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**Datasheet for the decision
of 4 September 2020**

Case Number: T 1247/18 - 3.5.07

Application Number: 07759453.9

Publication Number: 1999660

IPC: G06F17/30

Language of the proceedings: EN

Title of invention:

Search-based application development framework

Applicant:

Oracle International Corporation

Headword:

Search-based application development framework/ORACLE
INTERNATIONAL

Relevant legal provisions:

EPC Art. 56, 84, 111(1)
RPBA 2020 Art. 11

Keyword:

Inventive step - (decision under appeal provides no suitable
basis for assessing inventive step)
Remittal to the department of first instance - (yes)

Decisions cited:

T 0697/17, T 1924/17



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Case Number: T 1247/18 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 4 September 2020

Appellant: Oracle International Corporation
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 15 December
2017 refusing European patent application
No. 07759453.9 pursuant to Article 97(2) EPC**

Composition of the Board:

Chairman M. Jaedicke
Members: C. Barel-Faucheux
C. Almberg

Summary of Facts and Submissions

- I. The applicant (appellant) appealed against the Examining Division's decision refusing European patent application No. 07759453.9, filed as international application PCT/US2007/065005 (published as WO 2007/121050). The application claims a priority date of 27 March 2006.
- II. The document cited in the contested decision was:
D1: Navas-Delgado, I. et al., "Towards Conceptual Mediation: A semantic architecture for dynamic integration of heterogeneous databases", proceedings of the International Conference on Enterprise Information Systems ICEIS 2004, 2004, pp. 169-176
- III. The Examining Division refused the application on the ground that the subject-matter of the claims of the then main request and of each of the then first and second auxiliary requests lacked inventive step over a notoriously known general-purpose computer. The Examining Division considered some of the claimed features to be non-technical aspects.

The Examining Division provided further comments, stating that all the technical and some of the non-technical features of the subject-matter of claim 1 were disclosed in document D1.

Finally, the Examining Division decided that method claims 1 and 6 of the then main request did not meet the requirements of Article 84 EPC in combination with Rule 43(2) EPC.

- IV. In its statement of grounds of appeal, the appellant requested that the decision be set aside and that a patent be granted on the basis of one of the main and two auxiliary requests submitted with the grounds of appeal. The main request and the second auxiliary request corresponded to the main request and second auxiliary request as decided upon by the Examining Division with correction of clerical errors. The first auxiliary request corresponded to claims 1 to 5 of the main request.
- V. In a communication under Article 15(1) RPBA 2020 accompanying the summons to oral proceedings, the Board was of the preliminary opinion that claims 1 and 6 of the main request filed with the statement of grounds of appeal did not meet the requirements of Article 84 EPC in combination with Rule 43(2) EPC and that the Examining Division's assessment of inventive step was erroneous. The first auxiliary request filed with the statement of grounds of appeal appeared to overcome the objections raised in the contested decision and the Board intended to remit the case to the department of first instance for further prosecution on the basis of this first auxiliary request.
- VI. In reply, the appellant submitted its first auxiliary request filed with the statement of grounds of appeal as the new main request replacing all prior requests (hereinafter: the sole request), agreed to the remittal of the application for further prosecution, withdrew its request for oral proceedings, and requested reimbursement of the appeal fee at 25%.
- VII. Claim 1 of the sole request reads as follows:
"A method for enabling a plurality of transactional applications to be searched, the method comprising:

creating (712) a first canonical object that defines data associated with a first transactional application (554,928);

creating a second canonical object that defines data associated with a second transactional application;

indexing (728) first and second data associated with the first transactional application (554,928) to enable the first transactional application (554,928) to be searched, wherein the first and second data is received via the first transactional application (554,928) and the first data is different from the second data;

indexing third data associated with the second transactional application to enable the second transactional application to be searched, wherein the third data is received via the second transactional application, the first and second data is not accessible to the second transactional application, and the third data is not accessible to the first transactional application;

creating (728) an index store (558,912) using information associated with the first and second canonical objects, wherein the index store stores indexes of the indexed first, second and third data;

interfacing a semantic engine (530,908) arranged to translate a query with the index store (558,912);

providing (808) a query to the semantic engine (530,908), the query having a first format, wherein the semantic engine (530,908) is arranged to translate the query from the first format into a second format, the second format being associated with a search engine (504);

accessing (816) the index store (558,912) using the search engine (504);

determining if a result associated with the query having the second format is indicated in the index store (558,912);

obtaining (820) information associated with the result from the first transactional application (554,928); and

displaying the information, wherein displaying the information includes allowing an action relative to the information to be performed."

Claims 2-5 are dependent, directly or indirectly, on claim 1.

