UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No.	CV11-02409 AHM (JEMx)	Date	September 4, 2012
Title	RICHARD A WILLIAMSON V. CITRIX ONLINE LLC et al		

Present: The Honorable	A. HOWARD MATZ, U.S. DISTRICT JUDGE	
Stephen Montes	Not Reported	
Deputy Clerk	Court Reporter / Recorder	Tape No.

Attorneys **NOT** Present for Plaintiffs: Attorneys **NOT** Present for Defendants:

Proceedings: IN CHAMBERS (No Proceedings Held)

In this claim-construction order, the Court construes eleven disputed terms that appear in the claims of U.S. Patent No. 6,155,840.

I. INTRODUCTION

A. Background

From 1996 to 2002, At Home Corporation was a leading provider of high-speed cable internet service. According to the Complaint, at its peak At Home Corporation had over four million customers, which made it the largest high-speed internet service provider in the United States. In 2001, however, the company filed for bankruptcy. As part of the bankruptcy proceedings, the Bankruptcy Court created the At Home Corporation Bondholders' Liquidating Trust. The liquidating trust claims ownership of At Home Corporation's intellectual property, including U.S. Patent No. 6,155,840 ("the '840 patent"), which is for a "System and Method For Distributed Learning." In this patent-infringement action, Plaintiff Richard Williamson, trustee of the liquidating trust, accuses twelve defendants of infringing on the '840 patent.[1]

B. The Technology of the '840 Patent

[1] The defendants are Citrix Online LLC, Citrix Systems Inc., Webex Communications Inc., Cisco Webex LLC, Cisco Systems Inc., Microsoft Corporation, International Business Machines Corporation ("IBM"), Adobe Systems Inc., Fuze Box, Inc., Timebridge Inc., Omnovia Technologies Inc., and Video Seminar Live LLC. Timebridge, Omnovia, and Video Seminar Live have not responded to the Complaint. Plaintiff has obtained an entry of default as to Omnovia and Video Seminar.

In order to provide some context to the discussion that follows, this section provides a brief overview of the technology in the '840 patent. This section does not, however, limit or define the patent's scope and is not intended to substitute for the detailed discussion section that follows.

The '840 patent, which was issued in 1998, describes a system and method for distributed learning. In short, this invention allows a presenter, or presenters, in one place to give a presentation to audience members who are in one or more other places. The audience members can ask the presenter questions and provide him with feedback. There are three key components to this invention: presenter computers, audience computers, and a distributed learning server.

Presenter computers control the content that will be shown to the audience. In the system described by the '840 patent, the presenter can show the audience two different data sources simultaneously. In the patent, Figure 6 is an example of the screen on a presenter computer. In Figure 6, the first data source is a slide show that is displayed in the window identified by Label 624 and the second data source is a video feed that is displayed in the window identified by Label 628. The control identified by Label 618 allows the presenter to select which slides to show the audience. Similarly, the control identified by Label 630 allows the presenter to select the source of the video feed—that is, where the video comes from.

Audience computers cannot select the content that will be shown. Instead, these computers simply allow the audience to view the presentation. Figure 7 is an example of the screen on an audience computer. In Figure 7, the presenter-selected slides are shown in the window identified by Label 724. In addition, the presenter-selected video feed is also displayed in the window identified by Label 726.

Although the users of this system directly interact with the audience and presenter systems, the "real work" is done by the distributed learning server, which provides the underlying infrastructure for the system. For example, in one embodiment of the invention, the server provides instructions, in the form of computer code, to the audience and presenter systems. These instructions control the appearance and content of screens on the audience and presenter computers. In addition, the distributed learning server acts as a middleman between the presenter and the audience. When the presenter selects a specific data source, such as a video feed, the distributed learning server provides that

feed to the audience computers. Similarly, when audience members submit feedback to the presenter, the presenter computer receives the feedback through the distributed learning server.

C. The Disputed Terms

Initially, the Court agreed to construe six disputed terms. Subsequently, based on an *ex parte* application filed by Defendants, the Court agreed to construe two additional terms. (Dkt. 246.) Each side filed an opening claim construction brief, a supplemental claim construction brief, and a comprehensive reply brief, which responds to both the opening and supplemental briefs. In addition, the Court held a hearing on July 20, 2012. At the conclusion of that hearing, each side submitted a claim construction presentation to the Court in the form of a set of slides.

The parties' briefs indicate that they were unable to agree on the meaning of the Court's Order Re Markman Hearing. (Dkt. 179). That order states that "[t]he Court will not construe more than six terms, unless a party demonstrates a compelling cause to do so." Defendants appear to believe that multiple terms that are functionally or linguistically similar should be counted as a single term. Plaintiff counts each term separately. Thus, in addition to their disputes over the meaning of the claims, the parties could not even agree on a single set of disputed terms. As a result, Plaintiff has identified and briefed one subset of the disputed terms and Defendants have identified and briefed a different, but overlapping, subset.

In addition, the parties could not agree on the meaning of the Court's May 29, 2012, Order, which resolved two *ex parte* applications filed by Defendants. (Dkt. 246.) In that Order, the Court stated: "It would be premature for the Court to decide, at this time, whether certain disputed terms are 'means-plus-function' terms, so it declines to do so." Plaintiff interprets this statement to mean that the Court would not decide this issue in the context of the *Markman* hearing. Defendants interpret this statement to mean that the Court would not decide this issue in the context of the *ex parte* application.

