Computer Program Training
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Welcome!
Energy Compliance Software

- California Building Energy Code Compliance
  - CBECC-Com

- Public Domain - open source

- For performance compliance method only

- Nonresidential buildings only
  - newly constructed & alterations of existing
Title 24 Training

These are links to training opportunities for the 2008 and 2013 Residential and Nonresidential Energy Efficiency Building Standards. Please contact each organization directly for registration information.

Email Title24Training@energy.ca.gov if you have additional training opportunities you would like to have listed on this site.

Getting started with CBECC-Com - Tutorial Videos
California Building Energy Code Compliance (for COMMercial) Software

- More information and CBECC-Com FAQs
- Workflow Overview
- Creating Model Geometry
- Importing Geometry and Defining Constructions
- Defining Lighting and Internal Gains
- Defining Packaged HVAC Systems
- Defining Central Plant Systems
- Defining DHW Systems
- Performing Analysis and Output Files

- Click here to download example files used in the tutorials

Note: The videos can be downloaded in two formats - Windows Media Video (.wmv) and MPEG-4 (.mp4). The two formats can be viewed using different media players however the preferred players for the two formats are listed below and can be downloaded using the links provided:

- WMV - Windows Media Player (available on Windows XP/7/8 Operating System)
- MP4 - Quicktime / VLC Player

2013 CBECC Software Training Webinars

- Introduction to Computer Programs for Energy Code Compliance, May 2014
  - Presentation
  - WebEx Recording
  - WebEx Playback Help

2013 Standards Training Webinars

  - Presentation
  - WebEx Recording
  - WebEx Playback Help
**Tutorial Videos - Getting started with CBECC-Com**

To get started with CBECC-Com a series of short tutorial videos have been developed to help users understand the software workflow, and specific features as identified below. The videos provide step by step procedures for modeling tasks using examples. [Right-click on the desired format to download the video or click on the title to view the video in the browser]

1. Workflow Overview
2. Creating Model Geometry
3. Importing Geometry and Defining Constructions
4. Defining Lighting and Internal Gains
5. Defining Packaged HVAC Systems
6. Defining Central Plant Systems
7. Defining DHW Systems
8. Performing Analysis and Output Files

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**Frequently Asked Questions (FAQ)**

**Note:** If you are having problems viewing these questions with your browser, please [click here to download the PDF version of the FAQs].

**Q:** What is the name of the Compliance Software made available by the California Energy Commission?

**A:** The commonly referred name is CBECC-Com. This is the shortened name for California Building Energy Code Compliance for Nonresidential (or Commercial) Buildings.
CBECC-Com uses EnergyPlus v8.0 to perform simulations and SketchUp (v8.0/Pro) with OpenStudio SketchUp Plugin for geometry input. Instructions and links for downloading the compliance software and the associated supporting software are listed below.

1. Download/Install CBECC-Com

   Click here to download and install CBECC Com 2013 v2 (Build 601) - Certified by California Energy Commission

New in this version:
- Addition/Alterations and Partial Compliance. Please refer to the User Manual for more details.
- Simplified Geometry option creation. This option allows the user to create building geometry directly in the CBECC-Com UI (user interface) by specifying basic characteristics of various building surfaces. Please refer to the User Manual for more details.

Note: CBECC-Com 2013 v2 has been approved by the California Energy Commission for Title 24 compliance. This version comes bundled with EnergyPlus 8.0. Users do not need to install EnergyPlus 8.0 separately.

Note: CBECC-Com 2013 v1.0, v1c and v1d have been decertified and no longer valid for compliance.

Getting Started With CBECC-Com

Please read the Quick-Start Guide / User Manual to get started with CBECC-Com. Several example files are included with CBECC-Com and can be found in the C:\Users\(your username)\Documents\CBECC-Com 2013 Projects\ folder. These examples demonstrate how to assemble various building and HVAC system types.
## SketchUp Product Downloads

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<thead>
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<th>Product</th>
<th>Mac OS X</th>
<th>Windows</th>
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<tr>
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<td>SketchUp Make 2014</td>
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Developers

GitHub
OpenStudio uses GitHub as the source code repository.

Access Code on GitHub

Latest Iteration Software
This is the latest stable software version, which is released every two weeks.

Download Latest Iteration Software
For Windows v. 1.3.4
Linux   Mac

Latest Iteration SDK Documentation

Developer News

New OpenStudio Developer Mailing List
Posted on: 01/09/2014 - 15:56

Join the OpenStudio Developer Mailing List for important announcements about changes to the OpenStudio APIs or build configurations. Visit the Getting Started as...

