

CHAPTER 28

The GTESTIT Procedure

<i>Overview</i>	967
<i>About the Pictures</i>	968
<i>About the LOG</i>	971
<i>Procedure Syntax</i>	972
<i>PROC GTESTIT Statement</i>	972
<i>Examples</i>	973
<i>Example 1: Testing a GOPTIONS Statement</i>	973

Overview

The GTESTIT procedure is a diagnostic tool for testing the installation of SAS/GRAPH software and the configuration of your device. Use the GTESTIT procedure when you want to

- test a new device
- test the settings of a device driver that you are developing
- identify the colors and some of the SAS/GRAPH lines and fills for your device
- review some of your current settings of device parameters and graphics options
- test changes in settings of device parameters and graphics options.

The GTESTIT procedure produces three pictures that help you determine the configuration of your graphics device and graphics options and parameters. Refer to “About the Pictures” on page 968 for examples of the pictures. Although it does not show the settings of all device parameters and graphics options, the GTESTIT procedure does show some of the most commonly used ones.

If you use a GOPTIONS statement to change one or more graphics options for the current SAS session, or if you run the GDEVICE procedure to change the parameter settings for your device, you can use the GTESTIT procedure to confirm that those changes took effect.

For example, if you use the GOPTIONS statement to set HPOS=45 and COLORS=(RED GREEN), you can display picture 1 in the GTESTIT procedure to confirm that the graphics output area is divided into 45 columns and that foreground colors have been limited to red and green.

See Chapter 9, “Graphics Options and Device Parameters Dictionary,” on page 301, Chapter 15, “The GDEVICE Procedure,” on page 651, and Chapter 3, “Device Drivers,” on page 37 for more information on setting graphics options and device parameters.

About the Pictures

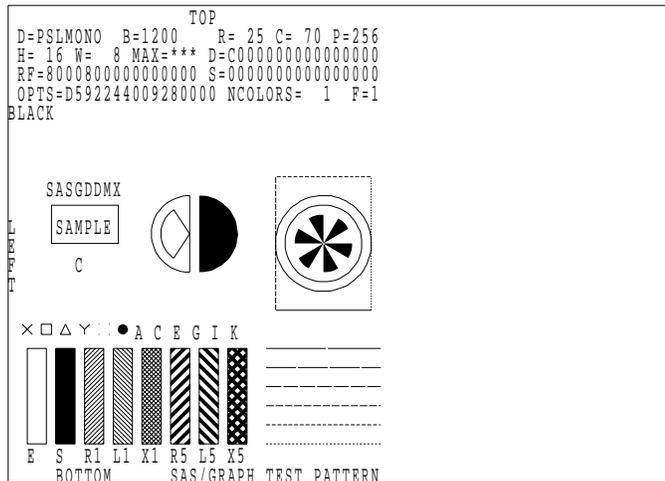
Figure 28.1 on page 968 shows a test pattern and gives the values of some of the device settings that are currently in effect. Table 28.1 on page 970 describes the graphics options and device parameters that are displayed in the picture. The values of most of the displayed settings are determined by device parameters that are specified in the catalog entry for the current device or by graphics options that are specified in a GOPTIONS statement.

Note: The following two statements do not return the same parameters when used with PICTURE=1: Δ

```
goptions dev=xcolor target=ps nodisplay;
goptions dev=ps nodisplay;
```

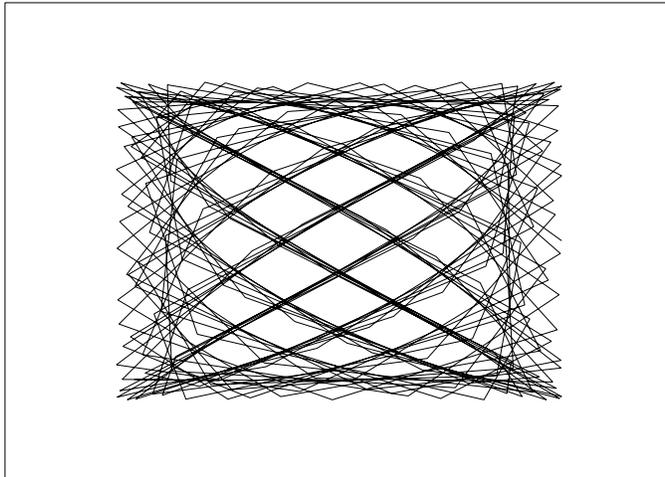
The LOG window for picture 1, shown in Output 28.1 on page 971, lists some of the same settings that are displayed by picture 1, plus some additional settings.

