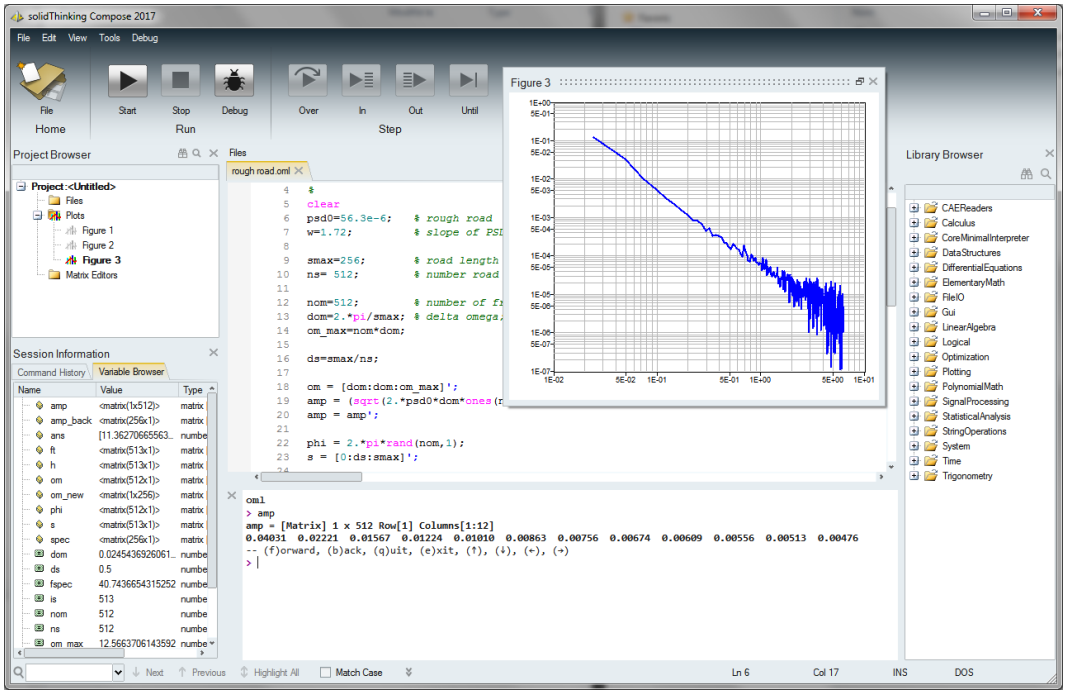
Compose 2017 Release Notes

INTRODUCTION

solidThinking Compose is a high level, matrix-based numerical computing language as well as an interactive & 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** not only offers its users with a modern, comprehensive set of tools to enable rapid development but also offers a powerful engine and an interactive debugging environment for streamlined troubleshooting.



The release of **solidThinking Compose 2017** offers exciting features including:

- High-level matrix-based interpreted language for numerical computing
- Integrated development environment for authoring and debugging all types of math including multi-language support
- Extensive math libraries
- Built-in connectivity to pre/post-process engineering and Computer Aided Engineering (CAE) data
- Interactive command line interface
- Batch oriented language
- Rich plotting, with floating plots
- Multidimensional matrices support
- Linux support (new in 2017)
- GUI creation commands (new in 2017)

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

The following features and enhancements have been added for **solidThinking Compose 2017**:

MATH & SCRIPTING SUPPORT

Open Matrix Language (OML)	• Add `mat2str` function • Support "t" option in fopen • Implement `str2double` function • Add `issymmetric` function • Support `ls` and have it work like `dir` • Implement `dlmwrite` function
Functions	• Add MaxFunEvals option to `optimset` • Add `fzero` function • `fminunc` BFGS code was updated • Added integral methods (`quadv`, `trapz`, `cumtrapz`)
Python support	• Compose 2017 support Python as a new scripting language. The Compose IDE allows for edition, execution and debugging of Python (3.4) scripts.
Plotting	• Export plots to SVG format • Added viewpoint specification function • Supply legend text via a single cell • Support markersize attribute on a plot line • Plotting to take colors as a RGB vector
GUI Creation	• Commands to create user interfaces and interactive dialogs are added

GENERAL / USER EXPERIENCE

Linux	• solidThinking Compose 2017 is supported on Linux (RHEL and CentOS 6.6/7.2 SLES 12 SP1) platforms
Library Browser	• Library Browser widget is added. It shows all supported functions, provides direct access to help and the commands can be drag and dropped in the editor.
Misc.	• Various documentation updates

The following issues have been resolved for **solidThinking Compose 2017**:

Issue when retrieve a project which contains a plot
Data read precision issue
Crash on `readmultvectors`
Issue when incorrectly passing a variable as a function
Add function handle before function parameter can cause a crash
Issue with display of empty cell
Issue when assigning matrix element to multiple returns
Issue when extracting data from multidimensional matrix
Issue with `input` command not working properly in python Editor
Performance issue when changing symbols on large 3D plots
Wrong return for `diag([1:5],'a')`
Wrong return for `cell('a')`
`Load` command used with an invalid path should raise an error
`Text` command creates an empty frame
Python editor cannot modify a variable defined first by ipython console
Auto-completion in OML Command window does not work properly in some cases
Wrong error message for `normrnd`
Turn OFF grid on X axis for bar plots
An error should be raised when passing a wrong path to `Compose_Batch`
Missing icon to dock/undock figures
`impz` issue with improper arguments
Edit column in Variable Browser displays variable name while editing
Issue with scoping rules for nested functions
`ismember` not working as expected
Issue when `return` is the second command on a line
`quit` and `exit` commands don't work
Error in `readfiletoc`() when reading datx file
Undo in Python command window should not clear displayed messages
Assignment issue when struct and cells are mixed
Missing automatic update of the file browser
Use comma in `for` loop should produce some outputs
Issue with markersize definition in plots
crash when reading a particular csv file using `textread`()
`celldisp`() doesn't work correctly on Linux
Data precision issue with `sscanf`
`unix`() function to run an oml in batch mode doesn't work in Linux
Construction of strings over multiple lines does not pad with zeros
`polyder` applied to a scalar should return to 0 , not an empty matrix
"Rename" in File Browser should not make previous name disappear
Issue with splitting plots view (may result in unexpected subplot)

"Display More" feature in Variable Browser does not work properly in debugging mode
Syntax error if comment is placed on multi-return function definition line
Cannot set python as preferred Language in Linux
Update the File Browser default directory
Issue with function handle in cell arrays
`num2str` doesn't work properly for float number on Linux
Empty statement between `catch` and `end` results in a parsing error
Error when return value is assigned when using `msgbox`/`errordlg`/`warndlg`
Python: complex data types are not displayed in debugger watch window
error in `fminbnd` help document
Issues with `'dir'` command
`qr` does not work correctly with second argument