

United States District Court,  
N.D. California.

**INTERTRUST TECHNOLOGIES CORPORATION, a Delaware corporation,**  
Plaintiff.

v.  
**MICROSOFT CORPORATION, a Washington corporation,**  
Defendant.

**And Counter-Actio,**  
And Counter-Action.

No. C 01-1640 SBA

**July 3, 2003.**

As Amended July 7, 2003.

Owner of patents related to computer security sued competitor for infringement. Competitor counterclaimed for infringement of its own patents. On parties' motion for limited claim construction, and competitor's motion for summary judgment of invalidity, the District Court, Armstrong, J., held that: (1) owner's asserted patents were not indefinite; (2) claims in asserted patents did not all impliedly include limitation of "virtual distribution environment" described in parent patent application; (3) requirement that data structure "contain" element meant that element had to be either directly in structure or structure had to hold reference indicating where element could be found; (4) "control" could be either data or executable file; (5) "copying" meant reproducing usable file; (6) "host processing environment" could be either secure or non-secure; and (7) "tamper resistance" meant making tampering more difficult or detectable.

Claims construed; motion denied.

Court-Filed Expert Resumes

5,915,019, 5,949,876, 6,049,671, 6,112,181, 6,256,668, 6,389,402. Cited.

Christine E. Lehman, Edward Robert Yoches, Esther H. Lim, Lionel M. Lavenue, Finnegan, Henderson, Farabow, Garrett & Dun, Washington, DC, Henry C. Bunsow, John W. Kecker, Jon B. Streeter, Michael H. Page, Ragesh K. Tangri, Kecker & Van Nest LLP, San Francisco, CA, Steven H. Morrissett, Finnegan, Henderson, Farabow, Garrett & Dun, Palo Alto, CA, Henry C. Lebowitz, John J. Lauter, Pennie & Emonds LLP, New York City, Michael J. Lyons, Pennie & Emonds LLP, Palo Alto, CA, Stephen E. Taylor, Taylor & Co. Law Offices, Alameda, CA, for Plaintiff.

Eric L. Wesenberg, Heidi L. Keefe, Mark R. Weinstein, Sam O'Rourke, William L. Anthony, Orrick Herrington & Sutcliffe LLP, Menlo Park CA, James E. Geringer, John D. Vandenberg, Steven Alexander, Klarquist Sparkman Campbell Leigh & Whin, Portland, OR, for Defendant.

Kristen L. Cleveland, Klarquist Sparkman LLP, Portland, OR, for Counter-Claimant.

**ORDER DENYING MOTION FOR PARTIAL SUMMARY JUDGMENT AND CONSTRUING**

## "MINI- MARKMAN" CLAIMS

ARMSTRONG, District Judge.

This matter comes before the Court for two related proceedings. The first is a "mini- *Markman* " (limited claim construction) proceeding in which the Court shall construe thirty terms and phrases appearing in twelve claims selected by the parties from the numerous claims at issue in this action. The second is Microsoft's Motion for Summary Judgment that Certain "Mini- *Markman* " Claims Are Invalid for Indefiniteness (the "Indefiniteness Motion"). The Court held a claim construction hearing on June 11 and 12, 2003, and heard oral argument on the Indefiniteness Motion on June 12, 2003. Having read and considered the papers submitted, having considered the parties' arguments at the hearings, and being fully informed, the Court DENIES the Indefiniteness Motion and CONSTRUES the disputed terms and phrases as set forth below.

### I. BACKGROUND

#### A. Procedural History

Plaintiff and counterdefendant InterTrust Technologies Corp. ("InterTrust") filed its Complaint in case number C 01-1640 SBA on April 26, 2001, its First Amended Complaint on June 26, 2001, its Second Amended Complaint on July 30, 2001, and its Third Amended Complaint on October 25, 2001. In its Third Amended Complaint InterTrust claimed infringement of seven patents. Defendant and counterclaimant Microsoft Corp. ("Microsoft") filed an answer and counterclaims to the Third Amended Complaint on November 15, 2001, alleging infringement of two of its own patents. The Court subsequently held one of the patents asserted in the Third Amended Complaint not infringed, leaving six patents-in-suit from the Third Amended Complaint.

On February 6, 2002, InterTrust filed a second, separate patent infringement action against Microsoft, No. C 02-0647 SBA, claiming infringement of an additional patent. That second patent infringement action was consolidated with the earlier-commenced action on May 3, 2002.

In an Order filed on October 23, 2002, the Court, *inter alia*, granted InterTrust leave to amend its complaint. Accordingly, on October 24, 2002, InterTrust filed its Fourth Amended Complaint, claiming infringement of eleven patents ( *i.e.*, it added infringement claims regarding four new patents), one of which was the patent-in-suit in Case No. C 02-0647 SBA. Per the Court's October 23, 2002 Order, Case No. C 02-0647 SBA was automatically dismissed as moot upon the filing of the Fourth Amended Complaint. In an Order filed on November 1, 2002, the Court stayed this action in part, staying all proceedings (including discovery) unrelated to twelve claims selected by the parties and listed in the Order; these claims would be subject to limited *Markman* and indefiniteness proceedings. On November 7, 2002, Microsoft filed an Answer and Counterclaims to InterTrust's Fourth Amended Complaint, in which it claimed infringement of the same two of its own patents that it had asserted in its previous answer and counterclaims.

Thus, at present, InterTrust has asserted eleven patents that are currently in suit, and Microsoft has asserted two, for a total of thirteen patents-in-suit. These patents are:

InterTrust:	5,892,900	(the " '900 patent")
	5,915,019	(the " '019 patent")
	5,917,912	(the " '912 patent")
	5,920,861	(the " '861 patent")
	5,949,876	(the " '876 patent")

5,982,891		(the " '891 patent")
6,112,181		(the " '181 patent")
6,157,721		(the " '721 patent")
6,185,683	B1	(the " '683 patent")
6,253,193	B1	(the " '193 patent")
6,389,402	B1	(the " '402 patent")

Microsoft:	6,049,671	(the " '671 patent")
	6,256,668	(the " '668 patent")

Both parties have asserted various affirmative defenses to the opposing party's infringement claims, and Microsoft additionally seeks declaratory judgments of non-infringement of InterTrust's asserted patents.

## ***B. The Instant Proceedings***

### ***1. Mini-Markman Proceeding***

Per the Court's Order of February 24, 2003, and the Court's relevant prior and subsequent Orders, the parties are before the Court for a "mini- *Markman*" proceeding. The Court is construing thirty terms and phrases from twelve claims jointly selected by the parties from the eleven patents asserted by InterTrust. The parties have asked for one additional item of construction: whether a particular term, "virtual distribution environment," should be read into all of the claims at issue as a limitation. FN1 The terms and phrases to be construed have been selected from the following twelve claims (from seven of InterTrust's asserted patents):

FN1. As discussed *infra*, there is some disagreement about whether Microsoft is asserting that this term should be read into every claim at issue in this proceeding.

#### 1. 193.1 FN2

FN2. The format "XXX.YYY" indicates the following: XXX is the patent number; YYY is the number of the relevant claim in that patent. This format will be used to identify claims throughout this Order.

2. 193.11

3. 193.15

4. 193.19

5. 683.2

6. 721.1

7. 721.34

8. 861.58

9. 891.1

10. 900.155

11. 912.8

12. 912.35

The parties have filed a Patent Local Rule 4-3 Joint Claim Construction and Prehearing Statement Revised in Accordance with the Scope of "Mini- *Markman* " Hearing Set Forth in the Court's Order Entered 2/24/03 (the "JCCS"), which provides most of the essential information for the Court's construction of the terms and phrases at issue. The parties' competing proposed constructions of the terms and phrases are set out in Exhibits A and B to the JCCS (both exhibits provide the parties' proposed constructions but organize them differently). InterTrust's and Microsoft's identifications of intrinsic and extrinsic evidence are set out in Exhibits C and D, respectively, to the JCCS.

In connection with the mini- *Markman* hearing the parties have submitted the following briefs: InterTrust has submitted InterTrust's Opening Claim Construction Brief ("InterTrust's Opening *Markman* Brief") (40 pages in length); Microsoft has submitted Microsoft's *Markman* Brief (40 pages); and InterTrust has submitted Plaintiff InterTrust Technologies Corporation's Reply Memorandum on Claim Construction ("InterTrust's Reply *Markman* Brief") (25 pages). The parties have also submitted various declarations with attachments in support of their briefs. On InterTrust's motion, the Court struck the testimony of witnesses David Maier, Sanford Bingham, and Martin Plaehn, offered by Microsoft in support of its claim construction positions, in two Orders filed on June 5 and 10, 2003.

The parties have filed a Joint Appendix to Joint Claim Construction Statement (the "JA"), which consists of a brief cover document and 18 volumes containing the full seven patents-in-suit from which the 12 claims that are the subject of the mini- *Markman* proceeding are taken (Exhibits A through G), the prosecution histories of these seven patents (Exhibits H through Q), selected cited references (Exhibits R through DD), and a related patent application (Exhibit EE).

## **2. Indefiniteness Motion**

Also per the Court's Order of February 24, 2003, and the Court's relevant prior and subsequent Orders, the parties are before the Court for resolution of Microsoft's Indefiniteness Motion. The Indefiniteness Motion seeks summary judgment on the issue that those of the claims at issue that contain any of the terms "secure," "protected processing environment," or "host processing environment" are invalid as indefinite. These terms are three of the 30 terms to be construed in the mini- *Markman* proceeding.

The parties' briefing on the Indefiniteness Motion consists of the following: Microsoft's Brief in Support of Motion for Summary Judgment that Certain "Mini- *Markman* " Claims Are Invalid for Indefiniteness ("Microsoft's Opening Indefiniteness Brief"); the Memorandum of Points and Authorities of Plaintiff InterTrust Technologies in Opposition to Microsoft (sic) Motion for Summary Judgment on Indefiniteness and in Support of Cross-Motion for Summary Judgment ("InterTrust's Indefiniteness Opposition Brief"); FN3 and Reply to InterTrust's Opposition to Microsoft's Brief in Support of Motion for Summary Judgment that Certain "Mini- *Markman* " Claims Are Invalid for Indefiniteness ("Microsoft's Reply Indefiniteness Brief"). Both parties' briefs overwhelmingly focus on the term "secure." The parties have also submitted various declarations with attachments in support of their briefs. Of Microsoft's evidentiary submissions, on InterTrust' motion the Court struck the testimony of witnesses Jim McLaughlin, Julien Signes, Damian Saccocio, and Karl Ginter,FN4 in an Order filed on June 5, 2003.

FN3. In filing its opposition brief to the Indefiniteness Motion, InterTrust asserted a Cross-motion for Partial Summary Judgment in which InterTrust sought summary judgment on the issue that eleven of the patent claims asserted by InterTrust are definite. In its Order Staying Cross-Motion and Briefing Thereon, filed on April 23, 2003, the Court stayed this cross-motion and all briefing related to the cross-motion until

further order of the Court.

FN4. Transcripts of these witnesses' testimony are appended to the Declaration of Eric L. Wesenberg in Support of Microsoft Corporation's Motion for Summary Judgment that Certain Mini- *Markman* Claims Are Indefinite as Exhibits C, D, H, and I, respectively.

## ***II. LEGAL STANDARDS***

### ***A. Claim Construction Generally***

[1] [2] A patent confers the right to exclude others from making, using, or selling the invention defined by the patent's claims. *See* Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452 (Fed.Cir.1985). A patent must describe the exact scope of an invention and its manufacture to secure to a patentee all to which he is entitled, and to apprise the public of what is still open to them. *See* Markman v. Westview Instruments, Inc., 517 U.S. 370, 373, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). These objectives are served by two distinct elements of a patent document. First, it contains a specification describing the invention in such full, clear, concise, and exact terms as to enable any person skilled in the art to make and use the same. *See* 35 U.S.C. s. 112. Second, a patent includes one or more claims, which particularly point out and distinctly claim the subject matter which the applicant regards as his or her invention. *See id.*

[3] [4] The first step in any invalidity or infringement analysis is claim construction. *See* Union Oil Co. v. Atl. Richfield Co., 208 F.3d 989, 995 (Fed.Cir.2000). The construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims. *See id.* Claim construction is a matter of law to be determined by the court. *See* Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

### ***B. Consideration of Evidence in Connection with Claim Construction***

#### ***1. Intrinsic Evidence***

[5] [6] [7] [8] [9] "It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification, and, if in evidence, the prosecution history." Vitronics Corp. v. Conceptoronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996) (citing Markman, 52 F.3d at 979). In the context of the intrinsic evidence, the court should first look to the language of the claims themselves. *See id.* Words in a claim are generally given their ordinary and customary meaning as understood by one of ordinary skill in the art. *See id.*; *see also* Dow Chem. Co. v. Sumitomo Chem. Co., 257 F.3d 1364, 1373 (Fed.Cir.2001) ("[A] technical term used in a patent claim is interpreted as having the meaning a person of ordinary skill in the field of invention would understand it to mean."). It is well-established that "dictionaries, encyclopedias and treatises are particularly useful resources to assist the court in determining the ordinary and customary meanings of claim terms." Tex. Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202 (Fed.Cir.2002); *see also* Dow Chem., 257 F.3d at 1373 ("Dictionaries and technical treatises ... hold a special place and may sometimes be considered along with the intrinsic evidence when determining the ordinary meaning of claim terms.").FN5 A dictionary definition may not be relied on, however, if it contradicts any definition found in or ascertained by a reading of the patent documents. *See* Kopykake Enters., Inc. v. Lucks Co., 264 F.3d 1377, 1382 (Fed.Cir.2001) (citing Vitronics, 90 F.3d at 1584 n. 6). The Court should rely on specialized, technical dictionaries that reflect the understanding of one skilled in the art, rather than lay dictionaries. AFG Indus. v. Cardinal, 239 F.3d 1239, 1247-48 (Fed.Cir.2001) ("Dictionary definitions of ordinary words are rarely dispositive of their meanings in a technological context.") (citing Anderson v. Int'l Eng'g & Mfg., Inc., 160 F.3d 1345, 1348-49

(Fed.Cir.1998); *see also* Hoechst Celanese Corp. v. BP Chems. Ltd., 78 F.3d 1575, 1580 (Fed.Cir.1996)).

FN5. Although such materials have regularly been characterized as extrinsic evidence, albeit special extrinsic evidence that may be considered along with intrinsic evidence, *e.g.*, Dow Chem., 257 F.3d at 1373, the Federal Circuit has cautioned that "categorizing them as 'extrinsic evidence' or even a 'special form of extrinsic evidence' is misplaced and does not inform the analysis." Tex. Digital, 308 F.3d at 1203.

