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**D E C I S I O N**  
**of 27 November 2003**

**Case Number:** T 0172/03 - 3.5.1

**Application Number:** 96115736.9

**Publication Number:** 0767436

**IPC:** G06F 17/60

**Language of the proceedings:** EN

**Title of invention:**

Order management system and method considering budget limit

**Applicant:**

Ricoh Company, Ltd.

**Opponent:**

-

**Headword:**

Order management/RICOH

**Relevant legal provisions:**

EPC Art. 52(1), 56, 54

**Keyword:**

"Inventive step (no)"

**Decisions cited:**

T 0769/92, T 0931/95, T 0967/97, T 0049/99, T 0641/00

**Catchword:**

1. The term "state of the art" in Article 54 EPC should, in compliance with the French and German text, be understood as "state of technology", which in the context of the EPC does not include the state of the art in commerce and business methods. The term "everything" in Article 54(2) EPC is to be understood as concerning such kind of information which is relevant to some field of technology.
  
2. From these considerations it follows that anything which is not related to any technological field or field from which, because of its informational character, a skilled person would expect to derive any technically relevant information, does not belong to the state of the art to be considered in the context of Articles 54 and 56, even if it had been made available to the general public before the relevant priority date (see points 8 to 10 of the reasons).



Case Number: T 0172/03 - 3.5.1

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.1  
of 27 November 2003

**Appellant:** Ricoh Company, Ltd.  
3-6, Nakamagome 1-chome  
Ohta-ku,  
Tokyo 143 (JP)

**Representative:** Schwabe, Hans-Georg, Dipl.-Ing.  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 30 July 2002  
refusing European application No. 96115736.9  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** S. V. Steinbrener  
**Members:** R. R. K. Zimmermann  
B. J. Schachenmann

## Summary of Facts and Submissions

- I. European patent application number 96 115 736.9 concerning an automatic order management system was filed on 1 October 1996 with a priority date of 2 October 1995.
- II. The European search report drawn up in respect of the application cited the following documents among others:
- D1: WO-A-94 28497, published in 1994
  - D2: WO-A-90 11572, published in 1990
  - D3: US-A-5 319 542, published in 1994
  - D4: US-A-5 402 336, published in March 1995
- III. The examining division refused the application for lack of inventive step. According to the reasons given in its decision, the alleged invention related to the task of centralizing order placements within an organization having multiple departments. The focus was laid on an economic improvement of the order placing mechanism, without providing any technical contribution to the prior art; the regime of patentable subject-matter was only entered with the design and programming of the computerized system for implementing the improved order placing mechanism.

However, such an implementation was obvious, taking into account that the relevant skilled person was a computer science expert, actually a team comprising a business expert and a programmer, who had the knowledge of the economic concept and structure of the improved order placing mechanism. The integration of the order placing mechanism into a distributed computer system

using database techniques and corresponding data structures and functions was a matter of routine.

In addition, the cited prior art already disclosed similar solutions, document D1 a distributed network computer system for automatically placing orders and managing the order history, and document D2 a just-in-time automatic order placement and order permission means. The skilled person regarded it as being obvious to implement such features in a system for improving the order placement mechanism.

The refusal of the application was announced in oral proceedings before the examining division and formally notified to the applicant by a registered letter posted on 30 July 2002.

IV. The applicant (appellant) appealed against the refusal decision, filing the notice of appeal on 27 September 2002 and paying the appeal fee the same day. A written statement setting out the grounds of appeal was filed on 28 November 2002.

