

Revit Conceptual Energy Analysis, Regression Testing

Revit Building Energy Regression Test Summary

GBS is the cloud-based service which powers the Energy Analysis features in [Revit](#). As part of our quality assurance testing we perform daily and weekly regression tests on the Revit Energy Analysis capabilities.

Green Building Studio (GBS) Build 2014.2.29.6004, released May 15, 2013 passed the regression testing. The new release has differing, but expected energy usage results compared to the previous release dated 2/22/2013.

Summary of Test Cases

The current Revit Energy Regression Test runs 233 simulations, using 7 different building types, 16 locations, and 51 datasets (Revit models). There are 173 nightly regression test runs, 60 weekly, and one smoke test. Refer to the attached spreadsheet for details of the test descriptions, passing criteria, etc.

Building Types

Seven building types are used for the regression tests.

1. Office
2. Retail
3. Dormitory
4. Hospital or Healthcare
5. Religious Building
6. School or University
7. Single Family

Locations

Sixteen locations are used for the regression test coverage.

1. New Orleans, LA, USA
2. Boston MA, USA
3. Tulsa, OK, USA
4. Shanghai, China
5. No location specified - uses default Boston location
6. Barcelona, Spain
7. Sydney, Australia
8. Santiago, Chile
9. Largo, Fl, USA

10. Forestville CA, USA
11. Toronto, ON, Canada
12. Concord NH, USA
13. User Defined- Use HVAC design data from weather station (53158_2004)
14. London, UK
15. Flying Cloud, MN, USA
16. Chicago, IL, USA

Revit Datasets (Models)

Fifty-one unique datasets are used in the test coverage.

Tests Descriptions and Passing Criteria

These are detailed in the attached spreadsheet.