IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

Steven E. Berkheimer,	)	
	)	
Plaintiff,	)	**12-cv-9023**
	)	
v.	)	**The Honorable John Z. Lee**
	)	
Hewlett-Packard Company,	)	
	)	
Defendant.	)	

MEMORANDUM OPINION AND ORDER

Plaintiff Steven E. Berkheimer ("Berkheimer") has sued Hewlett-Packard Company ("HP") alleging infringement of U.S. Patent No. 7,447,713 (the "'713 Patent"). Compl. ¶ 1; Am. Compl. ¶ 1. The allegedly infringing products and services are HP's enterprise document automation software and platforms, such as HP EXSTREAM. Am. Compl. ¶ 9. Following a *Markman* hearing, the case is now before the Court for the construction of the ten terms of the '713 Patent and the order of steps in Claim 1.

Background

The patent-in-suit describes digital archiving of files. *See* '713 Patent col.1 ll.10–11, Joint Appendix ("J.A.") 11. Berkheimer's invention addresses two common problems with archiving. First, the patented system and method "eliminate redundant instances of common text or graphical elements" in archives. *Id.* at col.2 ll.54–55. This is accomplished by converting documents or graphic files to "a standardized representation," parsing them into "object oriented document components," and tagging these components "for subsequent identification and linking purposes." *Id.* at col.2 ll.55–59. The parsed graphical objects and associated relationships can

then be analyzed and compared to other documents in the archive to avoid redundancy. *Id.* at col.2 ll.61–65.

Second, the invention tackles the problem of editing certain elements that appear in multiple documents. *Id.* at col.1 ll.36–41. Instead of making repeated changes to the same element in different documents, the patented invention allows the user to edit the element once and affect multiple documents where the element appears. *Id.* at col.3 ll.23–35, J.A. 12. The archived documents can then be recompiled by "a reverse parsing process." *Id.* at col.3 ll.36–37, J.A. 12.

The following terms of the '713 Patent are in dispute: (1) "archive"; (2) "parser"; (3) "parsing [the item into a plurality of multi-part object structures]"; (4) "evaluating"; (5) "converting"; (6) "evaluating the object structures in accordance with object structures previously stored in an archive"; (7) "presenting an evaluated object structure for manual reconciliation"; (8) "object oriented"; (9) "archive exhibits minimal redundancy"; and (10) "some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process." The parties also ask the Court to interpret the order of steps in Claim 1.

Legal Standard

Claim construction is a question of law to be decided by a judge. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996). Generally, a claim term is given its "ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005).

A person of ordinary skill in the art is assumed to read the claim term in the context of the entire patent. *Phillips*, 415 F.3d at 1313.

In analyzing claim terms, courts begin with the intrinsic evidence — the patent itself, including claims and specification, and its prosecution history. *Vitronics*, 90 F.3d at 1582. The specification is usually "dispositive" as "it is the single best guide to the meaning of a disputed term." *Id*. However, "[w]hen consulting the specification to clarify the meaning of claim terms, courts must take care not to import limitations into the claims from the specification." *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009). Thus, courts should not read a particular embodiment described in the specification into the claim when claim language is broader than the embodiment. *Superglide Corp. v. DirecTV Enters.*, Inc., 358 F.3d 870, 875 (Fed. Cir. 2004). But a claim may be limited to its preferred embodiment if permitting expansive claim language would undermine the public notice requirements of 35 U.S.C. § 112. *LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1346 (Fed. Cir. 2005).

Next, the context in which a term appears in the asserted claim is "highly instructive" and other claims are also "valuable sources of enlightenment as to the meaning of a claim term." *Phillips*, 415 F.3d at 1314. Thus, the doctrine of claim differentiation provides that "each claim in a patent is presumptively different in scope." *RF Del., Inc. v. Pac. Keystone Techs., Inc.*, 326 F.3d 1255, 1263 (Fed. Cir. 2003). This "presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim." *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007). However, claim differentiation is a "rule of thumb" and not absolute — it does not trump "the clear import of the specification" or the disclaimer of the subject matter in the prosecution history. *Edwards*

Lifesciences LLC v. Cook, Inc., 582 F.3d 1322, 1332 (Fed. Cir. 2009); *Fantasy Sports Props., Inc. v. Sportsline.com, Inc.*, 287 F.3d 1108, 1116 (Fed. Cir. 2002).

