Recent Development in PROC REPORT

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ABSTRACT
Recent development in PROC REPORT includes new presentation capabilities and user interface improvements. The enhancements will be available first under the name PROC TREPORT. The formal demonstration presents these enhancements in the course of designing and interacting with several reports.

Relationship of PROC TREPORT to PROC REPORT
PROC TREPORT is a vehicle for delivering early, experimental implementations of new PROC REPORT features. All of these features will soon become part of PROC REPORT. You can invoke PROC TREPORT using a procedure statement.

```
proc treport data=sasuser.inventory
    report=sasuser.reports.instock;
run;
```

All of the options of PROC REPORT remain valid and some new options have been added.

The BOX Option
Specify BOX on the PROC TREPORT statement or set the BOX option on in the ROPTIONS (report options) window to add boxing characters to a report.

Display 1. Boxing Characters
The boxing in PROC TREPORT behaves similarly to the boxing in PROC TABULATE. You can alter the characters used for boxing by using the FORMCHAR system option to alter the string of form characters.

The ID Option
Specify the ID option on DEFINE statements. Any column specified as an ID column and all columns to the left of an ID column repeat at the left of every page of a report. The use of ID columns ensures that all report rows can be adequately identified when there are more columns than will fit on one page.

Display 2. ID Columns, First Page
Display 3. ID Columns, Second Page

The NOEXEC Option
Specify NOEXEC on the PROC TREPORT statement. Use the NOEXEC option with the OUTREPT= option to create a report definition without creating a report. Use the NOEXEC option with the LISTING

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and REPORT=` options to display a listing of the report language that is the equivalent of a report definition.

```sas
proc treport data=sasuser.inventry noreport exec
    outrept=sasuser.reports.instock;
run;
```

```sas
proc treport data=easuser.inventry noreport exec
    report=sasuser.reports.instock;
run;
```

The LAYOUT Command and Window

Use the LAYOUT command in the REPORT window either explicitly or by selecting the `Edit:Layout the report` PMENU item. The LAYOUT window contains a representation of the current report in the form of labeled rectangles. Each rectangle represents an item in the report. You can grab any rectangle by placing the mouse cursor near its center and dragging. You can grab near the left or right vertical side of a rectangle and drag to make the rectangle wider or narrower. You can double click on a rectangle to display the DEFINITION window for that report item.

Display 4. A LAYOUT Window

The purpose of the LAYOUT window is to enable you to organize the columns of a report by organizing these labeled rectangles. Placing one rectangle over others is the equivalent of using the MOVE command in the REPORT window or of connecting items with commas in a COLUMN statement.

```sas
proc treport data=sasuser.inventry;
    columns region site product, {etock rate);
    define region / order;
    define site / order;
    define product / across;
    define stock / sum;
    define rate / mean;
run;
```

The organization of rectangles in the layout box supports the semantics of PROC REPORT. If you want adjacent columns for two ANALYSIS variables below an ACROSS variable, use a layout similar to the one in Display 4. The rectangle labeled "Inventory on Hand" represents one ANALYSIS variable. The rectangle labeled "Average Daily Rate of Depletion" represents the second ANALYSIS variable. The rectangle labeled "Product/\-" represents an ACROSS variable. The rectangle labeled "\-" represents a title spanning the two ANALYSIS variable columns. Create this organization by elongating the "Product/\-" rectangle. (Grab one of its vertical edges and drag left or right away from the center.) Then drag the other rectangles below it.

You can remove an item from a report by dragging its rectangle out of the Report layout box. You can add data columns (data set variables), statistics, computed columns, and spanning titles to the layout. First select the `Edit:Add` PMENU and then select the appropriate submenu item.

Selecting Data columns or Statistics displays a list of available data columns or a list of statistics. Selecting Computed column displays the COMPUTED VAR window. Selecting Spanning title displays a window that requests the text of the title.

All additions first appear in the Report additions box. From here you can drag each rectangle to its proper place in the report layout. Any items left in the Report additions box are not considered part of the report.

There are three pushbuttons at the bottom of the LAYOUT window. Push Apply to redisplay the report in the REPORT window according to the layout specifications in the LAYOUT window. Push End to redisplay the report and close the LAYOUT window. Push Cancel to close the LAYOUT window without affecting the report.

Changes to the Prompting Mechanism

The original prompting mechanism forces you to make all decisions before seeing the impact of any one decision. The new prompting mechanism displays a version of the report from the beginning. Apply buttons on the prompting windows enable you to see the impact of a choice immediately, while it is still convenient to make another decision.
value from each observation

ORDER report rows by its values

observations into categories

contribute values to a statistic (ANALYSIS)

Display 5. The APPLY Button

The first PROMPTER window offers the opportunity to restrict the number of observations to use while you are being prompted. When you push End Prompting the restriction is removed.

Display 6. Observation Limit

Revised PMENUS

The PMENUS have been redesigned to be more understandable, more consistent with the rest of the SAS System, and more efficient to use. For example, both adding an item to a report and adding a spanning title can now be accomplished with one PMENU selection rather than with a sequence of two.

Double Click in the REPORT Window

You can double click on a column header to display the DEFINITION window for that report item. Double clicking on a value in a report has the same effect as submitting the EXECUTE command. If you have associated a string of commands with that report value using

```call define( column, command, command_string );```

the string of commands is submitted to the command line processor. This technique is useful for loading a different report definition or submitting a WHERE clause based on the particular report value.

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