

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JAKOB NIELSEN

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Appeal No. 2000-0357  
Application 08/941,186

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ON BRIEF

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Before KRASS, BARRETT, and BARRY, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-18, all of the pending claims.

The invention is directed to sorting tables downloaded from the world wide web. In particular, a graphical user interface comprises a sort routine for rearranging table data based on one or more hidden sort keys.

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Representative independent claim 1 is reproduced as follows:

1. A computer, comprising:

a. a processor, and

b. a graphical user interface, running on said processor, said graphical user interface comprising a sort routine for rearranging table data based on one or more hidden sort keys.

The examiner relies on the following references:

MacGregor et al. (MacGregor)	5,396,621	Mar. 7, 1995
Stodghill et al. (Stodghill)	5,710,901	Jan. 20, 1998 (filed Dec. 29, 1995)
Minakuchi et al. (Minakuchi)	5,745,891	Apr. 28, 1998 (filed Sep. 27, 1996)

Claims 1-18 stand rejected under 35 U.S.C. 103. As evidence of obviousness, the examiner offers MacGregor and Stodghill with regard to claims 1-3, 9, 10 and 12-18, adding Minakuchi with regard to claims 4-8 and 11.

Reference is made to the brief and answer for the respective positions of appellant and the examiner.

#### OPINION

At the outset, we note appellant's indication, at page 8 of the brief, of certain informalities in the claims, and we leave to the good auspices of the examiner and appellant any necessary amendments to cause claim 11 to depend from claim 10, rather than from claim 8.

With regard to claims 1-3, 9, 10 and 12-18, it is the examiner's position that MacGregor shows a processor [column 5, lines 23-54] and a graphical user interface [Figures 3 and 6(b)]. The examiner indicates that while MacGregor provides a sort function for rearranging spreadsheet data based on one or more sort keys, wherein the sort key indicates what data is to be stored, MacGregor does not teach a sort routine for rearranging table data based on one or more "hidden" sort keys. Thus, the examiner turns to Stodghill for a system that may be programmed to operate a computer spreadsheet program having fields for entering data, wherein each field is associated with a data object data attribute ("doda"), the "doda" being hidden from the user and containing information and algorithms to identify the data format corresponding to the field to which it is linked [Stodghill-column 2, lines 45-65; column 3, lines 25-32].

It is the examiner's position that since artisans would have known that a sort routine includes a comparison of data in different fields, would have recognized that a comparison is made based on some criteria and that the outcome of the comparison determines what action is to be taken and would have recognized that a doda object could be programmed with a validation algorithm by a developer and that the developer could substitute a comparison algorithm with a sorting algorithm, it would have been obvious to incorporate the apparatus of Stodghill into the apparatus of MacGregor since it would provide a developer with the flexibility in designing functions for users.

Appellant argues that while MacGregor discloses a system for sorting cells in a spreadsheet based on values in either a selected row or a selected column of the spreadsheet, the rows and columns

are visible and the row or column selected is the sort key. Therefore, argues appellant, MacGregor does not teach sorting cells in a spreadsheet based on one or more hidden sort keys. Appellant also argues that Stodghill is directed to data entry by a user into a database and does disclose the use of a hidden object, a data object data attribute (doda), associated with a widget ( a widget being a subset of the display area into which data to be stored may be entered via the keyboard) but that a hidden sort key, as claimed, is not disclosed by the combination of references.

Stodghill does disclose a hidden object. Column 3, lines 65-67, indicates that both “the doda object 16 and the data object 22 are hidden from the user, who sees only the widget data on his CRT display 10”. However, unlike appellant’s hidden object, Stodghill’s hidden object appears to be used only for data entry and retrieval functions of formatting and validation of entered data. The instant invention is directed to hidden keys which are “sort” keys used in sorting table data.

Claim 1 calls for “a sort routine for rearranging table data based on one or more hidden sort keys.” Claim 10 requires “selectively sorting said table data based on said hidden sort key.” Claim 12 merely calls for a method of authoring table data comprising the step of “associating a sort key with cell data so that the sort key is not displayed.” Claim 14 is similar to claim 10 in reciting “selectively sorting said table information based on said hidden sort key.” Claim 15 recites, “...to sort said table information based on a hidden sort key.” Claim 16 brings in a network and a server wherein the server stores table information and “at least some cells of said table information include a hidden sort key.” Claims 17 and 18 are “computer program product” claims with claim 17 calling for “selectively sorting

table data based on a hidden sort key” and claim 18 calling for computer controlling information “associating a sort key with cell data of a table so that the sort key is not displayed.”

We agree with appellant that MacGregor discloses a system for sorting cells in a spreadsheet based on values in a selected row or column and that the row or column selected is the sort key. MacGregor is silent as to any “hidden” sort keys. Stodghill is not directed to sorting at all but, rather, to data entry by a user into a database. A hidden object, a data object data attribute (doda), associated with a widget, is employed by Stodghill to control the format of a data object displayed in the widget. The doda object is also used to validate the entry of data via a validation program. Thus, appellant is correct in asserting that the hidden object in Stodghill appears to be used for formatting and validation purposes, but not for “sorting.”

Stodghill does suggest, at column 3, lines 38-47, that different doda objects will include different member functions (a member function is an algorithm) and that the “particular member functions used by each doda object are not limited and may be selected or programmed by the developer.” However, since Stodghill always appears to mention a member function, or algorithm, in connection with formatting or validation, there would appear to be no suggestion to the artisan to extend the hidden object to a sorting function. While MacGregor is directed to a sorting function, we find no suggestion in either reference, or the combination, for expanding Stodghill’s teaching of a hidden object to the sorting function of MacGregor.

In his response to appellant's argument, at page 5 of the answer, the examiner explains that when the term "key" is used in a database management context it constitutes an attribute that is used to enable the retrieval and/or update of information as well as a sort for the purpose of establishing the order of their associated fields. Accordingly, while Stodghill's explicitly teaches [sic] of a "key" being provided as a hidden attribute for the storage and retrieval functions of formatting and validation, it also suggests sorting for the purpose of establishing the order of their associated fields since it is one of the functions that is generally associated with the term in a database management environment and Stodghill's uses [sic] the term in such a context.

The examiner may very well be correct in his assessment as to a key constituting an attribute used to enable retrieval and/or update of information *as well as a sort*. The problem is that the examiner has offered no evidence of this allegation. While the instant claims are broad, e.g., claim 12 requires nothing more than "associating a sort key with cell data so that the sort key is not displayed", having nothing before us that would suggest the use of a hidden object for sorting purposes, we could only sustain the outstanding rejections by resorting to speculation. That is, we would need to speculate that Stodghill's disclosure of the algorithms used by the *doda* ("are not limited and may be selected or programmed by the developer") would have suggested a sorting algorithm to an artisan. Such speculation could only be born of hindsight gleaned from appellant's disclosure.

Minakuchi, cited by the examiner merely for sorting of data by clicking on a header, does not provide for the deficiencies of MacGregor and Stodghill.

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Accordingly, the examiner's decision rejecting claims 1-18 under 35 U.S.C. 103 is reversed.

REVERSED

ERROL A. KRASS	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
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	)	APPEALS AND
LEE E. BARRETT	)	
Administrative Patent Judge	)	INTERFERENCES
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LANCE LEONARD BARRY	)	
Administrative Patent Judge	)	

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