IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

MIRROR WORLDS TECHNOLOGIES, LLC,	§	
	§	
Plaintiff,	§	
	§	**CAUSE NO. 6:13-CV-419**
vs.	§	**(LEAD CASE)**
	§	
APPLE INC., ET AL.,	§	
	§	
Defendants.		

MEMORANDUM OPINION AND ORDER

This Memorandum Opinion construes the disputed claim terms in U.S. Patent No. 6,006,227 ("the '227 Patent"). On November 13, 2014, the parties presented arguments on the disputed claim terms at a Markman hearing. For the reasons stated herein, the Court adopts the constructions set forth below.

BACKGROUND

The '227 Patent issued on December 21, 1999. It discloses a document stream operating system and method where: (1) documents are stored in one or more chronologically ordered streams; (2) the location and nature of file storage is transparent to the user; (3) information is organized as needed instead of at the time the document is created; (4) sophisticated logic is provided for summarizing a large group of related documents at the time a user wants a concise overview; and (5) archiving is automatic. '227 Patent, at [57]. The documents can include text, pictures, animations, software programs, or any other type of data. Id.

Plaintiff Mirror Worlds Technologies, LLC ("Mirror Worlds") alleges that Defendants Apple Inc. ("Apple"); Microsoft Corporation ("Microsoft"); Best Buy Stores, LP and

Bestbuy.com, LLC ("Best Buy"); Dell Inc. ("Dell"); Hewlett-Packard Co. ("HP"); Lenovo (United States) Inc. ("Lenovo"); and Samsung Electronics America, Inc. and Samsung Telecommunications America, LLC ("Samsung") infringe claims 13–18, 20, 22, 34, 39, 40, 42, 43, and 55 of the '227 Patent.[1] Docket No. 246 at 3–5.

The Court has already construed some of the terms at issue here in a previous case. See Mirror Worlds, LLC v. Apple Inc., No. 6:08-cv-88 (E.D. Tex. Mar. 14, 2008) ("Apple I"), Docket No. 302. The Apple I case involved five patents, including the '227 Patent.

APPLICABLE LAW

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004)). In claim construction, courts examine the patent's intrinsic evidence to define the patented invention's scope. See id.; C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 861 (Fed. Cir. 2004); Bell Atl. Network Servs., Inc. v. Covad *Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). This intrinsic evidence includes the claims themselves, the specification, and the prosecution history. See Phillips, 415 F.3d at 1314; C.R. Bard, Inc., 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. Phillips, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. Phillips, 415 F.3d at 1314. First, a term's context in the asserted claim can be very instructive. Id. Other asserted or unasserted claims can also aid in determining the

[1] Mirror Worlds asserts claims 40, 42, and 43 only against Defendant Apple. Docket No. 246 at 1 n.1.

claim's meaning because claim terms are typically used consistently throughout the patent. Id. Differences among the claim terms can also assist in understanding a term's meaning. Id. For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. Id. at 1314–15.

"[C]laims 'must be read in view of the specification, of which they are a part.'" Id. (quoting Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" Id. (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)); see also Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. Phillips, 415 F.3d at 1316. In these situations, the inventor's lexicography governs. Id. Also, the specification may resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." Teleflex, Inc., 299 F.3d at 1325. But, "'[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.'" *Comark Commc'ns,* Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571 (Fed. Cir. 1988)); see also Phillips, 415 F.3d at 1323. The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. Home Diagnostics,

Inc., v. Lifescan, Inc., 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent.").

Although extrinsic evidence can be useful, it is "'less significant than the intrinsic record in determining the legally operative meaning of claim language.'" Phillips, 415 F.3d at 1317 (quoting C.R. Bard, Inc., 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. Id. at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition is entirely unhelpful to a court. Id. Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." Id.

AGREED CLAIM TERMS

In their Joint Claim Construction Chart (Docket No. 246) the parties agreed to the construction of the following terms:

Claim Term	Agreed Construction
stream	time-ordered sequence of data units that functions as a diary of a person or an entity's electronic life and that is designed to have three main portions: past, present, and future
persistent streams	streams that are dynamically updated
archiving	copying or moving documents to a secondary storage medium

DISPUTED CLAIM TERMS

data unit

Asserted claims of the '227 Patent contain the term "data unit." Mirror Worlds proposes "document containing any type of data of significance to the user (i.e., data for user perception)." Defendants propose "a document containing any type of data." In Apple I, the Court construed "data unit" as "an item of information of significance to the user that the user considers as a unit." Apple I, Docket No. 302 at 20.

