

October 27, 2013 Release of Green Building Studio, Version 2014.2.31.4804 (DOE-2.2-44e4, passed the Vasari and Revit conceptual mass model energy analysis results regression tests.

The previous release of Autodesk Green Building Studio's Project Solon displayed energy results in the widgets and dashboards from a sample project (Autodesk Benchtop Commercial Office Project ). This release now enables you to select one of your own project runs in the widget editor page, and view the energy results of your selected runs within the widgets and dashboard.

**Main purposes of the test**

The Green Building Studio (GBS) QA team performs regression tests for the energy simulation results component of Vasari and Revit conceptual mass models to ensure stability against the baseline. The regression tests are performed weekly and for every release of GBS. The tests are designed to test whether or not any changes to how Revit and Vasari write gbXML files affect the GBS energy results. When differences do occur, the QA team investigates if any changes in energy results are expected.

**Two main components of the tests:**

1. API Server side: The energy analysis data within the Revit & Vasari Results and Compare (R&C) window is compared against the baseline. Types of data delivered by APIs include all the images and values rendered in the R&C window and weather statistics.
2. Analytics: The energy results written to the gbXML file by the energy simulation are compared against the baseline.

Weather Data Source	Number of Building Types	Number of Locations	Number of Models
Autodesk Climate Server	8	14	186

**Acceptance criteria:** +/- 1% difference tolerance

**Building Types:**

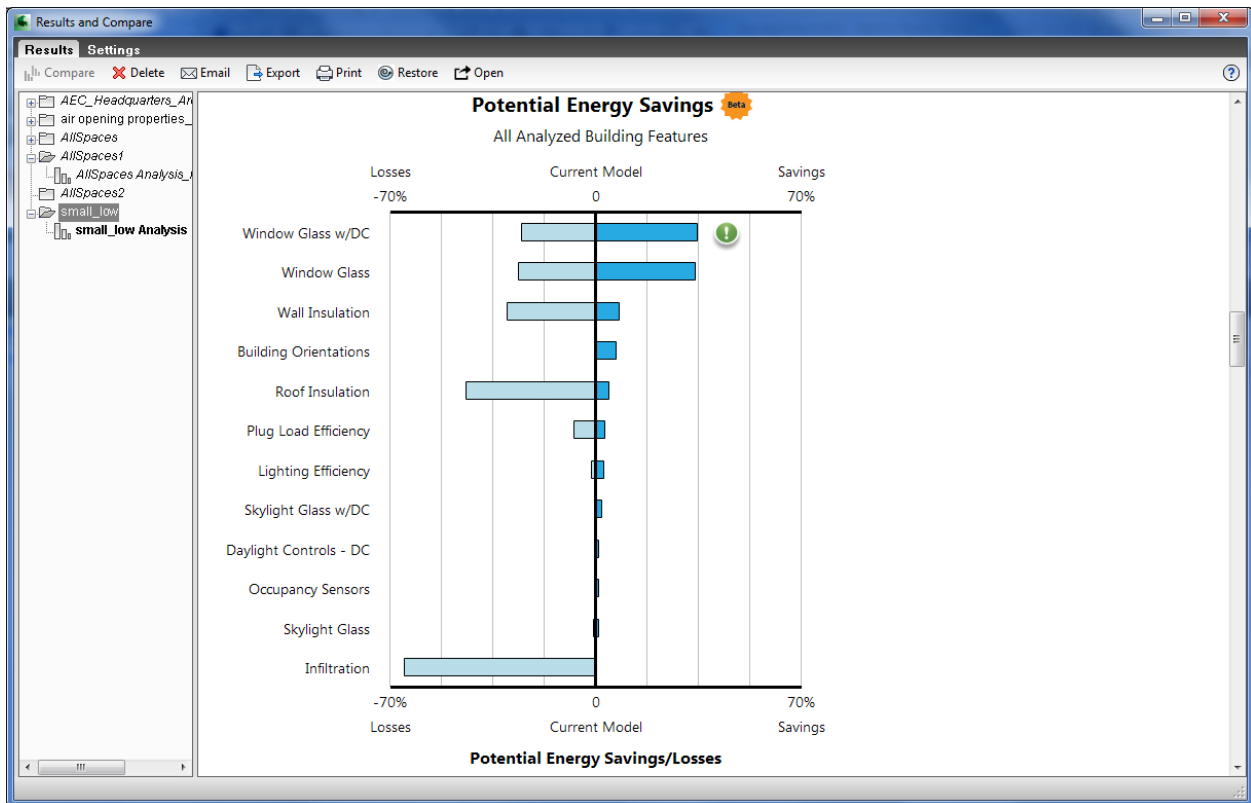
- Office
- School or University
- Single Family
- Religious Building
- Sports Arena
- Multi Family
- Police Station

