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**Datasheet for the decision  
of 9 June 2011**

**Case Number:** T 1579/07 - 3.5.06

**Application Number:** 03775640.0

**Publication Number:** 1556757

**IPC:** G06F 9/40

**Language of the proceedings:** EN

**Title of invention:**

Creating and monitoring automated interaction sequences using  
a graphical user interface

**Applicant:**

SAP AG

**Headword:**

Marketing campaign/SAP

**Relevant legal provisions (EPC 1973):**

EPC Art. 56

**Keyword:**

"Inventive step - main and auxiliary requests (no)"

**Decisions cited:**

T 0641/00

**Catchword:**

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Case Number: T 1579/07 - 3.5.06

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.06  
of 9 June 2011

**Appellant:** SAP AG  
Dietmar-Hopp-Allee 16  
D-69190 Walldorf (DE)

**Representative:** Müller-Boré & Partner  
Patentanwälte  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 2 July 2007  
refusing European application No. 03775640.0  
pursuant to Article 97(1) EPC 1973.

**Composition of the Board:**

**Chairman:** D. H. Rees  
**Members:** M. Müller  
W. Sekretaruk

## Summary of Facts and Submissions

- I. The appeal lies against the decision of the examining division to refuse the European patent application no. 03775640 for lack of inventive step. The decision was delivered during oral proceedings on 11 May 2007 and dispatched on letter of 2 July 2007.
- II. A notice of appeal and a statement of grounds of appeal was received on 13 August 2007 with letter of 9 August 2007, and the appeal fee was received on 16 August 2007. The appeal was accompanied by claim sets of new main and auxiliary requests.
- III. With letter dated 18 February 2011, the board summoned the appellant to oral proceedings. In an annex to the summons the board referred to the following documents from the examination procedure,
- D1: WO0223428  
D2: US5842195
- and gave its preliminary opinion that the independent claims were not clear, that the independent claims according to the main request lacked an inventive step over common general knowledge, and that the independent claims according to the auxiliary request lacked an inventive step over D1 in combination with D2.
- IV. In response to the summons, with letter dated 5 April 2011, the appellant filed further amended claims according to new main and auxiliary requests.

V. Oral proceedings were held on 9 June 2011, during which the appellant confirmed its requests that the decision be set aside and that that a patent be granted based on the following documents.

description, pages

1, 1a, 1b, 20 submitted with letter of 6 March 2006

2-19 as published

drawings, figures

1-23 as published

claims, no.

1-19 according to the main request, or

1-16 according to the auxiliary request, both filed with letter of 5 April 2011

VI. Independent claim 1 according to the main request reads as follows.

"A computer-implemented method for creating automated interaction sequences for interactions with a target group (241) during a marketing campaign using a graphical user interface (158), the method comprising:

receiving a user input that graphically creates a marketing interaction sequence having one or more actions (242a, 242b) associated with a target group (241) during a marketing campaign;

executing the marketing interaction sequence to cause performance of the actions (242a, 242b) in an automated manner; and automatically processing responses to the actions (242a, 242b),

characterized in that

the method further comprises the steps of automatically:

providing a launch window (210) including attributes (212) to trigger interaction scenarios, the launch window (210) including a drop-down menu (211) enabling a user to create an interaction sequence by selecting a campaign element type from the drop-down menu (211),

wherein once a selection is made from the drop-down menu (211), the launch window being populated with possible attributes (212) derived from the selected campaign element type in the drop-down menu (211) and nested additional attribute options (215) for originating an interaction sequence;

; [sic]

enabling a user to create interaction sequences using the drop-down menu (212), wherein interaction strings are initiated by a target group (241) that is generated by the selection of an attribute (212); and

automatically checking for errors when the marketing interaction sequence is released."

