

CLAIM CONSTRUCTION MEMORANDUM OPINION AND ORDER

Before the Court is the Opening Claim Construction Brief (Dkt. 58) filed by Plaintiff Dynamic Applet Technologies, LLC (“Plaintiff” or “Dynamic”), the Responsive Claim Construction Brief (Dkt. 63) filed by Defendants PetSmart, Inc., Urban Outfitters, Inc., and Hollister Co. (“Defendants”),¹ and the Reply Claim Construction Brief (Dkt. 65) filed by Plaintiff.

Also before the Court is the parties’ August 13, 2018 Joint Claim Construction and Prehearing Statement (Dkt. 51) and the parties’ October 22, 2018 Joint Patent Rule 4-5(d) Claim Construction Chart (Dkt. 68).

The Court held a claim construction hearing on December 18, 2018, to determine the proper construction of the disputed claim terms in United States Patent No. 6,446,111 (“the ’111 Patent”).

The Court issues this Claim Construction Memorandum Opinion and Order and hereby incorporates-by-reference the claim construction hearing and transcript as well as the demonstrative slides presented by the parties during the hearing. For the following reasons, the Court provides the constructions set forth below.

¹ These claim construction proceedings also include Defendants Mattress Firm, Inc. and Sleepy’s, LLC, which filed a Suggestion of Bankruptcy shortly before Defendants’ Responsive Claim Construction Brief was filed. *See* Dkts. 62 & 63. The proceedings were stayed as to Defendants Mattress Firm, Inc. and Sleepy’s, LLC. *See* Dkt. 72. That stay has since been lifted because, as stated by Defendants Mattress Firm, Inc. and Sleepy’s, LLC, “the Mattress Firm Bankruptcy has been resolved and the automatic stay need no longer be in effect.” *See* Dkts. 75 & 76. Defendants Mattress Firm, Inc. and Sleepy’s, LLC then filed a Notice of Joinder in Defendants’ Claim Construction Briefing (Dkt. 77) and presented oral arguments at the December 18, 2018, claim construction hearing together with the other Defendants (*see* Dkt. 78). The Court therefore treats Defendants’ Responsive Claim Construction Brief as applying to all Defendants, including Defendants Mattress Firm, Inc. and Sleepy’s, LLC.

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I. BACKGROUND

Plaintiff brings suit alleging infringement of United States Patent No. 6,446,111. The '111 Patent, titled "Method and Apparatus for Client-Server Communication Using a Limited Capability Client Over a Low-Speed Communications Link," issued on September 3, 2002, and bears a filing date of June 18, 1999. The Abstract of the '111 Patent states:

A request is sent from a client (12) to a server (18) over a communications link (16). A web server (20) on the server responds to the request with a dynamically generated, selected characteristic enabled, transient applet (26) including a plurality of data items (28) therein. The data items are represented in the applet as a plurality of respective non-updateable, pre-loaded elements (36) and a subset of the data items may be represented by respective updateable elements (38). The applet is executed on the client and then substantially discarded when the client no longer requires the data or services of the applet.

In prior litigation involving the '111 Patent, the Court construed terms and granted summary judgment of non-infringement (as to certain defendants), which was affirmed on appeal. *Parallel Networks, LLC v. Abercrombie & Fitch*, No. 6:10-CV-111, 2011 WL 3609292 (E.D. Tex. Aug. 12, 2011) (Davis, J.), *reconsideration denied*, 2011 WL 13098299 (Dec. 5, 2011), *aff'd*, 704 F.3d 958 (Fed. Cir. 2013) ("*Parallel Networks*"). In subsequent claim construction proceedings regarding additional disputed terms, the Court provided the parties with a list of preliminary constructions, which Plaintiff attached to its opening brief (Dkt. 58) as Exhibit 2.²

II. LEGAL STANDARD

Claim construction is a matter of law. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995). The purpose of claim construction is to resolve the meanings and technical scope of claim terms. *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed.

² Those proceedings settled prior to any resolution of the claim construction disputes. See Dkt. 58 at 3–4.

Cir. 1997). When the parties dispute the scope of a claim term, “it is the court’s duty to resolve it.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008).