[10] [11] "Although words in a claim are generally given their ordinary and customary meaning, a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, provided the special definition of the term is clearly stated in the specification." Vitronics, 90 F.3d at 1582. Therefore, it is necessary to review the specification to determine whether the patentee has used terms inconsistent with their ordinary and customary meaning. *See id.*; *see also* Dow Chem., 257 F.3d at 1373 ("[T]he court must examine the intrinsic evidence to determine whether the patentee has given a term an unconventional meaning."). Thus, the specification acts as a dictionary when it expressly defines a term used in the claim or defines it by implication. *See* Vitronics, 90 F.3d at 1582 (citing Markman, 52 F.3d at 979). However, in examining the specification, the court must not read limitations from the specification into the claims. *See* Burke, Inc. v. Bruno Indep. Living Aids, Inc., 183 F.3d 1334, 1340 (Fed.Cir.1999); Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1186-87 (Fed.Cir.1998) (limitations from specification are not to be read into the claims, but there is a fine line between reading a claim in light of the specification and reading a limitation into the claim from the specification); *but see* SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., 242 F.3d 1337, 1341 (Fed.Cir.2001) ("Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.").

[12] Finally, if it is entered into evidence, the court must examine the prosecution history of the patent. *See* Dow Chem., 257 F.3d at 1373; Vitronics, 90 F.3d at 1582. The prosecution history contains the complete record of the proceedings before the Patent and Trademark Office, and may include express representations made by the applicant regarding the scope of the claims. *See* Vitronics, 90 F.3d at 1582. The court examines the prosecution history to determine "whether the patentee has 'relinquished a potential claim construction in an amendment to the claim or in an argument to overcome or distinguish a reference.'" Dow Chem., 257 F.3d at 1373 (citing Interactive Gift Exp., Inc. v. Compuserve Inc., 256 F.3d 1323, 1331 (Fed.Cir.2001)); *see also* Pall Corp. v. PTI Technologies Inc., 259 F.3d 1383, 1392 (Fed.Cir.2001) ("[I]t is well established that '[t]he prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution.'" (citing Southwall Technologies, Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576 (Fed.Cir.1995)). A narrower claim interpretation will be adopted if the "accused infringer can demonstrate that the patentee 'defined' the claim as 'excluding' a broader interpretation 'with reasonable clarity and deliberateness.'" Pall Corp., 259 F.3d at 1393 (citing *N. Telecom Ltd. v. Samsung Elecs. Co.*, 215 F.3d 1281, 1294-95 (Fed.Cir.2000)).

## **2. Extrinsic Evidence**

[13] [14] [15] In most cases, an examination of the intrinsic evidence will be sufficient to resolve any ambiguity in the disputed claim and it would be improper to rely on extrinsic evidence. *See* Vitronics, 90 F.3d at 1583 (citing Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1216 (Fed.Cir.1995)). Extrinsic evidence may be used to define the claim only if the claim language remains "genuinely ambiguous" after consideration of the intrinsic evidence. *See id.* However, "it is entirely appropriate, perhaps even preferable, for a court to consult trustworthy extrinsic evidence to ensure that the claim constructions it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field." AFG Indus., 239 F.3d at 1249 (quoting Pitney Bowes, Inc.

v. Hewlett-Packard Co., 182 F.3d 1298, 1309 (Fed.Cir.1999)); *see also* Bell & Howell Document Mgmt. Prods. Co. v. Altek Systems, 132 F.3d 701, 706 (Fed.Cir.1998); Mantech Envtl. Corp. v. Hudson Envtl. Servs., Inc., 152 F.3d 1368, 1373 (Fed.Cir.1998).

When "the specification explains and defines a term used in the claims, without ambiguity or incompleteness, there is no need to search further for the meaning of the term." However, when such definition is challenged it is often appropriate, despite facial clarity and sufficiency of the specification and the prosecution history, to receive evidence of the meaning and usage of terms of art from persons experienced in the field of the invention.

ATD Corp. v. Lydall, Inc., 159 F.3d 534, 540 (Fed.Cir.1998) (citations omitted). A court may hear all relevant testimony—including expert testimony—so long as it does not accord weight to expert testimony that contradicts the clear language of the claim. *See* Vitronics, 90 F.3d at 1584.

### ***C. Invalidity Based on Indefiniteness***

[17] [18] [19] A patent claim satisfies the definiteness requirement of paragraph 2 of 35 U.S.C. s. 112 only if "one skilled in the art would understand the bounds of the claim when read in light of the specification." Exxon Research & Eng'g Co. v. United States, 265 F.3d 1371, 1375 (Fed.Cir.2001) (citing Miles Labs., Inc. v. Shandon, Inc., 997 F.2d 870, 875 (Fed.Cir.1993)). This means that the claims at issue must be "sufficiently precise to permit a potential competitor to determine whether or not he is infringing." Morton Int'l, Inc. v. Cardinal Chem. Co., 5 F.3d 1464, 1470 (Fed.Cir.1993). But a claim is not indefinite "merely because it poses a difficult issue of claim construction"; the claim need only "be amenable to construction, however difficult that task may be." Exxon Research, 265 F.3d at 1375. Whether a claim is indefinite is a question of law. *Id.* at 1376. FN6

FN6. In Microsoft's Opening Indefiniteness Brief, Microsoft claims that the determination of definiteness involves application of a two-part test. (Microsoft's Opening Indefiniteness Br. at 21.) InterTrust disputes the validity of this test, arguing that the Federal Circuit has clearly rejected the requirement, asserted by Microsoft, that claims be drafted as precisely or specifically as possible. (InterTrust's Indefiniteness Opp. Br. at 15 (quoting PPG Indus., Inc. v. Guardian Indus. Corp., 156 F.3d 1351, 1355 (Fed.Cir.1998), and Exxon Research, 265 F.3d at 1376, 1383-84).)

The Court agrees with InterTrust that Microsoft's asserted two-part test has no basis in law. The principles set forth above in this section of the Order are what govern consideration of Microsoft's Indefiniteness Motion. Microsoft's counsel was prudent to retreat from this alleged two-part test at oral argument, ( *see* Transcript of Proceedings, Claims Construction Hearing ("Tr.") 305:24-306:13), although Microsoft should not have advanced it in the first place.

### ***III. DISCUSSION***

As an initial matter, the Court notes that the relevant "art" of the claims at issue in the mini- *Markman* proceeding and the Indefiniteness Motion is computer security. The Court previously reached this conclusion in its Order re: Unresolved Portion of InterTrust's Motion to Strike *Markman* Matter after considering supplemental briefing on this issue, and the Court now incorporates by reference its reasoning therein.FN7

FN7. The Court needs not and does not define what experience or qualifications one must have to be a "person of ordinary skill in the art" of computer security. The Court already struck the testimony of certain of Microsoft's witnesses in its Order re: InterTrust's Motions to Strike on the ground that there was insufficient evidence that they had sufficient skill even under Microsoft's lenient standard of "ordinary

skill." None of the remaining testimony tendered by the parties would be subject to exclusion on the ground that the declarant lacked sufficient skill to be competent to testify. Thus, the Court concludes that all remaining witnesses providing testimony regarding the proper construction of the terms and phrases in dispute, particularly Dr. Michael Reiter and Professor John C. Mitchell, have at least the ordinary skill in the art, and the Court evaluates the evidence accordingly.

The Court addresses the Indefiniteness Motion first for a practical reason: if any of the terms at issue are found indefinite, there would be no need to construe any claim that contains such term or terms.

### ***A. Indefiniteness Motion***

Microsoft's Indefiniteness Motion seeks summary judgment on the issue of whether the claims at issue are indefinite with regard to three terms: "secure"; "protected processing environment"; and "host processing environment." The overwhelming majority of the briefing, however, is addressed solely to the term secure. These terms are discussed in turn.

#### **1. Secure**

Although Microsoft's discussion of why the term secure is indefinite is lengthy both in its opening brief and its reply brief, the essence of its theory of indefiniteness is a ten-variable test created by Microsoft's expert, Professor John C. Mitchell ("Prof. Mitchell"), which, he contends, is not satisfied with respect to secure. Specifically, Prof. Mitchell asserts that in order for persons of ordinary skill in the art to understand what is meant by the term secure, they must be able to reach a common understanding with regard to each of the following variables:

1. Protecting what types of things or actions?
2. Protecting what specific things or actions?
3. Protecting what properties of these things or actions ( *e.g.*, secrecy/confidentiality, integrity, availability, authenticity, and non-repudiation)?
4. Protecting against whom?
5. Protecting against what points of attack?
6. Protecting against what kind of attacks?
7. Secure for how long?
8. How to test or infer the existence of the protection?
9. What degree of protection?
10. Secure to whom?

(Decl. of Professor John C. Mitchell at 9-11.) Prof. Mitchell's Declaration presents numerous excerpts from the relevant specifications that, he evidently believes, do not allow persons of ordinary skill in the art to reach common understandings regarding any or all of these variables. ( *See, e.g., id.* at 12-18.) Given that the Court has stricken the testimony of witnesses Signes, McLaughlin, Saccocio, and Ginter, Prof. Mitchell's

testimony constitutes virtually the entirety of the evidentiary support, other than the text of the claims and specifications themselves, for Microsoft's positions in the Indefiniteness Motion.

InterTrust advances a number of arguments in response to Microsoft's contentions. First, it points out that Prof. Mitchell testified that secure has a general meaning in the field of computer science, and he himself was able to explain his use of the word secure. (InterTrust's Indefiniteness Opp. Br. at 4.) Prof. Mitchell also testified that there is a recognized set of criteria for determining whether a system is secure. (*Id.* at 5.) Second, InterTrust asserts that the claims of the patents-in-suit use secure in context, placing qualifiers around it that make clear to what they are referring. (*Id.* at 5-7.) Third, InterTrust notes that Prof. Mitchell's ten-variable test was created for the purposes of litigation and that Prof. Mitchell does not apply this test to any other document; indeed, as InterTrust's expert, Dr. Michael Reiter ("Dr.Reiter"), testifies, *Microsoft's own patents* and *Prof. Mitchell's own computer security papers* fail the test. (*Id.* at 8.) Relatedly, InterTrust provides various examples in which Prof. Mitchell appears to understand what secure means in context, yet he nevertheless finds the term indefinite because it fails to meet his ten-variable test. (*Id.* at 8-9.)

Fourth, InterTrust, emphasizing that Microsoft must produce clear and convincing evidence, describes the relevant standard for determining indefiniteness, noting that the use of general terms to describe a range of circumstances does not render claims indefinite and that the fact that reasonable persons might disagree regarding the scope of claims does not render them indefinite. (*Id.* at 10-14.) InterTrust adds that Microsoft's assertion that 35 U.S.C. s. 112 requires claims to be drafted "as precisely or specifically as possible" to be definite has been expressly rejected by the Federal Circuit in *PPG Industries v. Guardian Industries Corp.*, 156 F.3d 1351 (Fed.Cir.1998). (*Id.* at 15.) Fifth, InterTrust notes that the terms secure and securely are used in other patents, *including Microsoft's patents*. (*Id.* at 17.) Sixth, InterTrust explains that the Patent and Trademark Office ("PTO") examiners assigned to the InterTrust applications had no difficulty applying the disputed terms to the prior art. (*Id.* at 18.) Seventh, InterTrust contends that Prof. Mitchell's analysis should be discarded because he made no attempt to construe the claims as a whole, but rather focused on secure in isolation. (*Id.* at 18-19.) Eighth, InterTrust seeks to distinguish the cases offered by Microsoft in which certain claim terms were held indefinite on the basis that those cases concerned *patent applications*, not issued patents; in the former there is no presumption of validity, whereas there is such a presumption for the latter. (*Id.* at 20-22.)

[20] [21] In its reply brief, Microsoft addresses several of InterTrust's arguments. Of particular note is Microsoft's argument that certain patent language defines secure with reference to a particular purpose, but that purpose is not explicitly defined (*e.g.*, commercial requirements), thereby leaving the reader in the dark about the scope of the claim. (Microsoft's Indefiniteness Reply Br. at 7-9, 11-12.) In particular, Microsoft argues that to the extent that secure is defined with reference to the context of the invention's commercial embodiments, it is indefinite. (*Id.* at 12-13.) FN8 In addition, Microsoft, quoting deposition testimony of Prof. Mitchell, disputes InterTrust's contention that Prof. Mitchell did not attempt to understand claim terms in the context of the claims. (*Id.* at 3-4.)

FN8. Related to but independent of the foregoing, Microsoft contends that the effort to incorporate by reference the "Big Book" patent application filed in or about 1995 with respect to the '683, '721, and '861 patents failed because these patents reference the number of the Big Book *application*, which did not result in an issued patent and therefore was not published. (*See* Microsoft's Indefiniteness Opening Br. at 12; Microsoft's Indefiniteness Reply Br. at 14-15.) Microsoft contends that "essential" material such as this may be incorporated in a patent only by reference to an *issued* U.S. Patent or a *published* U.S. Patent Application. (Microsoft's Indefiniteness Opening Br. at 12.) Microsoft appears to be relying exclusively on s. 608.01(p) of the Manual of Patent Examining Procedure (the "MPEP"). (*Id.*)

InterTrust disagrees with Microsoft's argument about incorporation by reference. InterTrust contends that there was merely a clerical error. (InterTrust's Indefiniteness Opp. Br. at 23-24.) InterTrust continues that

incorporation by reference is effective if the referenced material is reasonably available to the public, and because, according to the MPEP, pending or abandoned applications are readily available to the public from the Patent Office, the Big Book patent application was effectively incorporated. ( *Id.* at 24-25.) InterTrust further argues that MPEP s. 608.01(p) requires only that the *examiner* is supposed to replace an application number with the issued patent number; it does not hold that a patent does not successfully incorporate by reference the material in question if the examiner fails to do so. ( *Id.* at 25.)

The Court finds Microsoft's argument unpersuasive, Microsoft has made no effort to explain how the MPEP constitutes binding authority. To the contrary, the Forward of the MPEP, of which the Court takes judicial notice, describes the purpose of the MPEP in part as follows:

This Manual is published to provide U.S. Patent and Trademark Office patent examiners, applicants, attorneys, agents, and representatives of applicants with a reference work on the practices and procedures relative to the prosecution of patent applications before the U.S. Patent and Trademark Office. It contains instructions to examiners, as well as other material in the nature of information and interpretation, and outlines the current procedures which the examiners are required or authorized to follow in appropriate cases in the normal examination of a patent application. *The Manual does not have the force of law or the force of the rules in Title 37 of the Code of Federal Regulations.*

United States Patent & Trademark Office, Manual of Patent Examining Procedure (Rev.1, Feb. 2003), *available at* [http://www.uspto.gov/web/offices/pac/mpep/mpep\\_e8rl\\_front.pdf](http://www.uspto.gov/web/offices/pac/mpep/mpep_e8rl_front.pdf) (emphasis added). Moreover, the Court has reviewed MPEP s. 608.01(p), and the Court agrees with InterTrust that that provision appears only to indicate that the *patent examiner* should replace an application number with the issued patent number. Accordingly, the Court cannot conclude that the error at issue has resulted in the nonincorporation of the Big Book application by reference.

