CADMATIC eGo

User Guide | 2024T3

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1. Installation

You can install or uninstall CADMATIC eGo as described below. Make sure the target device meets the requirements listed in docs.cadmatic.com/systemrequirements.

When installing or reinstalling the application, you can define which eShare server eGo should use by default.

1.1. Installing eGo

You can install CADMATIC eGo for the current user or all users of the device. Optionally, you can define Default eShare Server.

Prerequisites

- eGo installation wizard provided by Cadmatic.
- To install eGo for all users of the device, your account must have administrative privileges.
- Optionally, the address and port of the default eShare server.

Do the following:

1. Launch the installation wizard:
   - To install eGo for the current user, double-click or double-tap *eGoSetup.exe*.
   - To install eGo for all users of the device, right-click or tap and hold *eGoSetup.exe*, and then select **Run as administrator** from the context menu.

   Then, follow the on-screen instructions to complete the process.
2. To obtain eGo hostID needed for the license key, select **Start** > **eGo**. Copy eGo hostID from the license key prompt.

   Note: If you are acquiring multiple eGo license keys, the hostIDs can be copied or imported also from **System Administration > Devices** in eShare.
3. Request eGo license key from Cadmatic. Include eGo hostID in the request.
4. Optionally, copy your eGo license key to the clipboard.
5. Select **Start** > **eGo**. If a valid license key was not found from the clipboard, you are prompted to enter the license key.

   eGo opens, displaying the **Models** view.

6. Select  to connect eGo to eShare. The server list shows "Default eShare Server" if the server address was specified in the installation.

You can also open eGo from a hyperlink in a third-party application, using the eGo redirector.

Use the proprietary egoapp protocol in the URL when you open eGo from an application that is not a web browser, such as Microsoft Excel. For example, if eShare server is running at *https://eshare*, you can open it with *ego:https://eshare*.

Related Topics

Defining eShare Servers

Models

1.2. Installing eGo with activation key licensing

You can install CADMATIC eGo for the current user or all users of the device. Optionally, you can define Default eShare Server.

Note: If you use activation key licensing for eGo device which is in shared use, it is recommended to install eGo for all users to enable using the same activation key for all users.

Prerequisites

- eGo installation wizard provided by Cadmatic.
- To install eGo for all users of the device, your account must have administrative privileges.
- Optionally, the address and port of the default eShare server.
- Optionally, the activation key configured in eShare.

Do the following:

1. Launch the installation wizard:
   - To install eGo for the current user, double-click or double-tap *eGoSetup.exe*.
   - To install eGo for all users of the device, right-click or tap and hold *eGoSetup.exe*, and then select **Run as administrator** from the context menu.

   Then, follow the on-screen instructions to complete the process.
2. Select **Start** > **eGo**. eGo will connect to eShare to obtain an activation key.

Note: To enable acquiring an activation key automatically from eShare, it must be configured in **System Administration > Devices** in eShare.

Optionally you can enter the activation key to the dialog, or copy it to the clipboard.

3. A dialog with available licenses opens. Select eGo from the list and select **OK**. The license is valid for the next 30 days before the next online verification.
4. eGo opens, displaying the **Models** view.
5. Select 

to connect eGo to eShare. The server list shows "Default eShare Server" if the server address was specified in the installation.

You can also open eGo from a hyperlink in a third-party application, using the eGo redirector.

Use the proprietary egoapp protocol in the URL when you open eGo from an application that is not a web browser, such as Microsoft Excel. For example, if eShare server is running at *https://eshare*, you can open it with *ego:https://eshare*.

Related Topics

Defining eShare Servers

Models

1.3. Installing eGo using command-line

You can install eGo using the command prompt window.

Note: If you want to install the application for all users of the computer, you must start the command prompt as an administrator.

Note: You can use the command-prompt window or a batch file to add or update the Default eShare Server address to an existing eGo installation. Use the */quiet* switch to not display the installation wizard:
eGoSetup.exe ESHARESVR="http://localhost:81" /quiet

Command-line installation supports these parameters:

Parameter	Description
`ALLUSERS="1"`	Installs eGo for all users. If the parameter is not used, eGo is only installed for the

Parameter	Description
	current user.
`INSTALLDIR="<path>"`	Specifies the installation folder. If the parameter is not used, eGo is installed in *C:\Users*\<user>*AppData**Local**Apps**Cadmatic**eGo*
`ESHARVR="<address>"`	Installs eGo with the address of the default eShare server.
`LOCALPATH="<path>"`	Specifies the location where temporary user data such as imported models can be saved. If the parameter is not used, temporary user data is stored in *C:\Users*\<user>*AppData**LocalLow**Cadmatic**eGo**cache*.
`BASEFOLDER="<path>"`	Specifies the folder used for data synchronized from eShare to eGo. If the parameter is not used, the default folder *C:\Users*\<user>*Documents**eGoModels* is used.
`ACTIVATIONKEY="<number>"`	Specifies the activation key for eGo.

You can use standard Windows Installer options in the command. For example, you can run the command with the option */quiet* to install or uninstall eGo in silent mode so that no user action is required during the operation. Run the command with the option */?* or */help* to list all the options.