“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) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent’s intrinsic evidence to define the patented invention’s scope. *Id.* at 1313–14; *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the rest of the specification, and the prosecution history. *Phillips*, 415 F.3d at 1312–13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. The Court gives claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language guides the Court’s construction of claim terms. *Phillips*, 415 F.3d at 1314. “[T]he context in which a term is used in the asserted claim can be highly instructive.” *Id.* Other claims, asserted and unasserted, can provide additional instruction because “terms are normally used consistently throughout the patent.” *Id.* Differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 979). “[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)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own terms, give a claim term a different meaning than it

would otherwise possess, or disclaim or disavow some claim scope. *Phillips*, 415 F.3d at 1316. Although the Court generally presumes terms possess their ordinary meaning, this presumption can be overcome by statements of clear disclaimer. See *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343–44 (Fed. Cir. 2001). This presumption does not arise when the patentee acts as his own lexicographer. See *Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may also 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*, 299 F.3d at 1325. For example, “[a] claim interpretation that excludes a preferred embodiment from the scope of the claim ‘is rarely, if ever, correct.’” *Globetrotter Software, Inc. v. Elan Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics*, 90 F.3d at 1583). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); accord *Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patentee may define a term during prosecution of 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.”). The well-established doctrine of prosecution disclaimer “preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Omega Eng’g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). “Indeed, by distinguishing the claimed invention over the prior art,

an applicant is indicating what the claims do not cover.” *Spectrum Int’l v. Sterilite Corp.*, 164 F.3d 1372, 1378–79 (Fed. Cir. 1988) (quotation omitted). “As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on definitive statements made during prosecution.” *Omega Eng’g*, 334 F.3d at 1324. However, the prosecution history must show that the patentee clearly and unambiguously disclaimed or disavowed the proposed interpretation during prosecution to obtain claim allowance. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002). Statements will constitute disclaimer of scope only if they are “clear and unmistakable statements of disavowal.” *See Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1358 (Fed. Cir. 2003). An “ambiguous disavowal” will not suffice. *Schindler Elevator Corp. v. Otis Elevator Co.*, 593 F.3d 1275, 1285 (Fed. Cir. 2010) (citation omitted).

Although “less significant than the intrinsic record in determining the legally operative meaning of claim language,” the Court may rely on extrinsic evidence to “shed useful light on the relevant art.” *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help the Court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may not be indicative of how terms are used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the Court in determining the particular meaning of a term in the pertinent field, but “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful.” *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.*

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112(b). This “require[s] that 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); *see Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1377 (Fed. Cir. 2015). Whether a claim meets this definiteness requirement is a matter of law. *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1344, 1347 (Fed. Cir. 2007). A party challenging the definiteness of a claim must show it is invalid by clear and convincing evidence. *Sonix Tech. Co. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

III. ANALYSIS

A. AGREED CLAIM TERMS

Apart from terms addressed in their briefing, the parties have reached agreement upon the following construction:

<u>Term</u>	<u>Agreed Construction</u>
“generating [an executable applet] dynamically in response to the data request” (Claim 17)	“constructing at the server, by combining the requisite functionality with the necessary data, at the time of and in response to the client request”

Dkt. 51, Ex. A at 1; *see* Dkt. 68, Ex. 1 at 2.

B. DISPUTED CLAIM TERMS

1. “[collecting on the server a plurality of data items] in response to the [data request]”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. Alternatively, this phrase should be given the full breadth of its meaning as understood by one of ordinary skill in the art and/or its dictionary meaning.	“[collecting on the server a plurality of data items] based on the user- or client-specific content of the [data request] after receiving the [data request], wherein the collected data items satisfy the data request” ³

Dkt. 51, Ex. B at 1; Dkt. 58 at 7–8; Dkt. 63 at 6; Dkt. 65 at 3; *see* Dkt. 68, Ex. 1 at 1. The parties submit that this term appears in Claim 17. Dkt. 51, Ex. B at 1; *see* Dkt. 68, Ex. 1 at 1.

At the December 18, 2018, hearing, the parties reached agreement that this term need not be further construed but rather should be given its plain meaning. The Court accordingly hereby construes “[collecting on the server a plurality of data items] in response to the [data request]” to have its **plain meaning**.

2. “data items”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. Alternatively, to the extent that the Court finds that this phrase requires construction, Dynamic proposes the term be construed to mean “pieces of data.”	“pieces of information”

Dkt. 51, Ex. B at 9; Dkt. 58 at 9–10; Dkt. 63 at 9; Dkt. 65 at 5; *see* Dkt. 68, Ex. 1 at 1. The parties submit that this term appears in Claim 17. Dkt. 51, Ex. B at 9; *see* Dkt. 68, Ex. 1 at 1.

³ Defendants previously asserted indefiniteness. *See* Dkt. 63 at 6 n.5.

a. The Parties' Positions

Plaintiff argues that this term “does not require construction since it does not have any specialized meaning in the art or in the context of the ’111 patent.” Dkt. 58 at 10. Plaintiff also argues that Defendants’ proposal “is redundant in view of the claim language,” “is contrary to the specification,” and “improperly attempts to limit ‘data’ to ‘information.’” *Id.*

Defendants respond that “[t]he intrinsic evidence supports construing ‘data items’ as ‘pieces of information’ that may be stored in pre-loaded values or updateable elements.” Dkt. 63 at 9. Defendants also argue that “Dynamic’s proposal to construe ‘data items’ as ‘pieces of data’ does not actually resolve the dispute at hand: the distinction between ‘pre-loaded values’ and ‘data items.’” *Id.* at 10.

