

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen

D E C I S I O N
of 31 January 1995

Case Number: T 0415/93 - 3.5.1

Application Number: 83111218.0

Publication Number: 0114221

IPC: G06F 15/40

Language of the proceedings: EN

Title of invention:

Data base access process using a user-friendly menu

Applicant:

International Business Machines Corporation

Opponent:

-

Headword:

-

Relevant legal provisions:

EPC Art. 83, 84, 111(1)

Keyword:

"Sufficiency of disclosure (yes)"

"Clarity of claim (yes) - terms well-defined in field of claim
(after restriction) as known from prior art"

"Remittal for further prosecution - patentability not examined"

Decisions cited:

-

Catchword:

-



Case Number: T 0415/93 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 31 January 1995

Appellant:

International Business Machines
Corporation
Old Orchard Road
Armonk, N.Y. 10504 (US)

Representative:

de Pena, Alain
Compagnie IBM France
Département de Propriété Intellectuelle
F-06610 La Gaude (FR)

Decision under appeal:

Decision of the Examining Division of the European
Patent Office dated 1 December 1992 refusing
European patent application No. 83 111 218.0
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: P. K. J. van den Berg
Members: W. B. Oettinger
G. Davies

Summary of Facts and Submissions

I. The appeal contests the Examining Division's decision to refuse the European patent application No. 83 111 218.0 filed, with a priority of 21 January 1983, on 10 November 1983 (publication No. 0 114 221).

II. That decision terminated an examination procedure, in the course of which the following documents were cited either, as prior art, by the Examining Division (D) or, for interpretation purposes, by the Applicant (A):

D1: NEC Research & Development, No. 51, October 1978, pages 1-10;

A1: C.I.Date: An Introduction to Database Systems, vol 1, 3rd ed, Addison-Wesley Publishing Co, 1981, chapters 15 to 22, in particular pages 275-288;

A2a: DL/I [in full: Data Language/I Disk Operating System/ Virtual Storage (DL/I DOS/VS)] General Information, GH20-1246-9, IBM Corporation;

A3: DL/I Guide for New Users, SH24-5001-4, IBM Corporation.

III. The reason given, in the decision under appeal, for the refusal of the application was that Claim 1 of 24 April 1992 was not clear.

More particularly, the Examining Division held that certain terms used in that claim would be so abstract that it would not be possible to associate to them precise technical meanings. The skilled person would not be able to figure out whether the terms used would have

the same meaning as in the publications cited by the Applicant, such terms being widely used in different fields, by different companies, to cover different notions.

A similar conclusion was stated for Claims 2 and 3 and the description.

IV. The decision was issued on 1 December 1992.

The appeal was lodged, and the respective fee paid, on 1 February 1993 with a request that the decision be reversed.

On 3 April 1993, the Appellant filed a Statement of Grounds.

V. In that Statement, the Appellant contested the reasons given for the refusal and maintained his request that the decision be reversed.

VI. In response to a Communication from the Board pursuant to Article 110(2) EPC dated 22 June 1994, the Appellant filed, on 14 October 1994, a new set of six claims, the independent one of which reads as follows:

"1. A data base access process for simplifying the task of accessing desired information in response to a user query and using Data Language/I (DL/I) in a hierarchical data base management system, of the type requiring user specified selection criteria in association with corresponding program communication blocks (PCB) (11) created by a data base administrator for any hierarchical data structure to be used, said process being characterized by the steps of:

constructing automatically a data directory from descriptions of an original database (14) and PCB statements, major items or entries of said data directory consisting in entry data bases, said entry data bases being set up by the steps of:

reading (20) the physical and logical data base descriptions (DBD) and the PCB data,

setting up (21) one entry data base per physical DBD,

locating (24) the entry data base comprising the root segment for each logical DBD, and

finding (25-31) the entry data base and segments to which each PCB statement refers,

thereby producing a set of cross-reference entry data bases constituting said data directory and each consisting of a single hierarchical structure that shows every physical and logical path accessible from one physical root segment with duplicate logical and physical paths being consolidated,

displaying said entry data bases to the query user (15) as a menu from which segments fields, and PCBs which have been used to construct said entry data bases can be selected by the user,

in response to a user query, listing (41, 42, 44) automatically possible access paths to the segments to be retrieved, and

selecting (45-49) automatically the optimum access path according to weighted priorities resulting from key values assigned to the segments of each path."