Here are examples, using *eGoinstaller.msi* as the name of the installer file:

- This command would install eGo with the default server *http://localhost:81* for all users in *D:\Programs\eGo*, and the user data would be stored in *D:\UserData\eGo*:

```
msiexec /i eGoinstaller.msi ESHARESVR="http://localhost:81"
ALLUSERS="1" INSTALLDIR="d:\Programs\eGo"
LOCALPATH="d:\UserData\eGo" /quiet
```

- This command would install eGo for the current user using the activation key:

```
msiexec /i eGoinstaller.msi ACTIVATIONKEY="52125-67030-75640-
88012" /quiet
```

1.4. Uninstalling eGo

You can uninstall CADMATIC eGo from your device. This does not remove 3D model files from the disk.

Prerequisites

- To uninstall eGo from all users, your account must have administrative privileges.

Do the following:

1. To use the eGo installation wizard, run the setup file and select **Remove** when prompted whether to repair or remove.
2. To use the **Apps & features** list of Microsoft Windows, do the following:
    a. Click or tap-and-hold **Start** , and then select **Apps and Features**.
    b. On the **Apps & features** list, select **CADMATIC eGo** and then **Uninstall**.
    c. Follow the on-screen instructions to complete the process.

Results

eGo files and folders are deleted from the device.

2. Getting started

2.1. Startup

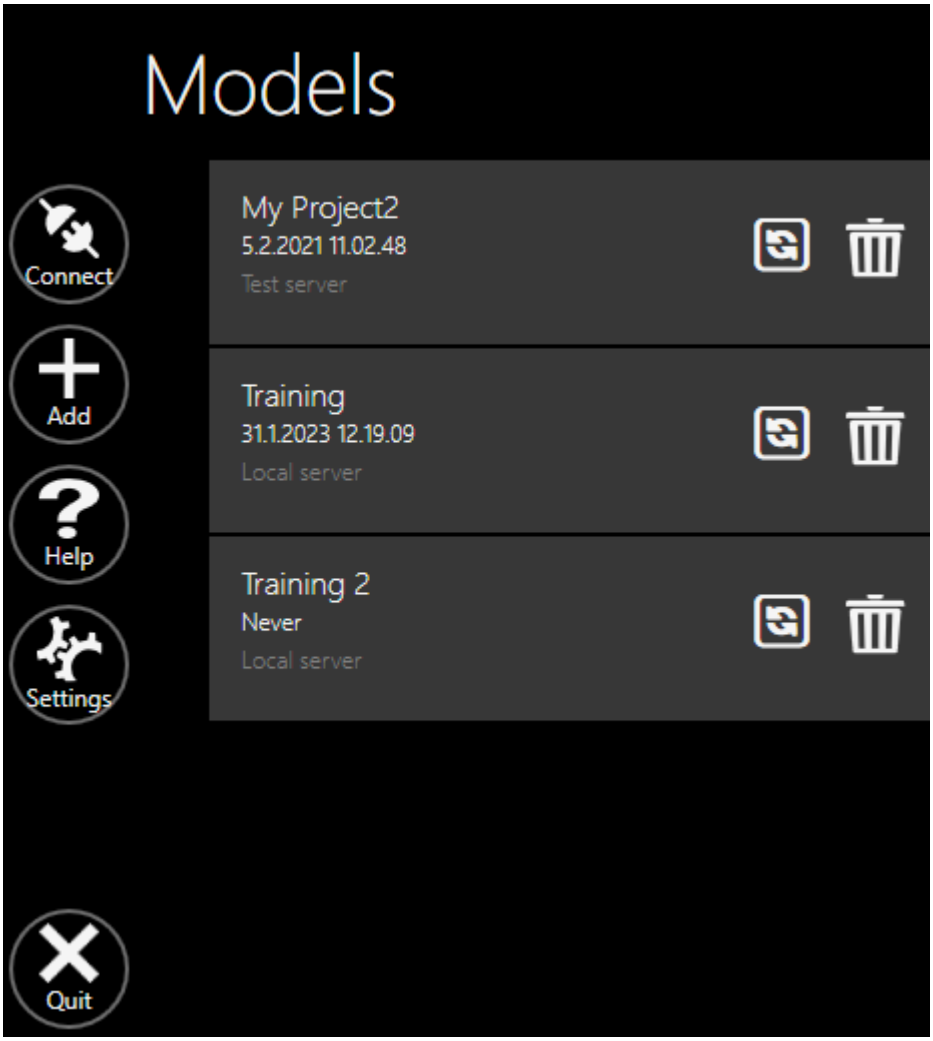
During startup eGo checks for a working license. If a working license is not found, a dialog opens asking for a license code, an activation key, or the address of eShare server. Enter a license code, an activation key, or the server address, and click **Yes** to continue.

During startup eGo contacts eShare server. If the current eGo version is not compatible with the eShare version, a dialog opens asking to update eGo. Click **Yes** to update. eGo will download the latest version, shut down, install the new version, and restart. If you click **No**, eGo will start but it may not be fully compatible with eShare.

The version update check can be disabled in the settings. See Global settings.