Plaintiff replies that Defendants “rely primarily on embodiments disclosed in the ’111 patent specification that give examples of data items that are more narrow than what is claimed.” Dkt. 65 at 5.

b. Analysis

In *Parallel Networks*, the Court preliminarily found “[n]o construction necessary.” Dkt. 58, Ex. 2 at p. 2 of 5.

As a threshold matter, Defendants have cited district court cases construing “data” as “information,” but “claims of unrelated patents must be construed separately.” *e.Digital Corp. v. Futurewei Techs., Inc.*, 772 F.3d 723, 727 (Fed. Cir. 2014).

Turning to the patent-in-suit, on one hand the specification discloses that “author, title and price are relatively small *pieces of information*,” and “this information” is “stored as pre-loaded, non-updateable elements.” ’111 Patent at 13:59–14:21 (emphasis added). Further, the specification discloses that “[w]hen the applet 26 is generated, the programmatic capabilities for

utilizing the *data items 28 represented as preloaded elements 36* in the applet 26 are included in the data manipulation system 30.” *Id.* at 12:28–31 (emphasis added).

On the other hand, Claim 1 of the ’111 Patent recites in relevant part: “a server coupled to a communications link and operable to receive a request from a client device and to collect a plurality of data items, wherein *the data items comprise specific information* collected as a function of the request.” This claim thus refers to both “information” and “data items,” which weighs against Defendants’ proposal of construing “data” as “information.” See *Phillips*, 415 F.3d at 1314 (“Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term.”); see also *Innova/Pure Water*, 381 F.3d at 1119 (“when an applicant uses different terms in a claim it is permissible to infer that he intended his choice of different terms to reflect a differentiation in the meaning of those terms”). The specification likewise refers to “data” and “information” distinctly. See ’111 Patent at 17:12–23.

On balance, this evidence demonstrates that “data items” should not be limited to “information.” The Court thus hereby expressly rejects Defendants’ proposed construction, and no further construction is necessary. See *U.S. Surgical*, 103 F.3d at 1568 (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); see also *O2 Micro*, 521 F.3d at 1362 (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015).

The Court accordingly hereby construes “**data items**” to have its **plain meaning**.

3. “executable applet”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>No construction necessary.</p> <p>Alternatively, to the extent that the Court finds that this phrase requires construction, Dynamic proposes the term be construed to mean:</p> <p>executable: “capable of being executed, that is, capable of being put into effect and carried out fully and completely”</p> <p>executable applet: “program code that can be used by a client device”</p>	<p>“program code that can be run by a client device without incurring additional transmissions”</p>

Dkt. 51, Ex. B at 17; Dkt. 58 at 11; Dkt. 63 at 10; Dkt. 65 at 6; *see* Dkt. 68, Ex. 1 at 2. The parties submit that this term appears in Claim 17. Dkt. 51, Ex. B at 17; *see* Dkt. 68, Ex. 1 at 2.

a. The Parties’ Positions

Plaintiff argues that the *Parallel Networks* construction, as affirmed by the Federal Circuit, cannot be modified. Dkt. 58 at 11–12. Plaintiff also argues that “Defendants’ replacement of the word ‘use’ with ‘run’ is another attempt to read in a limitation that the Court has already squarely rejected.” *Id.* at 12.

Defendants respond that their proposal “is supported by the Federal Circuit’s construction of the term, rejection of infringement arguments in the prior *Parallel Networks* litigation, and the intrinsic record of the ’111 patent.” Dkt. 63 at 11. Defendants submit that “the Federal Circuit stressed that the claimed ‘executable applet’ cannot incur multiple transmissions prior to being run on the client device.” Dkt. 63 at 13 (citing *Parallel Networks*, 794 F.3d at 967).

Plaintiff replies that its proposed interpretation “follows the language provided by this Court and incorporates the Federal Circuit’s guidance regarding the meaning of ‘executable.’” Dkt. 65 at 7.

b. Analysis

In *Parallel Networks*, the Court construed “executable applet” to mean “program code that can be used by a client device.” 2011 WL 3609292, at *2–*4.

On appeal, the Federal Circuit affirmed. 704 F.3d 958. The affirmance of the *Parallel Networks* construction is binding as to the term “executable applet” in the ’111 Patent. *See Key Pharm. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998) (noting “the national *stare decisis* effect that this court’s decisions on claim construction have”); *see also Ottah v. Fiat Chrysler*, 884 F.3d 1135, 1140 (Fed. Cir. 2018) (citing *Key Pharmaceuticals*).