Plaintiff's interpretation of the May 29, 2012, Order is untenable. The language of the order indicates that the Court declined to decide *in that order* whether the disputed terms were "means-plus-function" terms. Moreover, as Plaintiff is undoubtedly aware, determining whether a term uses means-plus-function language is an integral part of

claim construction. *See Lighting World, Inc v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004); *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1318 (Fed. Cir. 2004). Because of this misinterpretation, Plaintiff's reply brief does not address whether certain disputed terms are expressed in means-plus-function language. Nevertheless, Plaintiff was given an opportunity to address these disputed terms at the hearing. Plaintiff indicated that it was prepared to stand on its opening brief.

After reviewing the parties' written submissions and after considering their arguments at the hearing, the Court finds that each side has had an adequate opportunity to set forth its position regarding the following eleven terms:

1. "streaming data"
2. "data stream"
3. "streaming content"
4. "remote" and "remote streaming data source"
5. "graphical display representative of a classroom"
6. "first graphical display comprising: . . . a classroom region"
7. "data produced by the selected remote streaming data source"
8. "content selection control for defining at least one remote streaming data source and for selecting one of the remote streaming data sources for viewing"
9. "instructions"
10. "a distributed learning control module for receiving communications transmitted between the presenter and the audience member computer systems and for relaying the communications to an intended receiving computer system and for coordinating the operation of the streaming data module"

11. "a streaming data module for providing the streaming data from the remote streaming data source selected with the content selection control to the presenter and audience member computer systems"

II. LEGAL STANDARD

"The claims of a patent define the invention to which the patentee is entitled the

right to exclude." *Phillips v. AWH Cop.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (internal citation omitted). Accordingly, "the analytical focus" of claim construction "must begin and remain centered on the language of the claims themselves." *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001).

The words of a claim "are generally given their ordinary and customary meaning." *Phillips*, 415 F.3d at 1312. (internal citation omitted). The ordinary meaning of a term, however, 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." *Id.* at 1313. Furthermore, this hypothetical person of ordinary skill in the art is presumed to read the claim "in the context of the entire patent, including the specification." *Id.*

"In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges . . . ." *Id.* at 1314. In these cases, claim construction "involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* But, in many cases, determining the "ordinary and customary meaning of [a] claim requires the examination of terms that have a particular meaning in a field of art." *Id.* In these more difficult cases, the court should seek to determine what a person of skill in the art would have understood the disputed language to mean. *Id.* The court should consider sources such as "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles . . . ." *Id.*

The specification, in particular, "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.* at 1315. This is so because "the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." *Id.* (internal citation omitted). In addition, the specification may reveal a special definition given to a term or it may express a disavowal of claim scope. *Id.* at 1316. The court, however, should be careful to avoid importing an extraneous limitation from the specifications into the claim. *Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). "For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment." *Id.*

Next, the court should consider the patent's prosecution history. *Phillips*, 415 F.3d

at 1317. The prosecution history, which is considered "intrinsic evidence" of the meaning of a disputed term, "provides evidence of how the PTO and the inventor understood the patent." *Id.* However, "because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.*

Finally, where necessary, the court may consider "extrinsic evidence," which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Id.* at 1317 (internal citation omitted). Although "less significant than the intrinsic record," extrinsic evidence can be useful to shed light on the relevant art. *Id.* For example, dictionaries and treatises can help the court understand how "one of skill in the art might use the claim terms." *Id.* at 1318. Similarly, expert testimony can be useful to the court to "provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.*

III. DISCUSSION

A. Terms 1 & 2: "streaming data" and "data stream" ('840 patent, col. 10:28–col. 12:28.)

Both sides agree that "streaming data" and "data stream" have the same meaning—they just disagree on what that meaning is. "Data stream" occurs repeatedly in Claim 1 as well as Claims 2–5 and 7, which are dependent claims of Claim 1. For example, "data stream" occurs in the following context in Claim 1:

> providing instructions to a second computer system coupled to the network for:
> creating a graphical display representative of the classroom;
> creating a third window for displaying the first selected **data stream**; and
> creating a fourth window for displaying the second selected **data**

> **stream**, wherein
> the third and fourth windows are displayed simultaneously.

('840 patent, col. 10:43–53).

"Streaming data" appears repeatedly in Claim 8, as well as Claims 13–15, which are dependent claims of Claim 8. As an example, "streaming data" appears in the following context in Claim 8:

> a presenter computer system of the plurality of computer systems coupled to the network and comprising:
> a content selection control for defining at least one remote **streaming data** source and for selecting one of the remote **streaming data** sources for viewing; and
> a presenter streaming data viewer for displaying data produced by the selected remote **streaming data** source;

('840 patent, col. 10:30–35).

As both sides acknowledge, the specification defines the term "streaming" as "serial or parallel transmission of digital data between two computers by transmitting sequences of live or pre-recorded bit packets." ('840 patent, col. 6:35–38). Ordinarily, where the specification defines a term, that definition is dispositive. *See Phillips*, 415 F.3d at 1316 ("[O]ur cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs.").

