v. Compuserve, Inc., 256 F.3d 1323, 1331 (Fed.Cir.2001).

[6] [7] After exhausting the available intrinsic evidence, the court may also consider extrinsic evidence "to aid [it] in coming to a correct conclusion as to the true meaning of the language employed in the patent." Markman, 52 F.3d at 980 (quotations omitted). Extrinsic evidence consists of all evidence external to the patent and prosecution history, including testimony of inventors or experts, dictionaries, and learned treatises. Id. "However, extrinsic evidence cannot be used to contradict the established meaning of the claim language." Gart v. Logitech, 254 F.3d 1334, 1340 (Fed.Cir.2001). In sum, "the ordinary and customary meaning of a claim term may be determined by reviewing a variety of sources." Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc., 334 F.3d 1294, 1298 (Fed.Cir.2003). These sources "include the claims themselves, dictionaries and treatises, and the written description,the drawings, and the prosecution history." Id. (internal citations omitted); *see also* Inverness Med. Switzerland GmbH v. Warner Lambert Co., 309 F.3d 1373, 1378 (Fed.Cir.2002) (noting that dictionaries are often helpful in ascertaining plain and ordinary meaning of claim language).

III. DISCUSSION

There are two claims at issue in the '538 Patent: Claim 1, which the parties agree is an independent claim, and Claim 2 which is dependent.FN3

FN3. Although the parties submitted a joint claim construction chart detailing their proposed constructions of Claim 1 and Claim 2, Durr does not provide argument in brief form with respect to Claim 2.

A. Claim 1

1. Preamble: "A method for automatically coating workpieces using a moveable spraying device while the workpieces are moved along a conveying device the spraying device and conveying device of the type being susceptible to movement interruptions in the event of power supply failure; said method including the steps of"

[8] The parties first dispute whether the preamble in Claim 1 is a limitation. Durr argues that the preamble is not a limitation, while FANUC contends that the preamble, specifically the phrase "power supply failure," is a limitation. (Durr Opening Br. at 9; FANUC Opening Br. at 24.) Within the preamble, the parties also dispute the meaning of various terms.

[9] "If the body of the claim sets out the complete invention, and the preamble is not necessary to give 'life, meaning and vitality' to the claim, 'then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation.' " Bristol-Myers Squibb Co. v. Ben Venue Laboratories, Inc., 246 F.3d 1368, 1373-74 (Fed.Cir.2001) (quoting Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed.Cir.1999)). Here, contrary to FANUC's argument, the preamble of Claim 1 cannot be said to give "life, meaning and vitality" to the claim. Rather, as Durr asserts, the preamble merely describes the purpose of the patent and the two principal pieces of the apparatus, the spraying device and the conveying device. (Durr Opening Br. at 9) Because the remainder of the claim sufficiently describes the steps and does not depend on the preamble for completeness, the preamble cannot be considered a limitation. *See* In re Hirao, 535 F.2d 67, 70 (Cust. & Pat.App.1976).

FANUC's argument that the preamble limits the claim is linked with its argument related to the meaning of "power supply failure," a phrase which does not appear in the body of the claim, but which FANUC argues is a limitation. Specifically, FANUC argues that the phrase "power supply failure" is "an unintended failure of the supply of power to the unit, which includes the spraying device, the conveying device, and connected equipment (as distinguished from an emergency stop or some other interruption whereupon the robot-painter and conveying device are halted)." (FANUC Opening Br. at 24.) FANUC contends that a "power supply failure" is different from other types of unscheduled interruptions, such as emergency stops (or "e-stops") in that a "power supply failure" shuts off power to all related equipment, including the computer, whereas other interruptions shut off power only to the painting device and the conveying device. FANUC argues that Claim 1 limits the Patent to only those interruptions which shut the power off to the entire "unit," which necessarily includes the computer. *(Id*. at 26-28.) In support of this construction, FANUC relies heavily on extrinsic evidence, especially the affidavit of its expert, Louis Whitcomb. While extrinsic evidence may be used to provide context to the language of claim, it cannot be used to contradict the plain meaning of the claim language. Gart, 254 F.3d 1334. Here, the court finds that the intrinsic evidence clearly and adequately gives meaning to the preamble and resort need not be made to extrinsic evidence.