The Federal Circuit also found:

. . . Upon receipt of a user request, the server generates (i.e., brings into existence) an applet with two constituent (i.e., component) parts (particularized data and functionality); that applet is *executable* (i.e., *capable of being executed and carried out fully and completely*). The applet is then transferred to the client device, where it will be executed. Figure 3 [of the ’111 Patent] depicts this chronology. What Figure 3 does not describe, however, is a scenario in which, in response to a request, only part of the applet is generated (with a placeholder for the rest) and is transmitted to the client, which then tries to execute it and, finding it non-executable and inoperable, follows a link back over the network to retrieve the additional data and/or functionality that is needed for the applet to run.

* * *

[W]e construe the asserted claims of the ’111 patent to require that the applet be executable or operable when it is generated and before it is first transmitted to the client, which means it must include both the particularized data and the functionality.

Parallel Networks, 704 F.3d at 967–68 (emphasis added). The Federal Circuit further stated:

Parallel admits that the executable applet must consist of both data and functionality, and the patent emphasizes that feature repeatedly. What purportedly

made the '111 patent unique and inventive was combining and transmitting the particularized data and functionality “as a group” in order to transfer an “executable applet” and *reduce the number of transmissions over the communications link*. Parallel cannot now claim that a limitation that featured so critically in the patent was not, in fact, a part of the invention.

Id. at 970 (emphasis added); *see id.* at 969 (“the critical point for purposes of this case is that the applet cannot be finalized at the client”).

In subsequent proceedings in *Parallel Networks*, the Court preliminarily construed “executable” to mean “capable of being executed, that is, capable of being put into effect and carried out fully and completely.” Dkt. 58, Ex. 2 at p. 5 of 5. The parties in the present case have not disputed the meaning of “executable.”

Defendants’ proposed construction for “executable applet” amounts to a proposal to incorporate some of the above-reproduced analysis from the Federal Circuit’s opinion. On balance, the Federal Circuit’s interpretation of “executable applet” should be applied here in the manner expressly set forth by the Federal Circuit as reproduced above. *Parallel Networks*, 704 F.3d at 967.

To whatever extent Defendants maintain that a dispute remains as to Defendants’ proposal of “without incurring additional transmissions,” Claim 17 of the '111 Patent recites (emphasis added):

17. A method of processing data comprising:
 - receiving a data request from a client device at a server system over a communications link;
 - collecting on the server a plurality of data items in response to the data request;
 - generating *an executable applet* dynamically in response to the data request, a constituent system associated with *the applet* including a subset of the data items therein as pre-loaded values;
 - wherein a further constituent system associated with *the executable applet* comprises a data interface capability configured to provide a plurality of operations on the pre-loaded values, the operations comprising operations associated with the subset of the data items; and
 - transferring *the applet* to the client device.

The claim thus recites limitations as to generating an executable applet and transferring the applet to the client device. In this context, Defendants’ proposal of “without incurring additional transmissions” would be redundant and confusing. Moreover, Defendants’ proposal might be interpreted as precluding any subsequent communications by the client device, regardless of whether such communications relate to being able to execute the applet. No such limitation has been shown. *See Parallel Networks*, 704 F.3d at 970 (noting that there is no “single transmission” requirement that would preclude additional communications after the applet is in place on the client).

The Court therefore hereby construes “**executable applet**” to mean “**program code that can be used by a client device.**”

4. “constituent system associated with the applet”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>No construction necessary.</p> <p>Alternatively, to the extent that the Court finds that this phrase requires construction, Dynamic proposes the term be construed to mean “a portion of [the applet].”</p>	<p>“constituent system associated with the applet” is indefinite, or in the alternative: “a portion of the applet”</p>

Dkt. 51, Ex. B at 24; Dkt. 58 at 13; Dkt. 63 at 14; Dkt. 65 at 7; *see* Dkt. 68, Ex. 1 at 3. The parties submit that this term appears in Claim 17. Dkt. 51, Ex. B at 24; *see* Dkt. 68, Ex. 1 at 3.

a. The Parties’ Positions

Plaintiff argues that “this term is sufficiently clear and not indefinite,” and Plaintiff notes that the parties’ alternative proposed constructions are the same. Dkt. 58 at 13.

Defendants respond that this term is indefinite because “the specification fails to disclose any specific technical mechanism defining these constituent systems.” Dkt. 63 at 14.

Plaintiff replies that Defendants' indefiniteness argument should be rejected because "the term 'constituent system' is a term sufficiently clear to an ordinary observer, let alone a person of skill, so much that the parties were able to agree upon a construction." Dkt. 65 at 8.

b. Analysis

The Federal Circuit stated that the term "constituent" means "serving to form, compose, or make up." *See Parallel Networks*, 704 F.3d at 968.

In subsequent proceedings in *Parallel Networks*, the Court preliminarily construed "constituent system associated with the applet" to mean "a portion of [the applet]." Dkt. 58, Ex. 2 at p. 3 of 5. As noted above, this construction has also been proposed by Plaintiff and Defendants.

