

PERFORMANCE

Faster access to primitive table (internal).

This change improves the overall speed of Scilab.

Improved access to the list of functions increases the performances.

PARALLEL EXECUTION

Function "parallel_run" has been introduced for all supported architectures.

This function allows parallel computations and leverages multicore architectures and their capacities.

For more information, see the help page of `parallel_run` or SEP #43.

SCI NOTES (TEXT EDITOR)

The Scilab Consortium would like to express its congratulations to Calixte Denizet for his impressive work on the recent developments on SciNotes.

Distributed with a new name: SciNotes

Complete refactorization of the text editor.

This change improves the speed, the stability of the editor and also improves many aspects of SciNotes.

Add the possibility to complete on-the-fly typing.

Ex: type '[' gives '[') or keywords (e.g. type 'if ' gives 'if <CR>end')

Add the possibility to have several instances of the editor and to dock them (or not).

Add the possibility to remove trailing whitespaces.

Improve the "help on keyword" from the popup menu.

Bug Fixes:

- ▶ **Bugs #4399, #4922 fixed** - The line numbering could not be compatible with the output of the `whereami` function.
- ▶ **Bug #4790 fixed** - A broken string (with `..` operator) was badly colored.
- ▶ **Bug #4865 fixed** - The buttons to undo and redo were not disabled when there was nothing to undo or redo.
- ▶ **Bug #4872 fixed** - A binary file was opened like a text file.
- ▶ **Bug #4907 fixed** - The source code of a given macro could not be opened.
- ▶ **Bug #4916 fixed** - Problem with 'See the code' in the demos.
- ▶ **Bug #4990 fixed** - When the argument was a directory, an error was displayed.
- ▶ **Bug #4992 fixed** - There was no possibility to split a window with the same contents.

- ▶ **Bug #5087 fixed** - Different keywords were not split in different categories.
- ▶ **Bug #5102 fixed** - It was not possible to choose the font weight or the font style for a keyword category.
- ▶ **Bug #5113 fixed** - Bad refresh of the application title in some cases.
- ▶ **Bug #5124 fixed** - Editor's title was not updated when a file was saved as...
- ▶ **Bugs #5126, 6519 fixed** - Problems appeared after using undo a few times.
- ▶ **Bug #5175 fixed** - Ghost text appeared in the view.
- ▶ **Bug #5178 fixed** - The kind of tabulations (hard tabulations or spaces) could not be specified.
- ▶ **Bug #5204 fixed** - Weird display of 'else' keyword.
- ▶ **Bug #5261 fixed** - Several instances of the editor could not be opened.
- ▶ **Bug #5269 fixed** - Help could not be reached on a keyword with CTRL+F1.
- ▶ **Bug #5320 fixed** - A correct name was not proposed on the 'Save as' action.
- ▶ **Bug #5321 fixed** - There was no possibility to choose the length of a tabulation.
- ▶ **Bug #5473 fixed** - It was not possible to generate a function help template using `help_from_sci`.
- ▶ **Bug #5534 fixed** - Auto-completion was not available.
- ▶ **Bug #5632 fixed** - A file in read-only mode could not be opened.
- ▶ **Bug #5644 fixed** - The DragN'Drop text was copied rather than moved.
- ▶ **Bug #5645 fixed** - Undo action deleted a line rather than making it visible.
- ▶ **Bugs #5646, #5658 fixed** - The undo/redo strategy was failing in some cases.
- ▶ **Bug #5647 fixed** - Bad line numbering when a file was just opened.
- ▶ **Bug #5648 fixed** - The editor let you think that you can change a filename just in changing the case.
- ▶ **Bug #5652 fixed** - Bad line numbering when several files were opened.
- ▶ **Bug #5654 fixed** - The editor did not save the user preferences.
- ▶ **Bug #5655 fixed** - The selection was lost after an unsuccessful search.
- ▶ **Bug #5656 fixed** - When a part of text was selected, the search was done on the full document.
- ▶ **Bug #5657 fixed** - Control+End did not move the cursor to the end of the file.
- ▶ **Bug #5681 fixed** - The search window was not put in front of the editor's one.
- ▶ **Bug #5682 fixed** - A problem occurred in some cases with the replace action.
- ▶ **Bug #6479 fixed** - A problem occurred in some cases when a '{' was used in comments.
- ▶ **Bug #6515 fixed** - The DragN'Drop text was copied at the end of the file.
- ▶ **Bug #6658 fixed** - The position and size of the editor were not saved.