V. In oral proceedings held before the Board on 27 November 2003, the appellant filed three sets of claims designated as main, first auxiliary and second auxiliary request, respectively, comprising the following versions of claim 1:

Main request:

"1. An order management system for automatically placing an order with one of a plurality of suppliers,

said order placement being performed in a system environment having a plurality of sections, said order system comprising:

a plurality of terminal units (A-N) provided to the respective orderers, said terminal units being located in a respective section and including means for inputting an order information to be transmitted to a communication network (6) connected to each of said terminal units, said order information including a section code of the orderer, and

a central management unit (7) connected to said communication network (6) for receiving the order information;

said central management unit (7) including:

- a) collection processing means (76) for
  - managing, with respect to each orderer, order history information and section information and
  - calculating a momentary sum on the basis of a total cost of the previous orders of a section based on the order history information of one of the orderers sending the order information including the section code of this orderer and of order information sent from said one of said orderers; and
- b) order permission means for permitting execution of an ordering process when the momentary sum is within a budget of the section of the orderer;

wherein said order management system is configured for storing a section master file (82) comprising said order history information and said section information for each section including a section code (82a) and a budget (82d) of each section, and

said collection processing means (76) is configured for automatically placing said order when said order information is input by said one of a plurality of

orders if the ordering process is permitted by said permission means."

Auxiliary request 1:

"1. An office system with order management for a company or office and for automatically placing an order with one of a plurality of suppliers, said order placement being performed in a system environment having a plurality of sections, said sections corresponding to sections of a company or office, said office system comprising:  
a plurality of terminal units (A-N), said terminal units being located in a respective section and including means for inputting an order information to be transmitted to a communication network (6) connected to each of said terminal units, said order information including a section code of the orderer, said terminal units comprising personal computers and copy machines and/or facsimile apparatus and said orders ordering copy papers and/or toner cartridges, and  
a central management unit (7) connected to said communication network (6) for receiving the order information;  
said central management unit (7) including:  
a) collection processing means (76) for  
- managing, with respect to each terminal unit, order history information and section information and  
- calculating a momentary sum on the basis of a total cost of the previous orders of a section based on the order history information of one of the terminal units sending the order information including the section code of this terminal unit and of order information sent from said one of said orderers; and

b) order permission means for permitting execution of an ordering process when the momentary sum is within a budget of the section of the orderer;

wherein said order management system is configured for storing a section master file (82) comprising said order history information and said section information for each section including a section code (82a) and a budget (82d) of each section, and

wherein said order management system is further configured to perform automatically the following steps upon reception of the section code, an item name to be ordered, and an order condition as to whether the supplier is selected according to the price priority basis or the supplier priority basis from a terminal unit:

- searching of an item master file which stores the item information for the items to be ordered by each department or section so as to determine whether or not the item name included in the received order information corresponds to one of the registered item names to which an order can be placed;
- if it is determined by the order management system that the item name corresponds to none of the registered item names, an error message is sent to the terminal unit, which error message indicates that the input item name does not correspond to the registered item name which can be ordered;
- if it is determined that the input item name corresponds to one of the registered item names, an order selecting unit compares the input item name with the item name in the item master file to find the item name corresponding to the input item name;

- when the corresponding item name is found, the item name, an item code, a unit price and a supplier code are read and stored in an item table file, respectively;
  - an order priority of a supplier master file is read based on the supplier code and the order priority is stored in the item table file;
  - the supplier selecting unit checks the order condition received from the terminal unit whether the selection of the supplier should be made according to the price priority basis or the supplier priority basis;
  - if the price priority basis is selected, the item table file is sorted according to a lower price order;
  - if there are more than two suppliers having the same price, they are sorted by the order priority basis;
  - if the supplier priority basis is selected by the order condition, the item table file is sorted according to the order priority basis; and
- said collection processing means (76) is configured for automatically placing said order when said order information is input by said one of a plurality of orders if the ordering process is permitted by said permission means, for this purpose, the collection processing means is configured to perform automatically the following steps:
- the collection processing means reads the unit price of the first row of the item table file;
  - the collection processing means then calculates the order costs by multiplying the read unit price and the amount of order included in the order information;
  - the collection processing means calculates a sum of the order costs for the department or section which places the order at this time by searching the section master file based on the section code of the terminal unit included in the order information, said

calculation being formed by adding the order costs at this time to the total cost of orders corresponding to the section code;

- when the summed cost of the previously ordered supplies exceeds the budget of the department or section, the collection processing unit sends an error message to the terminal unit."

