

Bentley Education

OpenBuildings Designer for Lab Computers at DEC Schools

Unlike many other applications you may be familiar with, Bentley Systems OpenBuildings Designer is a highly configurable application which requires careful installation of several components.

This document should guide you through the process of;

- 1. Register or Log in on the Bentley Education Portal
- 2. Download OpenBuildings Designer
- 3. Installing the OpenBuildings Designer with the ISO19650 Dataset
- 4. Installing the DEC workspace

If you need assistance please contact : educationsupport@bentley.com



1 Register or Log in on the Bentley Education Portal

- Go to education.bentley.com
- Click on "Log In" at the top right of the page
 If you already have log in credentials then skip the registration instructions.
 Otherwise if you don't have a Bentley account click "Register Now"
 Fill out your registered school email, First and Last Name, Country and a Password

| Email Address | Email Address |
|--------------------------------------|--|
| | First Name |
| Next | Middle Name (optional) |
| Don't nave an account? Register now. | Last Name |
| | Country/Region |
| | Password |
| | |
| | Repeat Password |
| | Bentley will use the information you provide to share promotional information about Bentley products, services a events that we think will be of interest to you. For more information please see our Privacy Policy. |

- Click "Create Account", and you will be prompted to verify the account with a code that is emailed to your email address.
- You will now be able to log in to the Education portal and see you name at the top right of the web page.
- Here you need to complete all the required fields (marked with an asterisk) under the "My Profile" section.
- Note that you will need to include "Architecture" as one of your "Areas of Interest" to access OpenBuildings Designer

The Bentley Communities website has articles detailing how to register and update your profile on the Bentley Education portal:

How do I register on Bentley Education Portal and access software downloads? How do I update my profile On Bentley Education Portal? Along with a quick start video that outline the process:

Downloading Bentley software for students and educators



2 Download OpenBuildings Designer

Once you are successfully registered and can log into the Education portal, you can click on "Software" and scroll down the page until you see the option for OpenBuildings Designer



In the Software downloads page select the version, language and installer and hit apply. Confirm it's the version you want, and hit the download button

| | OpenBuildings Design OpenBuildings Designer is mechanical and electrical s following companion featu Bentley LumenRT. | ner multidisciplinary Building Info ystems design, energy analys res are included: OpenBuildir | ormation Modeling (BIM) software f is, construction documentation, an gs GenerativeComponents (GC), OJ | or building teams including tc d visualization of any type an benBuildings Station Designe | bols for architectural, structural, d scale of building, The r, Bentley Descartes, and | Related Software |
|---------------------------|---|---|--|--|--|-----------------------------------|
| ajor Version | Version | Language | Architecture | Deliverable Type | Apply Clear | OpenPlant Modeler Get Software |
| OpenBuild Version:10.1 | lings Designer CONNEC | T Edition x64 (SES) Updar | te 10 (English) 🕤 | Support Status | L Download | <u>í</u> |
| | | | | | 1 | ProStructures Get Software |

This will download a small installer application to your Downloads folder. In this case:

Setup_OpenBuildingsDesignerx64_10.10.01.151.exe

Note:

After the download is completed you may be prompted to "Open" the file directly from the web browser notification popup. Do not do this – see the next section for installation.



3 Installing the OpenBuildings Designer with the ISO19650 Dataset

You have two options to install OpenBuildings Designer using this downloaded installer.

a. As one off local installation directly on the PC

This is simple to do, but requires the bulkier parts of the installation to be downloaded on the fly during installation each time it is run on each PC.

To install directly:

- Navigate to folder of the downloaded installer file
- Right click on the file and select "Run as Administrator" This is required as OpenBuildings Designer needs access to some folders that may be limited by User Access Control, and will cause a bad installation.
- Follow the installation wizard instructions on the next page...
- b. As a package for deployment over several PCs

This option downloads the bulkier parts of the installation as a package that you can place on a shared drive. You can then quickly deploy to multiple PCs from this package.

To create the package:

- Create a folder called C:\BentleyDownloads\
- Copy the installer into this location.
- Click the Start button, type "cmd" or "Command Prompt" into the search bar then right-click "Command Prompt" and select "Run as Administrator."
- In the Command Prompt dialog, use the command:

C:BentleyDownloads\Setup_OpenBuildingsDesignerx64_10.10.01.151.exe /layout

It is the **/layout** modifier that tells the installer to download components without installing them. The download location can modified in the additional page supplied in the installation wizard. If you miss this, or choose to use the default location, you can move the downloaded package folder to a shared location later on.



You can install onto many PCs from this package by running the package file: Setup_OpenBuildingsDesignerx64_10.10.01.151.exe

Again, this should be done with full admin rights on the local PC.