Claim 1 according to the auxiliary request reads as follows:

"A computer-implemented method for creating automated interaction sequences for interactions with a target group (241) during a marketing campaign using a graphical user interface (158), the method comprising:

receiving a user input that graphically creates a marketing interaction sequence having one or more actions (242a, 242b) associated with a target group (241) during a marketing campaign;

executing the marketing interaction sequence to cause performance of the actions (242a, 242b) in an automated manner; and automatically processing responses to the actions (242a, 242b),

characterized in that

the method further comprises the steps of automatically:

providing a launch window (210) including attributes (212) to trigger interaction scenarios, the launch window (210) including a drop-down menu (211) enabling a user to create an interaction sequence by selecting a campaign element type from the drop-down menu (211),

wherein once a selection is made from the drop-down menu (211), the launch window being populated with possible attributes (212) derived from the selected campaign element type in the drop-down menu (211) and nested additional attribute options (215) for originating an interaction sequence;

providing a template window (220) displaying one or more typical interaction strings for use as templates;

providing a build window (240) that displays an area used to graphically create, track, and manipulate interaction sequences enabling a user to select attributes serving to build interactions; whereby base attributes and additional attributes are provided being associated hierarchically in relation the base attribute, and enabling a user to create interaction sequences, wherein interaction strings are initiated by a target group (241) that is generated by the selection of an attribute;

providing a filter window (230) which enables a user to re-segment selected groups in the build window

(240) based on data gathered during the course of the interaction sequence;

providing an alerts window (250) providing a user with a visual indication of system-generated and user-generated visual indicators, wherein an alert (251) can be selected, and wherein selecting the alert (251) opens the interaction sequence that triggered the alert (251);

providing a details window (260) that dynamically displays information according to selections made in one or more of the other windows of the graphical user interface (200);

providing an actions window (270) being the primary definition space for specifying interaction activity enabling a user to select and define actions, assign campaign elements and specify dependencies within interaction strings;

and

automatically checking for errors when the marketing interaction sequence is released."

Each request further contains an independent computer program product claim 15 which correspond broadly to the respective method claim 1.

## **Reasons for the Decision**

1. The appeal is admissible (see points I and II above).

### *The Invention*

2. The invention relates to the creation and execution of a marketing campaign aided by a dedicated graphical

user interface. A marketing campaign is directed at a specific "target group" of customers and defined as an "interaction sequence" (or an "interaction string") comprising actions to be executed with respect to the target group (e.g. initiate a telephone call or send an email); responses to the actions are automatically processed (cf. e.g. p. 1, lines 15 - p. 2, line 9).

- 2.1 The graphical user interface is organized in multiple windows (cf. fig. 2): One of them, the so-called "build" window, depicts a graphical representation of the interaction sequences under development in the form of a flow chart (cf. fig. 5). The other windows enable the user to define various parameters of the interaction sequences (the "filter", "launch", "action" and "template" windows; cf. figs. 3, 4, 9a, 9b, and fig. 2, no. 220) or to obtain feedback on the development process (the "alert" and "details" windows; cf. figs. 7 and 8).
- 2.2 The board interprets the invention as providing a visual programming environment dedicated to the particular domain of marketing campaigns. The appellant accepted this interpretation during oral proceedings.
- 2.3 The relevant skilled person in the present case is hence a person versed in the development of such tools, which requires in particular knowledge of programming language and compiler technology and of user interface design.



*Marketing Campaign*

3. The invention specified in claim 1 consists of a mixture of technical and non-technical features. According to established jurisprudence of the Boards of Appeal, the presence of an inventive step can only be supported by features which contribute to technical character (T 641/00, headnote 1).

4. In the board's judgment, a marketing campaign in itself is a business undertaking, and so are design and execution of a marketing campaign.

4.1 Marketing campaigns as considered by the application are defined by various parameters, such as:

- which "target group" of customers to address, be it predefined or "re-segmented" based on data gathered during the campaign;
- which "actions" to take when interacting with customers and their order (e.g. first send a letter, then an email reminder);
- which items to use during actions (*i.e.* "campaign elements" or "campaign element types" such as marketing material or feedback forms; cf. p. 7, lines 21-27; p. 6, line 25 - p. 7, line 1); and
- which questions to ask and which answers to anticipate (*i.e.* "attributes" of interactions; see p. 6, lines 20-24 and fig. 3), and how to react to individual responses (cf. p. 5, lines 19-20).

4.2 In the board's judgment, none of these features contributes to the technical character of the invention because and insofar as they concern the *design* of a

marketing campaign. Its *execution* may, obviously, use technical means such as a letter or a telephone, but as long as these are common-place items used in a conventional manner they are insufficient to establish an inventive step.

- 4.3 In view of this assessment, which the appellant generally accepted, it can be left open whether the features defining the marketing campaign are all clear as claimed.
  
