

gui2bitmap

generates a bitmap image of a graphical figure, including its uicontrols (and window borders)

Syntax

```
gui2bitmap(idFig, filename)
gui2bitmap(idFig, filename, withBorders)
gui2bitmap("setMenu", parentHandle)
gui2bitmap("setBorders", borders)
gui2bitmap("setScale", scale)
```

Arguments

idFig

Handle of the graphical figure that must be snapshotted. The figure must be on-screen (off-screen processing is impossible), and must not be docked to any other GUI component.

filename

Single string: pathname of the expected image file. The file extension sets the image encoding: only .png .jpg .gif and .bmp are supported. If the directory of the given pathname does not already exist, it is created. Predefined TMPDIR, SCI, SCIHOME, home... constant paths are supported as heading element in `filename`.

withBorders

Single boolean (default %F): Set it to %T to include the borders of the figure in its snapshot, including the general window title, menus bar, tools bar, status bar, etc.

parentHandle

Handle of the component on which the `gui2bitmap` menu must be set. Possible values are:

- **get(0)**: a *gui2bitmap* menu is added to the console's menus bar.
- The **idFig** handle of a figure: Then a *gui2bitmap* menu is appended to its *File* first menu.
 - ⚠ With Scilab 6, this must be done before plotting anything in the figure (due to the [bug 16167](#)).
- The **idMenu** handle of an existing menu, to which the *gui2bitmap* menu will be appended as a submenu.

borders

Boolean vector with 3 components [left_border, bottom_border, right_border]. This indicates the borders to be grabbed when the `withBorders` option is used. Default = [%T %T %T].

scale

Single decimal number > 1 : scale of the screen display, in percentage. Default = 100. Other frequent screen settings are 125% and 150%.

Description

`gui2bitmap(...)` takes a snapshot of the given graphical figure and stores it in an image file.

`gui2bitmap(...)` is a stand-alone Scilab function using only the JVM embedded in Scilab. It does not require any external software. It aims to replace `xs2png(...)`, `xs2jpg(...)`, `xs2gif(...)`, and `xs2bmp(...)`. Unlike them, it is able to

- include uicontrols (if any) in the image, as they appear on the GUI figure ;
- snapshot the whole window embedding the figure, including the window borders.

Since it uses the JVM, `gui2bitmap()` can be used in standard `STD` Scilab desktop and in No-Window `NW` (advanced console) modes, but is not available in `NWNI` batch mode.

`gui2bitmap("setMenu", parentHandle)`

adds a menu to the console, or a submenu to a given figure (to its *File* menu) or an existing menu, according to the `parentHandle` value.

Before calling `gui2bitmap()`, the file explorer is opened and prompts the user to choose the filename and directory of the image file.

When the menu is added to the console, `gui2bitmap()` actions apply to the *active figure*, that is blinked before processing.

This command is ignored in `NW` execution mode.

`gui2bitmap("setScale", scale)`

sets the screen display scale, as configuration parameter. The value is recorded in the file `SCIHOME/gui2bitmap_preferences.xml` and is used by `gui2bitmap()` for all forthcoming calls and Scilab sessions.

`gui2bitmap("setBorders", borders)`

indicates which window borders must be include in the image when `gui2bitmap()` is called with the `withBorders` option. The `borders` boolean vector is recorded as configuration parameter in the file `SCIHOME/gui2bitmap_preferences.xml` and is used by `gui2bitmap()` for all forthcoming calls and Scilab sessions.

This setting is useful for instance to trim transparent borders, with `[%F %F %F]`.

 No variable named *File*, *Robot*, or *Rectangle* must exist anywhere in the calling level of `gui2bitmap()` (and in the upper callers, if any).