VIII. The appellant's arguments, where relevant to the decision, are discussed in detail below.

Reasons for the Decision

1. *Admissibility of the appeal*

The appeal complies with the provisions referred to in Rule 101 EPC and is therefore admissible.

The invention

2. The application describes that it was known to formulate SQL or form-based queries for searching for information in an enterprise application and/or transactional application, but that this required users to follow training courses to allow them to successfully formulate those queries (description as published, paragraph [06]).

Keyword-based queries were relatively fast and efficient if information was accessible. However, if information was not available to the search engine, users did not get satisfactory results to a keyword-based query. Information might not be available if stored in tables that are transactional, i.e. tables

that contain descriptive fields for viewing but are not indexed for searching. Moreover, when a search engine showed a client results to a keyword-based query, the results were presented such that the client could read the results but generally could not act upon them without significant developmental effort (paragraph [07]).

The application relates to a framework which allows a user, for example by inputting a natural language search query, to search transactional enterprise applications by means of a search engine and to perform actions using the results of a search (paragraphs [02], [05] to [08], [10] and [35]).

The search engine may be any suitable search engine such as an SQL search engine, Apache Lucene or Oracle Text search engine (paragraph [33]). A semantic interface may translate the query, for example, from natural language into a query that the search engine can use to search applications (paragraphs [11] and [12]).

Crawlers are used to crawl enterprise/transactional applications as data sources (paragraph [42]). An index engine indexes a searchable document constructed by crawlers and makes an index store (locations at which indexes are stored) available to the search engine (paragraph [43]).

A canonical business object may be created to define data and may be stored in a database or a metadata repository. Object attributes stored in the database or in a Java class are mapped to the canonical business object (paragraph [58]). Processing a user-provided query begins with identifying a search category. In

other words, a canonical business object that is stored in a metadata repository is selected for identifying a search category (paragraph [0060]).

Sole request

3. *Admission into appeal proceedings*

The sole request under discussion is identical to the first auxiliary request filed with the statement of grounds of appeal. The Board therefore admits the sole request into the proceedings under Article 12(1) RPBA 2020 and Article 12(4) RPBA 2007.

4. *Clarity*

4.1 Claim 1 of the sole request differs from claim 1 of the main request submitted with the statement of grounds of appeal in that it includes only claims 1 to 5 of that main request.

4.2 The appellant argued that cancelling independent method claim 6 and its dependent claims rendered the Examining Division's objection under Article 84 EPC moot.

4.3 The Board agrees with the appellant that, with independent claim 6 cancelled, its sole request overcomes the objection under Article 84 EPC in combination with Rule 43(2) EPC raised against independent claims 1 and 6 in the contested decision and the Board's communication.

5. *Inventive step*

5.1 In its decision (see points 11.2.2.1 to 11.2.2.4), the Examining Division argued that the only technical

feature of the method of claim 1 was that it was computer-implemented, and it stressed that computer-implemented methods were notoriously known. In the Division's view, the overall effect achieved by the features of claim 1 was the satisfaction of a user's interest in a specific kind of search interface, which was a non-technical effect as it was only manifested in the user's mind.

5.1.1 As a consequence of its assessment of the technical character of the invention, the Examining Division took a notoriously known general-purpose computer to be the closest prior art and stated that all the features contributing to the technical character of the invention were already known from such a notoriously known system. Hence, the invention lacked inventive step.

5.1.2 Continuing in the context of the inventive-step assessment, the Examining Division provided further comments (see contested decision, point 11.2.2.5) to the effect that all the technical and some of the non-technical features of the subject-matter of claim 1 were disclosed in document D1. As to the technical features, document D1 disclosed software components in Figure 2.

As to the non-technical features, the Examining Division referred to various passages on pages 170 to 174 of document D1: in particular, the conceptual mediation architecture offered query capabilities for searching external data sources, and the domain ontology in combination with the respective mappings of schema objects acted as an index for accessing the data sources. No detailed mapping of the claim features to passages in document D1 was given. Nor were features

distinguishing the claimed subject-matter over document D1 identified and their inventive merits assessed. The Examining Division's comments on document D1 appear as obiter dicta since the conclusion that claim 1 lacked inventive step had already been drawn; the comments do not amount to an assessment of inventive step over document D1.

- 5.2 In its statement of grounds of appeal (see point 12), the appellant argued that the Examining Division's analysis of the technical nature of the claimed subject-matter was erroneous.
- 5.2.1 According to the appellant (see statement of grounds, point 16), the feature of creating an index store concerned the management of computer resources used when performing a search. It enabled a more efficient search of a plurality of transactional applications using an index store. Moreover, the feature "interfacing a semantic engine [...]" allowed the search to be performed efficiently using a common search engine (see point 17 of the statement of grounds of appeal). As explained in paragraph [12] of the description, this allowed the performance of a search engine to be leveraged, further increasing the efficiency of searching a plurality of transactional applications. Increasing the searching efficiency provided a "further" technical effect and was not dependent on a psychological effect on a user as alleged by the Examining Division. In view of the technical character of the claimed subject-matter, the appellant felt it was incorrect to use a notoriously known general-purpose computer as the closest prior art.