First, as stated above, the preamble on its face is purely introductory, and is not necessary for a proper understanding of the claimed invention. Bristol-Myers Squibb Co., 246 F.3d at 1373-74. Moreover, the court is not persuaded that the inventors included the phrase "power supply failure" to distinguish stops resulting from power failures from those resulting from emergency stops. (FANUC Opening Br. at 6.) FANUC argues that "[t]he inventors presumably did this because the ability to recover from an emergency stop was already known in the pertinent art." *(Id.)* FANUC offers no support in the prosecution history for this statement, instead relying on its expert's opinion. This approach is untenable where the language of the claim is clear on its face, particularly when read in light of the specification. Bell Commc'ns Research, 55 F.3d at 620.

Finally, the court does not accept FANUC's argument that the specification distinguishes between interruptions due to power failure and interruptions due to other types of shut-downs. FANUC points to a statement in the specification listing various examples of interruptions. (FANUC Opening Br. at 25.) FN4 Indeed, the specification describes the problem being addressed by the Patent: "In coating processes of this kind, there is a possibility of being interrupted automatically or manually, for example in the event of a power-failure, in an emergency, or for some other reason, whereupon the robot-painter and the conveying device are halted." ('538 Patent, 1:28-32.) When read in context, this statement, as well as the rest of the specification, cannot be said to distinguish power failures from other types of interruptions. As Durr argues, the specification treats all types of interruptions the same: "events that cause a loss of relative synchronization between the paint robot and the vehicle body." (Durr Resp. at 6.)

FN4. The court does not agree with FANUC that the inventors used the term " 'power failure' *throughout* the specification, distinguishing it from other causes of interruptions." (FANUC Opening Br. at 25 (emphasis added).) It appears that the inventors used the term only once in a way which can be said to expressly distinguish it from other types of interruptions.

For example, after listing the examples of interruptions noted above, the specification states that when any interruption occurs "it has hitherto been impossible to resume the coating process by carrying on with the program, since both the conveying device and the painter-robot come to a halt in non-specific terminal positions because of their inertia." ('538 Patent, 1:33-37.) The specification details that "[t]he subject invention provides a method of coating workpieces which will make it possible, *in the event of unscheduled interruptions,* to resume the interrupted processing-program at the point of interruption, i.e., to finish coating the partly coated workpieces automatically." (Id. at 2:5-10 (emphasis added).) Similarly, in the abstract it states that "it has hitherto been difficult or impossible to finish paintinga partly coated workpiece in he event of *an unscheduled breakdown*."FN5 (Abstract (emphasis added).) Finally, the preferred embodiment describes an example where "[i]n the event of an unscheduled shut-down of the unit, resulting from either automatic or inadvertent actuation of an emergency switch or some other power switch, the spraying process is interrupted almost immediately." FN6 (Id. at 2:33-36.) The preferred embodiment also

indicates that the operation may be resumed "after the cause of the emergency shut-down has been eliminated." (Id. at 3:6-7.) In light of this abundant intrinsic evidence, the preamble cannot be said to limit the invention to only situations where an interruption is caused by a power failure to the robot-painter, the conveying device and the connected equipment. FN7 Instead, the preamble gives only a general description of the method which is claimed, while the remainder of the claim details the limitations. Under these circumstances, the preamble cannot be said to give "life, meaning, and vitality" to the claim and the court does not construe it as a limitation. FN8

FN5. The court is not persuaded by FANUC's argument that "breakdown" and "shutdown" necessarily equate to a "power supply failure" of the entire unit, including the computer. It is true that the specification uses all of these terms, as well as "interruption" to describe a break in the painting process. Contrary to FANUC's argument, it appears from the specification that the problem the Patent was intended to correct related to synchronizing the painter-robot and conveying device after *any* break in the process because, previously, the devices would have drifted due to inertia and parts would have to be discarded. Although it is possible this issue may be revisited at a later stage (in arguments related to validity, for example), for purposes of the claim construction stage the court does not find the specification or the claims themselves distinguish between complete power supply failures and FANUC's purported prior art that FANUC contends already addressed the synchronization problem in emergency stops. Moreover, because the court finds that the intrinsic evidence supports its conclusion on this issue, the court will not rely on FANUC's extrinsic evidence, specifically the exhibits it attempted to submit to the court during the claim construction hearing, "to contradict the established meaning of the claim language." Gart, 254 F.3d at 1340. Accordingly, Durr's objection to these exhibits is denied as moot.

FN6. The shut-down described in the preferred embodiment does not result in a power failure to the connected equipment, as FANUC argues, because the position emitters and computer are able to report and record the positions of the conveyer and the painter-robot after the shut-down. *(See* '538 Patent at 2:46-55.)

FN7. This is further corroborated by the fact that elsewhere in Claim 1, the Patent indicates positions are stored "at the moment of *a movement interruption*." ('538 Patent at 4:4-5 (emphasis added).) When this phrase is used later in the Claim, it gives no indication that the movement interruption must be caused by a power supply failure, only that positions are stored at the moment of an interruption generally.

