IN THE UNITED STATES PATENT TRIAL AND APPEAL BOARD

In re *Post-Grant Review* of:	)	
	)	
U.S. Patent No. 6,553,350	)	U.S. Class: 705/20
	)	
Issued: April 22, 2003	)	Group Art Unit: 3628
	)	
Inventor: Thomas J. CARTER	)	Confirmation No. 5578
	)	
Application No. 09/253,427	)	Petition filed: September 16, 2012
	)	
Filed: February 19, 1999	)	
	)	FILED ELECTRONICALLY
For: METHOD AND APPARATUS FOR PRICING PRODUCTS IN MULTI-LEVEL PRODUCT AND ORGANIZATIONAL GROUPS	)	PER 37 C.F.R. § 42.6(b)(1)

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PETITION FOR POST-GRANT REVIEW UNDER 35 U.S.C. § 321 AND § 18 OF THE LEAHY-SMITH AMERICA INVENTS ACT

Pursuant to 35 U.S.C. § 321 and § 18 of the Leahy-Smith America Invents Act ("AIA)" and pursuant to 37 C.F.R. § 42.300 *et seq.*, the undersigned hereby requests post-grant review of claims 17 and 26-29 of U.S. Patent No. 6,553,350 ("the '350 patent," attached as Petition Exhibit 1001), which issued to Thomas J. CARTER on April 22, 2003.

An electronic payment in the amount of $35,800.00 for the post-grant review fee specified by 37 C.F.R. § 42.15(b)(1) is being paid at the time of filing this petition, charged to deposit account no. 06-0916.

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

FEDERAL CASES

FEDERAL STATUTES

REGULATIONS

OTHER AUTHORITIES

LIST OF EXHIBITS

Petition Exhibit 1001:	U.S. Patent No. 6,553,350
Petition Exhibit 1002:	Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention, 77 Fed. Reg. 157 (August 14, 2012)
Petition Exhibit 1003:	United States Patent and Trademark Office - Classification Definitions, Class 705
Petition Exhibit 1004:	A Guide to the *Legislative History of the America Invents Act; Part II of II*, 21 Fed. Cir. Bar J. No. 4
Petition Exhibit 1005:	Declaration of Dr. Michael Siegel
Petition Exhibit 1006:	Versata Complaint for Patent Infringement against SAP, filed April 20, 2007, *Versata v. SAP* Litigation, 07-cv-00153
Petition Exhibit 1007:	Excerpt of Trial Transcript Before the Honorable Chad Everingham United States Magistrate Judge, *Versata v. SAP* Litigation, 07-cv-00153 (24:13-15-Versata's Opening Statement)
Petition Exhibit 1008:	Declaration of Jodi Gregory on Public Accessibility of R/3 Reference Materials
Petition Exhibit 1009:	Declaration of Karin Fischer on Public Accessibility of Documents Referencing the R/3 System
Petition Exhibit 1010:	Trial Transcript Before the Honorable Chad Everingham United States Magistrate Judge, *Versata v. SAP* Litigation, 07-cv-00153 (Carter Testimony)
Petition Exhibit 1011:	Versata Opening Brief, Federal Circuit Appeals 2012-1029, -1049

Petition Exhibit 1012:	Memorandum Opinion and Order Regarding Claim Construction, *Versata v. SAP* Litigation, 07-cv-00153
Petition Exhibit 1013:	SAP History, 1972-1981: the Early Years
Petition Exhibit 1014:	SAP History, 1982-1991: the SAP R/2 Era
Petition Exhibit 1015:	SAP History, 1992-2001: the SAP R/3 Era
Petition Exhibit 1016:	SAP History, 2002-Present: Real-Time Data Where and When You Need It
Petition Exhibit 1017:	R/3 2.2A and 2.2B Online Documentation
Petition Exhibit 1018:	Trial Transcript Before the Honorable Chad Everingham United States Magistrate Judge, *Versata v. SAP* Litigation, 07-cv-00153 (Nettles Testimony)
Petition Exhibit 1019:	Joint Claim Construction and Prehearing Statement from *Versata v. SAP* Litigation, 07-cv-00153
Petition Exhibit 1020:	Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. R *Versata v. SAP* Litigation, 07-cv-00153 eg. 157 (August 14, 2012)
Petition Exhibit 1021:	Office Patent Trial Practice Guide, 77 Fed. Reg. 157 (August 14, 2012)

I. PRELIMINARY STATEMENT

The ’350 patent relates to determining a price for a product using hierarchies of customers (“purchasing organizations”) and products. The patent admits that pricing based on customer and product data was not new, explaining that prior art pricing systems including SAP’s R/3 system used large databases to calculate prices based on price adjustments for customers and products. But rather than organize customer and product data in tables like the prior art, the inventor of the ’350 patent reorganized pricing data using the ubiquitous customer and product hierarchies used by large companies. The inventor also “abstracted” the pricing numbers to create “denormalized” numbers, whose units are determined at runtime. According to the patent, the rearrangement of pricing data into hierarchies and these abstracted numbers provided significant benefits over prior art systems like R/3.

Versata sued SAP in 2007, alleging that a later version of SAP’s software infringed claims 26, 28, and 29 of the ’350 patent, among others. Although SAP’s accused software did not perform the claimed functions “out of the box,” Versata maintained that the ’350 claims cover software that can be modified to perform the infringing functions, as long as its source code is not changed. Under this broad interpretation of its claims, Versata accused SAP pricing functionality that was also present in SAP’s earlier pricing systems including R/3. For example, Versata

explained that determining the treatment of "denormalized" numbers "at runtime" covers any software that applies units and meaning entered before runtime into the software by a user, just as in SAP's prior art R/3. Given Versata's recent characterizations of the '350 claims and how they apply to SAP pricing functionality, it is apparent that SAP's R/3 was in fact anticipatory prior art that renders the claims unpatentable.

The '350 claims are unpatentable for the additional reason that they recite abstract ideas—arranging data in hierarchies and calculating prices using "abstracted" numbers—without adding anything more than routine, conventional features. By its own admission, the '350 patent may be implemented using any conventional database system or data source or computer or processing environment. Moreover, the invention could be performed manually, with a user performing the claimed functions using a pencil and paper.

In fact, several of the claimed functions are *only* described as being performed by a person. For example, the specification explains that the product and customer hierarchies are "arbitrary and determined by the user." The patent gives no hint of how a programmed computer could possibly perform the arbitrary arranging required by claim 26. And it is the user who "receives the price" once it is determined, not the computer software required by claims 28 and 29. The failure to explain at all how computer software would perform these functions and the

mixture of computer software with user-performed steps render these claims invalid under section 112.

Section 18 of the AIA was designed to address patents like the ’350 patent, those issued during the late 1990’s and early 2000’s. At that time, Congress has explained, the USPTO lacked examiners with expertise in business methods and faced a dearth of available prior art. After the Supreme Court explained in *Bilski v. Kappos* that patents issued during that time may be too abstract to be patentable, Congress took action, empowering the USPTO to review these patents on almost all validity grounds throughout the life of the patent. Congress explained that patents in class 705, like the ’350 patent, are the focus of section 18, defining “covered business method patent” to track the USPTO’s class 705 definition. And while “technological inventions” are excluded from the definition of covered business methods, patents like the ’350 patent that accomplish business processes using only known technology are not. The ’350 patent, with its myriad unpatentability issues and abstract subject matter, is ripe for review.

II. GROUNDS FOR STANDING

A. At Least One Challenged Claim is Unpatentable

As further detailed below, claims 17 and 26-29 of the ’350 Patent are invalid under one or more of 35 U.S.C. §§101, 112, 102, and 103. Thus, for the reasons set

forth below, it is "more likely than not that at least one of the claims of the '350 patent is unpatentable." 35 U.S.C. 324(a).

B. Claims 17 and 26-29 are Directed to a Covered Business Method

The AIA defines a covered business method ("CBM") patent as "a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service . . . ." AIA § 18(d)(1); *see also* 37 C.F.R. § 42.301. According to the USPTO, "patents subject to covered business method patent review are anticipated to be typically classifiable in Class 705." Exh. 1002, p. 48739.

The USPTO noted that the AIA's legislative history demonstrates that "financial product or service" should be "interpreted broadly," encompassing patents "claiming activities that are financial in nature, incidental to a financial activity or complementary to a financial activity." Exh. 1002, p. 48735. Moreover, the language "practice, administration, or management" is "intended to cover any ancillary activities related to a financial product or service, including . . . marketing, customer interfaces [and] management of data . . . ." Exh. 1004, p. 635-36. "The phrase 'method or corresponding apparatus' is intended to encompass, but not be limited to, any type of claim contained in a patent, including, method claims, system claims, apparatus claims . . . and set of instructions on storage media claims." *Id.* at p. 638.

The ’350 patent, classified in class 705 and reciting methods and apparatus “for determining a price of a product offered to a purchasing organization,” is plainly a CBM patent. *See*, *e.g.*, Exh. 1001, claims 17 and 29. Indeed, the ’350 patent claims subject matter contained in the very title of class 705, “Data Processing: Financial, Business Practice, Management, or *Cost/Price Determination,*” subclass 20, “Price look-up processing.” Exhibit 1003, pg. 705-1, 705-25 (emphasis added).

The patent specification further demonstrates that the ’350 patent is for a CBM. The patent manages information related to customers and products by grouping it in hierarchical arrangements for pricing purposes. Exh. 1001, Col. 3:24-49. Using these hierarchies, pricing adjustments are determined and applied to determine a final price at which a particular product or service can be sold to a particular customer. Exh. 1001, Col. 3:50-65.

Because the ’350 patent claims methods and corresponding apparatus for determining a product price, is classified in class 705, and relates to management of pricing data, it is a CBM patent subject to Section 18 review.

C. Claims 17 and 26-29 are Not Directed to a “Technological Invention”

The AIA excludes “patents for technological inventions” from the definition of CBM patents. AIA § 18(d)(2). To determine when a patent is for a technological invention, “the following will be considered on a case-by-case basis: whether the

claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution." 37 C.F.R. § 42.301. When this definition was first proposed by the USPTO, commentators asked the USPTO to revise the definition to clarify that a technological invention could meet one of these tests or the other, or to provide a wholly different test. *See, e.g.*, Exh. 1002, p. 48736-37. Citing the legislative history, which explained that the "'patents for technological inventions' exception only excludes patents whose novelty turns on a technological innovation over the prior art and are concerned with a technical problem which is solved by a technical solution," *id.* at p. 48735, the USPTO declined to change the definition, leaving the "and" and explaining that this definition is consistent with the AIA's legislative history and represents "the best policy choice." Exh. 1002, p. 48735-36. Thus, to qualify as a technological invention, a patent must have a novel, unobvious technological feature *and* a technical problem solved by a technical solution. Moreover, to institute a CBM post-grant review, a patent need only have *one* claim directed to a CBM, and not a technological invention, even if the patent includes additional claims. Exh. 1002, p. 48736. Because the claims of the '350 patent fail to recite a novel and unobvious technological feature *and* fail to recite a technical problem solved by a technical solution, the patent is not for a technological invention.

First, the ’350 patent does not recite a technological feature that is novel and unobvious over the prior art. The inventor did not claim to have invented customer and product hierarchies; instead, he leveraged the “ubiquitous customer and product hierarchies” already used by large companies to organize pricing information. Exh. 1011, p. 5. The inventor also admitted that computerized pricing systems using databases to retrieve price adjustments were not new. Exh. 1001, Col. 2:20-62. The patent also explains that no novel computer was invented. “The present invention may be implemented in any type of computer system or programming or processing environment.” Exh. 1001, Col. 5:55-58; *see also* Exh. 1005, ¶50.

According to the patent, a primary distinction over the prior art is the is the use of “denormalized” numbers[1] to represent price adjustments. Exh. 1005, ¶ 36. The patent explains that “denormalized” numbers are “abstracted” from prior art pricing numbers. Exh. 1005, ¶ 38. “[A]bstract business concepts and their implementation, whether in computers or otherwise,” are not included in the definition of “technological inventions.” Exh. 1004, pg. 634. Another alleged distinction over the prior art is the arrangement of customer and product data into hierarchies for pricing determinations. Exh. 1005, ¶¶ 31-33. Even if the patent’s arrangement of data were novel and unobvious, which patent owner admits is not

[1] The concept and claim requirement of denormalized numbers is discussed on pages 11-16 of this petition.

so, it is not a "technological" feature, as demonstrated by Congress's explanation that accomplishing a business process or method is not technological, whether or not that process or method is novel. *See*, *e.g.*, Exh. 1004, p. 634.

Some of the '350 claims recite a "computer readable storage media," or "a memory" coupled to "a processor," but Congress has explained that simply reciting technology like "software, memory, computer-readable storage medium, [or] databases" does not make a patent a technological invention. *Id.*, p. 635. Moreover, the '350 patent includes some claims lacking even these minimal computer-related recitations, such as claim 17, foreclosing any argument that these claims are "technological" and therefore not a CBM. To institute a CBM post-grant review, a patent need only have one claim directed to a CBM and not a technological invention. Exh. 1002, p. 48736.

