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Paper No. 8
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VOLUSION, INC.
Petitioner

v.

VERSATA SOFTWARE, INC. AND
VERSATA DEVELOPMENT GROUP, INC.
Patent Owner

Case CBM2013-00017
Patent 6,834,282 B1

Before HOWARD B. BLANKENSHIP, SALLY C. MEDLEY, and KEVIN F. TURNER, *Administrative Patent Judges.*

BLANKENSHIP, *Administrative Patent Judge.*

DECISION
Institution of Covered Business Method Patent Review
37 C.F.R. § 42.208

SUMMARY

Petitioner Volusion, Inc. filed a petition seeking a covered business method patent review of Patent Owner Versata's 6,834,282 patent pursuant to section 18 of the Leahy-Smith America Invents Act (AIA).[1] The Petition ("Pet.") challenges all the claims (1-23) of the '282 patent as unpatentable under 35 U.S.C. § 101. Patent Owner filed a preliminary response opposing institution of the review. Paper No. 6 ("Prelim. Resp."). We have jurisdiction under 35 U.S.C. § 324.

The standard for instituting a covered business method patent review is set forth in 35 U.S.C. § 324(a), which provides as follows:

> THRESHOLD --The Director may not authorize a post-grant review to be instituted unless the Director determines that the information presented in the petition filed under section 321, if such information is not rebutted, would demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.

We determine that the '282 patent is a covered business method patent. Petitioner has demonstrated that it is more likely than not that claims 1-20 are directed to non-statutory subject matter and, thus, unpatentable under 35 U.S.C. § 101. However, Petitioner has not shown that it is more likely than not that claims 21-23 are unpatentable under § 101. Thus, we institute a covered business method patent review for claims 1-20 of the '282 patent based upon Petitioner's challenge that those claims are unpatentable under § 101.

[1] Pub. L. No. 112-29, 125 Stat. 284 (2011).

THE CHALLENGED PATENT

The '282 patent relates to a hierarchical representation that consists of nodes that are related to one another in a tree-like structure starting with a root node. Each node has a label indicative of items in a database. Ex. 1001, Abstract.

Figure 3 of the '282 patent is reproduced below.

