

**United States Court of Appeals  
for the Federal Circuit**

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**VASUDEVAN SOFTWARE, INC.,**  
*Plaintiff-Appellant*

v.

**MICROSTRATEGY, INC.,**  
*Defendant-Appellee*

**TIBCO SOFTWARE, INC.,**  
*Third Party Defendant*

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2014-1094

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Appeal from the United States District Court for the  
Northern District of California in No. 3:11-cv-06637-RS,  
Judge Richard Seeborg.

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**VASUDEVAN SOFTWARE, INC.,**  
*Plaintiff-Appellant*

v.

**TIBCO SOFTWARE, INC.,**  
*Defendant-Appellee*

**MICROSTRATEGY, INC., ORACLE CORPORATION,**  
*Third Party Defendants*

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2014-1096

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Appeal from the United States District Court for the Northern District of California in No. 3:11-cv-06638-RS, Judge Richard Seeborg.

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Decided: April 3, 2015

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Before CHEN, LINN, and HUGHES, *Circuit Judges*.

LINN, *Circuit Judge*.

Vasudevan Software, Inc. (“VSi”) appeals the district court’s clarification order, *Vasudevan Software, Inc. v. MicroStrategy Inc.*, No. 11-cv-06637 RS and No. 11-cv-06638 RS, *available at* 2013 WL 5288267 (N.D. Cal. Sept. 19, 2013) (“Clarification Order”), of its prior claim construction order, *Vasudevan*, No. 11-cv-06637 RS and No.

11-cv-06638 RS, *available at* 2012 WL 4120501 (N.D. Cal. Sept. 19, 2012) (“Initial Order”), pursuant to which VSi stipulated that MicroStrategy, Inc. (“MicroStrategy”) and TIBCO Software, Inc. (“TIBCO”) (collectively “defendants”) did not infringe any of the asserted claims of VSi’s U.S. Patents No. 6,877,006 (the “006 patent”), No. 7,167,864 (the “864 patent”), No. 7,720,861 (the “861 patent”) and No. 8,082,268 (the “268 patent”) (collectively, the “patents-in-suit”). VSi also appeals the district court’s grant of summary judgment that all claims of the patents-in-suit asserted against MicroStrategy are invalid for lack of enablement. *Vasudevan Software, Inc. v. MicroStrategy Inc.*, No. 11-cv-06637 RS (N.D. Cal. Oct. 17, 2013) (the “*MicroStrategy*” suit). Finally, VSi appeals the district court’s grant of summary judgment that all claims of the patents-in-suit asserted against TIBCO are invalid for lack of enablement and written description. *Vasudevan Software, Inc. v. TIBCO Software, Inc.*, No. 11-cv-06638 RS (N.D. Cal. Oct. 17, 2013) (the “*TIBCO*” suit).

We affirm the district court’s claim construction and, accordingly, the judgment of non-infringement predicated thereon. However, because there are genuine issues of material fact regarding whether the asserted claims are enabled and have sufficient written description support, we reverse the district court’s grants of summary judgment of invalidity and remand.

## I. BACKGROUND

### A. The Patents-In-Suit

The patents-in-suit<sup>1</sup> are directed to different features of an online analytical processing (“OLAP”) cube capable of collecting and processing “live” data from multiple

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<sup>1</sup> The patents-in-suit share a common specification. References to the specifications of the patents-in-suit will be based on the specification of the ’006 patent.

incompatible databases. According to the patents-in-suit, prior to the invention, data from different databases had to be converted into a compatible format and stored in a data warehouse before the data could be analyzed. Prior art systems were thus analyzing “stale” data. The inventions of the patents-in-suit sought to overcome that problem by creating an OLAP cube capable of collecting and processing information from incompatible databases at run-time without going through an intermediate warehouse repository of “stale” data. The claims of the ’006, ’864 and ’861 patents all recite a system that accesses “disparate . . . databases.”<sup>2</sup> The claims of the ’268 patent use the expression “incompatible databases of different types,” rather than the term “disparate databases.”