[22] At first blush, Microsoft's arguments and examples are appealing: when read in isolation, many of the claims' uses of the term secure superficially appear ambiguous. But InterTrust has made a convincing case that Microsoft's arguments must be rejected. Perhaps most crucially, the Court agrees with InterTrust that Prof. Mitchell's test is not credible. Prof. Mitchell's test is so unusual and unsupported—probably because, as he admitted, it was created for this litigation—that the Court finds it not credible. There is no evidence whatever, other than Prof. Mitchell's self-serving assertion, that *a person of ordinary skill in the art* would require definition of all ten variables in the test to understand what is meant by secure. Still further, Prof. Mitchell's opinions are suspect because his declaration does not reflect that he has made any effort to understand the meaning of secure in the context of the claims in their entirety, his deposition testimony on this point notwithstanding. Such an approach is not consistent with proper claim construction, which requires interpretation of each claim *as a whole*. Prof. Mitchell's conspicuous failure to apply his test to the use of the word in other documents suggests that the test has been generated for selective application to InterTrust's patents. And even more damaging to the test's credibility is Dr. Reiter's testimony that application of this test to Microsoft's own patents renders them indefinite. FN9 The need to satisfy this test thus seems more hypothetical than real.

FN9. Microsoft does not respond in its reply brief to Dr. Reiter's testimony about how application of Prof. Mitchell's ten-variable test to several of Microsoft's own patents renders them indefinite. (Microsoft's counsel's assertion at oral argument that Microsoft did address this point in its reply brief, (Tr. 307:15-23), is inaccurate.) At oral argument, however, Microsoft's counsel sought to refute this testimony by arguing that the '671 patent (one of the two patents asserted by Microsoft) expressly defines something to be "secure" as when it is digitally signed. (Tr. 287:22-288:3.) Whatever the merits of this argument, it does not contradict Dr. Reiter's testimony that five other patents held by Microsoft would be indefinite if Prof. Mitchell's test were applied to them. (Decl. of Dr. Michael Reiter in Opp. to Indefiniteness Mot. and in Supp. of InterTrust's Cross-Motion for Summ. J. Ex. D, *cited in* InterTrust's Indefiniteness Opp. Br. at 8.)

The significance of this testimony is that it undermines the credibility of Prof. Mitchell's ten-variable test as representing the perspective of a person of ordinary skill in the art of computer security.

Further, as InterTrust correctly points out, the mere fact that persons skilled in the art might disagree about the scope of the claims at issue does not render them indefinite. As the Federal Circuit has observed, "It may of course occur that persons experienced in a technologic field will have divergent opinions as to the meaning of a term, particularly as narrow distinctions are drawn by the parties or warranted by the technology.... But the fact that the parties disagree about claim scope does not of itself render the claim invalid." *Verve, LLC v. Crane Cams, Inc.*, 311 F.3d 1116, 1120 (Fed.Cir.2002).

Nor are the claims at issue indefinite because they use a term that requires an evaluation of the context in which it is used or describes a range of circumstances. On this score the Federal Circuit's reasoning and holding in *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565 (Fed.Cir.1986), discussed by InterTrust in its opposition brief and at the hearing, demonstrate that Microsoft's concerns are overstated. In *Orthokinetics*, the Federal Circuit considered whether the term "so dimensioned" from the following claim language was indefinite: "In a wheel chair having a seat portion, a front leg portion, and a rear wheel assembly, the improvement wherein said front leg portion is *so dimensioned* as to be insertable through the space between the doorframe of an automobile and one of the seats thereof ...." *Id.* at 1568 (emphasis added). The district court had concluded that "so dimensioned" was indefinite because a potential competitor would have to construct a model of a travel chair and test the model on a variety of automobiles before the competitor could determine whether it infringed the patent. *See id.* at 1575. The Federal Circuit reversed, reasoning:

It is undisputed that the claims require that one desiring to build and use a travel chair must measure the space between the selected automobile's doorframe and its seat and then dimension the front legs of the travel chair so they will fit in that particular space in that particular automobile. Orthokinetics' witnesses, who were skilled in the art, testified that such a task is evident from the specification and that one of ordinary skill in the art would easily have been able to determine the appropriate dimensions.... [para.] That a particular chair on which the claims read may fit within some automobiles and not others is of no moment. The phrase "so dimensioned" is as accurate as the subject matter permits, automobiles being of various sizes. As long as those of ordinary skill in the art realized that the dimensions could be easily obtained, [35 U.S.C.] s. 112, 2d para. requires nothing more. The patent law does not require that all possible lengths corresponding to the spaces in hundreds of different automobiles be listed in the patent, let alone that they be listed in the claims.

*Id.* at 1576 (citations omitted).

[23] Similarly, Microsoft has failed to demonstrate that a person of ordinary skill in the art would be unable to determine from the language of the claims and the specifications whether a device might be secure in a sense contemplated by the claims at issue. For example, Microsoft, citing *STX, Inc. v. Brine, Inc.*, 37 F.Supp.2d 740 (D.Md.1999), *aff'd on other grounds*, 211 F.3d 588 (Fed.Cir.2000), contends that secure is indefinite to the extent that it is defined with reference to the commercial purpose for which it is intended to be used. (Microsoft's Indefiniteness Reply Br. at 12.) Microsoft argues that if one of ordinary skill in the art would have to infringe the patent claim to discern the boundaries of the claim, the claim must be indefinite. (*Id.* at 12-13.)

The Court agrees with the general proposition that Microsoft advances. But Microsoft, which bears a heavy burden to demonstrate indefiniteness, has failed to offer sufficient evidence that a person of ordinary skill in the art could not discern what would be considered "secure" for a given commercial purpose. Its unsupported assertion in its reply brief that "a person of skill in the art cannot possibly know what a

particular customer, market or market niche will deem sufficiently 'secure' until after it has sold the product," ( *id.* at 12), is no substitute for evidence to this effect. Nor is its effort to distinguish *Orthokinetics* availing: That *Orthokinetics* involved measurement of a "one-dimensional variable," namely length, ( *see id.*), does not demonstrate that persons of ordinary skill in the art of computer security cannot effectively "measure" several variables. In addition, the fact that "secure" is subjective, in contrast to the clearly objective variable of length, ( *see id.*), does not mean that a person of ordinary skill in the art cannot determine whether or not something is secure within the context that the term is used. The Court is also unaware of any principle in patent law that all operative claim terms must be measurable by some objective standard, and Microsoft does not advance any authority in support of such principle. In sum, it is not self-evident that potential designers of computer security systems are incapable of accurately assessing the commercial purposes for which their systems would be utilized to determine whether these systems are secure within the meaning of the claims at issue and, therefore, whether they infringe them. In the absence of clear and convincing evidence that a person of ordinary skill in the art would be unable to perform this task successfully, the Court cannot conclude that the claims at issue are indefinite.

Were Microsoft not to bear the burden of proving indefiniteness by a clear-and-convincing evidentiary standard, resolution of the Indefiniteness Motion might present a closer call. But such is not the case here. There is no clear and convincing evidence that InterTrust's claims are invalid as indefinite to the extent they contain the term secure. The Court thus DENIES the Indefiniteness Motion with regard to the term secure.

## **2. Protected Processing Environment (PPE) and Host Processing Environment (HPE)**

[24] Microsoft contends that the terms protected processing environment ("PPE") and host processing environment ("HPE") do not have an ordinary or customary meaning inside or outside of the computing world. (Microsoft's Indefiniteness Opening Br. at 15.) Microsoft notes that InterTrust's expert Dr. Reiter testified that a person of ordinary skill in the art would not know what these terms meant in 1995. ( *Id.* at 16.) Citing *J.T. Eaton & Co. v. Atlantic Paste & Glue Co.*, 106 F.3d 1563, 1570 (Fed.Cir.1997), Microsoft contends that because a person of ordinary skill in the art would not understand these terms, it was InterTrust's duty to supply a precise meaning for these terms. ( *Id.* at 15; *see also* Microsoft's Indefiniteness Reply Br. at 10.) Microsoft asserts that neither the claims nor the specification provides sufficient description of PPE or HPE to inform a person of ordinary skill in the art what these terms mean. (Microsoft's Indefiniteness Opening Br. at 16-19.)

InterTrust responds that, with regard to PPE, the specification provides detailed descriptions of the key terms on which PPE is based ( *i.e.*, secure processing environment ("SPE") and HPE), and therefore PPE is sufficiently defined. ( *See* InterTrust's Indefiniteness Opp. Br. at 22.) InterTrust also points to the various figures in the specification, spread out over dozens of pages, that relate to PPE. ( *Id.*) InterTrust further cites to the Declaration of Dr. Michael Reiter in Opposition to Microsoft's Motion for Summary Judgment and in Support of InterTrust's Cross-Motion for Summary Judgment (the "Reiter Indefiniteness Declaration"), which provides excerpts from the relevant specifications. ( *Id.* (citing Reiter Indefiniteness Decl. para. para. 39-40, Ex. G).) Finally, InterTrust rejects Prof. Mitchell's finding PPE indefinite based on application of his ten-variable test. ( *Id.*) As for HPE, InterTrust contends that Microsoft has disingenuously claimed an absence of description in the specification: InterTrust asserts that the terms host processing environment and HPE are used interchangeably; even though the term host processing environment does not frequently appear in the specification, HPE does, along with extensive descriptions. ( *Id.* at 23.)

The potential indefiniteness of these two terms was not addressed at the mini- *Markman* hearing, but the Court is comfortable resolving the issue on the papers. At the outset, Microsoft's citation to *J.T. Eaton & Co. v. Atlantic Paste & Glue Co.*, 106 F.3d 1563, 1570 (Fed.Cir.1997), is inapposite. *J.T. Eaton* has nothing to do with invalidity for indefiniteness, and the cited portion describes merely the patent applicant's obligation to define a coined term precisely in prosecuting its application. *See id.* at 1568, 1570. Perhaps under *J.T.*

*Eaton InterTrust* was required to define PPE and HPE when it was prosecuting its applications for the patents-in-suit, but the Federal Circuit's holding therein does not alter Microsoft's burden to provide clear and convincing evidence of indefiniteness.

Microsoft has failed to carry that burden with regard to PPE and HPE. Microsoft itself recognizes that PPE is described to be an SPE and/or an HPE. (Microsoft's Indefiniteness Opening Br. at 19 (quoting '193 patent at 105:18-21).) FN10 Contrary to Microsoft's assertion, this definition by reference is not inherently an unhelpful exercise; it is fruitless only if the incorporated terms are themselves indefinite. Since Microsoft does not contest the clarity or definiteness of SPE, the Court examines only the definiteness of HPE. The Court discusses the proper construction of HPE *infra*, but in the meantime, it is sufficient for the Court to conclude that Microsoft has failed to provide clear and convincing evidence of indefiniteness. Microsoft's evidence pertaining to HPE, aside from evidence that HPE did not have a meaning known by a person of ordinary skill in the art, consists essentially of a few references to the '900 patent specification. ( *Id.*) FN11 But the Court agrees with *InterTrust* that the description of HPEs in the portion of the '193 patent specification that it cites, ('193 patent at 79:23-83:9), as well as the various figures referenced therein, ( *e.g.*, '193 patent Fig. 10), provide sufficient meaning to the term HPE to survive an indefiniteness challenge.

FN10. Microsoft evidently considers this definition problematic: "This [definition] invariably leaves the relevant public guessing at what might infringe." ( *Id.*) The Court disagrees. Obviously, if PPE is defined to include both SPEs and HPEs, for any embodiment that includes an SPE and/or an HPE and that has other features on which the relevant claim limitations read, the relevant claim is infringed. Thus, for example, the element in 683.2 that provides in part, "a protected processing environment at least in part protecting information ..." encompasses SPEs and/or HPEs; the public need not guess *between* SPEs and HPEs, because PPE is defined to include *both*.

FN11. The Court previously struck the testimony of *Envivio's* and *America Online's* corporate designees, cited by Microsoft in its Indefiniteness Opening Brief.

Were *InterTrust* now applying for the relevant patents-in-suit, and were the Court the PTO, the Court might require *InterTrust* to provide greater precision in defining PPE and HPE. But the parties are now before the Court on Microsoft's challenge to the relevant claims' validity, and thus Microsoft bears a heavy burden if its motion is to succeed. In presenting its arguments regarding PPE and HPE, Microsoft appears inclined to shift the burden to *InterTrust* to defend the validity of its claims. But the burden remains with Microsoft, and Microsoft has failed to put forward sufficient evidence to carry its burden. Accordingly, the Court DENIES the Indefiniteness Motion with regard to the terms PPE and HPE.

## ***B. Construction of Claims at Issue***

### ***1. Terms and Phrases for Which Microsoft Did Not Brief Its Position***

Out of the thirty terms and phrases selected by the parties for construction, Microsoft elected not to present any argument in its 40-page *Markman* brief in support of its positions or in opposition to *InterTrust's* positions on thirteen terms and phrases. These terms and phrases, along with the claims in which they appear, are:

1. aspect (683.2, 861.58, 900.155, 912.8)

2. authentication (193.15)

3. budget (193.1)
4. clearinghouse (193.19)
5. compares (900.155)
6. derive (900.155)
7. designating (721.1)
8. device class (721.1)
9. digital signature/digitally signing (721.1)
10. digitally signing a second load module with a second digital signature different from the first digital signature, the second digital signature designating the second load module for use by a second device class having at least one of tamper resistance and security level different from the at least one of tamper resistance and security level of the first device class (721.1)
11. executable programming/executable (721.34, 912.8, 912.35)
12. identifying at least one aspect of an execution space required for use and/or execution of the load module (912.8)
13. securely applying, at said first appliance through use of said at least one resource said first entity's control and said second entity's control to govern use of said data item (891.1)

At the mini- *Markman* hearing the Court stated its disinclination to hear oral argument regarding any of these thirteen terms and phrases. The Court reasonably concluded that Microsoft made a decision not to dispute or oppose InterTrust's proposed constructions of these terms and phrases given (1) the number of terms Microsoft declined to address; (2) the importance of written argumentation for the mini- *Markman* proceeding; and (3) the fact that InterTrust did address *every* term and phrase at issue.FN12

FN12. Microsoft has no excuse for failing to provide briefing on these terms and phrases. That InterTrust was able to present in its *Markman* brief cogent arguments on all thirty terms and phrases, as well as the global construction of "virtual distribution environment," *see infra*, demonstrates that the 40 pages that the Court granted Microsoft to brief its positions were sufficient to address all terms and phrases in dispute.

The Court has reviewed all of InterTrust's briefing on these terms and phrases and finds InterTrust's arguments in support of its relevant positions sound and persuasive. In light of this finding, and given the absence of argument for Microsoft's positions, the Court now adopts InterTrust's proposed constructions for all thirteen of these terms and phrases, other than "budget" and "securely applying ... said data item." FN13

FN13. The Court excepts these two terms and phrases because Microsoft did brief terms and phrases closely related to these two terms, namely the phrase "a budget specifying the number of copies which can be made of said digital file" and the term "secure."

Aside from the Court's adoption of InterTrust's proposed constructions, the Court wishes to make clear that Microsoft's failure to brief these terms and phrases has serious implications. Microsoft has chosen to dispute

these terms and phrases, and it has supplied the Court with proposed constructions. In so doing, Microsoft's attorneys are bound to comply with Rule 11(b), which provides in pertinent part:

By presenting to the court (whether by signing, filing, submitting, or later advocating) a pleading, written motion, or other paper, an attorney or unrepresented party is certifying that to the best of the person's knowledge, information, and belief, formed after an inquiry reasonable under the circumstances, ... [para.] the allegations and other factual contentions have evidentiary support or, if specifically so identified, are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery ...