In this case, however, both sides agree that additional clarification is required to distinguish the "streaming" transmission of data from an ordinary file transfer. As the parties' extrinsic evidence makes clear, a person having ordinary skill in the art of computer technology understands this distinction. *See* Brad Hansen, *The Dictionary of Computing & Digital Media* 296 (1999); Microsoft Press, *Microsoft Computer Dictionary* 424–25 (4th ed. 1999). These sources explain that in the case of an ordinary file transfer a user must typically download an entire file before viewing the contents of that file. Thus, if a user transfers a movie to his computer he can watch the movie only after the transfer is complete. In contrast, in the case of a streaming transmission, data can be accessed as it is received. Thus, to return to the previous example, a user could begin watching a streaming movie almost immediately.

Although both sides agree that the specification's definition of "streaming" must be supplemented, they disagree on the language that should be added. The parties offer the following definitions:

Plaintiff's Definition	Defendants' Definition
a **serial or parallel** transmission of sequences of live or pre-recorded bit packets between two computers such that the packets **can be accessed** as they are received.	a **continuous** transmission of sequences of live or pre-recorded bit packets between two computers such that the packets **are processed** as they are received.

There are three differences between these definitions. First, Defendants drop the phrase "serial or parallel" from the specification's definition of streaming. Second, under Defendants' definition the transmission of data must be "continuous." Finally, under Defendants' definition the packets must be "processed" as they are received. In contrast, under Plaintiff's definition the packets "can be accessed" as they are received. The Court will address each of these differences in turn.

1. "Serial or parallel"

"'Serial' communication involves the transmission of information over a single path, while 'parallel' communication involves the simultaneous transmission of information over separate paths." *Inpro II Licensing, S.A.R.L. v. T-Mobile USA, Inc.*, 450 F.3d 1350, 1353 n.2 (Fed. Cir. 2006). Defendants point out that *all* data transmission is either serial or parallel. Plaintiff does not contest this point but argues that the phrase "serial or parallel" is part of the specification's definition. So what? The Court rejects Plaintiff's mechanical and somewhat simplistic argument. Adding the "serial or parallel" language is unhelpful to the trier of fact and adds nothing to the meaning of the terms at issue.

2. "Continuous" transmission

(a) Intrinsic Evidence

Relying on the specification, Defendants argue that "streaming" requires

continuous transmission. But, because the specification does not explicitly contain this limit, Defendants argue that this limit is implicitly expressed in the specification's discussion of streaming data. In particular, Defendants focus on the specification's discussion of streaming video. For example, the specification teaches that "[a] video camera . . . is preferably coupled to the presenter computer system . . . and provides a *real time* streaming digital video feed." ('840 patent, col. 5:2–5) (emphasis added). According to the Defendants, this discussion shows that the specification contemplates a continuous transmission and processing of data.

The weakness in this aspect of Defendants' argument is that it focuses on only one example of streaming data—a video feed. They ask the Court to limit the definition of "streaming" based on the fact that a specific example of streaming data requires continuous transmission. The Federal Circuit has cautioned courts against adopting such reasoning. *Silicon Graphics, Inc. v. ATI Technologies, Inc.*, 607 F.3d 784, 792 (Fed. Cir. 2010) ("A construing court's reliance on the specification must not go so far as to import limitations into claims from examples or embodiments appearing only in a patent's written description . . . unless the specification makes clear that the patentee . . . intends for the claims and the embodiments in the specification to be strictly coextensive.") (internal citations omitted).

The Federal Circuit's admonition is particularly applicable to this case. Here, the specification makes clear that video data is only one example of different types of streaming data. Indeed, as Plaintiff points out, the specification discusses other types of data, such as web pages or slide shows, that do not necessarily require continuous transmission. (Col:8:26–29.) ("As mentioned above, the displayed content may include a video feed, a slide show, a web page, a white board with real-time updates, or some other form of graphical information.") In response, Defendants argue that the specification does not state that web pages and slide shows are "streaming data." But the specification, when read in conjunction with the claims, shows otherwise. According to the specification, the web page or slide show is displayed in the first media window. (8:24–29.) And as Claim 1 makes clear, the whole purpose of this window is to display a "data stream." (10:30–35.) ("creating a first window for displaying the first selected *data stream*.")

In conclusion, although the specification contains some language that suggests "streaming" involves "real time" or "continuous" transmission of data, it is not

conclusive. As a result, the Court turns to extrinsic evidence as to the meaning of this term. *See L.B. Plastics, Inc.v. Amerimax Home Prods, Inc.*, 499 F.3d 1303, 1308 (Fed. Cir. 2007) ("Since the intrinsic record provides no further guidance to the meaning of the term . . . the district court properly turned to extrinsic evidence . . . .").

(b) Extrinsic Evidence

Defendants contend that the extrinsic evidence supports a "continuous transmission" limitation. Defendants are correct. *The Microsoft Computer Dictionary*—the dictionary relied on by Plaintiff—defines streaming as ". . . the process of delivering information, especially multimedia sound or video, *in a steady flow* that the recipient can access as the file is being transmitted." Microsoft Press, *supra*, at 424–25. (emphasis added). Similarly, Defendants' dictionary, *The Dictionary of Computing & Digital Media* defines "stream" as "[t]o play sound or video in real time as the data is downloaded over the Internet." Hansen, *supra*, at 296. Finally, the inventor of the '840 patent testified that "streaming" involves continuous transmission of data. (Sallette Depo. Tr. 752:24–753:16.)