#### B. History of the Proceedings

VSi sued MicroStrategy for infringing claim 2 of the ’006 patent; claims 26, 33, 36, 41, 43, 45, 46, 48 and 50 of the ’864 patent; claims 3 and 4 of the ’861 patent; and claims 1, 2, 6–10, 14 and 15 of the ’268 patent. In a separate suit, VSi sued TIBCO for infringing claims 26, 33, 36, 39, 41, 45, 46, 48 and 50 of the ’864 patent.

The district court did not consolidate the *MicroStrategy* and *TIBCO* suits, but nonetheless considered the claim construction issues together. A key dispute in both suits was over the proper construction of the expression “disparate databases.” While there was little debate over the fact that “disparate” means incompatible, the parties differed over how extensive that incompatibility must be. VSi claimed that “disparate databases” meant “incompatible databases having different schemas,” while defendants contended it meant “databases having an absence of

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<sup>2</sup> For the remainder of this opinion, the ellipsis between “disparate” and “databases” is omitted for clarity.

compatible keys or record identifier (ID) columns of similar value or format in the schemas or structures of the database that would otherwise enable linking data within the constituent databases.” Initial Order at \*3.

The district court agreed with defendants. It ruled that the applicant defined “disparate databases” when he stated during prosecution:

“The disparate nature of the above databases refers to [an] absence of compatible keys or record identifier (ID) columns of similar value or format in the schemas or structures of the database that would otherwise enable linking data within the constituent databases.”

*Id.* at \*4 (quoting ’006 patent Prosecution History, Applicant’s Amendments and Remarks of Oct. 30, 2003) (emphasis omitted). The district court ruled that the above-quoted statement was “clear” and “unmistakable.” *Id.* at \*5. Accordingly, it construed “disparate databases” to mean: “databases having an absence of compatible keys or record identifier columns of similar value or format in the schemas or structures that would otherwise enable linking data.” *Id.* The district court noted that in a prior litigation IBM and Oracle stipulated to VSi’s proposed claim construction, but ruled that “[w]hile perhaps of some import,” VSi “conceded” that the earlier stipulation could not bind defendants “without violating their due process rights.” *Id.* at \*3 n.6.

In its Clarification Order, the district court explained that a database would only be disparate if it had: (1) an absence of compatible keys; *and* (2) an absence of record ID columns of similar value; *and* (3) an absence of record ID columns of similar format in the schemas or structures that would otherwise enable linking data. *See* Clarification Order at \*5.

The district court further held that because VSi had previously prevailed in its argument that “incompatible databases of different types” should be equated with “disparate databases,” VSi was now “estopped” from claiming that the two phrases had different meanings. *Id.* at \*1 n.3. In view of the Clarification Order, the parties stipulated to non-infringement.

The district court, finding no genuine issue of material fact, next granted a motion filed by TIBCO for summary judgment of invalidity of all the claims VSi asserted against it, contending that the specification lacked written description support of and failed to enable the “disparate databases” limitation. *See TIBCO* at 25–31. The district court likewise granted a similar motion filed by MicroStrategy for summary judgment of invalidity of all the claims VSi asserted against it for lack of enablement. *See MicroStrategy* at 15–19.

VSi appeals the district court’s claim construction and invalidity determinations. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1) (2012).

## II. DISCUSSION

### A. Standards of Review

We review *de novo* the ultimate question of the proper construction of patent claims and the evidence intrinsic to the patent. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). On the other hand, in considering extrinsic evidence, we review the subsidiary factual findings underlying the district court’s claim construction for clear error. *Id.* at 840. Here, the district court essentially limited its review to intrinsic evidence, although it noted that IBM and Oracle in another litigation involving the ’006, ’864 and ’861 patents stipulated to VSi’s proposed construction of “disparate databases.” The fact of the existence of that stipulation is undisputed, but we evaluate its import *de novo*. *See id.* at 841 (“The district

judge, after deciding the factual dispute, will then interpret the patent claim in light of the facts as he has found them. This ultimate interpretation is a legal conclusion. The appellate court can still review the district court's ultimate construction of the claim *de novo*.”).