Fed.R.Civ.P. 11(b). Thus, by asserting that the terms and phrases at issue should be defined as proposed by Microsoft, Microsoft's attorneys are representing to the Court that these terms and phrases have evidentiary support. Microsoft's failure now to provide any discussion whatever on these terms and phrases in its *Markman* brief arguably suggests that Microsoft's attorneys never had sufficient factual basis on which to dispute InterTrust's proposed constructions and to offer their own constructions.

The Court takes this implication very seriously. The Court has expended substantial time and effort on this case. While the Court fully expects that a case of this complexity will require substantial resources and therefore is ready and willing to commit those resources to achieve a proper resolution of this matter, the Court is not willing to waste its time attempting to resolve issues that are not disputed in good faith. Thus, if Microsoft's counsel did not deem Microsoft's positions on the thirteen terms and phrases sufficiently important or well-founded to brief, they should not have presented them to the Court for consideration in the first place. Microsoft and its counsel are hereby admonished not to waste the Court's time in this or any similar way in the future.

Accordingly, the Court CONSTRUES the following terms and phrases as set out below.

**a. *Aspect***

[25] "Aspect" means: "Feature, element, property, or state."

**b. *Authentication***

[26] "Authentication" means: "Identifying ( *e.g.*, a person, device, organization, document, file, etc.). Authentication includes uniquely identifying or identifying as a member of a group."

**c. *Clearinghouse***

[27] "Clearinghouse" means: "A provider of financial and/or administrative services for a number of entities; or an entity responsible for the collection, maintenance, and/or distribution of materials, information, licenses, etc."

**d. *Compares***

[28] "Compares" means: "Examines for the purpose of noting similarities and differences."

**e. *Derive***

[29] "Derive" means: "Obtain, receive, or arrive at through a process of reasoning or deduction. In the context of computer operations, the 'process of reasoning or deduction' constitutes operations carried out by the computer."

**f. *Designating***

[30] "Designating" means: "Indicating, specifying, pointing out, or characterizing."

**g. Device Class**

[31] "Device class" means: "A group of devices which share at least one attribute."

**h. Digital Signature/Digital Signing**

[32] "Digital signature" means: "A digital value, verifiable with a key, that can be used to determine the source and/or integrity of a signed item ( *e.g.*, a file, program, etc.)." "Digitally signing" is the process of creating a digital signature.

**i. Digitally signing a second load module with a second digital signature different from the first digital signature, the second digital signature designating the second load module for use by a second device class having at least one of tamper resistance and security level different from the at least one of tamper resistance and security level of the first device class**

[33] "Digitally signing a second load module with a second digital signature different from the first digital signature, the second digital signature designating the second load module for use by a second device class having at least one of tamper resistance and security level different from the at least one of tamper resistance and security level of the first device class" means:

Generating a digital signature ( *i.e.*, a digital value, verifiable with a key, that can be used to determine the source and/or integrity of a signed item ( *e.g.*, a file, program, etc.)), for the second load module, the digital signature designating ( *i.e.*, indicating, specifying, pointing out, or characterizing) that the second load module is for use by a second device class ( *i.e.*, a group of devices which share at least one attribute). The second device class must have a different tamper resistance (defined *infra* ) or security level than the first device class.

**j. Executable Programming/Executable**

[34] "Executable programming" and "executable" mean: "A computer program that can be run, directly or through interpretation."

**k. Identifying at least one aspect of an execution space required for use and/or execution of the load module**

[35] "Identifying at least one aspect of an execution space required for use and/or execution of the load module" means: "Identifying an aspect ( *i.e.*, a feature, element, property, or state) of an execution space that is needed in order for the load module to execute or otherwise be used."

**2. Remaining Terms and Phrases for Construction**

Microsoft provided briefing on 17 of the 30 terms and phrases, as well as the issue of whether the term virtual distribution environment should be read into every claim at issue. Nevertheless, as the Court informed the parties at the mini- *Markman* hearing, the Court's consideration of most of Microsoft's arguments has been substantially hampered by Microsoft's persistent failure to provide evidentiary and legal citations in support of these arguments. Page after page of Microsoft's *Markman* Brief contains bold assertions about the meaning of certain claim terms that have few supporting authorities, and the authorities that do appear generally do not provide support for the dispositive arguments that Microsoft is asserting. ( *E.g.*, Microsoft's *Markman* Br. at 37, 39-40.) Without such evidentiary or legal citations, the Court has little basis to credit Microsoft's assertions.

Microsoft cannot reasonably contend that the 40 pages it was allocated for its *Markman* brief was insufficient for it to provide such citations, as InterTrust was able to present all of its pertinent arguments with adequate supporting citations in the 40 pages it was allocated for its opening *Markman* brief. Nor can Microsoft reasonably expect the Court to comb through Microsoft's voluminous submissions to locate authority that might support its specific assertions where Microsoft has failed to refer the Court to specific pages and passages in those submissions. Nor could Microsoft reasonably expect to be able to raise new arguments or cite to new authorities for the first time at the mini- *Markman* hearing, other than to respond to arguments or authorities appearing for the first time in InterTrust's reply brief. As far as the Court is concerned, the persuasiveness of an argument in support of a proposed construction is in direct proportion to the authorities on which it is premised. Necessarily this means that an argument that lacks appropriate supporting citations is no argument at all. Thus, Microsoft cannot be heard to complain that the Court has not adequately considered its arguments where these arguments are insufficiently supported by citations to evidentiary and/or legal authorities.

With the foregoing in mind, the Court turns to its consideration of the 17 terms and phrases briefed by Microsoft, the two terms and phrases not construed above, and the "global construction" of virtual distribution environment asserted by Microsoft.

**a. *Global Construction of Virtual Distribution Environment (VDE)***

At the outset, there is some uncertainty over Microsoft's position about the global construction of virtual distribution environment ("VDE"). In Exhibit A to the JCCS, Microsoft indicates that its position is that each of the seven claims at issue in this mini- *Markman* proceeding should be construed to incorporate a VDE. More specifically, Microsoft states with respect to nine of the twelve claims: " *Claim as a whole*: The recited method is performed within a VDE." (JCCS Ex. A at 1 (para. 1), 9 (para. 14), 11 (para. 25), 13 (para. 38), 20 (para. 65), 26 (para. 74), 28 (para. 81), 36 (para. 98), 39 (para. 110) (underscoring in original) (boldface omitted).) Microsoft offers similar pronouncements with respect to the remaining three claims. ( *See id.* at 15 (para. 51), 24 (para. 70), 30 (para. 86).) Further, Microsoft asserts the following in its *Markman* brief:

The claims must be read in light of the entire 900+ page "Big Book" patent application and, in particular, its 115 page "Summary of the Invention." This Summary of the Invention makes literally hundreds of statements touting the "important," "fundamental," "critical," and required features, capabilities and purposes of the "present invention." The Summary further defines this "invention" (which it expressly names "VDE") by distinguishing it from the allegedly "limited" and rigid solutions of others. All of these are required aspects of the "present invention," not merely optional features of a "preferred embodiment." *As such, the claims must be read to include these "invention" features.*

(Microsoft's *Markman* Br. at 1 (emphasis added).) Microsoft states elsewhere in its *Markman* brief that it "asks the Court to *construe each claim as requiring the disclosed 'invention,'* as it has been distilled in Microsoft's global 'claim as a whole' construction." ( *Id.* at 5 (emphasis added).) It emphasizes additionally: "[T]he claim construction point being made by Microsoft is that *all of these claims necessarily invoke the required 'features' of the VDE 'invention,'* not that all claims require only those features. *InterTrust's patent claims are free to recite additional features,* which additional limitations may (or may not) make them separate 'inventions' under Patent Office restriction practice." ( *Id.* at 15 (emphasis added).)

In its *Markman* briefing InterTrust purports to interpret Microsoft's position, probably as a result of these statements, to be that every claim impliedly includes a limitation of VDE—that is, there should be a global construction of VDE. ( *See, e.g.,* InterTrust's Opening *Markman* Br. at 7.) Microsoft does not indicate in its *Markman* brief that InterTrust has mischaracterized its position.

Based on Microsoft's statements in its *Markman* brief and JCCS and the fact that Microsoft did not take exception to InterTrust's characterization of Microsoft's position, the Court reached the same understanding of Microsoft's position that InterTrust purported to reach. At the mini- *Markman* hearing, however, counsel for Microsoft claimed for the first time that InterTrust had mischaracterized its position. According to counsel, Microsoft was not contending that VDE should be read into each claim as a limitation; rather, each disputed claim term should be accorded the meaning that it has in the VDE context. (Transcript of Proceedings, Claims Construction Hearing ("Tr.") 59:2-8.)

The Court finds Microsoft's position at the mini- *Markman* hearing to be fundamentally different from, and not reasonably supported by, its statements in its written submissions. Microsoft repeatedly states in the JCCS that for each claim as a whole, the recited *method* is performed *within* a VDE. In addition, Microsoft states in its *Markman* brief that every claim must contain *all features* of a VDE. These pronouncements cannot be interpreted to mean anything other than that the scope of each claim is limited by all the features of a VDE. In other words, Microsoft's written statements evince the view that even if every express element of one of the claims at issue reads on an accused device, that device would still not infringe the claim if the device did not have all the features that Microsoft claims to be the hallmark of VDE. If Microsoft wished to advance the position that it presented at the hearing, it could have easily done so in its papers by stating that "each disputed claim term must be construed in accordance with its meaning in the context of VDE." At the very least, it should have alerted the Court in its *Markman* brief that InterTrust in its opening brief had mischaracterized Microsoft's position. Microsoft will not be heard to complain that the Court misapprehends its position where it has made affirmative representations to the Court about its position and remains silent when InterTrust purports to interpret its position consistent with those representations. The Court thus proceeds to consider the parties' arguments with the understanding that Microsoft's position is that each claim is limited by all the features of a VDE.

Microsoft contends that each claim at issue impliedly contains a limitation of VDE, even though the term VDE appears in only one of the twelve claims, 900.155, and, then, only in its preamble. The proper construction of VDE is addressed *infra* in Part III.B.2.t. Microsoft's argument rests on the apparent fact, which is not contested by InterTrust, that all seven of the patents-in-suit that are the subject of the mini-*Markman* proceeding derive from the 900-page "Big Book" patent application submitted to the Patent Office in or about 1995.FN14 Microsoft focuses on the repeated references to the "invention" and VDE in the specifications of these patents, arguing that the claims necessarily contemplate that VDE will be an additional limitation read into all the claims.

FN14. According to Microsoft, the specification of the '193 patent publishes the Big Book specification without any substantive additions, and therefore Microsoft frequently cites to the '193 specification as a proxy for the Big Book. (Microsoft *Markman* Br. at 16.) InterTrust states that the '193, '891, and '912 have specifications identical to that of the Big Book, and the '900 patent is a continuation-in-part and also includes all of the text from the original application. (InterTrust's Opening *Markman* Br. at 12.)

InterTrust disagrees with Microsoft's assertions, making a few key arguments. First, InterTrust points out that the eleven claims other than 900.155 contain no limitations relating to VDE. Citing a pair of Federal Circuit cases, *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313 (Fed.Cir.2003), and *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243 (Fed.Cir.1998), InterTrust argues that statements in an application regarding the invention cannot be read into the claims absent a relevant limitation in the claims themselves. (InterTrust's Opening *Markman* Br. at 9.) Second, citing, *inter alia*, *Amgen*, InterTrust argues that it is improper to read into claims a limitation from the specification that does not clearly and unambiguously exclude or disclaim certain embodiments. (*Id.* at 9-10.)

Third, InterTrust contends that specification statements about the "invention" do not limit the claims if the rest of the specification and file history do not indicate that such a limitation was intended; and InterTrust urges that several aspects of the specification and file history contradict an importation of VDE into all the claims. ( *Id.* at 10-11.) Specifically, InterTrust points out that the PTO held that the Big Book application claimed *five separate categories* of invention, forcing it to restrict its application to one class of inventions to be pursued in the application. ( *Id.* at 11-13.) InterTrust followed the PTO's command, and also filed separate "divisional" applications relating to the other categories of inventions pursuant to 35 U.S.C. s. 121.FN15 ( *Id.* at 12.) In addition, InterTrust calls the Court's attention to the '876 patent, which is not one of the seven patents-in-suit that are the subject of the mini- *Markman* hearing but is one of the eleven patents-in-suit asserted by InterTrust. InterTrust explains that the '876 patent issued as a direct continuation of the Big Book application and, therefore, includes the same specification as the '193 patent, including the same statements regarding the "invention" and VDE that Microsoft has cited. ( *Id.* at 13-14.) The '876 patent includes numerous dependent claims *adding an express requirement that a process or method include a VDE.* ( *Id.* at 14.) These claims, InterTrust maintains, demonstrate that the claims do not recite a VDE, since otherwise the inclusion of the term VDE would be redundant.

FN15. 35 U.S.C. s. 121 provides in part: "If two or more independent and distinct inventions are claimed in one application, the Director [of the Patent and Trademark Office] may require the application to be restricted to one of the inventions. If the other invention is made the subject of a divisional application which complies with the requirements of section 120 of this title it shall be entitled to the benefit of the filing date of the original application."

[36] Having thoroughly considered the parties' arguments in their papers and the arguments of counsel at the hearing, the Court concludes that Microsoft's position must be rejected. The PTO's determination that the Big Book application described five inventions is alone dispositive.FN16 The PTO's decision makes clear that these five inventions are separate, independent, and discrete from one another, each capable of existing in the absence of the rest:

FN16. The Court clarifies that, in reaching this conclusion, it needs not and does not rely on the reasoning of *Rambus Inc. v. Infineon Technologies Ag*, 318 F.3d 1081 (Fed.Cir.2003), a case of superficial apposition cited by InterTrust. In *Rambus*, the Federal Circuit found that a specific claim term should not have been read into the claims of a patent resulting from a divisional application that was filed after the PTO found that the original application claimed more than one invention. *Rambus*, however, is readily distinguishable because in that case the PTO specifically identified the claim term at issue and expressly defined a divisional category of inventions that excluded that claim term, *see id.* at 1086; the analogy here would be if the PTO had separated the five categories of inventions claimed through the Big Book based on whether or not they were limited to a VDE. Such is not the case here, and thus the Court does not rely on *Rambus* in considering the significance of the PTO's ruling on the Big Book.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Groups I-V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they shown to be separately usable. In the instant case, invention of Group I has separate utility such as protecting executable code from computer viruses. Invention of Group II has separate utility such as a computer network administration. Invention of Group III has separate utility such as protection of software. Invention of Group IV has separate utility such as a contract bidding procedure. Invention of Group V has separate utility such as auditing of pay television.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

(JCCS Ex. C at 103 (24(BB) ('193 file history, Sept. 25, 1996 Office Action at 2-3)).) The foregoing makes unequivocal that the PTO determined that the Big Book described multiple independent inventions, each with separate utility, each with separate subject matter. Given this determination, it is impossible to conclude that, as Microsoft maintains, every claim must be read to contain all the features of a single "invention," namely the "invention" allegedly described in the Big Book application.