Examples

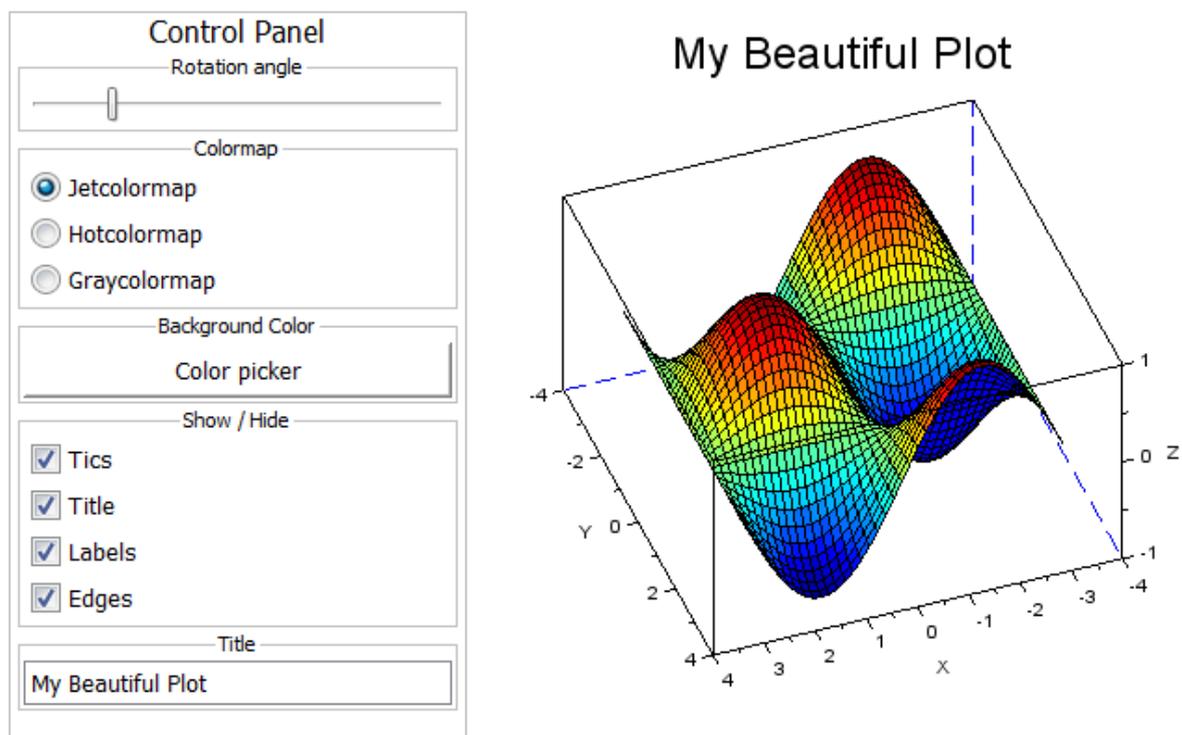
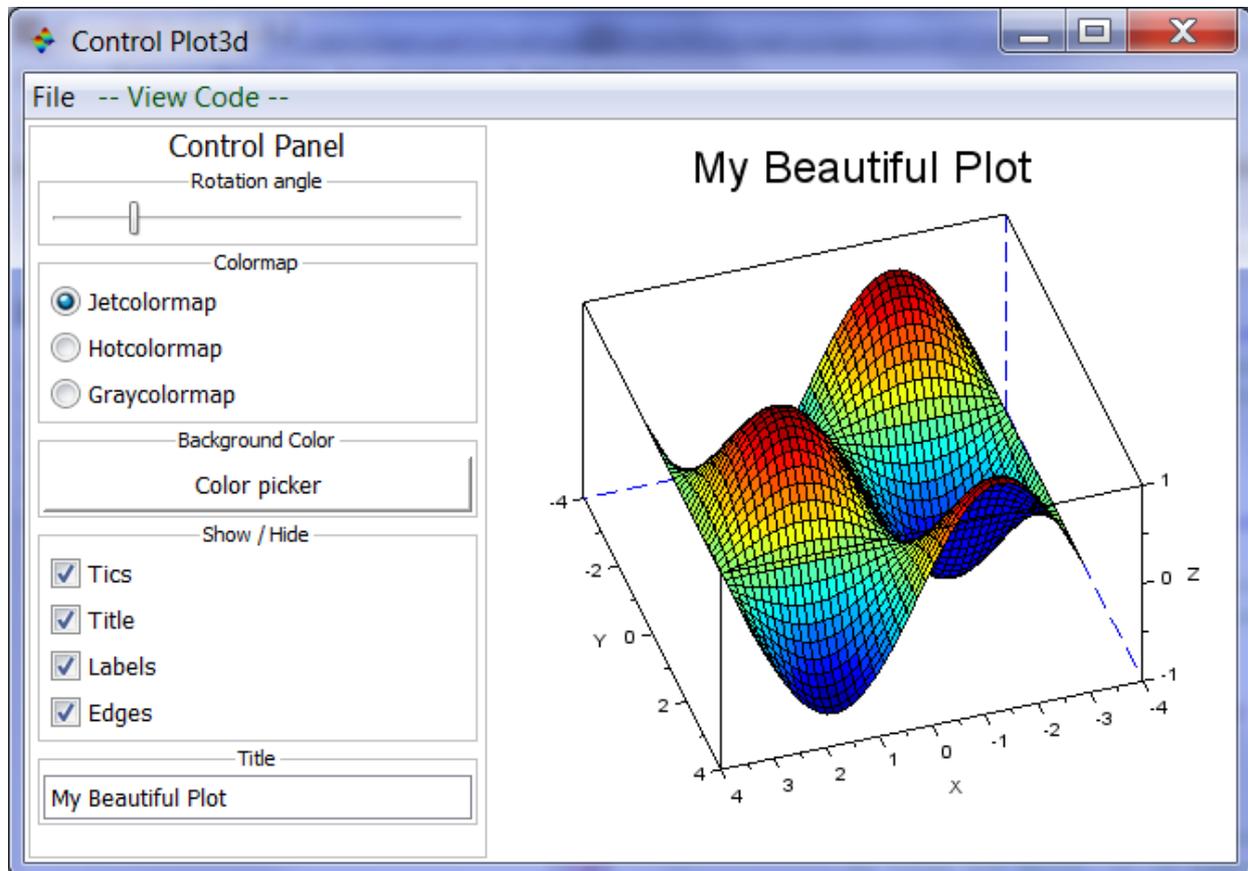
```
// Generate a nice GUI (from demos)
exec("SCI/modules/gui/demos/uicontrol_plot3d.dem.sce",-1);
//
f = gcf();
f.axes_size = [650 400];
sleep(500)
figGUI = "TMPDIR/gui2bitmap/gui2bitmap.png";

// Export the window
gui2bitmap(f, figGUI, %t) // with window borders

// Let's see the image
winopen(figGUI)
sleep(500)

// Now without the window borders:
gui2bitmap(f, figGUI)
winopen(figGUI)

close(f);
rmdir(fileparts(figGUI));
```