Auxiliary request 2: Claim 1 is identical to claim 1 of the first auxiliary request, except that the following text is inserted at the end of the claim after the word "unit":

", wherein the supplier selecting unit calculates a total cost of received orders for each of said suppliers based on the order history information and the order information and based on the produced item table and selects one of said suppliers whose total cost of received orders is within an order limit".

VI. According to the submissions of the appellant, the object of the invention was an improved office system suitable to select, out of a plurality of suppliers, a supplier of expendable supplies of items needed by a section of the office. The person in charge of each section could choose between best price priority and supplier priority. The order was then processed automatically, subject only to the budget constraints of the respective section. The invention achieved a minimal load of data processing. This was an important technical aspect of the invention, which provided a technical and inventive contribution to the prior art.

In respect of the present invention it was neither appropriate to apply the practice set out in the PBS decision (T 931/95 Controlling pension benefits system/PBS PARTNERSHIP, OJ EPO 2001, 441) nor any other method based on a separation of technical and non-technical features. A claim comprising a mixture of technical and non-technical features should be considered as whole for the assessment of technical character and inventive step. Regardless of the nature of the invention, inventive step should be assessed solely on the basis of written prior art. It was not acceptable that the decision under appeal, like the PBS decision in point 8, took non-written prior art and general considerations on the common general knowledge of the person skilled in the art into account. Such practice led to a discrepancy in the manner how technical inventions and inventions of a different nature were examined.

Following the approach of the PBS decision meant fictitiously to consider the inventive business concept as being part of the prior art, despite of any evidence that this concept was actually made available to the public before the priority date of the application. This was not in conformity with the principles of the European Patent Convention. The Board should rather follow the previously prevailing case law, as applied for example in the SOHEI decision (T 769/92 General-purpose management system/SOHEI, OJ EPO 1995, 525).

In respect of the prior art cited in the European search report, the claimed invention was novel and inventive. The customers of the electronic requisitioning system of document D1 were not sections

of any company or office, but rather individual customers. The orders could not be placed automatically as with the inventive system. The order data had rather to be periodically polled so that a timely placement required a high polling rate, leading to an increased overall data traffic in the computer network.

Document D2 disclosed a decentralized system where a plurality of individual customers communicated with the central computer of a warehouse. Although disclosing an order permission scheme it was related to a completely different environment and system structure. In particular, the automatic processing of orders was not possible. The network connection had rather to be interrupted between the requisition and the final order processing to allow the manual selection of the supplier and the handling of the order process as described in this document.

Document D4 presented the closest piece of prior art. It was the only prior art which mentioned the use of order criteria and constraints and proposed a system for allocating resources among a plurality of suppliers on a best price basis. Missing, however, were the inventive data structures, in particular the item table file, and the inventive sequence of steps, as defined for example by the process loop for selecting the best supplier from the item table file. The inventive data structures and process features, however, were essential for the remarkable technical improvement, which manifests itself, for example, in an improved technical efficiency of the order management and processing.

VII. Accordingly, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims according to the main request or on the basis of one of the sets of claims according to auxiliary request 1 and 2, respectively, all requests filed at the oral proceedings of 27 November 2003.

VIII. At the end of the oral proceedings, the Board's decision was announced.

### **Reasons for the Decision**

1. The appeal complies with the requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC and is thus admissible.
2. The appeal, however, is not allowable since the claims now under consideration do not meet the requirements of the EPC.

Indeed, it is sufficient to look at the respective claim 1 only, although there are a number of independent claims, since in all three requests the first claim already falls short of meeting the requirement of inventive step in respect of Articles 52(1) and 56 EPC.