- ▶ **Bug #6670 fixed** - There was no shortcut for the "Evaluate Selection" action.
- ▶ **Bug #6748 fixed** - There was a time problem between local computer and remote file system.
- ▶ **Bug #6807 fixed** - '.' was not correctly highlighted.
- ▶ **Bug #6980 fixed** - When a replaced text contained a '\', the backslash was considered as a special character.
- ▶ **Bug #7032 fixed** - There was a problem when a filename contained a ' or a ".
- ▶ **Bug #7088 fixed** - The editor freezed when a user copied/pasted several times.
- ▶ **Bug #7112 fixed** - Two transpositions gave a string (if $a'=1$ then $a=b'$).
- ▶ **Bug #7150 fixed** - It was impossible to change the background color.
- ▶ **Bug #7237 fixed** - Whites and tabs were not visible in strings and in comments.
- ▶ **Bug #7238 fixed** - The dot/del key on the numeric pad added a 'suppr' and a dot.
- ▶ **Bug #7239 fixed** - Font style was lost on a selected text.
- ▶ **Bug #7240 fixed** - The menu "Open source file" was active even if nothing could be opened.
- ▶ **Bug #7262 fixed** - An exception was thrown when a text was dragged and dropped.
- ▶ **Bug #7272 fixed** - No check on the lastModified property was performed when a file was opened.
- ▶ **Bug #7277 fixed** - The "recent files" list was badly ordered.
- ▶ **Bug #7281 fixed** - The menu "Evaluate selection" did not change when nothing was selected.
- ▶ **Bug #7299 fixed** - There was a bad matching by the right for the expression $n=size(x, "**"); r=(x*x')$
- ▶ **Bug #7352 fixed** - No completion menu on the right click.
- ▶ **Bug #7421 fixed** - The source file of a selected name with right click could not be opened.

EDITVAR (VARIABLE EDITOR)

New variable editor

Note that this editor will be improved in the next beta releases.

BROWSEVAR (VARIABLE BROWSER)

New variable browser

Note that this browser will be improved in the next beta releases.

GRAPHICS

The **set**, **get** and **uicontrol** functions are now **overloadable**.

Datatypes tools added.

For more information, see the help page of datatypes or SEP #29.

The frequency response plots ("**bode**", "**black**", "**nyquist**", "**gainplot**",...) support customized datatypes.

Bug Fixes:

- ▶ **Bug #2651 fixed** - "plot2d" was not working when the x argument was not given and some optional arguments were given.
- ▶ **Bug #3100 fixed** - The "xselect" function has been made obsolete and replaced by "show_window", in accordance with its help page.
- ▶ **Bug #3975 fixed** - The "xload" function was not able to load the contents of a previously saved graphic figure into a different one.
- ▶ **Bug #4531 fixed** - "legend" macros were not displaying any error when no 'Polyline' existed.
- ▶ **Bug #4658 fixed** - When some graphic functions were called without any arguments, the error was not explicit enough.
- ▶ **Bug #5284 fixed** - In some cases, the function "legend" drew line segments in its box in a reverse order.
- ▶ **Bug #5606 fixed** - In certain cases, user-defined x-axis ticks were not correctly aligned.
- ▶ **Bug #6098 fixed** - It was not possible to get values by clicking on a point of Bode diagram.
- ▶ **Bug #6394 fixed** - The "black", "m_circle", "chart" functions has been improved for a better rendering and datatypes customization. Two new functions created: "hallchart" (superseed "m_circle") and "nicholschart" (superseed "chart").
- ▶ **Bug #6532 fixed** - In some cases, the text entity rendering order was wrong.
- ▶ **Bug #6676 fixed** - When "twinkle(gca())" was executed, data related to the current axes was not twinkling.
- ▶ **Bug #6786 fixed** - The "polarplot" function did not correctly display the polar coordinated grid when negative rho values were plotted.
- ▶ **Bug #6835 fixed** - Performing an interactive rotation after having executed the "plot3d" function caused Scilab to freeze on 64-bit Windows.
- ▶ **Bug #6848 fixed** - The patterns of the lines were poorly exported.
- ▶ **Bug #6958 fixed** - The "tics_labels" property from "axes" rejected column vector of labels.
- ▶ **Bug #6959 fixed** - axis.tics_labels did not accept $$. $$ LaTeX labels.
- ▶ **Bug #7024 fixed** - Error messages from "twinkle" were not standard.
- ▶ **Bug #7028 fixed** - When Scilab printed an "axis" graphic handle, string array size for "tics_labels" was erroneous.
- ▶ **Bug #7065 fixed** - "getColorIndex" used some global variables prohibiting user's calls.
- ▶ **Bug #7067 fixed** - The "isoview" macro created an unnecessary "plot" object.
- ▶ **Bug #7075 fixed** - When the "links" property was set for a handle of type "legend", the property type was not checked.
- ▶ **Bug #7079 fixed** - The "mtlb_get" used a "h" global variable instead of the given "H" argument.
- ▶ **Bug #7172 fixed** - Executing the "scaling" function caused a function redefinition warning due to its "factor" input argument.
- ▶ **Bug #7173 fixed** - The equation in the "scaling" help page was incorrect.