Finally, let's trim the left, bottom and right borders, but keep the heading area and the status bar at the bottom :

```
xdel(winsid())
exec("SCI/modules/gui/demos/uicontrol_plot3d.dem.sce",-1);
f = gcf();
f.axes_size = [650 400];
f.info_bar_visible = "on";
```

```

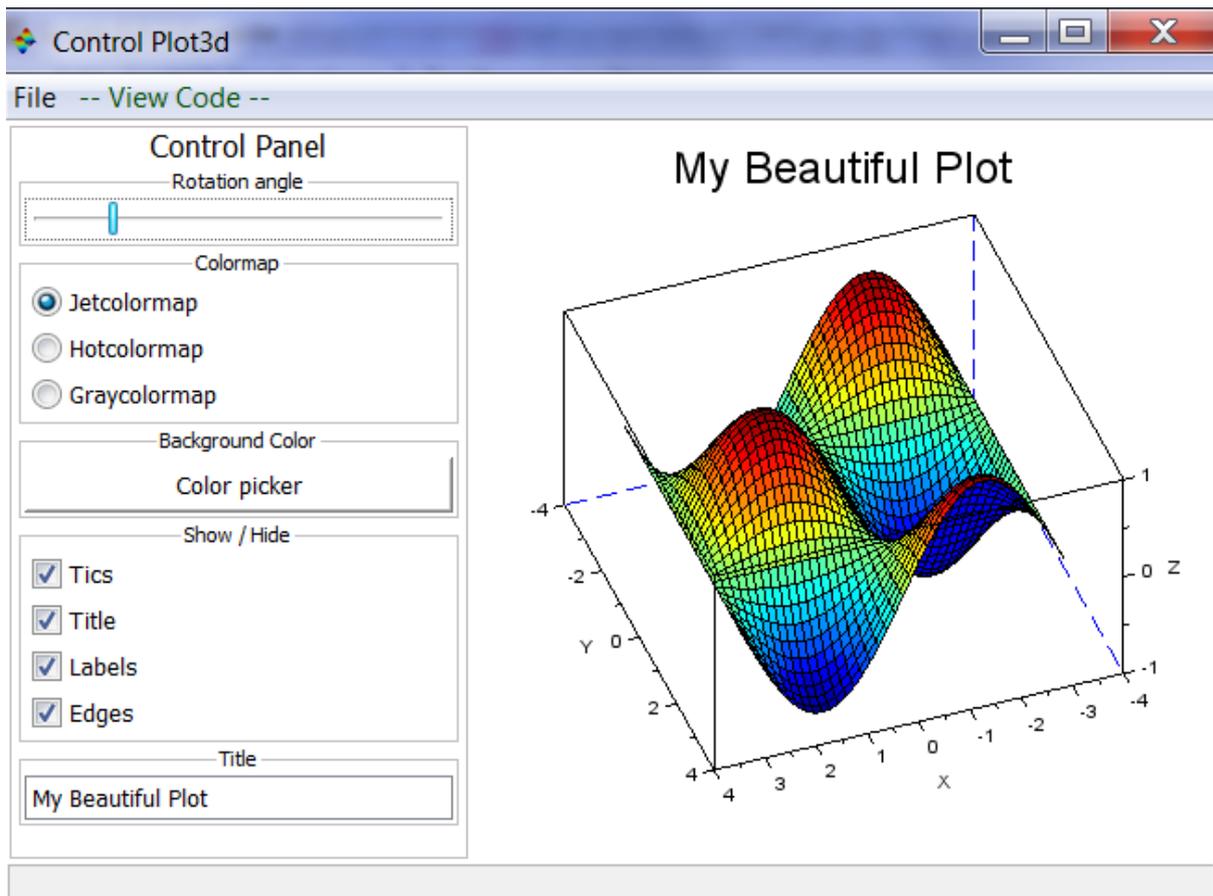
figGUI = "TMPDIR/gui2bitmap/gui2bitmap.png";

gui2bitmap("setBorders", [%F %F %F])
gui2bitmap(gcf(), figGUI, %t);

// Let's see the image
winopen(figGUI)

// Restore the default borders setting
gui2bitmap("setBorders", [%T %T %T])