Second, the '350 patent does not solve a technical problem using a technical solution. According to the patent, prior art systems required multiple updates and retrievals of pricing information due to the storage of pricing data in separate tables. Exh. 1005, ¶ 34. But even if this could be characterized as a "technical" problem, the '350 patent does not provide a "technical" solution. The patent does not claim any improvement in database or computer technology. Rather, the patent admits that its "data source" is nothing novel: "[A]lthough the invention is discussed in terms of a 'database,' the invention can be implemented using *any*

data source . . . .” Exh. 1001, col. 10:58-61 (emphasis added). References to known technology, including “databases,” do not make a patent a technological invention. Exh. 1004, p. 635. Instead, the patented solution is accomplished by reorganizing data and using “abstracted” numbers to price products. Exh. 1005, ¶ 33; 38.

Post-grant review is proper if at least one claim is directed to a CBM and not a technological invention. Because claim 17 and the other claims of the ’350 patent cover the business process of determining product prices, do not recite a technological feature that is novel and unobvious over the prior art, and do not solve a technical problem with a technical solution, the ’350 patent is not for a technological invention. CBM review is therefore appropriate for ’350 patent.

Moreover, the ’350 patent includes some claims lacking even these minimal computer-related recitations, such as claim 17, foreclosing any argument that these claims are “technological” and therefore not a CBM. To institute a CBM post-grant review, a patent need only have one claim directed to a CBM and not a technological invention. Exh. 1002, p. 48736.

D. Petitioner has Been Sued for Infringement of the ’350 Patent and is Not Estopped

Petitioner has been sued for infringement of claims 17 and 26-29 of the ’350 patent in *Versata Software, Inc. v. SAP America, Inc.*, No. 2:07-cv-153 (E.D. Tex). Exh. 1006. Petitioner is not estopped from challenging the claims on the grounds

identified in the petition. 37 C.F.R. 42.302(b). Petitioner has not been party to any other post-grant review of the challenged claims.

III. STATEMENT OF PRECISE RELIEF REQUESTED FOR EACH CLAIM CHALLENGED

A. Claims for which Review is Requested

Petitioner respectfully requests review under 35 U.S.C. § 321 and AIA § 18 of claims 17 and 26-29 of the ’350 patent, and the cancellation of these claims as unpatentable.

B. Statutory Grounds of Challenge

Petitioner requests that claims 17 and 26-29 be cancelled as unpatentable on the following grounds. The claim construction, reasons for unpatentability, and specific evidence supporting this request are detailed below.

Claim 17: Unpatentable under 35 U.S.C. § 101, 112, and 102.

Claim 26: Unpatentable under 35 U.S.C. § 101, 112, and 102.

Claim 27: Unpatentable under 35 U.S.C. § 101, 112, and 102.

Claim 28: Unpatentable under 35 U.S.C. § 101, 112, and 102.

Claim 29: Unpatentable under 35 U.S.C. § 101, 112, and 102.

C. Claim Construction

1. Broadest Reasonable Interpretation

In the instant proceeding, a claim in an unexpired patent is to be given its broadest reasonable construction in light of the specification in which it appears.

37 C.F.R. § 42.300(b); *see also In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984). Even in the situation where the patent claims have been previously construed by a district court using a different standard, the PTO is nevertheless required to apply the broadest reasonable interpretation (BRI) standard. *See* Exh. 1020, pg. 48697 (citing *In re NTP, Inc.*, 654 F.3d 1268, 1274 (Fed. Cir. 2011)). The '350 patent has not expired, and thus its claims, for the purposes of this proceeding, should be given their broadest reasonable interpretation.

Simple statement: Pursuant to the USPTO's final Office Patent Trial Practice Guide, a party may provide "a simple statement that the claim terms are to be given their broadest reasonable interpretation, as understood by one of ordinary skill in the art and consistent with the disclosure." Exh. 1021, pg. 48764. Petitioner so states for all terms as supplemented by the discussion below as to terms that may be of particular interest in this proceeding. The below constructions and the rationale therefore are supported by the declaration of Dr. Michael Siegel ("Exh. 1005"), at ¶¶ 97-103; *see also* ¶¶ 67-77.

Claim Term	**Broadest Reasonable Interpretation in View of the Specification**
"sorting the pricing information"	The term means that the pricing information is ordered.
"the pricing information that is less restrictive"	This term is insolubly ambiguous and indefinite. Therefore, for purposes of the prior art analysis, petitioner uses the district court's claim construction:

	"pricing information that is less specifically applicable to a product, a purchasing organization, an organizational group or a product group."
"pricing type(s)"	The term "pricing type" means "a class or category of pricing adjustments," where pricing adjustments means "a denormalized number that may affect the determined price."
"pricing information"	The term "pricing information" means: "any information relating to price other than an adjustment to price that is not a denormalized number."

2. Support for Petitioner's Broadest Reasonable Interpretation

sorting the pricing information: The BRI of "sorting the pricing information"[2] is that the pricing information is ordered. This is the plain meaning. *See* Exh. 1005, ¶ 98. Also, this is the construction urged by the patent owner at the district court and adopted by the court. Exh. 1012, pgs. 16-17. Moreover, claim 1 of the '350 patent specifically requires "sorting the *retrieved* pricing information" (emphasis added), while claim 17 (and thus claim 26) only require "sorting the pricing information." This is a deliberate and important distinction. *See* Exh. 1005, ¶ 98. The language of claim 1 requires that pricing information first be retrieved, and then sorted. The language of claim 17, on the other hand, requires only that the information be sorted (i.e., ordered)–it does not imply or require a temporal

[2] Petitioner notes that, as presented elsewhere, the phrase "the pricing information" is indefinite.

limitation forcing the sorting to occur after the retrieving. *See* Exh. 1005, ¶ 98. Thus, the sorting step could occur before the retrieving step. *See* Exh. 1005, ¶ 98. Accordingly, the BRI of "sorting the pricing information" is simply that the pricing information is ordered and this may happen either before or after the retrieving step. *See* Exh. 1005, ¶ 98

In addition, the patent owner's expert witness at trial, Dr. Nettles, made certain admissions that support petitioner's BRI for this term:

Q. Is there an affirmative act of sorting after retrieval according to pricing type, sir?
A. Well, it doesn't say by, so there doesn't -- well, when -- when there's only one item with a key, when you do sorting, then sorting doesn't actually change anything about your dataset.
So in this case, there's no change to the dataset, so there's no need for there to be an affirmative action. I'm not sure what I know, but I know what that means.

Exh. 1018, pp. 81-82. Dr. Nettles thus believed that there does not always need to be an "affirmative action" or change in the data set to fall within the definition of "sort."

the pricing information that is less restrictive: As discussed elsewhere in

this petition, the term "the pricing information that is less restrictive" is insolubly ambiguous and indefinite *See* Exh. 1005, ¶ 99. Therefore, for the below prior art analysis, petitioner uses the district court's claim construction: "pricing information that is less specifically applicable to a product, a purchasing organization, an organizational group or a product group." Exh. 1012 at 17-18.

pricing type(s): The BRI of "pricing type(s)" is "a class or category of pricing adjustments." *See* Exh. 1005, ¶ 100; *see also* Exh. 1001, Col. 19:44-45 ("the less restrictive pricing adjustments with the same Pricing Types are eliminated."). The parties agreed at the district court that pricing types means "a class or category of pricing adjustments." "Pricing adjustments" means "a denormalized number that may affect the determined price," which is consistent with the district court's claim construction. *See* Exh. 1012 at 7-10. Pricing adjustments are limited to denormalized numbers under the BRI standard because the patent owner limited its claims to denormalized numbers. *See* Exh. 1001, Col. 3:65-col.4:4. ("The combination of organizational groups and product groups hierarchies and the denormalized pricing table . . . result in some of the advantages of the present invention over the prior art pricing systems."); s*ee also id.* at Abstract; *id.* at Figs. 1, 2, and 5; *id.* at Col. 4:28-32; *id.* at Col. 8:37-col. 9:4; *id.* at Col. 10:45-66; *id.* at Col. 11:7-66; Exh. 1005, ¶ 101. According to the patent owner, the term "*denormalized numbers*" means nothing more than a user, at data

entry time, associating units with a number and specifying how the number is to be applied (e.g., a discount) and then, at runtime, a system simply using that information. *See* Exh. 1011. The patent owner's interpretation supported a jury verdict at trial under the district court's claim construction of "denormalized number," which follows:

14.	**"denormalized pricing adjustment"** **"denormalized number"**	'350 claims 7, 24	These terms mean a number, used as a price adjustment, that does not have fixed units and may assume a different meaning and different units depending on the pricing operation that is being performed; the specific units to be associated with the number, and how the number will be applied, are determined during "run time" – the time that the system uses the pricing adjustment data to determine the price of the product offered to the purchasing organization.

Exh. 1019 at App. A, p. 2. The patent owner interpreted that construction at both trial and at the Federal Circuit as "'[d]etermined at runtime' means that, at runtime, the computer determines the units connected with the number, and the number's application, by retrieving and interpreting the information previously associated with that number by the pricing administrator." Exh. 1011 at 37. The patent owner should be held to its interpretation, and the BRI of denormalized numbers should be at least this broad.

Further, the specification indicates that a "pricing adjustment" includes both performing a calculation on a preexisting number (e.g., increasing or decreasing) and overriding a preexisting number. *See* Exh. 1001, Col. 19, ll. 48-52 ("the various Pricing Types included in the sorted pricing adjustments are applied in the

user specified pricing sequence. Thus, the price of the user specified product is increased, decreased, and/or overridden until the final price is determined.").

pricing information: The BRI of "pricing information" is "any information relating to price other than an adjustment to price that is not a denormalized number." *See* Exh. 1001, col. 1, ll. 25-26; *id.* at col. 9, ll. 12-15; *id.* at cl. 8; *id.* at cl. 9; *see also* Exh. 1005, ¶ 103. The BRI of pricing information should include denormalized numbers, as discussed above. The district court interpreted this term the same way. *See* Exh. 1012 at 10-11.

IV. CLAIMS 17 and 26-29 OF THE '350 PATENT ARE UNPATENTABLE

A. Claims 17 and 26-29 are Invalid Under 35 U.S.C. § 101

Laws of nature, abstract ideas and natural phenomena cannot be patented. *Mayo v. Prometheus*, 132 S. Ct. 1289, 1293 (2012). When a patent claims abstract ideas, like the rearrangement of data and the price calculation at the heart of the '350 patent, it must add "significantly more" to be patent-eligible. *Id.* at 2-3; *Parker v. Flook*, 437 U.S. 584, 593-94 (1978). It is not sufficient to limit the claim to "a particular technological environment" or to add "insignificant post solution activity" or "well-understood, routine, conventional activity." *Bilski v. Kappos*, 130 S. Ct. 3218, 3230 (2010); *Mayo*, 132 S. Ct. at 1294. Instead, a claim involving an unpatentable concept must contain "other elements or a combination of elements, sometimes referred to as the 'inventive concept,'" sufficient to prevent

patenting the underlying concept itself. *Mayo*, 132 S. Ct. at 1294; *see also Flook*, 437 U.S. at 594. Another way a claim may recite "significantly more" than an abstract idea is to be "tied to a particular machine or apparatus" or "transform a particular article into a different state or thing." *Bilski v. Kappos*, 130 S. Ct. 3218, 3225-26, 3227 (2010). Under any of these analyses, the '350 claims fail to satisfy 35 U.S.C. § 101.

1. The '350 Patent Is Unpatentably Abstract

The '350 patent centers on two abstract ideas: the rearrangement of prior art pricing data into "completely arbitrary" hierarchies and the calculation of product prices using "abstracted" numbers. Exh. 1005, ¶¶ 44-45, 49. The Supreme Court has many times ruled that mathematical calculations, even if they are innovative, are unpatentable abstract ideas. *Gottschalk v. Benson*, 409 U.S. 63, 72 (1972); *Parker v. Flook*, 437 U.S. 584, 587-86 (1978). And arranging or collecting data has likewise been found unpatentably abstract. *See, e.g.*, *CyberSource Corp. v. Retail Decisions*, 654 F.3d 1366, 1370 (Fed. Cir. 2011) (finding the "mere collection and organization of data" insufficient to satisfy § 101); *In re Grams*, 888 F.2d 835, 840 (Fed. Cir. 1989) (holding that "data-gathering" steps cannot make an otherwise nonstatutory claim statutory). Indeed, the U.S. District Court for the Northern District of California recently ruled that a patent for "pricing a product for sale" was invalid under section 101 because it claimed nothing more than "the

calculation of a demand curve based on consumer response to different price points," and was "as abstract as *Bilski*'s patent," containing no 'inventive concept' beyond the abstract idea of an elastic demand curve." *OIP Tech. v. Amazon.com, Inc.*, 2012 U.S. Dist. LEXIS 129396.