We review summary judgment decisions according to the law of the regional circuit, here the Ninth Circuit, which reviews them *de novo*. *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 769 F.3d 1371, 1377 (Fed. Cir. 2014) (citing *Humane Soc’y of U.S. v. Locke*, 626 F.3d 1040, 1047 (9th Cir. 2010)). Accordingly, we reapply the standard applied by the district court. *See Bos. Scientific Corp. v. Johnson & Johnson*, 647 F.3d 1353, 1361 (Fed. Cir. 2011). In the Ninth Circuit, summary judgment is appropriate when, even “draw[ing] all reasonable inferences in favor of the non-moving party,” there is no “genuine issue of material fact.” *Comite de Jornaleros de Redondo Beach v. City of Redondo Beach*, 657 F.3d 936, 942 (9th Cir. 2011) (citing Fed. R. Civ. P. 56(a) and *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250, 255 (1986)).

## B. Claim Construction

“Claim terms are generally given their plain and ordinary meanings to one of skill in the art when read in the context of the specification and prosecution history.” *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315–17 (Fed. Cir. 2005) (en banc)). However, patentees can act as their own lexicographers if they “clearly set forth a definition of the disputed claim term’ other than its plain and ordinary meaning.” *Thorner v. Sony Computer Entm’t Am., LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (quoting *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)).

### 1. “Disparate Databases”

All of the asserted claims of the '006, '861 and '864 patents contain a limitation calling for “disparate databases.” The district court examined the intrinsic record and, finding the prosecution history compelling, construed the phrase to mean databases having: (1) an absence of compatible keys; *and* (2) an absence of record ID columns of similar value; *and* (3) an absence of record ID columns of similar format in the schemas or structures that would otherwise enable linking data. Clarification Order at \*5.

VSi argues that the plain and ordinary meaning of “disparate databases” is simply “incompatible databases having different schemas.” It claims that both intrinsic and extrinsic evidence equates “disparate databases” with “incompatible databases.” VSi then relies on its expert’s testimony to show that incompatible databases are simply those with different schemas. VSi also contends that its position is consistent with and fully supported by a stipulation it entered into with IBM and Oracle in a prior litigation involving these same patents, in which the parties agreed that “disparate databases” meant “incompatible databases having different schemas.” VSi additionally claims that defendants’ own internal marketing documents support VSi’s proposed construction. Finally, VSi contends that nothing in the prosecution history amounts to such a clear disavowal or definition as to warrant the more narrow construction made by the district court.

The defendants counter with the argument that the phrase “disparate databases” is of indeterminate scope, and, thus, has no plain and ordinary meaning. Defendants also take issue with VSi’s argument that defendants’ own internal documents reflect VSi’s proposed construction and further contend that whatever their internal documents say, both they and the prior stipulation should carry little weight. Additionally, defendants argue that

the prosecution history evinces a clear intent to define “disparate databases” in the way the district court construed the term. Finally, TIBCO denies that the phrase “incompatible databases” is equivalent to “disparate databases.” TIBCO Resp. Br. at 33.

Addressing first VSi’s argument that the plain and ordinary meaning of “disparate databases” is “incompatible databases having different schemas,” we conclude that while “disparate databases” may be considered “incompatible databases,” the plain and ordinary meaning leaves open the question of how “disparate” or “incompatible” the databases may be. VSi points to the Summary of the Invention, which describes the invention in terms of its ability to access “a plurality of *incompatible* source *databases*.” ’006 patent col.2 ll.38–42 (emphases added). VSi continues by citing passages of the specification that refer to incompatible databases as being of different types and having different data. *Id.* col.3 ll.1–3, ll.11–16. But nowhere in the specification is there any description of what is meant by “disparate databases” in terms of how disparate or incompatible the databases must be.

VSi argues in this appeal that its expert, Dr. McLeod, stated that databases may be incompatible if they merely have different schemas. The district court did not rely on this testimony. But, more importantly, Dr. McLeod did not claim that this was the only way databases could be disparate. Indeed, at deposition, he conceded that the meaning of “disparate databases” depends on the “context” and does not have a “consistent use.” J.A. 5655; J.A. 5581; *see also Gemalto S.A. v. HTC Corp.*, 754 F.3d 1364, 1371 (Fed. Cir. 2014) (confirming that a claim term has no plain and ordinary meaning from the testimony of people skilled in the art).