The parties' first dispute concerns the scope of the word "document" in their respective constructions. Citing a number of technical dictionaries, Mirror Worlds also contends that the ordinary meaning of document does not include files that are not perceived by a user. Docket No. 234 at 2–4. Mirror Worlds argues that the prosecution history and specification clearly limit a document to information of significance to a user. Id. at 5–10. In response, Defendants fault Mirror Worlds for limiting an express definition given by the patent applicants. Docket No. 238 at 3. According to Defendants, a complete reading of the applicants' definition states that "[a] 'data unit' is a 'document' because a 'document can contain any type of data.'" Id. at 4. Thus, Defendants argue, Mirror Worlds' use of extrinsic evidence is improper. Id. at 6. Finally, Defendants argue that Mirror Worlds is judicially estopped from advancing its construction and that, in any event, the proposed construction renders the claim indefinite. Id. at 12–16.

Although the parties agree to include the word "document," their dispute indicates that that term is not ideal. In Apple I, the parties disputed whether a "data unit" must be a single item or whether it can be a collection of items. Apple I, Docket No. 302 at 19–20. The Court relied on the specification and the claims themselves to determine that a data unit is "an item of information." Id. at 20. The same remains true here: a data unit is an item of information.

The parties' next dispute involves the phrase "of significance to the user." The Apple I parties agreed to this language, and therefore did not raise a dispute regarding its support in the specification or the possibility of indefiniteness. Id. at 19–20. Here, Defendants object to including this phrase. The requirement that documents be "of significance to the user" arose during prosecution in an examiner interview and is thus expressly supported. See Docket No. 234-17, Ex. 17 (Interview Summary dated Jan. 19, 1999) ("It was agreed that Applicants would refine the claim language in the direction of addressing that stream of documents (in the broadest sense) that are of significance to the user and which thus determine the events of direct user interest in the timeline of a computing system . . . .").

However, simply including the phrase "of significance to the user," as Mirror Worlds requests, stretches the limitation beyond its original scope. The specification makes clear that the invention concerns managing information that is user-selected and thus "personal" to a particular user, rather than to all users in general. See '227 Patent, col.3 l.62–65 ("This invention is a new model and system for managing personal electronic information which uses a time-ordered stream as a storage model and stream filters to organize, locate, summarize and monitor incoming information."); Id. at col.4 l.6–15 (explaining that a stream is a sequence of documents that functions as a "diary of a person or an entity's electronic life"). The "of significance to the user" limitation requires that any particular user be able to generate a main stream of items of information that are of interest to that particular user's timeline.

The Apple I parties recognized that data items must be "of significance to the user." However, as explained above, the inherent meaning of this requirement within the intrinsic record is rooted in the personalized nature of the main stream of data items. A data item is "of significance" because it is selected by and of personal interest to a particular user. Based on the

prosecution history, which describes significance as "events of direct user interest in the timeline," Docket No. 234-17, Ex. 17 (Interview Summary dated Jan. 19, 1999), the Court construes "data unit" as "an item of information that is of direct user interest in the user's timeline."

Because this construction eliminates the disputed elements of the parties' proposed constructions, the Court need not determine whether judicial estoppel applies to Mirror Worlds' or Apple's arguments or whether Mirror Worlds' proposed construction is indefinite.

computer system

Claim 13 of the '227 Patent contains the term "computer system." Mirror Worlds proposes "working computer, including hardware and operating system software." Defendants argue that no construction is necessary, but alternatively propose "a computer, including its hardware and all of the data stored on it."

Mirror Worlds' primary argument is that a computer system must include an operating system. Docket No. 234 at 14. Mirror Worlds cites a variety of technical dictionaries in support of its construction. Id. at 14–15. It further contends that the claims, the specification, and expert testimony in this case support its contention that the ordinary meaning of a computer system as including an operating system. Id. at 16–17. Defendants respond that Mirror Worlds' proposed construction invites disputes and would confuse a jury. Docket No. 238 at 17–18.

The parties agree that a computer system is not limited to hardware. Docket No. 234 at 14; Docket No. 238 at 17 n.10. At the hearing, the Court asked the parties whether the neutral construction "a processing device programmed to carry out a set of logical operations" would alleviate any concerns. Tr. Nov. 13, 2014, Docket No. 264 at 57:18–20. Defendants assented to that construction, whereas Mirror Worlds continued to argue that the construction must explicitly

refer to the operating system. Id. at 57:24–58:11. In effect, Mirror Worlds contends that the claim requires "a computer system having an operating system." However, none of the extrinsic evidence on which Mirror Worlds relies, nor Mirror Worlds' interpretation of the specification, justifies that limitation. Such a construction fails to account for different platform architectures, such as a generic microprocessor, which may or may not include an operating system.