The prosecution history can also "inform the meaning of the claim language." *Phillips*, 415 F.3d at 1317 (Fed. Cir. 2005). For example, it can be used "as support for the construction already discerned from the claim language and confirmed by the written description." *800 Adept, Inc. v. Murex Sec., Ltd.*, 539 F.3d 1354, 1365 (Fed. Cir. 2008). It may also serve to "exclude any interpretation that was disclaimed during prosecution." *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005). Nevertheless, a claim term should not be narrowed "simply by pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

Finally, extrinsic evidence, such as dictionaries and expert testimony, may be used only if the intrinsic evidence alone is insufficient to determine the meaning of the claim terms. *Vitronics*, 90 F.3d at 1583.

Analysis

I. "Archive"

The first disputed term is "archive." It appears in Claims 1, 4, 6, 7, 10, and 17 of the '713 Patent. '713 Patent cols.47–48, J.A. 34. HP argues that no construction is necessary for this term and that "[t]hose of ordinary skill in the art at the time of invention would understand the ordinary and customary meaning . . . to be a collection of stored data." Def.'s Claim Construction Br. 5 ("Def.'s Br."). Berkheimer responds that "archive" is "a collection of materials, documents, records, data (items) which are selected based on an assessment of their value to the organization, group or individual providing the archive, which are, subsequent to the

assessment, organized and managed to ensure their preservation and access according to the interests of the organization, group or individual providing the archive." Pl.'s Response Claim Construction 5 ("Pl.'s Br.").

Berkheimer's definition comes, with some modifications, from the prosecution history of the '713 Patent. In his Appeal Brief filed with the Board of Patent Appeals and Interferences (the "BPAI"), Berkheimer stated the following while arguing against an obviousness rejection:

> It is obvious to one of ordinary skill in the art of archiving (an archivist), that an archive is a collection of materials, documents, records (data), which are selected based on an assessment of their value to the organization, group or individual providing the archive, which are subsequent to this assessment, organized and managed to ensure their preservation and access according to the interests of the organization, group or individual providing the archive.

J.A. 71. Berkheimer further clarified that a "Picture Archival and Communications System" listed in the prior art and defined as comprising "a plurality of computers, computer memories, memory storage disks, read only memories, random access memories, and workstations for viewing and interactions with digital medical imagery," is "not equivalent to an archive as it is known to one of ordinary skill in the art of archiving." *Id*.

Based upon these statements, Berkheimer now asserts that it disavowed the full scope of the term "archive" during the prosecution. But this is not so. In fact, Berkheimer himself conceded during the prosecution history that "archive" is a term that "is known to one of ordinary skill in the art" and distinguished that term from the "Picture Archival and Communications System" that was claimed in the prior art. J.A. 71.

Of course, the Court is mindful of the fact that "[a] determination that a claim term 'needs no construction' or has the 'plain and ordinary meaning' may be inadequate when a term has more than one 'ordinary' meaning or when reliance on a term's 'ordinary' meaning does not

resolve the parties' dispute." *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008). But here, Berkheimer does not dispute the ordinary meaning of the term "archive." Rather, he argues that a narrower definition should be applied. As noted, the Court rejects this argument and adopts the plain and ordinary meaning of the term, thereby resolving this dispute. *Cf. ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012) (holding that the district court did not err in concluding that terms had plain meanings that did not require additional construction where the court rejected alternative construction that erroneously read limitations into the claims and, thus, resolved the dispute between the parties).

Ultimately, this Court agrees with HP that substituting "archive" with Berkheimer's lengthy definition will not clarify the term's meaning. "Archive" is a commonly used word that needs no construction beyond its plain and ordinary meaning. *See Phillips*, 415 F.3d at 1314.

II. "Parser"

Next, the Court construes "parser." This term appears in Claims 1 and 3 of the '713 Patent. '713 Patent col.47 ll.12, 27, J.A. 34. HP proposes that "parser" means "a program that dissects and converts source code into object code." Def.'s Br. 7; Def.'s Reply Claim Construction Br. ("Def.'s Reply") 2. Berkheimer counters that "parser" is "that which dissects and converts source code into object code." Pl.'s Br. 10. Thus, the parties agree that a "parser" "dissects and converts source code into object code," but disagree on whether it has to be a program. *Id.*; Def.'s Br. 7.

Similar to the term "archive," Berkheimer's definition of "parser" comes from the Appeal Brief filed with the BPAI. There, Berkheimer argued that the prior art "does not present an item to a parser (that which dissects and converts source code into object code)." J.A. 81. HP's

definition also is rooted in Berkheimer's BPAI Appeal Brief, which states that it is "obvious to one of ordinary skill in the art of archiving . . . that archival software is a computer program designed to facilitate the management of an archive as described here." J.A. 71; Def.'s Br. 7; Def.'s Reply 3. It also takes into account the language of Claim 1, which states that the method claimed is performed "in a computer processing system." '713 Patent col.47 ll.10–11, J.A. 34, 36-37.