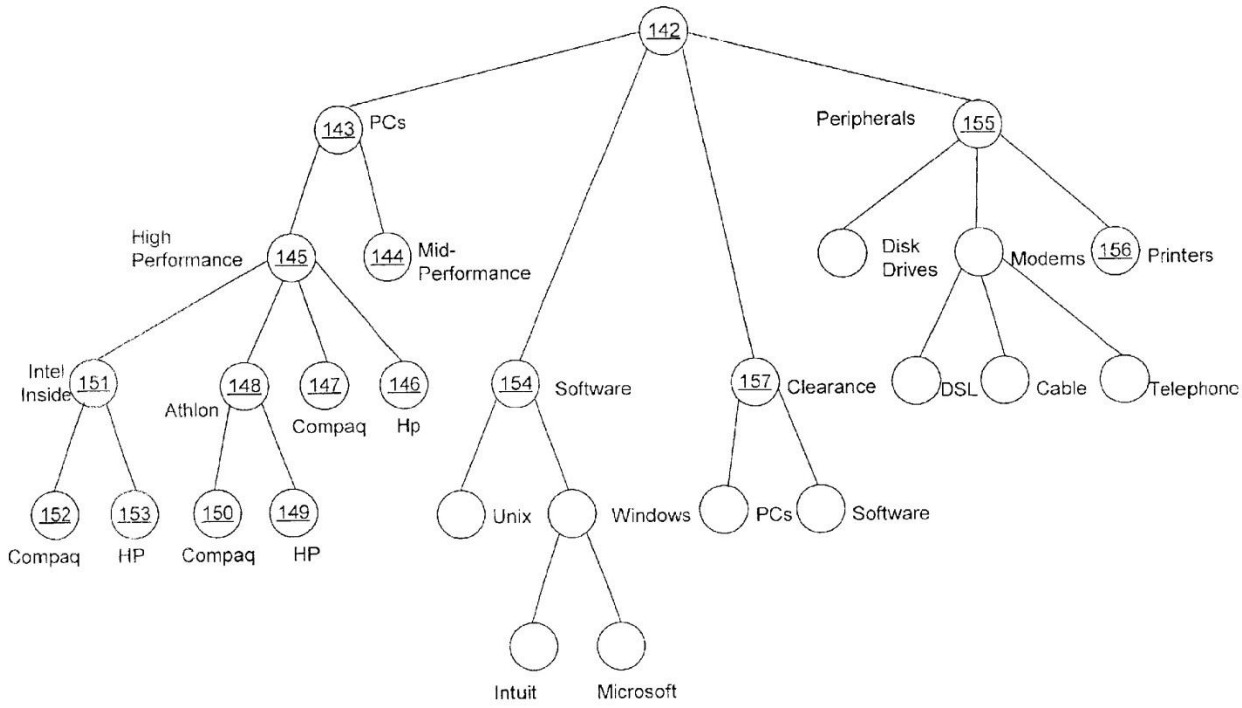

FIG. 3

Figure 3 shows a tree-like structure having labeled nodes and is said to provide "one possible example of a logic and constraint-based hierarchy that might be employed in accordance with the invention." Ex. 1001, col. 4, ll. 37-39. Each node may specify one or more constraints that require all items falling under the node to have specific values for certain item attributes. Each node inherits the constraints of its ancestors. *Id*. at col. 5, ll. 3-16.

Illustrative Claims

1. A hierarchy for representing a plurality of items stored in a database, said hierarchy comprising:

a plurality of nodes each representative of a subset of the items; and wherein:

each of the nodes is a child of one other node, except for a root node, which is a child of no other node and is an ancestor of all of the nodes;

a first portion of the nodes each specify one or more constraints defining a scope of the subset of items represented by each of the first portion relative to their parent node; and

a second portion of the nodes specify no constraints, each of the second portion establishing a logical grouping defining a scope of the subset of the items represented by each of the second portion.

11. A method of representing a plurality of items in a database hierarchically, each of the items associated with one or more attributes, each of the attributes having one or more values, said method comprising:

apportioning the plurality of items into subsets;

representing each of the subsets with a node in a hierarchy, each of the nodes being a child of one other node, except for a root node, which is a child of no other of the nodes and is an ancestor of all of the nodes in the hierarchy;

specifying one or more constraints for each of a first portion of the nodes, the constraints defining a scope of the subset of items represented by each of the first portion relative to their parent node; and

establishing a logical grouping of the items for a second portion of the nodes, the logical grouping defining a scope of the subset of items represented by each of the second portion of nodes, no constraints being specified for any of the second portion of the nodes.

COVERED BUSINESS METHOD PATENT

Related Litigation

In compliance with 37 C.F.R. § 42.302(a), Petitioner certifies that it has been sued for infringement of the '282 patent. Pet. 2-3. Patent Owner does not challenge the certification.

Used in the Practice, Administration, or Management of Financial Products or Services

A covered business method patent "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, except that the term does not include patents for technological inventions." AIA § 18(d)(1). The legislative history of the AIA "explains that the definition of covered business method patent was drafted to encompass patents 'claiming activities that are financial in nature, incidental to a financial activity or complementary to a financial activity.'" 77 *Fed. Reg*. 48,735 (Aug. 14, 2012) (quoting 157 Cong. Rec. S5432 (daily ed. Sept. 8, 2011)).

Petitioner points out that the '282 patent explicitly states that "[m]any embodiments of the present invention have application to a wide range of industries" including "*financial services*." Pet. 8; *see also* Ex. 1001, col. 10, ll. 37-43. Patent Owner alleges that the patent does not claim a method or corresponding apparatus used in the practice, administration, or management of financial products or services. Prelim. Resp. 20-24. Patent Owner does not address the explicit statement in the '282 patent concerning "financial services" that was pointed out in the Petition. *See id*.