5. The other features of the claims according to both requests relate to automation on the one hand and a graphical user interface on the other hand. The board is of the opinion that such features may, at least in some contexts, contribute to the technical character of an invention and contribute to an inventive step. However, which of the individual claimed features actually does so contribute and in what respect can be left open in view of the following analysis of the claimed invention in view of D1. As a consequence, the board sees no reason to discuss in detail any of the decisions of the boards of the appeal which the appellant referred to with regard to this issue.

*Main Request*

6. Document D1 constitutes the closest piece of prior art to hand.
  
- 6.1 D1 discloses a computer system - as well as the corresponding method and computer program product - which, using a suitable graphical user interface, supports the creation and running of scripts for communicating with

customers during a marketing effort (see D1, p. 1, line 29 - p. 2, line 13; figs. 2, 3, 4a, 4b). A script according to D1 defines a sequence of interactions between a marketer and customers, including actions initiated by the marketer, responses received by the customers and subsequent actions which may be customized to the responses of individual customers. The graphical user interface of D1 provides in particular a so-called "script screen". On the script screen, the scripts are developed as flow charts of shape symbols which are selected from a so-called "palette" region and which represent the various actions to be performed (cf. D1, p. 4, lines 27 ff. and fig. 2).

6.2 D1 thus discloses the features according to the preamble of claim 1.

6.3 D1 does not disclose a launch window as claimed, nor does it disclose that errors are automatically checked when the marketing campaign is released.

## 7. *Error Checking*

7.1 D1 discloses that a script is compiled before it can be executed (p. 11, lines 23-24). It is elementary for compilers to check programs for certain errors, for instance errors in program syntax.

7.2 Claim 1 leaves open which errors are checked or how and thus allows the interpretation that they are checked by the compiler. On this reading, automatic error checking as claimed is obvious over D1 as a common-place feature of established compiler technology.

- 7.3 With reference to the description which discloses that the user may be alerted of "potential conflicts that have occurred while building an interaction sequence" (p. 11, lines 19-21), the appellant argued that the claimed errors are - or are intended to be - different from those normally checked by compilers. The appellant also offered to clarify the claim language correspondingly.
- 7.4 The board is not convinced by this argument. Elsewhere, the description discloses the checking of "errors, alerts or rule conflicts" (p. 14, lines 15-18, and p. 18, lines 28-31) and gives the example of an interaction sequence containing an empty action box which is not further defined (cf. p. 19, lines 2-7: "Unassigned New Action"). The board considers that an unassigned new action is precisely the type of error which the skilled person would typically expect or set-up a compiler to check.
- 7.5 But even if it is assumed, *arguendo*, that claim 1 does not refer to compiler errors but to a different type of "conflicts" the board comes to the same conclusion as regards inventive step. First, the board considers it to be generally obvious that an item to be released to the public undergoes a final quality check in an attempt to rule out errors, conflicts or implausibility. Furthermore, error checking is obvious over D1 in view of D2 which discloses, in a similar application context, that errors in the question structure of a questionnaire are identified (col. 17, lines 64 - col. 18, line 4).

8. *Launch Window*

- 8.1 The launch window of claim 1 enables the user to "trigger interaction scenarios" by selecting a "campaign element type" from a drop-down menu in response to which it is "populated with" corresponding "possible attributes" and "nested additional attributes options". The launch window is depicted in figure 3 of the application.
- 8.2 User interface features of this type, which adapt the choices available in one menu depending on a choice made in another one, are *per se* well-known in the art, for example as dynamic dropdown lists. This was not disputed by the appellant.
- 8.3 As argued above, the board holds that it concerns the design of a marketing campaign which campaign elements are available and which attributes are associated with them, and hence which choices a marketer is required to make during development of a marketing campaign. More specifically in view of fig. 3 and the corresponding description (p. 6, lines 19-28), the board considers as non-technical issues that a marketer should select one of several questionnaires, which questions these contain and how possible responses should be dealt with. Therefore the choices made available via the claimed menu cannot contribute an inventive step of the invention.
- 8.4 The problem addressed by the skilled person hence can be seen as how to make these predefined choices available on the interface of the desired programming environment.

8.5 In the board's judgment, the skilled person would consider which known user interface features are fit for this purpose and, in doing so, select the claimed menu and make it available in a dedicated window according to circumstances and preferences but as a matter of course.

9. In consequence, claim 1 according to the main request lacks an inventive step over D1 in view of common knowledge or D2, in violation of Article 56 EPC 1973.