FN8. In light of this conclusion, the court will not construe the terms which appear in the preamble but not elsewhere in the claim: "of the type being susceptible to movement interruptions" and "power supply failure." If the preamble is not a limitation, which the court has found it is not, the court need not construe these terms because the purpose of claim construction is to determine the meaning and scope of the patent claims for later comparison by the jury to the device which is being accused of infringement. *See* Markman, 52 F.3d at 976. Thus, language in the preamble which does not appear elsewhere in the claim language is construed as "merely setting forth the intended purpose of the claimed combination, and should be given no limiting meaning." Allen Engineering Corp. v. Bartell Indus., Inc., 299 F.3d 1336, 1347 (Fed.Cir.2002); *see also* id. at 1355 ("In the court's consideration of these limitations, it is immaterial whether the Red Rider was considered to be a fast-steering trowel, in view of our holding above that the 'fast-steering' language of the claim preamble is not a limitation of any of the claims.").

2. Recurrent Terms

Before construing the individual limitations at issue in Claim 1, the court will first construe various terms which first appear in the preamble, but then repeat in multiple places within Claim 1.

a. "spraying device"

After some initial disagreement, the parties agree that "spraying device" should be construed as "a painter-robot or similar painting device." (Am. Joint Claim Construction Chart at 1; FANUC's Ex. 1.) This

stipulated construction is consistent with the Patent language and will therefore be adopted by the court.

b. "conveying device"

In the "Amended Joint Claim Construction Chart," Durr proposes that this phrase should be construed to mean "a device capable of moving workpieces to be painted." (Am. Joint Claim Construction Chart at 1; FANUC's Ex. 1.) Durr does not support this proposed construction with any argument in its briefs, but neither does FANUC propose an alternate construction, either in its brief or in the "Amended Joint Claim Construction Chart." The court finds this construction to be supported by the ordinary meaning of "conveying device" and consistent with the intrinsic evidence. In the absence of any substantive objection by FANUC, the court will adopt the construction proposed by FANUC.

c. "movement interruption"

[10] Durr argues that "movement interruption" means "any occurrence which causes the spraying device and the conveying device to halt in non-specific terminal positions, *i.e.*, the relative positions of the spraying device and conveying device may no longer be synchronized." (Am. Joint Claim Construction Chart at 1, FANUC's Ex. 1.) FANUC, drawing from its argument related to the preamble, argues that the term should be construed to mean "movement being interrupted in the event of a power supply failure." *(Id.)* As discussed above, the court has rejected FANUC's argument that movement interruption must be caused *only* by a power supply failure, and thus will not accept its proposed construction here.

FANUC also objects to Durr's use of the phrase "any occurrence," because it contradicts Durr's proposed construction of "power supply failure." (FANUC Resp. Br. at 20.) Specifically, Durr proposed that "power supply failure" should mean "any unscheduled automatic, manual, or inadvertent termination of power." (Am. Joint Claim Construction Chart at 2, FANUC's Ex 1.) FANUC therefore argues that, at a minimum, the word "unscheduled" should be imported into Durr's proposed construction. (FANUC Resp. Br. at 20.) Notwithstanding the fact that the court has declined to read the Preamble as a limitation, and therefore has declined to construe the phrase "power supply failure," FANUC's argument is well-founded that "movement interruption" includes a qualifier that the interruption is unscheduled. As discussed above, the specification includes multiple references to the fact that the Patent is intended to relate to unscheduled interruptions. *(See* '538 Patent, at abstract, 2:5-10, 2:33-3, 3:6-7.) Accordingly, the court will add the word "unscheduled" to Durr's proposed construction.

After accepting the argument that the movement can be caused by "any *unscheduled* occurrence," and rejecting the argument that the interruption must be caused by a power supply failure, the court perceives no substantive disagreement by FANUC to the rest of Durr's proposed construction, which requires that the occurrence must cause "the spraying device and conveying device to halt in non-specific terminal positions, i.e., the relative positions of the spraying device and conveying device may no longer be synchronized." This construction is consistent with the claim language and the purpose of the Patent as expressed in the specification. Absent any substantive objection from FANUC, the court will adopt it.

Thus, the court will essentially adopt Durr's proposed construction of "movement interruption," with only the minor modification of adding the word "unscheduled." The final construction, therefore, reads: "any unscheduled occurrence which causes the spraying device and the conveying device to halt in non-specific terminal positions, *i.e.*, the relative positions of the spraying device and conveying device may no longer be synchronized."