5.2.2 As to document D1, the appellant argued that, contrary to the Examining Division's assertions in the decision under appeal, this document did not disclose the claimed index store feature.

In particular, the indexing steps in claim 1 were different from the mapping between data service schemas and the domain ontology disclosed in document D1. As seen on page 173, right-hand column, second paragraph, the mapping between service schemas and the domain ontology disclosed in D1 was merely used to return a query plan based on an original query from the mediator application. In other words, the domain ontology in D1 was not accessed by a search engine to determine if a result associated with the query was indicated in the index store, as seen in claim 1, and thus could not be taken to be equivalent to such an index store (statement of grounds of appeal, point 32).

A key effect of the index store as a distinguishing feature over document D1 was that, by specifying a single index store, data from multiple transactional applications could be searched for using a common search engine, which increased the efficiency of a search for information contained in several transactional applications. Furthermore, using such an index store storing indexes of data from several transactional applications enabled straightforward and efficient searching of further transactional applications, the data in which may be indexed and stored in the index store (statement of grounds of appeal, point 36).

Hence, the Examining Division's analysis of document D1 in point 11.2.2.5 of the contested decision was, in the appellant's view, erroneous.

- 5.3 The Board agrees with the appellant that the Examining Division's analysis of the technical character of the claimed subject-matter is fundamentally flawed.

In particular, the Board considers that at least the steps in the method according to claim 1 that are directed to indexing, creating an index store and accessing the index store using the search engine all contribute to the technical character of the invention since indexing in the context of claim 1 contributes to the technical character of the invention (see for example T 697/17 of 17 October 2019, point 5.2.5, page 20; see also T 1924/17 of 29 July 2019, point 14, page 28). Since the Examining Division did not consider these steps to have technical character, the Board cannot uphold the reasoning in the contested decision.

- 5.4 Since the Examining Division considered indexing to be non-technical, it relied on a notoriously known general-purpose computer as the starting point for assessing inventive step. However, given the Board's finding that the indexing steps contribute to the technical character of the invention, a notoriously known general-purpose computer is not a suitable starting point for the case in hand. Consequently, the Board does not consider that the contested decision provides a suitable basis for assessing inventive step.

- 5.5 The Examining Division cited document D1 in the contested decision and argued that this document disclosed all the technical and some of the non-technical features of the claimed method (see

reason 5.1.2 above). However, the Examining Division did not provide a complete assessment of novelty including a detailed feature mapping, or any assessment of inventive step when starting from document D1. Hence, the additional remarks on document D1 in the contested decision do not allow for a judicial review of an inventive-step assessment starting from document D1 as the closest prior art.

Moreover, the Examining Division is yet to consider further documents cited as relevant in the European search report.

5.5.1 Nevertheless, with a view to accelerating the further prosecution of the case, the Board agrees with the appellant that the claimed indexing is different from the domain ontology and the mapping between data service schemas disclosed in document D1. In the Board's understanding, the domain ontology according to document D1 serves the purpose of performing query mediation (see for example D1, abstract: "We propose an architecture for conceptual mediation in which the sources' query capabilities are published as web services."). In other words, D1 queries the sources using their query capabilities, whereas the invention appears to index data extracted from transactional sources for searching by means of an index store. Hence, the Board is not convinced that document D1 is a promising starting point for assessing the inventive step of claim 1 of the appellant's sole request.

6. As the Examining Division's objection under Article 56 EPC is not convincing and its objection under Article 84 EPC is no longer relevant in view of the amendments made, the appellant's sole request overcomes all objections raised in the contested

decision. Consequently, the contested decision is to be set aside.

Remittal

7. As the primary object of the appeal proceedings is to review the decision under appeal in a judicial manner (Article 12(2) RPBA 2020) and since the Board has identified special reasons, as reflected in points 5.4 and 5.5 above (Article 11 RPBA 2020), the Board considers it appropriate to exercise its discretion under Article 111(1) EPC and to remit the case for further prosecution on the basis of the appellant's sole request.

8. Following the appellant's withdrawal of its request for oral proceedings within one month of notification of the communication issued by the Board of Appeal in preparation for the oral proceedings, the appeal fee is to be reimbursed at 25% (Rule 103(4)(c) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.
3. The appeal fee is reimbursed at 25% pursuant to Rule 103(4) (c) EPC.

The Registrar:

The Chairman:



S. Lichtenvort

M. Jaedicke

Decision electronically authenticated