

United States Court of Appeals for the Federal Circuit

03-1163

RESQNET.COM, INC.,

Plaintiff-Appellant,

v.

LANSA, INC.,

Defendant-Appellee.

Jeffrey I. Kaplan, Kaplan & Gilman, L.L.P., of Woodbridge, New Jersey, argued for plaintiff-appellant. With him on the brief was Timothy X. Gibson.

James H. Hulme, Art Fox Kintner Plotkin & Kahn, PLLC, of Washington, DC, argued for defendant-appellee. With him on the brief was D. Jacques Smith.

Appealed from: United States District Court for the Southern District of New York

Senior Judge Robert W. Sweet

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v.

LANSА, INC.,

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DECIDED: October 16, 2003

Before NEWMAN, MICHEL, and RADER, Circuit Judges.

RADER, Circuit Judge.

ResQNet.com, Inc. (ResQNet) sued Lansa, Inc. (Lansa) for infringement of United States Patent Nos. 5,530,961, 5,831,608, and 6,295,075. To facilitate appeal after the district court construed the claims, the parties entered into a consent judgment that Lansa's systems would not infringe. ResQNet.com, Inc. v. Lansa, Inc., Civil Action No. 01 Civ. 3578 (RWS) (S.D.N.Y. Sept. 4, 2002) (Claim Construction); ResQNet.com v. Lansa, Inc., Civil Action No. 01 Civ. 3578 (RWS) (S.D.N.Y. Nov. 4, 2002, & July 9, 2003) (Consent Judgment). While the district court properly construed claim 1 of the '961 patent, it erred in construing claim 1 of the '608 patent and claim 1 of the '075 patent. Thus, this court affirms-in-part, reverses-in-part, and remands the case for further proceedings.

I.

The three patents in suit claim, in relevant part, “screen recognition” and terminal emulation – processes that download a screen of information from a remote mainframe computer onto a local personal computer (PC). Mainframe computers permit multiple users to simultaneously access one central computer. Before the widespread use of PCs, each user would connect to the mainframe using a so-called “dumb terminal.” A dumb terminal typically included a monitor for displaying text and a keyboard for data entry. A dumb terminal, as its name implies, did not process or reformat the data received from the mainframe. Rather, the dumb terminal simply displayed the information from the mainframe. Symmetrically, the dumb terminal sent all data entry back to the mainframe for processing. Because a dumb terminal’s monitor generally was a monochromatic green, the display was called a “green screen.”

Gradually, PCs replaced dumb terminals. Unlike a dumb terminal, a PC does not merely send and receive information. Rather, a PC uses software to facilitate communication to and from the mainframe. With that software, a PC does not simply mimic a dumb terminal, but processes the information into a graphical user interface (GUI) format, which is much more user-friendly. Although the GUI format displays and receives information to and from the user, the PC still sends and receives information only in the manner understood by the mainframe, i.e., as if a dumb terminal were connected to the mainframe. In relevant part, the asserted patents specifically facilitate recognition of the information that the mainframe sends to the PC.

In a prior art technique of screen recognition, the mainframe would send a screen identification (screen ID), along with other information, to the local PC. Once it received the screen ID, the PC would display the information in a predetermined manner. If the screen ID changed, the manner of display would also change. The '961 patent describes three potential problems with this prior art technique. First, the mainframe must send a screen ID so that the PC can properly display the information. If the PC does not download a screen ID, “the display routine does not know how the screen of information should be displayed.” '961 patent, col. 2, ll. 48-49. Next, the application cannot change without also changing the screen ID. If fields within the screen of information have either been added or deleted, the PC will not display those additions or deletions. *Id.* at col. 2, l. 50 – col. 3, l. 2. And finally, changes to the application at the mainframe are not dynamic. For example, “[i]f the remote application at the host is changed, the display routine must be rewritten to (i) recognize new fields and (ii) not display fields which are no longer present. Additionally, new programming at the host application may be required in order to provide a new screen ID number.” *Id.* at col. 3, ll. 6-11.