At the hearing counsel for Microsoft invoked *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed.Cir.2001), for the proposition that "claims cannot enlarge what's patented beyond what the inventor described as the invention." (Tr. 62:7-10.) Counsel appropriately cited to *Netword* for this principle, 242 F.3d at 1347, and the Court does not disagree with its validity. But this general principle is not inconsistent with the conclusion that the Big Book application described five independent and discrete inventions and, accordingly, the Court's instant determination that each of the claims at issue should not be read to include VDE. As *Netword* makes clear, the focus is on what the inventor *described* to the PTO as the invention, not what the inventor may have subjectively believed to be the invention. Here, the inventors submitting the Big Book evidently *described* five separate inventions. Reading this description and reaching this conclusion, the PTO ordered the inventors to restrict their application to one of the five inventions and to pursue divisional applications if they so chose. The inventors submitting the Big Book may very well have subjectively believed that there was but a single invention, but their subjective beliefs and intent are of no moment.

The Court also finds compelling InterTrust's invocation of the '876 patent. As InterTrust notes, the '876 patent issued as a direct continuation of the Big Book application; it includes the same specification as the '193 patent. Accordingly, one would expect that Microsoft's "global construction of VDE" argument would be equally applicable to construction of the '876 patent. Indeed, as Microsoft argues in its *Markman* brief, "related patents should be construed consistently." (Microsoft's *Markman* Br. at 16.) Yet several of the claims in the '876 patent, including claims 10 through 14, expressly contain a VDE limitation. If, as Microsoft asserts, VDE should be implicitly read into all claims within all patents directly derived from the Big Book application, these claims' express VDE limitation appears redundant and nonsensical.FN17

FN17. At the hearing Microsoft objected to the introduction of the text of the '876 patent in connection with the construction of the claims at issue. Microsoft contended that the '876 patent constitutes extrinsic evidence that should not be considered unless the Court finds the claim terms ambiguous. (Tr. 68:6-22.)

This objection is untimely. Microsoft had fair notice from InterTrust's *Markman* briefs that InterTrust was relying on the '876 patent, and it had ample opportunity to file objections to evidence prior to the hearing (as InterTrust did), yet Microsoft declined to do so. At any rate, to the extent that consideration of the '876 patent is appropriate only if the Court finds the claim terms ambiguous, this condition has been met: notwithstanding Microsoft's last-minute attempted about-face in its "global construction of VDE" position, the Court has construed that position to be that each claim must be read as containing a limitation of VDE, and this position presents an ambiguity-that each claim must implicitly contain a limitation not explicitly stated. Finally, Microsoft has effectively waived this objection by affirmatively arguing that related patents must be construed consistently. Accordingly, the Court **OVERRULES** this objection.

Still further, much of Microsoft's theory for construing all the claims at issue to incorporate Microsoft's conception of VDE rests on conclusory reasoning. For example, Microsoft contends in its *Markman* brief:

Contrary to InterTrust's position (*InterTrust* Br. at 8:9-10), all four '193 Patent mini- *Markman* claims concern the distribution and protection of digital content, and contemplate multiple nodes and participants.

Information is received (possibly from multiple upstream content providers), then stored on a device having unspecified authorized and unauthorized users, and then conditionally transferred to another device having unspecified users. The claims promise to control three forms of unauthorized use of this distributed content: copying, distributing (to the second device), and storing (on the first and/or second device):

"if said copy control allows at least a portion of said digital file to be copied and stored on a second device...." ('193 321:10-11)

"determining" or "determine" "whether said digital file may be copied and stored on a second device ...." ('193 321:7-9)

This claim language (e.g., "if ... allows," "determining whether") is not qualified. It implies that if the copying and storing are not allowed, then they are prevented (see Reiter Depo. at 174:1-178:11), no matter what effort may be made to take the unauthorized action. In other words, these claims imply that their "controls" are effective in the face of the attacks identified in the Big Book.

(Microsoft's Markman Br. at 16-17.) As InterTrust correctly notes in its reply, nothing that Microsoft has cited to the Court indicates that the claims *require* multiple upstream content providers, multiple users of the first device, or multiple users of the second device. (InterTrust's Reply *Markman* Br. at 8.) Moreover, nothing in the language from the '193 patent specification cited above implies that "if the copying and storing are not allowed, then they are prevented ..., no matter what effort may be made to take the unauthorized action." The Court has also read the cited portion of Dr. Reiter's deposition testimony, and if fails to understand how this testimony supports this proposition. Nor does the language quoted from the '193 patent specification imply that the claims' " 'controls' are effective in the face of the attacks identified in the Big Book."

Finally, as an intuitive and legal matter, the Court is wary of reading into claims a limitation that is not expressly there. As InterTrust correctly notes, "[s]pecifications teach. Claims claim." *SRI Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1121 n. 14 (Fed.Cir.1985). With its global construction argument, Microsoft is not asking for construction of a term; it is asking for wholesale importation of a term that is present in only one of the claims at issue. In the absence of substantial justification for Microsoft's position, the Court is disinclined to take such a drastic step. *See Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186-87 (Fed.Cir.1998) (holding improper reading into claims a limitation appearing only in the specification).

For all of these reasons, the Court CONSTRUES the claims at issue as *not* impliedly incorporating the features of a VDE as a limitation.

## **b. Budget**

[37] InterTrust asserts that its proposed construction of the term "budget" (appearing in 193.1), "information specifying a limitation on usage," reflects the plain English meaning of the word. (InterTrust's Opening *Markman* Br. at 16.) In contrast, Microsoft's proposed construction of budget requires it to be a unique type of "method" that specifies a decremmentable numerical limitation on future use, where "use" is defined separately. InterTrust assails Microsoft's proposal by citing examples in the specification where the terms "budget" and "BUDGET method" are used separately and arguing that, in light of these examples, budget cannot imply a method without being nonsensical. ( *See id.*) InterTrust also portrays Microsoft's definition as being based on the preferred embodiment in the patent, and it argues that reading limitations from preferred embodiments in specifications into claims contravenes appropriate claim construction practice. ( *See id.* at 16-17 (citing *Laitram Corp. v. Cambridge Wire Cloth Co.*, 863 F.2d 855, 865 (Fed.Cir.1988)).) InterTrust further adds that there is no basis in the specification to read into the definition that budget must

be a decrementable numerical limitation. ( *Id.* at 17.)

In its *Markman* brief, Microsoft does not present any arguments for the term budget, although it discusses the larger phrase "a budget specifying the number of copies which can be made of said digital file." (Microsoft's *Markman Br.* at 38-39.) Its discussion of this phrase is very brief, however: it asserts only that its construction of this phrase, which incorporates the term budget, answers the questions "can be made since when?" or "by whom?" or "by what?" ( *Id.*)

Given Microsoft's failure to advance any argument specifically directed to its proposed definition of the term budget, the Court has no basis to adopt Microsoft's position. Moreover, the Court finds InterTrust's proposed definition of budget to be reasonable and its criticisms of Microsoft's proposal to be cogent and compelling. Accordingly, the Court adopts InterTrust's proposal and CONSTRUES the term "budget" to mean: "Information specifying a limitation on usage."

**c. A budget specifying the number of copies which can be made of said digital file**

[38] InterTrust's proposed definition of the phrase "a budget specifying the number of copies which can be made of said digital file" (193.1) uses the normal English meanings of the words, but it incorporates the separately defined terms budget and copies. (InterTrust's Opening *Markman Br.* at 21.) Microsoft's definition of the phrase incorporates the term budget, requires the budget to state "the total number of copies (whether or not decrypted, long-lived or accessible)," and requires that "[n]o process, user, or device is able to make another copy of the *Digital File* once this number of copies has been made." InterTrust criticizes the requirement that the budget state the total number of copies as unsupported by the claim term and as nonsensical. ( *Id.*) InterTrust also contends that the requirement that no process, user, or device be able to make another copy of the digital file once the specified number of copies have been made, is inconsistent with the specification. ( *Id.*) Microsoft responds only by claiming that its construction answers the questions "can be made since when?" or "by whom?" or "by what?" (Microsoft's *Markman Br.* at 38-39.)

The Court has no basis to adopt Microsoft's proposal. Microsoft does not explain why it is necessary to read into claims utilizing this phrase a limitation addressing when, by whom, or by what copies can be made of a digital file. No reason is evident. By contrast, InterTrust's definition is commonsensical. Accordingly, the Court adopts InterTrust's definition and CONSTRUES the phrase "a budget specifying the number of copies (defined *infra* ) which can be made of said digital file" to mean: "a budget ( *i.e.*, information specifying a limitation on usage) stating the number of copies that can be made of the digital file referred to earlier in the claim."

**d. Component Assembly**

[39] The parties agree that "component assembly" (912.8, 912.35) has no ordinary meaning in the art. InterTrust's proposed definition is "two or more components associated together," where components "are code and/or data elements that are independently deliverable"; InterTrust explains that component assemblies "are utilized to perform operating system and/or applications tasks." Microsoft proposes a definition that is extremely lengthy-far too long to be suitable for reproduction here.

InterTrust asserts that its proposed construction "is taken directly from the manner in which the term is used in the specification and file history." (InterTrust's Opening *Markman Br.* at 38.) It cites to examples in the relevant specifications. ( *Id.* (citing JCCS Ex. C at 18(6(A) ('193 patent at 83:12-26), 6(B) ('193 patent at 83:43-48)), 21(6(K) ('912 patent file history, Sept. 22, 1998 Office Action at 2-3))).) InterTrust argues that certain limitations that Microsoft reads into its proposed construction are preferred embodiments, not claim elements, and this practice is improper. ( *Id.*) It further argues that Microsoft's proposed limitation that a component assembly be assembled and executed in a "Secure Processing Environment" is directly

contradicted by the specification, which states that this condition is merely an option. ( *Id.* at 38-39.)

Microsoft's sole argument is that the only type of "component assembly" mentioned in the Big Book is the kind identified in Microsoft's proposed construction, and therefore this construction should be adopted. (Microsoft's *Markman Br.* at 36.) Microsoft, however, provides no citations in support of the assertion that component assembly is "uniformly" used in the Big Book to refer to executable components. ( *Id.*) In its reply, InterTrust allows that it "did not intend to leave open the possibility that a component assembly might include no programming." (InterTrust's Reply *Markman Br.* at 21.) Accordingly, InterTrust states that it "is willing to amend the third sentence of its proposed construction to read as follows: 'Component Assemblies must include code, and are utilized to perform operating system and/or applications tasks.' " ( *Id.*)

Regardless of what the Big Book says, the relevant specifications clearly contradict Microsoft's proposed construction. Moreover, Microsoft fails to provide support for *all* of the features of its proposed definition. InterTrust's definition, as amended above, is well-supported and reasonable, and the Court adopts it. Accordingly, the Court CONSTRUES "component assembly" to mean: "Two or more components ( *i.e.*, code and/or data elements that are independently deliverable) associated together. Component assemblies must include code, and are utilized to perform operating system and/or applications tasks."

#### **e. Contain**

[40] The key dispute between the parties is whether "contain" (683.2, 912.8, 912.35) implies that something has within it an actual element (Microsoft's proposal), or whether it may contain either an element or a reference to the element (InterTrust's proposal). InterTrust's proposed construction is based on the plain English meaning of contain. (InterTrust's Opening *Markman Br.* at 27.) InterTrust further argues that its construction is consistent with the relevant specifications, which explicitly state that a container may "contain" items "without those items actually being stored within the container." ( *Id.* at 28 (citing JCCS Ex. C at 22(7(B) ('193 patent at 58:48-58))).) Microsoft responds in its *Markman* brief that such items must actually be stored in a container because Dr. Reiter testified that he could not think of any non-empty digital file that does not contain linked and/or embedded items, and thus all digital files would qualify as containers. (Microsoft's *Markman Br.* at 39.)

InterTrust's argument is persuasive: the language from the specifications is clear—contain includes having references. Accordingly, the Court adopts InterTrust's proposal and CONSTRUES "contain" to mean: "To have within or hold. In the context of an element contained within a data structure ( *e.g.*, a secure container), the contained element may be either directly within the container or the container may hold a reference indicating where the element may be found."

#### **f. Control (n.)**

[41] InterTrust's proposed definition of the term "control" (n.) (193.1, 193.11, 193.15, 193.19, 683.2, 891.1) relies primarily on the plain English definition of the word and on the specifications. ( *See* InterTrust's Opening *Markman Br.* at 17-19.) The specifications, according to InterTrust, equate control with "control information," and it provides examples of these terms that include both data and executable files. ( *Id.* at 17-18.) InterTrust also cites to excerpts from the '193 and related file histories that suggest that a control can be a data file. ( *Id.* at 18.) InterTrust assails Microsoft's proposed definition for requiring a control to be executable (see *infra* ), noting that the specifications demonstrate that a control can be data, which are not executable. ( *Id.*) InterTrust also criticizes Microsoft's proposal for requiring a secure processing environment ("SPE"), contending that the patents make clear that requiring an SPE is but a limitation in a particular *embodiment*, and the patents disclose an alternate embodiment known as a host processing environment. ( *Id.*) InterTrust adds that Microsoft's requirement that control implies the ability to modify controls is but a preferred embodiment, and in any event it is a capability provided by a particular operating

system described in the specification. (*Id.*) Finally, InterTrust objects to Microsoft's apparent application of the general definition of control to the term "user control," which, InterTrust argues, was on the parties' initial list of claim terms to be construed for the mini- *Markman* proceeding but was not selected. (*Id.* at 18-19.)

Microsoft proposes an extraordinarily lengthy definition of control that reflects the alleged use of the term in the Big Book. First, it argues that control can be explained with an analogy to a rare books library holding valuable texts, where each type of access is controlled by a different set of rules, such as a particular type of guard performing a particular function. (Microsoft's *Markman* Br. at 37.) Once again, Microsoft provides no citations in support of this proffered analogy. (*Id.*) Second, Microsoft refers to the Big Book, suggesting that the sense in which "control" is used therein should be applied to the claims at issue. (*Id.* at 37-38.) Third, Microsoft assails InterTrust's argument that "rules and controls" are equated with "control information," pointing out that the patent specifications distinguish between rules and controls, such as by using the phrase "rules and/or controls." (*Id.* at 38.)

InterTrust's arguments are generally well-supported and convincing. Microsoft's are not. The Court is not disposed to credit Microsoft's "rare books library" analogy where Microsoft has declined to take the time to provide any citations in support of it, nor will the Court accept counsel's entreaty at the hearing to divine an evidentiary basis from the sparse citations in the 36 pages appearing in Microsoft's brief before this analogy, (*see* Tr. 78:2-12). As for Microsoft's reliance on the Big Book, Microsoft's quotations of excerpts from the specifications demonstrate only that a control *may* be executable; they do not demonstrate that a control *may not* be non-executable. (*See* Microsoft's *Markman* Br. at 37-38.) Given that InterTrust's proposed construction allows for both executable and non-executable programming, this evidence is fully consistent with InterTrust's proposed definition.