Claim 11 of the '282 patent recites a method of representing a plurality of items in a database hierarchically. As described in the '282 specification, the claimed invention has application in the field of e-commerce, in the form of e-catalogs used by potential buyers. A person of ordinary skill in the art would have understood that the items that can be displayed to a user may be associated with financial services. Ex. 1001, col. 10, ll. 37-43. Claim 11 encompasses arranging items for display to a user associated with any product or service, such as financial services. In other words, the steps are not limited in application to any particular product or service. Therefore, we are persuaded that at least one claim covers data processing or other operations used in the practice, administration, or management of a financial service.

Not a Technological Invention

In view of the "technological inventions" exception of AIA § 18(d)(1), the legislative history of § 18(d)(1), and the definition of "technological invention" under 37 C.F.R. § 42.301(b), the Office Trial Practice Guide provides the following guidance with respect to claim content that typically would not render a patent a technological invention:

> (a) Mere recitation of known technologies, such as computer hardware, communication or computer networks, software, memory, computer readable storage medium, scanners, display devices, or databases, or specialized machines, such as ATM or point of sale device.
>
> (b) Reciting the use of known prior art technology to accomplish a process or method, even if the process or method is novel and non-obvious.

> (c) Combining prior art structures to achieve the normal, expected, or predictable result of that combination.

77 *Fed. Reg.* 157 (Aug. 14, 2012) at 48763-64.

Petitioner submits:

> [C]laims 1-23 do not require, and the inventors did not claim to have conceived, any novel computer software or hardware. To the contrary, the specification explicitly states that the invention is not limited in any way by the hardware or the programming or processing environment used to implement the software-based invention:
>
> > In particular, the invention is neither limited by the types of computers used as servers, nor the operating systems, web server, or data server application software running on such servers. The invention is limited neither by the types of user terminals used to connect to the servers, nor the type or browser software resident on the terminals. The invention is neither limited by the structure of the data as stored in the database, nor is it limited by the nomenclature used in identifying data types and attributes. The invention does not have to be implemented using the Internet, but rather may be implemented over any network, using any type of transmission protocol and display formats.
>
> (Ex. 1001, Col. 10:25-36.)
>
> Consequently, according to the patent, no specific, unconventional software, computer equipment, tools, or processing capabilities are required.

Pet. 15.

Patent Owner, in response, refers to claims 6, 16, and 21. Prelim. Resp. 19-20. However, as Petitioner indicates, at least claim 11 does not require the use of a computer and, even if it did, reference to known technology such as "databases" is not sufficient to demonstrate that the

patent is for a technological invention. Pet. 16 (citing to Ex.1004 at 635 (legislative history)). Claim 11, at best, recites a known technology (databases) such that, even if we were to presume that the method is novel and non-obvious, the mere recitation of a database does not render the patent a technological invention. Patent Owner's arguments that allege a technological invention are not commensurate with the claimed subject matter as a whole of claim 11.

Patent Owner acknowledges there are *two* requirements for a technological invention; namely, (1) the claimed subject matter as a whole must recite a technological feature that is novel and unobvious over the prior art; *and* (2) it must solve a technical problem using a technical solution. Prelim. Resp. 14; 37 C.F.R. § 42.301(b). Claim 11 fails on the first prong. Even if we needed to reach the second prong of § 42.301(b), we are not persuaded by Patent Owner's arguments (e.g., Prelim Resp. 15 and 20) that the claimed subject matter as a whole solves a technical problem using a technical solution. The problem noted in the specification is not a technical one. For instance, the '282 patent specification highlights the problem and importance of representing items hierarchically and claim 11 is directed to a method of doing the same. However, representing items hierarchically is more of an organizational problem for grouping items together than a technical problem.

Conclusion -- A Covered Business Method Patent

A single claim is sufficient to institute a covered business method patent review. In view of the foregoing, we conclude that the presence of

claim 11 means that the '282 patent is a covered business method patent under AIA § 18(d)(1).