2.2. User interface

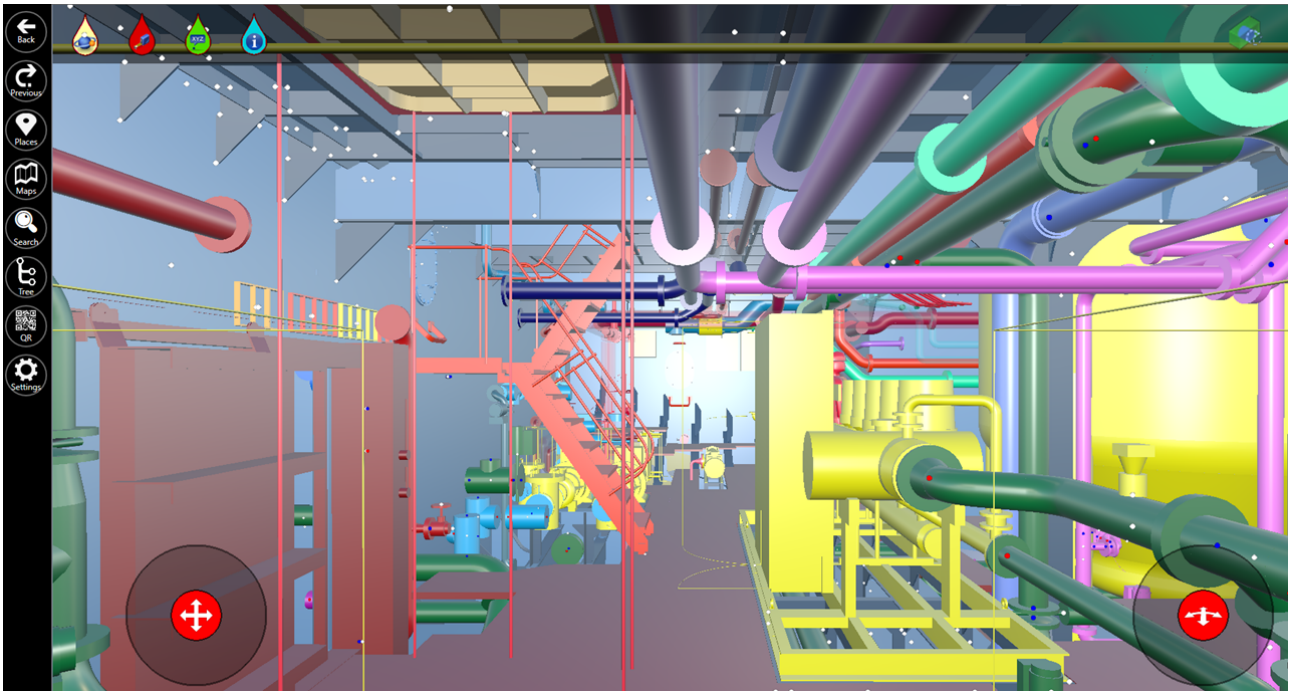
Opening CADMATIC eGo displays the **Models** view where you can install 3D models, access the installed 3D models, and define global settings. 3D models installed from CADMATIC eShare can also be synchronized and uninstalled in this view.



Selecting a 3D model from this view displays the main CADMATIC eGo window which contains the following:

- Main menu (left)
- Toolbar (top)
- Properties pane (right)
- 3D view (center)

In the 3D viewer you can navigate and select items by using standard touch screen functions (tapping, gestures) or an integrated or external keyboard or mouse. As eGo is intended for touch screen devices, some elements of the user interface can only be accessed via the touch screen.



2.3. Main toolbar buttons

These buttons are displayed in the main toolbar on the left. Some of them are only available in a specific view, such as the **Models** view or the 3D view.

Button	Description
	**Connect to eShare** Allows connecting eGo to eShare.
	**Open Model** Opens a dialog for selecting a 3D model file (.ebm) from the disk. See Model management.
	**Help** Opens the help. See eGo documentation.

Button	Description
	**Global Settings** Opens the **Global Settings** view. See Global settings.
	**Back** Goes back to the previous eGo view.
	**Previous** Goes back to the previously visited location in the 3D view.
	**Places** Opens the **Places** view which allows jumping to a pre-defined location in the 3D model. See Places.
	**Maps** Opens the map view that allows quickly navigating to a specific place in the 3D model. See Maps. Button is visible only if the 3D model contains 3D spaces.
	**Markups** Opens the **Markups** view which lists the Markups in the project. In global settings you can specify whether this view should list all Markups or only those that you have either created or modified. See Markups. Button is visible only if the 3D model has been downloaded from eShare.
	**eShare Documents** Opens the **eShare Documents** view which lists the project documents that are available in the eShare server. See eShare documents. Button is visible only if the 3D model has been downloaded from eShare.
	**Search** Allows searching for objects and object groups. See Search.

Button	Description
	**Model Tree** Lists the objects of the 3D model as a hierarchical tree. See Model tree.
	**Read QR Code** Allows using the device camera to scan a QR code that opens a specific object in the 3D view. See Read QR code.
	**Model Settings** Opens the **Model Settings** view. See Model settings.
	**Quit** Closes the eGo application.