3. "Can be accessed" versus "are processed"

Defendants argue that "streaming" data must be immediately processed as it is received. Plaintiff, on the other hand, argues that the data need only be *capable* of being *accessed*. The intrinsic evidence does not support Defendants' position. In particular, the specification does not require streaming data to be processed immediately. Defendants' position again relies on the example of video data and ignores the examples of slide shows and web pages. Similarly, the extrinsic evidence indicates that "streaming data" can be accessed immediately but need not be immediately processed. For example, *The Microsoft Computer Dictionary* defines streaming as "the process of delivering information . . . that the recipient *can access* as the file is being transmitted." Microsoft Press, *supra*, at 424–25 (emphasis added). Finally, Defendants do not offer any expert testimony establishing that a person having ordinary skill in computer software and technology understands that "streaming data" involves the immediate processing of data.

Defendants contend that in the absence of an "immediate processing" limit, the definition of streaming data would cover ordinary file transfers. This is not correct. As explained above, in an ordinary file transfer data cannot be accessed until a file is

completely transmitted. In contrast, in a "streaming" transmission data can be accessed as it is received.

4. Conclusion

The Court defines "streaming data" and "data stream" as follows:

Court's Definition of "streaming data" and "data stream"
a continuous transmission of sequences of live or pre-recorded bit packets between two computers such that the packets can be accessed as they are received.

B. Term 3: "streaming content" ('840 patent col. 12:29–13:15.)

The term "streaming content" appears in Claim 17 and its dependent Claims 18 through 21. Plaintiff contends that "streaming content" should receive a different definition from "streaming data" and "data stream." According to Plaintiff, "data" is low-level information that consists of bit packets and "content" is higher level-information that is displayed to users. Defendants, in contrast, argue that the patent does not differentiate between these terms and uses them interchangeably. These are the parties' respective definitions:

Plaintiff's Definition	Defendants' Definition
Plain and Ordinary Meaning OR a serial or parallel transmission of sequences of live or pre-recorded data between two computers such that the data can be accessed as the data is received.	a continuous transmission of sequences of live or pre-recorded bit packets between two computers such that the packets are processed as they are received. (Same as Defendants' definition of "streaming data" and "data stream.")

In support of its argument, Plaintiff points out that in every instance where it is used in the claims, "streaming content" is a part of one of the two following phrases: "streaming content representative of graphical information" and "graphical information represented by the streaming content." ('840 patent, col. 12:35–65.) Plaintiff contends that this usage makes clear that content must represent "graphical information." In

contrast, Plaintiff contends, "data stream" and "streaming data" need not represent graphical information. According to Plaintiff, this distinction supports the conclusion that "content" is high-level graphical information.

The problem with Plaintiff's argument is that the claims use "streaming data" and "data stream" in the same way they use "streaming content." All three terms refer to information that is *displayed*. For example, Claim 1 makes clear that "data streams" are "displayed." ('840 patent, col. 10:39–42.) ("creating a first window for **displaying** the first selected **data stream.**") Claim 8 treats "streaming data" in the same way. ('840 patent, col. 11:35–37) ("a presenter streaming data viewer for **displaying data** produced by the . . . **streaming data** source.") Because all three of these terms containing the words "streaming" or "data stream" denote information that is *displayed*, there is no basis to find that "content" refers to higher-level information as compared to "data." The specification bolsters this conclusion. In some cases, video feeds are described as "data." ('840 patent, col. 2:48–55.) In other cases, video feeds are described as "content." ('840 patent, col. 8:35–37.) Thus, a close reading of the patent does not comport with Plaintiff's position.

Plaintiff argues that the court must give effect to the presumption that different terms in the claims connote different meanings. *See Applied Med. Res. Corp. v. Surgical Corp.*, 448 F.3d 1324, 1333 n.3 (Fed. Cir. 2006) ("[I]n the absence of any evidence to the contrary, we must presume that the use of . . . different terms in the claims connotes different meanings."). In this case, however, the language of the claims and the specification provides evidence that the patentee did not differentiate between "data" and "content."

Finally, relying on a declaration from Dr. Souri—Plaintiff's expert—Plaintiff states: "as would be recognized by a person of ordinary skill in the art, content is a higher level descriptor than data." (Pl.'s Opening Brief at 20.) Plaintiff may be correct that in the abstract a software engineer would use "content" to describe high-level information and "data" to describe low-level information, but the patent does not reflect this distinction. For example, Claim 5 describes the "display" of video data. ('840 patent, col. 11:4–13.) Does Plaintiff suggest that raw data—i.e., a sequence of bit packets—is "displayed" but not the actual video "content?"

For the reasons discussed in this section, the Court defines "streaming content" in the same way it defined "data stream" and "streaming data:"

Court's Definition of "streaming content"
a continuous transmission of sequences of live or pre-recorded bit packets between two computers such that the packets can be accessed as they are received.

C. Term 4: "remote" and "remote streaming data source" ('840 patent, col. 11:26–12:28.)

Claim 8, and its dependent claims, Claims 9–16, use the term "remote streaming data source." In Claim 8, for example, the term appears in the following context:

> a presenter computer system of the plurality of computer systems coupled to the network and comprising:
> a content selection control for defining at least one **remote streaming data source** and for selecting one of the **remote streaming data sources** for viewing

('840 patent, col. 11:29–34.)

Because the Court has already defined "streaming data" and because the parties do not dispute the definition of the word "source," the construction of this term comes down to the word "remote." Fortunately, the specification clearly defines this word:

> As used herein, the term 'remote' means that the device or feed is not connected to the network through a presenter or audience member computer system."