VSi also argues that its construction is supported by its stipulation with IBM and Oracle, but the fact that a claim construction was agreed to in the context of a differ-

ent litigation is of little relevance or probative value here. IBM and Oracle's accused products may have functioned in a manner for which the precise scope of the "disparate databases" limitation was immaterial. Moreover, because defendants "were not parties" to the IBM and Oracle stipulation, "they are not bound by it." *Fuji Photo Film Co. v. Int'l Trade Comm'n*, 386 F.3d 1095, 1101 (Fed. Cir. 2004).

Finally, VSi looks to defendants' marketing materials as informing the plain and ordinary meaning of the term "disparate databases." But that evidence, which again was not relied on by the district court, is of scant import. Language used in marketing materials directed to potential customers can mean something quite different from the language used in a patent directed to persons skilled in the art. *See Scantibodies Lab., Inc. v. Immutopics, Inc.*, 374 F. App'x 968, 971 (Fed. Cir. 2010). Moreover, the marketing materials referenced by VSi are not contemporaneous with the patents-in-suit.

Because the specification, the stipulation and the referenced marketing materials leave uncertain the full scope and meaning of the term "disparate databases," we turn next to the prosecution history, which was central to the district court's claim construction.

In responding to a rejection during prosecution, applicant made the following statement:

The disparate nature of the above databases refers to an absence of compatible keys or record identifier (ID) columns of similar value or format in the schemas or structures of the database that would otherwise enable linking data within the constituent databases. An example of such a common key value is a social security number that would enable linking or relational databases "join operations" on an individual's personnel data with his or her insurance plan. In embodiments of Ap-

plicant's invention, such a common key value is not necessary. This disparate nature extends, for example, to the type of database (e.g. Oracle, IBM DB2, Microsoft SQL Server or Object Databases) and the structure, schema, and nature of the databases (i.e. type of data fields in various tables of the constituent databases).

'006 patent Prosecution History, Applicant's Amendments and Remarks of Oct. 30, 2003, at 19 (emphasis in original).

The district court determined that this statement was a "clear" and "unmistakable" definition of "disparate databases." Initial Order at \*5. In its Clarification Order, the district court ruled that this statement limits disparate databases to ones that have an absence of compatible keys; *and* an absence of record ID columns of similar value; *and* an absence of record ID columns of similar format in the schemas.

On appeal, VSi asserts that the applicant in this statement was not defining "disparate databases," and was instead listing examples of "disparate databases." Additionally, VSi claims that the applicant did not rely on the statement in the prosecution history to distinguish the prior art. VSi further argues that even were this statement definitional, the district court misconstrued it: the prosecution history only meant that two databases were disparate if they had an absence of compatible keys; *or* an absence of record ID columns of similar value; *or* an absence of record ID columns of similar format. Finally, VSi argues that it certainly is not "clear" that the applicant intended to define "disparate databases" in the way the district court construed it.

Defendants respond that the above statement was definitional and the applicant relied on this definition in distinguishing the prior art. They further argue that the interpretation of the prosecution history adopted in the

district court's Clarification Order is, in the context of the prosecution history, the only reasonable one. Finally, defendants argue that, because "disparate databases" has no plain and ordinary meaning, the prosecution history does not need to be clear in order to be limiting.

We are not persuaded by VSi's argument. First, we disagree with VSi's position that the statement in the prosecution history was not definitional. There, applicant stated that the disparate nature "refers to" an absence of common keys or record ID columns of similar value or format. An applicant's use of the phrase "refers to" generally indicates an intention to define a term. *See, e.g., In re Imes*, 778 F.3d 1250, 1252–53 (Fed. Cir. 2015); *Microsoft Corp. v. Int'l Trade Comm'n*, 731 F.3d 1354, 1360 (Fed. Cir. 2013); *Linear Tech. Corp. v. Int'l Trade Comm'n*, 566 F.3d 1049, 1054 (Fed. Cir. 2009). *Abbott Labs. v. Syntron Bioresearch, Inc.*, 334 F.3d 1343, 1354–55 (Fed. Cir. 2003), cited by VSi, is the exception that proves the rule. In *Abbott*, the specification provided "two alternative definitions" for a claim term, both of which were introduced by the word "refers." 334 F.3d at 1354. This court thus found that the specification could not have meant for both to be binding and, therefore, lacked the clarity necessary to overcome the plain and ordinary meaning of the term. *See id.* Here, by contrast, the prosecution history only provides one definition and this meaning does not conflict with the plain and ordinary meaning of the term.