Contrary to Mirror Worlds' argument and consistent with the parties' agreement that a computer system includes hardware and software elements, the Court construes "computer system" as "a processing device programmed to carry out a set of logical operations."

main stream

Asserted claims of the '227 Patent contain the term "main stream." Mirror Worlds proposes "stream that is inclusive of every data unit received by or generated by the computer system." Defendants propose "a time-ordered stream that is inclusive of every data unit received by or generated by the computer system." In Apple I, the Court construed "main stream" as "a stream that is inclusive of every data unit, or document, received by or generated by the computer system." Apple I, Docket No. 302 at 11.

The dispute here is a narrow one. The parties agree that the term "stream" should be construed as "time-ordered sequence of data units that functions as a diary of a person or an entity's electronic life and that is designed to have three main portions: past, present, and future." Docket No. 246. However, the term "stream" does not appear independently in the asserted claim. Therefore, despite the parties' agreement that any "stream" must be "time-ordered," Defendants ask the Court to include the "time-ordered" requirement in the construction of "main stream" as well. Docket No. 238 at 19–20.

Given the parties' agreement, a jury will readily understand the applicability of the "time-ordered" requirement to the "main stream" element. Defendants' construction is therefore redundant. The Court construes "main stream" as "stream that is inclusive of every data unit received by or generated by the computer system."

substream

Asserted claims of the '227 Patent contain the term "substream." Mirror Worlds proposes "stream that is a subset of data units yielded by a filter on a stream, the filter identifying certain documents within the stream." Defendants propose "a time-ordered stream that is a subset of data units yielded by a filter on a stream, the filter identifying certain documents within the stream." In Apple I, the Court construed "substream" as "a stream that is a subset of data units, or documents, yielded by a filter on a stream, the filter identifying certain documents within the stream." Apple I, Docket No. 302 at 13.

The issue and arguments regarding this term are identical to those raised for the previous term ("main stream"). Therefore, for the same reasons set forth above, the Court construes "substream" as "stream that is a subset of data units yielded by a filter on a stream, the filter identifying certain documents within the stream."

timestamp to identify

Claim 13 of the '227 Patent contains the term "timestamp to identify." Mirror Worlds proposes "date and time value used to uniquely identify each data unit." Defendants propose "a date and time value that uniquely identifies each data unit." In Apple I, the Court construed "timestamp to identify" as "a date and time value that uniquely identifies each document." Apple I, Docket No. 302 at 15.

Mirror Worlds argues that its proposed construction tracks an express definition given in the prosecution history. Docket No. 234 at 21. There, Mirror Worlds contends, the applicants defined a "timestamp" as "a date/time used to uniquely identify each data unit." Id. Mirror Worlds argues that by changing "used to uniquely identify" to "that uniquely identifies," Defendants alter the meaning intended by the applicants. Id. at 22. In response, Defendants emphasize that the timestamp itself must be unique. Docket No. 238 at 20–21. Defendants point to a statement following the applicants' "definition" of timestamp: "Note: a counter which overflows periodically can not be a timestamp, since the timestamp would then not uniquely identify a data unit." Id. at 21; Docket No. 238-2, Ex. 2 (5/99 Amendment), at 11–12. Therefore, Defendants argue, although the timestamp may be "used along with additional information to identify a data unit," the timestamp itself must uniquely identify that data unit. Docket No. 238 at 22.

Notwithstanding Mirror Worlds' arguments here, the Court's analysis and construction in Apple I were correct. The parties both acknowledge that the timestamp may be combined with additional information in identifying a data unit. However, the prosecution history also makes clear that the timestamp itself must be unique. See Docket No. 238-2, Ex. 2 (5/99 Amendment), at 11–12; '227 Patent, col.4 l.44–47 ("Internally, the document is identified by a time indication so no name is required from the user for the document. Nevertheless, a user can optionally name a document [if] desired."). The Court construes "timestamp to identify" as "a date and time value that uniquely identifies each data unit."

chronological indicator

Asserted claims of the '227 Patent contain the term "chronological indicator." Mirror Worlds proposes "data structure that contains at least a timestamp." Defendants propose "a data

structure containing a timestamp, wherein the timestamp is used to link and store data units into time-ordered streams."

Mirror Worlds advances an agreed construction from Apple I. Apple I, Docket No. 302 at 38. It first argues that Defendants seek to add limitations that were deleted from the claim during prosecution. Docket No. 234 at 23. Mirror Worlds also contends that Defendants rely on prosecution history statements directed toward those deleted limitations. Id. at 25–26. Defendants respond that Mirror Worlds' proposed construction improperly seeks to recapture disclaimed subject matter. Docket No. 238 at 22. According to Defendants, the applicants disclaimed methods that do not link and store data units based on the timestamp in the chronological indicator. Id. Defendants further argue that the applicants' removal of linking and storing limitations did not implicitly rescind their prosecution history disclaimer. Id. at 25–27.