*Inventive step: relevant case law and practice of the EPO*

3. According to the case law and practice of the EPO, the patentability of an invention, for which inventive step is a requirement, must arise from features and aspects

of the invention from which a technical solution to a technical problem can be inferred and which are thus of a technical character (see, for example, the PBS-decision (T 931/95) and the COMVIK decision (T 641/00 - Two identities/COMVIK, OJ EPO 2003, 352), points 2 and 3, respectively).

In the case of a mixed-type invention (including non-technical aspects), examination for patentability normally requires an analysis of the invention and the construction of the claims to determine the technical content of the claims as a prerequisite step (see, in respect of inventive step, the COMVIK and PBS decisions, points 7 and 8, respectively). The required analysis of claim features is possible only *ex post facto*, i.e. in knowledge of the patent application and the invention to which it relates.

4. The appellant objected to the application of the principles of the PBS decision to the present case, essentially arguing that the examination approach in this decision was based on a fictitious kind of prior art and unlawful *ex post facto* considerations, with the illegitimate result that technical and mixed-type inventions were treated differently.
  
5. As already indicated in point 7 of the COMVIK decision, however, the prerequisite step of determining the technical features and aspects of a mixed-type invention is not part of the prior art analysis. Certainly, an *ex post facto* knowledge of the patent application and the claimed invention cannot be avoided completely in judging inventive step; what should strictly be avoided are retrospective considerations

and conclusions in evaluating the technical contribution the invention provides to the relevant prior art (see decision T 967/97 - Chipkarte/OVD KINEGRAM AG, not published in OJ EPO, point 3.3).

6. Turning now to the meaning to be given to the term "person skilled in the art" of Article 56 EPC. According to the decision under appeal this term refers, in the present case, to a computer science expert, a programmer and a business expert, a view which is not in compliance with the case law of the Board.

According to the COMVIK decision, point 8, the "skilled person will be an expert in a technical field". The decision goes on to state: "If the technical problem is concerned with a computer implementation of a business, actuarial or accountancy system, the skilled person will be someone skilled in data processing, and not merely a businessman, actuary or accountant."

7. Indeed, Article 18 EPC determines that an examining division in principle consists of three technically qualified examiners. The examining division is thus, due to its composition, neither professionally competent to evaluate the state of "non-technological art" nor to assess innovations in a non-technological field. It would be inconsistent with the terms and objects of the EPC to attribute an essentially different professional competence to the "person skilled in the art" within the meaning of Article 56 EPC, for example by construing this term to include business experts or practitioners in other non-technological fields. Even if there may be borderline areas, like system analysis and design which are based

on rather abstract and intellectual activities but nevertheless provide important results for developing complex software systems (see decision T 49/99-Information modelling/INTERNATIONAL COMPUTERS, not published in OJ EPO, point 7), this should not divert from the principle that the skilled person within the meaning of Article 56 EPC is a technical expert, professional or practitioner.

8. Finally, the decision under appeal (see point 1.1 of the reasons) identifies the closest prior art as "the existing order placing mechanism" as if such a business scheme qualified as prior art as any other piece of technical information. The appellant apparently shares this view, at least regarding the identification of the closest prior art.

However, as explained in the COMVIK decision, point 2, the term "state of the art" in Article 54 EPC should, in compliance with the French and German text, be understood as "state of technology", which in the context of the EPC does not include the state of the art in commerce and business methods.

9. The term "state of the art" should be interpreted in its legal context, and in the light of the object and purpose of the patentability requirements of the EPC.

It can hardly be assumed that the EPC envisaged the notional person skilled in the (technological) art to take notice of everything, in all fields of human culture and regardless of its informational character. A consistent construction of the patentability provisions requires the term "everything" in

Article 54(2) EPC to be understood as concerning such kind of information which is relevant to some field of technology.

10. From these considerations it follows that anything which is not related to any technological field or field from which, because of its informational character, a skilled person would expect to derive any technically relevant information, does not belong to the state of the art to be considered in the context of Articles 54 and 56, even if it had been made available to the general public before the relevant priority date.