Additionally, the prosecution history confirms that the applicant was defining "disparate databases" when he said "[t]he disparate nature of the above databases refers to an absence of compatible keys or record identifier (ID) columns of similar value or format . . ." as he later relied on this definition in distinguishing the prior art. The Examiner originally rejected the pending claims over U.S. Patent No. 6,516,324 ("Jones"). In response, the applicant amended all the independent claims to recite "disparate

databases.” ’006 patent Prosecution History, Amendments and Remarks of Oct. 30, 2003, at 2–17. In the associated remarks, the applicant set out three sections: “A. Applicant’s Invention”; “B. Jones et al.”; and “C. Applicant’s Claimed Invention Is Not Obvious Over Jones et al.” *Id.* at 19–21. In section A, the applicant noted that the “disparate nature” of the claimed invention “refers to an absence of compatible keys” etc. *Id.* at 19. He further noted that “[i]n embodiments of Applicant’s invention, such a common key value is not necessary.” *Id.* (emphasis in original). Then, in section B, he explained that Jones “rel[ie]d on common keys.” *Id.* at 20. Finally, in section C, the applicant explained that Jones “does not disclose, teach, or suggest embodiments of Applicant’s invention” because Jones does not disclose “accessing a plurality of disparate digital databases (see A and B above).” *Id.* at 21. Taken in its entirety, the prosecution history is clear that the applicant was relying on the provided definition of “disparate databases,” which required an absence of, *inter alia*, common keys, and distinguished his invention over Jones based on Jones’s reliance on common keys. Though it is true that the applicant distinguished Jones on other grounds as well, this does not prevent us from using this particular distinction over Jones to construe the phrase “disparate databases.” *See Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1374 (Fed. Cir. 2007). Thus, we conclude that the district court properly found that the statement in the prosecution history was definitional.

We also reject VSi’s claim that the district court misconstrued the prosecution history. The statement in the prosecution history that “disparate databases” refers to an absence of compatible keys or record ID columns of similar value or format can, theoretically, be interpreted in two ways: that the absence of any one of these characteristics makes databases disparate (the “disjunctive interpretation”) or that only the absence of all of these

characteristics makes them disparate (the “conjunctive interpretation”). We conclude that the manner in which the applicant distinguished Jones dictates the conjunctive interpretation. After noting that “[i]n embodiments of Applicant’s invention . . . a common key value is not necessary,” the applicant explained that the databases accessed by Jones relied on common keys. The applicant said nothing about the databases in Jones lacking record ID columns of similar value or format. The context indicates that the applicant was distinguishing Jones based on the fact that Jones utilized common keys, whereas the claimed invention does not. This indicates that the presence of common keys, alone, sufficed to make the databases in Jones distinguishable from the claimed “disparate databases.” This is only consistent with the conjunctive interpretation. According to the disjunctive interpretation, the presence of common keys, alone, would not necessarily preclude two databases from being disparate: they could still be disparate so long as they lacked record ID columns of similar value or format.

The conjunctive interpretation is also consistent with proper grammar, where the phrase “not A, B, *or* C” means ‘not A, not B, *and* not c.’” A. Scalia & B. Garner, *Reading Law: The Interpretation of Legal Texts* 119 (2012) (citing DeMorgan’s theorem). Thus, proper grammar supports the district court’s conclusion that disparate databases—which, as explained in the prosecution history, means an “absence of [A] compatible keys or [B] record identifier (ID) columns of similar value or [C] format”—should be understood as [A] an absence of compatible keys; and [B] an absence of record ID columns of similar value; and [C] an absence of record ID columns of similar format.