The '350 patent likewise claims only abstract ideas with nothing more than "well-understood, routine, conventional activity" added. *See Mayo*, 132 S. Ct. at 1294. The patent describes the abstract ideas as its primary improvements over the prior art. "First, products and organizations are categorized in different product and organizational groups. Second, the various product and organizational groups are associated with denormalized numbers whose interpretation is determined during run time." Exh. 1001, Col. 11:48-54. The patent claims do not add anything beyond routine, conventional activities to these unpatentable abstract concepts. Exh. 1005, ¶ 44-49. Steps that "merely determine values for the variables used in the mathematical formulae used in making calculations . . . do not suffice to render the claimed methods . . . statutory subject matter." *In re Grams*, 888 F.2d at 840.

The abstract nature of the '350 patent is confirmed by the fact that the claimed data arrangement and pricing determinations, such as those recited in claim 17, can be performed manually. Exh. 1005, ¶¶ 45. This demonstrates the claims' invalidity because methods which can be performed "in the human mind, or by a human using a pencil and paper" are unpatentable abstract ideas.

CyberSource, 654 F.3d at 1372. The patent describes steps performed by a user at length, not any computer system or software. For example, the customer hierarchy is "specified by a user" and is depicted in a pencil drawing. Exh. 1001, Fig. 4A, Col. 6:17-54. This grouping is "wholly arbitrary and determined by the user." Exh. 1001, Col. 6:32-34. Likewise, the product grouping is "entirely arbitrary and determined by the user." Exh. 1001, Col. 7:64-67. In the "execution flow of the present invention" shown in Figs. 15A-15C, several steps are explicitly performed *by the user* and there is no reason the other steps could not also be performed by a person using pencil and paper. For example, steps 1512 and 1516 "do a database query" but the patent specifically explains that the claimed "data source" could be a database or *any other data source*, such as the printed tables shown in the patent figures. Exh. 1001, Figs. 15A-15C; Figs. 4A-B;. Because the claimed invention could be performed manually, it is unpatentably abstract.

The fact that the '350 patent claims may involve "any conventional or general purpose computer system," (Exh. 1001, Col. 5:8-9), does not change this result. Using a computer "for no more than its most basic function—making calculations or computations—fails to circumvent the prohibition against patenting abstract ideas and mental processes." *Bancorp Services v. Sun Life*, 687 F.3d 1266, 1278 (Fed. Cir. 2012). Instead, the computer must be "integral to the claimed invention, facilitating the process in a way that a person making calculations or

computations could not." *Id.* Nothing in the patent suggests that a computer is integral to the invention, so the claims are unpatentable abstract ideas.

2. The '350 Patent Does Not Satisfy The Machine-or-Transformation Test

The '350 patent is invalid under Section 101 for the additional reason that it is not tied to any particular machine and does not transform any article into a different state or thing. The patent itself stresses that the so-called invention may be implemented "in any type of computer system or programming or processing environment." Exh. 1001, Col. 5:56-68. And "although the invention is discussed in terms of a 'database,' the invention can be implemented using any data source that may be different from a conventional database." Exh. 1001, Col. 10:59-61. Nothing in the patent indicates that any particular machine or device is needed. Exh. 1005, ¶¶ 50-56. "To salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not. *Bancorp*, 687 F.3d at 1278. The minimal computer involvement found in the '350 patent has long been found insufficient to impart patent-eligibility. *See, e.g., Benson*, 409 U.S. at 67 (invalidating claims that "can be carried out in existing computers long in use, no new machinery being necessary," and that "can also be performed without a computer"); *Fort Properties v. American Master Lease*, 671 F.3d 1317, 1323

(Fed. Cir. 2012) (invalidating claims "using a computer" because the computer did not "play a significant part in permitting the claimed method to be performed").

Finally, the '350 patent also does not transform any article into a different state or thing. The claims merely describe arranging data and performing calculations to determine a price. Exh. 1005, ¶ 57-59. Reorganizing data and performing math are not patent-eligible transformations. *See, e.g., CyberSource*, 654 F.3d at 1375. Manipulating financial information also fails to satisfy the transformation prong of the machine-or-transformation test. *Bancorp*, 687 F.3d. at 1273.

Because the '350 patent is not tied to a particular machine and does not transform articles, and because it claims abstract ideas without adding significantly more, it is invalid under 35 U.S.C. § 101.

B. Claims 17 and 26-29 are Invalid under 35 U.S.C. § 112

35 U.S.C. § 112 requires that a patent convey with reasonable clarity to those skilled in the art that, as of the filing date sought, the applicant was in possession of the claimed invention. 35 U.S.C. §112, ¶ 1; M.P.E.P. 2163.02; *Ariad Pharms, Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). In order to show possession of the claimed invention, the applicant must describe the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed

invention. M.P.E.P. 2163.02; *see also Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997). As discussed below, however, the '350 patent includes claims that fail to meet this written description requirement.

35 U.S.C. § 112 also requires that patent claims "particularly point[] out and distinctly claim the subject matter which the applicant regards as his invention." 35 U.S.C. § 112, ¶ 2; M.P.E.P. 2173.02; *see also Datamize LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005). A claim is indefinite if it fails to "reasonably apprise those skilled in the art of its scope" using "language that adequately notifies the public" of the scope of patentee's right. M.P.E.P. 2173.02; s*ee also IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1383-84 (Fed. Cir. 2005). This occurs, for example, when a claim improperly mixes two statutory categories of invention. *See, e.g., IPXL,* 430 F.3d at 1384. This also occurs when a claim contains words or phrases whose meanings are unclear when read in light of the specification. *See Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1370 (Fed. Cir. 2006). As discussed below, several claims of the '350 patent fail to meet this definiteness requirement.

1. 35 U.S.C. § 112, First Paragraph

i. The Software Claims of the '350 Patent are not Supported by the Specification

Claims 26-29 require computer instructions that perform a number of functions. Exh. 1001, Claim 26 (reciting "computer instructions to implement the

method of claim 17"); Exh. 1001, Claim 27 (reciting "[a] computer implemented method"); Exh. 1001, Claim 28 (reciting "computer instructions to implement the method of claim 27"); Exh. 1001, Claim 29 (reciting "computer program instructions capable of"). The specification, however, fails to adequately describe these functions, so these claims fail to satisfy 35 U.S.C. § 112, ¶ 1. Indeed, the specification does not provide any detail as to how all of the claimed functions would be implemented in software.

Generally, a specification satisfies the "written description" requirement for software when it provides sufficient guidance as to the functions and tasks a program must perform. *See* M.P.E.P. 2163(I)(A). But the '350 patent specification fails to explain how the claimed software operates. Rather, the '350 patent specification focuses on what the user does. Exh. 1005, ¶¶ 62-64. (citing numerous claim elements performed by a user without any discussion of software). Indeed, each of claims 26-29 recites elements that the specification requires be performed by a user, not software.

For example, claim 26 requires that software perform the functions of "arranging a hierarchy of organizational groups" and "arranging a hierarchy of product groups." The specification, however, only discloses these features being performed by a user. Both customer and product hierarchies are "arbitrary and determined by the user." Exh. 1001, Col. 6:32-34, 7:64-67; *see* Exh. 1005, ¶ 45.

Nothing in the patent explains how a computer might arrange these hierarchies. Similarly, claims 27-29 require that software perform the function of "receiving the price of the product." The specification, however, only discloses a user receiving the price of the product. Exh. 1005, ¶ 45. Accordingly, the specification fails to provide sufficient guidance as to these functions and the tasks the software must perform, because it does not contain any disclosure of computer software performing these claim elements.

Indeed, when the specification describes the how the invention operates, it does not provide any detail as to how all of the claimed functions would be implemented in software. Exh. 1005, ¶¶ 62-64 (discussing Exh. 1001, Col. 9:44-47 and 50-53 disclosure of a process without any discussion of software and Exh. 1001, Col. 11:17-24 disclosing an "interpretation engine" without any detail about what it is or how it works.).

2. 35 U.S.C. § 112, Second Paragraph

i. The "less restrictive" Recitation of Claims 17 and 26 Render the Claims Indefinite

Claims 17 and 26 recite "eliminating any of the pricing information that is less restrictive," which renders the claims indefinite under 35 U.S.C. § 112, ¶ 2. One of ordinary skill in the art cannot consistently determine what pricing information should be considered "less restrictive" when reading these claims in light of the specification.

Plain meaning suggests that the phrase "less restrictive" refers to the order of information in "the hierarchy" because this understanding -- in limited circumstances -- allows a person of ordinary skill to determine "less restrictive" pricing information. Exh. 1005, ¶¶ 68. For example, for a *single* hierarchy where an entity exists at only *one* location in the hierarchy, one of skill in the art might understand that "less restrictive" pricing information is found higher in the hierarchy than pricing information at a lower level in the hierarchy. Exh. 1005, ¶¶ 69. The '350 patent, however, also covers situations where an entity exists at *more than one* location in a hierarchy. Exh. 1005, ¶¶ 70. Here, the order of pricing information in the hierarchy does not reveal what pricing information is "less restrictive" because (i) more than one discount may apply to a customer group for a customer, and (ii) both discounts may be the same level above the customer in the organizational group hierarchy. Exh. 1005, ¶¶ 71. The patent does not disclose or otherwise allow one of skill to determine what pricing information is "less restrictive." Exh. 1005, ¶¶ 72-77.

Accordingly, claims 17 and 26 are indefinite because they fail to "reasonably apprise those skilled in the art of its scope" using "language that adequately notifies the public" of the scope of patentee's right. Accordingly, these claims are invalid under 35 U.S.C. § 112, ¶ 2.

ii. The "pricing information" Recitation of Claims 17 and 26 Renders the Claims Indefinite

A claim is indefinite when it contains words or phrases whose meaning is unclear. M.P.E.P. 2173.05(e). Thus, when a claim uses an article such as "the" or "said," what follows the article should be an element that the claim previously recited. *Id.* Further, to avoid ambiguity, there should only be one antecedent basis for a claim element. *Id.* The presence of multiple antecedent bases hinders the ability to understand what the claim is covering. *Id.*

Claim 17 recites, in relevant part:

> storing **pricing information in a data source**, wherein the pricing information is associated, with (i) a pricing type, (ii) the organizational groups, and (iii) the product groups;
>
> retrieving applicable **pricing information corresponding to the product**, the purchasing organization, each product group above the product group in each branch of the hierarchy of product groups in which the product is a member, and each organizational group above the purchasing organization in each branch of the hierarchy of organizational groups in which the purchasing organization is a member;
>
> sorting **the pricing information** according to the pricing types, the product, the purchasing organization, the hierarchy of product groups, and the hierarchy of organizational groups;

eliminating any of **the pricing information** that is less restrictive; and determining the product price using the sorted pricing information.

(Emphasis added.)

Claim 26 also includes these recitations by virtue of its dependence from claim 17.

As indicated above, claim 17 therefore defines two types of pricing information: "pricing information in a data source" and "pricing information corresponding to the product." The claim's "sorting" and "eliminating" elements, however, recite "the pricing information" without distinguishing between the two types of "pricing information."

Therefore, the phrases "sorting the pricing information…" and "eliminating any of the pricing information that is less restrictive…" are indefinite because it is unclear which "pricing information" serves as the antecedent basis for the "the pricing information" recitation of those phrases. As a result, claims 17 and 26 are indefinite and invalid under 35 U.S.C. § 112, ¶ 2.

iii. Claims 26 and 28 Improperly Mix Two Statutory Classes

Claim 26 and 28 are indefinite because the claims mix two statutory categories of invention - an article of manufacture and a method - in a manner that violates 35 U.S.C. § 112, ¶ 2. Specifically, claims 26 and 28 claim a computer readable storage medium that stores instructions for performing a method that

requires a *user* to perform certain elements. Thus, claims 26 and 28 violate 35 U.S.C. § 112, ¶ 2, at least because the claims do not reveal whether infringement occurs (i) upon creation of the claimed "computer readable storage media" or (ii) when the user performs certain recited steps.

Claim 26 recites "[a] computer readable storage media comprising: computer instructions to implement the method of claim 17," which recites:

> arranging a hierarchy of organizational groups comprising a plurality of branches such that an organization group below a higher organizational group in each of the branches is a subset of the higher organizational group; [and]
>
> arranging a hierarchy of product groups comprising a plurality of branches such that a product group below a higher product group in each of the branches in a subset of the higher product group.

No machine embodiment of the claimed invention, however, performs these method steps. Instead, a *user* arranges the hierarchies. *See, e.g.*, Exh. 1001, Col. 6:17-39, Col. 7:50-Col. 8:2, Col. 12:4-17, Col. 13:19-51; Exh. 1007, p. 24:13-15; *see also* Exh. 1005, ¶¶ 84. By depending from claim 17, the "computer readable storage medium" of claim 26 recites at least two user-performed steps, making it impossible to determine when the mixed subject matter

would be infringed or who the infringer would be. The claim is therefore invalid for improperly mixing statutory classes. *IPXL*, 430 F.3d at 1384.

