



Release Notes

Altair Compose 2020.1

Altair Compose 2020.1 includes the following new features and enhancements.

Note: *Indicates Business Edition of Compose.

New Features

New OML Functions

The following functions have been added to the OML language:

- `omllinenum`
- `kurtosis`
- `csvread/csvwrite`
- `filesep`
- `skipformat`
- `moga multiobjective optimization method`*
- `display`

Integration and I/O

New commands to read **HDF5** files (read groups, data, and attributes) have been added.

- `readhdf5`*
- `readhdf5toc`*
- `readhdf5attributes`*

Extension of **H3D** file write commands.

- Support writing original and new results in a new `.h3d` file.*
- Handle complex data.*

New Plot Features

- Implemented pan functionality on 3D plots.
- `patch`
- `fill3`
- Save plots in JPEG format.
- Panels are visible in UI control GUIs.

Compose Notebook New Features

- Support for sliders on plots in the Compose Notebook (using `uicontrol`).
- The following OML functions are supported in the Compose Notebook:
 - `text`
 - `bar3`
 - `view`
 - `colormap`
 - `colorbar`
 - `plotyy`
 - `text`

Additional Enhancements for OML and OML Functions

- `repmat` enhancements
- `ifft` enhancements
- Improve `try-catch` error information.
- Cell-list indexing
- Support Unicode file path and file name in `save`
- Update error messages for Unicode file path and file names in `readvector` and `readmultvectors`.*
- Support Unicode file path and file name in `textread`, `rename`, `isdir`, and `copyfile` commands.
- Example and documentation for Fortran routine with Binary Compatible interface.
- Print error messages with `diary` function.
- Printing empty cells/structs.
- `writeh3ddata` does not write complex data.*
- Update the notebook plot to work with `plotly 4.0.0`.
- Sparse empty matrices should display the row and column information.
- Negative values in `whos/memoryuse`.
- `isa` function not working with inheritance.
- Executing a Tcl/Python file by `Compose.bat`.
- Improve `load` command.
- Keyword list not refreshed on every command in OML Command window.
- Implemented `Whitespace`, `ReturnOnError` options in `textscan`.
- Support Unicode file path in `textread`, `copyfile`, `rename`, `isdir`, `dmlread`, and `cvsread`.
- Print error messages in `diary`.

Additional Enhancements for Plotting and UI Commands

- Add mouseover message in GUI `uicontrols`.
- Add "Deselect All" option/button to `listdlg`.
- Support 'columnwidth' as `uitable` graphical object property.
- Set text font size.
- `axis equal` and `axis square` improvements.
- Missing optional arguments in graphical commands.

- Ability to type a new line in the title of a plot.
- Include a 'Size' or 'Resolution' control to 'saveas' command.
- Add columnname property for `uitable`.
- On hover curve name for 3D line in `fanplot`.

Resolved Issues

- Value is not being set correctly for some `uicontrol` styles.
- Matrix Allocation issue causes a crash.
- Issue with setting text color in plots.
- Using comma separated value from a cell fails in `concat`.
- Issue with non-active figures when saved with a certain resolution.
- `fft([])` causes a crash.
- `[V,L]=eig(A,B)` produces incorrect Eigen vectors.
- Font size update in Preferences panel does not work.
- Multiple output functions force multiple expression evaluations.
- Wrong output in debug mode when you cancel the action in `uiputfile` file dialog.
- `saefilter` command crash for two signals with different sampling frequencies.*
- Whitespace not recognized in labels of bar plots.
- `get()` not working in `uicontrol`.
- Issue with string indexing of non-ASCII characters in OML.
- `fft` multidimensional performance issue.
- `dlmread` wrong behavior when setting "headerlines" or "linestostrip" options.
- `dlmread` not supporting `\t` delimiter.
- `saefilter` bug with default `fft` size.
- `classdef` with only 'properties' returns a syntax error.
- Memory leak with `imagesc`.
- Syntax error in `try/catch` can cause a crash.
- Plots in Notebook can hide other contents.
- Pagination commands are not properly displayed.
- `rename` doesn't support file name with UTF8 characters.
- Dots are connected in scatter plot in Linux.
- `min()` and `max()` issue for sparse matrix.
- Commands after interactive pagination not executed when pasted in OML Command Window.
- Cell content not properly assigned.
- Wrong output of `textscan` function.
- Display issue in console mode (`-f` option) with `input` command.
- `[V,D]=eig(A,B)` returns incorrect results for a `B=0`.
- `hex2dec` fails for numbers with different lengths.
- Overlay plot of `bar` and `hist` is not correct.
- Properties `xdata/ydata` are not valid when calling `imshow`.
- `sortrows()` produces different results on Windows and Linux platforms.
- `contour3` in Compose Notebook isn't rendered correctly.

- OML library cannot be loaded in OptiStruct 2020.*
- `dir` command does not show utf8 directory on Windows.
- Cannot set 'parent' in `uicontrol`, `uipanel`.
- `regexp` issue with returned type.
- `uibuttongroup` can't have `uiframe` or `uipanel` as parents.
- Application can freeze when closing a large plot.
- Issue with global variables between different files with GUI handles.
- Error message displayed in Linux terminal when hiding a figure.
- Implicit function ends should make functions local, not nested.
- Labels not properly shown.
- Changing X axis scale interactively should not affect Y axis limits.
- On Linux: when importing Python Tensorflow module, importing mnist data errors out.
- Issue with 3D plots after `saveas`.
- Printing a large matrix in `command` window is too slow.
- Crash when saving a plot as `.scm` in the project browser.
- Multiple selection in `uicontrol` `listbox`, with `Ctrl+mouse` click.
- Issue with separator in `dlnread` function.
- Function 'hour' cannot support some formats which don't specify the hour.
- 'HH:MM PM' in function 'hour' doesn't work.
- Delete file/folder with unicode name doesn't work in the file browser.
- `xlsopen` open file in read-only mode doesn't work.
- Open file dialog issue in Debug mode.
- Brace symbol is evaluated in plot commands.
- Error printing large integers with `fprintf`.
- Issue in printed pause message when running a script using `run()` function.
- Issue when saving scripts in debug mode.
- Memory issue on `imshow()`.
- Font name of bar plot is not correct.
- OML `exit` function argument is ignored.
- File path returned by `uigetfile` does not include final slash separator.