Figure 28.1 Picture 1 of the GTESTIT Procedure



Picture 2 tests your device’s ability to draw lines. Picture 2 always displays in the first color of the current colors list. Figure 28.2 on page 969 shows picture 2 of the GTESTIT procedure.

Figure 28.2 Picture 2 of the GTESTIT Procedure



Picture 3 tests your device's ability to draw simple polygons, polygons with multiple boundaries (also known as *holes*), ellipses, and justified text. Figure 28.3 on page 969 shows picture 3 of the GTESTIT procedure.

Figure 28.3 Picture 3 of the GTESTIT Procedure

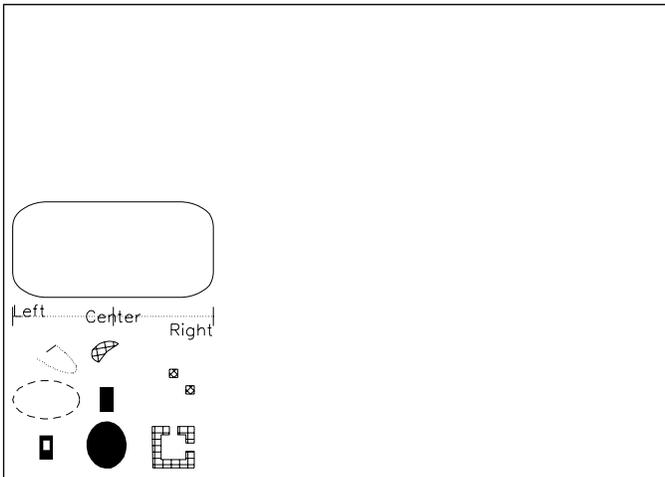


Table 28.1 on page 970 explains the values displayed in picture 1 of the GTESTIT procedure. It also provides the equivalent graphics option or device parameter. Chapter 9, "Graphics Options and Device Parameters Dictionary," on page 301 includes a complete description of the graphics options and device parameters.

Table 28.1 GTESTIT Values Displayed in Picture 1

GTESTIT Value	Equivalent Graphics Option or Device Parameter	Description
D=	DEVICE=	shows the device driver you are using.
R=	VPOS=	shows the number of rows.
C=	HPOS=	shows the number of columns.
P=	MAXCOLORS=	shows the total number of colors (foreground and background) that your device can display. If your device can display more than 15 colors, picture 1 shows only 15 colors, but the LOG window lists all of the available colors.
H=		shows the height of character cells in pixels.
W=		shows the width of character cells in pixels.
MAX=	MAXPOLY=	shows the maximum number of vertices that can be processed by a hardware polygon command. If MAX=0, then the number of vertices is unbounded. If MAX=**, then the value is greater than 999.
D= *	DASHLINE=	shows the hardware dashed-line patterns available. The value displayed is a hexadecimal string.
RF= *	RECTFILL=	shows the hardware rectangle-fill patterns available. The value displayed is a hexadecimal string.
S= *	SYMBOLS=	shows the hardware symbols available. The value displayed is a hexadecimal string.
OPTS= *	DEVOPTS=	shows the other hardware options available. The value displayed is a hexadecimal string.
NCOLORS=	COLORS=	shows the number of colors in the colors list or the number of foreground colors.

GTESTIT Value	Equivalent Graphics Option or Device Parameter	Description
F=	FILLINC=	shows the solid fill increment (the number of pixels between strokes when doing a solid fill).

* In the device entry, this field may be blank. If blank, the value displayed by the GTESTIT procedure comes from an internal default in the device driver.

About the LOG

shows a sample of the information that appears in the LOG window after running picture 1 in the GTESTIT procedure. An asterisk (*) after the P=, MAX=, or F= option indicates that the value for that option is greater than 999.

Output 28.1 Sample Log from GTESTIT Procedure

```

1  proc gtestit picture=1;
2  run;
3  quit;
D=PSCOLOR B=1200 R= 25 C= 70 P=256
H= 16 W= 9 MAX=*** D=C000000000000000
RF=8000800000000000 S=0000000000000000
OPTS=D59A244009280000 NCOLORS= 1
Background color = WHITE
Color 1 = BLACK
Ratio = 0.71429
Hsize = 5.99539
Vsize = 4.28242
F=1

```

Table 28.2 on page 971 lists GTESTIT values that appear only in the LOG window for picture 1: these values do not appear in the picture itself. Table 28.2 on page 971 also provides the equivalent graphics option or device parameter. Chapter 9, “Graphics Options and Device Parameters Dictionary,” on page 301 contains complete information about the graphics options and device parameters.