*Prerequisite examination concerning technical character*

11. All three requests relate to an order management and office system which serves to control and satisfy the inventory needs of business and other kinds of administrative entities (see the published application, in particular column 1, lines 16 to 42). Therefore, in the present case it is expedient to analyse first the technical character of the claim features before approaching the inventive step requirement. As has been shown above, the starting point and the basis of the invention is an order management method which as such is missing any technical character. Therefore, it is appropriate to identify first the claim features which define this non-technological part of the invention. The required claim construction has to take into account that terms like system, unit or means do *per se* not have any technical connotation. They may simply define business units or methods, but they may nevertheless, at the same time, refer to corresponding technical components of the system.

12. The purely business-related aspects in claim 1 (of all requests), are considered to be displayed in the following claim features:

For placing an order with one of a plurality of suppliers, the order management system comprises a central management unit for receiving the order information from one of a plurality of (business) sections identifiable by a section code; an order information including a section code of the orderer, said central management unit including:

- (a) collection processing means for
  - managing, with respect to each orderer, order history information and section information and
  - calculating a momentary sum on the basis of a total cost of the previous orders of a section based on the order history information of one of the orderers sending the order information including the section code of this orderer and of order information sent from said one of said orderers; and
- (b) order permission means for permitting execution of an ordering process when the momentary sum is within a budget of the section of the orderer; wherein said order management system ensures appropriate book-keeping, the business records including a section master file comprising said order history information and said section information for each section including a section code and a budget of each section, and said collection processing means places said order when said order information is input by said one

of a plurality of orders if the ordering process is permitted by said permission means.

13. Having regard to the technical features of the claimed invention, it may first be recalled that a computer system suitably programmed to perform or support a business activity has technical character (see the PBS decision, point 5). The same holds, in the context of inventive step, for features and aspects of the system which ensure that the computer system provides some useful function, irrespective of the purpose and the use of the function.
14. Claims 1 of all three requests define a distributed computer system comprising terminal units A-N, a communication network 6, a table-oriented database system 82 and a computer system 7, 76, 82, all components linked via the communication network for collecting, transmitting and processing data.
15. As explained in the application, the computer system 7, 76, 82 may consist of multiple general purpose computers at different locations (departments), properly programmed and set up (see for example the published application, column 4, lines 8 to 13, column 5, lines 12 to 16, and lines 34 to 45, and column 10, lines 39 to 48).

According to the application, therefore, the order management method can be implemented on a normal office information system by using standard hardware components, without essentially changing the network structure of the system. The claims encompass embodiments where the claiming of various units and

functions for performing the order activities and transactions has no technical meaning or implications but serves merely definitional purposes. In such embodiments, the functions and data structures are implemented essentially by software programming.

*Inventive step: considerations common to all requests  
The relevant person skilled in the art*

16. For the software implementation of an information system, normally a software project team is responsible, typically consisting of programmers. The Board thus considers appropriate to define, in the present case, the relevant "person skilled in the art" within the meaning of Article 56 EPC as such a software project team. For the reasons given above, it does not include any business expert, but it has knowledge of the business-related features and aspects of the order management method, in the kind of a requirements specification, as part of the formulation of the technical problem to be solved.

*The closest prior art*

17. An invention lacks an inventive step if the skilled person, starting from some point in the prior art (the "closest prior art"), would consider to follow a "solution path" which leads him to the claimed invention (see the Chipkarte decision, catchword II).
18. Having regard to the rather few technical aspects and structural elements claimed for the invention, the closest prior art appears to be a distributed information system comprising multiple general purpose

computers at different locations and connected by a communication network as known and in use in a vast number of companies for office automation well before the priority year 1995. Such a distributed information system and its use for office automation form part of the common general knowledge as can, for instance, be seen from the prior art referred to by the appellant; the existence of such kind of system before the priority date of the application does not require further evidence.

*Main request*

*The distinguishing features*

19. The claimed invention is distinguished therefrom by functional features and data structures for implementing the essentially business-related aspects and features of the order management method.