Berkheimer is correct that the '713 Patent itself does not use the word "program" when discussing "parser," but the patent does not portray any other means for dissecting and converting. This construction is further supported by the patent's drawings, which all depict a computer when describing various embodiments of the invention. '713 Patent Figs. 1, 2A, 2C, J.A. 2, 3, 5. Accordingly, after considering the intrinsic record as a whole, the Court adopts the interpretation of "parser" as "a program that dissects and converts source code into object code."

III. "Parsing [the item into a plurality of multi-part object structures]"

The Court next turns to "parsing [the item into a plurality of multi-part object structures]," which appears in Claim 1 of the '713 Patent. '713 Patent col.47 ll.13–14, J.A. 34. HP proposes to construe it as "automatically dissecting and converting source code into object code." Def.'s Br. 8; Def.'s Reply 3. Berkheimer counters that the meaning is "wherein source code is converted / translated into object code" or "dissecting and converting source code into object code." Pl.'s Br. 11. Hence, the parties agree that "parsing" means "dissecting and converting source code into object code," but disagree on whether the "dissecting and converting" has to be done "automatically." *Compare id., with* Def.'s Br. 8; Def.'s Reply 3.

HP insists that "parsing" is done "automatically." It first points to the '713 Patent specification, which states: "[g]iven the fact that the sizes of many pre-existent archives can

involve tens to hundreds of thousands of documents, the importance of automating document importing and minimizing user involvement can't be stressed enough." '713 Patent col.11 ll.45–48, J.A. 16. The specification further emphasizes the importance of automation by stating that "[t]he system and methods also provide[] capability by other executable instructions to efficiently and/or automatically search, compare and reconcile its object-oriented PostScript data." '713 Patent col.6 ll.42–46, J.A. 13.

The fact that automation is important to the invention, however, does not mean it is necessary for each individual step of the claimed method. Notably, Claim 1 is silent on whether the step of "parsing" is automatic. '713 Patent col.47 ll.13–15, J.A. 34. And the claimed method itself is not necessarily entirely automatic — it involves presenting object structures for manual reconciliation. *Id.* at col.47 ll.18–19, J.A. 34. Finally, even the specification language quoted by HP indicates that automation is not required. After all, the methods provide capability "to efficiently *and/or* automatically search, compare and reconcile its object-oriented PostScript data." *Id.* at col.6 ll.43–46, J.A. 13 (emphasis added).

HP's next argument is based on Berkheimer's Request for Reconsideration and the Appeal Brief filed with the BPAI. There, Berkheimer stated that "[t]he disclosed system's importing process is unique in that it provides an *automated* sequence of functions, which consists of: . . . 2) parsing imported documents into their various components using a unique data model." J.A. 66, 212 (emphasis added). This, in HP's opinion, indicates that "parsing" is done automatically.

But a closer reading of Berkheimer's statement undercuts HP's argument. It states:

> The disclosed system's importing process is unique in that it provides an *automated sequence of functions*, which consists of: . . . 2) parsing imported documents into their various components using a unique data model, . . . 5) *automatically* reconciling

> imported documents and document components to achieve compliance with pre-determined rules when applicable . . . .

J.A. 66, 212 (emphasis added). Berkheimer uses the phrase "*automated sequence of functions*," not "*sequence of automated functions*." Therefore, the functions themselves are not necessarily automated; it's only their sequence (move from one function to another) that appears to be automated. The rest of the statement supports this interpretation — Berkheimer specifically mentions that "reconciling" has to be done "*automatically*," while remaining silent on the automation of the remaining steps. *Id.* If all the listed functions were automated, there would be no need for pointing out the automatic nature of "reconciling." As such, the prosecution history does not support HP's construction that "parsing" is done "automatically."

In the end, intrinsic evidence supports the construction of "parsing" as involving "dissecting and converting source code into object code." *See, e.g.*, '713 Patent Abstract, J.A. 1; col.2 ll.57–58, J.A. 11. But, at this point, the Court notes that replacing "parsing" with the proposed phrase "dissecting and converting source code into object code" in Claim 1 does not result in a logically coherent statement; Claim 1 would read "*dissecting and converting source code into object code* the item into a plurality of multi-part object structures wherein portions of the structures have searchable information tags associated therein." *See id.* at col.47 ll.13–15, J.A. 34 (emphasis added).

