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Datasheet for the decision of 13 May 2016

Case Number: T 0513/11 - 3.5.01

Application Number: 97954682.7

Publication Number: 1008021

IPC: G06F17/60

Language of the proceedings: EN

Title of invention:
COMPUTER EXECUTABLE WORKFLOW RESOURCE MANAGEMENT SYSTEM

Applicant:
FMR LLC

Headword:
Deleting workflow items / FMR LLC

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - rules for deleting workflow items (no - not technical) - rules for deleting workflow items (no - not inventive)

Decisions cited:
T 0641/00

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Case Number: T 0513/11 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 13 May 2016

Appellant: (Applicant)	FMR LLC 82 Devonshire Street Boston MA 02109 (US)
Representative:	Prock, Thomas Marks & Clerk LLP 90 Long Acre London WC2E 9RA (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 29 September 2010 refusing European patent application No. 97954682.7 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	P. Scriven
Members:	W. Chandler
	P. Schmitz

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division to refuse the European patent application No. 97954682.7 for lack of inventive step over D1:

ELLIS, C. et al.: "Dynamic Change within Workflow Systems", Conference on Organizational Computing Systems, Milpitas, CA., August 13 - 16, 1995, New York, ACM, 13 August 1995, pages 10-21.

The application concerns deleting definitions relating to work items in a database representing a workflow.

II. In the statement of grounds of appeal, the appellant argued that the invention solved the problem in a different way than D1. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of an amended version of the refused main request, and an auxiliary request with an additional feature, both filed with the grounds of appeal. The appellant also made an auxiliary request for oral proceedings.

III. In a communication of the Board accompanying the summons to oral proceedings, the Board gave its preliminary opinion on the case. In reply, the appellant informed the Board that he had been instructed not to attend the proceedings.

IV. At the oral proceedings, which took place in the appellant's absence, the Board considered the appellant's written requests. At the end of the oral proceedings, the Chairman announced the Board's decision.

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

"A computer system executable method for an automated workflow system for manipulating a work item meeting predetermined criteria, and stored in a database of work items, for subsequent execution by an operator, which method comprises:

storing in a memory a processes table (100) comprising a plurality of process identifiers (114, 116), each process identifier representing a process for manipulating a work item (10) in the workflow system, each process identifier being associated with one or more nodes, each of the one or more nodes representing a manipulation task of the corresponding process;

storing in the memory a nodes table (140) comprising a plurality of node identifiers (152, 154, 156, 158), each node identifier representing a node, each node identifier being associated with one or more processes;

receiving a directive from an administrator to remove a first node from the memory;

setting a mark in the nodes table associated with the first node to indicate that the first node is to be removed from the memory;

using the mark to prevent a process from being made dependent on the first node after the mark was set;

using the mark to prevent the first node from affecting work items meeting the predetermined criteria that enter the workflow system after the mark was set; and

removing the first node from the memory after the processes table is modified such that no process is associated with the first node."

VI. Claim 1 of the first auxiliary request adds to the end of claim 1 of the main request, "wherein initially more than one process is associated with the first node, and the first node is removed only after the processes table is modified to indicate that no process is associated with the first node".

Reasons for the Decision

1. The application relates to a workflow management system (Figure 3 of the published PCT application) that keeps track of processing tasks (work items 10 in database 14) in an organisation's workflow. The tasks include such things as initiating transactions and filling in documents. An administrator specifies "definitional data items" that include processes defining the steps for manipulating the work items and nodes representing the steps (description, paragraph bridging pages 1 and 2). The processes are stored in a table in the system's memory (Figure 4A). An example of a process is the creation of a new client account (102). This process might involve the steps of submitting a new account application (106 - node A), approving the application (108 - node B) and so on (see description, paragraph bridging pages 11 and 12). The nodes are also stored in a table (Figure 4B).

2. The invention is concerned with how to delete nodes and associated parts of data definitional items without compromising the integrity of, or slowing down, the workflow management system.

3. According to claim 1 this is achieved by:
- setting a mark in the table of nodes for the node that is to be removed (e.g. Figure 4B, one of 162-170);

- using the mark to prevent a process from being made dependent on the node after the mark was set;
- using the mark to prevent the node from affecting work items that enter the workflow after the mark was set that would have been affected by that step; and
- removing the node from the workflow when there are no processes associated with it.

4. These features solve the problem by essentially preventing processes or new work items from interacting with the node to be deleted, which remains in the system until no process in the process table refers to it.

5. It was not disputed that D1 is a suitable starting point as it relates to the management of workflow systems and the effects and problems of changing the structure of a workflow at runtime, in particular deleting "steps of a procedure" called "activities" (page 11, left column, last paragraph). D1 mentions (same paragraph) that a change can affect ongoing jobs that have not been "flushed", i.e. completed. D1 also mentions that although although the strategy of "flushing" (that is, of waiting until all ongoing jobs have been completed, before any change is made) is safe, it might take some time for current jobs to complete (page 13, left column, last paragraph).

6. D1 manages a change by defining a "change region" (page 13, right column, penultimate paragraph) which is the part of the system containing the activities directly affected by the change requested. An "old" change region is the region prior to the change, and the "new" change region the one after the change. The jobs (e.g. processes) in the old region can be "transferred" to the new region. One possibility is called "synthetic

cut-over change" (D1, page 13, final paragraph; page 16, left column, from line 20; figures 7 - 9) in which tokens already in the change region follow their old paths, while new tokens entering the change region will follow the new path.

7. The appellant argues that the deletion of a node in D1 depends on the activity of the nodes in the system whereas in the invention it depends on whether there are any processes that require the node for their execution. This difference improves the reliability of the workflow system.

8. In the Board's judgement, the possible distinguishing features would be obvious. It is at least obvious from D1 and common sense to wait until no process needs a node before deleting it according to the last of the above mentioned features. It is self-evident that a node cannot be deleted if processes/items that require it are continuously added. So it would have been obvious not to add such processes/items as in the second and third of above mentioned features. This also follows from what D1 calls "synthetic cut-over change" which suggests preventing steps from interacting with new processes or tasks. Finally, setting a mark in the table of nodes for the node that is to be removed as in the first of the above-mentioned features would be one obvious way of keeping track of what is to be deleted.

9. However, the Board judges that the differences over D1 are either not technical or are no more than technically trivial implementations. They thus cannot contribute to inventive step (according to the Comvik approach - T 641/00). In the Board's view, technical considerations only come into play when implementing the representation and rules. However, the Board agrees

with the division that the skilled person would have no difficulty in implementing the invention on a conventional computer.

10. The new auxiliary request is aimed at distinguishing further from D1 by emphasising that more than one process *can* include a common task represented by a particular node. However the wording is that "initially more than one process *is* associated with the [node to be deleted]", which appears to be more of a limitation. Nevertheless, apart from being a further aspect of a non-technical scheme, the Board considers that this feature would be an obvious possibility in any system that has nodes and processes or the equivalent. Thus, this feature does not add anything inventive.

11. Accordingly, claim 1 of both requests does not involve an inventive step (Article 56 EPC), so that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek P. Scriven

Decision electronically authenticated