Table 28.2 GTESTIT Values Shown in the LOG Window

GTESTIT Value	Equivalent Graphics Option or Device Parameter	Description
Background color=	CBACK=	tells the background color used.
Color1=...Color n =COLORS=		lists the default colors list for the device. N is equal to the NCOLORS= value.

GTESTIT Value	Equivalent Graphics Option or Device Parameter	Description
Ratio=	ASPECT=	shows the aspect ratio of the device, which is the ratio of width to height of character cells.
Hsize=	HSIZE=	shows the horizontal size of the area used on the device for the graphics display. The default unit is inches.
Vsize=	VSIZE=	shows the vertical size of the area used on the device for the graphics display. The default unit is inches.

Procedure Syntax

Supports: Output Delivery System (ODS)

```
PROC GTESTIT <PICTURE=1 | 2 | 3>
  <GOUT=< libref.>output-catalog>;
```

PROC GTESTIT Statement

Syntax

```
PROC GTESTIT <PICTURE=1 | 2 | 3>
  <GOUT=< libref.>output-catalog>;
```

Options

GOUT=< libref. >output-catalog

specifies the SAS catalog in which to save the graphics output produced by the GTESTIT procedure. If you omit the libref, SAS/GRAPH looks for the catalog in the temporary library called WORK and creates the catalog if it does not exist.

See also: “Storing Graphics Output in SAS Catalogs” on page 49

PICTURE=1 | 2 | 3

PIC=1 | 2 | 3

indicates the number of the test pattern to display. By default, all three display. If you include more than one PICTURE= option, the GTESTIT procedure displays only the last picture you specify.

Values for PICTURE= are

- 1 shows available colors and patterns, line types, and fills.
- 2 shows the test pattern for continuous drawing ability.

3

shows the test pattern for drawing polygons, ellipses, and justified text.

Examples

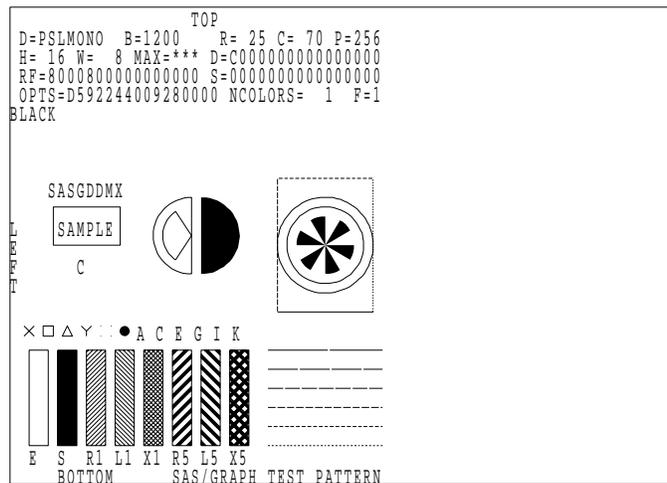
Example 1: Testing a GOPTIONS Statement

Features:

GOPTIONS statement

GTESTIT procedure

Sample library member: GR28N01



This example illustrates how you can use the GTESTIT procedure to confirm the settings specified on a GOPTIONS statement. In this example, the GOPTIONS statement enlarges the size of the elements in the graphics output by decreasing the number of columns from the default number of columns for the device, resets the font to the default, and specifies a limited colors list.

Set the graphics environment. HPOS= selects 45 columns. VPOS= selects 25 rows. FTEXT= resets the font to the default font. COLORS= can determine the colors displayed in picture 1 and listed in the LOG, and the value of NCOLORS=.

```
goptions hpos=45
         vpos=25
         ftext=
         colors=(blue red green);
```

Display the first picture of the GTESTIT procedure.

```
proc gtestit picture=1;  
run;  
quit;
```

The correct bibliographic citation for this manual is as follows: SAS Institute Inc., *SAS/GRAPH® Software: Reference, Version 8*, Cary, NC: SAS Institute Inc., 1999.

SAS/GRAPH® Software: Reference, Version 8

Copyright © 1999 by SAS Institute Inc., Cary, NC, USA.

ISBN 1-58025-525-6

All rights reserved. Printed in the United States of America.

U.S. Government Restricted Rights Notice. Use, duplication, or disclosure of the software by the government is subject to restrictions as set forth in FAR 52.227-19 Commercial Computer Software-Restricted Rights (June 1987).

SAS Institute Inc., SAS Campus Drive, Cary, North Carolina 27513.

1st printing, October 1999

SAS® and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration.

OS/2®, OS/390®, and IBM® are registered trademarks or trademarks of International Business Machines Corporation.

Other brand and product names are registered trademarks or trademarks of their respective companies.

The Institute is a private company devoted to the support and further development of its software and related services.