At the December 18, 2018, hearing, Defendants urged that the claim scope is not reasonably certain because nothing prevents Plaintiff from strategically drawing boundaries in its analysis of an accused system so as to avoid any "links" that resemble what the patentee distinguished. *See Parallel Networks*, 704 F.3d at 966 ("because the accused sites all included a link that necessitated a subsequent transmission between the client and the server in order to assemble the data and functionality required for the applet to operate, the court ruled that most of the defendants were entitled to summary judgment"). In other words, Defendants argued, infringement should not be allowed to depend upon a subjective decision as to which code is part of the "constituent system" and which code is not.

On balance, however, Defendants' concern is addressed by the recital in the claim that the applet must be "executable." The parties agreed at the December 18, 2018, hearing that the Federal Circuit addressed the meaning of "executable" in its analysis of the term "executable applet." *See id.* at 967. In this context, Defendants have not met their burden to demonstrate indefiniteness "by

clear and convincing evidence.” *Sonix*, 844 F.3d at 1377. The Court therefore hereby expressly rejects Defendants’ indefiniteness argument.

The Court accordingly hereby construes “**constituent system associated with the applet**” to mean “**a portion of the applet.**”

5. “pre-loaded values”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“data values set by the server before the applet is transferred to the client device” ⁴	“a portion of the applet initialized with a [data item] by the server during generation of the applet”

Dkt. 51, Ex. B at 29; Dkt. 58 at 13; Dkt. 63 at 15; Dkt. 65 at 8–9; *see* Dkt. 68, Ex. 1 at 3, 6 & 8. The parties submit that this term appears in Claims 17, 23, and 26. Dkt. 51, Ex. B at 29; *see* Dkt. 68, Ex. 1 at 3, 6 & 8.

a. The Parties’ Positions

Plaintiff argues that “Defendants’ proposed construction of ‘pre-loaded values’ ignores and reads out the key word ‘value,’ which is a term that has a distinct and separate use and therefore, under the doctrine of claim differentiation, should be construed to mean something different from the term ‘item’ used in the claims.” Dkt. 58 at 13 (citing *Innova/Pure Water*, 381 F.3d at 1119).

Defendants respond that their proposal is consistent with disclosures in the specification regarding “preloaded” elements. Dkt. 63 at 15.

Plaintiff replies that “it is readily understandable that the terms ‘items’ and ‘values’ are not synonymous,” and Plaintiff reiterates that these terms should be given different meanings because the claims use both of these terms. Dkt. 65 at 9. Plaintiff also argues that Defendants’ proposal

⁴ Plaintiff previously proposed: “data values set by the server before the applet is transferred to the client device and are not intended to be updated by the server after the applet is transferred to the client device.” Dkt. 51, Ex. B at 29.

that the values must be initialized “during generation of the applet” improperly excludes setting values through the client device. *Id.* at 10.

b. Analysis

In *Parallel Networks*, the Court preliminarily construed “pre-loaded value” to mean “data item that will not be updated by the server after the applet is sent to the client device.” Dkt. 58, Ex. 2 at p. 4 of 5.

In the present case, the parties agree that this term is not limited to “non-updateable” values, and this understanding is consistent with the doctrine of claim differentiation. *See, e.g.*, ’111 Patent at Cl. 26 (“A method according to claim 17, wherein the preloaded values are non-updateable.”).

Claim 17 of the ’111 Patent recites (emphasis added):

17. A method of processing data comprising:
receiving a data request from a client device at a server system over a communications link;
collecting on the server a plurality of data items in response to the data request;
generating an executable applet dynamically in response to the data request, a constituent system associated with the applet including a subset of the data items therein as *pre-loaded values*;
wherein a further constituent system associated with the executable applet comprises a data interface capability configured to provide a plurality of operations on the *pre-loaded values*, the operations comprising operations associated with the subset of the data items; and
transferring the applet to the client device.

In light of surrounding claim language, Defendants’ proposals of “a portion of the applet” and “with a data item” are redundant and unnecessary and are therefore rejected. *See Phillips*, 415 F.3d at 1314 (“the claims themselves provide substantial guidance as to the meaning of particular claim terms”); *see also Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1237 (Fed. Cir. 2016).

As to Defendants’ proposal of “initialized,” the specification discloses:

The data storage system 32 comprises a plurality of pre-loaded elements 36 representing non-updateable data items 28. *The pre-loaded elements 36 are each initialized using respective data items 28* retrieved by the web server application 20

in response to the request. The pre-loaded elements 36 are non-updateable in the sense that the pre-loaded elements 36 will only change in response to data or input from the client 12 and will not be updated with information acquired over the communications link 16 after the applet 26 has been transferred to the client 12.