Similarly, claim 28 recites "A computer readable storage media comprising: computer instructions to implement the method of claim 27," which recites:

> receiving the price of the product determined using pricing information applicable to the one or more identified organizational groups and the one or more identified groups according to the hierarchy of product groups and the hierarchy of organizational groups.

No machine embodiment of the claimed invention, however, *receives* the determined product price. Instead, the "invention" determines the product price and only a *user* receives it. *See, e.g.*, Exh. 1001, Col. 3:9-13, Col. 16:1-3, and Figure 15C, element 1524; *see also* Exh. 1005, ¶¶ 84. By depending from claim 27, the "computer readable storage medium" of claim 28 therefore recites a user-performed step, making it impossible to determine when the mixed subject matter would be infringed or who would infringe. The claim is therefore invalid or improperly mixing statutory categories. *IPXL*, 430 F.3d at 1384.

Accordingly, claims 26 and 28 are invalid because they violate 35 U.S.C. § 112 ¶ 2.

C. Claims 17 and 26-29 are Invalid under 35 U.S.C. § 102

1. The R/3 2.2 SAP System[3]

For four decades, SAP has been and continues to be recognized as an innovation leader in enterprise software systems. In 1973, SAP completed its first financial accounting system, RF, which then served as the foundation for the development of other software modules of the system that would ultimately be called R/1. *See* SAP History, 1972-1981: the early years, *available at* http://www.sap.com/corporate-en/our-company/history/1972-1981.epx (Exh. 1013). In 1979, SAP began to replace R/1 with R/2, a mainframe-based business application software suite. *Id.* Then, in 1992, SAP launched R/3 and moved toward a multi-platform architecture for its enterprise software. *See* SAP History, 1992-2001: the SAP R/3 era, *available at* http://www.sap.com/corporate-en/our-company/history/1992-2001.epx (Exh. 1015). R/3 was both well-known and widely advertised to the world, as shown by the following advertisement from the April 15, 1994 issue of CIO magazine:

[3] Below, petitioner presents an anticipation case based on documentation describing an early version of one of SAP's products, R/3. The later version of this product was found to infringe the '350 patent at trial, and the sufficiency of evidence supporting this verdict is currently on appeal before the Federal Circuit. Given the different standards used by both the district court and the USPTO, and the positions advanced by Versata at the district court and on appeal, petitioner's positions are not inconsistent.

Solutions that work in harmony.

Integrating your information systems—and increasing productivity—isn't as easy as it sounds. Especially when individual departments use their own individual solutions. That's why it's time you heard about SAP's fully integrated software solutions.

Designed for both client/server and mainframe environments, SAP's R/3 and R/2 Systems bring all your key players together—finance, manufacturing, sales, even human resources. So when business-critical information in one department or location changes, other departments can be updated automatically. Without skipping a beat. That means synchronizing critical manufacturing changes with your cost control staff. Keeping customers attuned to exact delivery dates. And making sure the information to make all decisions quickly and intelligently is right at hand.

Want to find out more? Call SAP and hear how organizations are already using our integrated software solutions to improve their productivity. And that's music to anyone's ears. Just phone *1-800-USA-1SAP.*

SAP

Integrated software. Worldwide.™

Exh. 1008.

R/3 was quite successful. According to an April 24, 1995 article from InformationWeek, roughly 3,000 companies worldwide had already purchased R/3 by that time. Exh. 1008. More information on SAP's product history is provided at Siegel Dec., ¶¶ 94-96.

SAP released R/3 in several versions, one in particular is R/3 2.2C, which shipped in January 1995. *See* Declaration of Karen Fischer (Exh. 1009), ¶¶ 7-28. Every copy of the R/3 2.2C software sold included online documentation in the form of a CD ("R/3 documentation"). Exh. 1009, ¶ 28; *id.* at Attachments A-18, A-

19. The R/3 2.2C software, and its accompanying documentation, were publicly accessible and widely distributed before June 17, 1995. Exh. 1009, ¶¶ 7-28. As discussed below, the R/3 documentation therefore constitutes prior art under AIA § 18(a)(1)(C), which follows:

> (i) prior art that is described by section 102(a) [of title 35] (as in effect on the day before [March 16, 2013]); or
>
> (ii) prior art that—
>
> (I) discloses the invention more than 1 year before the date of the application for patent in the United States; and
>
> (II) would be described by section 102(a) of such title (as in effect on the day before the effective date set forth in section 3(n)(1)) if the disclosure had been made by another before the invention thereof by the applicant for patent.

The relevant version of 35 U.S.C. § 102(a) follows:

> A person shall be entitled to a patent unless - (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent.

The R/3 documentation constitutes prior art under both prongs (i) and (ii) of AIA subsection 18(a)(1)(C) because the R/3 documentation was publicly available both before the ’350 patent’s date of invention and before June 16, 1995, which is more than one year before the ’350 patent’s earliest priority date. Moreover, the R/3 documentation satisfies 102(a) in at least two ways because (1) it constitutes a printed publication and (2) it made the invention of claims 17 and 26-29 known to others in the United States.

2. Printed Publication

To qualify as a "printed publication," a reference does not literally need to be printed on paper—electronic documents can be "printed publications." *In re Wyer*, 655 F.2d 221, 227 (CCPA 1981). This includes documents that have an element of interactivity. *See CA, Inc. v. Simple.com, Inc.*, 2009 U.S. Dist. LEXIS 27092, at *25-49 (E.D.N.Y. Mar. 17, 2009) (holding that the "DHTML WindowMaker simulation web page" constituted a prior art printed publication). Accordingly, the fact that the R/3 documentation was available on a CD and required a user to click through linked text to peruse the documentation is fully consistent with it being a "printed publication." *See Wyer*, 655 F.2d at 227.

Public Accessibility: The Federal Circuit has held that "[i]n order to qualify as a printed publication within the meaning of § 102, a reference must have been sufficiently accessible to the public interested in the art." *In re Lister*, 583 F.3d 1307, 1311 (Fed. Cir. 2009) (internal quotations omitted). Public accessibility "is determined on a case-by-case basis based on the 'facts and circumstances surrounding the reference's disclosure to members of the public.'" *Id.* (quoting *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004)). In general, "[a] reference is considered publicly accessible if it was 'disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.'" *Id.* (quoting

Kyocera Wireless Corp. v. Int'l Trade Comm'n, 545 F.3d 1340, 1350 (Fed. Cir. 2008)).

In *Ex Parte ePlus, Inc.*, Decision on Appeal in Reexamination Control No. 90/008,104 at 14-18 (B.P.A.I. May 18, 2011) (non-precedential), the Board held that software manuals that contained confidentiality restrictions were nevertheless "printed publications" because there were no restrictions on who could originally purchase or receive the manuals. The Board found that "most software and the manuals that come with such software would contain restrictions on copying and further distribution, but that would not rise to the level of those items being considered confidential disclosures." *Id.* at 14.

The R/3 documentation was provided to every SAP customer that purchased or upgraded to R/3 2.2C, which became available in January 1995. *See* Exh. 1009, ¶¶ 7-28. Many U.S. customers purchased or upgraded to R/3 2.2 prior to June 16, 1995 and thus received a copy of the R/3 Documentation prior to the critical date of the '350 patent. *See* Exh. 1009, ¶¶ 7-28; *id.* at Attachments A-1 – A-17. While the R/3 documentation was provided to customers in two versions (Release 2.2A and Release 2.2B), the versions are substantively identical and both contain an anticipating disclosure, as described in more detail below.

Similar to the recent *ePlus* decision, there were no restrictions on who could purchase R/3 2.2C and therefore no restrictions on who could obtain the R/3

documentation. *See* Exh. 1009 ¶ 7; Exh. 1008. That there may have been restrictions on *further distribution* of the R/3 documentation, which is common to all copyrighted works, is of no moment. All who wanted the documentation were free to obtain it. Thus, the R/3 Documentation was publicly accessible because it was disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the art of computerized financial systems could locate it exercising reasonable diligence. *See Lister*, 583 F.3d at 1311. The R/3 Documentation therefore constitutes a prior art printed publication.

Enablement: In order to anticipate, "[a] printed publication must also be enabling." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1569 (Fed. Cir. 1988). "In order to enable, the prior art reference must teach one of ordinary skill in the art to make or carry out the claimed invention without undue experimentation." *3M v. Chemque, Inc.*, 303 F.3d 1294, 1306 (Fed. Cir. 2002).

A person of ordinary skill would have been able to practice the invention of claims 17 and 26-29 of the '350 patent based on the disclosure in the R/3 documentation without undue experimentation. Exh. 1005, ¶¶ 160-63. In particular, given the level of detail provided in the R/3 documentation, only routine programming skill would be necessary to implement a system that practiced the invention of claims 17 and 26-29. Exh. 1005, ¶¶ 160-63. For example, the R/3 documentation describes the functionality that the pricing system performs, the

step-by-step processing of the pricing system, the data structures used by the pricing system, and the interaction between the data structures used by the system. *See* SAP-00000001 – SAP-00029980. Thus, the R/3 documentation is enabling.

3. Known by Others in the United States

"For prior art to anticipate because it is 'known,' the knowledge must be publicly accessible." *3M*, 303 F.3d at 1306. "In addition, the disclosure must be sufficient to enable one with ordinary skill in the art to practice the invention." *Id.* As explained above, the knowledge available from the R/3 documentation was publicly accessible to customers in the United States before the critical date. Further, the knowledge available from the R/3 documentation was sufficient to enable a person of ordinary skill in the art of computerized financial systems to practice the invention of claims 17 and 26-29 without undue experimentation. Exh. 1005, ¶¶ 164-65. Thus, the R/3 documentation anticipates because it made the invention of claims 17 and 26-29 known by others in the United States before the critical date of the '350 patent.

4. Anticipation under 35 U.S.C. § 102

The R/3 Documentation describes an enterprise information system designed to manage and account for all of the resources, information, and activities of a business. The enterprise information system is described as a number of functional modules covering the typical functions in a business. These modules include

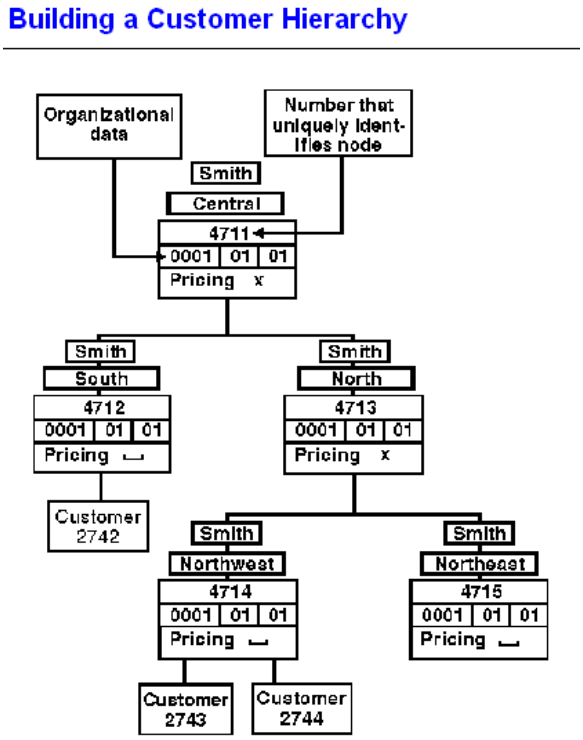
Financials and Controlling, Human Resources, Materials Management, Production Planning, and Sales and Distribution, among many others.

The R/3 Documentation's Disclosure of Pricing Functionality

The Sales and Distribution ("SD") module handles the tasks of order processing, order fulfillment, and billing. The SD module's tasks include determining the price at which a sales company will offer a product or service for sale to a customer and creating sales documents including orders and invoices. The price that a sales company offers to a customer for a particular product may depend on a number of factors, including the nature of the relationship between the sales company and the customer, the size of the order, time-limited special offers, packaging and freight charges, and taxes. To provide the necessary flexibility, the R/3 documentation describes a flexible and configurable technology, known as "the condition technique," which can be customized by the user to support any factors and considerations that the sales company chooses to use to determine a price.