('840 patent, col. 5:24–27.)

Defendants' construction of this term directly tracks the patentee's definition of "remote." Plaintiff, on the other hand, adds an additional limitation that requires that the streaming data source not be coupled to the distributed learning server. The parties' definitions are as follows:

Plaintiff's Definition	Defendants' Definition

a streaming data source coupled to the network through a connection other than through a presenter computer system, audience member computer system, **or the distributed learning server**	a streaming data source that is not connected to the network through a presenter or audience member computer

Plaintiff points to Figure 1, which is a schematic that shows one embodiment of the invention. In that schematic, the "Remote Feed" is not coupled to the distributed learning server. Plaintiff claims that this example shows that the remote data source *cannot* be connected to the distributed learning server. This is not so. Figure 1 is a representative schematic that shows only one embodiment of the invention. Because it is an example, it shows only that the remote feed *need not* be connected to the distributed learning server.

The Court adopts Defendants' construction. The patent's definition of "remote" is clear and unequivocal. That definition does not mention the distributed learning server. In addition, the specification plainly contemplates that a remote feed can be attached to any computer other than the audience or presenter computers: "The remote feed may be coupled to the network through another computer system . . . ." ('840 patent, col. 5:30–33.) The specification explicitly defines the distributed learning server as a "computer system." ('840 patent, col. 4:15–20.)

Because the patentee acted as his own lexicographer and nothing in the specification or the claims is to the contrary, the Court adopts Defendants' construction of "remote." Thus, "remote streaming data source" will be construed as follows:

Court's Definition of "remote streaming data source"
a streaming data source that is not connected to the network through a presenter or audience member computer

D. Term 5: "graphical display representative of a classroom" ('840 patent, col. 10:30–46.)

Claim 1 contains the disputed term "graphical display representative of a classroom." As an example, the term appears as follows in Claim 1:

> A method of conducting distributed learning among a plurality of computer systems coupled to a network, the method comprising the steps of:
> providing instructions to a first computer system coupled to the network for:
> creating a **graphical display representative of a classroom**;

('840 patent, col. 10:28–35.)

The specification provides a definition of classroom:

> "As used herein, the term 'classroom' refers to an at least partially virtual space in which participants can interact."

('840 patent, col. 6:4–6.)

Plaintiff uses the specification's explicit definition of "classroom," with one modification—he adds language that states that a classroom allows "audience members to interact with both the presenter and other audience members." Defendants rely on the specification's discussion of the term "classroom" to construct a more limiting definition:

Plaintiff's Definition	Defendants' Definition
a viewable illustration of an at least partially virtual space **that allows audience members to interact with both the presenter and other audience members**	a **pictorial map** that shows, as an actual classroom, a virtual space **in which participants can interact**, and that identifies the presenter(s) and the audience member(s) by their locations on the map

1. "Pictorial map"

Defendants correctly point out that the specification consistently describes the graphical representation of a classroom only as a "map" of a classroom. The detailed description explains that the invention provides "a classroom- or auditorium-like metaphor." ('840 patent, col. 5:66–67.) The abstract explains that this "metaphor" involves a depiction of "a podium and rows of seats." Similarly, the summary of the invention explains that "[t]he classroom metaphor preferably provides a map of the

classroom showing the relative relationships among presenters and audience members." ('840 patent, col. 2:25–39.) In addition, in the detailed description, one embodiment is described as providing:

> a virtual room having a "podium" and "rows of seats." One or more presenters typically 'stand' at the podium while audience members 'sit' in the seats. The classroom environment module . . . provides . . . a map of the virtual classroom, and identifies the locations of the presenters and audience members on the map.

('840 patent, col. 6:8–13.) Furthermore, Figure 6, which contains the only example of a graphical representation of a classroom also includes a map-like grid (Label 634), described as a "seating chart" ('840 patent, col. 9:6), that indicates audience and presenter locations.

Plaintiff cautions the Court against "importing" limits from the specification. The Federal Circuit has explained however that "when a patentee uses a claim term throughout the entire patent specification, in a manner consistent with only a single meaning, he has defined that term by implication." *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1271 (Fed. Cir. 2001) (internal citations omitted). In addition, "although the specification need not present every embodiment or permutation of the invention and the claims are not limited to the preferred embodiment of the invention . . . neither do the claims enlarge what is patented beyond what the inventor has described as the invention." *Network, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001).

In this case, the specification shows that the patentee intended only one type of graphical display of this "partially virtual" classroom—a display that included a map. Accordingly, the Court agrees with Defendants that a graphical display of a classroom must include a pictorial map of the classroom. For the same reason the Court finds that the audience members and presenters must by identified by their locations on the map.

2. Participant Interaction

Plaintiff contends that the classroom *must* allow audience members to interact with both the presenter and other audience members. But the claims and the specification do not contain this limit. In Claim 17, for example, only the presenter computer, and not the

audience computers, contains a reference to a "classroom region." ('840 patent, col. 12:50.) Not every embodiment of Claim 17, therefore, would have to allow audience members to interact with each other.