Logical consistency can be accomplished while maintaining the same meaning for the term "parsing" by utilizing the phrase "using parser to dissect and convert," or, once the "parser" definition is applied, "using a program that dissects and converts source code into object code to dissect and convert." Thus, the Court will adopt the interpretation of "parsing [the item into a plurality of multi-part object structures]" as "using a program that dissects and converts source code into object code to dissect and convert."

IV. "Evaluating"

The parties also disagree on the meaning of "evaluating" in Claim 1. '713 Patent col.47 l.16, J.A. 34. HP proposes that the term be construed as "automatically analyzing and comparing." Def.'s Br. 9; Def.'s Reply 4. Berkheimer argues that the meaning is "to form an idea of the amount, number, or value of (an item), to assess or estimate the nature, ability, or quality of (an item)" or, in alternative, "analyzing and comparing." Pl.'s Br. 13. Hence, the parties' dispute again centers on whether this step has to be done "automatically." *Compare id.*, *with* Def.'s Br. 9; Def.'s Reply 4.

The Court agrees with the parties that "evaluating" means "analyzing and comparing." This construction finds strong support in the '713 Patent specification that states: "[t]he parsed graphical objects and associated relationships are *analyzed* and *compared*," "objects and relationships are *analyzed* and *compared* to previously imported documents which are part of the archive," and "objects and relationships which are being imported are then *analyzed* and *compared*." '713 Patent col.2 ll.60–61, 64–65, 66–67, J.A. 11 (emphasis added). But contrary to the HP's suggestion, "evaluating" does not have to be "automatically" performed, for the same reasons that "parsing" is not necessarily automatic.

Therefore, the Court will construe "evaluating" to mean "analyzing and comparing."

V. "Converting"

The next term to be construed, "converting," appears in Claim 3 of the '713 Patent. '713 Patent col.47 ll.25–27, J.A. 34. HP argues that the correct interpretation of the term is "automatically translating and importing." Def.'s Br. 11; Def.'s Reply 5. Berkheimer counters that the term means "to cause change or turn from one state or condition to another; to alter in

form, substance or quality; to transform, to transmute" or, alternatively, it should be construed to have its ordinary meaning. Pl.'s Br. 13.

In support of its interpretation, HP first points at the Detailed Description of the Preferred Embodiments that states: "[t]he system translates and imports non-object oriented document file formats to a preselected standard, which could be PostScript-type code, from which, it is parsed and tagged to an object oriented PostScript data model." '713 Patent col.6 ll.49–52, J.A. 13. HP also finds Figure 2A instructive — it lists the steps of "initiation of document import process" and "translation of documents to standard file format." '713 Patent Figure 2A, J.A. 3. And the '713 Patent's Abstract describes "[s]ystems and methods for translating document files to a common input format [that] can then parse the elements of such document." '713 Patent Abstract, J.A. 1. Finally, similar to the term "parsing," HP relies on Berkheimer's statements in the Request for Reconsideration and the Appeal Brief to argue that "converting" has to be done "automatically."

Berkheimer's construction, on the other hand, is taken purely from the Appeal Brief filed with the BPAI. Pl.'s Br. 14. There, Berkheimer stated, "Per standard dictionary definition the term 'convert' is defined as to cause change or turn from one state or condition to another; to alter in form, substance or quality; to transform; to transmute; as, to convert water into ice." J.A. 102.

Ultimately, "district courts are not (and should not be) required to construe *every* limitation present in a patent's asserted claims." *O2 Micro Intern. Ltd.*, 521 F.3d at 1362. Rather, the Court's duty is to resolve the parties' "fundamental dispute regarding the scope of a claim term." *Id.* Here, "converting" is an easily understandable term that does not require further construction beyond its plain and ordinary meaning, *see Phillips*, 415 F.3d at 1314, and

during the *Markman* hearing, HP itself agreed to the ordinary meaning construction, so long as "converting" is understood to be done "automatically." *See* Markman Hearing Transcript 76–77; *see also* Def.'s Br. 12; Def.'s Reply 6–7. Thus, the fundamental dispute between the parties again is whether "converting" has to be done "automatically." For the same reasons that "parsing" does not have to be performed "automatically," the Court holds that "converting" is not necessarily an automatic step.

For the foregoing reasons, the Court concludes that "converting" does not require construction.