2.4. Visual style

At the top of the 3D view is the **Visual Style** menu. When the model contains several visual styles, you can switch to the required visual style by selecting the style from this menu. The color legend is displayed at the bottom of the 3D view. You can hide or show the legend using the arrow on the right side of the legend.

2.5. Droplet tools

In the 3D view, the toolbar at the top displays drop-shaped icons. You can drag these droplets to the 3D view to perform a given function, as described below.

These functions require a touchscreen.

Tool	Description
	**Orbit Point** To specify a point around which the 3D view orbits, instead of orbiting around the user's viewing point. (Not displayed in the **Markups** view.)

Tool	Description
	**Measurement** To add a measurement, first drag one measure droplet to the starting point, and then drag another measure droplet to the end point. The measuring tool can snap for example to connection points and pipe centerlines.
	**Coordinate Label** To add a coordinate label, drag the label droplet to the required position.
	**Information Label** To add an information label, drag the label droplet to the required position.

The droplets are not saved in the model—they disappear if you for example reload the model or restart the application. You can also delete them manually:

- You can drag an individual droplet back to the toolbar. 
- You can delete all droplets by selecting  .

2.6. Clip box

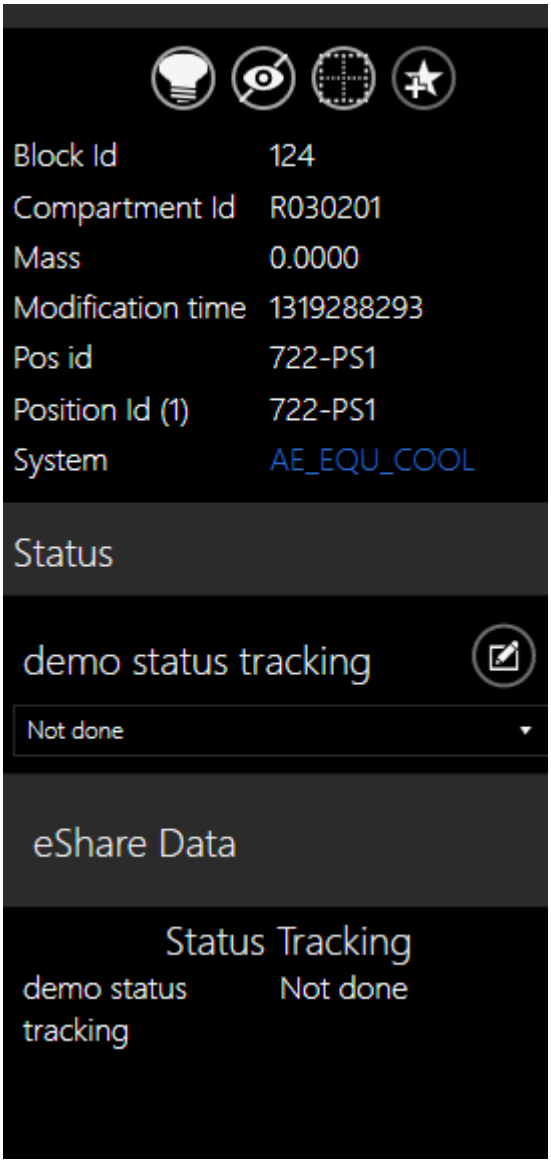
In the 3D view, the toolbar at the top contains clip box buttons that allow making the visible area smaller. This can help you to navigate more easily in a very large or very densely populated model.

- Select  to enable the clip box. Then, you can move any of the sides of the box by using a finger or by holding down the right mouse button and dragging.
- Select  to toggle the displaying of the clip box boundaries.
- Select  to disable the clip box. The full model is displayed again.

For more details, see Clip box.

2.7. Properties pane

In the 3D view, selecting an object displays the object properties in a separate pane on the right side of the screen. The properties are shown in the same order as in eShare.



In this pane, you can do the following:

- Select to toggle the visibility of attributes that are set invisible in eShare. This option is available only if there are hidden attributes in the project, and the setting affects only the attributes' visibility in eGo.
- Select to highlight the object.
- Select to hide the object.
- Select to make the object transparent.
- Select to add a Smart Point.

- Change the value of drop-down menu fields if you have sufficient permissions.
- Add new status values if the system administrator has enabled this and you have sufficient permissions.

  If eShare has a value template configured for status values, eGo will suggest status values.
- See the nodes related to the object.
- See the Smart Points linked to the object, including data of Smart Points with an external ID.
- See the markup details with linked object.
- See the eShare data values of the object, including strings, dates, hyperlinks and links to documents.
- See graph data from eShare data sources.
- If coordinate systems are used, the coordinate system of the object is shown.

Note: In MultiSelect mode, if selected set of objects is partially visible, highlighted, or transparent, the corresponding buttons are dimmed.

To clear the properties pane and undo object selection, press Esc key.

Related Topics

Gestures and navigation

Smart Points

3. Gestures and navigation

In the 3D view, you can use a mouse or keyboard to move around in the model, pan the view, rotate the camera, and so on. Here, the term "pan" is equal to "strafe" or "sidestep", meaning movement parallel to the view plane. You can also mix the navigation methods—for example, use arrow keys for movement and mouse for adjusting the viewing angle.