3. "synchronizing the movements of the spraying device and the conveying device using a stored processing program"

[11] Although both parties propose constructions of this limitation, the limitation itself is not particularly confusing. Indeed, most of the ' 538 Patent is written in clear and concise language. Inasmuch as "[t]he construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims," Embrex, 216 F.3d at 1347, the court sees little necessity for further complicating matters when, as here, the plain language of the claim is relatively straightforward. Nonetheless, both parties present proposed constructions, and the court will

address them in turn.

Durr asserts that this limitation means "maintaining a specific relationship between the spraying device and the conveying device based upon instructions from a stored processing program." (Durr Opening Br. at 11.) FANUC proposes a much more complex construction of this phrase: "using a stored processing program containing a plurality of individually defined paint-impact points to establish and maintain a preprogrammed position of each of the spraying device's axes for each pre-programmed position of the conveying device." (FANUC Opening Br. at 9.) FN9

FN9. FANUC spends much of its claim construction argument on this phrase debating whether the '538 Patent was meant to encompass "Cartesian-Space Control," or merely "Joint-Space Control," as described by FANUC's expert, Dr. Louis Whitcomb. *(See* FANUC Opening Br. at 13-16.) Such arguments, however, are better asserted at the infringement stage of this litigation. The court does not view them as controlling at the claim construction stage.

Durr's proposed construction restates the claim limitation, in simple terms, while remaining generally faithful to the claim language and the specification. The court has already construed "spraying device" and "conveying device," and the court will construe "stored processing program" below. Thus, the only words which conceivably require construction are "synchronizing," and possibly "using." Durr suggests that synchronizing means "maintaining a specific relationship," but the court finds that this construction is ambiguous. The preferred embodiment, for example, details a process by which the movement of the spraying device and the conveying device are "synchronized and controlled." ('538 Patent at 2: 24-25, 29.) Such controlled synchronization involves more than maintaining a specific relationship because it involves a degree of correlation between the two devices. Indeed, in its brief, Durr itself uses "correlated" as synonymous with "synchronized." (Durr Opening Br. at 11.) The court finds that "correlating" is a more understandable and accurate construction of "synchronizing" than is "maintaining a specific relationship."

The court does agree, however, with Durr's construction of the remaining portion of this limitation. The limitation specifies how synchronization occurs by requiring synchronization of the spraying device and the conveying device "using a stored processing program." Durr thus construes this portion of the limitation to mean that the devices are synchronized (or correlated) "based upon instructions from a stored processing program." (Durr. Opening Br. at 11.) This construction is consistent with the plain language of the claim and is unobjectionable.

[12] In contrast, FANUC's construction, rather than clarifying the language, further confuses the issue while simultaneously improperly adding limitations to the claim. *See* Liquid Dynamics Corp. v. Vaughan Co., Inc., 355 F.3d 1361, 1368 (Fed.Cir.2004) (reversing district court "[b]ecause the plain language of the claim was clear and uncontradicted by anything in the written description or the figures, [and thus] the district court should not have relied upon the written description, the figures, or the prosecution history to add limitations to the claim"). Specifically, FANUC seeks to add limitations found in the preferred embodiment regarding "axes" and "paint impact points." Not only does FANUC's construction overly complicate what is otherwise a straightforward limitation, it also violates the Federal Circuit's consistent instruction that "unless required by the specification, limitations that do not otherwise appear in the claims should not be imported into the claims." N. American Container, Inc. v. Plastipak Packaging, Inc. 415 F.3d 1335, 1348 (Fed.Cir.2005) (citing E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1433 (Fed.Cir.1988) ("Where a specification does not *require* a[n extraneous] limitation, that limitation should not be read from the specification into the claims.") (emphasis in original)).

[13] Finally, as Durr points out, FANUC's proposed construction would violate the principles of claim differentiation, which "refers to the presumption that an independent claim should not be construed as requiring a limitation added by a dependent claim." Curtiss-Wright Flow Control Corp. v. Velan, Inc. 438 F.3d 1374, 1380 (Fed.Cir.2006); Phillips v. AWH Corp., 415 F.3d 1303, 1315 (Fed.Cir.2005) ("[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim."). Because FANUC's construction seeks to import would "paint impact points" from Claim 5 into Claim 1, the court will reject it.

For these reasons, the court will adopt Durr's construction, in part, and construe the phrase "synchronizing the movements of the spraying device and the conveying device using a stored processing program" as "correlating the movement of the spraying device and the conveying device based upon instructions from a stored processing program."