CLAIM INTERPRETATION

During a review before the Board, we construe the claims in accordance with the broadest reasonable interpretation in light of the specification. 37 C.F.R. § 42.300(b); 77 *Fed. Reg.* 157 (Aug. 14, 2012) at 48697-98. The claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The Office must apply the broadest reasonable meaning to the claim language, taking into account any definitions presented in the specification. *Id.* (citing *In re Bass*, 314 F.3d 575, 577 (Fed. Cir. 2002)).

Hierarchy and Nodes

The claims of the '282 patent contain the words "hierarchy" and "nodes." We do not find any limiting definition in the Specification for either term. Therefore, we presume that the words are interpreted in accordance with their ordinary and customary meaning in the pertinent art.

A "hierarchy" may be defined[2] as follows:

> hierarchy *n.* A type of organization that, like a tree, branches into more specific units, each of which is "owned" by the higher-level unit immediately above. Hierarchies are characteristic of several aspects of computing because they provide organizational frameworks that can reflect logical links, or relationships, between separate records, files, or pieces of equipment. For example, hierarchies are used in organizing

[2] Copies of the following definitions will be entered as Exhibit 3001.

> related files on a disk, related records in a database, and related (interconnected) devices on a network. In applications such as spreadsheets, hierarchies of a sort are used to establish the order of precedence in which arithmetic operations are to be performed by the computer. *See also* hierarchical file system.

Microsoft® Computer Dict., Fifth Ed. 2002.

A "node" may be defined as:

> node *n.* **1.** A junction of some type. **2.** In networking, a device, such as a client computer, a server, or a shared printer, that is connected to the network and is capable of communicating with other network devices. **3.** In tree structures, a location on the tree that can have links to one or more nodes below it. Some authors make a distinction between node and element, with an element being a given data type and a node comprising one or more elements as well as any supporting data structures.

Id.

Thus, one of ordinary skill in the art would interpret a hierarchy as a type of organization that, like a tree, branches into more specific units, each of which is "owned" by the higher-level unit immediately above. In that tree-type structure, a node is a location on the tree that can have links to one or more nodes below it. Our interpretation of the terms "hierarchy" and "nodes" is consistent with the specification of the '282 patent. *See* Ex. 1001, *e.g.*, col. 7, l. 37 - col. 8, l. 19; Fig. 3.

SECTION 101 CHALLENGE

Under the AIA, any ground that could be raised under 35 U.S.C. §§ 282(b)(2) or (3) can be raised in a post-grant review or (with exceptions not relevant here) in a covered business method patent review. Patent

Owner asserts that § 101 is not available to challenge patentability in a covered business method patent review because it is not included in §§ 282(b)(2) or (3). However, as the Office described in the final rules implementing post-grant review and covered business method patent review in the Federal Register, the "grounds available for post-grant review include 35 U.S.C. 101 and 112, with the exception of compliance with the best mode requirement." 77 *Fed. Reg*. 48,680, 48,684 (Aug. 14, 2012). This interpretation is consistent with both the relevant case law and the legislative history. *See, e.g., Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1305 (2012) (addressing invalidity under § 101 when it was raised as a defense to an infringement claim); *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 12 (1966) (stating that the 1952 Patent Act "sets out the conditions of patentability in three sections," citing 35 U.S.C. §§ 101, 102, and 103); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1330 n.3 (Fed. Cir. 2012); H.R. Rep. No.112-98, at 47 (2011); 157 Cong. Rec. S1375 (daily ed. Mar. 8, 2011). We have reviewed Patent Owner's contentions to the contrary, but do not find them persuasive. Moreover, none of the cases cited by Patent Owner address the specific issue of whether § 101 can be raised in a covered business method patent review, except for the Board's earlier decision in *SAP America Inc. et al. v. Patent of Versata Dev. Gp., Inc.*, which is contrary to Patent Owner's position. *See* CBM-2012-00001, *Decision on Covered Business Method Review*, Paper No. 36 at 32-36.