3.1. Gestures

In CADMATIC eGo you can use the following gestures.

- Swipe to rotate the view around the current viewing point.
- Swipe with two fingers to pan the view.
- Pinch to zoom in, stretch to zoom out.

- Double-tap with two fingers to restore horizontal view.
- Press on object with one finger and tap with another finger to hide the object.

3.2. Virtual joysticks

You can select whether to show the virtual joysticks and define their location on the screen, as described in Model Settings.

Joystick	Description
	**Pan** Use the left virtual joystick to pan the view.
	**Move** Use the right virtual joystick to move forward or backward and to turn left or right.

3.3. Mouse navigation

You can use a mouse to move around in the model.

Button	Action
Left button	Hold down left mouse button to turn the camera left or right and to move forward or backward by dragging. Hold down Ctrl and left mouse button to turn the camera to any direction by dragging. Hold down Shift and left mouse button (or hold down left and right mouse button) to pan the model by dragging. Hold down Ctrl, Shift and left mouse button to turn the camera left or right and to move forward or backward in the XY-plane by dragging.
Middle button	Scroll the wheel to move forward or backward. Hold down middle button to pan the model by dragging.

Button	Action
(mouse wheel)	Hold down the Shift key (or the right mouse button) and the middle mouse button to orbit the camera around the cursor location. While moving forward or backward with keys, you can scroll the wheel to turn the camera up or down and press middle button to restore the horizontal level.
Right button	Hold down right mouse button to turn the camera to any direction by dragging.

3.4. Keyboard navigation

You can use the following keys to move around in the model.

Key	Arrow Key	Action
W	⇧	Move forward. • W moves forward in the XY plane. • Up arrow key moves toward the center of the screen.
S	⇩	Move backward. • S moves backward in the XY plane. • Down arrow key moves away from the center of the screen.
Q	⇦	Turn the camera left.
E	⇨	Turn the camera right.
A	Shift + ⇦	Pan the model left.
D	Shift + ⇨	Pan the model right.
R	Shift + ⇧	Pan the model up.
F	Shift + ⇩	Pan the model down.
Page Up	Ctrl + ⇧	Turn the camera up.

Key	Arrow Key	Action
Page Down	Ctrl + ⇩	Turn the camera down.
Shift		Holding down Shift triples the movement speed ("run mode") of the keys described above.
Ctrl + Shift		Holding down Ctrl + Shift locks the Z coordinate, which allows moving at a fixed height regardless of the viewing direction.
Esc		In 3D view: Clears object selection and the properties pane. In other views: Returns to the previous view.

4. Models

In the **Models** view, you can manage eShare server connections, synchronize data with eShare, add/remove 3D models, view submodels, view the user manual and license information, and define global settings.

4.1. Model management

In CADMATIC eGo, you can use 3D models that are obtained from CADMATIC eShare or from the file system.

4.1.1. Defining eShare Servers

Define the addresses of the eShare servers that you want eGo to be able to connect to.

Default eShare Server can be defined when installing eGo, as described in Installation.

eGo and eShare must have the same version number. If you attempt to connect eGo to a different version of eShare, eGo displays an error message that asks you to update eGo and eShare to the same version.

Prerequisites

- Address and port number of the eShare servers to be added.

Do the following:

1. In the **Models** view, select 

. The **eShare Servers** list opens.
2. You can add an eShare server.
    a. Select 

.
    b. You are prompted to enter the address and port number of the server to connect to. Example: *eShareServer-01:81*
    c. You are prompted to enter the name to display in the server list. Example: *eShare 01*
3. You can set a default eShare server.
    a. Select 

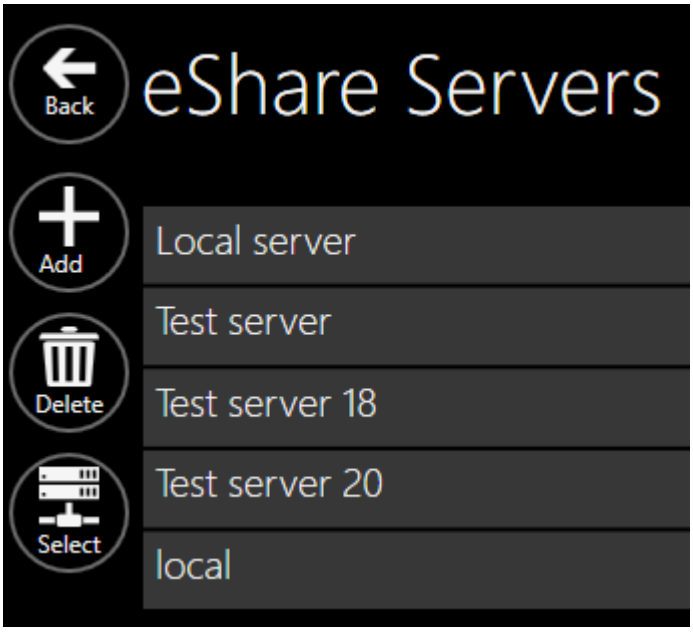
.
    b. Select the server name from the list to set it as default eShare server.
4. You can remove one or more eShare servers.
    a. Select 

. The button is highlighted to indicate that it is on until you turn it off again.
    b. Click a server name to remove the server from the list.
    c. When the required servers have been removed from the list, select 

again to exit the delete tool.