[14] Within this limitation, the parties also debate how "stored processing program" should be construed. Durr contends that it means "a set of instructions stored on a computer," while FANUC argues it means "a program containing a plurality of individually-defined paint impact points for coating workpieces that is placed and retained on an electronic storage medium for later retrieval by a computer." (Am. Joint Claim Construction Chart at 2, FANUC's Ex. 1.)

For the reasons discussed above, the court again reject's FANUC's attempt to import the "paint impact points" into this construction. The court also agrees with Durr that FANUC's construction implies that the data is stored on a device, an electronic storage medium, which is external to a computer. There is no support for this construction in the claim language, and the court will therefore reject it.

While the court is inclined to adopt Durr's construction and construe "stored processing program" as "a set of instructions stored on a computer," this construction fails to construe the meaning of the term "stored," which the parties also debate in connection with later limitations. Durr does not suggest a construction of the term, while FANUC argues it should be construed as "placed and retained." While "retained" is fairly synonymous with the word "stored," adding the term "placed" is redundant and is not necessary for a proper understanding of the word "stored." Thus the court will adopt portions of Durr's proposed construction, slightly modified by FANUC's proposal, and construe "stored processing program" as "a set of instructions retained on a computer."

4. "storing the positions of the spraying device and the conveying device at the moment of a movement interruption"

[15] Contrary to FANUC's argument, the parties agree that this limitation requires the storing of the positions of *both* the spraying device and the conveying device. *(See* FANUC's Opening Br. at 19.) The difference lies in how the parties phrase this storage. According to Durr, this phrase should be construed to mean: "to put data representative of the spraying device and conveying device locations at the moment of movement interruption, into a device capable of retaining the data." (Durr Opening Br. at 12.) FANUC, on the other hand, proposes a significantly more complicated construction: "Placing and retaining on an electronic storage medium, for later retrieval in the repositioning step, the following: (1) the positions of the spraying device's joint axes at the moment of movement interruption, as reported by position-emitters; and (2) the position of the conveying device at the moment of movement interruption, as reported by a position-emitter." (FANUC Opening Br. at 18.) FANUC argues that Durr's construction "ignores the purpose behind storing the positions ... which is specifically for later retrieval and use during the repositioning step" and that Durr's construction is ambiguous as to what is being stored. *(Id.)* The court disagrees, and finds that Durr's construction is a more faithful construction of the claim language.

Although the term "positions" seems, to the court, to not require construction, the court accepts Durr's proposal to replace it with the word "locations," which is consistent with the ordinary meaning of the word "positions." FANUC criticizes this construction as not being specific, but the court will not add precision when the simple language of this claim uses general terms, even if to do so would add specificity. *See* Liquid Dynamics Corp., 355 F.3d at 1368. Moreover, the court finds that FANUC's construction impermissibly attempts to add limitations to this phrase in the form of references to "joint axes" and "position-emitters," terms which appear in description of the preferred embodiment but should not be imported into this claim. *See* N. American Container, Inc., 415 F.3d at 1348. The claim requires only generally that the positions of the spraying device and the conveying device be stored, it does not detail exactly how those positions should be calculated.

The parties also debate the meaning of "storing," which Durr suggests construing as "to put ... into a device capable of retaining the data." FANUC asserts that it should be construed, as before, as "placing and

retaining." As the court found above, the court finds that "retaining" is a suitable construction of "storing," but that the additional term "placing" is redundant.FN10 Thus, the court will construe "storing" as "retaining." FN11 *See* Digital Biometrics, Inc. v. Identix, Inc., 149 F.3d 1335, 1345 (Fed.Cir.1998) ("[W]hatever interpretation we assign should encompass both uses because the same word appearing in the same claim should be interpreted consistently."); *see generally,* Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc., 381 F.3d 1111, 1119 (Fed.Cir.2004) ("Unless otherwise compelled, when different claims of a patent use the same language, we give that language the same effect in each claim."); *see also* Fonar Corp. v. Johnson & Johnson, 821 F.2d 627, 632 (Fed.Cir.1987), *overruled on other grounds by* Cardinal Chemical Co. v. Morton Intern., Inc., 508 U.S. 83, 113 S.Ct. 1967, 124 L.Ed.2d 1 (1993).

FN10. In any event, it does not appear that Durr has any real disagreement as to the use of the word "retaining," inasmuch as it also suggests that the data should be stored on "a device capable of *retaining* the data." (Am. Joint Claim Construction Chart at 3.)

FN11. The court rejects FANUC's proposal to add the phrase "for later retrieval." As Durr suggests, this phrase implies that the data is stored on a device external to the computer. Moreover, the court finds unnecessary this attempt to "preview" what will occur during the repositioning stage.