**Locations:**

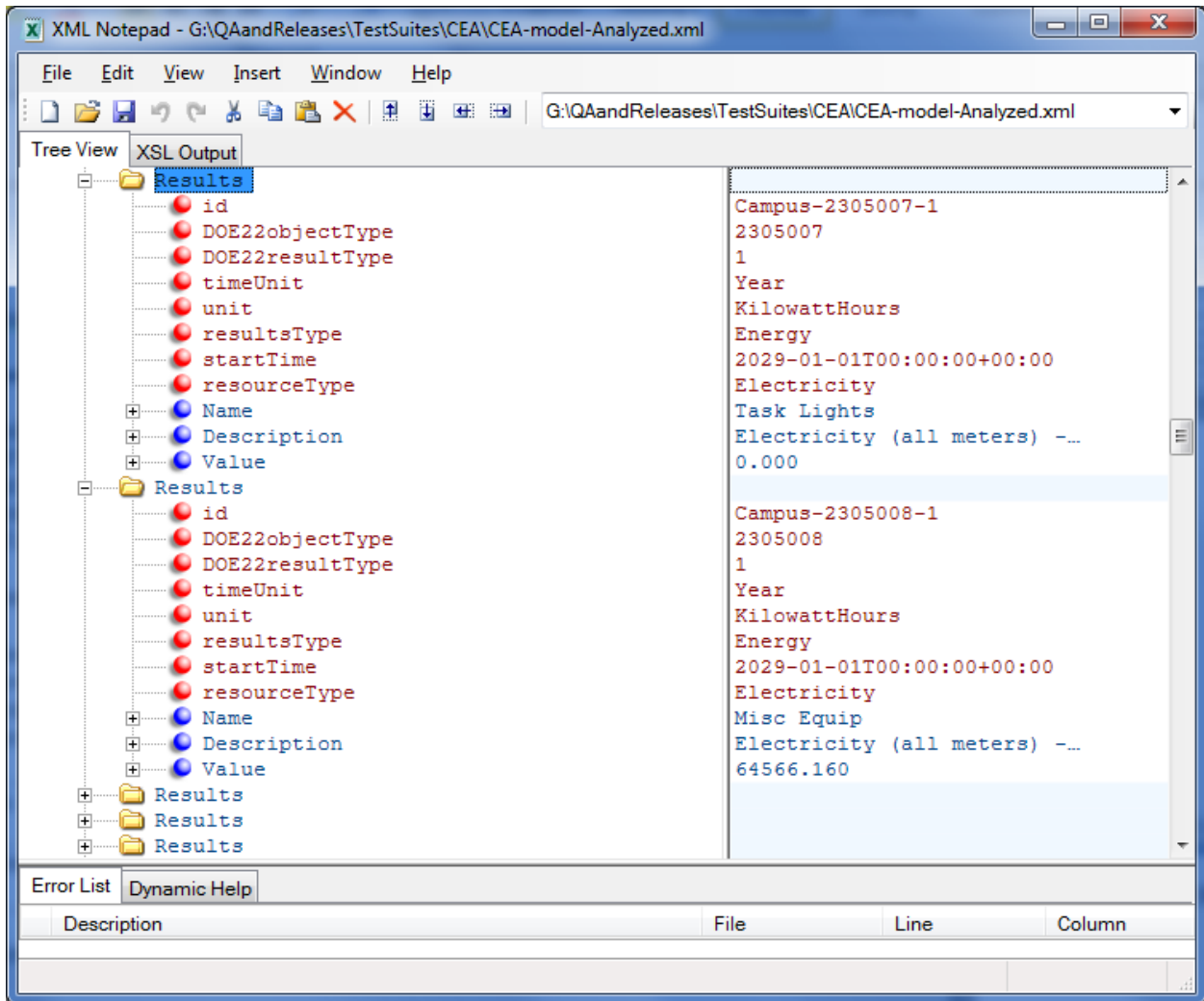
- Raleigh, NC, USA
- Seattle, WA, USA
- Boston, MA, USA
- Manchester, NH, USA
- Amsterdam, Netherlands

- Columbus, OH, USA
- Sydney, Australia
- Des Moines, IA, USA
- Annandale, VA, USA
- Stockholm, Sweden
- Tuscaloosa, AL, USA

Validation of the quality of energy results are performed by other GBS tests ([Test Suite A](#) and [Test Suite B](#)). Evaluation of the GBS building energy analysis computer program, using the ASHRAE/ANSI Standard 140-2011, is also performed for every release. Because of the range of other sets of tests, a limited number of building types and locations are suitable for the purposes of the Vasari/Revit Regression tests.



Test Component 1: API server side: Revit Results and Compare Window



Test Component 2: Analytics, comparison of gbXML file Energy Results