- ▶ **Bug #7187 fixed** - Plotting a curve, zooming, and then plotting an additional curve caused Scilab to freeze, depending on the zoomed-in area.
- ▶ **Bug #7188 fixed** - Deleting a Label graphics entity caused Scilab to crash.
- ▶ **Bug #7353 fixed** - Setting a Polyline's "interp_color_mode" property to "on" without having previously set its "interp_color_vector" property caused Scilab to crash.

LOCALIZATION

Polish localization added.

Thanks to Paweł Dąbrowski, Ernest Życiński, Sebastian Sławski, Kamil Dąbrowski, Kamil Strojek, Kamil Dąbrowski, Michał Snoc, Piotr Seroka...

Bug Fixes:

- ▶ **Bug #3069 fixed** - In some cases, the function gettext was returning \"
- ▶ **Bug #7059 fixed** - The tag X-Launchpad-Export-Date has been removed to avoid huge and useless difference after a launchpad synchronization.
- ▶ **Bug #7220 fixed** - On Windows, when you started Scilab with "WScilex -l ru_RU", some menus were disabled.

DOCUMENTATION

It is now possible to use LaTeX inlined in the documentation.

Thanks to Calixte Denizet for this feature. (See Bug #4329)

Bug Fixes:

- ▶ **Bug #6630 fixed** - JavaHelp did not update existing image files when building help.
- ▶ **Bug #6852 fixed** - JavaHelp did not center the LaTeX formulas containing an attribute align="center"

Xcos

Modelica compiler 1.12.1

New set of icons added (the previous set of icons will be available as an external module)

The default palettes can now be manipulated by the user.

LaTeX formulas can be used on any TextBlock using the Scilab tag based description.

builnewblock.sci rewritten to use Scilab dynamic link module tools.

Introduction of the variable %MODELICA_USER_LIBS

Allows a user to set where are the Modelica files describing the user's Modelica blocks.

Bug Fixes:

- ▶ **Bug #4156 fixed** - Xcos defined some temp. variables on stack without removing them.
- ▶ **Bug #4705 fixed** - Xcos used a non-existing file BEpsf
- ▶ **Bug #4898 fixed** - The scifunction_block stored list() parameters on the ipar field instead of the opar field.
- ▶ **Bug #4977 fixed** - Some icons were duplicated between Gui and Xcos.
- ▶ **Bug #5022 fixed** - When opening some demos, ArrayIndexOutOfBoundsException were thrown by some Swing components.
- ▶ **Bug #5161 fixed** - The export to SVG did not work with images or html.
- ▶ **Bug #5596 fixed** - It was not possible to change text block properties (font and color)
- ▶ **Bug #5640 fixed** - Toolbar and menubar were sometimes not visible at startup.
- ▶ **Bug #6440 fixed** - Xcos demos did not work and returned "Unable to open file" error.
- ▶ **Bug #6527 fixed** - There was several instances of the same variable name in the workspace when a data set was exported via a "To Workspace" block.
- ▶ **Bug #6661 fixed** - "Code Generation" menu failed.
- ▶ **Bug #6668 fixed** - Xcos Modelica demos did not work with the new Modelica compiler.
- ▶ **Bug #6672 fixed** - "Code generation" failed if superblock had some gain blocks.
- ▶ **Bug #6674 fixed** - Modelica generic block did not work.
- ▶ **Bug #6814 fixed** - Link point positions (link.xx and link.yy) were not exported as column vectors.
- ▶ **Bug #6900 fixed** - The block interfunction was not considered as Scilab macros.
- ▶ **Bug #6903 fixed** - modelicat called ocamlrun (wrong dependency on Windows).
- ▶ **Bug #6981 fixed** - The Scilab 'exit' call was killing Xcos session without prompting the user if modified diagrams must be saved before exit.
- ▶ **Bug #7053 fixed** - Rotated saved blocks were not loaded with the right rotation value.
- ▶ **Bug #7089 fixed** - Drawing links when creating superblock threw an encoding exception.
- ▶ **Bug #7099 fixed** - xml2modelica called ocamlrun (wrong dependency on Windows).
- ▶ **Bug #7129 fixed** - Xcos hung at the opening of superblocks with context.
- ▶ **Bug #7143 fixed** - Simulation values were not valid when the exponential sign was an 'e'.
- ▶ **Bug #7175 fixed** - Demo bridge rectifier did not build on Windows.
- ▶ **Bug #7214 fixed** - Modelica demos did not generate a .mo file in TMPDIR/modelica directory.