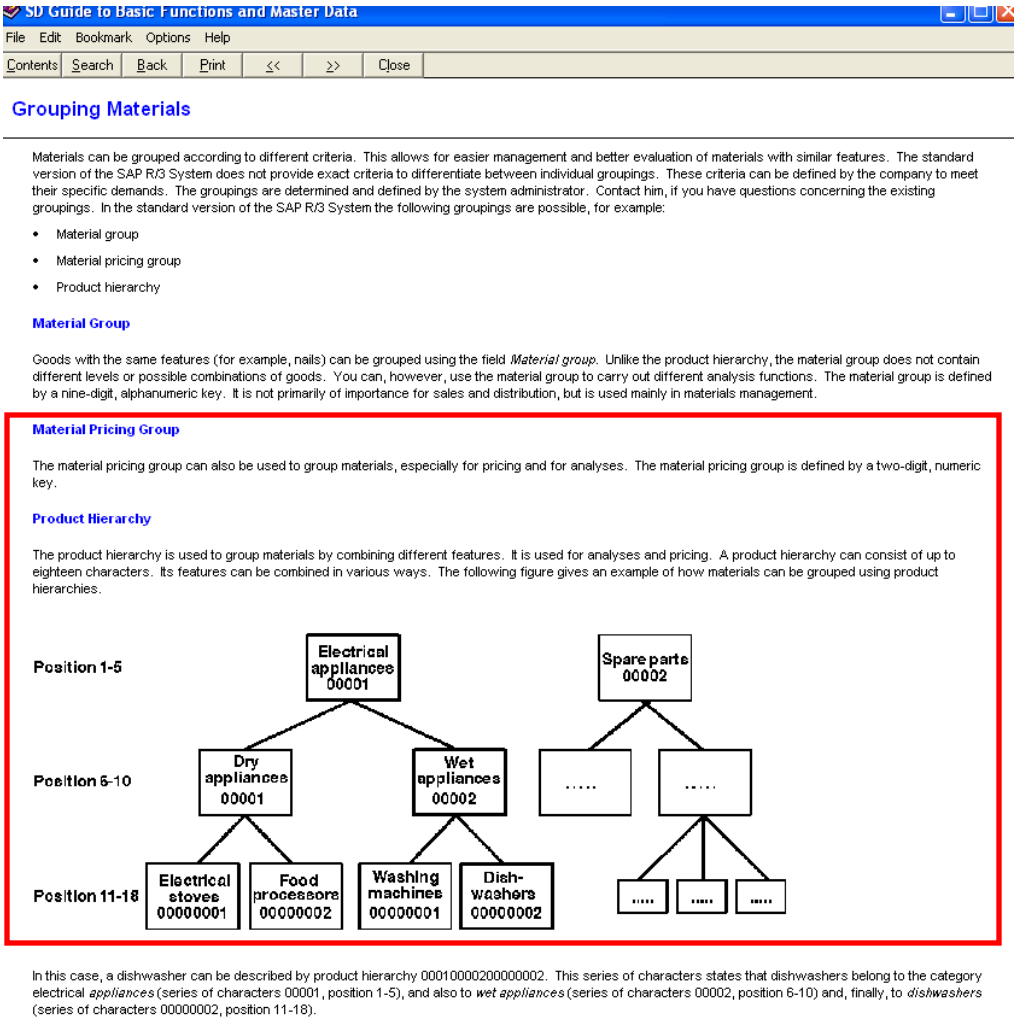
The SD module organizes both customer organizations and products into hierarchies so that users can treat groups of customers or groups of products in a uniform manner with respect to pricing (and other information management activities). Customers can be grouped by creating customer price groups and by

creating customer hierarchies as shown in the following excerpt from the R/3 documentation:



SAP-00029617; SAP-00013919.

Similarly, products can be organized into groups by assigning them to "material pricing groups" and by creating product hierarchies as shown in the following excerpt from the R/3 documentation:



SD Guide to Basic Functions and Master Data

File Edit Bookmark Options Help

Contents Search Back Print << >> Close

Grouping Materials

Materials can be grouped according to different criteria. This allows for easier management and better evaluation of materials with similar features. The standard version of the SAP R/3 System does not provide exact criteria to differentiate between individual groupings. These criteria can be defined by the company to meet their specific demands. The groupings are determined and defined by the system administrator. Contact him, if you have questions concerning the existing groupings. In the standard version of the SAP R/3 System the following groupings are possible, for example:

- Material group
- Material pricing group
- Product hierarchy

Material Group

Goods with the same features (for example, nails) can be grouped using the field *Material group*. Unlike the product hierarchy, the material group does not contain different levels or possible combinations of goods. You can, however, use the material group to carry out different analysis functions. The material group is defined by a nine-digit, alphanumeric key. It is not primarily of importance for sales and distribution, but is used mainly in materials management.

Material Pricing Group

The material pricing group can also be used to group materials, especially for pricing and for analyses. The material pricing group is defined by a two-digit, numeric key.

Product Hierarchy

The product hierarchy is used to group materials by combining different features. It is used for analyses and pricing. A product hierarchy can consist of up to eighteen characters. Its features can be combined in various ways. The following figure gives an example of how materials can be grouped using product hierarchies.

In this case, a dishwasher can be described by product hierarchy 0001000020000002. This series of characters states that dishwashers belong to the category electrical *appliances* (series of characters 00001, position 1-5), and also to *wet appliances* (series of characters 00002, position 6-10) and, finally, to *dishwashers* (series of characters 00000002, position 11-18).

SAP-00029548-9; SAP-00013845-6.

The SD module uses a mechanism called the “condition technique” to determine the price at which a product will be offered for purchase to a customer. The condition technique provides a very flexible and robust mechanism for storing pricing information and for using it to calculate a price at which a product will be offered. The condition technique includes the following components:

1. Condition Types: The user can specify a number of condition types, one for each kind of price, discount, or surcharge that applies to a sales company's pricing calculations.

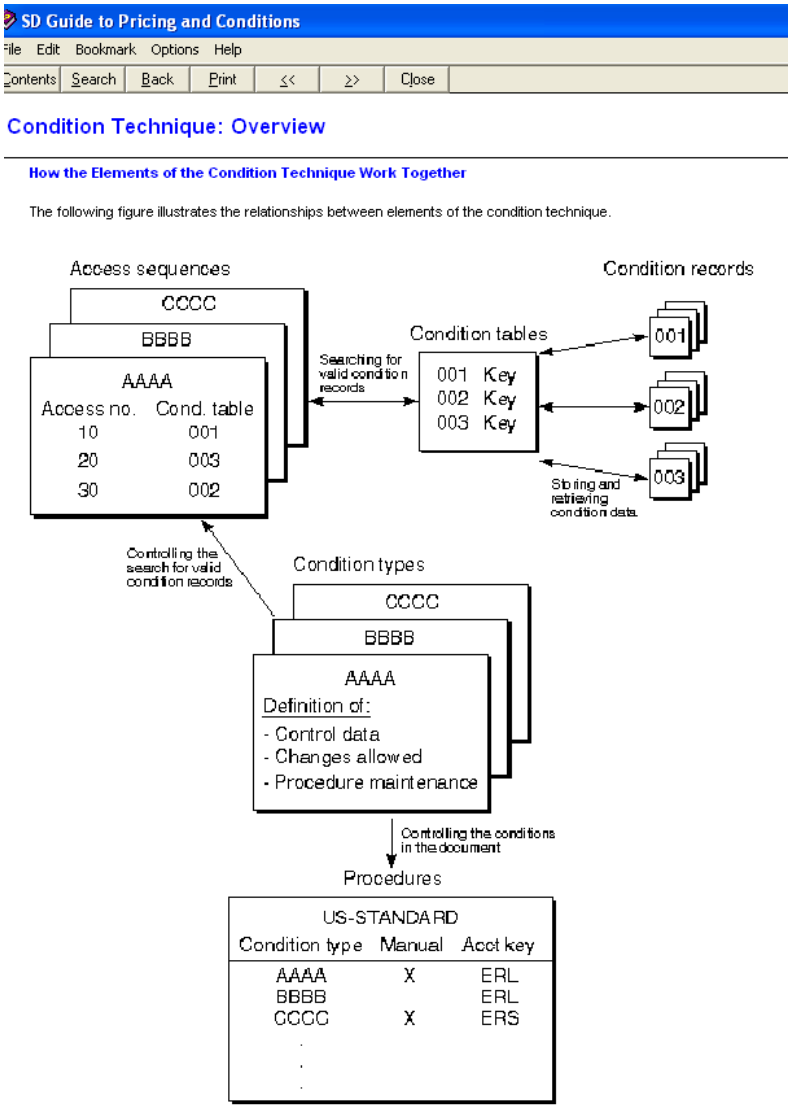
2. Condition Tables: Condition tables store individual condition records (pricing data) and are keyed by a combination of values that may include either or both of the customer and the material (product). The term "material" is the term used in the R/3 documentation for both a product and a service.

3. Condition Records: In the R/3 documentation, pricing data is called condition records. Condition records specify either a price (e.g., retail price) or a calculation to a price (e.g., 10% discount). Condition records are also referred to in the R/3 documentation as pricing elements.

4. Pricing Procedures: Pricing procedures (or "procedures") tell the system in what order it should process condition types.

5. Access Sequences: There is one access sequence for each condition type. The access sequence specifies the order in which the system should search in and retrieve from condition tables to select condition records corresponding to an individual condition type.

The relationship between these components is shown by the following figure from the documentation:



SAP-00029638; SAP-00013939.

In the condition technique, the user first specifies that a particular pricing procedure is to be used to compute a price. The pricing procedure indicates the high-level components that are to be taken into consideration when determining a price, and this is accomplished through the condition types. The procedure identified in the figure is labeled “US-Standard” and refers to standard pricing for a

customer in the United States. The procedure identifies a sequence of condition types. In the figure, these are identified as AAAA, BBBB, and CCCC, but in other examples from the documentation, these might represent gross price, various discounts (such as quantity discounts or preferred customer discounts), freight costs, and taxes. Different procedures would be defined, for example, for customers in different countries that are subject to different taxes.

Each condition type is associated with an access sequence that specifies the order in which the system should search condition tables to find condition records (pricing data). For example, for a "sales tax" condition type, a condition record might be 5% and would result in a 5% surcharge for sales tax. There may be pricing data that depends on the specific product, product groups, customer groups, product hierarchy, or customer hierarchy.

The access sequences operate in two modes, controlled by an "exclusive access indicator" in each access sequence. When the exclusive access indicator is not set (i.e., where "exclusive" mode is off), each condition record identified by the access sequence is retrieved (from its condition table) in the order specified, and the last one retrieved is used in the calculation of the price. In this case, the condition records are generally ordered from most general to most specific, and it is the most specific one that is utilized to calculate a price. When the exclusive access indicator is set (i.e., where "exclusive" mode is on), the first valid record

identified by the access sequence is retrieved from its condition table and then used in the calculation of the price. In this case, the documentation indicates that condition records should be ordered from most specific to most general, so that the first valid record found will be the most specific valid record available.

The next component of the condition technique is the condition table. Each access sequence contains a list of condition tables in the order that they should be searched. Each condition table defines the “key” that is used to search for a condition record. One table may hold condition records that depend on the product being offered for sale. Another table may hold condition records that depend on the customer to which the product is being offered. Yet other condition tables may hold condition records that depend on both the customer and the product, or customer groups, or product groups, or any other desired combination of information needed to identify the desired condition records.

Finally, condition tables contain condition records, and each condition record stores an individual item of pricing information. A condition record may represent a price (for example, a gross price), a discount (for example, a customer discount or quantity discount), or a surcharge (for example, a freight charge or a tax). Ultimately, a sequence of retrieved condition records, one for each of the condition types in a pricing procedure, are used to compute a price at which a product will be offered for sale.

The R/3 Documentation's Disclosure of the Condition Technique in Operation

If a company wants to price based on customer and product hierarchies, a sales company first defines hierarchies of its customers and its products. It can organize its customers geographically (e.g., country-state-city) or using any other criteria that makes sense for that sales company's business. Then, the sales company defines its products in the product hierarchy. Next, the sales company sets its pricing strategy using the pricing procedures, condition types, access sequences, condition tables and condition records as previously described.

A sales representative can request a price for a particular sales order (e.g., a particular customer will order a particular product in a certain quantity). In the case of the immediately preceding example, the condition technique will then operate at runtime as follows:

1) The pricing procedure will cause the system to process each condition type in the pricing procedure (AAAA, BBBB, and CCCC), and once the access sequence has instructed the system to search for and retrieve pricing data, a condition record for each condition type (where a valid record exists) will be used to calculate the price offered to the customer. For example, the pricing data returned may be applied as a base price of $10, a

discount of 10% and a sales tax of 5%, in which case the final sales price will be $9.45.

2) Each condition type's access sequence (in the example, AAAA, BBBB, and CCCC) has a list of condition tables to search through to find the appropriate pricing information (condition records). For example, one condition type may be responsible for the base price. The access sequence tells the system to search each table in turn to determine if that table has a condition record that satisfies the criteria of the sales order. In the example, access sequence AAAA tells the system to search condition tables 001, 003, and 002 in that order.

3) When each condition table is accessed, a key is formed based on criteria from the sales order (e.g., the customer and the requested product, or the customer and the product group that contains the requested product, or the customer group and the requested product, and so forth). The table is then indexed using this key to determine if a condition record exists that matches the sales order's criteria.

4) Each access sequence returns, via the condition tables, one condition record for use in determining a price. In the case where the exclusive access indicator is not set, however, the access sequence retrieves all matching condition records, orders the condition records from most

general to most specific, and returns the most specific one for use in generating a price. It does so by retrieving one record at a time, placing that record in its order, and then the process continues until the most specific one is retrieved and returned. In the case where the exclusive access indicator is set, the access sequence retrieves the first matching condition record and uses this one in generating a price.

5) The condition record from each access sequence/condition type is then utilized in the order specified by the pricing procedure to determine the final price.