Taken on its own, the applicant’s statement that “[t]his disparate nature extends, for example, to the type of database (e.g. Oracle, IBM DB2, Microsoft SQL Server or Object Databases) and the structure, schema, and nature of the database . . .” might be read to suggest that

two databases can be disparate based solely on the vendor of the database. But those are only cited as examples and follow the preceding sentences, which make abundantly clear that it is the absence of compatible keys etc., not any particular difference among the databases of different manufacturers, that is essential. Such a reading also conflicts with the applicant's statement during reexamination that "the type of protocol used to connect to one or more databases does not imply anything about the disparateness of those databases." Reexam Control No. 95/000,698, Patent Owner's Response of Feb. 11, 2013, at 32. Finally, it conflicts with the testimony of Dr. Cárdenas, VSi's expert, that the "key point" of the invention is joining disparate databases that are not only disparate "because the manufacturers are different," but also because the data values and data type are different. J.A. 2970.

For these reasons, we affirm the district court's construction of "disparate databases" and its entry of the stipulated judgment of non-infringement predicated thereon.

## 2. "Incompatible Databases of Different Types"

The term "incompatible databases of different types" is found only in the claims of the '268 patent, which were asserted only against MicroStrategy. The district court ruled that VSi was estopped from arguing that "incompatible databases of different types" should be construed differently than "disparate databases" because it had prevailed in the Initial Order in its argument that the two terms should be construed to be the same. Clarification Order at \*1 n.3.

VSi argues that the requirements for judicial estoppel are not met here. MicroStrategy disputes this, but argues that, in any event, the intrinsic evidence shows that "disparate databases" has the same meaning as "incompatible databases." MicroStrategy further claims that VSi

waived any argument that “incompatible databases” is not synonymous with “disparate databases” because VSi never articulated a proposed construction of “incompatible databases” that might differ from any construction of “disparate databases.”

We find no basis to disturb the district court’s ruling. At the district court, VSi consistently argued that “disparate databases” meant “incompatible databases.” It never offered an independent construction of “incompatible” and it contended that “incompatible databases” needed no construction, despite the fact that it left unresolved the same question presented by the disparate database limitation: how incompatible? The record is devoid of any suggestion by VSi that if the district court ruled that the “disparate database” term was limited by the prosecution history’s definition, the term “incompatible databases” is not similarly limited. Even on appeal, VSi admits that “the specification, at times, uses ‘incompatible’ as a substitute for ‘disparate.’” Reply Br. at 23; *see also id.* at 21 n.6 (noting that its evidence “applies equally to all parties’ constructions” of “disparate databases”). Accordingly, while more properly characterized as waiver, we affirm the district court’s treatment of “incompatible databases” as being subject to the same construction as “disparate databases.”

### C. Summary Judgment of Invalidity

#### 1. Written Description

The district court granted summary judgment that the claims of the ’864 patent that VSi asserted against TIBCO were invalid for lack of written description support. *TIBCO* at 27. It held that there was no question of material fact that the written description would not convey to one of skill in the art that VSi had possession of a means of accessing “disparate databases” at the time of

filing.<sup>3</sup> Though VSi's expert, Dr. Cárdenas, opined that the specification contains written description support, the district court dismissed his opinion as "conclusory." *Id.* at 26.

VSi contends that a genuine issue of material fact does exist. It notes that both the specification and originally filed claim 11 describe accessing "incompatible databases," which, VSi claims, is equivalent to disparate databases. Relying on its expert, Dr. Cárdenas, VSi further claims that the specification teaches how to implement a system that can access disparate databases. TIBCO responds that the specification describes a result, but does not show how to achieve the result. Accordingly, TIBCO claims, the specification does not show that the inventor had possession of the ability to access "disparate databases." TIBCO further claims that Figures 1–22 in the '006 patent are screenshots from software that the inventor admitted could not access data from disparate databases. Finally, TIBCO claims that the district court

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<sup>3</sup> VSi also notes that, in the district court's separate discussion of enablement, it stated that "VSi has raised at least a material question of fact as to whether the written description of the 'disparate databases' limitations are sufficient." *TIBCO* at 27 (internal brackets omitted). We do not ascribe any weight to this statement and consider it a scrivener's error. It is inconsistent with the thrust of the district court's discussion of written description. *See id.* at 25–27; *id.* at 25 ("There is no question of material fact as to whether the written description of the databases features would reasonably convey to those skilled in the art that [the applicant] had possession of that aspect as of the filing date of the provisional application. TIBCO's motion for summary judgment on this issue must, therefore, be granted.").

properly dismissed the testimony of Dr. Cárdenas as conclusory.