3. Conclusion

For the reasons stated above, the Court adopts a modified version of Defendant's definition of this term:

Court's Definition of "graphical display representative of a classroom"
a pictorial map illustrating an at least partially virtual space in which participants can interact, and that identifies the presenter(s) and the audience member(s) by their locations on the map

E. Term 6: "first graphical display comprising . . . a classroom region" ('840 patent, col. 12:34–50.)

This term appears in Claim 17:

> A module for providing a . . . **first graphical display comprising: . . . a classroom region** for representing the audience member computer system

('840 patent, col. 12:34–50.) The dispute over this term comes down, again, to the definition of classroom. The parties propose the following constructions:

Plaintiff's Definition	Defendants' Definition
first graphical display comprising: . . . a display region for an at least partially virtual space that allows audience members to interact with both the presenter and other audience members	a **pictorial map** that shows, as an actual classroom, a virtual space **in which participants can interact**, and that identifies the presenter(s) and the audience member(s) by their locations on the map

The Court applies the previous definition it provided for classroom and defines this term as follows:

Court's Definition of first graphical display comprising . . . a classroom region"
first graphical display comprising: . . . a display region for a pictorial map illustrating an at least partially virtual space in which participants can interact, and that identifies the presenter(s) and the audience member(s) by their locations on the map

F. Term 7: "data produced by the selected remote streaming data source" ('840 patent, col. 11:36–47.)

Plaintiff contends that this term should retain its plain and ordinary meaning. At the hearing, Defendants withdrew their dispute regarding this term. Accordingly the Court will not construe this term.

G. Term 8: "content selection control for defining at least one remote streaming data source and for selecting one of the remote streaming data sources for viewing" ('840 patent, col. 11:31–35.)

This term appears in Claim 8 as follows:

> a presenter computer system of the plurality of computer systems coupled to the network and comprising:
> **a content selection control for defining at least one remote streaming data source and for selecting one of the remote streaming data sources for viewing**

('840 patent, col. 11:31–35.)

Plaintiff contends that "control" and "defining" should receive their plain and ordinary meanings, without explaining what those meanings are (although he characterizes a control as a "tool that controls"). Defendants contend that a "control" is a "graphic interface" and that "define" means "inputting an address." The parties, therefore, offer the following constructions:

Plaintiff's Definition	Defendants' Definition

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No.	CV11-02409 AHM (JEMx)	Date	September 4, 2012
Title	RICHARD A WILLIAMSON V. CITRIX ONLINE LLC et al		

Plain and Ordinary Meaning	a **graphic interface** for **inputting an address of** at least one remote streaming data source and for selecting one of the remote streaming data sources for viewing

1. "Control"

The Court finds that "control" should retain its plain and ordinary meaning. As the Federal Circuit has explained, the words of a claim "are generally given their ordinary and customary meaning." *Phillips*, 415 F.3d at 1312. (internal citation omitted). In this case, the ordinary meaning of the noun "control" is "device or mechanism used to regulate or guide the operation of a machine, apparatus, or system." *Merriam Webster's Collegiate Dictionary* 252 (10th ed. 1996.) That definition fits logically with the rest of the claim—a content selection control for defining at least one remote streaming data source is simply a "device or mechanism" that is used to guide the operation of the content selection system.

In addition, the language of Claim 17 indicates that the patentee knew how to indicate when a "control" would be graphical. In that claim, the control is defined as a part of a "graphical display." ('840 patent, col. 12:33–38.) The fact that Claim 8 does not contain this "graphical" limitation undercuts Defendants' position that a control is a "graphic interface." Accordingly, the Court gives "control" its ordinary meaning.

2. "Defining"

Next, the parties disagree as to whether "defining" means "inputting an address." To "define" something ordinarily means "to determine or identify [its] essential qualities or meaning." *Merriam Webster's Collegiate Dictionary* 252 (10th ed. 1996.) The specification makes clear that the "essential quality" of a "remote data source" is the information that allows it to be accessed. For instance, Figure 4 is an example of how a "remote data source" can be defined. The specification explains that, in this example, a user can provide an "address" for the remote data source and a "channel" for the source. Either of these pieces of information or both of these pieces taken together allow a computer to access the remote data source.

Given that the ordinary meaning of "defining" a data source involves identifying

address information for that data source, the Court does not see a meaningful distinction between Plaintiff's definition and Defendants' definition. In the context of this patent, in other words, how could identifying address information be different from providing address information? Because the parties have not shown a meaningful distinction between their proposals, the Court adopts the ordinary meaning of "defining" as set forth in the above citation to *Merriam Webster's Collegiate Dictionary*.

3. Conclusion

Court's Definition of "content selection control for defining at least one remote streaming data source and for selecting one of the remote streaming data sources for viewing"
content selection device or mechanism for identifying the address information of at least one remote streaming data source and for selecting one of the remote streaming data sources for viewing

H. Term 9: "Instructions" ('840 patent, col. 10:28–11:25.)

The word "instructions" appears in Claim 1 and its dependent claims, Claims 2–7, in the following context:

> A method of conducting distributed learning among a plurality of computer systems coupled to a network, the method comprising the steps of:
> providing **instructions** to a first computer system coupled to the network for:
> creating a graphical display representative of a classroom;

('840 patent, col. 10:28–34.)

The parties offer the following constructions:

Plaintiff's Definition	Defendants' Definition

Plain and Ordinary Meaning	**commands that are executed as they are received** as opposed to **specialized software programs installed before connecting to the classroom**

Plaintiff argues that the term "instructions" should be given its plain and ordinary meaning. In the context of a computer system, the ordinary meaning of "instruction" is "a code that tells a computer to perform a particular operation." *Merriam Webster's Collegiate Dictionary* 606 (10th ed. 1996.) This plain meaning is consistent with the language of Claim 1. In that claim, a computer system is provided "instructions" for "creating a graphical display." ('840 patent, col. 10:28–34.) In other words, the computer is provided a "code" that tells it to perform a particular operation, in this case "creating a graphical display."