VI. "Evaluating the object structures in accordance with object structures previously stored in an archive"

HP next suggests that the phrase "evaluating the object structures in accordance with object structures previously stored in an archive" in Claim 1 should be interpreted as "automatically analyzing each of the parsed plurality of multi-part object structures and comparing them to other multi-part object structures previously stored in the archive to determine noncompliance with user established rules." Def.'s Br. 13; Def.'s Reply 7. Berkheimer replies that only "evaluating" should be construed and the remaining phrase should be given its ordinary meaning. Pl.'s Br. 14.

The parties first disagree on whether *each* of the parsed multi-part objects structures has to be evaluated. HP asserts that "each of [the] object structures must be evaluated in order to determine if there [are] any redundancies that can be reconciled." Def.'s Reply 7. HP relies on Claim 1 itself (as well as the '713 Patent in general) and its failure to indicate that only "a subset (*i.e.*, "one or more") of the object structure will be analyzed." *Id.* 7–8. Hence, according to HP, "evaluating the 'plurality' (*i.e.*, more than one) of multi-part object structures necessarily means evaluating each of them." *Id.* 8. In turn, Berkheimer also relies on Claim 1, but argues that the

claim does not contain the words "each of." Pl.'s Br. 15. So, according to Berkheimer, there is no requirement that "each of" the parsed multi-part object structures must be evaluated. *Id.*

Claim 1 states that an item is parsed "into a plurality of multi-part object structures" and then an "evaluating [of] the object structures" takes place. '713 Patent col.47 ll.13–16, J.A. 34. It is clear that "the object structures" in the evaluation step are "a plurality of multi-part object structures" obtained in the previous parsing step. There is no suggestion in the Claim 1 language that some of the object structures are left out of the evaluation process. Thus, the Court construes "the object structures" as "the plurality of multi-part object structures obtained by parsing."

The next issue is the meaning of "in accordance with object structures previously stored in an archive." Claim 1 states that the next step after "evaluating" is "presenting an evaluated object structure for manual reconciliation *at least where there is a predetermined variance between the object and at least one of a predetermined standard and a user defined rule." Id.* at col.47 ll.18–21, J.A. 34 (emphasis added). So it presumes that the evaluation involves comparison of the parsed plurality of multi-part object structures to already archived object structures to determine if there is "*variance between the object and at least one of a predetermined standard and a user defined rule.*" *Id.* (emphasis added). The '713 Patent specification also supports this interpretation. The Summary of the Invention states:

> Objects and relationships which are being imported are then analyzed and compared in accordance with user established rules and standards pertaining to object and object relationship clarification and differentiation. Objects and relationships being imported are analyzed and compared according to user established rules and standards pertaining to integrity and accuracy. Objects and relationships being imported are also analyzed and compared according to user established rules pertaining to redundant objects and object relationships.

Id. at col.2 ll.66–67, J.A. 11; col.3 ll.1–8, J.A. 12.

Finally, the parties disagree on whether "evaluating" has to be done "automatically." As this Court has already explained in Part IV of this opinion, "evaluating" is not required to be performed "automatically."

Therefore, this Court construes "evaluating the object structures in accordance with object structures previously stored in an archive" as "analyzing the plurality of multi-part object structures obtained by parsing and comparing it with object structures previously stored in the archive to determine if there is variance between the object and at least one of a predetermined standard and a user defined rule."

VII. "Presenting an evaluated object structure for manual reconciliation"

The Court next construes the term "presenting an evaluated object structure for manual reconciliation" of Claim 1. *Id.* at col.47 ll.18–19, J.A. 34. According to HP, the term means "providing one of the noncompliant evaluated multipart object structures to a user for manual correction and editing." Def.'s Br. 15; Def.'s Reply 8. Berkheimer counters that the term should be given its ordinary meaning. Pl.'s Br. 15.

HP relies on Claim 1 language to support its idea that "an evaluated object structure" simply "refers back to one of the noncompliant object structures identified in the previous 'evaluating' step." Def.'s Br. 15. In comparison, Berkheimer also cites Claim 1, but suggests that "an evaluated object structure" is "one of the evaluated object structure identified in the previous 'evaluating' step." Pl.'s Br. 16.

The Court disagrees with HP's narrow construction of "an evaluated object structure." The Claim 1 language "*at least* where there is a predetermined variance between the object and at least one of a predetermined standard and a user defined rule" suggests that more than just

"noncompliant evaluated multipart object structures" might be presented. '713 Patent col.47 ll.19–21, J.A. 34 (emphasis added). Moreover, the use of "an evaluated object structure" term in Claim 1 does not deviate from its ordinary meaning — it simply denotes "object structures" that were previously evaluated (in the preceding step).