*Auxiliary Request*

10. Claim 1 according to the auxiliary request specifies several additional windows, in particular a "build window", an "action window", a "template window", a "filter window", an "alerts window" and a "details window".

11. The window depicted in figure 2 of D1 provides an area in which interaction sequences are created and manipulated from graphical shape symbols selected from a palette region (p. 4, line 17 - p. 5, line 2). The user may also use "script templates to create quickly the basic form of a script" (p. 5, lines 1-2). When a shape is selected, an option window allows the user to define parameters for that shape (p. 5, lines 10-15). Action shapes allow the definition of campaign elements and "sample shapes" allow the definition of a "target group" according to selected attributes (p. 6, lines 11-15; p. 7, line 24 - p. 8, line 13; esp. p. 8, lines 5-6). Generally, attributes can even be hierarchical (e.g. where particular questions allow only specific

- responses, p. 7, lines 24-31). When a decision shape is selected, the branching target in the interaction sequence must also be defined (p. 5, lines 19-27).
- 11.1 D1 thus discloses the functions of the "build", "action" and "template window" as claimed.
  - 11.2 D1 provides an area for visual indications of various alerts (p. 10, lines 18-25, and fig. 4a) and the means to dynamically re-segment the target group if needed (see fig. 2).
  12. The windows of D1 do not support the known functions in precisely the same way as claimed in the application. In particular, the functions offered by the "action window" as claimed are supported by two windows on D1 (the palette and the options window, figs. 2 and 3), and there are no dedicated windows for the display of the alerts, for re-segmentation of the target group, or for the selection of templates.
    - 12.1 The board considers that the skilled person developing a graphical user interface for a given task enjoys a great freedom in distributing functions over different windows or other GUI elements which he exercises according to various criteria, amongst them user preferences or development guidelines (e.g. look and feel of a software suite). The board further considers that the decision to provide certain functions by way of windows - rather than, say, menu structures - and to distribute them over different windows - rather than, say, different compartments within the same window - is an expression of this freedom of design.

12.2 The appellant maintained that due to this freedom it is unlikely that the skilled person would - as opposed to merely "could" - arrive at precisely the claimed combination of features, which would rather confirm its non-obviousness.

12.3 The board however disagrees that a selection of one particular combination of alternatives is non-obvious merely because the set of alternatives is large. Instead, the board holds that such a selection will still be obvious if the individual alternatives are obvious and unless a specific and technical synergetic effect can be attributed to the selection. In the present case, the board is unable to determine such a specific synergetic effect and the appellant did not provide any.

13. Furthermore, D1 does not disclose a "details window" as claimed and that the alerts are user-selectable and selection "opens" the interaction that triggered the alert.

13.1 Claim 1 specifies that the details window "dynamically displays information according to selections made in ... other windows of the graphical user interface". The description further explains that textual information is displayed when a graphical representation is chosen in another window (p. 12, lines 13-15). The appellant offered to clarify claim 1 correspondingly.

The board notes that the options window according to D1 displays additional textual information related to a selected graphical shape, at least to explain the available options to the user (see p. 5, lines 10-15



and fig. 3). Moreover, the board considers as a generally obvious measure to display additional information to the user if and when appropriate, for instance to confirm or complement a selection made before. The board further considers the textual form to be a standard choice and a dedicated details window to be an obvious option as argued above (see point 12).

- 13.2 While D1 may appear to suggest that the alerts are "selectable" (cf. fig. 4a, item 360) this is not unambiguously disclosed in D1, let alone what would happen if the user did select an alert. In comparison with D1, hence, the claimed alert window aids the user in understanding the cause of an alert and possibly correcting them.

In a similar context, D2 discloses that errors in the question structure of a questionnaire are identified and displayed for the user to correct them. The so-identified "items" are displayed to the user as a list and clicking on them will "take" the user "to" that item (cf. col. 17, lines 64 - col. 18, line 4; col. 18, lines 10-12, lines 18-20 and 36-39).

The board considers that the skilled person, in trying to make the alert display of D1 more convenient for the user, would not hesitate to adopt the interface function known from D2 and so produce an alert functionality as claimed.

- 13.3 The board therefore concludes that claim 1 according to the auxiliary request lacks an inventive step over D1 and D2, in violation of Article 56 EPC 1973.

14. Since there is no allowable request, the appeal must be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:

B. Atienza Vivancos

D. H. Rees