Microsoft's only point that merits attention—a point criticizing InterTrust's proposal, not supporting Microsoft's—is its attempt to distinguish between rules and controls, and thereby its attempt to distinguish control and control information, by invoking the specifications' references to "rules and/or controls." These references to rules and controls both in the conjunctive and disjunctive may well seem to suggest that rules are distinct from controls, and thus controls cannot be equivalent to control information if, as InterTrust urges, control information is also equivalent to rules. Nevertheless, the evidentiary support cited by InterTrust is sufficient to overcome the Court's concerns. In particular, the specification for the '193 patent clearly uses control and control information interchangeably, (*see* JCCS Ex. C at 24(8(C)) ('193 patent at 129:52-60)), and the file histories of the '193 patent and the '683 patent demonstrate that control is used to mean data, (*id.* Ex. C at 31-32(8(W)), 32(8(X)), 33 (8(AA))). InterTrust has thus established that control is equivalent to control information. That is the key to the Court's resolution of this issue; once this identity is established, the remaining evidence cited by InterTrust provides ample support for its position. The Court need not resolve whether "rule" has a meaning independent from control. Even if the Court were to attempt to do so, Microsoft does not provide any evidence as to what that independent meaning might be; its assertion that "[i]n the Big Book's usage, a 'rule' need not be executable, but a 'control' must be," is bereft of supporting citations. Without such evidence, the Court cannot ascribe to the phrase "rules and/or controls" a significance that would call into question the aptness of InterTrust's proposal.

Accordingly, the Court adopts InterTrust's proposed definition and CONSTRUES "control" (n.) to mean: "Information and/or programming controlling operations on or use of resources (*e.g.*, content) including (a) permitted, required, or prevented operations, (b) the nature or extent of such operations, or (c) the consequences of such operations."

#### **g. *Controlling, Control* (v.)**

[42] InterTrust asserts that "control" (v.) (193.1, 861.58) does not have any special meaning in the

specifications. (InterTrust's Opening *Markman* Br. at 21.) Its proposed construction is based on the plain English meaning of the word: "to exercise authoritative or dominating influence over; direct." InterTrust criticizes Microsoft's proposed construction as being unduly lengthy and complex, for having no basis in the specification, and for having a particular limitation (the requirement of a VDE SPE) that is actually contradicted by the specifications. ( *Id.* at 22.) Microsoft faults InterTrust's proposed construction as being vague and for promising only "influence" that is inconsistent with the high degree of protection that "the Blue Book promises the owners of content entrusted to VDE." (Microsoft's *Markman* Br. at 39.) Microsoft also advances an argument about "arbitrary granularity" that is difficult to comprehend. ( *Id.*) FN18

FN18. Specifically, Microsoft states that " 'controlling' in this 'invention' is done at an arbitrary granularity, which is an important feature that the Big Book relied upon to distinguish prior art: [para.] 'VDE also extends usage control information to an arbitrary granular level (as opposed to a file based level provided by traditional operating systems)' [citation]." ( *Id.* (citing '193 patent 275 :8-11) (emphasis omitted).) Whatever the significance of this statement may be, the cited sentence from the '193 specification is inapposite because it concerns "control information," which is equivalent to the *noun form* of control. *See supra*. Here, the Court is construing the *verb form* of control.

InterTrust's proposed construction is consistent with the specifications. Microsoft's proposed construction does not appear to have any support in the specifications and actually contradicts them. Microsoft's reliance on the supposed promises regarding VDE contained in the Big Book is undercut by the PTO's determination that the Big Book described multiple inventions. Accordingly, the Court adopts InterTrust's sound proposal and CONSTRUES "control" (v.) to mean: "To exercise authoritative or dominating influence over; direct."

#### ***h. Controlling the copies made of said digital file***

[43] The phrase "controlling the copies made of said digital file" (193.1) appears as part of a slightly longer clause in 193.1: "and said at least one copy control controlling the copies made of said digital file[.]" InterTrust contends that this phrase is further explained by language appearing later in 193.1, namely: "if said copy control allows at least a portion of said digital file to be copied and stored on a second device." (InterTrust's Opening *Markman* Br. at 22.) InterTrust maintains that this further description, along with the separately defined incorporated terms, makes clear that the copy control that is controlling the copies made of said digital file, is used to determine whether a digital file may be copied to a second device. ( *Id.*) InterTrust asserts that its definition is based on this straightforward, plain-English interpretation. ( *Id.*)

InterTrust criticizes Microsoft's requirement of a VDE in its construction as not required by the claim and inconsistent with the specification. ( *Id.* at 22-23.) InterTrust also assails Microsoft's definition's requirement that the copy control control "all copies of the Digital File" as not required by the claim. ( *Id.* at 23.) Finally, InterTrust disputes Microsoft's definition's requirement that all uses and accesses be prohibited except to the extent allowed by the copy control(s). ( *Id.*) InterTrust argues that this limitation has no support in the claim and is inconsistent with the specification, which suggests that the item may also be governed by an alternate control structure. ( *Id.* (citing, *inter alia*, JCCS Ex. C at 116 (26(A) ('193 patent at 28:19-37)), 116-17 (26(B) ('193 patent at 31:29-56))).)

In its response, Microsoft does not affirmatively argue why its definition should be adopted. Rather, it faults InterTrust's definition as reading the claim more as "controlling the *copying*," even though the claim refers to "controlling the *copies*." (Microsoft's *Markman* Br. at 39-40.) Microsoft does not explain the significance of this distinction. ( *Id.*) Microsoft also contends that "InterTrust's proposal suggests that the copies are transferred to the second device, but the claims recite that the file (as opposed to any copy) is transferred." ( *Id.* at 40.) Microsoft does not cite to any authorities in support of these assertions. ( *Id.* at 39-40.)

In its reply brief InterTrust clarifies:

The InterTrust construction is based on the manner in which this phrase is used in the claim, in which it explains the "copy control." See JCCS Ex. A, Row 7. The nature of the copy control is further described later in the claim. JCCS Ex. A, Rows 8 and 9. InterTrust's definition is based on the phrase itself and on its context in the claim, a context Microsoft entirely ignores.

(InterTrust's Reply *Markman* Br. at 23.)

InterTrust's proposed construction is sensible and supported by the language of 193.1 and the '193 patent specification. Microsoft has provided no argument in support of why *its* proposed construction should be adopted. Accordingly, the Court adopts InterTrust's proposed construction and CONSTRUES the phrase "controlling the copies made of said digital file" for purposes of 193.1 to mean: "Determining the conditions under which a digital file may be copied (defined *infra* ) and the copied file stored on a second device."

### **i. Copy, Copied, Copying**

[44] InterTrust's proposed construction of the term "copy" FN19 and its other permutations (193.1, 193.11, 193.15, 193.19) is based on the plain English meaning of the word. (InterTrust's Opening *Markman* Br. at 19.) InterTrust's construction, however, requires that the copy be usable, whereas Microsoft's definition allows a copy to be ephemeral, unusable, or inaccessible. (*Id.*) InterTrust's proposal also allows a reproduction to involve some changes and still be a copy, as long as the essential nature of the content remains unchanged.

FN19. The parties do not distinguish between the noun form and the verb form of this word for purposes of this mini- *Markman* proceeding.

InterTrust maintains that the whole point of making a copy is to have it be usable; temporary, automatically-generated internal reproductions of a file by a computer do not fit this description. (*See id.* at 19-20.) InterTrust adds that construing copies to include such reproductions, which are copies under Microsoft's proposal, would lead to absurd results: a user attempting to utilize a budget (defined *supra* ) by making copies could deplete the entire budget on these ephemeral reproductions without being able to use any of them. (*Id.* at 20.)

In advancing its proposed definition, Microsoft relies on language from the Big Book, which appears to indicate that a copy need not be usable by everyone. (Microsoft's *Markman* Br. at 22-23.) Microsoft contends that InterTrust's proposed construction is nonsensical because whether a file is usable and, therefore, whether it is a copy, may change depending on whether a particular user has the ability to use the file. (*Id.* at 23.) Finally, Microsoft argues that InterTrust's definition contravenes the VDE "invention," which, according to Microsoft, promises prevention of unauthorized copying, which may take place even if the unauthorized copier could not use the copy. (*Id.* at 23-24.)

The Court agrees with InterTrust that adopting Microsoft's definition of copy would lead to absurd results because a user might exhaust his entire budget by opening a file without obtaining a single usable copy-and without realizing that he was making a copy every time he opened the file. The Court cannot discern what utility might be gained from this result. At the same time, Microsoft makes a good point that once a "copy" is made, it should not cease being a copy just because it is transferred to someone else who is no longer able to use it. The Court believes that this concern is adequately addressed by adding to InterTrust's definition the requirement that the copy be *usable in any way by the person, entity, or device making the copy*. Thus, if a copy is made such that it is usable by the person or entity making the copy, and then it is transferred to

someone else who is unable to use it, it is still a copy.

It is crucial to understand, however, that "usable" is defined broadly in this definition to mean "capable of any conceivable use," where the noun "use" has its common-English meaning. For example, if a person makes a copy of a digital file that *his own computer cannot run* for the purpose of e-mailing that file to a friend whose computer can run the file, the copy is still a copy: the person making the copy "used" the file by distributing it to a friend. In other words, a copy is "usable" essentially if it is *accessible for any purpose*. This understanding of "usable" stands in contrast to Microsoft's apparent understanding of the word. Microsoft seems to take for granted that "usable" (as used in the definition of copy) connotes a certain degree or quality of utility. For example, Microsoft's counsel at the hearing seemed to suggest that a photocopy of a Latin text made by counsel would not be usable by him because he would not be able to read it. (Tr. 221:12-222:3.) By making this assertion, counsel implicitly presumed that the copy would not be usable because it was not comprehensible by the person making the copy. But that premise is not implicit in the word "usable" as it is used in this definition. The copy, whether or not it was comprehensible by the person making the copy, would still be usable if the person making the copy had access to it and could do *something* with it—perhaps send it to a friend, whether or not the friend's computer could access it. Of course, if the "copy" described by counsel in his analogy fell behind the photocopy machine before the person making the copy could retrieve it and was no longer accessible, it would not be a "copy" in the sense contemplated by the claims at issue. This requirement is necessary to avoid achieving absurd results. It also illustrates the limitations of the analogy presented by Microsoft's counsel at the hearing.

Finally, the Court agrees with InterTrust that a copy need not be an exact reproduction as long as the essential nature of the content remains unchanged. Surely a user can be said to copy a music file for a song even though he only copies half the song, as long as the resulting copy retains the essential nature of the original song. And, as InterTrust's counsel explained at the hearing, ( *see* Tr. 208:23-209:22), the same user can also be said to copy the music file even if the reproduction he generates is encrypted and thus not an exact duplicate of the original, because the reproduction retains the essential nature of the content of the original.

Accordingly, the Court adopts InterTrust's proposed definition with the aforementioned alteration, such that "copy" (v.), "copied," and "copying" are CONSTRUED to mean, respectively: "Reproduce, reproduced, reproducing, where the reproduction must be usable in any way by the person, entity, or device making the reproduction, may incorporate all of the original item or only some of it, and may involve some changes to the item as long as the essential nature of the content remains unchanged." A "copy" (n.) is such a reproduction.

***j. Derives information from one or more aspects of said host processing environment***

[45] InterTrust's definition of the phrase "derives information from one or more aspects of said host processing environment" (900.155) purports to rely on normal English, incorporating the separately defined terms derive, aspect, and host processing environment. ( *Id.* at 37.) InterTrust argues that the requirement in Microsoft's proposed definition that information be derived from the host processing environment "hardware" is inconsistent with the disclosed embodiment, ( *id.* (citing JCCS Ex. C at 129-30 (29(A) ('900 patent at 239:4-42))))), and finds no support in relevant claim, 900.155, ( *id.*). In response, Microsoft contends, without citation or clear explanation, that InterTrust's proposed construction may serve no security purpose at all because it does not require a "unique machine signature" technique allegedly identified by Dr. Reiter. (Microsoft's Markman Br. at 40.)

InterTrust's proposed definition is sensible and supported by the '900 patent specification. Microsoft has neither provided any support for adopting its proposed definition, nor has it addressed InterTrust's arguments that certain features of its definition are inconsistent with or unsupported by the specification.

Accordingly, the Court adopts InterTrust's proposal and CONSTRUES "derives information from one or more aspects of said host processing environment" to mean: "Derives ( *i.e.*, obtains, receives, or arrives at through a process of reasoning or deduction) information based on at least one aspect ( *i.e.*, feature, element, property, or state) of the previously referred to host processing environment (defined *infra* )."

#### **k. *Host Processing Environment (HPE)***

[46] In its opening brief, InterTrust maintains that host processing environment ("HPE") (900.155) is explicitly defined in 900.155: it consists of the elements listed in that claim. (JCCS Ex. A at 33 (para. 87).) InterTrust maintains that HPE therefore needs no additional definition, yet it offers a definition in the alternative. ( *Id.*) Turning to that definition, InterTrust explains it agrees with Microsoft that HPEs may be either secure or non-secure and that InterTrust's proposed definition is more accurately a definition of a secure HPE. (InterTrust's Opening *Markman* Br. at 36.) It therefore states that if necessary, its proposed construction should be qualified to allow for secure and non-secure HPEs, and it offers language containing such a qualification which it claims to be supported by the specification. ( *Id.*) InterTrust, however, takes issue with Microsoft's inclusion of additional limitations in its proposed definition, arguing that they are unwarranted. For example, InterTrust points out that Microsoft's implicit assertion that an HPE consists only of executable programming contradicts 900.155, which identifies various hardware elements as part of the HPE. ( *Id.*) Microsoft argues in response, without citations to evidence, only that the Big Book permits HPEs to be secure or non-secure, and Microsoft's proposed construction addresses this feature. (Microsoft's *Markman* Br. at 40.) Microsoft's proposal provides, among other things, that a secure HPE run in "protected (privileged) mode" and that a non-secure HPE run in "user mode."

At the hearing the Court explored InterTrust's offer to qualify its original proposed definition. InterTrust's counsel proposed that the proffered definition be modified to the following: "[A] host processing environment may be either secure or non-secure. A secure host processing environment is a protected processing environment incorporating software-based security, and a non-secure host processing environment is a processing environment with insufficient security to constitute a secure host processing environment." (Tr. 264:19-24.) Counsel, however, adhered to the position that the Court need not define this term because it consists of the elements of 900.155. (Tr. 265:22-266:14.) Counsel contended that the reference to HPE in 900.155 is similar to a preamble, requiring no construction by the Court, but he admitted that he could not cite to the Court any authority in support of this position. ( *Id.*) Microsoft's counsel responded to InterTrust's amended proposal by arguing that it was nonsensical to construe HPE to include both secure and non-secure processing environments because an HPE is a type of protected processing environment. (Tr. 268:21-269:12.) He cited portions of the '193 patent specification in support of this position. (Tr. 269:18-271:10.) Microsoft's counsel admitted, however, that Microsoft's own proposed definition allowed for HPE to be both secure and non-secure. (Tr. 273:21-274:1.) InterTrust's counsel commented that the key difference between InterTrust's revised proposal and that of Microsoft was that Microsoft's proposal requires that an HPE run in protected mode. (Tr. 272:12-14.) He went on to assert that there is no statement in the '193 patent that suggests that a secure HPE or a non-secure HPE must operate in a particular mode. (Tr. 272:15-273:7.)