A specification must “contain a written description of the invention.” 35 U.S.C. § 112 ¶1 (2006).<sup>4</sup> The test for the sufficiency of the written description “is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The written description requirement is not met if the specification merely describes a “desired result.” *Id.* at 1349. “Whether a patent claim is supported by an adequate written description is a question of fact.” *AbbVie Deutschland GmbH & Co., KG v. Janssen Biotech, Inc.*, 759 F.3d 1285, 1297 (Fed. Cir. 2014) (citing *Ariad*, 598 F.3d at 1355). A party must prove invalidity for lack of written description by clear and convincing evidence. *See Laryngeal Mask Co. Ltd. v. Ambu*, 618 F.3d 1367, 1373–74 (Fed. Cir. 2010).

We conclude that, drawing all reasonable inferences in favor of VSi as the non-movant, there are genuine issues of material fact regarding whether the specification shows possession of the claimed invention. The specification of the patents-in-suit describes dynamically “accessing a plurality of *incompatible* source *databases*,” ’006 patent col.2 ll.40–42 (emphasis added), and in originally filed claim 11 recited accessing “databases [that] are incompatible.” The fact that these portions of the specification do not speak *in haec verba* of accessing “disparate

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<sup>4</sup> Paragraph 1 of 35 U.S.C. § 112 was replaced with newly designated § 112(a) when § 4(c) of the America Invents Act, Pub. L. No. 112-29 (“AIA”), took effect on September 16, 2012. Because the applications resulting in the ’864 patent were filed before that date, this opinion refers to the pre-AIA version of § 112.

databases” does not eliminate as a genuine issue of material fact the existence of at least some discussion, and, therefore, possession, of the accessing of disparate databases, as claimed. *See Koito Mfg. Co., Ltd. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1154 (Fed. Cir. 2004).

The more telling question is whether the specification shows possession by the inventor of how accessing disparate databases is achieved. The fact that the inventor admitted that the screenshots shown in Figures 1–22 of the ’006 patent were screenshots from software that could not access “disparate databases *simultaneously*” does not answer the question because the asserted claims do not require that the databases be accessed simultaneously. Contrary to the district court, however, we do find the testimony of Dr. Cárdenas to at least raise a genuine issue of material fact on whether the specification shows how to achieve the functionality of accessing disparate databases. Dr. Cárdenas opined that the specification explains that serialized files can be used to correlate parameters from two databases. *See* J.A. 4246–56 (discussing ’006 patent col.7 l.41–col.8 l.25). He further opined that those correlation parameters can be used to identify data in one database that is correlated to data in another. *See id.* According to Dr. Cárdenas, the correlated data could be displayed together. *Id.* He thus concluded that the specification shows that the patentee had possession of the claimed inventions. *See id.* While both the district court and TIBCO question the sufficiency of Dr. Cárdenas’s opinion, we find that his opinion is more than merely conclusory, as it points to specific portions of the ’006 patent as showing how to access disparate databases. Dr. Cárdenas’s opinion, which was not challenged by any contrary expert testimony, at least raises a genuine issue of material fact regarding whether the patents-in-suit disclose how to access disparate databases. *Cf. Provenz v. Miller*, 102 F.3d 1478, 1490 (9th Cir. 1996) (“As a general rule, summary judgment is inappropriate

where an expert’s testimony supports the non-moving party’s case.” (quoting cases)). Accordingly, we reverse the district court’s determination of summary judgment that the claims asserted against TIBCO are invalid for lack of written description support.