*The technical problem*

20. Providing an implementation of a business-related method on a computer system is basically a technical problem, appropriate for use with the problem and solution approach for assessing inventive step. As stated in the COMVIK decision, point 7, it is legitimate to include the non-technical aspects and features of the invention, i.e. in the present case the business-related features of the order management, into the formulation of the technical problem. From the point of view of the relevant person skilled in the art, the task of programming an office information system or of implementing commercial features on such a system is per se a normal and obvious aim.

*The technical contribution to the prior art*

21. Considering an embodiment on the basis of a pure software implementation of the order management method using standard PC and hardware components, it is clear that claim 1 (main request) defines technical subject-matter (functions, data structures etc.) which distinguishes such an embodiment from a normal distributed information system only in terms of the business -related processes and data of the order management method.

These technical features of the implementation, however, follow directly from the requirements specification concerning the order management method. The claimed technical solution does not go beyond the concept of a mere automation of constraints imposed by the business-related aspects. Such automation using conventional hardware and programming methods must be considered obvious to a skilled person.

22. The Board does not see any other technically relevant subject-matter which may have to be taken into account.

The appellant argued that by centralizing the ordering process the network load was reduced. Claim 1 indeed does define a centralisation but of the order management, not of the computer system. The "central management unit" might rather be a distributed computer system producing an important overhead of data traffic. In addition, saving time or energy, reducing traffic load etc. by applying purely administrative or business solutions do not confer a technical character to such

solutions and are thus in any case not relevant to the issue.

Hence, claim 1 of the main request is not allowable (Article 56 EPC).

*Auxiliary request 1*

23. Turning to the auxiliary requests, claim 1 of the first auxiliary request includes the subject-matter claimed in the second auxiliary request. Lack of inventive step in the second thus entails, novelty given, the very same deficiency in the first auxiliary request, rendering it sufficient to consider inventive step in respect of claim 1 of the second auxiliary request only.

*Auxiliary request 2*

*The distinguishing features*

24. The second auxiliary request on the one hand expands the order management concept as defined according to the main request, and on the other hand defines the "order management system" itself in a subtly different manner, namely now as an "office system" with order management for a company or office comprising a plurality of terminal units with personal computers and copy machines and/or facsimile apparatus. It further defines a "system environment" having a plurality of sections in which the terminal units are located corresponding to sections of the company or office. In this system environment, the order placement is performed (the "orders ordering copy papers and/or toner cartridges").

25. The extended order management concept according to the second auxiliary request encompasses following additional features:

An item master file is provided which indicates the item information for the items to be ordered by each department or section so as to determine whether or not the product or item name included in the received order information corresponds to one of the registered item names to which an order can be placed. For each order, an item name and in addition an information (the "order condition") as to whether the supplier is selected on a price priority basis or a supplier priority basis are provided. The item master file is searched so as to determine whether or not the item name included in the received order information corresponds to one of the registered item names to which an order can be placed;

- if it is determined by the order manager that the item name corresponds to none of the registered item names, an error message is sent to the orderer, which error message indicates that the input item name does not correspond to the registered item name which can be ordered;
- if it is determined that the input item name corresponds to one of the registered item names, the input item name is compared with the item name in the item master file to find the item name corresponding to the input item name;
- when the corresponding item name is found, the item name, an item code, a unit price and a

supplier code are read and stored in an item table file, respectively;

- an order priority of a supplier master file is read based on the supplier code and the order priority is stored in the item table file;

- the order condition received is checked whether the selection of the supplier should be made according to the price priority basis or the supplier priority basis,

and

- the item table file is sorted accordingly.