The Court fully understands InterTrust's position that the reference in 900.155 to HPE is akin to a preamble requiring no construction, as that reference appears on the second line of the claim without any other elements. Yet given the references to HPE in conjunction with protected processing environments and secure processing environments in the specifications of the '193 patent and the '900 patent, (JCCS Ex. C at 56 (16(B) ('193 patent at 105:18-22, '900 patent at 112:48-52))), the Court considers it to have significance independent from the remaining elements of 900.155 themselves. The Court thus construes HPE accordingly.

Microsoft's proposed definition is not plausible. Microsoft provides no support for the requirement that HPE

be "within a VDE node" or for the requirement that a secure HPE run in protected mode and a non-secure HPE run in a different mode. InterTrust's revised proposal, on the other hand, properly incorporates the term "protected processing environment" (defined *infra*) consistent with HPE's use in the specifications. Moreover, the Court does not agree with Microsoft's suggestion that InterTrust's proposed definition is nonsensical because there cannot be a non-secure protected processing environment. A protected processing environment is a separately defined term that, under InterTrust's proposed definition, provides protection against *tampering*. ( *See* JCCS Ex. B at 11 (para. 18).) InterTrust's proposed definition of tampering (a term that is not offered for construction by the Court but will be implicitly defined in the Court's construction of "tamper resistance") is not coextensive with its proposed definition of secure. ( *Compare* *id.* Ex. B at 15 (para. 21) *with* *id.* Ex. B at 13 (para. 19).) Given that, as discussed *infra*, the Court adopts InterTrust's proposed definitions of secure and tamper resistance, there is no inconsistency in concluding that HPEs may be secure and non-secure. Moreover, Microsoft's own proposed construction of HPE allows it to be either secure or non-secure.

Accordingly, the Court adopts InterTrust's revised proposal and CONSTRUES "host processing environment" (and its acronym, "HPE") as follows: "A host processing environment may be either secure or non-secure." A secure host processing environment is a protected processing environment (defined *infra*) incorporating software-based security, and a non-secure host processing environment is a processing environment with insufficient security to constitute a secure host processing environment.

### **l. Identifier**

[47] InterTrust contends that its proposed construction of "identifier" (193.15, 912.8) is based on the normal English meaning of the term and is consistent with its use in the specifications. (InterTrust's Opening *Markman* Br. at 24.) InterTrust asserts that the main dispute between the parties is whether, as Microsoft contends, identifier must be unique to an "individual instance" of a person or thing, or whether, as InterTrust contends, it can specify that a person or thing is a member of a group. ( *Id.*) InterTrust points to a specification embodiment of a portion of 912.8 that appears to lend support to its construction. ( *Id.* (citing JCCS Ex. C at 131 (30(A) ('193 patent at 140:15-46))).) Microsoft in response does not address identifier, but rather "identifying (identify)." (Microsoft's *Markman* Br. at 40.) Without offering any evidentiary citations in support, Microsoft asserts that "[i]n common usage and these patents, to identify someone or something is to establish the person or thing as a particular individual or thing." ( *Id.*) In its reply brief, InterTrust objects to Microsoft's construction of the terms "identifying (identify)", contending that they are distinct from identifier and were not agreed-upon as terms that would be construed at the mini- *Markman*. (InterTrust's Reply *Markman* Br. at 23 n. 13.) InterTrust adds that its proposed construction is based on the American Heritage Dictionary. ( *Id.* at 23.)

InterTrust's arguments are persuasive. Microsoft's argument is unsupported. Accordingly, the Court adopts InterTrust's proposal and CONSTRUES "identifier" to mean: "Information used to identify something or someone ( *e.g.*, a password). In this definition, 'identify' means to establish the identity of or to ascertain the origin, nature, or definitive characteristics of; includes identifying as an individual or as a member of a group."

### **m. Protected Processing Environment (PPE)**

[48] InterTrust contends that its proposed construction of "protected processing environment" ("PPE") (683.2, 721.34) is consistent with the specifications, which describe two embodiments of a PPE: a secure processing environment ("SPE") and a host processing environment ("HPE"). (InterTrust's Opening *Markman* Br. at 28-29.) InterTrust explains that its construction properly covers both embodiments because the specification explicitly states that any action that can be taken by an SPE can also be taken by an HPE, albeit possibly with a lower level of security. ( *Id.* at 29.) InterTrust further contends that a number of

Microsoft's proposed definitions would improperly exclude the HPE embodiment, which provides software-based security. ( *Id.*) InterTrust adds that Microsoft's proposed definition of PPE is 345 words in length and thus impossible for any jury to understand. ( *Id.*)

In its *Markman* brief Microsoft address only what it deems to be the "central dispute": whether a PPE must have a physical tamper resistant barrier (see *infra* ) and prevent unauthorized access, observation, and interference. (Microsoft's *Markman* Br. at 34.) Although Microsoft's discussion of issues relating to the proper construction of PPE runs a page and a half in length, careful review of this discussion reveals only one substantive argument in support of its proposed definition: that the three reasons provided elsewhere in the brief for adopting Microsoft's construction of tamper resistant barrier also demonstrate that these claims' PPE must be the hardware-based SPE, not the software-based HPE. ( *Id.* at 35.) Microsoft also faults InterTrust's proposed definition as being "vague" and lacking in more specific information. ( *Id.*)

[49] InterTrust's arguments are persuasive and well-supported. Given that, as discussed *infra*, Microsoft's tamper resistant barrier arguments are unavailing, so, too, are its arguments regarding PPE. Further, InterTrust's proposed definition is not vague, and Microsoft does not demonstrate that the information that is not provided in InterTrust's definition is crucial. Accordingly, the Court adopts InterTrust's proposal and CONSTRUES "protected processing environment" to mean: "An environment in which processing and/or data is at least in part protected from tampering. The level of protection can vary, depending on the threat. In this definition, 'environment' means capabilities available to a program running on a computer or other device or to the user of a computer or other device. Depending on the context, the environment may be in a single device ( *e.g.*, a personal computer) or may be spread among multiple devices ( *e.g.*, a network)."

#### **n. *Secure, Securely***

[50] InterTrust's proposed construction of "secure" and "securely" (193.1, 193.11, 193.15, 683.2, 721.34, 861.58, 891.1, 912.8, 912.35) is flexible and denotes any of several different attributes, including secrecy and authenticity, some or all of which may be applicable depending on the particular context discussed in the specifications. ( *See* InterTrust's Opening *Markman* Br. at 14-16.) InterTrust assails Microsoft's proposed definition, which requires *all* of five qualities identified by Prof. Mitchell, as being flatly contradicted by the specifications, which in some contexts make clear that secure connotes fewer than all five of these qualities. ( *See, e.g., id.* at 14 (quoting '193 patent at 233:25-30 ("In one embodiment, the portable appliance 2600 could support secure (in this instance encrypted and/or authenticated) two-way communications with a retail terminal which may contain a VDE electronic appliance 600 or communicate with a retailer's or third party provider's VDE electronic appliance 600.")); *see also id.* at 14-15.) InterTrust asserts that, as Dr. Reiter has testified, nothing is absolutely secure; InterTrust maintains that its proposed construction reflects this reality, whereas Microsoft's does not. ( *See id.* at 15.)

Microsoft's proposed definition requires that something must have all five of the following qualities to be secure: "availability"; "secrecy"; "integrity"; "authenticity"; and "nonrepudiation." (Microsoft's *Markman* Br. at 28.) Microsoft contends that its definition "honors the basic premise of VDE." ( *Id.* at 27.) Microsoft provides no citations whatever in support of its proposal, other than certain extrinsic evidence tending to suggest that secure connotes an absolute state. ( *Id.* at 25-28.) Microsoft criticizes InterTrust's proposal on several grounds (without citations), one of which is that InterTrust's definition, which contains the phrase "one or more mechanisms are employed to ...", suggests that something can be secure simply if an effort is made, regardless of the result; Microsoft maintains that the term secure connotes a state, regardless of the effort made to achieve that state. ( *Id.* at 26.)

The Court finds InterTrust's proposed definition, for the most part, to be very well supported by the relevant specifications. Microsoft's definition, by contrast, has no evidentiary support and is, in fact, clearly contradicted by the specifications of the patents-in-suit.

But there are a few modifications to InterTrust's proposal that the Court explored with the parties at the hearing and that the Court now deems appropriate to make. First, Microsoft makes a good point that secure connotes a state-albeit not necessarily an absolute state-and not merely an effort. Thus, InterTrust's use of the phrase "one or more mechanisms are employed to ..." in its proposed construction is potentially problematic. To address this concern, the Court proposed at the hearing modifying this phrase to "one or more mechanisms are employed *that* ...." This alteration indicates that a state has been achieved, not merely that an effort has been made. InterTrust's counsel stated at the hearing that InterTrust had no objection to this modification. (Tr. 121:18-122:1, 149:24-150:1.) Nevertheless, the Court recognizes that a particular mechanism may not *by itself* prevent, discourage, or detect misuse; rather, it may do so only in conjunction with other mechanisms. Accordingly, the Court believes that a further modification would be helpful: the phrase should read "one or more mechanisms are employed that (whether alone or in conjunction with one or more other mechanisms) ...."

Second, the Court agrees with Microsoft's proposal at the hearing-a proposal that counsel later withdrew-that the portion of the last sentence of InterTrust's proposal, namely "but is designed to be sufficient for a particular purpose", should be stricken, such that the sentence shall read: "Security is not absolute." (Tr. 148:14-149:21, 152:20-153:3.) This proposal arose out of the debate between counsel for InterTrust and counsel for Microsoft about whether something can be secure if it does not guarantee protection against specified threats. Although the Court fully appreciates the distinction that the parties have sought to draw, the Court agrees with InterTrust that security is not absolute and that the language in question adds nothing to the definition and might confuse to a jury. The statement that "security is not absolute" fully captures the meaning sought to be conveyed. Moreover, Microsoft's counsel agreed at the hearing that security is not absolute, (Tr. 141:22) ("So we agree secure is not absolute ...."), 152:24 ("[S]aying 'secure is not absolute' ... [is] a truism ...."), and InterTrust's counsel represented that InterTrust was amenable to this modification, (Tr. 149:8-24).

Finally, the Court agrees with Microsoft's concern that defining secure to include mechanisms that merely detect misuse of or interference with information or processes is inappropriate. At the same time, it is clear that the relevant claims contemplate employing security technologies including digital signatures. ( *See* JCCS Ex. C at 74 (19(A)) (citing '193 patent at 8:1-3).) As explained to the Court at the hearing, digital signatures do not provide security by preventing or discouraging misuse of data; instead, they provide security by alerting the user to misuse or interference with the data in question, thereby allowing the user to avoid harm stemming from the misuse or interference. It would thus be inappropriate to exclude detection from the definition of security altogether. The Court believes that it can accommodate Microsoft's concerns while remaining faithful to the meaning of secure contemplated by the patent specifications by modifying "detect" in InterTrust's proposal to "detect misuse of or interference with information or processes for the purpose of discouraging and/or avoiding harm."

Accordingly, the Court adopts InterTrust's proposed definition with the modifications stated above and CONSTRUCTS "secure" to mean:

One or more mechanisms are employed that (whether alone or in conjunction with one or more other mechanisms) prevent or discourage misuse of or interference with information or processes, or that detect misuse of or interference with information or processes for the purpose of discouraging and/or avoiding harm. Such mechanisms may include concealment, tamper resistance (defined *infra* ), authentication ( *i.e.*, identifying ( *e.g.*, a person, device, organization, document, file, etc.)), and access control. Concealment means that it is difficult to read information ( *e.g.*, programs may be encrypted). Tamper resistance and authentication are defined separately. Access control means that access to information or processes is limited on the basis of authorization. Security is not absolute.

"Securely" means: "In a secure (defined supra ) manner."

**o . *Secure Container***

[51] InterTrust's proposed construction of "secure container" (683.2, 861.58, 912.35) is straightforward: a container (defined supra ) that is secure (defined supra ). InterTrust provides several examples from the specifications that support its proposed construction. (InterTrust's Opening *Markman* Br. at 26 (citing, *inter alia*, JCCS Ex. C at 83 (20(A) ('193 patent at 127:30-49)), 84 (20(C) ('683 patent at 15:61-16:4))).)

InterTrust also takes issue with a number of features of Microsoft's proposed definition, arguing, *inter alia*, that it conflicts with the specifications, ( *id.* at 26), that it impermissibly relies on the preferred embodiment, ( *id.* at 27), and that one of its limitations finds no support in the specifications or elsewhere, ( *id.*).

Microsoft proposes a construction of secure container that is enormous in length. Microsoft relies almost exclusively on the alleged Big Book's description of a VDE secure container. ( *See* Microsoft's *Markman* Br. at 29.) The crucial feature of this proposed type of container is that it prevents, and not simply detects, all access to and use of protected content- *i.e.*, it promises absolute protection. ( *Id.* at 30 ("This 'access control' ability of VDE secure containers is critical to VDE's promise to content owners that it can prevent (not simply detect) all access to and use (not just decryption-based uses) of protected content.").)

InterTrust responds that one feature contained in Microsoft's definition, namely that a secure container includes an access control method, is but an *example* of an embodiment in the specifications, not the only embodiment disclosed. (InterTrust's Reply *Markman* Br. at 18.) InterTrust adds that the term "VDE secure container" does not appear anywhere in the '193 patent; when the inventors of that patent wanted to refer to a container in terms of VDE capabilities, they used the term "VDE container." ( *Id.* at 19.) InterTrust presents examples of the use of the term VDE container. ( *Id.* at 19.)

InterTrust's proposed construction is well-supported by the specifications. Microsoft's proposed construction, which relies on the concept of a VDE secure container, is contradicted by the specifications, as InterTrust demonstrates. In addition, as InterTrust's counsel pointed out at the mini- *Markman* hearing, Microsoft's counsel's reference to the '193 patent specification in support of its assertion that a VDE container is equivalent to a secure container is misleading: the portion of the specification cited by Microsoft refers only to the *preferred embodiment*. (Tr. at 238:10-239:11, 240:22 (discussing '193 patent at 127:40-50).) FN20 As discussed *supra*, it is inappropriate for the Court to read limitations in the preferred embodiment into the claim terms. Accordingly, the Court adopts InterTrust's proposal and CONSTRUES "secure container" to mean: "A container (defined supra ) that is secure (defined supra )."

FN20. The Court needs not even consider this portion of the '193 specification because Microsoft never cited to it in its *Markman* brief.

**p. *Securely applying, at said first appliance through use of said at least one resource said first entity's control and said second entity's control to govern use of said data item***

[52] The phrase "securely applying, at said first appliance through use of said at least one resource said first entity's control and said second entity's control to govern use of said data item" appears only in 891.1. InterTrust contends that "securely applying" is not specially defined in the specification and is not a term of art. (InterTrust's Opening *Markman* Br. at 34.) InterTrust explains that in the specification, the terms "securely applying" and "applying" refer to the application of control information to govern content. ( *Id.* (citing, *inter alia*, JCCS Ex. C at 126 (28(A) ('193 patent at 299:19-51))).) InterTrust faults several features of Microsoft's proposed definition for being inconsistent with the specification and/or for lacking support in the specification. ( *See id.* at 34-35.) Microsoft proposes a lengthy definition for this phrase, but it has

elected not to address this phrase in its *Markman* brief.