1. "Specialized software"

Defendants agree that the word "instructions" means "commands" or "codes." Defendants contend, however, that these codes must be provided *during* a distributed learning session—in other words, after the audience or presenter computer connects to the distributed learning server. As Defendants point out, the background section of the patent specifically criticizes "other solutions" in the prior art that "use specialized software programs executing on computer systems . . . ." ('840 patent, col. 1:48–55.) The patent explains that "[s]ince the software is specialized, each audience member must have access to the software and a network connection before connecting to the 'classroom.'" ('840 patent, col. 1:50–52.) According to Defendants, the fact that the '840 patent disparages other solutions that use specialized software is evidence that the term "instructions" does not encompass specialized software. *See Inpro II Licensing, S.A.R.L v. T-Mobile USA, Inc.*, 450 F.3d 1350, 1354–55 (Fed. Cir. 2006) (finding that the term "host interface" does not encompass a "serial" interface in part because the specification disparages serial interfaces).

Plaintiff completely ignores this argument in its brief. Instead, Plaintiff claims that the term "specialized software" is vague. The Court does not agree. The specification provides the meaning for this term. Specialized software is software that each audience member must obtain before connecting to the classroom. ('840 patent, col. 1:49–51.) Specialized software does not include industry standard software that ordinarily comes

pre-installed on a computer, such as a web browser or an operating system. ('840 patent, col. 7:38–42) ("Both the presenter . . . and audience member computer systems preferably execute a JAVA®-enabled web browser or operating system, like NETSCAPE COMMUNICATOR®, MICROSOFT INTERNET EXPLORER®, or MICROSOFT WINDOWS 98.") Plaintiff admitted as much when he stated in his opening brief that the '840 patent avoids problems associated with "technologies [that] required specialized hardware of software to be preconfigured and installed," by "using industry-standard computer hardware and software." (Pl.'s Opening Brief at 2.)

2. Commands are "executed as they are received"

Although Defendants are correct that "instructions" does not encompass "specialized software" that is pre-configured and pre-installed, Defendants have not explained why the instructions must be executed as they are received. Nothing in the patent supports this narrow construction, and as Plaintiff's expert points out, the types of "instructions" discussed in the patent cannot be executed until they are completely received. (Souri Decl. ¶ 54.)

3. Conclusion

The Court defines "instructions" as follows:

Court's Definition of "instructions"
code that tells a computer system to perform a particular operation and that is not pre-installed on the computer system

I. Terms 10 and 11: "streaming data module . . . " and "distributed learning control module . . ." ('840 patent, col. 11:47–62.)

Terms 10 & 11 appear in Claim 8 as follows:

a distributed learning server . . . comprising: . . .

a <u>streaming</u> <u>data</u> <u>module</u> for providing the streaming data from the remote streaming data source selected with the content selection

> **control to the presenter and audience member computer systems; and**
>
> **a distributed learning control module for receiving communications transmitted between the presenter and the audience member computer systems and for relaying the communications to an intended receiving computer system and for coordinating the operation of the streaming data module**

('840 patent, col. 11:47–62.)

Defendants contend that these terms are written in "means-plus-function" language. A patent may express a claim limitation as a "means" for performing a specified function without reciting in the claim any structure that accomplishes the function. 35 U.S.C. § 112 ¶ 6. "In exchange for the ability to use a generic means expression . . . the applicant must indicate in the specification what *structure* constitutes the means." *Ergo Licensing, LLC v. CareFusion 303 Inc.*, 673 F.3d 1361, 1363 (Fed. Cir. 2012). According to Defendants, these terms are indefinite because the patent does not disclose the corresponding structures. Plaintiff denies that these terms are expressed in "means-plus-function" language. In addition, Plaintiff argues that even if the terms were construed as "means-plus-function" terms, the specification discloses sufficient structure.

1. "Means-plus-function" language

A limitation that uses the word "means" is presumed to be a means-plus-function limitation. *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004). Conversely, a limitation that does not use the word "means" is presumed not to be a means-plus function limitation. *Id.* This presumption can be overcome, however, if it is shown that "the claim term fails to recite sufficiently definite structure or else recites [a] function without reciting sufficient structure for performing that function." *Id.* "What is important is whether the term is one that is understood to describe structure, as opposed to a term that is simply a nonce word or a verbal construct that is not recognized as the name of structure and is simply a substitute for the term 'means for.'" *Id.* at 1360.