To avoid these problems, the '961 patent “relates to a display routine which is based upon an algorithm which recognizes the screen by the layout and fields therein, not based solely upon the particular screen ID number.” *Id.* at col. 3, ll. 21-24. The asserted claims – claim 2 of the '961 patent, claim 1 of the '608 patent, and claim 1 of the '075 patent – each require an algorithm that recognizes the screen based on the information downloaded from the mainframe to the PC.

In construing these claims, the district court (at the parties' behest) primarily focused on claim 1 of the '961 patent because that claim is the independent claim upon which claim 2 depends and because the other two patents' specifications refer to the '961 patent. The '608 patent is a continuation-in-part of the '961 patent. The '075 patent, however, is not part of the '961 patent family. Although its construction focused on claim 1 of the '961 patent, the district court also addressed similar limitations present in the claims of the '608 and '075 patents. Thus, the trial court construed claim 1 of the '961 patent:

A user terminal for connecting to a remote host comprising:
 means for receiving information to be displayed as a first image on a screen;
 means for processing said information to generate a screen identification (“ID”) from said first image, said ID being generated as a function of the number, location, and length of each field in said first image said ID uniquely identifying said first image;
 means for comparing said generated ID to a list of stored IDs, and for selecting display parameters associated with a stored ID which matches said generated ID; and

means for displaying said information on a user display as a second image having display parameters associated with said stored ID, said second image being determined based upon the generated ID.

The trial court also construed claim 1 of the '608 patent:

Apparatus for implementing a computer terminal to be connected to a remote computer, said apparatus comprising:

means for identifying a particular user logged on to said remote computer through said computer terminal;

means for identifying, based upon a position, length and type of each of a plurality of fields, a particular screen to be displayed to said user; and

a plurality of special function keys, each key performing a specified function, the specified function performed by each key being determined by the particular user logged on and the particular screen identified to be displayed.

Finally, the trial court construed claim 1 of the '075 patent:

The method of communicating between a host computer and a remote terminal over a data network comprising steps of:

establishing a first communication session between said terminal and a communications server via a first communications channel;

downloading, from said server to said terminal, communications software for communicating between said terminal and said host and a plurality of specific screen identifying information;

utilizing said communications software to implement a second communications session between said terminal and said host via a second communications channel independent of said server;

receiving a screen from said host to said terminal;

if said received screen matches one of the plurality of specific screen identifying information, displaying a customized GUI screen; and

if said received screen does not match one of the plurality of specific screen identifying information, displaying a default GUI screen.

The parties requested the district court to construe “information,” which appears in the '961 and '075 patents' claims. This term does not appear in the '608 patent's claim. The district court first construed claim 1 of the '961 patent to refer to “the entire layout of a green screen . . . includ[ing], for the purposes of generating a screen ID, at least the number, length, and location of all fields of data on a screen.”

Claim Construction, slip op. at 22 (emphasis added). The district court also construed claim 1 of the

'608 patent to refer to “the ‘type’ of every field of the ‘green screen.’” Id. (emphasis added). Finally, the district court construed claim 1 of the '075 patent congruently to claim 1 of the '961 patent, holding that “all fields on the screen are utilized.” Id. at 18 (emphasis added). Thus, the district court limited all three of the claims to systems and methods that use all fields (or every field), and not merely some fields, to identify an incoming screen. This court has jurisdiction over ResQNet’s appeal under 28 U.S.C. § 1295(a).

II.

This court reviews claim construction decisions without deference. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). This court discerns the meaning of claim language according to its usage and context. A fundamental principle for discerning the usage of claim language is the ordinary and accustomed meaning of the words amongst artisans of ordinary skill in the relevant art at the time of invention. See Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed. Cir. 2001). Indeed, normal rules of usage suggest a “heavy presumption” that claim terms carry their accustomed meaning in the relevant community at the relevant time. CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citing Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999)). In ascertaining the accustomed usage of the relevant community at the relevant time, dictionaries and treatises may also assist the courts. Tex. Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202-03 (Fed. Cir. 2002). Of course, a patent applicant may overcome this presumption by clearly using a word in the specification, prosecution history, or both “in a manner inconsistent with its ordinary meaning.” Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp., 320 F.3d 1339, 1347 (Fed. Cir. 2003) (citing Teleflex, Inc. v. Ficoso N. Am. Corp., 299 F.3d 1313, 1325-26 (Fed. Cir. 2002)). In other words, a patent applicant may consistently and clearly use a term in a manner either more or less expansive than its general usage in the relevant community, and thus expand or limit the scope of the term in the context of the patent claims. Middleton, Inc. v. Minn. Mining & Mfg. Co., 311 F.3d 1384, 1388 (Fed. Cir. 2002) (explaining that in order to disavow claim scope, a patent applicant must clearly and unambiguously express surrender of subject matter during prosecution); Ballard Med. Prods. v. Allegiance Healthcare Corp., 268 F.3d 1352, 1361 (Fed. Cir. 2001) (noting that an applicant may disclaim claim scope during prosecution). Thus, the specification may