V. APPLICATION OF PRIOR ART TO CLAIMS 17 and 26-29 OF THE '350 PATENT

A. R/3 Documentation

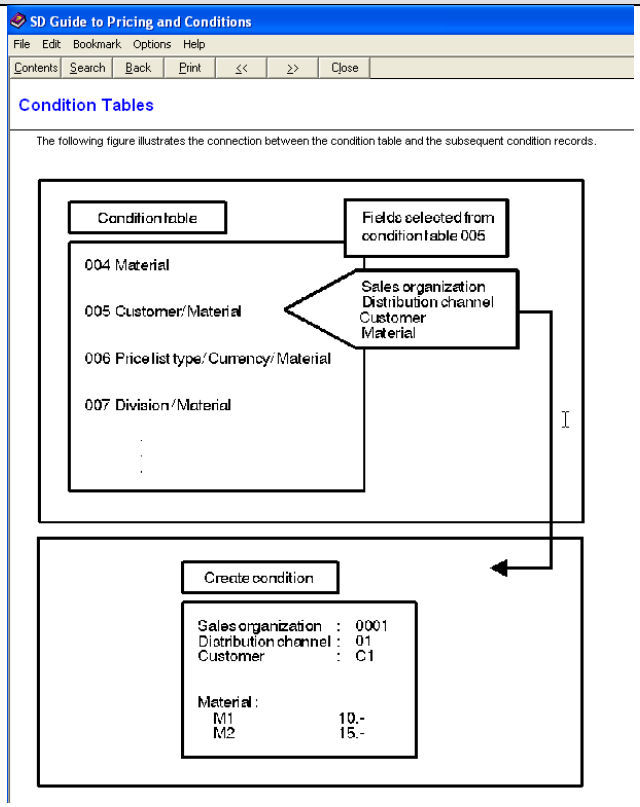
The R/3 documentation discloses each and every limitation of claims 17 and 26-29, thus rendering them unpatentable. The below analysis is supported by and supplemented by the declaration of Dr. Michael Siegel (Exh. 1005).

'350 Patent	**R/3 Documentation**
Claim 17: A method for determining the price of a product offered to a purchasing organization comprising:	The R/3 documentation describes an enterprise information system that includes a Sales and Distribution module that determines the price of a product according to claim 17, as discussed below. *See* SAP-00014846-57, SAP-00029633, SAP-00029640-2, SAP-00029697-8; SAP-00000578-89, SAP-00013934, SAP-00013941-3, SAP-00014001-2. *See also* Exh. 1005, ¶¶ 113-123, 127; *id.* at Appendix C, pp. 9-12.
arranging a hierarchy of	As noted above, the R/3 documentation is replete with hierarchies and discloses at least two concepts that satisfy this claim element:

'350 Patent	**R/3 Documentation**
organizational groups comprising a plurality of branches such that an organizational group below a higher organizational group in each of the branches is a subset of the higher organizational group;	customer hierarchies and customer price groups. Customer Hierarchies: In a customer hierarchy, each node in the hierarchy is a subset of the organizations in its ancestor nodes. A user may use any criteria to organize the hierarchy. In the example given previously, the criteria includes the geographical location. A customer hierarchy may have any number of levels of nodes, and can be rearranged as necessary to adapt to changing requirements. Usually, customers are assigned to nodes at the lowest level of the hierarchy. But it is also possible to assign customers to nodes at higher levels in the hierarchy. Customer Price Groups: A customer price group is used to apply pricing information (e.g., a discount) to a particular group of customers. Customers can be grouped by indicating the pricing group to which each customer belongs. The R/3 documentation has extensive examples of separating customers into wholesale and retail groups and of determining the price of a product based on the group of which the customer is a member. The customer price group forms a hierarchy of two levels: the group and its members. *See* SAP-00029494, SAP-00029510-32, SAP-00029615-26, SAP-00029676-7, SAP-00029698; SAP-00013791, SAP-00013807-29, SAP-00013916-27, SAP-00013980-81, SAP-00014002. *See also* Exh. 1005, ¶¶ 113-123, 128; *id.* at Appendix C, pp. 13-21.
arranging a hierarchy of product groups comprising a plurality of branches such that a product group below a higher product group in each of the branches in a subset of the higher product group;	The R/3 documentation discloses at least two concepts that satisfy this claim element: product hierarchies and material pricing groups. Product Hierarchies: Product hierarchies are disclosed in the R/3 documentation, as shown above. In forming a product hierarchy, the user may define the criteria used to differentiate between individual product groupings. For instance, in the previous example of a product hierarchy, the hierarchy of electrical appliances is divided into dry and wet appliances and further divided into specific appliance types. More than one product hierarchy may be defined. For example, the previous example includes one hierarchy that contains electrical appliances and a second hierarchy that contains spare parts. Material Pricing Groups: The material pricing group supports a

'350 Patent	**R/3 Documentation**
	simple two-level hierarchy. Each "material"–the R/3 documentation's name for products and services–may be assigned to a material pricing group, which is a two digit numeric key. A material pricing group then contains all of the materials that are assigned the same key. In this way, the material pricing group forms a two-level hierarchy: (i) the material pricing group and its members, and (ii) the materials that belong to that material pricing group. *See* SAP-00023312, SAP-00023355-6, SAP-00029537-58, SAP-00029642-50, SAP-00029677, SAP-00029698; SAP-00008872, SAP-00008915-6, SAP-00013834-55, SAP-00013943-53, SAP-00013981, SAP-00014002. *See also* Exh. 1005, ¶¶ 113-123, 129; *id.* at Appendix C, pp. 22-33.
storing pricing information in a data source, wherein the pricing information is associated, with (i) a pricing type, (ii) the organizational groups, and (iii) the product groups;	As presented above, the R/3 documentation describes the operating of the condition technique, which satisfies the "storing" claim element. The condition technique includes pricing procedures, condition types, access sequences, condition tables, and condition records. The condition technique allows the user to store pricing information, as condition records, that is associated with pricing types, organizational groups and product groups. As shown above, the pricing information is associated with pricing types (which are condition types in the R/3 documentation) using pricing procedures and access sequences. The pricing information is associated with organizational groups and product groups using access sequences and condition tables, as shown in the following examples:

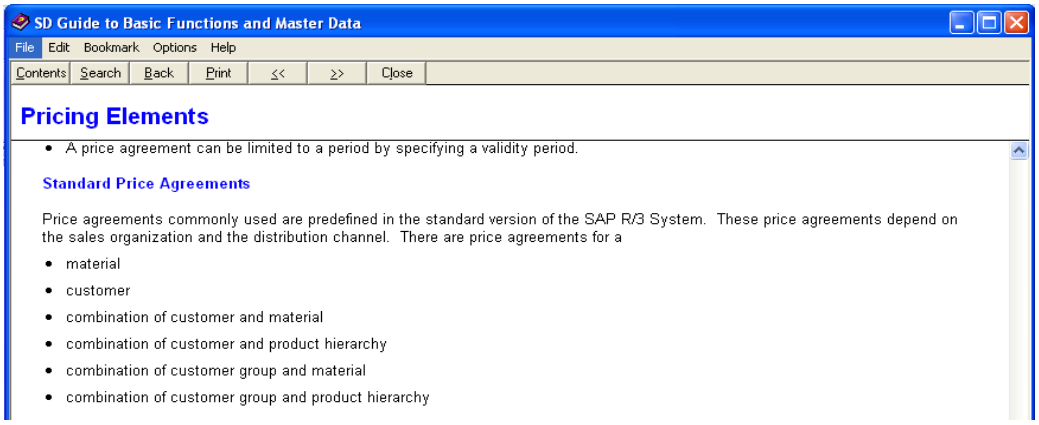
‘350 Patent	**R/3 Documentation**

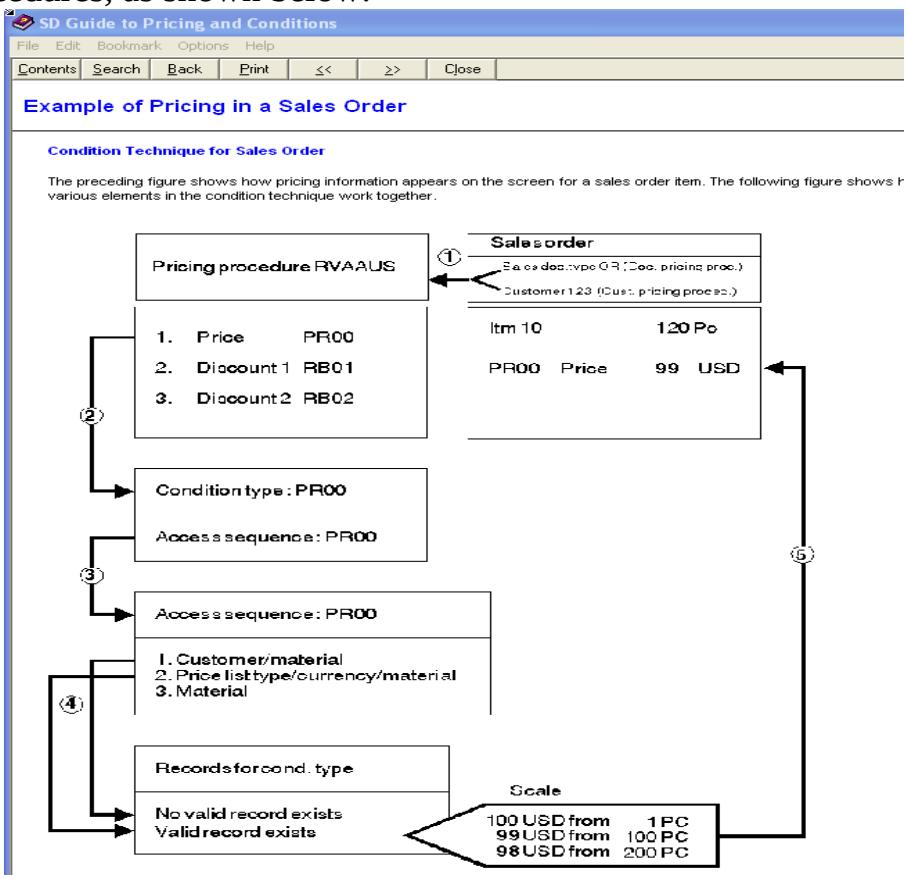


SAP-00029653-4; SAP-00013956-7.

The above example from the R/3 documentation shows a number of condition tables that demonstrate that pricing information is associated with organization groups. Standard condition tables in the R/3 documentation associate prices with a sales organization and a distribution channel, along with information associated with the customer and the product. Thus, these two elements are always included in the key for every condition table. Table 005 stores condition records associated with a particular customer and a material (in addition to the always-present sales organization and distribution channel). Table 004 stores condition records that are not associated with a particular customer; the key for this condition table is just the material. Table 007 stores condition records that are associated with a division (a grouping of customers or “organizational group”) and a material.

The following excerpt from the R/3 documentation describes how pricing information (condition records) can be associated with any combination of material, material hierarchy (“the product groups”),

'350 Patent	**R/3 Documentation**
	customer, and customer hierarchy ("the organizational groups"):  *SAP-00029499-500; SAP-00013796-7.* *See SAP-00014853, SAP-00029499-500, SAP-00029633-29700, SAP-00029706; SAP-00000585, SAP-00013796-7, SAP-00013934-4004, SAP-00014011-2. See also* Exh. 1005, ¶¶ 113-23, 130-32; *id.* at Appendix C, pp. 34-86.
retrieving applicable pricing information corresponding to the product, the purchasing organization, each product group above the product group in each branch of the hierarchy of product groups in which the product is a member, and each organizational group above the purchasing	The "condition technique" discloses this claim element. As described above under the "storing" claim element (and specifically the excerpt above), the condition technique stores pricing information corresponding to customers, customer groups, customer hierarchy, products, product groups, product hierarchy or any combination thereof. Thus, this correspondence is maintained when this information is retrieved. The R/3 documentation describes using a pricing procedure to indicate what condition types should be used to calculate a price for a sales order. The pricing procedure also indicates the order in which the system should apply the condition types. Associated with each condition type is an access sequence, which specifies the order in which condition tables should be searched to find an applicable condition record. For each condition type, the pricing procedure retrieves pricing information (a condition record). The pricing procedure then utilizes the retrieved pricing information in calculating a price.