'111 Patent at 11:29–39 (emphasis added). Defendants' proposal of "initialized" is therefore consistent with this disclosure in the specification regarding "pre-loaded." Plaintiff's proposal of "set," which might be interpreted as implying that the values cannot be changed, is inconsistent with this disclosure that something "pre-loaded" can be changed "in response to data or input from the client 12." *Id.* at 11:35–37. At the December 18, 2018, hearing, Plaintiff was amenable to "initialized" rather than "set." Plaintiff also proposed that some of Defendants' objections to Plaintiff's proposed construction could be resolved by Plaintiff removing the word "data" from Plaintiff's proposal.

As to Defendants' proposal of "during generation of the applet," the above-reproduced disclosures provide context for understanding that the relevant time frame is prior to when "the applet 26 has been transferred to the client 12." *Id.* at 11:37–39. The Federal Circuit likewise stated: "we construe the asserted claims of the '111 patent to require that the applet be executable or operable when it is generated and *before it is first transmitted to the client*, which means it must include both the particularized data and the functionality." *Parallel Networks*, 704 F.3d at 968 (emphasis added); *see id.* at 969 (noting "the critical requirement that the applet be generated and executable before it is transferred to the client").

The Court therefore hereby construes "**pre-loaded values**" to mean "**values initialized by the server before the applet is transferred to the client device.**"

6. “further constituent system associated with the [executable] applet” and “further constituent system associated with the applet”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>No construction necessary.</p> <p>Alternatively, to the extent that the Court finds that this phrase requires construction, Dynamic proposes the term be construed to mean “a further portion of the applet.”</p>	<p>“further constituent system associated with the applet” is indefinite, or in the alternative: “a separate portion of the applet”</p>

Dkt. 51, Ex. B at 36; Dkt. 58 at 15; Dkt. 63 at 17; Dkt. 65 at 10; *see* Dkt. 68, Ex. 1 at 3 & 6. The parties submit that these terms appear in Claims 17 and 23. Dkt. 51, Ex. B at 36; *see* Dkt. 68, Ex. 1 at 3 & 6.

a. The Parties’ Positions

Plaintiff argues that Defendants’ alternative proposal should be rejected because the specification demonstrates that “the ‘constituent system’ and the ‘further constituent system’ can overlap each other.” Dkt. 58 at 16.

Defendants respond that the phrase “constituent system” “lack[s] any specific technical mechanism disclosed in the specification.” Dkt. 63 at 17. Alternatively, Defendants argue that “[t]he construction of this term is important because the claims require two separate constituent systems. . . .” *Id.*

Plaintiff replies by reiterating that “the specification makes clear that the ‘constituent system’ and the ‘further constituent system’ can overlap each other.” Dkt. 65 at 11.

b. Analysis

For the same reasons set forth above as to the term “constituent system associated with the applet,” the Court hereby expressly rejects Defendants’ indefiniteness argument.

The remaining dispute is whether the “constituent system” and “further constituent system” must be “separate” from one another, as Defendants propose. The specification discloses “data manipulation system 30” and “data storage system 32” as “constituent systems associated with the applet.” ’111 Patent at 11:7–15. Defendants submit that Figure 2 of the ’111 Patent illustrates these systems as separate.

Yet, “patent coverage is not necessarily limited to inventions that look like the ones in the figures.” *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007).

Further, to the extent that the specification can be interpreted as disclosing that one system stores only data and the other system includes only capabilities for using the stored data (*see* ’111 Patent at 11:21–29, 12:12–20 & 12:52–55), any such separation is merely a specific feature of particular disclosed embodiments that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323. Finally, Defendants’ reliance on the Federal Circuit decision in *Parallel Networks* is unavailing because Defendants have not shown that any relevant limitation arises from the interpretation of “constituent” as meaning “serving to form, compose, or make up.” 704 F.3d at 968.

Defendants’ reliance on the plain meaning of the word “further” is similarly unavailing. The mere recital of two systems does not necessarily mean that the systems must be non-overlapping or otherwise separate from one another. *See Powell v. Home Depot USA, Inc.*, 663 F.3d 1221, 1231 (Fed. Cir. 2011) (rejecting argument that the terms “cutting box” and “dust collection structure” could be infringed only by a device that has separate structures corresponding to the distinct claim elements); *see also Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1304 (Fed. Cir. 2011) (“the specifications and the claims indicate that the ‘retainer member’ and the ‘needle holder’ need not be two separate pieces”).