Next, HP argues that "manual reconciliation" means "manual correction and editing." Def.'s Br. 15–16; Def.'s Reply 9. HP relies on the '713 Patent specification that states: "[o]bjects can be manually displayed along with element properties and element property values or, document properties and document property values for manual correction, editing and reconciliation"; "object and object relationship differentiation, clarification, correction and redundancy elimination will be effected by manual or automated means"; "the user has the option of either designating a rule violation for manual, user executed reconciliation or correction"; and "object and object relationship differentiation, clarification, correction and redundancy elimination will be effected by manual or automated means." '713 Patent col.3 ll.10–14, J.A. 12; col.5 ll.14–17, J.A. 13; col.10 ll.18–21, J.A. 15; col.14 ll.48–51, J.A. 17. Berkheimer, on the other hand, counters that such construction of "manual reconciliation" improperly imports specification limitations into the claim. Pl.'s Br. 16.

The Court is not convinced that "manual reconciliation" should be construed in the narrow way proposed by HP. Even the '713 Patent specification does not clearly define "reconciliation" as only "correction and editing" — it states, *e.g.*, that "[o]bjects can be manually displayed . . . for manual correction, editing *and* reconciliation." '713 Patent col.3 ll.10–14, J.A. 12. Moreover, "reconciliation" is a commonly used word that needs no construction beyond its plain and ordinary meaning. *See Phillips*, 415 F.3d at 1314.

Therefore, the Court concludes that the phrase "presenting an evaluated object structure for manual reconciliation" does not require construction and should be given its plain and ordinary meaning.

VIII. "Archive exhibits minimal redundancy"

Before construing other terms in Claim 10 of the '713 Patent ("object oriented" and "some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process"), the Court must first examine the term "archive exhibits minimal redundancy." HP proposes that this term is indefinite under 35 U.S.C. § 112, ¶ 2 and, to the extent the term can be construed, it means "all of the object oriented elements in the archive have been compared and identified redundancies have been eliminated almost completely." Def.'s Br. 18; Def.'s Reply 11. Berkheimer reads the term to have an ordinary meaning or, in the alternative, as "an archive exhibiting least redundancy." Pl.'s Br. 17.

Recently, the Supreme Court held that the definiteness requirement of § 112, ¶ 2 is satisfied when "a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). In reaching this holding, the Court acknowledged that the definiteness requirement entails a "delicate balance" between "the inherent limitations of language" and the fact that "a patent must be precise enough to afford clear notice of what is claimed." *Id.* at 2128–29. Thus, although the Court's standard "recogniz[es] that absolute precision is unattainable," it still "mandates clarity." *Id.* at 2129.

In fact, the Supreme Court made it clear that "[i]t cannot be sufficient that a court can ascribe *some* meaning to a patent's claims." *Id.* at 2130 (emphasis in original). Instead, "the

definiteness inquiry trains on the understanding of a skilled artisan at the time of the patent application, not that of a court viewing matters *post hoc*." *Id.* at 2130. Hence, "[t]he claims, when read in light of the specification and the prosecution history, must provide *objective boundaries* for those of skill in the art." *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (emphasis added). It follows that, although terms of degree may not be inherently indefinite, they can be indefinite if they are highly subjective and provide little guidance as to the objective boundaries of the claim to one skilled in the art. *Id.* at 1370–74.

In the present case, intrinsic evidence provides little guidance for the meaning of "minimal redundancy." First, Claim 10 describes an "archive of documents represented by linked object oriented elements stored in the medium" and states that at least some of those elements have to be "linked to pluralities of the elements" and "some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements." '713 Patent col.47 ll.58–65, J.A. 34. This language provides no objective guidelines, mathematical or otherwise, for the bounds of "minimal redundancy."

Second, contrary to Berkheimer's contentions, the '713 Patent's specification and prosecution history do little to clarify the meaning of the term. At times, the intrinsic evidence emphasizes that any redundancy is undesirable and should be eliminated. *See, e.g., id.* at col.2 ll.24–25, J.A. 11 ("[s]torage of redundant common graphics elements leads to inefficiencies and increased costs"); col.13, ll.10–13, J.A. 17 ("[u]nlike other types of digital asset management systems . . . the present system is not encumbered with redundant documents or elements"); J.A. 269 ("[b]y eliminating redundancy, storage costs are reduced"). At others, the intrinsic evidence not only acknowledges that some degree of redundancy is inevitable, J.A. 269 (stating that