Finally, the parties disagree on what type of device the data should be stored. FANUC states that the data should be stored on "an electronic storage medium," while Durr contends it should be stored on a "device capable of retaining the data." The court finds both constructions somewhat superfluous as they both essentially require storing data on a storage device, which does little to elucidate the meaning of the phrase. Nonetheless, FANUC's construction is more consistent with the language of the claim inasmuch as it requires storage on an "electronic storage medium," rather than a device merely *capable* of storing data.

Accordingly, the court's final construction of "storing the positions of the spraying device and the conveying device at the moment of a movement interruption" is "retaining on an electronic storage medium data representative of the spraying device and conveying device locations at the moment of a movement interruption."

5. "storing the positions of the spraying device and the conveying device after movement of the spraying device and conveying device has ended"

[16] Similar to their previous arguments, Durr proposes that this phrase should be construed as "to put data representative of the spraying device and the conveying device locations after movement of the spraying device and conveying device has ended, into a device capable of retaining the data," and FANUC proposes instead that it should mean:

Placing and retaining on an electronic storage medium, for later retrieval in the repositioning step, the following: (1) the positions of the spraying device's joint axes after their movement due to inertia has ended, as reported by position-emitters; and (2) the position of the conveying device after its movement due to inertia has ended, as reported by a position-emitter.

(Am. Joint Claim Construction Chart at 3.) Having previously construed the majority of terms at issue in this limitation, the court will logically construe this limitation consistent with its previous conclusions. Digital Biometrics, 149 F.3d at 1345. For this reason, the only additional terms which require construction are those referring to the time at which the devices positions are recorded, that is, "after movement [of the devices] has ended."

The difference between the parties' construction of this phrase is slight. Indeed, they both retain the exact language of the claim ("after ... movement ... has ended"). The only substantive distinction between their proposals is that FANUC seeks to add a qualifier to explain what caused the movement. Specifically, FANUC argues that the construction should read "after [the devices'] movement due to inertia has ended." (Am. Joint Claim Construction Chart at 3.) Durr's objection to FANUC's proposed construction focuses on

those portions which the court has already rejected, and does not offer any specific resistance to the addition of "due to inertia." This proposed language is supported by the specification, which contains numerous references to the movement being caused by inertia. *(See* '538 Patent at abstract ("the workpiece would inertially overrun"); *id*. at 1:36-37 ("because of their inertia"); *id*. at 2:39-40 ("continue to move because of their inertia").) This language is also supported by common sense, in that it is inertia which causes any movement after an unscheduled break in the process's operation.

While the court is inclined to adopt FANUC's proposed construction related to inertia, the court nonetheless finds that merely adding the term "due to inertia" to words already found in the limitation is not the best way to construe "after movement [of the devices] has ended." Instead, the court will replace the term "movement" by a phrase that Dr. David Bourne used during the claim construction hearing: "inertial drift." The court finds this phrase more accurately and succinctly describes the "movement" referenced in this limitation, as supported by the citations to the specification noted above.

Accordingly, consistent with its previous constructions and with the intrinsic evidence, the court's final construction is "retaining on an electronic storage medium data representative of the spraying device and conveying device locations after the inertial drift of the spraying device and conveying device has ended."

6. "repositioning the spraying device relative to the conveying device to the relative synchronized position based upon the stored positions"

[17] The last contested phrase of Claim 1 is the "repositioning step." Durr suggests that this step be construed as "moving the spraying device and/or conveying device to reestablish the specific relationship between the spraying device and the conveying device based upon the stored positions." (Am. Joint Claim Construction Chart at 4, FANUC Ex. 1) FANUC does not dispute that "repositioning" should be construed as "moving," nor does FANUC disagree that either the spraying device or the conveying device, or both, can be moved in the repositioning step. Thus the court will adopt the use of the phrase "moving the spraying device, the conveying device, or both" in its construction.

[18] FANUC, however, characteristically argues that in construing the remainder of this phrase, the court should specify exactly how the "relative synchronized positions" should be calculated. Specifically, FANUC argues that the repositioning step should be construed as follows:

After actuation of a restart switch or the like: FN12 (1) retrieving the four stored positions from the storage medium; (2) calculating a travel path for the spraying device using those four stored positions; (3) determining which is more desirable: (a) to resume at the specific paint-impact point located in the program sequence before the point of interruption, or (b) to resume at the specific paint-impact point located in the program sequence after the point of interruption; and (4) moving the spraying device and/or the conveying device so that the spraying device occupies a position relative to the conveying deice at the selected paint-impact point.