ATOMS

ATOMS client: Categories are now managed.

- ▶ atomsList(category) limits the list of modules to a category.
- ▶ atomsCategoryList() lists available categories.

ATOMS GUI:

- ▶ Ergonomics have been improved.
- ▶ Modules can be filtered by category (See request 5276).
- ▶ When a module is not up-to-date, a warning is displayed on the corresponding sheet.
- ▶ Release date of a selected module can now be displayed.

Bug Fixes:

- ▶ **Bug #5276 fixed** - ATOMS GUI: It was not possible to filter modules by category.
- ▶ **Bug #6596 fixed** - When the ATOMS GUI started, nothing was displayed. Now, the list of already installed modules appears on the home page.
- ▶ **Bug #6842 fixed** - The ATOMS GUI could tell that an installed version of a module was the most recent one even if it was not the case.
- ▶ **Bug #6976 fixed** - ATOMS GUI: Webpages URLs linked with a module were missing from the presentation frame.
- ▶ **Bug #6977 fixed** - ATOMS GUI: In the presentation frame, URLs and emails were not hyperlinked.
- ▶ **Bug #7149 fixed** - An error message of `atomsDESCRIPTIONread()` was badly formatted.

MATLAB TO SCILAB CONVERSION TOOLS

Unitary tests added.

Matlab-Scilab equivalents dictionary added in documentation.

In 'mfile2sci', option `only_double` is now set to %T as default.

Conversion updated with new Scilab functions: 'filesep' now converted by 'filesep' instead of 'pathconvert'.

DYNAMIC LINK

Microsoft Visual Studio 2010 Express and Professional support on Windows x86 and x64 platform.

Microsoft Visual Studio 2008 Express support on Windows x64 platform

It requires to install Windows SDK to add x64 component on Visual Studio.

icc-win32 support moved as module in ATOMS.

It will be easier to maintain with new versions of icc-win32.

Intel Fortran 12 (beta) support on Windows x86 and x64 platform.

5th argument of 'ilib_compile', 'ilib_for_link', 'ilib_gen_cleaner', 'ilib_gen_Make', 'ilib_mex_build', 'ilib_build' is deprecated.

Default value of makefile name must be [].

Bug Fixes:

- ▶ **Bug #4265 fixed** - The execution of the dynamic link functions (`ilib_*`) continued even if a compiler was not available.
- ▶ **Bug #5737 fixed** - loader.sce generated by `ilib_gen_loader` did not detect if it was a x86 dll or a x64 dll used with a scilab x64 or x86, on Windows.

OPTIMIZATION

Simulated annealing:

Added documentation for `accept_func_default` and `accept_func_vfsa`.

fminsearch:

- ▶ Updated printing of `neldermead`, `optimbase` and `optimsimplex` objects.
- ▶ Added demo for dimensionality effect of the Nelder-Mead algorithm.

INCOMPATIBILITIES

The bug 4583 fix makes the default element value in string array assignment be an empty string instead of "".

FFTW

On Windows, Scilab can use FFTW3 wrapper of Intel Math Kernel Library.

Select "Download FFTW3 wrapper optimized by Intel Math Kernel Library" during installation.

API_SCILAB

Error(x) is now deprecated and will be removed in Scilab 5.4.

Please use `SciError(x)` instead.

SOURCE REORGANIZATION

'`tbx_builder_src`', '`tbx_build_macros`', '`tbx_builder_gateway`', ... functions has been moved in `modules_manager` module.

COMPILATION

On Windows, Pentium III class (or equivalent) with SSE instructions is required.

`Scilab_f2c.sln` can be exported to VS 2010 format.

Windows 2000 operating system is no more supported.

Scilab Mac OS X distribution only relies on Java 1.6 and is therefore now only available under 64-bit OS (Most of 10.5 and all 10.6 Mac OS X versions)

Under Mac OS X, uses `/usr/libexec/java_home` instead of hardcoded paths to retrieve `JAVA_HOME`

tcisc module is dynamically loaded by Scilab.

pvm module is dynamically loaded by Scilab.

Many warnings detected by Intel Fortran 11.1.051 and more on Windows fixed.

Better detection system of the dependencies version.

Add a check of the minimal installations of hdf5 (1.8.4), batik (1.7).

/usr/share/*/lib added to the Java search path for OpenSuse.

Option --enable-compilation-tests added to the configure. With this option, if TestNG has been found, tests will be launched at compilation time.