OpenStudio is moving to GitHub
Posted on: 07/12/2013 - 09:19

The OpenStudio source code repository is moving from SVN to Github. We are currently in the process of making this change. The SVN repository is still available as read-only. If you would like access...

more
New Features

- Simplified geometry option
- Approach for other compliance types
  - Alterations
  - Partial compliance
- Upcoming features
## CBECC-Com Schedule

<table>
<thead>
<tr>
<th>Task Name</th>
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<th>Finish</th>
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<td><strong>April-July Tasks (CBECC-Com &quot;v3&quot;)</strong></td>
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<td>Water Loop Heat Pumps</td>
<td>Tue 4/1</td>
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<td>Data Model Definition, and GUI Upgrades</td>
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<tr>
<td>Testing</td>
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<tr>
<td><strong>Two Speed Fans (Four Pipe Fan Coil Systems Only)</strong></td>
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<td>EnergyPlus Translation</td>
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<tr>
<td>Testing</td>
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<td><strong>Evaporative Cooling</strong></td>
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<tr>
<td><strong>Process Spaces - Kitchen, Data &amp; Lab</strong></td>
<td>Tue 4/1</td>
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Live Demonstration

Compliance Modeling Workflow

Open Studio
- Building Geometry and Zoning
- SDD xml file
- Envelope Construction, Interior Loads, HVAC

CBECC-Com
- Run Compliance Analysis
- Ruleset Processing
  - Proposed
  - Baseline Sizing
  - Baseline

Open Studio
- SDD translation to EnergyPlus

EnergyPlus
- EnergyPlus Simulation

Results
SUBMIT AN ISSUE

If you experience any issues with the software, we welcome your feedback to help improve CBECC-Com. We will continue to address issues leading up to the Standards implementation date (July 2014). Prior to submitting an issue, please verify that you are using the latest release of CBECC-Com. If you are using an older version, refer to the current Quick-Start Guide and check the release notes to see whether it has been addressed. If you are using the latest release, then please submit an issue in as much detail as possible using the form below.

Note: Any issues relating to previously downloaded versions of the software will not be addressed. Please test your project file on the new version of the software before submitting any issues.

Note: While working with the development team member on an open issue please do not email any new issues to the team member directly as this may result in the issue not being logged and addressed. Always use this site for reporting every new issue for effective tracking and resolution.

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This form will generate an email using your email client (e.g. MS Outlook). Please be sure to attach your project files to the message.

**Internet Explorer Users:** If you experience problems with this form (it does not generate the email message), then please send an email of your issue directly to CBECC-Com@gmail.com. Be sure to include the same details listed in the form below.

What Version of CBECC Are You Using? --Please Select CBECC Version--

What Type of Issue Are You Experiencing? --Please Select Issue Type--

Please summarize the issue, using as much detail as possible:

List the steps taken to produce the error. For example:

1. step 1 - open the file
2. step 2 - enter value X into field V
3. step 3 - software produces error message: "that input is not valid"

If there is an error message, what is the message? If possible, take a screenshot of the error message and attach it to the email as a file.

**Please attach your** (ProjectName).cids file. This is the file you open and save from inside CBECC-Com. By default, this file is located in the C:\Users\[your username]\My Documents\CBECC-Com 2013 Projects\ directory.
Version = 2013_2_601

Category = Unexpected Crash

Issue Summary:
List the steps taken to produce the error. For example:
1. step 1 - open the file
2. step 2 - enter value X into field Y
3. step 3 - software produces error message: "that input is not valid"

If there is an error message, what is the message? If possible, take a screenshot of the error message and attach it to the email as a file.

Please attach your {ProjectName}.cibb file. This is the file you open and save from inside CBECC-Com. By default, this file is located in the C:\Users\(your username)\My Documents\CBECC-Com 2013-Beta Projects directory.
Beyond CBECC-Com

- I need to meet more stringent local requirements
- I want to apply for incentive programs
  - Customized rulesets makes software adaptable
Compliance Modeling Workflow

Open Studio
- Building Geometry and Zoning
  - Open Studio (Detailed Geometry)
  - CBECC-Com (Simple Geometry)
- SDD xml file
- Envelope Construction, Interior Loads, HVAC
  - Run Compliance Analysis
    - Ruleset Processing
      - Proposed
      - Baseline Sizing
      - Baseline
- Open Studio
  - SDD translation to EnergyPlus
- EnergyPlus
  - EnergyPlus Simulation
  - Results
What is “Exceptional Design”?
Useful Information

- **Software location**
  - [http://bees.archenergy.com/software.html](http://bees.archenergy.com/software.html)

- **Download link for training & resources**

- **Issues with software**
Please type your question in the “chat box”