Claims 1-10

The plain language of claim 1 asserts that the claim is directed to a "hierarchy." Contrary to this plain language, Patent Owner postulates that

claim 1 is not directed "only" to a hierarchy but is "explicitly directed to a hierarchy of *nodes* representative of *items* stored in a *database*." Prelim. Resp. 35.

However, a claim "must be read in accordance with the precepts of English grammar." *In re Hyatt*, 708 F.2d 712, 714 (Fed. Cir. 1983). "A mere *recital* of a multitude of elements or steps in a claim is not determinative of the *invention* it defines." *Id*. Claim 1 recites a "hierarchy" comprising "a plurality of nodes each representative of a subset of the items," with the nodes further being modified by "wherein" clauses. Patent Owner alleges that claim 1 "further provides *how* these nodes are operable (*i.e*. the software behind the nodes)—such that each specifies either *one or more constraints* or establishes *a logical* grouping." Prelim. Resp. 35. However, Patent Owner fails to explain where software might be recited in the claim, or how the "wherein" clauses of the claim might render the claimed nodes to be something more than *representative of* a logical grouping.

A hierarchy comprising nodes is a type of organization that may be used to represent a logical arrangement as reflected by the nodes. In view of the language of claim 1, the understanding of the ordinary artisan, and the '282 patent specification, Patent Owner places emphasis on the wrong terms of the claim. Claim 1 recites a hierarchy of nodes *representative of* items stored in a database, which is consistent with the ordinary artisan's understanding that a hierarchy of nodes may *represent* items, but itself constitutes no more than a conceptual framework.

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement

thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. "[N]o patent is available for a discovery, however useful, novel, and nonobvious, unless it falls within one of the express categories of patentable subject matter of 35 U.S.C. § 101." *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 483 (1974). "The four categories [of § 101] together describe the exclusive reach of patentable subject matter. If a claim covers material not found in any of the four statutory categories, that claim falls outside the plainly expressed scope of § 101 even if the subject matter is otherwise new and useful." *In re Nuijten*, 500 F.3d 1346, 1354 (Fed. Cir. 2007). The conceptual framework of a hierarchy comprising nodes -- an idea -- is not a statutory process, machine, manufacture, or composition of matter. As the Supreme Court has made clear, "[a]n idea of itself is not patentable." *Rubber-Tip Pencil Co. v. Howard*, 87 U. S. 498, 507 (1874).

Further, the claimed "hierarchy" is similar to other inventions our reviewing court has held to be not patent eligible. In *Warmerdam*, the U.S. Court of Appeals for the Federal Circuit determined that a data structure *per se*, representing a logical -- i.e., not limited to a physical -- arrangement of the contents of a memory was not statutory subject matter. *See In re Warmerdam*, 33 F.3d 1354, 1361-62 (Fed. Cir. 1994). In *Ferguson*, the Court held that claims directed to a "paradigm" -- generally defined as a pattern, example, or model -- were not patent eligible because the "paradigm" did not fit into any of the four enumerated categories of statutory subject matter. *See In re Ferguson*, 558 F.3d 1359, 1362-66 (Fed. Cir. 2009). Similarly, the "hierarchy" as claimed covers subject matter that is outside the four statutory categories that define patent eligibility.

Each of dependent claims 2 through 10 consists of "wherein" clauses that, at best, recite intended uses of the hierarchy and nodes of base claim 1. Patent Owner's argument that dependent claim 6 sets forth statutory subject matter is instructive. "*See also* claim 6 ('. . . a third portion of the nodes are leaf nodes, each of the leaf nodes having no children; and said hierarchy *operable to determine the aggregation of constraints and to generate the search rule for each leaf node in response to activation of the leaf node*' (emphasis added))." Prelim. Resp. 35. However, the hierarchy described by the '282 patent does not "operate" on or "generate" anything. Rather, logic operations that are disclosed (but not recited in claim 6) are applied to the hierarchy to generate a rule that includes all of the constraints as specified. *See, e.g.*, Ex. 1001, col. 7, ll. 18-35. The claims simply do not recite any "software behind the nodes" (Prelim. Resp. 35). Under the broadest reasonable interpretation of the terms in light of the specification we do not include any unexpressed "software behind the nodes" as a limitation to the claimed subject matter.

