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**Datasheet for the decision
of 7 September 2022**

Case Number: T 1835/18 - 3.5.01

Application Number: 15183448.8

Publication Number: 2996076

IPC: G06Q10/06, G06Q10/10

Language of the proceedings: EN

Title of invention:

METHOD AND APPARATUS FOR INTEGRATED PRODUCT CONFIGURATION AND
PRODUCTION PLANNING

Applicant:

Siemens AG Österreich

Headword:

Integrated product configuration/SIEMENS

Relevant legal provisions:

EPC Art. 52, 56

Keyword:

Inventive step - product configuration and planning through
the integration and execution of various problem-solving
algorithms (no - straightforward implementation of non-
technical features)

Decisions cited:

T 0641/00, T 0258/03, T 0424/03



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Case Number: T 1835/18 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 7 September 2022

Appellant: Siemens AG Österreich
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 2 February 2018
refusing European patent application No.
15183448.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman N. Glaser
Members: L. Falò
D. Rogers

Summary of Facts and Submissions

- I. This appeal is against the examining division's decision to refuse the European patent application No. 15183448.8 on the grounds of lack of inventive step (Article 56 EPC).
- II. In the statement setting out the grounds of appeal, the appellant requested that the decision be set aside and a patent be granted on the basis of the refused sole request. Oral proceedings were not requested.
- III. In a communication under Rule 100(2) EPC, the Board expressed its preliminary opinion that subject-matter of claim 1 was either excluded from patentability under Articles 52(1) and 52(3) EPC or, when interpreted as implemented on technical means, not inventive in the sense of Article 56 EPC.
- IV. The appellant provided further written arguments in favour of the technicality of the claims and the presence of an inventive step.
- V. Claim 1 of the sole request reads as follows:
- "Method for integrated product configuration and production planning by use of a computer program comprising steps of:
- describing the specific tasks of product and production configuration in an abstract language;
 - integrating the solver technologies capable of efficient performing the tasks;

- translating the abstract representation of the tasks to a solver specific representation;
- handling the tasks by the chosen solvers."

VI. The appellant's arguments can be summarised as follows:

The automation of product planning and configuration requires technical knowledge and skills going beyond those of a business person or even of a generic computer programmer, such as the availability of standard interfaces, the use of a single or multiple databases for different user groups, the way of communicating with other systems. Therefore, all the claimed steps should be considered technical.

The technicality of the claimed features also follows from the fact that they provide technical effects, namely a reduction of the risk of inconsistencies and a reduction of redundancies in the knowledge base, the latter also implying an increase in the efficiency of the implementing machine.

The closest prior art is a conventional system which separately processes the tasks and makes use of a separated representation of the knowledge basis, and the objective technical problem is the optimisation of the product planning and configuration process. This problem is solved through the use of optimal software tools and the avoidance of inconsistencies.

Reasons for the Decision

Background

1. The invention concerns product configuration and production planning. When ordering a complex product, such as cars, customers can usually choose between different configurations, which may translate into complex sets of production requirements and tasks for the producers (see description, page 1, line 6 to page 2, line 13). In existing approaches, the tasks relating to product and product configuration are conducted in isolation. This may cause duplication, inconsistency, inaccuracy of information flow as well as unverifiable results, because the different tools have their own representation of the knowledge required for their part of the task (page 2, lines 14 to 19).
2. These problems are addressed by the invention by describing the tasks in an abstract language, so as to provide a common input for the different technologies and corresponding tools at use (page 6, lines 5 to 12), which are then integrated. The integration includes the automatic translation of the abstract representation of the tasks into a problem-specific representation which can be efficiently handled by a suitable solver, such as binary decision diagrams, satisfiability solvers, rule engines, constraint-based systems (see page 6, lines 11 to 32, and page 5, line 7 to page 6, line 4). Finally, each task is processed according to the chosen solver.
3. The examining division refused claim 1 of the sole request for a lack of inventive step (Article 56 EPC). The division took the view that the subject-matter of claim 1 was an obvious implementation, on a

conventional networked information system, of a set of non-technical steps for carrying out product configuration and planning.

Article 56 EPC

4. The question of inventive step requires an assessment of whether the invention makes a technical contribution over the prior art. Features which do not make such a contribution cannot support the presence of an inventive step (cf. T 0641/00, "Two identities/COMVIK", Headnote 1). This applies in particular to so-called "mixed-type" inventions, as in the present case.
5. The method of claim 1 is defined to be carried out "by use of a computer program". At least the final step of "handling the tasks by the chosen solvers" implies the execution of a program implementing the solvers on processing means. Since it involves technical means, the subject-matter of claim 1 is a patentable invention in the sense of Article 52 EPC (cf. T 0258/03, "Auction method/HITACHI", points 3 and 4, and T 0424/03, "Clipboard formats I/MICROSOFT").
6. However, neither the claims, nor the application as a whole provide further technical details as to the processing means used for the implementation. These are therefore considered to correspond to those inherent in any notoriously known, general-purpose computer. Any such device is, in the Board's view, a suitable starting point for assessing inventive step.
7. The Board agrees with the examining division that the steps of claim 1, apart from their computer-based implementation, do not have a technical character, but rather represent a set of non-technical requirements.

The level of abstraction of the claim - and indeed of the whole application - is such that there is no connection with any well-defined technical system or specific technical constraints. The "solver technologies" in the second method step are abstract problem-solving algorithms (see in particular the description, page 4, lines 9 to 25, and page 6, lines 25 to 32). No technical information is provided as to how the solvers are integrated (second method step), or how the problem-specific translation (third method step) is achieved. Finally, there is no technical characterisation of the tasks to be executed or of the technical means on which the method is implemented.

8. In the statement setting out the grounds of appeal, the appellant provided an exemplary list, extracted from Wikipedia, of considerations upon which a generic product configuration may be based, such as the availability of standard interfaces, the use of a single or multiple databases for different user groups, the way of communicating with other systems.

9. For technicality to be acknowledged, however, it is not sufficient to argue the potential presence of technical considerations. These must be derivable, in a credible manner, from the claimed subject-matter and, furthermore, there must be a disclosure with sufficient technical details in the application as filed. This is not the case for the application at issue. Even though the skilled person in charge of the implementation will generally make use of a number of technical features, such as appropriate communication interfaces or database architectures, these are neither explicitly included nor inherent in the claimed subject-matter. The mere possibility of a technical embodiment is not

sufficient to lend technical character to a general concept.

10. Even though the avoidance or reduction of redundancies and inconsistencies are among the intended effects of the invention, in the Board's view they are not credibly and objectively derivable from the claimed features, none of which deals - alone or in combination - with the management or storage of data in a database. Moreover, the integration of "solver technologies capable of efficient [sic] performing the tasks" is a mere desideratum, whose implementation is left to the skilled person. It follows that the alleged improvements in computer efficiency and database consistency are entirely speculative.
11. Accordingly, the Board judges that the steps of claim 1 do not provide any technical contribution beyond the straightforward implementation on a general-purpose computer. Therefore, claim 1 lacks an inventive step (Article 56 EPC).
12. The Board comes to the same conclusion when starting from the closest prior art proposed by the appellant, that is, known software tools executing the various tasks in isolation. For the reasons provided above, the mere integration of the product planning and configuration tasks according to the features of claim 1 does not credibly and objectively contribute to the solution of a technical problem by providing a technical effect, and therefore cannot support an inventive step.
13. The appellant has not requested oral proceedings under Article 116 EPC. The reasons why the application does not meet the requirement of Article 56 EPC having been

discussed, the Board is in a position to issue a written decision.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



T. Buschek

N. Glaser

Decision electronically authenticated