Results

The **eShare Servers** view of eGo displays the names of the currently defined eShare servers.



If you have previously downloaded a project from eShare and now removed the server address, you are still able to synchronize the project with that server.

4.1.2. Adding 3D models

Add 3D models to eGo to be able to view them in the 3D viewer.

Prerequisites

- Connection to eShare server or CADMATIC 3D model files (.ebm).

Do the following:

1. You can download projects with 3D models from eShare.
    a. In the **Models** view, select 

. The eShare server list opens. If you have not defined any server connections yet, see Defining eShare Servers.
    b. Select the eShare server to connect to.

    When connecting to eShare, you are automatically logged in with your Microsoft Windows user account or Azure AD account, depending on configuration. If the automatic login fails, you are prompted to provide a user name and password, which allows you to log in with some other valid user account.

    c. You are prompted if the version number of your eGo client and the eShare server do not match. Select **OK** to continue.

d. The **Download eShare project** view lists the eShare projects you can download—projects that you are not permitted to access and projects that have been disabled in eShare are not listed.

   Select a project from the list to download it into eGo.

e. A successful project download is prompted with a dialog and **Project Overview** for the project opens.

2. You can open a single 3D model file.

   a. In the **Models** view, select 

and open the model file from the disk.

   b. When prompted whether to copy the model file to the eGo projects folder, select **Yes** if you want the model to remain in eGo until you remove it from the project folder, or **No** if you do not want the model to be listed the next time you open eGo.

   c. A successful project download is prompted with a dialog and **Project Overview** for the project opens.

3. You can add multiple 3D model files.

   - In the file system, copy the model files to the eGo project folder *Documents\eGoModels* and then restart eGo. The installed models remain available in eGo until you remove the model files from the project folder.

Results

The **Models** view of eGo displays the new 3D models and submodels. You can select a model from the list to open the model in the 3D view.

If the eShare server contained a script for reading custom QR codes, it is now automatically used by the QR reader.

4.1.3. Synchronizing eShare models

You can synchronize models to ensure that the same data exists in both eShare and eGo. Synchronization is not possible if the project has been disabled in eShare.

Models that you have downloaded from eShare to eGo can be synchronized to retrieve the latest 3D model object data, status definitions, status values, and document tree from the server; to make specified documents available offline; and, to synchronize changes in Markups and Smart Points between eShare and eGo.

Do the following:

- In the **Models** view, select the synchronization button  of the model.
  eGo starts synchronizing the data. You can select **Cancel** to terminate the process, if needed.

Results

The model uses the latest data from eShare, and Markups and Smart Points that have been edited or created in eGo are available in eShare.

If the eShare server contained a new or updated script for reading custom QR codes, it is now automatically used by the QR reader.

4.1.4. Synchronizing submodels

You can synchronize submodels to ensure that the same data exists in both eShare and eGo. Synchronization is not possible if the project has been disabled in eShare.

Note: Cable objects are not included in submodels in eGo.

Do the following:

1. In the **Models** view, select the project.
2. In the **Project Overview**, select **Add Submodel**.
3. In the **Select 3D-Models to Synchronize** view, select open the list for the submodel rule and select the submodels you want to synchronize.
   The submodel list can be filtered using the **Filter** field.

Note: To disable synchronizing the complete 3D model, clear the selection for **Synchronize Complete 3D-Model**.

Results

The submodels synchronized for the project can be seen in the **Models** view by selecting the down arrow, as well as in the **Project Overview**.

4.1.5. Removing 3D models

Uninstall the 3D models that you no longer need in eGo.

Do the following:

1. You can remove projects downloaded from eShare.
    - In the **Models** view, select the delete button  of the model to remove. You are prompted to confirm the deletion.
2. You can remove 3D models added from files.
    - In the file system, remove the model files from the eGo project folder *Documents\eGoModels* and then restart eGo.
3. You can remove submodels synchronized to the project.
    - In the Project Overview, select  for the submodel to remove it.

Results

The **Models** view of eGo no longer lists the removed models.

4.2. Project overview

In **Project Overview**, you can add and remove submodels, select one or multiple submodels, select what project content is synchronized,, preview images of the 3D models, and remove the project.

4.2.1. Opening complete 3D model

- Select  in **Project Overview**.

4.2.2. Synchronizing the project content

1. Set the project content to be synchronized. See Project synchronization settings.
2. Select  in **Project Overview**.

4.2.3. Project synchronization settings

- Select  in **Project Overview**.