completely eliminating redundancy is "not likely"), but even states that redundancy may be a desirable element that can be chosen by the user. *See, e.g, id.* at col.6, ll.60–65, J.A. 13 ("[t]he system compares documents . . . and provides user interfaces and tools for examining and choosing the elimination of document and document element redundancies"); Pl.'s Br. at 21 ("Thus the 'minimum redundancy' term does not require the complete absence of redundancy but *may accommodate* user option exception.") (emphasis provided). This lack of clarity is compounded by the language of Claim 10 itself which appears to contemplate a redundancy that may consist of something more than "elements linked to pluralities of elements." *See* '713 Patent col.47, ll.60-62 (claiming an archive that exhibits "minimal redundancy with *at least* some elements linked to pluralities of the elements") (emphasis provided). As such, intrinsic evidence leaves a person skilled in the art with a highly subjective meaning of "minimal redundancy" after reading the '713 Patent and its prosecution history.

Reference to extrinsic evidence does not help to define the boundaries of the term either. In fact, HP's expert witness, Dan Schonfeld, states that "one of skill in the art would not be reasonably informed about the scope of the invention and would not have reasonable certainty about where infringement begins and ends." Def.'s Br., DX 4, Dan Schonfeld Decl. ¶ 24. In the absence of any contrary evidence offered by Berkheimer, the Court makes the subsidiary factual finding based upon Schonfeld's testimony that a person of ordinary skill in the art at the time of the invention would not have known what was meant by the term "minimal redundancy" as it appears in Claim 10. *See Teva Pharmaceuticals, USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).[1]

[1] Berkheimer contests the admissibility of Schonfeld's declaration, claiming that it lacks the requisite foundation. The Court disagrees. Schonfeld provided a detailed description of his background as well as a lengthy *curriculum vitae* that demonstrates his qualifications to testify as an expert in this case. Furthermore, in formulating his opinions, Schonfeld reviewed the patent and various portions of the

For his part, Berkheimer insists that this indefiniteness issue is simply a "resurrect[ion] [of] a matter addressed and resolved during the '713 Patent prosecution" and that the examiner already determined that the claim met the § 112, ¶ 2 requirement. Pl.'s Br. 17–19. But "[t]he PTO — like a court — may make mistakes." *St. Clair Intellectual Prop. Consultants, Inc. v. Matsushita Elec. Indus. Co.*, 691 F. Supp. 2d 538, 550 (D. Del. 2010) (citing *SRAM Corp. v. AD-II Eng'g, Inc.*, 465 F.3d 1351, 1359 (Fed. Cir. 2006)). And courts are not bound by the PTO's construction. *See, e.g., SRAM Corp.*, 465 F.3d at 1359 ("[T]his court is not bound by the PTO's claim interpretation because we review claim construction *de novo*"); *Sloan Valve Co. v. Zurn Indus., Inc.*, No. 10-CV-204, 2012 WL 4049361, at *12 (N.D. Ill. Sept. 13, 2012) ("Even if the examiner had read [certain] limitation into the claims . . . it would not change the Court's conclusion"); *St. Clair Intellectual Prop. Consultants, Inc.*, 691 F. Supp. 2d at 550 ("[O]nce claim construction is before a court, the court is obligated to construe claims *de novo* as a matter of law, without according any deference to the PTO's construction"). Moreover, "the deference that is due to a qualified government agency presumed to have done its job" is already reflected in "the clear and convincing evidence burden for proving invalidity." *Sciele Pharma Inc. v. Lupin Ltd.*, 684 F.3d 1253, 1260 (Fed. Cir. 2012). And, in the end, courts should not rewrite patent claims to preserve their validity. *Pfizer, Inc. v. Ranbaxy Labs. Ltd.*, 457 F.3d 1284, 1292 (Fed. Cir. 2006); *see also Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999) ("[I]f the

prosecution history. To the extent that Berkheimer contends that Schonfeld should have reviewed other parts of the prosecution history or considered other grounds for definiteness, such objections go more to the weight of Schonfeld's testimony, rather than to its admissibility. *See Padilla v. Hunter Douglas Window Coverings, Inc.*, 14 F. Supp. 3d 1127, 1146 (N.D. Ill. 2014) (citing *Lees v. Carthage Coll.*, 714 F.3d 516, 526 (7th Cir. 2013)). Furthermore, the Court notes that Berkheimer could have offered its own expert testimony as to this issue as part of its response brief, it could have asked for an opportunity to depose Schonfeld, and/or it could have requested an opportunity to cross-examine Schonfeld as part of the *Markman* hearing. It did none of those things, and Schonfeld's testimony remains unrebutted. *See* F. R. Evid. 705 (allowing conclusory expert testimony unless and until the conclusions are challenged).

only claim construction that is consistent with the claim's language and the written description renders the claim invalid, then the axiom does not apply and the claim is simply invalid.")

