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 966 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.

About the Pictures

Figure 28.1 on page 966 shows a test pattern and gives the values of some of the device settings that are currently in effect. Table 28.1 on page 968 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:

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

The LOG window for picture 1, shown in Output 28.1 on page 969, 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 967 shows picture 2 of the GTESTIT procedure.
Figure 28.2  Picture 2 of the GTTESTIT 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 967 shows picture 3 of the GTTESTIT procedure.

Figure 28.3  Picture 3 of the GTTESTIT Procedure

Table 28.1 on page 968 explains the values displayed in picture 1 of the GTTESTIT procedure. It also provides the equivalent graphics option or device parameter. Chapter 9, “Graphics Options and Device Parameters Dictionary,” on page 295 includes a complete description of the graphics options and device parameters.
Table 28.1  GTESTIT Values Displayed in Picture 1

<table>
<thead>
<tr>
<th>GTESTIT Value</th>
<th>Equivalent Graphics Option or Device Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D=</td>
<td>DEVICE=</td>
<td>shows the device driver you are using.</td>
</tr>
<tr>
<td>R=</td>
<td>VPOS=</td>
<td>shows the number of rows.</td>
</tr>
<tr>
<td>C=</td>
<td>HPOS=</td>
<td>shows the number of columns.</td>
</tr>
<tr>
<td>P=</td>
<td>MAXCOLORS=</td>
<td>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.</td>
</tr>
<tr>
<td>H=</td>
<td>&amp; #30</td>
<td>shows the height of character cells in pixels.</td>
</tr>
<tr>
<td>W=</td>
<td>&amp; #30</td>
<td>shows the width of character cells in pixels.</td>
</tr>
<tr>
<td>MAX=</td>
<td>MAXPOLY=</td>
<td>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.</td>
</tr>
<tr>
<td>D=*</td>
<td>DASHLINE=</td>
<td>shows the hardware dashed-line patterns available. The value displayed is a hexadecimal string.</td>
</tr>
<tr>
<td>RF=*</td>
<td>RECTFILL=</td>
<td>shows the hardware rectangle-fill patterns available. The value displayed is a hexadecimal string.</td>
</tr>
<tr>
<td>S=*</td>
<td>SYMBOLS=</td>
<td>shows the hardware symbols available. The value displayed is a hexadecimal string.</td>
</tr>
<tr>
<td>OPTS=*</td>
<td>DEVOPTS=</td>
<td>shows the other hardware options available. The value displayed is a hexadecimal string.</td>
</tr>
<tr>
<td>NCOLORS=</td>
<td>COLORS=</td>
<td>shows the number of colors in the colors list or the number of foreground colors.</td>
</tr>
</tbody>
</table>
The GTESTIT Procedure

About the LOG

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
RP=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 969 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 969 also provides the equivalent graphics option or device parameter. Chapter 9, “Graphics Options and Device Parameters Dictionary,” on page 295 contains complete information about the graphics options and device parameters.

Table 28.2  GTESTIT Values Shown in the LOG Window

<table>
<thead>
<tr>
<th>GTESTIT Value</th>
<th>Equivalent Graphics Option or Device Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background color=</td>
<td>CBACK=</td>
<td>tells the background color used.</td>
</tr>
<tr>
<td>Color1=...Colorn=COLORS=</td>
<td></td>
<td>lists the default colors list for the device. N is equal to the NCOLORS= value.</td>
</tr>
<tr>
<td>Ratio=</td>
<td>ASPECT=</td>
<td>shows the aspect ratio of the device, which is the ratio of width to height of character cells.</td>
</tr>
<tr>
<td>GTESTIT Value</td>
<td>Equivalent Graphics Option or Device Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Hsize=</td>
<td>HSIZE=</td>
<td>shows the horizontal size of the area used on the device for the graphics display. The default unit is inches.</td>
</tr>
<tr>
<td>Vsize=</td>
<td>VSIZE=</td>
<td>shows the vertical size of the area used on the device for the graphics display. The default unit is inches.</td>
</tr>
</tbody>
</table>

**Procedure Syntax**

*Supports:* Output Delivery System (ODS)

**PROC GTESTIT**

```
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**

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.
Example 1: Testing a GOPTIONS Statement

Features:
- GOPTIONS statement
- GTESTIT procedure
- Sample library member: GR28N01

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 =.

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

Display the first picture of the GTESTIT procedure.
Example 1: Testing a GOPTIONS Statement

Chapter 28

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