

Verification and Validation of the OpenSim Software Package

We are constantly testing the OpenSim software to verify that our algorithms are producing physically accurate results and that changes and updates don't change simulation results in unexpected ways. All of these tests must pass before a new version of OpenSim is released to the public. Below is a list of the tests we perform. You can examine each of these tests in the OpenSim source code, to be released via a zip file with OpenSim 3.0.

1. Test Actuators
2. Test Assembly Solver
3. Test Constraints
4. Test Contact Geometry
5. Test Controllers
6. Test Example Controller Output
7. Test Custom Actuator Output
8. Test Example Main Output
9. Test Example Muscle Output
10. Test Example Optimization Output
11. Test External Loads
12. Test Forces
13. Test Function Adapter
14. Text GCV Spline
15. Test Init State
16. Test Joints
17. Test Lepton
18. Test Marker Data
19. Test Model Copy
20. Test Moment Arms
21. Test Muscle
22. Test NC Spline
23. Test OpenSim API
24. Test Prescribed Force
25. Test Root Solver
26. Test Serialization
27. Test Storage
28. Test Versioning
29. Test Wrapping