VII. In support of the Appellant's request (cf. IV, V), he submitted that Claim 1 could no longer be regarded as unclear, now that it has been restricted to a hierarchical data base management of the IMS type defined by DBD and using DL/I, all terms used being unambiguously defined in the prior art relating to such a system.

He submitted that, although A2a (cf. II), referred to for supporting this submission, was published as Tenth Edition June 1983 only after the priority date to which the application is entitled, the relevant passages in that document, as indicated therein, are identical with those in its Ninth Edition 1980, subsequently referred to as:

A2b: DL/I [in full: Data Language/I Disk Operating System/Virtual Storage (DL/I DOS/VS)] General Information, GH20-1246-g, IBM Corporation.

No reference was made to A3, in particular to whether it was published before the priority date of the application.

Reasons for the Decision

1. The appeal (cf. paragraph IV) is admissible.
2. The issues to be decided in the present case are:
 - Claim 1 (cf. VI) having been amended, whether the amendments are admissible (Article 123 (2) EPC),
 - following the reason for refusal (point 1 of the decision under appeal), whether the amendments are such as to render Claim 1 clear (Article 84 EPC),

- following the statement in the decision under appeal (point 5), appearing tacitly to refer to preceding Communications, that the application documents (in particular the dependent Claims 2 and 3 and the description) would not permit Claim 1 to be clarified, whether the amended claim together with the further information on the claimed process as given in the other application documents are such as to disclose the invention in a manner sufficiently clear and complete for it to be carried out by a skilled person (Article 83 EPC).

3. *Admissibility of amendments*

- 3.1 By implication, the Examining Division considered the amendments made to Claim 1 on 24 April 1992 to be admissible.

The issue now to be decided is whether the amendments made on 14 October 1994 are admissible.

- 3.2 No objection arises in respect of the amendments made to the preamble of Claim 1.

In effect, as compared with the original Claim 1, it has only been restricted to an application of the claimed process in a more specific data base system which is derivable from the generic part of the description (page 1).

- 3.2 The characterising portion of Claim 1 has been amended, in essence, by:

- the step of "constructing ..." having been specified:

- as being automatic,

- as regards what constitutes the "entry data bases",
- as being set up by (sub-)steps of
 - "reading ...",
 - "setting up ...",
 - "locating ...", and
 - "finding ...", and
- again stating what constitutes the resultant "entry data bases";
- the step of "evaluating ..." having been specified as "listing ...",
- the step of "selecting ...", having been specified:
 - as being automatic, and
 - what the weighted priorities result from.

Apparently, all these particulars are derivable from the original dependent Claim 2 and from the description, some of them being indicated on page 2, third paragraph, and all the rest in the description referring to the drawings, in particular on pages 5 and 6.

3.3 Claim 1 as so amended is therefore admitted to the proceedings for further consideration.

4. *Clarity of Claim*

4.1 For the purposes of this issue, it is to be noted that the data base access process now claimed, other than its predecessor, is restricted to an access "using Data Language/I (DL/I) in a hierarchical data base management system of the type requiring user specified selection

criteria in association with corresponding program communication blocks (PCB) created by a data base administrator for any hierarchical data structure to be used".

4.2 It is clear from the prior art, A1 and A2b, what a "hierarchical data base management system" is and that, therefore, Claim 1 does not cover any access processes to any other database such as a relational database.

4.3 Furthermore, in that field, in particular in the so-called Information Management System (IMS), "Data Language/I (DL/I)" is a well-defined data manipulation language (A1 page 277 third paragraph; A2b).

The term "program communication blocks (PCB)" is also unambiguously defined in such systems (A1 page 277 second paragraph; A2b passage corresponding to A2a page 21 third paragraph).