Claims 11-20

Independent claim 11 recites, aptly, a method of *representing* a plurality of items in a database hierarchically. The recited steps of apportioning, representing, specifying, and establishing, in support of representing the plurality of items, can be performed by the human mind, or with the aid of pencil and paper. The '282 patent describes how the claimed steps may be performed by use of a graph drawn on paper (Fig. 3), with the nodes being associated with textual information (constraints). *See* Ex. 1001, col. 7, l. 37 - col. 8, l. 35; col. 9, ll. 34-44. A method that consists of steps

that can be performed in the human mind, or by a human using a pen and paper, is not patent eligible. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) ("All of claim 3's method steps can be performed in the human mind, or by a human using a pen and paper.").

Petitioner suggests that all the claims of the '282 patent are drawn to the abstract idea of "organizing product-related data to facilitate catalog browsing." Pet. 21. Claim 11, as a whole, can be summarized as being drawn to the abstract idea of representing a plurality of items in a database hierarchically. The dependent claims (12-20) consist of "wherein" clauses that, for the most part, require no more than human thought and perhaps pen and paper, consistent with the '282 patent specification. Dependent claim 18 recites wherein attributes and attribute values "are stored in conjunction with" the items in the database. To the extent that claim 18 requires storing of items in computer memory, the storing is not a meaningful limitation on the recited method of representing a plurality of items in a database hierarchically. Such storing is, at most, insignificant extra-solution activity that cannot save subject matter from patent ineligibility. *See Parker v. Flook*, 437 U.S. 584, 590 (1978) ("The notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance.").

Method Claims 21-23

The first four steps of method claim 21 are identical in substance to the steps of method claim 11 -- a claim that we have determined to be more likely than not drawn to patent-ineligible subject matter. However, claim 21

recites additional steps, including: "aggregating the constraints specified by a leaf node and its ancestors in response to selection of one of the leaf nodes; forming a search rule from the aggregation that includes all items that meet the constraints; [and] initiating a search of the database in accordance with the search rule." In the context of claim 21, we read each of the "aggregating," "forming," and "initiating" steps as being limited to machine operation. That is, claim 21 also provides the steps of "displaying said hierarchy on a computer terminal, wherein each of said nodes are operative to be activated by selecting the node," and "returning to the terminal a list of the items that meet the constraints." Thus, claim 21, unlike claim 11, is not a method that can be performed entirely in the human mind or by human activity.

Petitioner submits that claims 21-23 add the requirement that a database be searched and a hierarchy be displayed on a computer terminal, adding "nothing more to this abstract concept than the use of a general purpose computer." Pet. 25. "Simply because a computer might facilitate the browsing and display of the claimed hierarchies does not mean that a computer is integral to the invention." *Id.* at 26.

However, base claim 21 is not directed to an abstract "browsing and display of the claimed hierarchies" but includes at least the machine-based formation of a search rule and the searching of a database using the search rule. Petitioner fails to address all the requirements of the claim. Petitioner does not provide a satisfactory showing as to how claims 21-23 may be perceived as, more likely than not, failing under § 101.

ORDER

In consideration of the foregoing, it is hereby

ORDERED that the petition is granted as to claims 1-20 of the '282 patent.

FURTHER ORDERED that pursuant to 35 U.S.C. § 324(a), a covered business method patent review of the '282 patent is hereby instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 324(d) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

FURTHER ORDERED that the trial is limited to § 101 and no other grounds are authorized.

FURTHER ORDERED that an initial conference call with the Board is scheduled for 2 PM Eastern Time on November 12, 2013. The parties are directed to the Office Trial Practice Guide, 77 *Fed. Reg.* 48756, 48765-66 (Aug. 14, 2012) for guidance in preparing for the initial conference call. The parties should come prepared to discuss any proposed changes to the Scheduling Order herewith and any motions the parties anticipate filing during the trial.

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