When you run the installer, you need to work through all the Installation Wizard pages.

| ⑦ _ × OpenBuildings Designer CONNECT Edition | |
|---|--|
| OpenBuildings Designer CONNECT Edition Configure | In the opening page: Hit the "Configure" button to make sure we have the right installation options set. |
| OpenBuildings Designer CONNECT Edition OpenBuildings Designer CONNECT Edition Application Install Location Where do you want to install this application? Application Path C:\Program Files\Bentley\OpenBuildings CONNECT Edition\ Companion Features Descartes (License-Required) Show More v | The next page shows the location of the application. This is the Windows default for 64bit applications and should be leave as defaulted. |
| OpenBuildings GenerativeComponents (Optional-Free) OpenBuildings Station Designer (Optional-Free) Show More ProjectWise Drive Show More Companion Applications Bentley LumenRT CONNECT Edition - Update 14 Configure Show More Back Cancel Next | It is worth including LumenRT (Designer mode) as a companion application. It is a real time rendering and VR tool that does not need an additional licensing. |
| Q _ × OpenBuildings Designer CONNECT Edition OpenBuildings Designer CONNECT Edition | |

...

Configuration What type of Configuration do you want to set up?

O Custom Configuration (plus Delivered Configuration)

C:\ProgramData\Bentley\OpenBuildings CONNECT Edition\

Back Cancel Next

Delivered Configuration

Delivered Configuration

The next page shows the location of the local configuration

A configuration tells the application how to behave – leave this as defaulted.



| OpenBuildings Designer CONNECT Editio | on |
|---|------|
| Features | |
| Configurations MetroStation Visualization Content Visualization Content for LumenRT Application Options Piele association Desktop Shortcut ArchorPoint Calculated Column Calculated Column Calculated Column Calculated Column Calculated State State State State State State State State State State | Y |
| Back Cancel | Next |

The next page shows the installed components – leave as defaulted

| OpenBuildings Designer CONNECT Edition | |
|---|--|
| OpenBuildings Designer CONNECT Edition | |
| Datasets | |
| Deutschland (DE) Denmark (DK) Spain (ES) France (FR) IsO 19650 (ISO) Italy (IT) Neutral Metric (NM) - Includes Building Examples and Training WorkSets New Zealand (NZ) Sweden (SE) Singapore (SG) United Kingdom (UK) United States Metric (USM) | |

Back Cancel Done

The next page shows the regional Datasets to be include.

If you wish you can untick the default US Dataset to save space,

However, you must tick the option for ISO19650 (ISO) as the DEC course is based on these ISO standards

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When you click Done you will be taken back to the first page.

For an single installation can click "Install"

If you are creating a package, click "Layout"



| OpenBuildings Designer CONNECT Edition | × |
|--|---|
| Downloading ISO19650 (ISO) | |
| | |
| | |
| | |
| | |
| Cancel | |

You will now see progress bars for Download and/or Installation.

This can take some time depending on your internet speed

Once download/install is complete, the final page will let you know if anything has gone wrong, otherwise to close out of the installation, Click "Finish"

| Q Sea | rch for apps, settings, and documents | |
|----------|--|--------|
| All ap | ps | < Back |
| - | OpenBuildings Designer CONNECT Edition | ^ |
| | OpenBuildings Designer CONNECT Edition | _ |
| | OpenBuildings Designer CONNECT Edition (High Security) | |
| | OpenBuildings Energy Simulator CONNECT Edition | |
| <u>N</u> | OpenBuildings Energy Simulator CONNECT Edition (High Security) | |
| | OpenBuildings GenerativeComponents CONNECT Edition | |
| <u>_</u> | OpenBuildings GenerativeComponents CONNECT Edition (High Security) |) |
| 1 | OpenBuildings MicroStation CONNECT Edition | |
| 9 | j OpenBuildings MicroStation CONNECT Edition (High Security) | |
| | OpenBuildings Station Designer CONNECT Edition | |
| | OpenBuildings Station Designer CONNECT Edition (High Security) | |
| - | Process Controller for Distributed Rendering | |

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You should now test OpenBuildings Designer is working properly by opening it.

It will be listed in your Windows Apps under OpenBuildings Designer CONNECT Edition.

The dark blue Icon (the one without the Padlock) should be used to open the tool for the DEC course, and can be placed on the Windows Start menu, Toolbar or Desktop for easy startup.

The other icons fire up the same application in different modes.

You should see "Building_Examples" option in the "WorkSpace" drop down and "BuildingTemplate_ISO19650" option in the "WorkSet" dropdown

| Configuration | OpenBuildings Designer CONNECT Edition |
|---|--|
| Examples Configuration | WorkSpace WorkSet Building_Examples * BuildingTemplate_ISO19650 • |
| Recent WorkSets You haven't opened any files from a WorkSet | Recent Files BuildingTemplate_AU You haven't opened any files BuildingTemplate_ISO19650 |
| recently. Browse for files, create a new file, or select another WorkSpace or WorkSet from the drop- down menus. | BuildingTemplate_NM BuildingTemplate_UK Browse N Cadventure_Demo Multi-Use_Retail_Building_NM |
| | TrainingTemplate_NM |

The last stage is to modify the configuration by installing the DEC WorkSpace.