Added /usr/lib to JNI search path. Gluegen-rt needed it on openSUSE.

Bug Fixes:

- ▶ **Bug #4300 fixed** - Moving Command Queue management to core.
- ▶ **Bug #6432 fixed** - Checkstyle disabled on SWIG (Java/JNI) generated files.
- ▶ **Bug #6643 fixed** - --without-gui failed to disable Ocaml build (A Xcos dependency).
- ▶ **Bug #6857 fixed** - make CXXFLAGS="-myflag" was removing some C++ arguments.

HELP TOOLS

%help_modules (global variable in Scilab) is only defined when Scilab build help and no more at Scilab's startup.

CORE

Under GNU/Linux, Unix and Mac OS X, for security purposes, temporary directory name is now randomized and permissions are limited to the user.

See *Bug #3493*

Under GNU/Linux, Unix and Mac OS X, if TMPDIR is set, Scilab will respect it to store its temporary files.

See *Bug #3493*

Under non-Windows system, the name of the temporary directory has been changed from SD_* to SCI_TMP_* to match the current Windows behavior.

Bug Fix:

- ▶ **Bug #6986 fixed** - edit('toto.sce') created a file toto.sce.sci containing a function named toto.sce

TESTS

Mechanism of unitary tests for Java code based on TestNG added and used.

test_run() now accepts ATOMS modules as input argument.

TEXT RENDERING

Antialiasing activated by default to render text

LICENSE

The demos files (modules/*/demos/**/*.*.dem.*) are now released in the public domain.

See *Bug #4902*

OBSOLETE FUNCTIONS

'MSDOS' obsolete. Please use 'getos' instead (See *SEP #39*).

'with_icc', 'VctoLCCLib', 'chooselcccompiler', 'configure_icc', 'findlcccompiler' have been moved as modules in ATOMS

See <http://atoms.scilab.org/toolboxes/LCC-windows> or *atomsinstall('lcc-windows')* from Scilab.

'maxi' obsolete. Please use 'max' instead.

'mini' obsolete. Please use 'min' instead.

'xselect' obsolete. Please use 'show_window' instead.

REMOVED FUNCTIONS (PREVIOUSLY DECLARED AS OBSOLETE)

'textprint', 'pol2tex' replaced by 'prettyprint'.

'tk_savefile' replaced by 'uigetfile'.

'tk_getdir' replaced by 'uigetdir'.

'tk_choose' replaced by 'x_choose'.

'sci2excel' replaced by 'write_csv'.

'excel2sci' replaced by 'read_csv'.

'x_message_modeless' replaced by 'messagebox'.

'sethomedirectory' replaced by 'SCIHOME'.

'getcwd' replaced by 'pwd'.

'xbasc' replaced by 'clf'.

'getf' replaced by 'exec'.

'NumTokens' replaced by 'tokens'.

'sort' replaced by 'gsort'.

'scilab_demos' replaced by 'demo_gui'.

'with_gtk' replaced by 'getversion'.

'readc_' replaced by 'input'.

BUG FIXES

- ▶ **Bug #1041 fixed** - An error inside a loop was reported as if it occurred on the "end" line.
- ▶ **Bug #1304 fixed** - macr2tree now works with a Scilab expression as input.
- ▶ **Bug #1371 fixed** - The representation of floating numbers with and exponent larger than 100 or smaller than -100 was incorrect.
- ▶ **Bug #2076 fixed** - pspect did not use the last data window.
- ▶ **Bug #2613 fixed** - Incorrect stack recovery for caught errors in some specific contexts (for loops, ...).
- ▶ **Bug #2623 fixed** - Non-regression test script fixed.
- ▶ **Bug #2654 partially fixed** - exec returned a wrong error if a line had more than 4096 characters.
- ▶ **Bug #2775 fixed** - Multiplication of 0 times infinity did not work because of ATLAS under Windows.
- ▶ **Bug #3281 fixed** - Incorrect error message #72 fixed.
- ▶ **Bug #3311 fixed** - Loop with a "for" over a vector of complex polynomials produced wrong values.
- ▶ **Bug #3490 fixed** - "resume" inside an exec crashed Scilab, "resume" restrictions of use removed.
- ▶ **Bug #3688 fixed** - The assignment using ":" subscript for a dimension that did not exist, did not work for hypermatrices.
- ▶ **Bug #3780 fixed** - The loadmatfile function did not ignore comments found in ASCII files while loading them, resulting in an error message.
For Matlab compatibility, when this function is called with one input argument load(filename), it now looks for a binary file (if filename has no extension or .mat extension) or for an ASCII file if filename has another extension.
- ▶ **Bug #3796 fixed** - In some situation the "tf2ss()" function failed to compute correctly the state space representation of a transfer function.
- ▶ **Bug #3810 fixed** - Insertion in string array and polynomial array may be very slow.
- ▶ **Bug #3811 fixed** - Documentation about "typeof" and overload prefixes was not up-to-date (help overloading).
- ▶ **Bug #3937 fixed** - Buttons size in "x_choices" window was related to the labels one.
- ▶ **Bug #4075 fixed** - A basic uicontrol example crashed Scilab 5.0.3
- ▶ **Bug #4117 fixed** - Via the user interface, closing a graphics figure which had a non-existing event handler attached did not destroy its associated data structure.
- ▶ **Bug #4224 fixed** - uigetfile masks were case insensitive on Windows.
- ▶ **Bug #4359 fixed** - M(:,:)= 'anything' produced erroneous results.
- ▶ **Bug #4362 fixed** - test_run("gui", "checkbox") no more freezes Scilab.