4.2.3.1. Content to be synchronized

Documents	• **Yes** — All project documents are synchronized. • **No** — Project documents are not synchronized. Click **Select** to select only some of the documents in the project to be synchronized.
Point Clouds	• **Yes** – Point Clouds are synchronized. • **No** – Point Clouds are not synchronized. Click **Select** to select only some of the Point Clouds in the project to be synchronized.
Submodels	• **Yes** – Submodels are synchronized. • **No** – Submodels are not synchronized. Click **Select** to select only some of the submodels in the project to be synchronized.
Markups	• **Yes** – Markups are synchronized. • **No** – Markups are not synchronized. Click **Select** to select only some of the Markup types in the project to be synchronized. The selection is not available, if the project has Markups of only one type.
Smart Points	• **Yes** — Smart Points are synchronized. • **No** — Smart Points are not synchronized.
Visual Styles	• **Yes** — Visual Styles are synchronized. • **No** – Visual Styles are not synchronized.
Hierarchies	• **Yes** — Hierarchies are synchronized. • **No** — Hierarchies are not synchronized.
Complete Model	• **Yes** — Complete model is synchronized. • **No** — Complete is not synchronized.
Statuses	• **Yes** – Statuses are synchronized. • **No** – Statuses are not synchronized.

Maps	• **Yes** – Maps are synchronized. • **No** – Maps are not synchronized.

4.2.4. Selecting multiple submodels

1. Select  and then select multiple submodels to be combined.
2. Select  to view the combined 3D model.

The combined submodel is visible in the submodel list in **Models** view and **Project Overview** after it has been opened.

4.2.5. Removing the project

- Select  to remove the project.

4.3. eGo documentation

In the **eGo Documentation** view, you can view the user manual and third-party license information.

4.3.1. Online help

Opening the **eGo Documentation** view displays the user manual. Pressing F1 in the application opens context-sensitive help, where available.

Use the search box at the top for searching the help. You can type several words inside quotation marks to search for a specific phrase. Press Enter or use the magnifying glass button to perform the search.

Online help toolbar buttons

 – Send feedback about the documentation, using the default email application of the device.

 – Print the current help topic. Any collapsed content will not be printed.

 – Remove search highlighting from the current topic.

 – Expand or collapse content in the current topic.

 – Move to previous or next topic in the topic hierarchy.

4.3.2. License information

In the **eGo Documentation** view, selecting the License Information button displays the **License Information** view where you can view license information for third-party software used in CADMATIC eGo.

4.4. Global settings

In the **Global Settings** view you can define settings that affect all 3D models.

4.4.1. General

HostId	Displays the Host Id of the device.
32-bit version **64-bit version**	Displays whether this is a 32-bit or 64-bit version of eGo.
Cache folder	Displays the path to the eGo cache folder.
Projects (.ebm) folder	Displays the path to the 3D model folder.
Installation folder	Displays the path where eGo is installed.
Currently connected to eShare on	Displays the address of the eShare server that eGo is connected to.
Licensed until	Displays the date when the eGo license expires.

4.4.2. Synchronization

Markups	• **All** — Displays all Markups. • **Created by me** — Only displays the Markups that the current user has created. • **Modified by me** — Only displays the Markups that the current user has modified.
Synchronize Documents by Default	• **Yes** — Downloading a model from CADMATIC eShare automatically downloads the related documents. • **No** — User must manually select to download documents.
Check version updates on startup	• **Yes** – On startup eGo checks if it is compatible with the version of eShare. If not, eGo prompts to update to the latest version. • **No** – Version updates are not checked during startup.

4.4.3. MultiSelect

MultiSelect	• **Yes** — User can select multiple objects in the 3D view. • **No** — User can only select one object at a time.

4.4.4. Documents

Document Viewer	• **Internal** — Use the built-in document viewer of eGo to view documents. • **System Default** — Use the default document viewer of the tablet device to view documents. The document viewer opens outside the eGo user interface.
Preferred document version	• **Download latest (slower)** – In online mode, download the latest document from eShare. • **Open synchronized (faster)** – In online mode, prefer to use the already synchronized, previously opened document.
Use metadata to check if document has changed	• **Yes** — The last modification date for the document is retrieved from metadata, and a previously synchronized document is used, if the document has not been changed. This will improve the time used in synchronization. Press **Select** to select the used metadata. • **No** — Metadata is not used.

Open online help	• **Yes** — The online help in https://docs.cadmatic.com is used, if there is an internet connection available. • **No** — The local help is used.

4.4.5. Cache

Clear cache files of unused models	• **Yes** — eGo automatically removes cached models that have not been used for over 30 days. If you open the model again, eGo automatically recreates the cache folder. • **No** — eGo does not remove cached files.

5. Places

In the **Places** view, you can select a scene from the list or enter coordinates to jump to a specific location in the 3D model. There are a number of default scenes, and there can be shared scenes synchronized from eShare. You can also add and remove user-defined scenes. If you are a project administrator, you are asked if a new scene is set as public or private. If a clip box is enabled when saving a new scene, the clip box is stored and applied when you open the scene.

5.1. Managing places

You can create and delete locally stored scenes, and jump to a specific scene or coordinates.

Prerequisites

- To create a new scene, in the 3D view navigate to the location that should open when you open the scene.
- To apply a clip box to the new scene and store it in the scene, define the clip box and leave it enabled.