4 How to install the DEC Workspace

The DEC workspace of relies on the ISO19650 Dataset.

This should already have been included as part of the OpenBuildings Designer installation as noted in the previous instructions. If it is missing you can run a repair/reinstall from Windows Control Panel on OpenBuildings Designer and use the installation wizard to add the Dataset.

The DEC workspace include files and resources for DEC level 1, 2, & 3 that match the 1day Teacher Training class and accompanying training documents and videos.

It's content has been designed with a focus on sustainable materials, and simplifying the complexity new users face when learning the basics of using OpenBuildings Designer.

Download

Click on the below link to download the DEC.zip file from Bentley Communities.

https://epuseruploadprodcdnendpoint.azureedge.net/CDN_Content/Students/DEC/DEC%20Workspace.zip

Install

Unzip or extract the contents onto each PC running OpenBuildings Designer.

Depending on your installed version of OpenBuildings Designer version, the target folder for this workspace is either.

C:\ProgramData\Bentley\OpenBuildings CONNECT Edition\Configuration\WorkSpaces\

Or

C:\ProgramData\Bentley\OpenBuildings 2023\Configuration\WorkSpaces\

You will have done this correctly if you can see the file:

..\Configuration\Workspaces\DEC.cfg and the folders:

..\Configuration\Workspaces\DEC\Standards\

..\Configuration\Workspaces\DEC\WorkSets\

Test

To test The workspace is correctly installed, restart OpenBuildings Designer. You should see "DEC" option in the "WorkSpace" drop down and "DEC Level 1", "DEC Level 2", "DEC Level 3" options in the "WorkSet" dropdown



| Configuration | OpenBuildings Designer 2023 |
|--|--|
| :: Examples Configuration Configuration for Bent | WorkSpace WorkSet DEC * DEC Level 1 * |
| Manage Configuration | Recent Fi Search |
| Recent WorkSets | You haven't DEC Level 2 start by clicking on Browse. |
| Here is where your WorkSets will be | DEC Level 3 DEC Template |
| Lists the recently opened WorkSets. You can pin a WorkSet by clicking the pin icon on the right or by selecting pin to list on the right- click menu of WorkSet. Pinned WorkSets display at the top, separated from the unpinned WorkSets. <u>learn more</u> | Brows |

Workspace Overview

While the DEC WorkSpace relies on the ISO19650 Dataset for a lot of the applications background standards, components, datagroup, etc. it tries to be self-sufficient for all the custom components created specifically to support the sustainability aspects of the DEC teaching program.

It is designed to sit on and work locally with OpenBuildings Designer on a stand-alone PC and is largely controlled by:

..\WorkSpaces\DEC\Standards\WorkSpaceStandards.cfg

For those schools who wish to provide this workspace a common resource on a shared server drive sitting on the same local LAN as the PCs, an example configuration file for redirecting OpenBuildings Designer is included:

..\WorkSpaces\ConfigurationSetup.copycfg

This file is inactive as is, and depending on each schools requirements and IT infrastructure it will need to be expertly edited to achieve the right outcome.

Cloud based storage solutions like Google Drive, OneDrive, etc. cannot be accommodated, Although it is possible for users to work on a local PC folder that is synced to the cloud for backup.

WorkSets

There are 3x DEC WorkSets, and 1x Template WorkSet. Each Workset uses the same folder structure but has different content. ..\WorkSpaces\DEC\WorkSets\DEC Level 1 ..\01_Recieved

- This is intended to be where incoming info is gathered
- This is intended to be where the 3D models a stored
- ..\02_Models ..\03_Drawings
- This is where 2D drawings can be stored
- ..\06_Output
- This is intended of exported render, spreadsheets, etc.
- ..\08_Standards
- This is for the project specific CAD resources (eg cell libraries)

DEC Level 1 and DEC Level 2 contains prebuilt, staged, training course material that is primarily used in the "Teacher Training" sessions - ie. where Cadventure trains the teachers how to use the software. DEC Level 1 deals with the fundamentals and Architectural workflows to build a small building. DEC Level 2 deals with more advanced Structural, MEP workflows in a larger building

Inevitably this same material is what the teachers will recycle to teach their own classes as they do not have time to build their own content.



DEC Level 3 has an example that might be used to demonstrate more advanced modelling

The Template WorkSet is a blank set of folders can be copied for each student that use the same PC to have their own area to work in.

Note that there is an accompanying WorkSet .cfg configuration file for each WorkSet folder structure, this tells OpenBuildings Designer that there is a WorkSet to list in the interface.

When creating a copy of the Template folder structure for a new student eg. ../DEC_HPotter2024

Then copy one of the DEC WorkSet .cfg files and rename it to match the folder name reg. DEC_HPotter.cfg When you nest restart OpenBuilding Designer you should see it listed in the interface in the WorkSets dropdown.