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**Datasheet for the decision
of 8 May 2024**

Case Number: T 1195/20 - 3.5.06

Application Number: 15796529.4

Publication Number: 3146450

IPC: G06F9/44

Language of the proceedings: EN

Title of invention:

TABULAR FORMAT TRANSACTION EDITOR

Applicant:

Investcloud Inc.

Headword:

Tabular format transaction editor/INVESTCLOUD

Relevant legal provisions:

EPC Art. 123(2)

RPBA 2020 Art. 12(4), 13(1)

Keyword:

Main request - admittance (yes)

Main request - added subject-matter (yes)

Auxiliary requests 1 to 3 - admittance (no)



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Case Number: T 1195/20 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 8 May 2024

Appellant: Investcloud Inc.
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Representative: Franks & Co Limited
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 19 December
2019 refusing European patent application No.
15796529.4 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman M. Müller
Members: M. Domingo Vecchioni
K. Kerber-Zubrzycka

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division issued on 19 December 2019 to refuse European patent application no. 15 796 529.4.

II. The examining division refused the application on the basis that claims 1, 8 and 14 of the sole request on file did not meet the requirements of Article 123(2) EPC.

In a section titled "Further remarks", the examining division gave reasons as to why claim 1 - under the proviso that "the features that do not comply with Article 123(2) EPC are disregarded" - was not inventive, Article 56 EPC, over

D1: US 7 523 395 B1.

III. With the statement of grounds of appeal, the appellant filed new sets of claims for a main request and a first auxiliary request. The board understands the appellant's requests in that statement (see page 12, last three paragraphs, and page 15, last complete paragraph to page 16) to have been that the decision of the examining division be set aside and a patent be granted on the basis of the claims of the main request or, alternatively, of the first auxiliary request, with a description which the appellant would be ready to adapt if so requested by the board. Oral proceedings were requested on an auxiliary basis.

The appellant filed also the following document:

D3: Dictionary of Computing, 3rd edition, Oxford University Press, 1991, pages 108-109.

IV. The board summoned the appellant to oral proceedings on 4 March 2024.

V. With a letter received on 28 March 2024, the appellant indicated that the main and first auxiliary requests were maintained and filed new sets of claims for a second and a third auxiliary request.

The appellant requested "for reasons of procedural economy (Article 12(4) third sentence)" that the oral proceedings be cancelled and that the board "considers the main request, and first to third auxiliary requests and issues a decision based upon the papers".

VI. In a communication pursuant to Article 15(1) RPBA issued on 25 April 2024, the board presented its preliminary opinion on the appeal. The main request did not appear to comply with the requirements of Article 123(2) EPC and claim 1 did not appear to involve an inventive step over D1, Article 52(1) and 56 EPC. The board tended not to admit the auxiliary requests 1 and 2 under Article 12(4) RPBA and the auxiliary requests 3 and 4 under Article 13(1) RPBA.

VII. With a letter received on 3 May 2024, the appellant confirmed that the appellant would not be represented at the oral proceedings and requested "issuance of a decision based on the content of the complete written file". No response in substance was received.

VIII. The oral proceedings were thereupon cancelled.

IX. Claim 1 of the main request reads as follows:

"A method comprising:

invoking a tabular format transaction editor (104);
identifying a server (112) capable of executing an application (108) independently of the tabular format transaction editor, the application being a web portal;

displaying data input categories in a tabular format transaction editor (104), the data input categories comprising authentication information, server identification of a server (112) to which an application (108) is to be deployed, a display sequence of fields within a graphical representation (200) corresponding to the application, and field positioning of a plurality of fields within the graphical representation;

receiving (402) a plurality of inputs in the data input categories of the tabular format transaction editor;

generating (106, 404, 508), with a processor, production ready runtime code corresponding to the application based upon the plurality of user inputs in the data input categories from the tabular format transaction editor through automatic compilation without a manual user input, the runtime code being operable to generate the graphical representation according to the plurality of user inputs in the data input categories independently of the tabular format transaction editor (104), the runtime code displaying, within the graphical representation, a status of a user account associated with the application based on the plurality of user inputs; and

automatically deploy the production ready runtime code, based on the plurality of user inputs without an additional manual user input, to the server to execute

the production ready runtime code corresponding to the application to generate the graphical representation."