```



Let's add a `gui2bitmap` menu to the console, and use it:

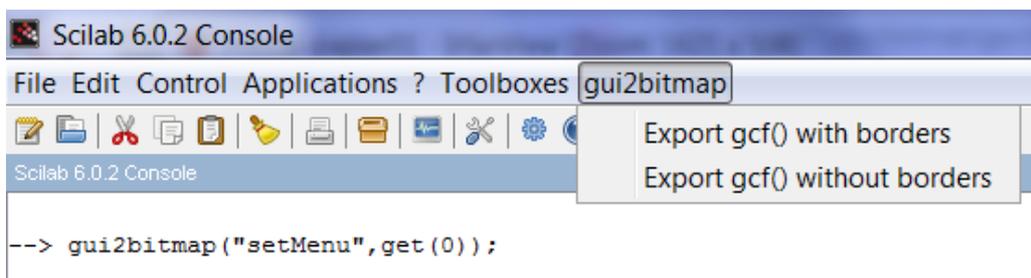
```

xdel(winsid())
plot
exec("SCI/modules/gui/demos/uicontrol_plot3d.dem.sce",-1);

// Two graphical windows are now defined. The active one is the plot3d GUI.

gui2bitmap("setMenu",get(0));
// Look at the console's menu bar => gui2bitmap menu.
// Use it and see how it proceeds.

```



Author

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See also

- [xs2png](#)
- [xs2jpg](#)
- [xs2bmp](#)
- [animaGIF \(ATOMS\)](#)
- [getscilabmode](#)

History

Version	Description
1.0	2019-08-02 : First release
1.1	2019-08-05 : <ul style="list-style-type: none">• On Windows, any graphical window that is partly shifted off-screen is now managed.• 3 bugs fixed.
1.2	2019-08-09 : <ul style="list-style-type: none">• <code>gui2bitmap()</code> now works as well on Linux and MacOS.• "setMenu", "setBorders", and "setScale" syntaxes added.• Unitary tests added.