UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHIRLEY J.R. WALKER, PAUL A. POLO, and
STEVEN E. GILES

Appeal 2007-3445
Application 09/968,064[1]
Technology Center 2100

Decided: March 19, 2008

Before JOSEPH L. DIXON, HOWARD B. BLANKENSHIP, and
JAY P. LUCAS, *Administrative Patent Judges*.

LUCAS, *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] Application filed October 1, 2001. The real party in interest is SAS Institute, Inc.

STATEMENT OF CASE

Appellants appeal from a final rejection of claims 1 to 28 under authority of 35 U.S.C. § 134. The Board of Patent Appeals and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b).

Appellants' invention relates to a method and means for mapping one column of data to another column of data. In the words of the Appellants:

> In data warehouses, the process of transforming the data of input tables to output tables is called mapping. A data warehouse can contain many mappings as input tables are manipulated to form the output tables a user requires. However, present computer tools do not efficiently allow column mapping to be performed. The present invention overcomes this inefficiency and other disadvantages. In accordance with the teachings of the present invention, a computer-implemented system and method are provided for mapping a computer data input column to a computer data output column. The input column and the output column have attributes. Information is received about at least one of the input column attributes and at least one of the output column attributes.
>
> At least one of the input column attributes is compared to at least one of the output column attributes to determine a likelihood ranking for mapping the input column to the output column. The likelihood ranking is between zero and one-hundred percent certain. The decision whether to map the input column to the output column is based upon the likelihood ranking.

(Spec. 1, bottom).

Claim 1 is exemplary:

> 1. A computer-implemented method for mapping an input column to an output column, said input column and said output column having attributes, comprising the steps of:
>
> receiving information about at least one of the input column attributes and at least one of the output column attributes, said attributes of the input column and output column having a name attribute, wherein names of the input and output columns' name attribute differ;
>
> comparing at least one of the input column attributes to at least one of the output column attributes to determine a likelihood ranking for mapping the input column to the output column, said likelihood ranking providing an indication that allows for a degree of certainty for the mapping that is less than completely certain;
>
> wherein mapping of the input column to the output column is based upon the likelihood ranking;
>
> wherein the likelihood ranking provides an indication of how related the input and output columns are.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Kane	US 6,389,429 B1	May 14, 2002

Rejection:

There is one rejection in this case:

Claims 1 to 28 stand rejected under 35 U.S.C. § 102(e) for being anticipated by Kane.

Groups of Claims:

All of the claims are argued together with claim 1 as representative.

Appellants contend that the claimed subject matter is not anticipated by Kane for failure of the reference to teach the recited limitations. The Examiner contends that each of the claims is properly rejected.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this opinion. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2005).[2]

We affirm the rejection.

ISSUE

The issue is whether Appellants have shown that the Examiner erred in rejecting the claims under 35 U.S.C. § 102(e). The issue turns on whether there can be found in Kane all of the claimed limitations.

[2] Appellants have not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group, except as will be noted in this opinion. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See In re Young,* 927 F.2d 588, 590 (Fed. Cir. 1991).

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Appellants have invented a method for mapping two or more columns in respective databases based on comparing attributes of those columns (Spec. 1:19). Various techniques may be used to map the columns, for example, as depicted in Figure 3. The columns may have the same name, or partial names, may be the same or different data types, and so forth. By comparing the attributes, Appellants can develop a series of weighted values on which the comparison is based (Spec. 23).

2. The reference Kane is addressed to methods for combining a number of databases, such as those in a business that are related to customers (e.g., mailing lists, trade show leads, sales contacts) into a comprehensive database, eliminating duplicate and out-of-date information (col. 1, l. 30). Thus, the data from a plurality of source databases is mapped into one or more target databases, using techniques for ranking the relative priority between respective source fields (col. 2, ll. 7 *et seq.*). Attributes of the fields are considered when making these rankings, such as whether the fields are text or graphics, and whether the full content must be matched or just a few of the characters (col. 5, l. 45). Priority ranking determines whether the content of one source field is more likely to be accurate than the content of another source (col. 8, l. 35).

PRINCIPLES OF LAW

"In reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and argument." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

Both anticipation under 35 U.S.C. §102 and obviousness under § 103 are two-step inquiries, in which the first step is a proper construction of the claims and the second step requires a comparison of the properly construed claim to the prior art. *Medichem S.A. v. Rolabo S.L.*, 353 F.3d 928, 933 (Fed. Cir. 2003).

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

Our reviewing court states in *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989) that "claims must be interpreted as broadly as their terms reasonably allow."

ANALYSIS

From our review of the administrative record, we find that Examiner has presented a prima facie case for the rejection of Appellants' claims under 35 U.S.C. § 102. The prima facie case is presented on pages 3 to 14 of the Examiner's Answer.

In opposition, Appellants present a number of arguments. Appellants' first argument contends that there is no teaching in Kane of a method to generate values for the field mapping database, or to determine in an

automated fashion a likelihood score that indicates the probability of whether two unmapped fields/columns from different tables correspond to each other. (Br. 7, middle). We note first that Appellants argue that Kane does not teach a "likelihood score" (Br. 7, middle, and Reply 7, bottom) or "likelihood ranking score" (Br. 10, bottom). We find this argument non-convincing for a number of reasons, but primarily because claim 1 has no such express limitation in it. It merely recites a "likelihood ranking," which we find does not necessitate a score, but only a prioritization based on likelihood.

Claim 1, in relevant part, recites:

> [C]omparing at least one of the input column attributes to at least one of the output column attributes to determine a likelihood ranking for mapping the input column to the output column, said likelihood ranking providing an indication that allows for a degree of certainty for the mapping that is less than completely certain . . .

In Kane, the different source fields are compared by giving them a priority rank, which is used to "determine, for a particular field of a source database record, whether such field data is more likely to be more accurate than the data already stored in the corresponding field of a matching target database record" (Col. 8, ll. 35-38). We find in Kane equivalent comparisons to that recited in independent claim 1.

Appellants further argue that the Kane reference does not teach the comparing of column attributes to determine a likelihood ranking for mapping the columns, providing an indication that allows for a degree of certainty less then complete (Br. 8, middle; 12, bottom). As noted in FF2, Kane considers attributes of the fields (columns) in making the comparisons.

We find that the likelihood prioritization of Kane (e.g. col. 8, ll. 30-45), coupled with the "partial match" indexing (col. 5, l. 53) indicate a teaching in Kane of the appreciation of a degree of certainty which is less than complete, as claimed. Note that Kane also teaches "exact match" indexes (col. 5, l. 48), and distinguishes them from the incomplete matches described thereafter.

Appellants contend that Kane provides no disclosure that a computer-based algorithm automatically determines the priority rank (Br. 11). For the reasons cited by the Examiner (Answer 18), we find that argument unconvincing. We also point out in Kane that the method is described as being implemented in software (col. 2, l. 42) and discusses "processing time" (col. 5, l. 63). Additionally, the abstract of Kane recites "a software system and method . . ." thereby expressly teaching the use of computer based system. Clearly, Kane is a computer-based process.

Appellants' further argument (Br. 12, bottom) that Kane does not disclose a comparing step, as claimed, has been discussed above.

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that the Examiner did not err in rejecting claims 1 to 28.

DECISION

The Examiner's rejection of claims 1 to 28 is affirmed.

AFFIRMED

clj

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