26. Furthermore, according to claim 1, the order costs are calculated by multiplying the unit price read in the item table file and the amount of order included in the order information;

- a sum of the order costs for the department or section which places the order at this time is calculated by searching the section master file based on the section code of the terminal unit included in the order information, said calculation being formed by adding the order costs at this time to the total cost of orders corresponding to the section code;

- when the summed cost of the previously ordered supplies exceeds the budget of the department or section, an error message is sent to the orderer, wherein the supplier selecting unit calculates a

total cost of received orders for each of said suppliers based on the order history information, the order information and the produced item table and one of said suppliers whose total cost of received orders is within an order limit is selected.

27. The technical problem of the implementation of such a order management concept on a computerized office system is solved, as follows from the claim wording, by providing appropriate table constructs for holding the product, supplier and other accounting data and appropriate computing units for performing the necessary order processes automatically.

28. As indicated in the decision T 49/99-Information modelling/INTERNATIONAL COMPUTERS cited above, modelling a physical system as a step in developing a corresponding software system does not provide a technical contribution, if it is not exceptionally part of a technical solution to a technical problem.

The organization of the computer data in direct correspondence to the business data and an algorithm merely reflecting the business processes and transactions are part of the abstract modelling of the order management method. The various ordering steps and the organisation and content of the various files according to this auxiliary request do not serve any technical purpose and are thus considered to form part of the non-technical aspects of the invention.

*The technical features of the invention*

29. Undoubtedly, there are also technical aspects involved.

These are first those claim features which only define a direct carry over of the abstract model to software features, which is considered as a routine work within the professional realm of a software project team.

30. The data construct "item table file" and the steps using it for selecting the supplier make a difference since for this file there seems not to exist any direct counterpart in the form of a collection or an item of business data already present within the order management concept.

31. Therefore, the Board considers technical aspects involved in the following claim definitions:

"the order management system is configured to perform automatically ...

- when the corresponding item name is found, the item name, an item code, a unit price and a supplier code are read and stored in an item table file, respectively;
- an order priority of a supplier master file is read based on the supplier code and the order priority is stored in the item table file;
- the supplier selecting unit checks the order condition received from the terminal unit whether the selection of the supplier should be made according to the price priority basis or the supplier priority basis;
- if the price priority basis is selected, the item table file is sorted according to a lower price order;

- if there are more than two suppliers having the same price, they are sorted by the order priority basis;
- if the supplier priority basis is selected by the order condition, the item table file is sorted according to the order priority basis"

As follows from the patent application (see, for example, Figures 8 and 9, steps S5 and S6, with the accompanying parts of the text), the item table file is a temporary data construct for storing the intermediate results of the order processing and for selecting the supplier according to a predetermined priority scheme, giving preference either to the price or to a predefined order priority of the supplier. The concrete meaning of the data stored in the item table results directly from the business-related data used with the order management method and does thus not have any technical relevance.

*The technical contribution to the prior art*

32. The technical problem to which the item table file and the related process steps form the solution is the automatic production of particular output data the meaning of which, at the business level, is to indicate an appropriate supplier of the item to be purchased under the constraint of the order priority chosen.
33. The same problem is addressed in document D2, for example on page 2, lines 4 to 9, page 3, lines 7 to 11, and page 8, lines 5 to 15.
34. The solution proposed in document D2 (see pages 20 to 25 with Tables IV and V) is a table construct listing

the item code (part number), the unit price (COST and U/I), and the supplier code (SPLR). The table may permit order entry from the screen on which the table is displayed (see page 25, first paragraph).

35. This renders obvious the technical idea to produce a temporary list in table format displaying in a row the relevant business data concerning item, supplier and price which allow to select the best price or supplier. Which additional data are displayed, as for example item name and order priority, is a question of the order management method and has no technical relevance.
36. Finally, sorting as claimed is a standard function for this type of table-oriented data processing, and does thus not involve any additional aspects relevant to inventive step.
37. In summary, the technical contribution provided by the claimed invention to the prior art is to be considered obvious so that neither one of auxiliary requests 1 and 2 complies with the requirement of inventive step as set out in Article 56 EPC.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

M. Kiehl

S. V. Steinbrener