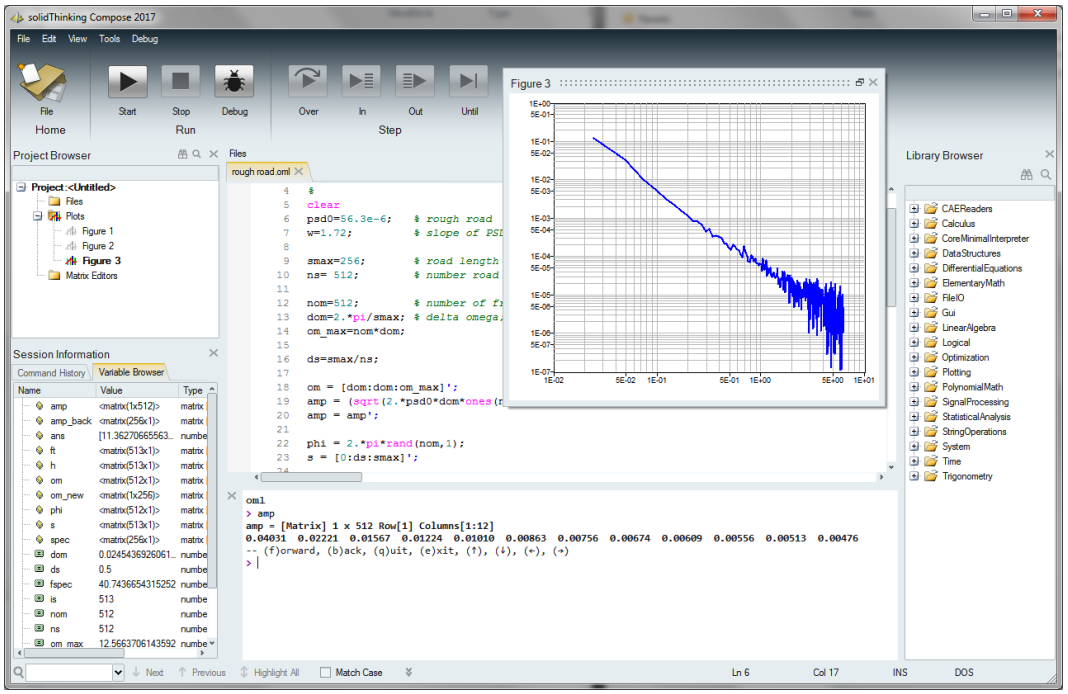
Compose 2017.3 Release Notes

INTRODUCTION

solidThinking Compose is a high level, matrix-based numerical computing language as well as an interactive and unified programming environment for all types of math. Whether you're looking to solve matrix analysis, differential equations, perform signal analysis, or robustly study control design, **Compose** offers you a modern, comprehensive set of tools to enable rapid development and also a powerful engine and an interactive debugging environment for streamlined troubleshooting.



solidThinking Compose 2017.3 offers these exciting features:

- OML, a High-level matrix-based interpreted language for numerical computing
- Integrated development environment for authoring and debugging all types of math, including multi-language support (OML, Tcl, Python)
- Extensive math libraries
- Built-in connectivity to pre/post-process engineering and Computer Aided Engineering (CAE) data
- Interactive command line interface
- Rich plotting, with floating plots
- Multi-dimensional matrices support
- GUI creation commands
- Python 3.4 language support, and a bidirectional bridge between OML and Python

PLATFORM SUPPORT

Platform		
OS	**Version**	**Architecture**
Windows	10/8.1/7	x86_64
Linux	RHEL and CentOS 6.6 and7.2 SLES 12 SP1	x86_64

MATH & SCRIPTING SUPPORT

Open Matrix Language (OML)	• Improvements to OML include:
	  ○ Cells and structs indexing
	  ○ Struct access performance
	  ○ `textread` performance

Functions	• `getcmdinput` , `getnumofcmdinputs` commands to retrieve arguments passed on the command line in console mode • `checksyntax` function to check, without executing, a statement
H2O	• A utility tool to convert scripts from HyperMath HML language to Compose OML language is provided in the installation package. Note that this is an *assistant* to help in conversion and not all of the HML language is covered.

GENERAL / USER EXPERIENCE

Variable Browser	• Variable Browser is improved to edit strings
Miscellaneous	• Various documentation updates • Improvements for Japanese localization of the user interface • Direct access to the encryption command from the Editor (right click on the file tab name) • Direct access to release notes from the Help menu item
HyperWorks Integration	• A strong connection with HyperWorks Desktop products has been implemented. OML functions can be registered from Compose and can be reused in HyperGraph, HyperStudy, MotionView or in the HyperMesh Matrix Browser. • OptiStruct DRESP3 responses can use OML functions. This is supported on Windows platforms only

The following issues, and more, have been resolved for **solidThinking Compose 2017.3**:

empty `scatter3` plot in some configurations
Crash on error command in nested function called by handle
[regression] Crash if pre-assign (as empty) a matrix that will contain complex numbers

Y axis alignment issue in plots when labels are resized
Slow response when changing symbols in a plot
Compose hang on stop execution and run execution when pagination occurs on large display
Command history is empty on new session
Memory issue in struct
`saveas()` does not work properly for 3D plotting
[regression] Struct indexing issue
Compose crash when replacing empty string in the Editor
Templex bridge failure if toolboxes are needed
`uicontrol` keep calling the callback function (focus lost)
[Linux] Crash on 3D plot if interacting with the plot while drawing occurs
Global variable unknown inside a function
[Python] bz2 Import error
Cannot get properties from following graphic type: area, bar and hist
Insert/delete columns/rows in Matrix editor do not work
`num2str` doesn't return the correct format
Executing an invalid tcl command should display an error message
Improved `imread` error message in batch mode (supported formats)
[regression] issue on `persistent`
Legend issue (background color) on bar plot
Syntax highlight issue, improved consistency between command window and editor
Unexpected new line in string is removed
Issue when assigning a value to all cells
Wrong input to `imread` (erroneous complex number) will crash Compose
Update context menu after figure is closed to turn off options such a print
`textread` performance issue
`num2str` second argument does not work correctly
Issue with preferred language (save an OML script as .py file, Compose still recognize it as OML script)
`ifft` issue (wrong dimension is used)
[Python] Numpy `ndarray` data type variable is not displayed in debugger watch window
Error message is expected when using cell array as a `for` loop iterator
`ndims` issue on multidimensional matrices
Compose on Linux gives an error message in the terminal when invoked

Issue with `figure(0)`
Crash on `imwrite` if complex data is used
`system('pwd')` returns different result in console and GUI mode
Issue in `num2str` when second argument is a format string
Need to cancel the save dialog twice on quit or exit
`num2str(X, 0)` doesn't handle 0 properly
Crash on empty cell handling
Error while using "\t" delimiter in `strtok`,`textread`
Function `unix()` should not work on windows
`mat2cell` should not convert string to ascii code
Display issue: missing }
Auto format doesn't show the axis value properly in plots
`num2str` issue with complex number and format string
Error message is expected if there are more than 2 input arguments in `imfinfo`
Typo in `fgetl()` help document
`uicontrol` button is lost when saving as svg file
Go to line dialog doesn't act upon enter key
Invalid syntax error in `switch`/`case`/`otherwise` usage