In sum, "archive exhibits minimal redundancy" is a subjective term, and neither the intrinsic evidence, including specification and the prosecution history, nor extrinsic evidence sets forth any objective standard for measuring its scope. Therefore, the Court holds that the term "archive exhibits minimal redundancy" fails to "inform those skilled in the art about the scope of the invention with reasonable certainty" and, consequently, does not satisfy the definiteness requirement of 35 U.S.C. § 112, ¶ 2. *See Nautilus, Inc.*, 134 S. Ct. at 2129.

IX. "Object oriented" and "some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process"

Next, the Court considers the remaining terms of Claim 10 — "object oriented" and "some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process." '713 Patent col.47 ll.56, 59, 62–65, J.A. 34. The parties disagree on the meaning of these terms. HP proposes that "object oriented" means "variables including routines and data that are discrete entities." Def.'s Br. 16; Def.'s Reply 9. Berkheimer insists that the Court should give this term its ordinary meaning or, alternatively, "a data model of object code structure." Pl.'s Br. 16. With regard to the second term, "some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process," HP argues the Court should construe it as "a process by which at least one object oriented element is edited by the user and the edit is then automatically made to a set of object oriented elements linked to the

edited element." Def.'s Br. 22; Def.'s Reply 14. Berkheimer again insists that the phrase should be given its ordinary meaning. Pl.'s Br. 24.

Because this Court holds that the term "archive exhibits minimal redundancy" is indefinite, the Court declines to construe the two remaining disputed terms that appear in Claim 10. *See, e.g.*, *PureChoice, Inc. v. Honeywell Int'l Inc.*, No. 2:06-CV-244, 2008 WL 190317, at *4 (E.D. Tex. Jan. 22, 2008) *aff'd,* 333 F. App'x 544 (Fed. Cir. 2009) (stating that where two of the claim terms are indefinite, the construction of additional terms is unnecessary).

X. Order of Steps

The last issue before the Court is the order of steps in Claim 1. HP argues that "[m]ethod steps must be performed in the order recited where such order is implied." Def.'s Reply 14–15. The argument focuses on the claim language itself, which "refers to or relies upon a prior step that must be completed before the next action can occur." Def.'s Br. 24. Berkheimer responds that the order of steps is "only relative one to another" and that a "precisely sequential order . . . is not required because preceding, intervening, or additional steps among such steps are allowable" as Claim 1 uses transition "comprising." Pl.'s Br. 24. Ultimately, the parties agreed during the *Markman* hearing that the claim steps have to happen in the order they are recited, but that there can be preceding, intervening or additional steps. Markman Hearing Transcript 140–44.

The Court agrees that the Claim 1 language "as a matter of logic or grammar, requires that the steps be performed in the order written" and, hence, "a claim requires an ordering of steps." *Mformation Technologies, Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1398 (Fed. Cir. 2014) (internal quotations omitted). At the same time, "the term 'comprising' is well understood to mean 'including but not limited to.'" *CIAS, Inc. v. Alliance Gaming Corp.*, 504

F.3d 1356, 1360 (Fed. Cir. 2007). As such, the Court concludes that the claim steps must follow the order they are recited, but there can be preceding, intervening, or additional steps.

Terms as Construed

#	Term	Definition
I	"Archive"	No construction required.
II	"Parser"	"A program that dissects and converts source code into object code"
III	"Parsing [the item into a plurality of multi-part object structures]"	"Using a program that dissects and converts source code into object code to dissect and convert"
IV	"Evaluating"	"Analyzing and comparing"
V	"Converting"	No construction required.
VI	"Evaluating the object structures in accordance with object structures previously stored in an archive"	"Analyzing the plurality of multi-part object structures obtained by parsing and comparing it with object structures previously stored in the archive to determine if there is variance between the object and at least one of a predetermined standard and a user defined rule"
VII	"Presenting an evaluated object structure for manual reconciliation"	No construction required.
VIII	"Archive exhibits minimal redundancy"	The term is indefinite.
IX	"Object oriented" and "some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process"	No construction required given that the term "archive exhibits minimal redundancy" is deemed to be indefinite.
X	Order of steps	Claim steps must follow the order they are recited, but there can be preceding, intervening or additional steps

Conclusion

For the foregoing reasons, the ten disputed claim terms and the order of steps are construed as set forth in this Memorandum Opinion and Order.

SO ORDERED **ENTERED 8/21/15**

John Z. Lee
United States District Judge