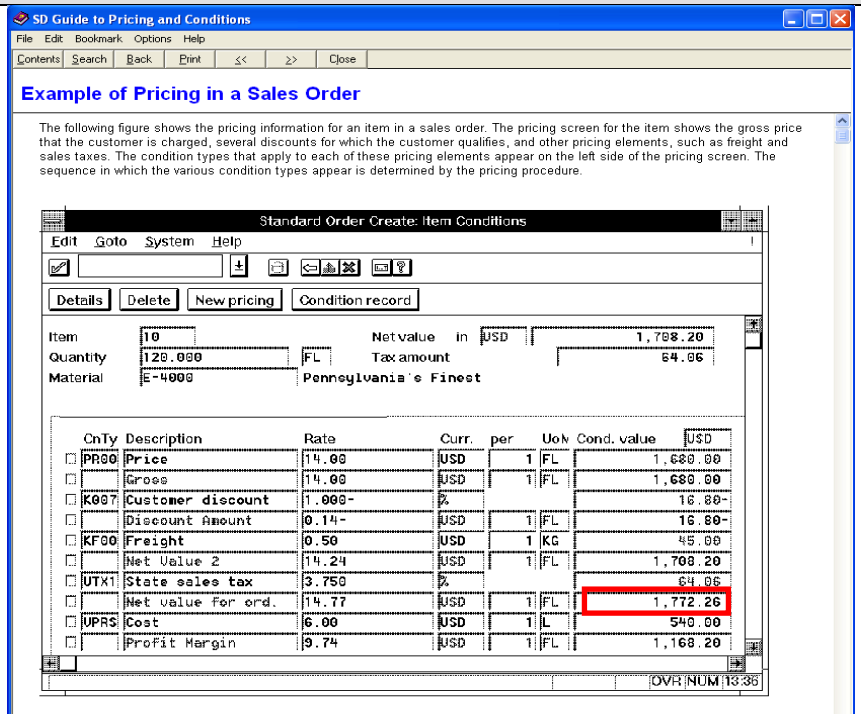
'350 Patent	**R/3 Documentation**
organization in each branch of the hierarchy of organizational groups in which the purchasing organization is a member;	The R/3 documentation describes how pricing information is retrieved when pricing a sales order. The description includes the use of the condition technique, including condition records, condition tables, condition types, access sequences and pricing procedures, as shown below:  SD Guide to Pricing and Conditions File Edit Bookmark Options Help Contents Search Back Print << >> Close Example of Pricing in a Sales Order Condition Technique for Sales Order The preceding figure shows how pricing information appears on the screen for a sales order item. The following figure shows h various elements in the condition technique work together. Pricing procedure RVAAUS Sales order Item 10 120 Po PR00 Price 99 USD 1. Price PR00 2. Discount 1 RB01 3. Discount 2 RB02 Condition type: PR00 Access sequence: PR00 Access sequence: PR00 1. Customer/material 2. Price list type/currency/material 3. Material Records for cond. type No valid record exists Valid record exists Scale 100 USD from 1 PC 99 USD from 100 PC 98 USD from 200 PC *SAP-00029642-3; SAP-00013943-4.* The documentation describes using a pricing procedure (RVAAUS in the above example) to indicate what condition types should be used to calculate a price for the sales order. The pricing procedure indicates the order in which the system should apply condition types; in the example, the condition types are PR00, RB01, and RB02. Each condition type's associated access sequence searches for and retrieves pricing information. The access sequence that specifies the order in which condition tables should be searched to find an applicable condition record. For the PR00 condition type, the access sequence is also named PR00.

'350 Patent	**R/3 Documentation**
	Each access sequence indicates the order in which condition records will be retrieved from their condition tables. In the example, the PR00 access sequence indicates that the system should first retrieve a price from the "Customer/material" condition table, then a price from the "Price list type/currency/material" condition table, and finally a price from the "Material" condition table. The "Price list type" is described in the R/3 documentation as a grouping of customers that share pricing information. In this example, the access sequence is ordered from the most specific to the most general. *See SAP-00023355-6, SAP-00029499-500, SAP-00029510-32, SAP-00029537-58, SAP-00029615-26, SAP-00029633-700, SAP-00029706; SAP-00008915-6, SAP-00013796-7, SAP-00013807-29, SAP-00013834-55, SAP-00013916-27, SAP-00013934-4004, SAP-00014011-2. See also* Exh. 1005, ¶¶ 113-23, 133-37; *id.* at Appendix C, pp. 87-111.
sorting the pricing information according to the pricing types, the product, the purchasing organization, the hierarchy of product groups, and the hierarchy of organizational groups;	As an initial matter, there is nothing in the claim language that requires that the sorting happen *after* the retrieving has completed. In other words, the sorting step could occur before the retrieving step. Also, a system that interleaved retrieving and sorting would satisfy these elements. Such a system, for example, may retrieve some pricing information, sort that pricing information, retrieve some additional pricing information, sort that additional pricing information, etc. The claimed sorting element is accomplished by the condition technique. The condition technique performs sorting at two levels. First, the pricing procedure defines the order in which condition types will be used to determine a price; all condition records retrieved are therefore first sorted according to the condition type to which they belong. Second, the access sequence determines the order in which condition records will be retrieved for each condition type. Each of these sorts—performed by the pricing procedure and the access sequence—individually satisfies the broadest reasonable interpretation of the claimed sorting step. The access sequence itself satisfies the claimed sorting step in two ways based on the setting of the exclusive access indicator in each access sequence. Whether the exclusive access indicator is set or not, the access sequence defines the order in which condition

'350 Patent	**R/3 Documentation**
	records should be retrieved, and the access sequence accomplishes the required sorting in order to respect this defined order. When the exclusive access indicator is not set, all condition records are retrieved from their corresponding condition tables and ordered in the order defined by the access sequence. This results in the sorting of the retrieved condition records from most general to most specific. When the exclusive access indicator is set, the access sequence accesses each condition table in turn to determine whether the table contains pricing information (a condition record) for this particular sale. For example, the table may not have a condition record that matches the particular customer and product, in which case the access sequence searches the next table. This process continues until a condition record that matches the criteria of the particular sale is returned from a table. At that point, the process stops. The condition records are searched in a specific order, and, therefore, the access sequence's search according to this order satisfies the sorting element. The exclusive access indicator is described below: Exclusive Access Indicator You specify in this field whether you want the system to stop when it finds a valid condition record for the access. If you do not mark the exclusive access indicator, the system continues to make each access in the sequence, finally proposing the last valid condition record it finds. In the earlier example of access sequences for Sales and Purchasing where the indicator is set for each access, the system stops when it finds the first valid condition record. Alternatively, it would be possible to not set the indicator and to reverse the order of the accesses and have them starting with the most general condition records and ending with the most specific (in this case, the customer/material price). In the sales order, the system would then list all the condition records it found but would only use the last one. You would then be able to see all the various possible prices that apply to the particular document. *SAP-00029663-4; SAP-00013967-8.* *See SAP-00029633-700, SAP-00029706; SAP-00013934-4004, SAP-00014011-2. See also* Exh. 1005, ¶¶ 113-23, 138-41; *id.* at Appendix C, pp. 111-129.
eliminating any of the pricing information that is less restrictive;	As discussed above, the term "pricing information that is less restrictive" is unclear and insolubly ambiguous. Nevertheless, the below analysis uses the following definition: "pricing information that is defined higher in the hierarchy."

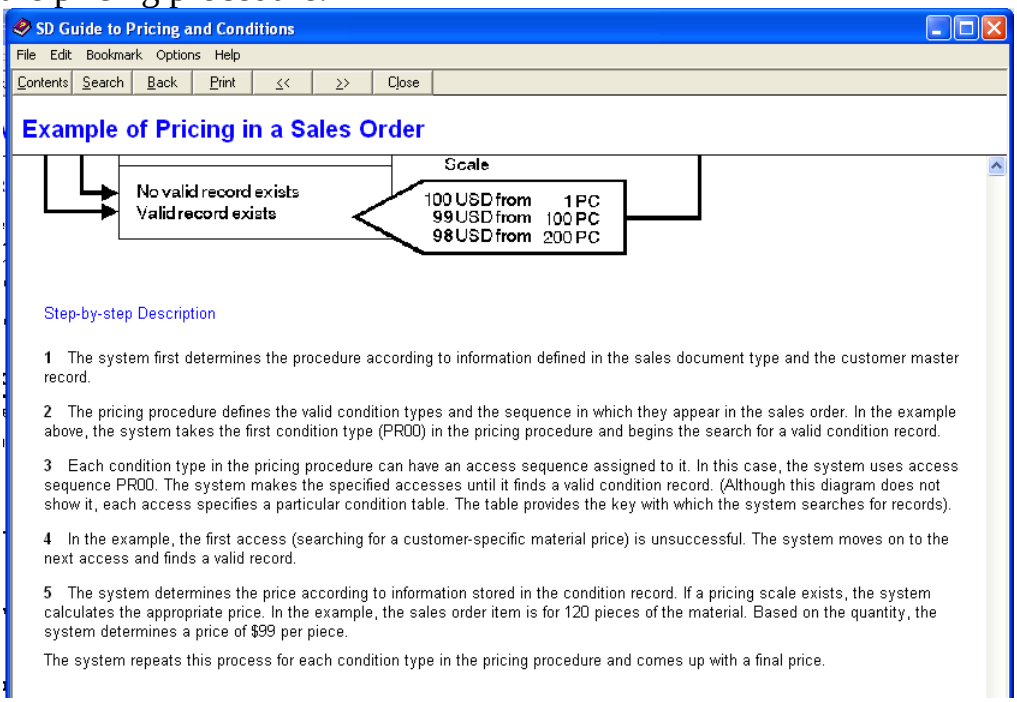
‘350 Patent	**R/3 Documentation**
and determining the product price using the sorted pricing information.	The claimed “eliminating” step is performed by the condition technique. As described previously, the combination of the pricing procedure, condition types, and access sequences determines the order in which the pricing information is retrieved (or not). Whether the exclusive access indicator is set or not, the condition technique also satisfies the required eliminating of less restrictive pricing information. When the exclusive access indicator is not set, the condition technique will retrieve all of the condition records in the order specified in the access sequence. In this case, the access sequence is ordered from the most general to the most specific. Once all condition records have been retrieved, the R/3 documentation specifies that all but the last condition record found will be eliminated and only the last one, the most specific one, will be used. When the exclusive access indicator is set, the condition technique will retrieve just one condition record. In this case, the access sequence is ordered from the most specific to the most general. The R/3 documentation specifies that the condition technique will stop when it finds the first condition record that satisfies the criteria for a particular sale, thereby eliminating any of the pricing information that is less restrictive. When the less restrictive pricing information has been eliminated as described above, the condition technique determines the product price using the sorted price information. The following example from the R/3 documentation of pricing a sales order displays all of the pricing information used to determine the product price. In this example, the four pieces of pricing information used are price, customer discount, freight, and state sales tax. When these four pieces of pricing information have been used to determine the product price, the net value (final price) for the order is computed to be $1772.26 USD.

‘350 Patent	**R/3 Documentation**



SAP-00029642; SAP-00013943.

In the following step-by-step description of the pricing process, the R/3 documentation shows how the product price is determined using the pricing information associated with each condition type in the pricing procedure.



SAP-00029645; SAP-00013944-5.

‘350 Patent	**R/3 Documentation**
	The condition technique both eliminates any of the pricing information that is less restrictive and determines the product price using the sorted pricing information. The R/3 documentation, therefore, discloses every element of claims 26 and 17, thus rendering the claims unpatentable. *See SAP-00029624-5, SAP-00029633-700; SAP-00013925-6, SAP-00013934-4004.*. *See also* Exh. 1005, ¶¶ 113-23, 142-48; *id.* at Appendix C, pp. 129-137.

‘350 Patent	**R/3 Documentation**
Claim 26: A computer readable storage media comprising: computer instructions to implement the method of claim 17.	The R/3 documentation discloses a computer-based pricing system that is part of an overall enterprise information system. As a result, the R/3 documentation inherently discloses computer instructions operating within the memory of a computer system, which thus satisfies claim 26 because the memory of a computer system is a computer readable storage media. Moreover, between invocations, this system would reside on secondary storage, such as a hard disk, which would also constitute a computer readable storage media. *See* SAP00014846-57; SAP00000578-89. *See also* Exh. 1005, ¶¶ 113-23, 126; *id.* at Appendix C, pp. 1-8.

