

**set printcolor** — Set how colors are treated when graphs are printed

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## Description

`query graphics` shows the graphics settings.

`set printcolor` determines how colors are handled when graphs are printed.

`set copycolor` (Mac and Windows only) determines how colors are handled when graphs are copied to the clipboard.

## Quick start

Show graphics settings

```
query graphics
```

Specify that all graphs should be printed using gray scale setting `gs1`

```
set printcolor gs1
```

Specify that all graphs should be printed as they appear on screen

```
set printcolor asis
```

Specify that all graphs copied to the clipboard be copied using gray scale setting `gs3`

```
set copycolor gs3
```

As above, and make this setting the default in future sessions

```
set copycolor gs3, permanently
```

## Syntax

```
query graphics
```

```
set printcolor { automatic | asis | gs1 | gs2 | gs3 } [ , permanently ]
```

```
set copycolor { automatic | asis | gs1 | gs2 | gs3 } [ , permanently ]
```

## Option

`permanently` specifies that, in addition to making the change right now, the setting be remembered and become the default setting when you invoke Stata.

## Remarks and examples

`printcolor` and `copycolor` can be set one of five ways: `automatic`, `asis`, and `gs1`, `gs2`, or `gs3`. Four of the settings—`asis` and `gs1`, `gs2`, and `gs3`—specify how colors should be rendered when graphs are printed or copied. The remaining setting—`automatic`—specifies that Stata determine by context whether `asis` or `gs1` is used.

In the remarks below, `copycolor` can be used interchangeably with `printcolor`, the only difference being the ultimate destination of the graph.

Remarks are presented under the following headings:

*What set printcolor affects*

*The problem set printcolor solves*

*set printcolor automatic*

*set printcolor asis*

*set printcolor gs1, gs2, and gs3*

*The scheme matters, not the background color you set*

## What set printcolor affects

`set printcolor` affects how graphs are printed when you select **File > Print graph** or when you use the `graph print` command; see [G-2] **graph print**.

`set printcolor` also affects the behavior of the `graph export` command when you use it to translate `.gph` files into another format, such as PostScript; see [G-2] **graph export**.

We will refer to all the above in what follows as “printing graphs” or, equivalently, as “rendering graphs”.

## The problem set printcolor solves

If you should choose a scheme with a black background—see [G-4] **schemes intro**—and if you were then to print that graph, do you really want black ink poured onto the page so that what you get is exactly what you saw? Probably not. The purpose of `set printcolor` is to avoid such results.

## set printcolor automatic

`set printcolor`’s default setting—`automatic`—looks at the graph to be printed and determines whether it should be rendered exactly as you see it on the screen or if instead the colors should be reversed and the graph printed in a monochrome gray scale.

`set printcolor automatic` bases its decision on the background color used by the scheme. If it is white (or light), the graph is printed `asis`. If it is black (or dark), the graph is printed `grayscale`.

## set printcolor asis

If you specify `set printcolor asis`, all graphs will be rendered just as you see them on the screen, regardless of the background color of the scheme.

## set printcolor gs1, gs2, and gs3

If you specify `set printcolor gs1`, `gs2`, or `gs3`, all graphs will be rendered according to a gray scale. If the scheme sets a black or dark background, the gray scale will be reversed (black becomes white and white becomes black).

`gs1`, `gs2`, and `gs3` vary how colors are mapped to grays. `gs1` bases its mapping on the average RGB value, `gs2` on “true grayscale”, and `gs3` on the maximum RGB value. In theory, true grayscale should work best, but we have found that average generally works better with Stata graphs.

## The scheme matters, not the background color you set

In all the above, the background color you set using the *region\_options* `graphregion(fcolor())` and `plotregion(fcolor())` plays no role in the decision that is made. Decisions are made based exclusively on whether the scheme naturally has a light or dark background. See [G-3] *region\_options*.

You may set background colors but remember to start with the appropriate scheme. Set light background colors with light-background schemes and dark background colors with dark-background schemes.

## Also see

[G-2] [graph export](#) — Export current graph

[G-2] [graph print](#) — Print a graph