

OpenSim 3.0.1 Release Notes

OpenSim 3.0.1 includes improved scripting functionality, new examples, and several bug fixes, in addition to all of the [New Features in OpenSim 3.0](#):

- [New Examples](#)
- [Scripting Enhancements](#)
- [Bug Fixes](#)

If you're currently using OpenSim 3.0, you should be able to update with no major changes to your workflow.

New Examples

- **A demo drop landing model to demonstrate iterative device design with simulation.** This ToyDropLanding model also demonstrates how to add model contact and add simple muscle reflex controllers and prescribed controllers. You will find the example in the Models folder. Use the model in the new exercise [Simulation-Based Design to Prevent Ankle Injuries](#).
- **A new example for developers showing how to create a MetabolicProbe plugin.** You can find the example under sdk/APIExamples. To learn more about development see the [Developer's Guide](#).
- **Fixes to the BodyDrag plugin example.** You can find the example under sdk/APIExamples. To learn more about development see the [Developer's Guide](#).

Scripting Enhancements

- **A simple Matlab example that demonstrates the use of Matlab's native optimizer.** The example solves a simple static optimization problem for the upper extremity. You can find the example in your OpenSim install directory under sdk/Matlab.
- **New plotting scripting functionality in the GUI, plus documentation and examples.** You can now plot muscle moment arms, plot as a function of a motion, and more. There is a new example that demonstrates how to plot moment arms. You can find documentation for these new features [here](#).
- **All OpenSim Model Components available in the OpenSim C++ API now available in Matlab and GUI scripting.** You can learn more about model components in the [OpenSim Doxygen](#).
- **New methods to add model components via scripting.** The new commands allow the model to take ownership of new objects so they aren't cleaned up by the scripting shells in Matlab or the GUI.

Read more about [Scripting](#) in the User's Guide.

Bug Fixes

- In the GUI property editor, we fixed a bug where you could not remove some items from a list (e.g. in setting up an Analysis).
- Inverse Kinematics no longer reports errors for untracked markers.
- In prior OpenSim releases, the property "Preserve Mass Distribution" for the Scale Tool was not being respected for inertial properties. This bug has been fixed.
- We removed the option to save ScaleSetup files as multiple files (e.g. a separate Measurement Set). If you have an old setup file with multiple files, it will be imported correctly, then upon save in the GUI all the settings will be merged into one file. We updated the documentation on [Scaling](#) accordingly.
- We fixed a bug in the Scale Tool that prevented users from iterating while the Scale Tool dialog is open (as reported on the OpenSim User's Forum).
- We made several fixes to import/export from SIMM.
- We fixed a bug where CMC crashed if there were error during initialization. It now fails "gracefully" outputting an error message.
- The loading of plugins in the GUI no longer requires having to add the plugin directory to the system path on windows. See [Using Plugins](#) for more information.
- The ForceReporter now includes forces for any ligament in the model.
- The API visualizer can now display ligaments (similar to the GUI).
- We implemented a coordinate flag "is_free_to_satisfy_constraints" during assembly.
- We added tighter assembly tolerance on models with constraints so they're enforced as rigid.
- Developers can now build the OpenSim API on the latest Mac OS X.
- We improved re-sizing of the XML browser to better display contents.