‘350 Patent	**R/3 Documentation**
Claim 27: A computer implemented method for determining a price of a product offered to a purchasing organization comprising:	As discussed further below, each step of claim 27 is merely a broader version of those found in claim 17, and thus, the evidence and analysis provided above for claims 26 and 17 also demonstrates that claim 27 is similarly unpatentable. The R/3 documentation describes an enterprise information system that includes a Sales and Distribution module that determines the price of a product. *See evidence cited above for claim 17. See also* Exh. 1005, ¶¶ 113-23, 152; *id.* at Appendix C, p. 138.
retrieving from a data source pricing	The analysis provided above for claim 17’s “arranging a hierarchy of organizational groups” element demonstrates that the R/3 documentation discloses a hierarchy of organizational groups of

'350 Patent	**R/3 Documentation**
information that is (i) applicable to the purchasing organization and (ii) from one or more identified organizational groups, within a hierarchy of organizational groups, of which the purchasing organization is a member;	which a purchasing organization is a member. Also, the analysis provided above for claim 17's "retrieving" element demonstrates that the R/3 documentation discloses retrieving pricing information that is applicable to a purchasing organization and from one or more identified organizational groups within the hierarchy, of which the purchasing organization is a member. The analysis and evidence for those two elements in claim 17, therefore, demonstrates that this element of claim 27 is disclosed by the R/3 documentation. The evidence and analysis for the claim elements "arranging a hierarchy of organizational groups" and "retrieving" in claim 17 provide more details. *See evidence cited above for claim 17. See also* Exh. 1005, ¶¶ 113-23, 153; *id.* at Appendix C, p. 139.
retrieving from the data source pricing information that is (i) applicable to the product and (ii) from one or more identified product groups, within a hierarchy of product groups, of which the product is a member; and	The analysis provided above for claim 17's "arranging a hierarchy of product groups" element demonstrates that the R/3 documentation discloses a hierarchy of product groups of which a product is a member. Also, the analysis provided above for claim 17's "retrieving" element demonstrates that the R/3 documentation discloses retrieving pricing information that is applicable to a product and from one or more identified product groups within the hierarchy of product groups, of which the product is a member. The analysis and evidence for those two elements in claim 17, therefore, demonstrates that this element in claim 27 is disclosed by the R/3 documentation. The evidence and analysis for the claim elements "arranging a hierarchy of product groups" and "retrieving" in claim 17 provide more details. *See evidence cited above for claim 17. See also* Exh. 1005, ¶¶ 113-23, 154; *id.* at Appendix C, p. 140.
receiving the price of the product determined using pricing information applicable to the one or more identified	Claim 17's "retrieving," "eliminating," and "determining" elements encompass this functionality. Thus, the evidence and analysis of these three elements above demonstrates that the R/3 documentation discloses claim 27's "receiving the price of a product determined using pricing information applicable to the one or more identified organizational groups and the one or more identified product groups according to the hierarchy of product groups and the hierarchy of organizational groups." The evidence and analysis for the "retrieving," "eliminating," and "determining" claim elements in

‘350 Patent	**R/3 Documentation**
organizational groups and the one or more identified product groups according to the hierarchy of product groups and the hierarchy of organizational groups.	claim 17 provide more details. *See evidence cited above for claim 17. See also* Exh. 1005, ¶¶ 113-23, 155; *id.* at Appendix C, p. 141.

‘350 Patent	**R/3 Documentation**
Claim 28: A computer readable storage media comprising: computer instructions to implement the method of claim 27.	As mentioned above with respect to claim 26, the R/3 documentation inherently discloses a computer readable storage media with computer instructions. *See evidence cited above for claim 26. See also* Exh. 1005, ¶¶ 113-23, 151; *id.* at Appendix C, p. 142.

‘350 Patent	**R/3 Documentation**
Claim 29. An apparatus for determining a price of a product offered to a purchasing organization comprising: a processor; a memory coupled to the processor, wherein the memory includes computer program instructions capable of: retrieving from a data source pricing information that is (i) applicable to the purchasing organization and (ii) from one or more identified organizational groups, within a hierarchy of organizational groups, of which the purchasing organization is a member; retrieving from the data source pricing information that is (i) applicable to the product and (ii) from one or more identified product groups, within a hierarchy of product groups, of which the product is a member; and receiving the price of the product determined using pricing information applicable to the one or more identified organizational groups and the one or more identified product groups according to the hierarchy of product groups and the hierarchy of organizational groups.	Claim 29 is virtually identical to claims 28 and 27, except that it recites an “apparatus,” a “processor,” and a “memory coupled to the processor.” The R/3 documentation discloses an enterprise information system, which is an apparatus and which necessarily includes both a memory and a processor that are coupled together. Therefore, these claim elements are disclosed by the R/3 documentation. Furthermore, the analysis and evidence presented for claims 28 and 27, which references the analysis of claims 26 and 17, demonstrates that the other elements of claim 29 are disclosed by the R/3 documentation. Accordingly, claim 29 is also unpatentable over the R/3 documentation. *See evidence cited above for claims 26 and 17. See also* Exh. 1005, ¶¶ 113-23, 157; *id.* at Appendix C, p. 143-146.

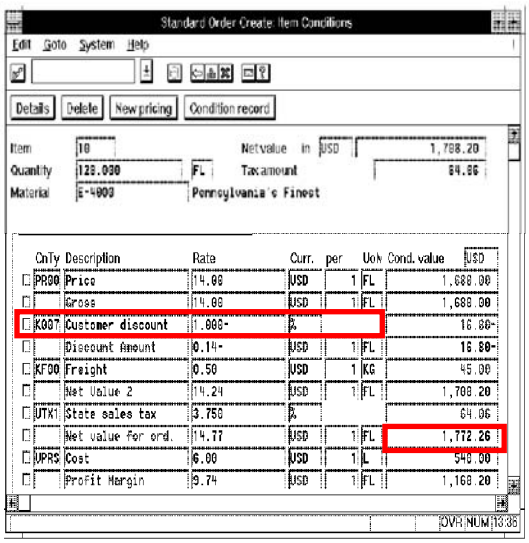
VI. ANTICIPATION OF DENORMALIZED NUMBERS

The R/3 documentation renders the ‘350 patent unpatentable under the broadest reasonable interpretation of denormalized numbers, which must include patent owner’s interpretation that won at trial. Of course, if the PTAB were to choose not to include denormalized numbers in the BRI, then the R/3 documentation also would anticipate the ‘350 patent.

The patent owner's trial interpretation is that a user associates the units with the number and specifies how the number is to be applied (e.g., discount) at data entry time and then, at runtime, the system simply uses that information. This is precisely what the R/3 documentation discloses. In the following excerpt, the user associates the number (e.g., "1.000-") with the units (e.g., "%") and specifies how the number is to be applied (e.g., "Customer discount"). The R/3 online documentation then discloses using this information at runtime to calculate the final price ($1,772.26).

Example of Pricing in a Sales Order

The following figure shows the pricing information for an item in a sales order. The pricing screen for the item shows the gross price that the customer is charged, several discounts for which the customer qualifies, and other pricing elements, such as freight and sales taxes. The condition types that apply to each of these pricing elements appear on the left side of the pricing screen. The sequence in which the various condition types appear is determined by the pricing procedure.



SAP-00029642; SAP-00013943.

The R/3 documentation, therefore, discloses and anticipates denormalized numbers under the patent owner's interpretation. *See* Exh. 1005, ¶¶ 166-67.

VII. APPLICATION OF THE ADMITTED PRIOR ART UNDER THE PATENT OWNER'S CONSTRUCTION

The patent owner asserts that claims would be infringed by "computer source code [that is] capable of performing [the] operations" in the claims without modifying the source code. *See* Exh. 1011, 12. Accordingly, under the basic principles of equity, they should be held to the same construction when the validity of the claims is determined. Under such a construction, the patent owner's admitted prior art invalidates the claims.

The patent admits that the prior art includes databases, pricing applications, and pricing systems. Exh. 1001, Col. 2:20-60. The patent also admits that the prior art had the ability to store, retrieve, and maintain the same data (e.g., pricing information for products and organizations) as the claims. *Id*., Col. 1:36-Col. 2:27; Col. 4:6-9. Moreover, the patent admits that the prior art used hierarchies, such as an organizational hierarchy. *Id*., Col. 12:4-6. The patent further admits that the prior art can perform pricing calculations based on this data. *Id*., Col. 2:24-26. Indeed, the patent even admits that R/3 is prior art. *Id*., Col. 2:56-59.

The inventor also made several admissions regarding the prior art at trial. The inventor not only admitted that the prior art also supported the use of customer hierarchies and pricing hierarchies for pricing, but he also admitted that he did not invent the concept of applying hierarchies to pricing. Exh. 1010, 17:9-25.

Thus, the applicant has admitted that the prior art could store, retrieve, and maintain the claimed data, use the claimed data structures, and perform calculations on the claimed data. The claims, however, merely recite a combination of steps that store, retrieve, maintain, and perform calculations on the claimed data. Accordingly, as the prior art already had these capabilities, the prior art was capable of perform the claimed operations without modifying the prior arts source code.

For example, some the prior art (e.g., databases) would store, retrieve, maintain, and perform calculations on the claimed data using instructions written in a query language, such as SQL. Exh. 1005, ¶ 172. In order to run queries written in a particular query language, the source code of a prior art system would have included support for instructions written in that query language. Exh. 1005, ¶ 172. Thus, such a prior art system would have been able to perform the claimed operations without modification to its source code. Exh. 1005, ¶ 172. Accordingly, under the patent owner's construction, the claims are invalid in view of the applicant's admitted prior art.

CONCLUSION

For the foregoing reasons, claims 17 and 26-29 of the '350 patent are unpatentable. Petitioner therefore requests that a post-grant review of these claims be instituted pursuant to 35 U.S.C. § 324. Petitioner reserves the right to apply

additional prior art and arguments, depending on what arguments and/or amendments Patent Owner might present. Petitioner also reserves the right to cite and apply any additional art that it might discover as relevant to the issued claims or any amended claims, as the post-grant review proceeds.

The undersigned attorneys welcome a telephone call should the Office have any requests or questions. If there are any additional fees due in connection with the filing of this paper, please charge the required fees to our deposit account no. 06-0916.

Respectfully submitted,

Dated: September 16, 2012 By: 

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1940 Duke Street
Alexandria, Virginia 22314

Attorneys for Petitioners SAP America, Inc. and SAP AG

PATENT
Attorney Docket No. 09449.0025-00000

IN THE UNITED STATES PATENT TRIAL AND APPEAL BOARD

In re *Post-Grant Review* of:	)	
	)	
U.S. Patent No. 6,553,350	)	U.S. Class: 705/20
	)	
Issued: April 22, 2003	)	Group Art Unit: 3628
	)	
Inventor: Thomas J. CARTER	)	Confirmation No. 5578
	)	
Application No. 09/253,427	)	
	)	Petition Filed: September 16, 2012
Application Filed: February 19, 1999	)	
	)	FILED ELECTRONICALLY
For: METHOD AND APPARATUS FOR PRICING PRODUCTS IN MULTI-LEVEL PRODUCT AND ORGANIZATIONAL GROUPS	)	PER 37 C.F.R. § 42.6(b)(1)

Mail Stop *Patent Board*
Patent Trial and Appeal Board
U.S.P.T.O.
P.O. Box 1450
Alexandria, VA 22313-1450

MANDATORY NOTICES FOR PETITION FOR POST-GRANT REVIEW UNDER § 18 OF THE AMERICA INVENTS ACT

Pursuant to 37 C.F.R. §§ 42.304 and 42.8, Petitioners submit the following Mandatory Notices for the Petition for Post-Grant Review of claims 17 and 26-29 of U.S. Patent No. 6,553,350 filed concurrently herewith.

I. Real Party-in-Interest

In accordance with 37 C.F.R. § 42.8(b)(1), Petitioners identify the real parties-in-interest as SAP America, Inc. and SAP AG.

II. Related Matters

In accordance with 37 C.F.R. § 42.8(b)(2), Petitioners identify the following related proceedings:

i.) *Versata Software, Inc. et al. v. SAP America, Inc. et al.*, Civil Action No. 2:07-cv-153, E.D.T.X. (terminated September 9, 2011);

ii.) *Versata Software, Inc. et al. v. SAP America, Inc. et al.*, No. 2012-1029, -1049, U.S. Court of Appeals for the Federal Circuit.

III. Lead and Back-Up Counsel

In accordance with 37 C.F.R. § 42.8(b)(3), Petitioners identify Erika Arner as lead counsel and Michael Kiklis as back-up counsel:

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IV. Service Information

In accordance with 37 C.F.R. § 42.8(b)(4), Petitioners identify the following service information:

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The undersigned attorneys welcome a telephone call should the Office have any requests or questions. If there are any additional fees due in connection with the filing of this paper, please charge the required fees to our deposit account no. 06-0916.

Respectfully submitted,

Dated: September 16, 2012 By: 

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POWER OF ATTORNEY PER 37 C.F.R. § 42.10(b)

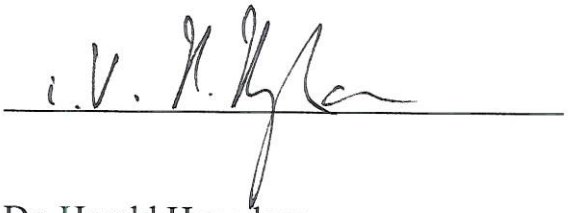
Commissioner:

Petitioners hereby appoint:

Name	Registration No.
Erika H. Arner	57,540
Joseph Palys	46,508
Michael Young, Sr.	61,180
Michael L. Kiklis	38,939
Scott McKeown	42,866
Lee Barrett	67,689
Alexander B. Englehart	62,031

as attorneys to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with the Post-Grant Review of claims 17 and 26-29 of U.S. Patent No. 6,553,350.

Respectfully,

Dated: September 14, 2012 By: 

Name: Dr. Harald Hagedorn

Title: Senior IP Attorney

for Petitioners SAP America, Inc. and SAP AG

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Petition for Post Grant Review under 35 U.S.C. § 321 and § 18 of the Leahy-Smith America Invents Act and associated Exhibits 1001-1021 were served on September 16, 2012, by Express Mail at the following addresses of record for the subject patent:

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