limit the scope of a claim if the patentee has disavowed or disclaimed the scope by using words or “expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.” Teleflex, 299 F.3d at 1325. Similarly, analogous to the restrained use of the specification, the prosecution history may limit the scope of the claims if “the alleged disavowing actions or statements made during prosecution [are] both clear and unmistakable.” Omega Eng’g, Inc. v. Raytek Corp., 334 F.3d 1314, 1326 (Fed. Cir. 2003).

Claim 1 of the ’961 Patent

Claim 1 of the ’961 patent contains limitations in means-plus-function format. Ordinarily, a claim in that format covers only the corresponding structure disclosed in the written description, as well as that structure's equivalents. See 35 U.S.C. § 112, ¶ 6; Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1376 (Fed. Cir. 2001). For claim 1 of the ’961 patent, the function is “processing said information to generate a screen identification (‘ID’) from said first image.” ’961 patent, col. 8, ll. 22-23. The structure corresponding to that function is “an algorithm which recognizes the screen layout and fields therein, not based solely upon the particular screen ID.” ’961 patent, col. 3, ll. 22-24. Neither the function nor its supporting structure alone, however, helps this court resolve the claim construction issue.

The district court cogently identified the issue as “whether the algorithm discussed in the specification evaluates attributes of all of the fields of an incoming screen of data[] or simply attributes of some of the fields in order to uniquely identify the incoming screen.” Claim Construction, slip. op. at 10 (emphases added). In the phrase immediately following the functional language, the claim recites, “said ID being generated as a function of the number, location, and length of each field in said first image.” ’961 patent, col. 8, ll. 23-25 (emphasis added). This language shows that the claimed algorithm evaluates attributes of each (and every) field in the information to be displayed, i.e., the first image. See ’961 patent, col. 8, ll. 20-21 (“information to be displayed as a first image on a screen”). Accordingly, the language of claim 1 of the ’961 patent requires the claimed algorithm to use all fields in the information from the mainframe.

The specification confirms the “all fields” requirement in the ’961 claim. In describing the determination of the screen ID, the specification provides that “the particular screen [is identified] by its

layout, fields, etc., as will be described in more detail later.” ’961 patent, col. 4, ll. 29-31. Following up on the promise of more detail, the specification sets forth only one embodiment of the algorithm:

The particular algorithm used to recognize the screen and generate the screen ID may vary from system to system, but a particular such algorithm will now be described. The screen recognition algorithm is based on a combination of information available to the program from the display buffer sent by the remote computer, plus information entered by the user. From the display buffer, the program derives the following information:

- a) number of fields on the screen
- b) type of each field
- c) coordinates of the fields (row, column)
- d) length of the field

When a screen is received in the buffer, the above parameters are determined in order to generate a unique screen ID.

’961 patent, col. 5, ll. 34-49. With the words “each field” and “fields,”^[1] this passage suggests that characteristics of all, not just some, fields are inputs into the algorithm. Nowhere does the specification suggest otherwise.

Furthermore, the specification identifies three problems in the prior art, only two of which would be overcome if the claim were construed as utilizing less than all fields in the information sent by the mainframe. The potentially unsolved problem relates specifically to a change in the application without a concomitant change in the screen ID. The ’961 patent explains:

Another major problem with the above [prior art] arrangement is that if the application is changed, no display or a meaningless display may result. Specifically, suppose that the application running on the remote host were changed so that several fields were removed and/or other fields were added. Suppose further that the screen I[D], associated with the screen was not modified.