- ▶ **Bug #4375 fixed** - Interactive test SCI/modules/core/tests/unit_tests/breakpoints.tst failed.
- ▶ **Bug #4493 fixed** - 'rat' moved in elementary_functions module.
- ▶ **Bug #4505 fixed** - A red vertical bar appeared for some continuous time systems.
- ▶ **Bug #4572 fixed** - Scilab did a SIGSEGV after stacksize('max') + stacksize().
- ▶ **Bug #4583 fixed** - Default value for string array assignment was "" instead of an empty string "".
- ▶ **Bug #4625 fixed** - intersci-n was broken on Windows.
- ▶ **Bug #4640 fixed** - plot2d() put CPU utilization at 100% on Windows.
- ▶ **Bug #4672 fixed** - Internal function AddFunctionInTable renamed to getFunctionByName to avoid confusions on the actual usage of this function. Thanks to Yuvraj Tomar.
- ▶ **Bug #4699 fixed** - xml2test.pl: Paths were badly displayed in some cases.
- ▶ **Bug #4783 fixed** - Comparison between sparse complex matrix and a full one was wrong when the sparse matrix contained a zero row.
- ▶ **Bug #4799 fixed** - Sometimes the bode, nyquist , ... function reported a "non-convergence" error
- ▶ **Bug #4841 fixed** - Functions created by 'getd' were unknown by Scilab.
- ▶ **Bug #4948 fixed** - A simple Runge Kutta method for solving a second order differential equation had a strange behavior.
- ▶ **Bug #4857 fixed** - Help file of 'gsort' updated with sort of complex numbers and overloading.
- ▶ **Bug #4985 fixed** - mgetl did not use fgets (C function).
- ▶ **Bug #4996 fixed** - mgetl() was not located in the right module. It has been moved to "fileio" module.
- ▶ **Bug #5110 fixed** - Incomplete mgetstr documentation.
- ▶ **Bug #5123 fixed** - Help about '%helps' was wrong.
- ▶ **Bug #5136 fixed** - Information about dependant platform display of exponential form (%e) was missing in the printf_conversion documentation.
- ▶ **Bug #5149 fixed** - test_run(): Calls to exec() were no more logged by diary().
- ▶ **Bug #5216 fixed** - URLs are now active in uicontrols of style "text". This feature is used in ATOMS GUI (modules description).
- ▶ **Bug #5324 fixed** - Under Windows, "File open" dialog box focused on parent directory of current directory.
- ▶ **Bug #5432 fixed** - A link to <http://www.tcl.tk/doc/> added in help files about Tcl/Tk.
- ▶ **Bug #5512 fixed** - The display order of input arguments was not described in the disp() documentation.
- ▶ **Bug #5541 fixed** - In the API documentation, the information that data must be allocated before calling API functions was missing.
- ▶ **Bug #5575 fixed** - Wrong German translation fixed (Standart => Standard).
- ▶ **Bug #5583 fixed** - exec() did not manage correctly UTF-8 and ANSI/ASCII files encoded.
- ▶ **Bug #5588 fixed** - Assigning null() in a tlist or mlist field shifted all remaining values with respect to field names.
- ▶ **Bug #5609 fixed** - Documentation stated incorrectly that fieldnames were working on cells.