X. Claim 1 of the first auxiliary request reads as follows:

"A method comprising:

invoking a tabular format transaction editor (104);
identifying a server (112) capable of executing an application (108) independently of the tabular format transaction editor, the application being a web portal;
authenticating, via network (110), the server;
displaying, in the tabular format transaction editor, server categories and portal user categories, the server categories comprising server identification of the server to which the application is to be deployed and authentication of the server, the portal user input categories comprising a display sequence of fields within a graphical representation (200) corresponding to the application, and field positioning of a plurality of fields within the graphical representation, the server categories being hidden from view in the application;

receiving (402) a plurality of user inputs in the server categories and the portal user input categories of the tabular format transaction editor; and

generating (106, 404, 508), with a processor, production ready runtime code corresponding to the application based upon the plurality of user inputs in the portal user input categories from the tabular format transaction editor through automatic compilation without a manual user input, the runtime code being operable to generate the graphical representation according to the plurality of user inputs in the portal user input categories independently of the tabular format transaction editor, the runtime code displaying,

within the graphical representation, a status of a user account associated with the application based on the plurality of user inputs; and

automatically deploy the production ready runtime code, based on the plurality of user inputs in the server categories without an additional manual user input, to the server to execute the production ready runtime code corresponding to the application to generate the graphical representation."

XI. Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request in that in the first step the term "invoking" is replaced by "providing".

XII. Claim 1 of the third auxiliary request differs from claim 1 of the second auxiliary request in that the following features are added:

"wherein the runtime code is generated by translating the plurality of user inputs into commands associated with an intermediary programming language and translating the commands associated with the intermediary programming language into operating system commands, the intermediary programming language being platform independent; and wherein the runtime code is generated without the plurality of user inputs having commands provided in a programming language format".

Reasons for the Decision

The application

1. The application relates to enabling users not familiar with computer programming, e.g. business analysts, to

generate computer code for an application, e.g. a portal webpage as shown in figure 3 (paragraphs [0002] to [0007] and [0017] to [0019]).

2. A "tabular form transaction editor", e.g. a spreadsheet program, receives inputs by the user that specify certain aspects of the application, such as fields to display (see figure 2). These inputs are converted by a "code generation engine" (see figure 1) into computer code that is then operable independently of the tabular format transaction editor (see paragraph [0017]).

Main request - Admittance

3. Claims 1 to 6 of the main request were first filed with the statement of grounds of appeal. The admittance of this request is thus at the discretion of the board under Article 12(4) RPBA. The board admits the main request as it represents a bona fide attempt to overcome the objection under Article 123(2) EPC raised by the examining division in respect of the server identification (decision, point 4.1(b)) and as it does not substantially alter the matter for which protection is sought.

Main request - Article 123(2) EPC

4. The examining division found that independent claim 1 of the request then on file infringed the requirements of Article 123(2) EPC in view of the features "data input categories", "to which an application (108) is to be deployed" and "associated with the application"; similar objections applied to independent claims 8 and 14 (decision under appeal, points 3 and 4).

5. The appellant contested these objections in the grounds of appeal (pages 1 to 9). The skilled person would have understood the term "data" in the present application as synonymous with the word "input", in view of paragraphs [0019], [0022], [0027] and [0028], as well as one of the ordinary meanings of this term, as evidenced by D3. That the server whose name is specified in figure 2 is the server onto which the application is to be deployed according to figure 1 would have been implicit to the skilled person. The feature "associated with the application" was based on the "associated with a business entity" in paragraph [0019] when read in the context of the whole paragraph.

6. The board agrees with the examining division's objections - now in relation with present claim 1 - and identifies further reasons as to why it does not comply with Article 123(2) EPC.

7. Independent claim 1

7.1 Claim 1 is based on original claim 1 with the following modifications highlighted in bold (with step labels "a" to "f" added by the board for ease of reference):

A method comprising:

[a] **invoking a tabular format transaction editor (104);**

[b] **identifying a server (112) capable of executing an application (108) independently of the tabular format transaction editor, the application being a web portal;**

[c] **displaying data input categories in a tabular format transaction editor (104), the data input categories comprising authentication information,**

server identification of a server (112) to which an application (108) is to be deployed, a display sequence of fields within a graphical representation (200) corresponding to the application, and field positioning of a plurality of fields within the graphical representation;

[d] receiving (402) a plurality of inputs in a the data input categories of the tabular format transaction editor;

[e] generating (106, 404, 508), with a processor, production ready runtime code ~~that utilizes~~ corresponding to the application based upon the plurality of user inputs in the data input categories from the tabular format transaction editor through automatic compilation without a manual user input, the runtime code being and is operable to generate the graphical representation according to the plurality of user inputs in the data input categories independently of the tabular format transaction editor (104), the runtime code displaying, within the graphical representation, a status of a user account associated with the application based on the plurality of user inputs; and

[f] automatically deploy the production ready runtime code, based on the plurality of user inputs without an additional manual user input, to the server to execute the production ready runtime code corresponding to the application to generate the graphical representation.

