

RELEASE NOTES

Altair Compose® 2021.1

Business Edition *

Personal Edition



New Features and Enhancements

Altair Compose 2021.1 includes the following new features and enhancements.

General

OML Functions and Commands

The following commands or functions have been added to OML:

- OML profiler
- removehiddenpath command
- margin command
- Expose a set of HyperStudy commands*

User Experience

The following changes have been implemented in the Compose IDE:

The OML Library Manager utility loads a self-contained set of files which provide additional functions for the OML language.



- Updates to the default color scheme in the command window.
- IDE customization commands to create custom menus have been added:
 - o addribbonmenu
 - o removeribbonmenu
 - o addpopupmenu
 - o removepopupmenu
 - o addmenuitem
 - o removemenuitem
 - o addmenuseparator
 - o setmenuaccel



- o addribbonpage
- o removeribbonpage



Plotting and User Interface

Plotting Commands

- Support for text in 3D plots.
- LineStyle property for line.
- Implementation of multiple functions in the Jupyter Notebook (polar, axis, legend, bar3, set) and axes properties.
- Support for mixing 2D and 3D plots.

UI Creation Commands

- Image inside a push button.
- uimenu to create menu or menu items in the GUI.
- Add image on uipanel.
- getmousepos to get mouse position to be used for uicontrol elements.
- Create properties for CellEditCallback of uitable.
- Add imattributes command.
- Implementation of SelectedTab property for uitabgroup.

OML Commands and Functions

The following commands have been improved:

- Format differences between -ascii option of save and dlmwrite.
- Log error to outputlog when a script is executed.
- Implement EndOfline option in textscan.
- Slider performance degradation.



- Speed up performance of system command on Linux with async option to work on all cores.
- Support non-integer wait time for uiwait function.
- Optimize eval in case of simple expressions.
- dlmwrite returning different values in v2021.
- Enhance documentation of xlsopen and xlswrite if file does not exist.
- Nyquist plot now also has arrows to indicate the direction.
- axes supports uitab and uipanel as parent handle.
- Axis label aligned in bar3 plot.
- Achieve live printing in Python without enabling Interactive execution.
- Improved Compose performance when executing Python script with prints and interactive behavior.
- Improved debugger performance.
- Support for one single argument for cumtrapz.
- Improved system and dos documentation to explain that setting the ALTAIR HOME variable to empty is necessary before calling any Altair product from inside Compose.

The following commands have been changed:

- LS-DYNA type, request, and components of ASCII files are matched with BINOUT type, request, and components in this release to accommodate future customizations, which may impact outputs of the readcae, readvector and readmultvectors functions. Please refer to Altair HyperGraph™ Release Notes 2021.1 for further details.*
- Smaller fmincon default tolerances.

Resolved Issues

The following issues were resolved:

- Pressing Ctrl+D in Compose console causes endless echo.
- Run a script with outputlog produces an empty TXT file.
- Non-global variables are also observed in the variable browser for callback function.
- Issue with running a script with run in the batch mode.
- Setting a value for a GUI element is not working.
- Unexpected CSV file reading with output stores with wrong dimensions.
- textread crashes OML.
- GUI is created twice (but not in Debug mode).
- uitable size could not be modified with normalized units.
- Column name not being persisted in uitable.
- Empty CSV file makes Compose unresponsive.
- eval(['if 1',char(10),'expr=3;',char(10),'end']) should not have a return value.



- 1s doesn't work correctly with wildcard on Linux.
- Notebook not loading saved plots.
- Shapes not visible in figure are depending on window size.
- Bug with background color being reset after using subplot.
- Missing fonts in micro dialogs of plot windows.
- Issue with axis scale and mouse pick value.
- gcf not changed after closing a figure.
- Issue with stem and area generating wrong plots on Linux.
- Legend string color not reflecting marker color.
- get visible for uicontrol elements not working as expected.
- Crash on vectorized assignment of variable.
- Crash when str2func is called due to text within quotes.
- Script stops working after encrypting.
- isempty not working for class objects.
- Not finding function depending on its position within file.
- Issue in polyfit function a smoothly decreasing curve.
- freqz documentation does not mention the 2nd output value.
- Matrix power calculation bug with inappropriate diagonalization.

^{*} Applies to Business Edition only.