The display routine would simply recognize the screen ID and attempt to display the screen of information in a manner prescribed for a screen with that particular ID. However, the display routine will be looking for fields which are not present in buffer 103 (if these fields have been deleted), or alternatively, will not display fields which are contained within buffer 103 (if fields have been added at the remote application). Other problems may arise if the location of fields on the screen being received from the remote host has changed. In any case, the user may see a screen with missing information, or with information which is irrelevant such as random characters which the display routine believes is meaningful information.

’961 patent, col. 2, l. 50 – col. 3, l. 2. The ’961 patent further explains: “Accordingly, if the screen ID

number remains the same but the application is altered such that fields are added, removed, etc., the screen will be recognized as a new screen (since a different screen ID will be generated) and the changes in [sic, to] the field[s] will be nonetheless properly displayed.” ’961 patent, col. 3, ll. 34-38. Thus, if the application requires either greater or fewer fields, the display to the user may not reflect those changes.

[2]

Construing the claim to solve all three problems in this case merely confirms the meaning of the claim language. Therefore, this reasoning does not run afoul of the general rule that limitations should not be imported from the specification based solely on overcoming problems in the prior art. See E-Pass Techs., Inc. v. 3COM Corp., 343 F.3d 1364, 1370 (Fed. Cir. 2003) (“The court's task is not to limit claim language to exclude particular devices because they do not serve a perceived ‘purpose’ of the invention.”); Resonate Inc. v. Alteon Websystems, 338 F.3d 1360, 1367 (Fed. Cir. 2003) (“The issue at this point may be stated thus: when the written description sets out two different problems present in the prior art, is it necessary that the invention claimed, and thus each and every claim in the patent, address both problems? We conclude that on the record in this case, the answer is no.”); Honeywell Inc. v. Victor Co. of Japan, 298 F.3d 1317, 1325-26 (Fed. Cir. 2002). That rule, of course, is a corollary of the broader principle against importing limitations from the specification into the claims. Comark Communications Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed. Cir. 1998). To repeat, however, in this case, the specification, including those portions relating to extant problems in prior art, properly confirms the meaning of claim language. See also Union Oil Co. of Cal. v. Atl. Richfield Co., 208 F.3d 989, 995 (Fed. Cir. 2000), cert. denied, 531 U.S. 1183 (2001) (confirming the claim interpretation by referring to the problem that the invention overcomes); Eastman Kodak Co. v. Goodyear Tire & Rubber Co., 114 F.3d 1547, 1554 (Fed. Cir. 1997), overruled in part on other grounds by Cybor, 138 F.3d at 1456, (“The specification, of which the claims are part, teaches about the problems solved by the claimed invention, the way the claimed invention solves those problems, and the prior art that relates to the invention. These teachings provide valuable context for the meaning of the claim language.”).

The prosecution history further confirms the meaning of the claim language. See Rexnord, 274 F.3d at 1343. The examiner rejected the original claims corresponding to the issued claims in view of United States Patent No. 5,179,700 to Aihara et al. (Aihara). The patentee distinguished Aihara because that reference would not resolve the problems identified in the specification. Emphasizing the potentially unsolved problem described above, the patentee explained:

Such problems include, for example, if the application screen is changed at the mainframe, but the screen ID is not changed, then the personal computer will display meaningless and garbled character data on the personal computer because it will read the screen ID, yet the fields it expects will not be

located properly and may not even exist at all.

* * * *

In fact, these problems, as fully set forth in . . . applicants' specification, are exactly those to which the present invention is directed.

Amendment dated July 31, 1995, at 7-8 (emphasis original).

Moreover, the patentee briefly reviewed the invention with respect to generating a screen ID, stating:

In some of applicants' narrower claims, the particular technique of recognizing is specified by utilizing three items: (i) [t]he length of each field[;] (ii) the type of field; and (iii) the number of fields contained within the screen. One advantage of such an arrangement is that if the screen layout is changed at the applications program (i.e.,[.] at the mainframe computer) a different screen ID will be generated by the personal computer because the three items of information discussed above, and upon which the screen ID is based, will change.

