USER INTERFACE FOR CREATING A SPREADSHEET DATA SUMMARY TABLE

RELATED APPLICATIONS

[0001] This application is a continuation of and claims priority to U.S. Patent Application Serial No. 11/223,527, now U.S. Patent No. 8,601,383, filed on September 9, 2005, entitled "USER INTERFACE FOR CREATING A SPREADSHEET DATA SUMMARY TABLE," which is hereby incorporated in its entirety by reference.

[0002] This application is related to U.S. Patent Application Serial No. 11/223,631, filed on September 09, 2005, and entitled "Filtering User Interface for a Data Summary Table," granted as U.S. Patent No. 8,095,866, on January 10, 2012, and U.S. Patent Application Serial No. 11/222,660, filed on September 09, 2005, and entitled "Automated Placement of Fields in a Data Summary Table," granted as U.S. Patent No. 7,480,675, on January 20, 2009, the entireties of which are hereby incorporated by reference.

BACKGROUND

[0003] Data summary tables can be used to analyze large amounts of data. One example of a data summary table is PIVOTTABLE dynamic views that can be generated using Microsoft Corporation's EXCEL spreadsheet software. A data summary table provides an efficient way to display and summarize data that is supplied by a database program or that is in a data listing of a spreadsheet. A user can select fields of the data to include within page, row, column, or data regions of the data summary table and can choose parameters such as the sum, variance, count, and standard deviation to be displayed for selected data fields. Data in a database that can be queried from within a spreadsheet program, or spreadsheet data including lists, can be analyzed in a data summary table.

The claimed invention is:

1. A computer system, comprising:

a processor unit; and

a memory storing instructions that, when executed by the processor unit, perform actions, comprising:

displaying a data summary table;

displaying a task pane separate from the data summary table;

displaying a field pane including a displayed list of fields; and

displaying a layout pane comprising different zones including a filter zone;

receiving an indication to move one or more of the plurality of fields from the field pane into at least one of the different zones of the layout pane, wherein the filter zone includes filters associated with fields of the different zones, wherein the filters are both user selectable to be associated with a selected field prior to adding the selected field to the data summary table, and user selectable to be associated with an existing field in the data summary table, and wherein, when one filter of the filters is associated with the selected field prior to adding the selected field to the data summary table, the one filter is applied to the selected field before the selected field is added to the displayed data summary table; wherein the display of the data summary table is updated upon one or more of the plurality of fields being moved into any one of the different zones.

2. The computer system of claim 1, wherein the different zones further comprise a row zone, a column zone, and a value zone.

3. The computer system of claim 2, wherein the row zone defines row labels of the data summary table; the column zone defines column labels of the data summary table; and the value zone includes fields that are of a numeric type.

4. The computer system of claim 1, further comprising displaying a checkbox associated with each of the plurality of fields in the field pane, and automatically placing each of the plurality of fields in the layout pane and the data summary table when the associated checkbox is selected.

5. The computer system of claim 4, further comprising removing one or more of the plurality of fields from the layout pane and the data summary table when the associated checkbox is unselected.

6. The computer system of claim 1, further comprising displaying a drill down indicator that is used to expand and collapse sub-fields of a field when determined.

7. The computer system of claim 1, wherein the layout pane is programmed to allow one or more of the plurality of fields to be moved from a current zone of one of the different zones to a zone different than the current zone of the respective zones, and wherein the layout pane is programmed to allow one or more of the plurality of fields to be repositioned with respect to other fields in the different zone.

8. The computer system of claim 1, further comprising automatically updating the data summary table when one or more of the plurality of fields are moved to one of the different zones of the layout pane.

9. The computer system of claim 1, further comprising displaying a manual control that is programmed to allow for manual update of the data summary table when the manual control is selected.

10. A method comprising:

receiving a selection of a field from a displayed list of a plurality of fields;

adding the field to a zone determined from different displayed zones including a displayed filter zone of a displayed layout pane, wherein the filter zone allows user selection of at least one item associated with the field to create a filter associated with the field prior to adding the field to a data summary table, wherein, when the filter is associated with the field prior to adding the field to the data summary table, the filter is applied to the field before the field is added to the data summary table;

updating a display of the data summary table to include the field and apply the filter upon the field being added to the layout pane; and

moving the field from the one of the different zones to a different one of the different zones.

11. The method of claim 10, wherein the different zones comprise a row zone that defines row labels of the data summary table, a column zone that defines column labels of the

data summary table, a value zone that analyzes the field and adds the field to the value zone if the field is determined to be of a numeric type; and wherein receiving the selection further comprises receiving a selection of a checkbox associated with the field, and wherein adding further comprises automatically placing the field in one of the row zone, the column zone, the value zone, and the filter zone when the checkbox is selected.

12. The method of claim 11, further comprising receiving a removal of the selection of the checkbox associated with the field; and removing the field from the one of the row zone, the column zone, the value zone, and the filter zone and the data summary table when the checkbox is unselected.

13. The method of claim 11, wherein adding further comprises receiving an indication to move the field to the one of the row zone, the column zone, the value zone, and the filter zone.

14. The method of claim 10, further comprising updating the data summary table when the field is moved.

15. The method of claim 10, wherein updating further comprises updating the data summary table upon selection of a manual update control.

16. A computer-readable storage medium, excluding a signal, having computer-executable instructions for performing steps comprising:

allowing user selection of a field from a list of a plurality of fields;

automatically adding the field to one of a different zone including a filter zone and a value zone and other zones of a displayed layout pane upon an indication to move the field, wherein the filter zone allows user selection of at least one item associated with the field to create a filter associated with the field both when the field is absent from the data summary table and when the field is preexisting within the data summary table;

wherein the field is automatically added to the value zone if the field is determined to be of a numeric type;

updating a display of the data summary table to include the field and apply the filter when the field is initially absent from the data summary table and upon the field being added to the layout pane, wherein the filter is applied to the field before the field is added to the data summary table;

updating the display of the data summary table to show only filtered items based on the filter when the field is preexisting with the data summary table; and

moving the field from the one of different zones to a different one of the zones.

17. The computer-readable storage medium of Claim 16, wherein the different zones include a row zone that defines row labels of the data summary table, a column zone that defines column labels of the data summary table, and a value zone that defines values of the data summary table.

18. The computer-readable storage medium of claim 16, further comprising: determining when the field is unselected; and removing the field from the one of the different zones.

19. The computer-readable storage medium of claim 16, wherein adding further comprises receiving an indication to move the field to the one of the different zones.

20. The computer-readable storage medium of claim 16, further comprising updating the data summary table when the field is moved.