FN12. The court will quickly reject FANUC's proposal that this step begins "after actuation of a restart switch or the like." Although FANUC contends this language is taken directly from the specification, the language refers to the *resumption step,* and is not appropriately imported into the repositioning step. *(See* '538 Patent at 3:4-7 ("This resumption of the programmed coating operation may be initiated by the operating crew by manual actuation of a restart-switch or the like after the cause of the emergency shut-down has been eliminated.").)

(Am. Joint Claim Construction Chart at 4, FANUC's Ex. 1.) The court, however, will reject FANUC's attempt to add specificity to what is a clearly written in broad terms. *See* Liquid Dynamics Corp., 355 F.3d at 1368. FANUC attempts to justify importing this host of limitations into the repositioning step by arguing that it found this language in the Patent specification. However, "[i]n examining the specification for proper context, ... this court will not at any time import limitations from the specification into the claims." Varco, L.P. v. Pason Systems USA Corp. 436 F.3d 1368, 1373 (Fed.Cir.2006) (quoting CollegeNet, Inc. v. ApplyYourself, Inc., 418 F.3d 1225, 1231 (Fed.Cir.2005)). The language that FANUC seeks to import is

indeed found in the preferred embodiment. The Federal Circuit has repeatedly "cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification." Id. at 1375 (citing a string of cases in support of this proposition). The court finds nothing in the claim language or the specification that would justify importing the detailed steps which FANUC proposes into Claim 1.FN13 Rather, as Durr suggests, the court will construe the repositioning step more generally, as it is listed in general terms in the claim itself.

FN13. The court is not persuaded by FANUC's argument that the '538 Patent's scope is coextensive with the preferred embodiment. *(See* FANUC's Resp. at 2, *citing* Modine Mfg. Co. v. United States Int'l Trade Comm'n, 75 F.3d 1545, 1551 (Fed.Cir.1996) and Honeywell Intern., Inc. v. ITT Industries, Inc. 452 F.3d 1312 (Fed.Cir.2006)). The inventors here, however, did not give clear indication that the Patent's scope is limited to the preferred embodiment. FANUC unavailingly tries to analogize this case to Honeywell by arguing that "the '538 patent's written description discloses only one preferred embodiment and uses the term 'invention' in the singular form nine times." (FANUC Resp. Br. at 2.) All but two of those citations, however, are not found in the preferred embodiment but in the general description of the invention, the abstract or the background art. The preferred embodiment of the '538 Patent is clearly labeled as such, and the specification explicitly states that "[i]t is ... to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described." ('538 Patent 3 :35-37.) *Contra* Honeywell, 452 F.3d at 1318 ("[T]he written description does not indicate that a fuel filter is merely a preferred embodiment of the claimed invention.").

Thus, consistent with the court's previous constructions and the intrinsic evidence, the court will construe this step as follows: "moving the spraying device, the conveying device, or both to reestablish the correlation between the spraying device and the conveying device based upon the stored positions."

7. "resuming the automatic workpiece coating processing program"

The parties agree that this phrase should be construed as "resuming the coating process after repositioning." (Am. Joint Claim Construction Chart at 4; FANUC's Ex. 1.) This construction is supported by the plain language of the Claim, and the court will therefore adopt it.

B. Claim 2

[19] Claim 2 of the '538 Patent states "A method as set forth in claim 1, further characterized by moving the spraying device in a path along the line of movement of the conveying device after the movement interruption to reach the synchronized position in relation to the workpiece." ('538 Patent 4 :12-16, FANUC's Ex. 2.) Although the parties submitted differing constructions of Claim 2 in their "Amended Joint Claim Construction Chart," Durr did not provide any argument with respect to its proposed construction in either its opening brief or its response brief. The court is therefore left to guess as to its objection to FANUC's proposal and as to its support for its own construction. Nonetheless, because Claim 2 is a dependant claim and because the parties propose constructions almost identical to their constructions of the repositioning step noted above, the court can fairly confidently discern the debate between the parties on this Claim.FN14

FN14. Indeed, although FANUC complains that Durr did not brief Claim 2 in Durr's opening brief, (FANUC Resp. Br. at 3 n. 2), FANUC's opening brief does little more than incorporate by reference its argument with respect to the repositioning step into its argument as to Claim 2, (FANUC Opening Br. at 31).