## 2. Enablement

The district court ruled that the patents-in-suit do not enable accessing “disparate databases.” *MicroStrategy* at 19.<sup>5</sup> The district court relied on the following facts: at the time of filing the inventor did not have a working example of the “disparate databases” feature; it took the inventor three calendar years from the time of filing to build a functioning embodiment of the invention; the specification shows screenshots from the Jasmine software, and the inventor was unable to practice the claimed invention on that software; the specification lacks a working example; the problem solved by the patent had confounded inventors for 20 years; others had failed to practice the alleged invention; and the claim scope was broad. *Id.* at 15–19. Of all the factors, the district court focused most on the time it took the inventor to reduce the invention to practice. *See, e.g., id.* at 16 (“This extended period of experimentation weighs heavily in favor of a finding of invalidity.”). The district court did acknowledge that the relative skill in the art and the predictability of the art were high, *id.* at 18, but found that other factors provided clear and convincing evidence that the claims were not enabled.

VSi argues that many of the district court’s factual findings are genuinely disputed. Defendants, on the other hand, contend that the district court’s findings were either conceded or are beyond reasonable dispute.

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<sup>5</sup> For the sake of brevity, parallel citations to the *TIBCO* opinion are omitted.

A specification must “enable” a person of skill in the art to make and use the claimed invention. 35 U.S.C. § 112 ¶1 (2006). Enablement is a legal question based on underlying factual determinations. See *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1355 (Fed. Cir. 2012). A claim is sufficiently enabled even if “a considerable amount of experimentation” is necessary, so long as the experimentation “is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed.” *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). On the other hand, if “undue experimentation” is needed, the claims are invalid. *Id.* In determining whether experimentation is undue, *Wands* lists a number of factors to consider: “They include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.” *Id.* (citing *Ex parte Forman*, 230 U.S.P.Q. 546, 547 (B.P.A.I. 1986)). A party must prove invalidity for lack of enablement by clear and convincing evidence. See *MagSil Corp. v. Hitachi Global Storage Techs., Inc.*, 687 F.3d 1377, 1380 (Fed. Cir. 2012).

We conclude that there are genuine issues of material fact relating to several of the *Wands* factors, which, taken together, preclude summary judgment of non-enablement. First, we find that the effort it took the inventor to reduce the invention to practice does not conclusively show a lack of enablement. The inventor testified that he developed a “commercial-grade software product.” J.A. 2559. “Title 35 does not require that a patent disclosure enable one of ordinary skill in the art to make and use a perfected, commercially viable embodiment,” *CFMT, Inc. v. YieldUp Int’l Corp.*, 349 F.3d 1333, 1338 (Fed. Cir. 2003), so the

time it took to make a commercial-grade embodiment is not, itself, determinative of non-enablement. VSi claims that the inventor could have developed a functional prototype with far less experimentation. This is buttressed by Dr. Cárdenas' opinion that the inventor's one man-year experimentation was not undue. And, as with written description, neither defendant provided contrary expert testimony.

Second, drawing all reasonable inferences in favor of VSi, we find that there is a genuine issue of material fact whether the '006 patent specification provides a reasonable amount of guidance. Crediting Dr. Cárdenas' testimony, discussed above at 19–20, the '006 specification shows how to access disparate databases using correlation parameters. Nonetheless, the district court found that the '006 patent “teaches away” from a working embodiment because the specification describes a preferred database as “an object database, such as Jasmine,” '006 patent col.6 l.32, but the inventor “could not implement the invention using that particular database.” *MicroStrategy* at 17. The inventor, however, explained that his problems getting the claimed functionality to work stemmed from a different product, Jasmine ii, which is never mentioned in the specification. Drawing all reasonable inferences in favor of VSi, there is a genuine issue of material fact whether the Jasmine software could be used to make a working embodiment.

The district court addressed other *Wands* factors as well, finding some in favor of enablement and some against, but concluding that overall the *Wands* factors weigh heavily in favor of invalidity. While the question may be close, the existence of at least the above-noted genuine issues of material facts is sufficient to defeat summary judgment of invalidity. Accordingly, we reverse the district court's grants of summary judgment that the asserted claims are invalid for lack of enablement.

### III. CONCLUSION

For the foregoing reasons, we affirm the district court's claim construction and judgment of non-infringement but reverse the district court's grants of summary judgments of invalidity and remand.

**AFFIRMED-IN-PART, REVERSED-IN-PART AND  
REMANDED**

### IV. COSTS

Each party shall bear its own costs.