Amendment dated July 31, 1995, at 6. Notably, the claims described in this passage were the only ones allowed.[3] In stating the reasons for indicating allowable subject matter, the examiner explained:

Nothing in the art of record teaches or suggests the use of number of fields, field locations and field lengths for generating a screen ID (claim 14) which is compared to a list of ID's using display parameters (parent claim 2) and displaying an image based on the generated ID where the fields are from a received image (parent claim 1).

Final Office Action dated December 28, 1995, at 9. The patentee acquiesced and rewrote claim 1 to incorporate all of the limitations of claim 14 and intervening claim 2. The statements regarding the "narrower claims" apply in full force to issued claim 1 of the '961 patent. Thus, the remarks regarding overcoming all problems in the prior art inform the proper claim construction. Based on the plain language of the claims as confirmed by the specification and prosecution history, this court concludes that claim 1 of the '961 patent requires use of every field in the information downloaded from the mainframe to the PC in determining a screen ID. Therefore, this court affirms the district court's construction of this claim.

Claim 1 of the '608 Patent

Similar to claim 1 of the '961 patent, claim 1 of the '608 patent contains limitations in means-plus-function format. The claimed function is "identifying . . . a particular screen to be displayed to said user." '608 patent, col. 4, ll. 42-44. The specification sets forth the corresponding structure: "Upon a screen of information being downloaded to a personal computer 103, the personal computer

analyzes the screen with respect to the location of particular fields, and other attributes thereof, in order to recognize the particular screen downloaded.” Id. at col. 2, ll. 51-55. Thus, similar to the ’961 patent, the structure is an algorithm for analyzing the downloaded information to generate a screen ID. Further similar to the ’961 patent, neither the function nor its corresponding structure alone resolves the claim construction issue because that issue depends on which fields the algorithm employs in “identifying . . . a particular screen to be displayed to said user.” ’608 patent, col. 4, ll. 42-44. These similarities reflect the parentage of the ’608 patent, which is a continuation-in-part (CIP) of the ’961 patent.

Although the related patents are similar, their claims are not identical. Sandwiched within the functional language of the ’608 claim is the following clause: “based upon a position[,] length and type of each of a plurality of fields.” ’608 patent, col. 4, ll. 42-43 (emphasis added). As the emphasis indicates, the language of claim 1 of the ’608 patent differs from the language of claim 1 of the ’961 patent. See ’961 patent, col. 8, ll. 23-25 (“said ID being generated as a function of the number, location, and length of each field in said first image”) (emphasis added). This difference is significant. Therefore, this court interprets the claim anew, without regard to the interpretation of claim 1 of the ’961 patent.

Claim 1 of the ’608 patent recites “each of a plurality of fields,” which does not carry the same meaning as “every field.” Rather, the recitation of “plurality” suggests the use of “at least two.” See York Prods., Inc. v. Cent. Tractor Farm & Family Ctr., 99 F.3d 1568, 1575 (Fed. Cir. 1996) (“The term means, simply, ‘the state of being plural.’”). While “at least two” may mean “every” under some circumstances, the two terms are not synonymous. In sum, “each of a plurality of fields” means “each of at least two fields.”

The ’608 specification confirms this meaning of the claim language. In the only portion specifically addressing whether the algorithm employs all or some fields, the specification notes that “the personal computer analyzes the screen with respect to the location of particular fields.” ’608 patent, col. 2, ll. 52-53 (emphasis added). This passage suggests that the PC selects certain fields – potentially a subset of all fields – for analysis. In this respect, the ’608 patent has a broader disclosure than the ’961 patent. Even though the ’608 patent incorporates the ’961 patent by reference, see ’608 patent, col. 2, ll. 55-58, the ’608 patent is a CIP, which allows addition of new matter to this limitation. See Waldemar Link, GmbH v. Osteonics Corp., 32 F.3d 556, 558 (Fed. Cir. 1994). Accordingly, the specification confirms the

interpretation that generation of a screen ID requires use of a plurality of specific, individual fields, i.e., at least two fields.