- ▶ **Bug #5612 fixed** - There was no way to delete a field in a struct. It is now possible with null().
- ▶ **Bug #5629 fixed** - export_to_hdf5 to a file overwrote a directory with the same name (now trigger an error).
- ▶ **Bug #5630 fixed** - export_to_hdf5 to a file with a same directory name altered the permission of the directory.
- ▶ **Bug #5724 fixed** - erfinv and erf missed references to similar functions
- ▶ **Bug #6332 fixed** - stacksize had problems on Mac OS X and 64-bit platforms.
- ▶ **Bug #6349 fixed** - The callback of an 'edit' uicontrol was only executed when it lost focus.
- ▶ **Bug #6419 fixed** - There was no way to retrieve minimum global stack size from Scilab.
- ▶ **Bug #6428 fixed** - fscanfMat did not manage format parameter as fprintfMat.
- ▶ **Bug #6435 fixed** - error 4 returned a wrong message.
- ▶ **Bug #6447 fixed** - unix_g() and dos() did not support properly neither UTF8 nor ANSI encoded output.
- ▶ **Bug #6449 fixed** - regexp returned a wrong value with a string returned by mgetl.
- ▶ **Bug #6451 fixed** - length returned a wrong value with a string returned by mgetl.
- ▶ **Bug #6452 fixed** - part returned a wrong value with a string returned by mgetl.
- ▶ **Bug #6484 fixed** - file did not return filename of an opened Fortran file.
- ▶ **Bug #6504 fixed** - Copy/paste of the contents of message boxes was not available.
- ▶ **Bug #6510 fixed** - modules/helptools/help_en_US.xml and modules/helptools/help_fr_FR.xml were useless but not removed.
- ▶ **Bug #6511 fixed** - mseek and mtell did not manage files > 2 Gbytes on 64-bit Windows.
- ▶ **Bug #6516 fixed** - fullfile did not remove blanks and not create a valid path.
- ▶ **Bug #6535 fixed** - The property 'ListboxTop' of the graphic user interface object 'listbox' had no effect.
- ▶ **Bug #6543 fixed** - neldermead issues for automatic restarts.
- ▶ **Bug #6549 fixed** - genlib function had a behavior which was not consistent with the load function.
- ▶ **Bug #6550 fixed** - lib(".") returned a relative path in library variable created.
- ▶ **Bug #6556 fixed** - fprintf() returned an error if it was called twice (or more) on the same file.
- ▶ **Bug #6635 fixed** - Incorrectly drawn Bode plots (calfrq bug).
- ▶ **Bug #6666 fixed** - emptystr() gave a wrong result instead of complaining about hypermatrix.
- ▶ **Bug #6682 fixed** - mprintf, msprintf, mfprintf did not manage octal (%o) format.
- ▶ **Bug #6726 fixed** - Variables whose name starts with a \$ could be retrieved in libraries.
- ▶ **Bug #6731 fixed** - Information on the output argument was missing from the lib() documentation.
- ▶ **Bug #6740 fixed** - It was not possible to launch Scilab as Minimized or Maximized Window.
- ▶ **Bug #6744 fixed** - p_margin() returned an erroneous result.
- ▶ **Bug #6745 fixed** - g_margin() returned an erroneous result.
- ▶ **Bug #6750 fixed** - TMPDIR constant had no help page.
- ▶ **Bug #6751 fixed** - Completion added unwanted characters when some string sequences occurred several times.
- ▶ **Bug #6774 fixed** - Calling get_param generated a "funcprot" warning when the value of an option stored in a parameters list was a function.
- ▶ **Bug #6781 fixed** - Defined variables in a library were not recognized in compiled macros.
- ▶ **Bug #6783 fixed** - Solving a system of linear equation by backslash ("\") caused a crash, when using complex numbers on Windows.
- ▶ **Bug #6784 fixed** - It was not possible to move a Scilab installation without breaking the (previously installed) ATOMS packages load.
- ▶ **Bug #6827 fixed** - The error printed by spchol if the variable was complex was wrong.
- ▶ **Bug #6830 fixed** - C2F(scistring) in stack2.c was broken for macro names of exactly two characters.
- ▶ **Bug #6831 fixed** - in cli (=nwni) mode, tbx_build_help failed.
- ▶ **Bug #6861 fixed** - yulewalk example failed on Windows.
- ▶ **Bug #6862 fixed** - Help page for 'vectorfind' missed some explanations about input arguments types. Moreover there were missing checks about input arguments number and types in the function.
- ▶ **Bug #6864 fixed** - Some error messages were wrong in data_structures module.
- ▶ **Bug #6867 fixed** - Wrong error message when base2dec() was called with an invalid base representation.
- ▶ **Bug #6889 fixed** - 'fscanfMat' crashed with wrong formatted files.
- ▶ **Bug #6891 fixed** - 'whos' did not display global variables.
- ▶ **Bug #6893 fixed** - Some files +~JF****.tmp were created outside of Scilab temporary directory.
- ▶ **Bug #6895 fixed** - Completion crashed with -NW mode, on some Linux.
- ▶ **Bug #6901 fixed** - This script with 'exec' produced a weird warning.
- ▶ **Bug #6923 fixed** - Some localized messages were wrong in 'qmr'.
- ▶ **Bug #6924 fixed** - Some error messages were wrong in 'gmres' and 'qmr'.
- ▶ **Bug #6932 fixed** - Unitary test for function 'exit' failed in Linux binary version.
- ▶ **Bug #6933 fixed** - Some temporary files (dict_*.tmp) were created when using search engine of the help browser.
- ▶ **Bug #6934 fixed** - Denormalized floating point numbers were not present in Scilab's master.
- ▶ **Bug #6940 fixed** - An error message was wrong in 'pvm_send'.
- ▶ **Bug #6946 fixed** - Information about optional input arguments 'column separator' and 'decimal mark' were missing in the write_csv documentation.
- ▶ **Bug #6947 fixed** - Some demos in "Optimization and Simulation" failed, without write rights in SCI subdirectory.