InterTrust's proposed definition, at least to the extent it relies on a construction of "securely applying" or "applying," has support in the specification. Microsoft has presented no reason to adopt its proposed definition. Accordingly, the Court adopts InterTrust's proposed definition and CONSTRUES "securely applying, at said first appliance through use of said at least one resource said first entity's control and said second entity's control to govern use of said data item" to mean: "The first entity's control (defined *supra*) and the second entity's control are securely (defined *supra*) applied to govern use (defined *infra*) of the data item, the act of securely applying involving use of the resource."

#### **q. Tamper Resistance**

[53] InterTrust advances a construction of "tamper resistance" (721.1) that, it contends, is consistent with the use of the term in the specifications and in relevant extrinsic evidence. (InterTrust's Opening *Markman* Br. at 31.) InterTrust faults Microsoft's proposed definition as requiring that access, observation, and interference be *prevented*; InterTrust contends that this requirement is inconsistent with the plain meaning of "resistance." (*Id.*) InterTrust also faults Microsoft's definition as inexplicably requiring prevention of *access*, which is not connoted by the term "tampering." (*Id.*)

Microsoft presents little in the way of argument in support of its proposed definition. Microsoft faults InterTrust's definition as failing to specify with what is being compared in connection with the phrase "making tampering more difficult." (Microsoft's *Markman* Br. at 40.) It also states that "merely detecting tampering but not stopping it, plainly is not what VDE means by 'tamper resistance.'" (*Id.*) It does not provide any evidentiary or legal citations in support of these statements. (*Id.*) InterTrust replies in succinct fashion: it states that tamper resistance makes tampering "more difficult" to achieve than it is to achieve in the absence of tamper resistance; and it points out that Microsoft's unsupported assertion about what VDE means by tamper resistance is not evidence supporting Microsoft's construction. (InterTrust's Reply *Markman* Br. at 24.)

InterTrust's citations to intrinsic evidence, namely the patent specifications, are sufficient to demonstrate that its proposed construction is correct. ( *See* JCCS Ex. C at 87 (21(A) ('721 patent at 4:40-42); 21(B) ('193 patent at 59:48-59)).) Reference to the extrinsic evidence that InterTrust offers is not necessary, although the Court notes that that evidence clearly supports InterTrust's proposed construction. ( *See, e.g., id.* Ex. C at 88 (21(D) (quotation from text on tamper resistant software that defines such software as "software which is resistant to observation and modification")).) By contrast, Microsoft provides no citations whatever in support of its proposal. There is therefore no basis on which the Court can adopt Microsoft's definition. Accordingly, the Court adopts InterTrust's proposed definition and CONSTRUES "tamper resistance" to mean: "Making tampering more difficult and/or allowing detection of tampering. For purposes of this definition, 'tampering' means using ( *e.g.,* observing or altering) in any unauthorized manner, or interfering with authorized use."

#### **r. Tamper Resistant Barrier**

[54] InterTrust's proposed definition of "tamper resistant barrier" (721.34) is straightforward: "hardware and/or software that provides tamper resistance." InterTrust contends that its definition is consistent with the use of the term in the specification. (InterTrust's Opening *Markman* Br. at 32-33 (citing JCCS Ex. C at 90 (22(C) ('721 patent at 5:1-6))).) InterTrust further contends that, in accordance with the specifications, its definition permits a tamper resistant barrier to consist of hardware or software. ( *Id.* at 33 (citing JCCS Ex. C at 89-90 (22(B) ('193 patent at 80:22-65))).)

Microsoft claims that its definition, which requires a hardware device and which requires prevention of

unauthorized access, observation, and interference, is based on the underlying premise of VDE in the Big Book. (Microsoft's *Markman Br.* at 30-33.) Microsoft also faults InterTrust's definition of tamper resistant barrier, which incorporates the defined term tamper resistance, as failing to answer the questions " 'making tampering more difficult' than what?" and "[w]hat does 'allowing detection of tampering' mean?" ( *Id.* at 34.)

InterTrust points out in its reply that Microsoft's definition's requirement that a tamper resistant barrier include a physical hardware device is contradicted by an express embodiment disclosed in the specification. (InterTrust's Reply *Markman Br.* at 5-6.) InterTrust states that it "is aware of no Federal Circuit case that has ever held that a claim term can be interpreted to exclude, not merely a disclosed embodiment, but a disclosed embodiment that is identified in the specification *using exactly the same words as the claim* ('tamper resistant barrier')." ( *Id.* at 6 (emphasis in original).) InterTrust adds that the term is found only in 721.34, and this term contains no reference to assigning usage control information or any use of content, nor does it have any language from which such elements can be inferred, yet Microsoft's definition includes such elements. ( *Id.* at 19.)

The Court agrees with InterTrust that Microsoft's proposed definition cannot be correct, since it contradicts the use of the term in an embodiment expressly disclosed in the relevant specifications. Indeed, language from one of the specifications that Microsoft itself cites demonstrates that a tamper resistant barrier may consist of software alone: Microsoft quotes from the '900 patent text that includes the following sentence: "No *software-only tamper resistant barrier* 674 can be wholly effective against all of these threats." (Microsoft's *Markman Br.* at 33 (quoting from '900 patent at 233:24-33) (emphasis added).) Obviously, the specification contemplates that a tamper resistant barrier *may* be software-only; such a software-only tamper resistant barrier, however, will not be wholly effective against all the threats identified. Had the inventors intended to exclude software-only mechanisms or processes from the definition of tamper resistant barrier, they would have said something to the effect of "no software-only mechanisms or processes can be a tamper resistant barrier because they cannot be wholly effective against all of these threats." Similarly, Microsoft's quotations of certain portions of specifications in support of its definition demonstrate only that a tamper resistant barrier *may* be a hardware device under the appropriate circumstances; but these quotations do *not* demonstrate that it *must* be a hardware device. ( *See, e.g., id.* (quoting '193 patent at 49:15-17) ("A hardware SPU (rather than a software emulation) with a VDE node is necessary if a highly trusted environment for performing certain VDE activities is required."); *see also id.* at 32-34.) Finally, Microsoft's practice, utilized frequently in its discussion of other claim terms and phrases, of faulting InterTrust's proposed definition for not addressing certain questions, ( *id.* at 34), is unconvincing because there is no evidence that it is even necessary to address these questions.

Accordingly, the Court adopts InterTrust's proposed definition and CONSTRUES "tamper resistant barrier" to mean: "Hardware and/or software that provides tamper resistance (defined supra )."

#### s. Use

[55] InterTrust contends that the term "use" (193.19, 683.2, 721.1, 861.58, 891.1, 912.8, 912.35) is not specially defined in the specification, and it is not a term of art. (InterTrust's Opening *Markman Br.* at 25.) InterTrust's proposed construction is based on the plain English meaning of the word use: "to put into service or apply for a purpose, to employ." ( *Id.*) Microsoft's proposed construction appears similar, but it provides examples of the term use ( *e.g.,* copying, printing, decrypting) and requires an additional limitation pertaining to VDE. ( *See* Microsoft's *Markman Br.* at 20-21.) Yet Microsoft does not clearly explain in its *Markman* brief how the first part of its proposed definition-"[t]o use information is to perform some action on it or with it"-is inconsistent with InterTrust's proposed definition, nor does it clearly explain the basis for the second part of its proposal, which imposes an additional limitation relating to VDE.

At oral argument the Court expressed its uncertainty regarding Microsoft's position in these two respects. Counsel for Microsoft informed the Court that it would be a "reasonable approach" for the Court to take if it struck out the second part of its proposed definition (the portion pertaining to VDE). (Tr. at 228:9-12.) As for the first part of its proposed definition, Microsoft's counsel stated that its proposed definition was intended only to provide examples of "use" for the jury to better understand the term in the sense Microsoft intended. ( See Tr. 224:18-14, 227:8-228:8, 229:7-22.)

The Court discerns insufficient support for the second part of Microsoft's proposal, and in light of Microsoft's willingness to excise it, the Court agrees that this part is not due serious consideration. As for the first part of Microsoft's proposal, the Court believes that providing the examples of the term use that Microsoft has listed adds nothing in the way of clarification to the definition of the term and may in fact confuse the jury. Specifically, Microsoft does not indicate that these examples are exhaustive or that they have a particular relationship. Thus, a jury will be required to guess at their significance to determine what limiting purpose they serve, if any. At the same time, InterTrust's definition is more straightforward and is in fact consistent with this first portion of Microsoft's proposed definition.

Accordingly, the Court adopts InterTrust's proposed definition and CONSTRUES "use" to mean: "To put into service or apply for a purpose, to employ."

#### **t. *Virtual Distribution Environment (VDE)***

[56] InterTrust points out that among the twelve claims at issue in the mini- *Markman* proceeding, the term "virtual distribution environment" ("VDE") (900.155) appears *only* in the preamble of 900.155. (InterTrust's Opening *Markman* Br. at 35.) It argues that the individual elements of 900.155 fully define the recited apparatus, and reference to the preamble is not necessary to define and understand the claimed apparatus. ( *Id.*) Citing *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1371 (Fed.Cir.2003), and *Alfred J. Schumer v. Laboratory Computer Systems, Inc.*, 308 F.3d 1304, 1310 (Fed.Cir.2002), InterTrust contends that the preamble does not "give life, meaning and vitality" to the claim, and therefore it is irrelevant to claim interpretation. (InterTrust's Opening *Markman* Br. at 35.) Accordingly, InterTrust asserts that VDE need not be defined and should not be read into claims that do not actually recite it. ( *See id.*)

Without waiving its position that VDE should not be read into claims that do not actually recite it, InterTrust argues that to the extent it must be defined, the Court should adopt the short definition that it proposes, which is taken directly from embodiments of VDEs described in the specification. ( *Id.*) InterTrust faults Microsoft's proposed definition, which consists of *over 2,000 words*, as incomprehensible by a lay jury. ( *Id.*) It further criticizes Microsoft's proposed definition's requirement of a "secure processing environment" embodiment as conflicting with the specification's clear description of an alternate embodiment HPE. ( *Id.*) It adds that, given that Microsoft seeks to read VDE into each and every claim, the "universe-wide" feature of VDE required in Microsoft's definition would appear impossible to apply to a claim relating to a single device or process. ( *Id.* at 35-36.) It also insists that the requirements in Microsoft's definition that a VDE "guarantee" various types of security and that a VDE be "non-circumventable" is inconsistent with the real-world fact that guaranteed security is impossible, and it is inconsistent with the specification. ( *Id.* at 36.)

Microsoft proposes a definition that is nothing short of gargantuan in length. Its proposed definition purports to be derived from numerous statements in the Big Book application. ( *See* Microsoft's *Markman* Br. at 3-9.) Microsoft does not address InterTrust's contention that VDE should not be defined separately from the elements of 900.155 because it is found in the preamble and arguably does not give "life, meaning, or vitality" to the claim.

The Court agrees with InterTrust that VDE does not require construction independent of the elements of 900.155. The Court cannot possibly discern what "life, meaning, or vitality" VDE imbues in the claim. The

claim terms speak for themselves. Moreover, the Court has difficulty accepting Microsoft's proposed definition of VDE to the extent it purports to be premised on the Big Book application where, as discussed *supra*, the PTO determined that the Big Book described five different inventions. Finally, given that the Court has stricken the Maier Declaration, the Court has no evidentiary basis to conclude that VDE would be construed by a person of ordinary skill in the art in the manner that Microsoft suggests. Accordingly, the Court adopts InterTrust's proposal and CONSTRUES "virtual distribution environment," as that term appears in 900.155, to be defined by the elements of 900.155; it has no definition independent of those elements.

#### *IV. CONCLUSION*

Despite its misgivings, the Court agreed to conduct this mini- *Markman* proceeding and resolve Microsoft's motion for summary judgment on indefiniteness at this stage of the litigation based on the parties' representations that early resolution of these matters would facilitate compromise. The Court also agreed to enter the partial stay of this action on Microsoft's request based on Microsoft's representations that proceeding with this litigation full-throttle might prove unnecessary if the Court would construe a key subset of claim terms and phrases and resolve certain other issues in dispute. To these ends the Court has expended tremendous time and effort.

Microsoft's decision to ignore approximately 40 percent of the claim terms and issues which were selected by the parties and its failure to provide substantial citations to evidentiary and legal authorities in support of its positions call into question the prudence of the Court's having proceeded in this fashion. It also lends credence to the suggestion that Microsoft's purported opposition to many of InterTrust's proposed constructions is baseless, and it implies that to a large extent the eight-month delay in this case has been for naught. It was Microsoft, after all, that proposed that thirty claim terms and phrases should be construed in this proceeding, arguing in a submission to the Court that construction of this many terms and phrases "should suffice to cover the most important disputes." That Microsoft evidently felt entitled to multiply the proceedings needlessly is more than a little disconcerting.

The Court expects the parties now to conduct compromise negotiations earnestly and in good faith, as would be expected by their earlier representations to the Court. In the meantime, the Court wishes to make the following unequivocal: The Court will not tolerate a party's creating a dispute by taking a position on a material issue where that party does not have a good-faith basis for that position that is well-supported by fact and by law. Such conduct may result in the imposition of sanctions under Federal Rule of Civil Procedure 11 and/or other authority that may be applicable. Microsoft should be aware that this instruction applies with special force to it in light of its objectionable performance in the instant proceedings.

Accordingly,

IT IS HEREBY ORDERED THAT:

1. Microsoft's Motion for Summary Judgment that Certain "*Mini- Markman* " Claims Are Invalid for Indefiniteness [Docket No. 229] is DENIED.
2. Claims 193.1, 193.11, 193.15, 193.19, 683.2, 721.1, 721.34, 861.58, 891.1, 900.155, 912.8, and 912.35 are CONSTRUED as set forth in the body of this Order.
3. Consistent with the parties' representations to the Court in their joint letter dated June 26, 2003, and the Court's consideration thereof, ***no later than July 9, 2003***, the parties shall file with the Court a joint statement of any reasonable length explaining whether the parties have obtained the consent of an Article III Judge of the Northern District of California to conduct settlement discussions (and if so, which Judge), and

if not, what, if anything, the parties would like the Court to do to assist in their conducting settlement discussions. The Court will issue an appropriate Order shortly thereafter pertaining to such settlement proceedings.

4. The parties shall **telephonically** appear at a Case Management Conference before the Court on ***August 7, 2003, at 3:15 p.m.*** InterTrust's counsel shall set up the **telephonic** conference call with all the parties on the line and call chambers at (510) 637-3559 at the time designated above. **NO PARTY SHALL CONTACT CHAMBERS DIRECTLY WITHOUT PRIOR AUTHORIZATION OF THE COURT.** The parties shall file a Joint Case Management Statement at least ten (10) days prior to the conference.

**IT IS SO ORDERED.**

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