Thus, no objection arises under Article 84 EPC in respect of the preamble of Claim 1.

4.4 The term "data base descriptions (DBD)" figuring in the characterising portion of that claim is also well-defined in the field of hierarchical databases, in particular in systems (as IMS) using DL/I (A1 page 277 first paragraph, page 282; A2b passages corresponding to A2a page 20 central paragraph and paragraph bridging pages 20 and 21).

4.5 It should be added that no indication is seen that would point to all these terms (DL/I, PCB, DBD) being "widely" used in **other** fields, by different companies, to cover **different** notions. But even if they are, in the present

case they have to be interpreted, after the aforementioned restriction to the specific field of hierarchical databases, as defined in that field.

4.6 The further term "entry data bases" considered in the decision under appeal not to be clear in respect of their construction from "definitions of the data base and PCBs" has been rendered clear in this respect by

- the amendments made to the step of "constructing ...", in particular by specifying this constructing step as being set up by the steps of "reading ..., setting up ..., locating ..., and finding ..." and
- the features specifying what constitutes the "entry data bases" (cf. point 3.2 above).

4.7 It is noted that, in the decision under appeal, it was stated that the dependent claims then on file would not permit clarification of the definitions used in Claim 1. The Examining Division was thus of the opinion that, *inter alia*, Claim 2 of 24 April 1992 was also not clear. This claim was, in essence, based on the original Claim 2. In the Division's opinion, thus, the features of that claim, concerning the sub-steps of the step of constructing entry data bases, if introduced in Claim 1, would not render this claim clear.

Claim 1 now on file is based, as far as the added sub-steps of the step of constructing entry data bases are concerned, on the original Claim 2. However, in addition thereto, it has been restricted, in the preamble, to the application of the claimed process in a specific kind of database as pointed out above (points 3.1, 4.1).

Nevertheless, when referring to the dependent claims not permitting clarification of the definitions used in the independent claim, the Examining Division had, apparently, in mind what the Examiner had stated in the preceding Communications, inter alia, about the features of former Claim 2.

Therefore, the Board will now consider those statements.

- 4.8 The statements made in the Examiner's first Communication about the feature "physical and logical data base descriptions (DBD)" and about a "lack of ... definitions" appear to have become irrelevant as a result of A1 having been cited to show that physical databases, logical databases and database descriptions are well-defined in the prior art.
- 4.9 The statements made in the second Communication about the "constitution method of an entry data base" and about the "exact performance of such a (program communication block PCB) computer program" being unclear were answered by the Applicant with explanations based on the description (and Figs. 2 and 3).
- 4.10 In the Result of a Consultation by telephone, the Examiner listed a number of features requiring clarification.

However, in the Board's view, the four features stated to be unclear in then Claim 1 were either clear enough if account is taken of A1 or have been clarified by amendments made subsequently.

The statement that it would not be clear from Claim 2 "which plurality of physical and logical DBDs is concerned", these DBDs now being in Claim 1, was not

answered but was not repeated in the final Communication either. The Board also sees no reason to put this question again.

4.11 In the Examiner's final Communication, five objections based on lack of clarity were stated, of which the first, relating to the construction of the entry data bases, appears to have been removed by the restriction of Claim 1 now on file, both in respect of the kind of database and in respect of the sub-steps of setting up the entry data bases.

The second, relating to the step of "setting up ..." and to the notion of "data directory" in Claim 2 then on file, seems to have been removed in Claim 1 now on file by reformulation of the step of "constructing ..." and of the functional feature ("thereby producing ...") stating the effect of that step.

The consequential third objection, relating to what is displayed, appears thus also to have been removed. The additional question whether "the user may directly select a PCB or automatically selects one or several PCBs when selecting a segment field" appears, to the Board, not to be an absolutely necessary question to be answered in Claim 1, given that an independent claim has to state (only) the essential features of an invention.

In the fourth of said objections, relating to the notion of "possible path", it would appear clear enough what "possible" access paths in a hierarchical database are.

In response to the fifth, relating to the step of "selecting ...", the preceding step has been amended, for instance, in that the word "all" has been deleted, this having the effect that Claim 1 is no longer

inconsistent with the feature of "eliminating ... paths" (before selection) in dependent claims.

