

## PERFORMANCE

**Regression which was slowing down loops in some cases, fixed.**

Performances can be improved up to 50 %.

*Note that other performance improvements will also be available in Scilab 5.3.0.*

## HELP BROWSER

**Increase of the default size of the help browser window.**

**Help browser window position and size are now stored and restored for next usage.**

*See Bug #6482.*

## SCILAB

**Title of the main Scilab window changed from 'Console' to 'Scilab Console'.**

*See Bug #5023.*

### For GNU/Linux, Unix & Mac OS X:

- ▶ Arguments `-h / --help` added to get help about the startup script.
- ▶ Clear separation in the help between users and developers arguments in Scilab startup script.
- ▶ Documentation updated to explain that `-nwni` and `-nogui` are the same options.
- ▶ **Bug #6633 fixed** - Unknown arguments are now accepted with option `-args` to allow user to access them through `sciargs` Scilab function: `scilab -nwni -args 2 3`

## DYNAMIC LINK

In some cases, when a library is not available, we try to find it into the `.libs` of the module (it is the case in the development source tree).

However, in the binary, for any reason, the library failed to load correctly (missing symbol, bad format of library, etc), the error message was not displayed.

### Bug Fixes:

- ▶ **Bug #4575 fixed** - 'makename' argument in 'ilib\_mex\_build', 'ilib\_gen\_cleaner', 'ilib\_gen\_Make', 'ilib\_for\_link', 'tbx\_build\_src' and 'tbx\_build\_gateway' was useless. A warning will be displayed in next major release for any use of a wrong value.
- ▶ **Bug 4787 #fixed** - Under Linux/Unix/Mac OS X, when a library is not available, process does not stop during the compiler detection but stop at build time. The error message is now much more explicit.

## CALL\_SCILAB

**Examples added to show how to manage returned error.**

## GRAPHICS

**Adding two new line styles: "dot" and "double dot".**

*See Bug #6840.*

**Temporary files in the ps export were stored at a wrong place.**

### Bug Fixes:

- ▶ **Bug #6472 fixed** - Resizing the graphics window after having plotted several 2D curves and a legend caused the disappearance of some of them.
- ▶ **Bug #6531 fixed** - Adding a new color to the current colormap caused the legend entity's default background color to change.
- ▶ **Bug #6557 fixed** - The legend order of the "plzr" function was incorrect.
- ▶ **Bug #6648 fixed** - The description of the "format\_n" property was missing from the "axis\_properties" online help page.
- ▶ **Bug #6660 fixed** - In some cases, printing under GNU/Linux and Mac OS X was failing.
- ▶ **Bug #6664 fixed** - Setting the axes property "tight\_limits" to "on" caused the axes and their attached entities to disappear when data min and max bounds were equal (for any of the X,Y or Z axes).
- ▶ **Bug #6687 fixed** - The "Matplot" function did not set the clip\_state property of the entities it created.
- ▶ **Bug #6712 fixed** - The "title" function forced displaying axes.
- ▶ **Bug #6718 fixed** - A text in a graphic containing a "<" symbol could not be exported in eps.
- ▶ **Bug #6720 fixed** - "caption" function did not handle properly polylines handles.
- ▶ **Bug #6721 fixed** - Loading a saved axis graphics entity did not correctly restore its tics\_direction property.
- ▶ **Bug #6735 fixed** - The "landscape" option in the print dialog as well as in `xs2eps` did not work as expected.
- ▶ **Bug #6738 fixed** - The horizontal line of the square root symbol was not drawn when exported.
- ▶ **Bug #6817 fixed** - The "xstring" function shifted the start position of the string relative to the string length.
- ▶ **Bug #6834 fixed** - The rotation formula in the rotate help page was incorrect.
- ▶ **Bug #6850 fixed** - "PlotSparse" function did not use the ticks provided by the axis but drew his own.
- ▶ **Bug #6870 fixed** - Arrowed polylines with infinite value were not plotted even if it was possible.

## COMPILATION

**Build problem on exp10 (mainly under Gentoo) fixed.**

**GNU/Linux sparc64 and sh4 supported.**

**Detection of JOGL/Gluegen under Suse/Openuse improved.**

*Thanks to Michal Vyskocil.*

"make clean" continues even if errors are found.

#### Add a new option to the configure for Mac OS X --with-fink-prefix

This is done to prepare Scilab 5.3 and the mandatory dependency on Java 1.6 (64 bits only).

This option will set the LDFLAGS & source the fink init script.

Some macros were duplicated during the installation process.

#### CFLAGS -msse2 added under Mac OS X for Scilab module shell.

See Bug #6839.