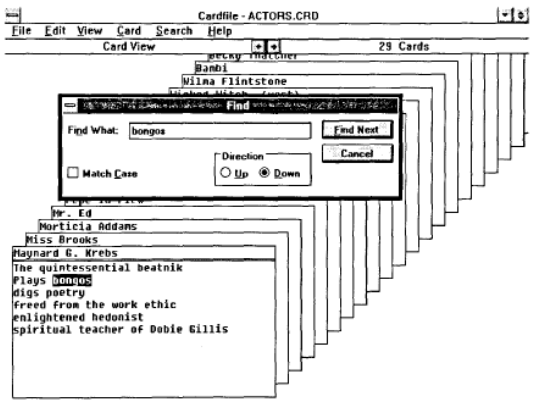
The prosecution history statements on which Defendants rely are not a disclaimer that narrows the scope of the term "chronological indicator." Instead, Defendants seek to impose a "use" requirement that does not define what a chronological indicator is, but rather how it is used. It would be improper to read the linking and storing limitations into the claim where those requirements were previously deleted during prosecution. See Laryngeal Mask Co. v. Ambu, 618 F.3d 1367, 1372–73 (Fed. Cir. 2010); United States v. Telectronics, Inc., 857 F.2d 778, 782–83 (Fed. Cir. 1988). Accordingly, the Court construes "chronological indicator" as "data structure that contains at least a timestamp."

perspective

Asserted claims of the '227 Patent contain the term "perspective." Mirror Worlds argues that no construction is necessary, but alternatively proposes "a technique for representing three-dimensional space in two-dimensions by depicting surfaces that are farther away as smaller."

Apple proposes "a visual effect where document representations get smaller toward the bottom of the stack."[2]

Apple argues that the applicants disclaimed a construction of "perspective" that does not require documents to get smaller toward the bottom of a stack. Docket No. 238 at 27–28. Apple bases this alleged disclaimer on the applicants' discussion of a Cowart reference. Id. at 28 (see figure at right). There, Apple argues, the applicants distinguished Cowart because it "does not display a perspective view" because the displayed document representations "do not get smaller toward the bottom of the stack." Id.



Mirror Worlds faults Apple for broadly applying the applicants' statement regarding Cowart to the meaning of the word "perspective." Docket No. 243 at 12. Mirror Worlds argues that Apple's construction does not account for a perspective effect which depends on the position of the viewer with respect to the stack. Docket No. 234 at 28. According to Mirror Worlds, the position of the viewer with respect to the stack determines size of the windows. Id.

The applicants' remarks during prosecution were specific to the particular depiction in Cowart cited by the examiner. There, the applicants applied the plain and ordinary meaning of the word "perspective" to distinguish the Cowart figure. That figure is oriented such that the top of the stack is closer to the viewer than the bottom of the stack. Thus, the applicants explained that "perspective" was not shown because the windows at the bottom of the stack (those farther from the viewer) were not smaller than the windows at the top of the stack (those closer to the

[2] The term "perspective" does not appear in any claim asserted against Microsoft, Dell, Samsung, Lenovo, or HP. Docket No. 246 at 2 n.2. Thus, those Defendants do not take a position regarding construction of this term. Id.

viewer). Apple identifies no evidence to suggest that the claim scope is limited to the specific stack orientation and viewer position described in Cowart.

Although the parties appear to agree on the plain meaning of the term "perspective," the Court construes the term for clarity. The Court construes "perspective" as "a technique for representing three-dimensional space in two dimensions by depicting surfaces that are farther away as smaller."

CONCLUSION

For the foregoing reasons, the Court interprets the claim language in this case in the manner set forth above. For ease of reference, the Court's claim interpretations are set forth in a table in Appendix A and the parties' agreed constructions are set forth in a table in Appendix B.

So ORDERED and SIGNED this 14th day of January, 2015.

LEONARD DAVIS
UNITED STATES DISTRICT JUDGE

APPENDIX A

Claim Term	Court's Construction
data unit	an item of information that is of direct user interest in the user's timeline
computer system	a processing device programmed to carry out a set of logical operations
main stream	stream that is inclusive of every data unit received by or generated by the computer system
substream	stream that is a subset of data units yielded by a filter on a stream, the filter identifying certain documents within the stream
timestamp to identify	a date and time value that uniquely identifies each data unit
chronological indicator	data structure that contains at least a timestamp
perspective	a technique for representing three-dimensional space in two dimensions by depicting surfaces that are farther away as smaller

APPENDIX B

Claim Term	Agreed Construction
stream	time-ordered sequence of data units that functions as a diary of a person or an entity's electronic life and that is designed to have three main portions: past, present, and future
persistent streams	streams that are dynamically updated
archiving	copying or moving documents to a secondary storage medium