7.2 The board understands **step a)** as referring to a initial step of opening ("invoking") a tabular format transaction editor, which may be considered to be

implicit in the disclosed use of such an editor (figure 1).

- 7.3 As regards **step b)**, the appellant indicated paragraphs [0019], [0026] and figure 3 (it seems that figure 2 was actually meant) as basis for step b) and argued that they disclose that the application as filed "provides for the tabular format transaction editor to identify a server, via a server name, that is capable of independent execution of the application" (grounds of appeal, page 11, first two paragraphs). The appellant also asked what would be the point of "the specification actually stating to the skilled addressee that a server is required to be identified if the application is not to be deployed to it?" (grounds of appeal, pages 3 and 4).

The board does not see a basis for step b) in the cited passages and, more generally, in the application as filed.

- 7.3.1 Paragraphs [0019] and [0026] disclose that the user (a business analyst) may generate production ready code for the application with the spreadsheet program (tabular format transaction editor) and that the application may, after generation, be automatically deployed to a server. They do however not disclose *how* the server to which the application is to be automatically deployed is specified or "identified". This applies also to figure 1, which merely shows a server on which the application is deployed.
- 7.3.2 Figure 2 shows an exemplary graphical representation of the editor where in a number of cells grouped under the heading "Screen Details" and displaying the indications "Screen", "Version", "ScreenDisplayLabel",

"ScreenType", "Authentication" and "Server", with "ServerName" being indicated in a cell beneath the cell "Server".

The appellant appeared to have considered that the skilled person would have understood that "ServerName" in figure 2 designates an input entered by the user that is used by the editor to identify the server on which the application is to be deployed.

The board agrees with the examining division (decision, point 4.1(b)) that such a *technical function* of the entry "ServerName" in figure 2 is not *directly and unambiguously derivable* from the application as filed.

The heading "Screen details" suggests at first that it is rather information that may be displayed on the screen of the application. Paragraph [0029], which relate to figure 2, states indeed that "the screen details include some information that may or may not be displayed to the user 102, e.g., version, authentication, server, etc." See also original claim 6 ("the plurality of inputs defines a set of display properties").

It could be that "ServerName" in figure 2 does not stand for a server name that is input by the user and controls the deployment of the application but, for instance, for a server name that is to be displayed in some view of the application and is *derived during operation of the application* from the server on which the application is deployed (similar to "ProductName" in figure 2, which does not stand for a product name input by the user of the editor but for one that will be derived during operation of the application from a

product ID input by the application user, see paragraph [0032]).

- 7.3.3 Furthermore, claim 1 does not specify which entity carries out the identification of a server in step b) and is thus not limited to an identification by the editor on the basis of a user input (it could be a fully automatic identification by the editor or by another program, or a purely mental identification by the user).

Step b) in claim 1 also appears to be carried out before the display of "data input categories" (step c) and the reception of a plurality of user inputs in these data input categories (step d), hence before the display of a graphical representation of the editor like that shown in figure 2. No basis is apparent for a server identification step carried out before that display.

- 7.4 As regards **step c)**, the board agrees with the examining division (decision, point 4.1(a)) regarding the lack of a basis in the application as filed for the "data input categories" as this term is used in claim 1. According to claim 1 ("the data input categories comprising"), each of the "authentication information", "server identification", "display sequence of fields" and "fields positioning" represents a "data input category", but it is not clear in which sense each of them may represent a "category".

The appellant referred in the grounds of appeal to paragraph [0028] (grounds of appeal, page 2). In this paragraph, only the "screen details" and the "field list" are designated as "categories", which means e.g. that the authentication and server informations in

figure 2 are of the category "screen details", not that each of them represent a category of its own.

7.5 Also in step c), the board agrees with the examining division (decision, point 4.1(b)) regarding the lack of a basis for the feature of a "server identification of a server (112) to which an application (108) is to be deployed", for essentially the same reasons as those given at points 7.3.1 and 7.3.2.