At the December 18, 2018, hearing, Defendants alternatively proposed “distinct” rather than “separate.” Plaintiff responded that it would prefer “additional” rather than “distinct.” On balance, whereas “separate” is too limiting and whereas “additional” would tend to confuse rather than clarify the scope of the claims, Defendants’ proposal of “distinct” is appropriate. In particular, the recital of a “further constituent system” implies that this “further” system is not also the “constituent system” recited earlier in Claim 17 (emphasis added):

17. A method of processing data comprising:

receiving a data request from a client device at a server system over a communications link;

collecting on the server a plurality of data items in response to the data request; generating an executable applet dynamically in response to the data request, *a constituent system* associated with the applet including a subset of the data items therein as pre-loaded values;

wherein *a further constituent system* associated with the executable applet comprises a data interface capability configured to provide a plurality of operations on the pre-loaded values, the operations comprising operations associated with the subset of the data items; and

transferring the applet to the client device.

* * *

23. A method of processing data according to claim 17 and further comprising manipulating the pre-loaded values using a plurality of operations in *the further constituent system* associated with the applet, the operations comprising operations specific to the pre-loaded values and wherein the pre-loaded values are non-updateable.

Construction is therefore appropriate to clarify that these systems must be distinct because “[w]here a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented invention.” *Becton, Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (citations and internal quotation marks omitted); *cf. Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1299 (Fed. Cir. 2015) (“Not only are the ‘two other computers’ recited independently from, and in addition to, the gateway and caching computers, the word ‘other’ denotes a further level of distinction between those two

computers and the specific gateway and caching computers recited separately in the claim.”), *overruled on other grounds by Aqua Prods., Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017). Further, the construction should give effect to the parties’ apparent agreement, based on their proposed constructions, that the disputed terms refer to a portion of the applet.

The Court therefore hereby construes **“further constituent system associated with the [executable] applet”** and **“further constituent system associated with the applet”** to mean **“a distinct portion of the applet.”**

7. “data interface capability”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>No construction necessary.</p> <p>Alternatively, to the extent that the Court finds that this phrase requires construction, Dynamic proposes the term be construed to mean “program code that allows the client to access and use the data in the applet.”</p>	<p>“data interface capability” is indefinite, or in the alternative: “program code that allows the client to access and use the data in the applet”</p>

Dkt. 51, Ex. B at 41; Dkt. 58 at 17; Dkt. 63 at 21; Dkt. 65 at 12; *see* Dkt. 68, Ex. 1 at 4. The parties submit that this term appears in Claim 17. Dkt. 51, Ex. B at 41; *see* Dkt. 68, Ex. 1 at 4.

a. The Parties’ Positions

Plaintiff argues that “[t]his term is sufficiently clear and, therefore does not require construction.” Dkt. 58 at 17. Plaintiff also notes that the parties’ alternative proposed constructions are the same. *Id.*

Defendants respond that “this term is indefinite because the specification does not define this term.” Dkt. 63 at 21.

Plaintiff replies that “[t]here is no need to define terms of art to one of ordinary skill in the art.” Dkt. 65 at 13.

b. Analysis

In *Parallel Networks*, the Court construed “data interface capability” to mean “program code that allows the client to access and use the data in the applet.” 2011 WL 3609292, at *7.

The specification discloses:

The data manipulation system 30 includes all capabilities required for the operator of the client 12 to utilize data in the data storage system 32. The data manipulation system 30 enables the applet 26 to handle the various characteristics associated with the data included in the applet 26 items 28 retrieved in response to the request from the client 12 and to handle client specific characteristics. In particular, the data manipulation system 30 of the applet 26 will provide the client 12 with whatever suitable *data interface* is required to access and utilize the data in the data storage system 32. For example, if the data manipulation system 30 includes data which requires the functionality associated with a particular database system, the data manipulation system 30 will include suitable functionality for accessing the database data included in the applet 26 in the data storage system 32.

’111 Patent at 11:15–29 (emphasis added). Defendants have argued that this disclosure “fails to inform those skilled in the art about the scope of the invention with reasonable certainty.” Dkt. 63 at 21. Defendants likewise urged at the December 18, 2018, hearing that this disputed term lacks sufficient boundaries.

“Patent documents are written for persons familiar with the relevant field; the patentee is not required to include in the specification information readily understood by practitioners, lest every patent be required to be written as a comprehensive tutorial and treatise for the generalist, instead of a concise statement for persons in the field.” *Verve, LLC v. Crane Cams, Inc.*, 311 F.3d 1116, 1119 (Fed. Cir. 2002). On balance, Defendants have failed to demonstrate that the meaning of “data interface capability” would not be reasonably clear to a person of ordinary skill in the art. For example, the specification refers to database interfaces and other interfaces. *See* ’111 Patent at 1:27–28; *see also id.* at 6:38–41. Though the disputed term may be broad, “breadth is not indefiniteness.” *BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1367 (Fed. Cir. 2017)

(quoting *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1341 (Fed. Cir. 2005)). The Court therefore hereby expressly rejects Defendants’ indefiniteness argument, and the Court adopts the parties’ agreed-upon alternative proposal.