- ▶ **Bug #6951 fixed** - stacksize had a strange behavior.
- ▶ **Bug #6952 fixed** - stacksize('max') did not return maximum value.
- ▶ **Bug #6962 fixed** - bvode generated an error on Windows.
- ▶ **Bug #6964 fixed** - Scilab could detect a wrong SCI path on Windows.
- ▶ **Bug #6971 fixed** - After launching a module by loader.sce, variable v was predefined.
- ▶ **Bug #6990 fixed** - "and" and "or" did not work on hypermatrices.
- ▶ **Bug #7003 fixed** - 'evstr' did not evaluate NaN and Inf as %nan and %inf.
- ▶ **Bug #7006 fixed** - exec removed spaces at the end of filename when it returned an error.
- ▶ **Bug #7014 fixed** - ilib_verbose value was modified after toolbox_skeleton.
- ▶ **Bug #7019 fixed** - resume() produced an incorrect error message.
- ▶ **Bug #7021 fixed** - Scilab did not start and returned a system error (193) on Windows.
- ▶ **Bug #7033 fixed** - newfun was randomly crashing (mostly on 32-bit) writing to unallocated memory.
- ▶ **Bug #7036 fixed** - The plot2d document was incomplete (missing optional argument).
- ▶ **Bug #7042 fixed** - Insertion of an empty matrix into a struct (to remove a row or column) was buggy when multiple index was used.
- ▶ **Bug #7044 fixed** - calling sequence in help of 'strcat' was wrong.
- ▶ **Bug #7057 fixed** - isdigit and isalphanum crashed with a matrix of string as input argument.
- ▶ **Bug #7077 fixed** - uigetfont crashed Scilab when the cancel button was clicked.
- ▶ **Bug #7078 fixed** - A wrong error message was displayed when setting the "value" property of an "edit" uicontrol.
- ▶ **Bug #7094 fixed** - If badly called, ode made Scilab crashed.
- ▶ **Bug #7108 fixed** - It was not possible to set the callback_type property via uicontrol.
- ▶ **Bug #7109 fixed** - 'lu' function with some complex matrices crashed on Windows.
- ▶ **Bug #7123 fixed** - No completion was possible if the name of a variable was preceded by ~ or @ or < or >
- ▶ **Bug #7161 fixed** - wavread failed to load some .wav files with error 44.
- ▶ **Bug #7163 fixed** - Assignment index ":" were translated into "eye()".
- ▶ **Bug #7170 fixed** - Scilab equivalent for Matlab "uigetdir" was "tk_getdir", it has been replaced by "uigetdir".
- ▶ **Bug #7180 fixed** - xs2pdf was unable to export a graphic.
- ▶ **Bug #7181 fixed** - The display of a struct having no fields did not work.
- ▶ **Bug #7189 fixed** - In some cases the usage of resume led to a crash of Scilab.
- ▶ **Bug #7223 fixed** - 'unsetmenu' on a separator crashed Scilab.
- ▶ **Bug #7224 fixed** - Export empty matrix in HDF5 did not unlock file.
- ▶ **Bug #7236 fixed** - Due to bug 1371 fix, sci2exp(-%inf) returned a wrong value -nf and not -%inf.
- ▶ **Bug #7250 fixed** - In the console, the first character of a filename was doubled when completed.
- ▶ **Bug #7260 fixed** - To read a malformed .csv file with fscanfMat crashed Scilab.
- ▶ **Bug #7285 fixed** - Open/Save dialog box did not display filenames without extension with filter "*.**"
- ▶ **Bug #7291 fixed** - unix("") and dos("") returned a wrong message on Windows.
- ▶ **Bug #7278 fixed** - strsplit did not work with some particular inputs.
- ▶ **Bug #7312 fixed** - isnum() displayed warnings when using some unusual parameters.