## Xcos

### Bug Fixes:

- ▶ **Bug #1982 fixed** - It was not possible to use links label on a diagram.
- ▶ **Bug #5297 fixed** - The alignment sub-menu was not intuitive without icons.
- ▶ **Bug #5541 fixed** - The Cut/Copy-n-Paste operation did not preserve the block rotation.
- ▶ **Bug #5700 fixed** - Compilation under RHE4 was failing on term.h and termcap.h inclusion.  
*Thanks to Nicolas Vergnes for providing the fix.*
- ▶ **Bug #6415 fixed** - The SAWTOOTH\_f block was not working properly.
- ▶ **Bug #6501 fixed** - The border color and fill default color was not set when changing it.
- ▶ **Bug #6575 fixed** - The graph mask was not removed at the end of the simulation.
- ▶ **Bug #6576 fixed** - Specifying the debug level was not working when two diagrams were opened.
- ▶ **Bug #6621 fixed** - The Zoom shortcuts was not working as expected. The Ctrl+Wheel was not working for zooming.
- ▶ **Bug #6657 fixed** - The importXcosDiagram call with specific parameters was crashing Scilab.
- ▶ **Bug #6671 fixed** - The style was not saved in superBlockDiagram.
- ▶ **Bug #6694 fixed** - The grid was always enabled when opening a diagram.
- ▶ **Bug #6697 fixed** - The multi-point link did not align its edges on the grid.
- ▶ **Bug #6699 fixed** - The Capacitor block had wrong default label settings.
- ▶ **Bug #6780 fixed** - The region to superblock action did not work when an outgoing link was selected.
- ▶ **Bug #6797 fixed** - The importXcosDiagram macros was Scicos libraries dependant.
- ▶ **Bug #6799 fixed** - The TOWS\_c block had wrong default values.
- ▶ **Bug #6808 fixed** - The GOTO/FROM blocks did not display their parameters.

## TESTS

The internal tag "<!-- LONG TIME EXECUTION -->" has been added.

It allows to disable tests that need long-time duration. These tests are enabled if test\_run() is called with the "enable\_lt" optional argument.

## ON-LINE HELP BUILDING SYSTEM

Compilation of the on-line help failed if two XML files had the same name.

This constraint has been removed.

## OBSOLETE FUNCTIONS

'tk\_choose' obsolete. Please use 'x\_choose' instead.

'readc\_' obsolete. Please use 'input' instead.

## BUG FIXES

- ▶ **Bug #2395 fixed** - mfile2sci could failed with "undefined variable: mfile\_path" error message for some functions conversion.
- ▶ **Bug #4599 fixed** - It was possible to create many different variables with the same name in the same scope.
- ▶ **Bug #5140 fixed** - Lines to be executed were not printed in the console. A message box added to advice to use "Execute into Scilab", if file is very long (more 100 lines).
- ▶ **Bug #5466 fixed** - "savematfile" no more append variables in file by default, file is now reinitialized at each "savematfile" call.
- ▶ **Bug #6675 fixed** - x\_mdialog crashed Scilab with some incorrect input arguments.
- ▶ **Bug #6698 fixed** - isreal did not work on hypermatrix.
- ▶ **Bug #6719 fixed** - Error fixed in example of root\_properties help page (French version only).
- ▶ **Bug #6720 fixed** - "lib" function did not print the same thing when it was entered several times.
- ▶ **Bug #6730 fixed** - Problem with function calls when seen as member of an mlist fixed.
- ▶ **Bug #6734 fixed** - read\_csv function contained erroneous error messages.
- ▶ **Bug #6739 fixed** - If a Scilab coded library function was redefined in a new library, completion on its name made Scilab crashed.
- ▶ **Bug #6787 fixed** - toprint(filename) required only absolute path to filename.
- ▶ **Bug #6788 fixed** - toprint(filename) UTF8 chars in a file were misprinted.
- ▶ **Bug #6790 fixed** - toprint(nFigure): %F was returned while the figure was actually printed.
- ▶ **Bug #6792 fixed** - Wrong interpretation of macro arguments when the macro call appeared in an list extraction.
- ▶ **Bug #6796 fixed** - test\_run() crashed if SCI directory was read-only.

- ▶ **Bug #6798 fixed** - About Matlab to Scilab tools help page updated.
- ▶ **Bug #6816 fixed** - Incoherent extraction when there was no index: M()
- ▶ **Bug #6821 fixed** - In text editor, labels of contextual menu called "Execute selection into Scilab" and menu called "Evaluate selection" were not homogenized.
- ▶ **Bug #6829 fixed** - kpure failed to compute when applied to an high degree system.
- ▶ **Bug #6841 fixed** - fun2string failed on simple examples containing variable extraction.
- ▶ **Bug #6864 partially fixed** - ATOMS: Error messages were not homogenized.
- ▶ **Bug #6879 fixed** - Error messages in "sci\_champ.c" were not homogenized.
- ▶ **Bug #6897 fixed** - On Windows, umfpack had some wrong dependencies.
- ▶ **Bug #6905 fixed** - Error messages in "Gray.c" & "Plo2dn.c" were not homogenized.
- ▶ **Bug #6906 fixed** - Error messages in "SetProperty.c" were not homogenized.