The Court accordingly hereby construes “**data interface capabilities**” to mean “**program code that allows the client to access and use the data in the applet.**”

8. “configured to provide a plurality of operations on”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>No construction necessary.</p> <p>Alternatively, to the extent that the Court finds that this phrase requires construction, Dynamic proposes the term be construed to mean “configured to provide more than one type of action that can be performed on.”</p>	<p>“configured to provide a plurality of operations on” is indefinite, or in the alternative:</p> <p>“customized to provide a client device with more than one type of operation to interface with [the pre-loaded values] in the applet, such as accessing, changing, updating, or deleting, [the pre-loaded values] in the applet”</p>

Dkt. 51, Ex. B at 43–44; Dkt. 58 at 17–18; Dkt. 63 at 21; Dkt. 65 at 13; *see* Dkt. 68, Ex. 1 at 4. The parties submit that this term appears in Claim 17. Dkt. 51, Ex. B at 43–44; *see* Dkt. 68, Ex. 1 at 4.

At the December 18, 2018, hearing, Defendants no longer asserted indefiniteness. The parties reached agreement that this term need not be further construed but rather should be given its plain meaning. The Court accordingly hereby construes “**configured to provide a plurality of operations on**” to have its **plain meaning**.

9. “the operations comprising operations associated with”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. Alternatively, to the extent that the Court finds that this phrase requires construction, Dynamic proposes the term be construed to mean “actions comprising actions related to.”	“the operations comprising operations associated with” is indefinite, or in the alternative: “operations customized based on the [the subset of the data items]”

Dkt. 51, Ex. B at 53–54; Dkt. 58 at 20. The parties submit that this term appears in Claim 17. Dkt. 51, Ex. B at 53–54; *see* Dkt. 68, Ex. 1 at 5.

“After further consideration, Defendants agree that no construction of this term is necessary.” Dkt. 63 at 25. Plaintiff’s reply brief acknowledges the parties’ agreement in this regard. Dkt. 65 at 3 n.2; *see* Dkt. 68, Ex. 1 at 5.

The Court accordingly hereby construes **“the operations comprising operations associated with”** to have its **plain meaning**.

10. “manipulating”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“accessing and/or utilizing”	“changing”

Dkt. 51, Ex. B at 62. The parties submit that this term appears in Claim 23. Dkt. 51, Ex. B at 62; *see* Dkt. 68, Ex. 1 at 6.

“Upon further consideration, Dynamic does not dispute Defendants’ proposed construction of this term.” Dkt. 58 at 22. In response, Defendants acknowledge agreement in this regard. Dkt. 63 at 6 n.4; *see* Dkt. 68, Ex. 1 at 6.

The Court accordingly hereby construes **“manipulating”** to mean **“changing.”**

11. “the operations comprising operations specific to the [pre-loaded values]”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. Alternatively, to the extent that the Court finds that this phrase requires construction, Dynamic proposes the term be construed to mean “actions comprising actions specific to.”	This phrase should be construed identically to “the operations comprising operations associated with.”

Dkt. 51, Ex. B at 63; Dkt. 58 at 22. The parties submit that this term appears in Claim 23. Dkt. 51, Ex. B at 63; *see* Dkt. 68, Ex. 1 at 7.

“After further consideration, Defendants agree that no construction of this term is necessary.” Dkt. 63 at 26. Plaintiff’s reply brief acknowledges the parties’ agreement in this regard. Dkt. 65 at 3 n.2; *see* Dkt. 68, Ex. 1 at 7.

The Court accordingly hereby construes “**the operations comprising operations specific to the [pre-loaded values]**” to have its **plain meaning**.

12. “[pre-loaded values are] non-updateable”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“data values set by the server before the applet is transferred to the client device and that are not intended to be updated”	“[pre-loaded values] cannot be updated with information acquired over the communications link after the [applet] has been generated and transferred to”

Dkt. 51, Ex. B at 71. The parties submit that this term appears in Claims 23 and 26. Dkt. 51, Ex. B at 71–72; *see* Dkt. 68, Ex. 1 at 7 & 8.

“Upon further consideration, Dynamic does not dispute Defendants’ proposed construction of this term.” Dkt. 58 at 24. In response, Defendants acknowledge agreement in this regard. Dkt. 63 at 6 n.4; *see* Dkt. 68, Ex. 1 at 7 & 8.

The Court accordingly hereby construes “[pre-loaded values are] non-updateable” to mean “[pre-loaded values] cannot be updated with information acquired over the communications link after the [applet] has been generated and transferred to.”

IV. CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patents-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other’s claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

SIGNED this 27th day of December, 2018.

A handwritten signature in black ink, appearing to read 'K. Priest Johnson', written over a horizontal line.

KIMBERLY C. PRIEST JOHNSON
UNITED STATES MAGISTRATE JUDGE