In *Lighting World*, for example, the Federal Circuit held that the term "connector assembly for connecting each pair of adjacent support members" was not written in

means-plus-function language. *Id.* at 1363. The court explained that the word "connector" has a generally understood meaning that describes a structure. *Id.* at 1361. The court also noted that "[t]he fact that more than one structure may be described by that term, or even that the term may encompass a multitude of structures, does not make the term 'connector assembly' any less a name for structure." *Id.*

In contrast, in *Abacus Software* the court held that "colorant selection mechanism" was a mean-plus function limitation. *Massachusetts Institute of Technology and Electronics for Imaging, Inc. v. Abacus Software*, 462 F.3d 1344, 1354 (Fed. Cir. 2006). The court began by explaining that "[t]he generic terms "mechanism," "element," and "device," typically do not connote sufficiently definite structure." *Id.* In some cases, the court acknowledged, claim language can further define and add structure to a generic term. *Id.* For example, a previous case had held that a "detent mechanism" denotes a structure with generally understood meaning in the mechanical arts. *Id.* (citing *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580 (Fed. Cir. 1996)). The court explained, however, that unlike "detent," "colorant selection" did not add sufficient structure to the word "mechanism." *Id.*

The term "module," as used in the disputed terms, does not connote sufficient structure to avoid a means-plus-function construction under § 112 ¶ 6. As Defendants point out, the syntax of the disputed terms—a "module for [performing a function]"—tracks the language commonly used to describe a means-plus-function term. In addition, technical dictionaries define a module as "a packaged functional hardware unit designed for use with other components" or "a collection of routines and data structures that perform a particular task or implement a particular abstract data type." *ePlus, Inc. v. Lawson Software, Inc.*, 2010 U.S. Dist. LEXIS 42609, at *51–52 (E.D. Va., March 31, 2010). In other words, "module" is simply a generic description for software or hardware that performs a specified function. An unpublished Federal Circuit decision supports this conclusion. *Ranpak Corp. v. Storopak, Inc.*, 1998 U.S. App. LEXIS 16348 (Fed. Cir. 1998)(per curiam). In *Ranpak*, the Federal Circuit held that the term "settable control module" was a means-plus-function term. *Id.* at *5–*6. The court explained that "the use of the term 'settable control module' invokes section 112 paragraph 6, because it merely sets forth [a] black box without recitation of structure." *Id.* at *6. Finally, the United States Patent Office's recently published supplemental examination guidelines indicate that "module" is a non-structural term like "mechanism" that may invoke section 112 paragraph 6. Supplementary Examination Guidelines for Determining Compliance

With 35 U.S.C. 112, 76 Fed. Reg. 27, 7162–63 (Feb. 9, 2011).

Plaintiff contends that these "module" terms are structural because the modules are identified by name—"the streaming data module" and the "distributed learning control module." There is no evidence, however, that these names connote well understood structures in the computer technology field.

2. Construing means-plus-function terms

"Construction of a means-plus-function limitation involves two steps. First, the court must identify the claimed function. After identifying the claimed function, the court must then determine what structure, if any, disclosed in the specification corresponds to the claimed function." *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 296 F.3d 1106, 1113-14 (Fed. Cir. 2002). Stated another way, "[t]wo claim construction questions arise with elements expressed in means-plus-function form: (1) What is the function claimed in that element? and (2) What structure or material disclosed in the specification performs the function claimed in that element? Once these questions are answered, the means-plus-function claim element can be construed in accordance with Section 112, paragraph 6." Herbert F. Schwartz, *Patent Law and Practice*, § 5.III.C, pp. 153-54 (5th ed., 2006).

If a "means-plus-function" term is computer-implemented, the corresponding structure must generally include an algorithm for performing the recited function. *Ergo Licensing*, 673 F.3d at 1364 ("Because general purpose computers can be programmed to perform very different tasks in very different ways, simply disclosing a computer as the structure designated to perform a particular function does not limit the scope of the claim . . . as required by section 112 paragraph 6. Requiring disclosure of an algorithm properly defines the scope of the claim and prevents pure functional claiming.") (internal citations omitted). There is a narrow exception to this rule. Where the disclosed functions "can be achieved by any general purpose computer without special programming" an algorithm need not be disclosed. *Id.* (citing *In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303, 1316 (Fed. Cir. 2011)). For example, an algorithm need not be disclosed if the disclosed function requires no more than "processing." *Id.* With these rules in mind, the Court turns to the two disputed terms.

(a) "Streaming data module . . ."

The streaming data module's function is to provide streaming data from the selected source to the audience and presenter computer systems. In this case, the specification contains sufficient structure to perform this function. First, the specification provides that the streaming data module is part of the distributed learning server. ('840 patent, col. 5:34–40.) In one embodiment, it is a software program loaded into the memory of a general purpose computer. ('840 patent, col. 4:40–50.) A high level description of the algorithm is also provided. ('840 patent, col. 6:40–45.)

In addition, the functions performed by the streaming data module—receiving and sending data—can be performed by a general purpose computer. Accordingly, it is not necessary for the patent to disclose the specific algorithm used.

(b) "Distributed learning control module . . ."

The claims indicate that the control module has three functions: (1) receiving communications transmitted between the presenter and the audience member computer systems, (2) relaying the communications to an intended receiving computer system, and (3) coordinating the operation of the streaming data module. There is no structure identified in the specification for the final step of "coordinating" the operation of the streaming data module.

Plaintiff contends that the specific software used by the control module is disclosed in the specification. But this disclosure is insufficient. Although it discloses some information regarding composition of the control module, it does not disclose the algorithm used to perform the module's functions. ('840 patent, col. 5:40–46.)

3. Conclusion

The Court concludes that both the disputed "module" terms are means-plus-function terms. The "distributed learning control module" term is indefinite because the specification fails to disclose a corresponding structure. The "streaming data module" term is not indefinite. The function of the streaming data module is to provide streaming data from a selected source to the audience and presenter computer systems. The corresponding structure in the patent is a general purpose computer that is programmed to receive streaming data from the selected source and provide that data to the audience and presenter computers.

UNITED STATES DISTRICT COURT
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