OpenStudio Version 1.14.0

Release Notes – 12/16/2016

These release notes describe version 1.14.0 of the OpenStudio software suite developed by the National Renewable Energy Laboratory (NREL), Buildings and Thermal Systems, Commercial Buildings Research Group, Tools Development Section, and associated collaborators. The notes are organized into the following sections:

- Where to Find OpenStudio Documentation
- Installation Notes
- Overview

Where to Find OpenStudio Documentation

- OpenStudio release documentation, including these release notes, tutorials, and other user documentation, is available at https://www.openstudio.net/.
- C++ API documentation is available at https://openstudio-sdk-documentation.s3.amazonaws.com/index.html.
- Measure development documentation is available at http://nrel.github.io/OpenStudio-user-documentation/reference/measure_writing_guide/.

Installation Notes

OpenStudio is supported on Windows 7 – Windows 10, OS X 10.9 – 10.10, and 64-bit Ubuntu 14.04.

OpenStudio 1.14.0 supports EnergyPlus Release 8.6.0, which is bundled with the OpenStudio installer. It is no longer necessary to download and install EnergyPlus separately. Other builds of EnergyPlus are not supported by OpenStudio 1.14.0.

OpenStudio 1.14.0 supports Radiance 5.0.a.8, which is bundled with the OpenStudio installer. It is no longer necessary to download and install Radiance separately. However, an installer is available at https://github.com/NREL/Radiance/releases/tag/5.0.a.8. Other builds of Radiance are not supported by OpenStudio 1.14.0.

Installation Steps

- The OpenStudio SketchUp Plug-in requires SketchUp 2016 (not available for Linux). The OpenStudio SketchUp Plug-in does not support older versions of SketchUp. SketchUp 2016 is available in 32 and 64-bit versions; the 32-bit version of OpenStudio on Windows will only work with the 32-bit version of SketchUp 2016, and the 64-bit version of OpenStudio will only work with the 64-bit version of SketchUp 2016.
    - If the OpenStudio Plug-in does not automatically load in SketchUp, open the Window->Preferences->Extensions window in SketchUp and enable the OpenStudio plug-in if it is listed.
- Download and install OpenStudio.
- Setup a Building Component Library (BCL) account to access online building components and measures. View instructions on how to setup your account and configure the key in OpenStudio.

Overview

Energy Management System (EMS) objects have been added to OpenStudio.

The following OpenStudio Model EMS objects were added
- EnergyManagementSystemActuator
- EnergyManagementSystemConstructionIndexVariable
- EnergyManagementSystemCurveOrTableIndexVariable
- EnergyManagementSystemGlobalVariable
- EnergyManagementSystemInternalVariable
- EnergyManagementSystemMeteredOutputVariable
- EnergyManagementSystemOutputVariable
- EnergyManagementSystemProgram
- EnergyManagementSystemProgramCallingManager
- EnergyManagementSystemSensor
- EnergyManagementSystemSubroutine
- EnergyManagementSystemTrendVariable
- OutputEnergyManagementSystem

Additional OpenStudio capability was added:
- Added BuildingUnit class for grouping Spaces into logical units
- Updated template OpenStudio Measures to work with OpenStudio 1.x and 2.x
- Added fuel type to OtherEquipment and CoilHeatingGas
- Enforce lowercase names in runner.registerValue
- Allow display name to be set instead of value for choice arguments

OpenStudio 1.14.0 includes many bug fixes. For a full list of changes included in OpenStudio 1.14.0, please see the complete changelog.

Issue Statistics Since Previous Release
- 20 new issues were filed since the 1.13.0 release of OpenStudio (not including opened pull requests).
- 41 issues were closed since the 1.13.0 release of OpenStudio (not including closed pull requests).