7.6 Furthermore, the expression "a display sequence of fields with a graphical representation (200) corresponding to the application" seems to refer to a sequence in which fields are displayed in the graphical representation (200) of figure 2, i.e. the editor, whereas paragraph [0030] (the only likely basis beyond figure 2, in which no concrete sequence seems to be indicated) appears to refer to a display "by the application", i.e. in the application and not in the editor.

In this expression and in the subsequent one, "field positioning of a plurality of fields within the graphical representation", it seems that the "fields" corresponds only to fields within the editor ("within the graphical representation"), not to fields to be displayed in the application. Again, this does not have a basis in the application as filed (see paragraph [0030], first sentence: "fields and other data that is displayed by the application 108").

7.7 As regards **step d) and e)**, the objection to the use of the "data input categories" (see point 7.4 above) applies as well.

- 7.8 In **step e)**, reference is made to "runtime code being operable to generate the graphical representation according to the plurality of user inputs". The reference to "the graphical representation" appears to be a reference to the "graphical representation (200) corresponding to the application" mentioned in step c), which itself appears to refer to a graphical representation of the editor as in figure 2 (see paragraph [0028]: "figure 2 illustrates an example a graphical representation 200 of the transaction editor 104"). But there is no basis for generating runtime code for generating the graphical representation of the editor.
- 7.9 In step e), it is further specified that "production ready runtime code" is generated "through automatic compilation without a manual user input". This appears to imply that no manual user input is received between the reception of the "plurality of inputs" in step d) and the generation of the production ready runtime code in step e). A basis in the application as filed for an embodiment in which that would be the case is not apparent. In paragraph [0025], it is disclosed that "an application 108 that is production ready is generated without the user 102 having to manually generate any computer code". Not having to manually generate any computer code does not imply that there is no "manual user input". From paragraph [0023], it appears that the user has to provide as least a command (and thus an input) to the code generation engine 106 to generate an intermediary set of code. The code generation engine 106 may then automatically compile that code into a machine readable format (paragraph [0025]). Hence, also in automatic compilation embodiment of paragraph [0025], at least one input from the user was required after step d) (the command of paragraph [0023]). Hence, a direct and unambiguous basis in the application as

filed for step e) as formulated in claim 1 is not apparent.

- 7.10 Further with respect to step e), the board agrees with the examining division (decision, point 4.1(c)) that there is no basis in the application as filed for the display in the application of "a status of a user account associated with the application".

The appellant pointed to paragraph [0019] and that it had to be read as a whole (grounds of appeal, pages 4-6).

The board considers that "application user account" in the sentence "a portal webpage that displays the status of an application user account associated with a business entity" - read in the context of the whole paragraph [0019] - refers to an account of a user of the application. That is not the same as a user account that is associated with the application, as recited in step e). For instance, a user of an application X could provide the application with the credentials of its account at bank Y, so that application X can fetch and display data of the user stored at bank Y under this account. This would be displaying the status of an account (associated with bank Y, a business entity) of the user of application X, but not the status of a user account associated with application X.

- 7.11 In **step f)**, it is specified that the automatic deployment of the production ready runtime code is "based on the plurality of user inputs without an additional manual user input", where the "plurality of user inputs" refer to those received in step d) "in the data input categories of the tabular format transaction editor".

The appellant indicated paragraph [0026] as basis for step f) (grounds of appeal, page 11, second paragraph).

This paragraph discloses that "the application 108 may be deployed [...] automatically after generation of the application 108" but does not disclose that the deployment itself is "based on the plurality of user inputs". This objection is arguably linked to that addressed at point 7.3.1, 7.3.2 and 7.5 above regarding server identification.

The board also notes that "based upon the plurality of inputs" in original claims 3 and 13 is understood as qualifying the "portal" that is displayed, not the act of running the code.

- 7.12 Furthermore, step f) also refers to the generation of "the graphical representation" by the production ready runtime code, which has no basis in the application as filed for the same reasons as those given at point 7.8 above.

First auxiliary request

8. Claims 1 to 6 of the first auxiliary request have been first filed with the statement of grounds of appeal. The admittance of this request is thus at the discretion of the board under Article 12(4) RPBA.

The board decides not to admit the first auxiliary request because prima facie it introduces further added subject-matter into claim 1 and is thus not suitable to overcome the objections under Article 123(2) EPC.