Specifically, consistent with its proposed construction of the repositioning step, Durr submits that Claim 2 should be construed to mean "moving the spraying device, along the line of movement of the conveying device, to reestablish the specific relationship between the spraying device and the conveying device." (Am. Joint Claim Construction Chart at 5, FANUC Ex. 1.) FANUC also proposes a construction similar to its proposed construction of the repositioning step:

After actuation of a restart switch or the like: (1) retrieving the four stored positions from the storage medium; (2) calculating a travel path for the spraying device using those four stored positions; (3) determining which is more desirable: (a) to resume at the specific paint-impact point located in the program sequence before the point of interruption, or (b) to resume at the specific paint-impact point located in the program sequence after the point of interruption; and (4) moving the spraying device (as opposed to the conveying device) in a path parallel to the conveying device so that the spraying device occupies a position relative to the conveying deice at the selected paint-impact point.

(Am. Joint Claim Construction Chart at 5, FANUC's Ex. 1.)

The substantive difference between Claim 2 and the repositioning step found in Claim 1 is that Claim 2 is limited to a method whereby only the spraying device, not the conveying device can be moved during the repositioning step. The parties do not materially disagree that this is the difference, as they both propose constructions which would limit the Claim to "moving the spraying device." FANUC proceeds one degree further and adds a parenthetical which states "(as opposed to moving conveying device)." (FANUC Opening Br. at 30-31.) FANUC's parenthetical, while certainly explicit, is nonetheless unnecessary and the court rejects it as extraneous. Moreover, the court finds that the language of the claim itself, "along the line of movement of the conveying device," is expressed more clearly than FANUC's proposed construction, "in a path parallel to the conveying device." The court will therefore decline to substitute a FANUC's construction for the more understandable claim phrase.

As to the remainder of the proposed construction of Claim 2, the court will rely on its discussion above of the repositioning step. Because the court will construe similar terms in Patent consistently, *see* Innova/Pure Water, Inc., 381 F.3d at 1119, FANUC's attempts to limit the invention to the preferred embodiment is as unavailing in Claim 2 as it was in Claim 1. *See* Varco, 436 F.3d at 1375. Thus, inasmuch as Claim 2 is almost identical to the repositioning step in Claim 1, the court rejects FANUC's proposed construction for the reasons detailed above.

Thus, the court's will construe Claim 2 as "moving the spraying device along the line of movement of the conveying device to reestablish the correlation between the spraying device and the conveying device based upon the stored positions."

IV. CLAIM CONSTRUCTION

In light of discussion and analysis set forth above, the disputed portions of the relevant claims of United States Patent Number 4,810,538 are construed as follows:

A. Claim 1

Claim Term	*Court's Construction*
A method for automatically coating workpieces using a moveable spraying device while the workpieces are moved	The preamble is not a limitation, and therefore need not be construed.
	spraying device: a painter-robot or similar painting device
device and conveying device of the type being susceptible to movement interruptions in the event of power supply failure; said method including the steps of	conveying device: a device capable of moving workpieces to be painted
The court will construe the underlined recurring words which first appear in the preamble but appear elsewhere in the claim.	movement interruptions: any unscheduled occurrence which causes the spraying device and the conveying device to halt in non-specific terminal positions, *i.e.*, the relative positions of the

	spraying device and conveying device may no longer be synchronized
synchronizing the movements of the spraying device and the conveying device using a stored processing program; and	correlating the movement of the spraying device and the conveying device based upon instructions from a stored processing program _____ stored processing program:
	a set of instructions retained on a computer
storing the positions of the spraying device and the conveying device at the moment of a movement interruption;	retaining on an electronic storage medium data representative of the spraying device and conveying device locations at the moment of a movement interruption
storing the positions of the spraying device and the conveying device after movement of the spraying device and conveying device has ended;	retaining on an electronic storage medium data representative of the spraying device and conveying device locations after the inertial drift of the spraying device and conveying device has ended
repositioning the spraying device relative to the conveying device to the relative synchronized position based upon the stored positions; and	moving the spraying device, the conveying device, or both to reestablish the correlation between the spraying device and the conveying device based upon the stored positions
resuming the automatic workpiece coating processing program	resuming the coating process after repositioning

B. Claim 2

Claim Term	*Court's Construction*
A method as set forth in claim 1 further characterized by moving the spraying device in a path along the line of movement of the conveying device after the movement interruption to reach the synchronized position in relation to the workpiece	moving the spraying device along the line of movement of the conveying device to reestablish the correlation between the spraying device and the conveying device based upon the stored positions

V. CONCLUSION

For the reasons set forth above, IT IS ORDERED that the claims of United States Patent Number 4,810,538 are CONSTRUED as set forth in the body of this order.

E.D.Mich.,2006.
Durr Systems, Inc. v. FANUC Ltd.

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