The Examiner's summary of what should be clarified appears, in light of the above, at least partly to have been taken account of by the amendments made to Claim 1. For the rest, the Board's impression is that it would be overdoing the requirement for clarity by requesting, for instance, that it should be stated exactly which information is selected. While an independent claim should state all the essential features of an invention, this is not necessary for features which are inessential in the sense that the essential features embrace a plurality of alternatives.

- 4.12 In any case, the Board notes that none of these five specific objections of lack of clarity raised in the Examiner's final Communication was expressly maintained in the decision under appeal.

In these circumstances, the Board sees, no good reason to assume that any of these specific objections could validly render Claim 1 on file unallowable.

- 4.13 All in all, in the Board's view, it can no longer be assumed that the terms used in Claim 1 might not "cover the same technical features as the terms used in the prior art" (A1; A2b) or that the person skilled in the art might not be able to recognise the features, covered by said terms, which are necessary to implement the claimed process, as stated in the decision under appeal.

Therefore, Claim 1 is considered to be clear in defining the matter for which protection is sought.

The reason given for the refusal of the application is thus considered removed.

5. *Sufficiency of Disclosure*

5.1 As indicated before (point 2), the Examining Division's final statement (point 5 of the decision under appeal) is understood as pointing to the disclosure not being sufficient for permitting an invention to be defined that can be carried out by a skilled person.

5.2 In this respect, however, it has to be noted that no specific arguments supporting this objection, apart from those directly relating to the lack of clarity of Claim 1, were advanced.

It is not quite clear, therefore, why the additional information given, in particular, in the description in respect of the said terms and features in Claim 1 then on file should not suffice to permit the skilled person to implement the claimed process.

5.3 It is noted, in this context, that neither in said Result of a Consultation nor in said final Communication did the Examiner repeat his earlier objections based on Article 83 EPC. Apparently, he re-considered his view in this respect.

5.4 In any case, however this may be, it would appear that the person skilled in the art of hierarchical databases would not have any major difficulties in implementing, within the claimed process, the steps, or sub-steps, which have now been introduced in Claim 1 (cf. points 3.2 and 4.6) to make it clear, if necessary with the aid of further information given in the description.

5.5 The application-in-suit is therefore considered to disclose the claimed invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

6. *Conclusions*

6.1 The Appellant's request that the decision under appeal be set aside is to be allowed.

6.2 A possible issue, quite separate from those decided above, would be whether the claimed invention is patentable (Article 52 (1) EPC), i.e. whether it is an "invention" within the meaning of the Convention (Article 52 (2) and (3) EPC), which is susceptible of industrial application (Article 57 EPC), which is new (Article 54 EPC) and which involves an inventive step (Article 56 EPC).

6.3 Even though, in his first Communication, the Primary Examiner cited a prior art document, a full examination of the application, in particular of the subject-matter of Claim 1, in respect of such further possible issues was expressly not carried out during the first instance procedure.

For this reason, the appropriate step to be taken under Article 111 (1), second sentence EPC, is to remit the case to the first instance for further prosecution.

6.4 In the course of that prosecution, in the case of a positive conclusion as regards compliance with Articles 52 to 57 EPC, it will also have to be considered whether the dependent claims (which, *prima facie*, appear to be based on the original dependent claims) and the description (not amended after 30 January 1991) meet the requirements of the Convention (Article 84 and Rule 29(3) and (4) and, respectively, Rule 27 EPC).

Referring, at this point, again to said Result of a Consultation, the Board notes that the stated lack of clarity of Claim 3 was answered by amendments, that the stated lack of definition of the feature PSB in Claim 6 appears removed by its definition in the prior art (A1, A2b), and that it will be up to the Examining Division to establish whether and for what reason, or not, it maintains the objection of lack of clarity of Claim 4 and of the last method step in Claim 6.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution on the basis of the claims of 14 October 1994.

The Registrar:

The Chairman:

M. Kiehl

P. K. J. van den Berg