

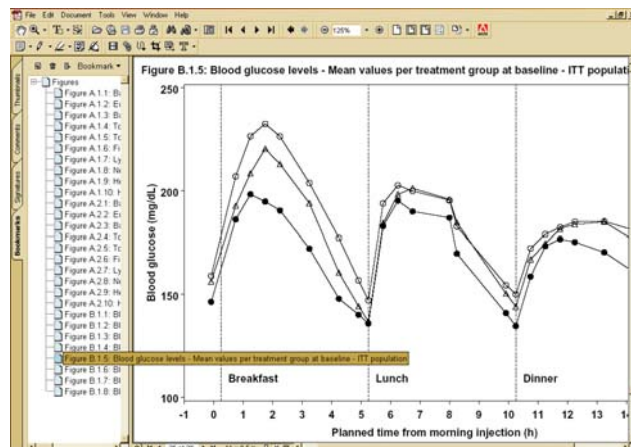
Sort Your SAS Graphs and Create a Bookmarked PDF Document Using ODS PDF

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Intro

In SAS there are different possibilities for creating and storing graphs. Bookmarked PDF documents are user-friendly. This poster describes a technique used to automate the sorting of graphs and the creation of bookmarked PDF documents containing all graphs using ODS PDF.

Example for bookmarked PDF with graphs:



Create Your Graphs

✓ Store Graphs in SAS Catalog

```
PROC GPLOT... GOUT=graph.safety;
```

✓ Assign Unique Number as Description

```
PLOT hct*time/description=
      "Figure A.1.10: Hematocrit";
```

The description is converted to a PDF bookmark.

Sort Your Graphs

✓ Extract Metadata From SAS Catalog

Library Name (LIBNAME)	Member Name (MEMNAME)	Object Name (OBJNAME)	Object Description (OBJDESC)
GRAPH	SAFETY	GPLOT8	Figure A.1.9: Hemoglobin
GRAPH	SAFETY	GPLOT9	Figure A.1.10: Hematocrit

✓ Sort Metadata by Object Description

Example:
OBJDESC=
A.1.10

Character	Numeric
C1= "A"	N1= .
C2= ""	N2= 1
C3= ""	N3= 10

Sort by:
C1 N1 C2 N2...

In our example we divide the figure number in its character and numeric parts to account for figure numbers containing a mixture of alphanumeric characters. These parts are then used for sorting.

Create GREPLAY Code

✓ Use Sorted Metadata

```
PUT "IGOUT= " LIBNAME + (-1) "." MEMNAME ";";
PUT "REPLAY " OBJNAME ";";
PUT "RUN;";
```

The generated code is written to an external file, which can later be included in the program.

Create Bookmarked PDF

✓ Proc GREPLAY

```
ODS PROCLABEL= "Figures"; ❶
OPTIONS ORIENTATION=LANDSCAPE; ❷
ODS PDF FILE="..." STYLE=PRINTER; ❸
GOPTIONS HSIZE=... HORIGIN=...
      TARGET=... ROTATE= LANDSCAPE; ❹
PROC GREPLAY NOFS; ❺
  %INCLUDE "..."; ❻
QUIT;
ODS PDF CLOSE;
```

- ❶ High-level PDF bookmark.
- ❷ OPTION ORIENTATION must be the same as the value for the GOPTION ROTATE.
- ❸ Name of PDF output file. "STYLE= printer" option for white background.
- ❹ Set GOPTIONS for correct reproduction of the graphs.
- ❺ NOFS prevents default line mode.
- ❻ Include file with REPLAY statements.

More Info

More details, the system requirements and some restrictions on the process are described in the paper CC01. For additional questions you can contact the authors:

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