9. Claim 1 of the first auxiliary request differs from claim 1 of the main request *inter alia* in that

(i) a step of "authenticating, via network (110), the server" is inserted between steps b) and c);

(ii) in steps c) and d) the "data input categories" are replaced by "server categories and portal user categories", the "server categories comprising server identification of the server to which the application is to be deployed and authentication of the server", and "the portal user input categories comprising a display sequence of fields within a graphical representation (200) corresponding to the application, and field positioning of a plurality of fields within the graphical representation";

(iii) "the server categories being hidden from view in the application";

(iv) in step e), the "data input categories" are replaced by the "portal user input categories";

(v) in step f), the "data input categories" are replaced by the "server categories".

The appellant indicated figures 2 and 3 as well as paragraphs [0019] and [0026] as basis for these amendments (grounds of appeal, page 14).

9.1 Prima facie, there is no basis in the application as filed, Article 123(2) EPC, for a step of "authenticat[ing], via network (110), the server" taking place before display and user input reception steps of steps c) and d), i.e. amendment (i). Furthermore, while a field with label "Authentication" is shown in figure 2,

there is no disclosure as to how any input in respect of that label is used. Whether it is an authentication of a server instead of, for instance, a user, is also not disclosed. Figure 3, paragraphs [0019] and [0026] are silent about any authentication. Paragraph [0029] only states that "the screen details include some information that may or may not be displayed to the user 102, e.g., version, authentication, server, etc." without further information regarding authentication.

9.2 There is thus prima facie also no basis in the application as filed for a "server category" including an "authentication of the server", hence amendment (ii).

9.3 Furthermore, the mere fact that no server name is displayed in the application view shown in figure 3 does not imply that it is "hidden from view in the application" (amendment (iii)), as the generated application may be a web portal comprising web portal pages (paragraph [0034]) and the server name indicated in figure 2 could be displayed in another page. Paragraph [0029] only indicates that the "screen details" (which include the authentication and server name information) "may or may not be displayed to the user". Hence, amendment (iii) is prima facie not compliant with Article 123(2) EPC.

9.4 There is prima facie also no basis in the application as filed for limiting the user inputs upon which the generated application is based to the "portal user input categories", as, for instance, the "screen detail" named "ScreenDisplayLabel" shown in figure 2 (which does not relate to any user input in the application) is displayed in the view of the application shown in figure 3, as also noted in paragraph

[0029]. Hence, amendment (iv) is prima facie not compliant with Article 123(2) EPC.

- 9.5 As regards amendment (v), it is prima facie not compliant with Article 123(2) EPC at least for the reasons given at point 7.11 above.
10. The board also notes that most of the objections raised against claim 1 of the main request prima facie appear to still apply to claim 1 of the first auxiliary request.

Second and third auxiliary requests

11. Claims 1 to 6 of the second auxiliary request and claims 1 to 3 of the third auxiliary request have been first filed with the appellant's letter of 28 March 2024, i.e. after the filing of the statement of grounds of appeal. The admittance of these requests is thus at the discretion of the board under Article 13(1) RPBA.

The board decides not to admit these requests under Article 13(1) EPC as they are prima facie not suitable to overcome the objections under Article 123(2) EPC.

12. Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request in that in step a) the term "invoking" is replaced by "providing". The appellant indicated paragraphs [0010] and [0017] are basis for this amendment and that the amendment is for "clarification of language" (letter dated 28 March 2024, section bridging pages 1 and 2).
13. Claim 1 of the third auxiliary request differs from claim 1 of the second auxiliary request in that the following features are added:

"wherein the runtime code is generated by translating the plurality of user inputs into commands associated with an intermediary programming language and translating the commands associated with the intermediary programming language into operating system commands, the intermediary programming language being platform independent; and wherein the runtime code is generated without the plurality of user inputs having commands provided in a programming language format".

The appellant indicated that these features are taken from claim 3 of the second auxiliary request and aim at further establishing inventive step (letter dated 28 March 2024, page 2).

14. Claim 1 of both requests includes thus the amendments made in the first auxiliary request which introduce further added subject-matter and give thus prima facie rise to the same new objections under Article 123(2) EPC over those raised in respect of the main request. The further amendments made in both requests are also not suitable to overcome all the objections under Article 123(2) EPC raised against the main request, nor has this been argued by the appellant.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



L. Stridde

Martin Müller

Decision electronically authenticated