Furthermore, the prosecution history of the '608 patent does not compel a different result. Rexnord, 274 F.3d at 1343. Although a parent patent's prosecution history may inform the claim construction of its descendent, the '961 patent's prosecution history is irrelevant to the meaning of this limitation because the two patents do not share the same claim language. See Advanced Cardiovascular Sys., Inc. v. Medtronic, Inc., 265 F.3d 1294, 1305 (Fed. Cir. 2001) ("The prosecution history of a related patent can be relevant if, for example, it addresses a limitation in common with the patent in suit."). The prosecution history of the application that matured into the '608 patent, however, is scant. In the first and only office action, the examiner rejected all claims for obviousness-type double patenting over claims 1 to 3 of the '961 patent and rejected all claims, save one, as obvious over various prior art references. In response, the patentee issued a terminal disclaimer and rewrote the allowable claim in independent form including all limitations of the base and intervening claims.

This prosecution record evinces no "clear and unmistakable" disavowal of claim scope that would compel a result different than the claim language. See Omega Eng'g, 334 F.3d at 1326. Therefore, "each of a plurality of fields" as recited in claim 1 of the '608 patent means "each of at least two fields." Because the district court incorrectly construed the '608 claim as synonymous with the '961 claim, this court reverses with respect to this limitation.

Claim 1 of the '075 Patent

Even though the '961, '608, and '075 patents claim similar (but not the same) subject matter, the '075 patent does not share the genealogy of the other two patents. The disputed language in claim 1 of the '075 patent, furthermore, does not appear in either the '961 or the '608 patent. Quite simply, this court detects no reason to construe the '075 claims as identical to similar claim terms in the other two patents.

Unlike the '961 and '608 claims, claim 1 of the '075 patent does not invoke section 112, sixth paragraph, in any of its limitations. Rather, claim 1 is a pure method claim. The disputed language

reads “downloading, from said server to said terminal . . . a plurality of specific screen identifying information.” ’075 patent, col. 5, ll. 6-7 (emphasis added). As previously noted, “plurality” ordinarily means “at least two”; thus, “a plurality of specific screen identifying information” means “at least two pieces of specific screen identifying information.” Moreover, the presence of “specific” connotes selected or particular. This phrase does not equate to “all.”

In relevant part, the specification discloses: “The particular screen recognition algorithm used is not critical to the present invention but may be of the type described in the ’961 patent.” ’075 patent, col. 4, ll. 8-10 (emphases added). The presence of “not critical” and “may” indicates a preference, not a requirement. See also id. at col. 3, ll. 40-43 (“These green screens, as they are called, are processed through screen recognition algorithms such as that described in the previously incorporated ’961 patent and ’383 application.” (emphasis added)). Thus, the ’075 patent lacks “expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.” Teleflex, 299 F.3d at 1325. Accordingly, the written description of the ’075 patent does not restrict the scope of the claim language with regard to this limitation. Similarly, the prosecution history of the ’075 patent, to the extent it is in the record on appeal, does not clearly and unmistakably restrict the meaning of this claim term. See Omega Eng’g, 334 F.3d at 1326. Because the district court improperly construed claim 1 of the ’075 patent, this court reverses.

III.

In sum, this court affirms the construction of claim 1 of the ’961 patent, reverses the construction of claim 1 of the ’608 patent to the extent that it required the algorithm to use more than “each of a plurality of fields,” and reverses the construction of claim 1 of the ’075 patent to the extent that it required the claimed method to include more than “a plurality of specific screen identifying information.” This court remands for further proceedings.

COSTS

Each party shall bear its own costs for this appeal.

AFFIRMED-IN-PART, REVERSED-IN-PART, and REMANDED

[1] “Field” is also present in a singular form. This, however, appears to be a typographical or clerical error, because the context clearly does not contemplate using a single field.

[2] In some circumstances, this problem is illusory. For example, if the added or deleted fields are the same fields as utilized by the algorithm in generating the screen ID, the additions or deletions would be recognized and a proper display would result.

[3] Because no claim ever recited the length, type, and number of each field, this court understands this passage to refer to application claim 14, which was added in the Amendment dated July 31, 1995. Application claim 14 recited that the length, number, and location were utilized, i.e., the patentee mistakenly substituted type for location.