Do the following:

1. In the 3D view, select 

to open the **Places** view. The view lists the 3D view locations that have been stored as scenes. These scenes can be found in all models:

- Top View
- Right View (Fore)
- Left View (Aft)
- Front View (SB)
- Back View (PS)
- Isometric View – viewed from a 45° angle, slope 35.264
- Bottom View

2. To jump to the location of an existing scene, select the scene from the list. The prefixes indicate whether they are model, project, or personals scenes. The default eGo scenes are shown first on the list.
3. You can save the current 3D view location as a scene.
   a. Select 

.
   b. Enter a name for the scene and select **OK**. The new scene is added to the end of the scene list.

   Note: If you enabled the clip box before opening the **Places** view, the currently defined clip box is stored in the scene.

4. You can delete a custom scene.
   a. Select 

. The custom scenes of the model are listed.
   b. Select the scene to be deleted. You are prompted to accept the deletion.
5. You can move the camera to specific coordinates.
   a. Select 

.
   b. Follow the on-screen instructions to enter the X-coordinate, Y-coordinate, and Z-coordinate of the camera.
   c. When you return to the 3D view, the camera is in the specified location.

6. You can return to the first scene and set all objects visible.
   a. Select 
.
   b. View returns to the first scene and all objects are set visible.
7. You can change the visibility and transparency settings of saving a scene.
   a. Select 

.
   b. Define the following scene saving settings:

Visibility of Objects	• **Do Not Save Visibilities**– None of the visibilities are saved in the scene. • **Save Visible Objects** – Visible objects are saved in the scene. • **Save Hidden Objects** – Hidden objects are saved in the scene.
Transparency of Objects	• **Do Not Save Transparency** – None of the transparencies are saved in the scene. • **Save Transparent Objects** – Transparent objects are saved in the scene. • **Save Opaque Objects** – Opaque objects are saved in the scene.

6. Maps

In the **Maps** view, you can navigate in the model by selecting a camera location and viewing angle from a 2D map. Map is available only if one or more 3D Space types such as Blocks, Compartments, or Service Spaces were selected to be included when creating the 3D model, or the eShare administrator has uploaded maps for the project.

6.1. Using maps

You can use the map to quickly move around in the 3D model. You can select which 3D Space type to show in the map. The map view is split into two parts; the upper part shows a side view of the model, and the lower part shows a top view.

The map shows the boundaries of the 3D Spaces with white lines, and small triangles indicate your current camera location and viewing direction in relation to those 3D Spaces. If the triangle is not filled with color, you are outside the area covered by the map. The map also shows the clipping box, if you have defined one.

If you have enabled the map levels, eGo shows the levels on the map as gray lines. eGo also shows the level names in the side view.

Prerequisites

- 3D model contains at least one type of 3D Spaces.
- You can specify visualization settings that affect maps, as described in Visualization / General.
    - You can select the map viewing mode (view maps either on solid background, using map preview where map is overlayed with the 3D view, or an eShare map).
    - You can select whether to display markers and smart points.

Do the following:

1. In the 3D view, select 

to open the map view.
2. To enable map levels, select 

.
3. To enable map preview, select 

.
4. To enable viewing eShare map, select 

.
    - Double-click or double-tap a location in the map to jump to that location in the 3D view.
    - Click or tap a Markup, point cloud, or Smart Point to jump to its location in the 3D view. If there are overlapping points, a selection opens for selecting the correct point.
    - Camera location is shown on the map as a point with arrow, pointing towards the view direction.
    - To select which point types (Markups, point clouds and Smart Points) are visible on map, select 

and select the point types to be shown.
    - Synchronization of maps is configured in Project synchronization settings.
    - To return to viewing an eGo map, select 

.

    Note: If you enable eShare map in a project, the setting stays enabled even when switching between projects.

5. You can click or tap anywhere in the map to change your location.
6. You can use a mouse or keyboard to move around or change viewing direction. See Gestures and navigation.
7. To return to the 3D view, select 

.

7. Markups

In the **Markups** view, you can manage markups. Markups allow the stakeholders of a design project to add comments and status information to the 3D model, and to share the information with other users. Markups typically describe some changes that must be done to a specific part of the model, by showing a screen capture where the user has described the changes with drawing tools and text. You can also use eGo to attach photos to markups and upload them to eShare.

If you have sufficient permissions, you can see, edit, create, and delete markups. In **Global Settings > Synchronization** you can define whether you see all markups, or only the markups that you have created or modified, as described in Markups.

After you have created or modified a markup, synchronize the model with eShare. Synchronization can fail, for example, because of changed permissions. If eGo could not synchronize the markup, eGo asks you if you want to interrupt synchronization or copy the unsynchronized markups to the recovery folder. When you synchronize the model again, eGo attempts to resynchronize the items in the recovery folder.

7.1. Using the markups view

The **Markups** view shows the existing markups as tiles arranged in a grid that is sorted by date, from newest to oldest. Markups can be viewed in any coordinate system and the reference coordinates shown match the currently active coordinate system.

Each tile shows the following information:

- Thumbnail image
- eShare synchronization status:
  -  – Markup is new or has been edited, and changes have not been synchronized to eShare.
  -  – Markup has been synchronized to eShare.
  -  – Markup has not been synchronized from eShare.
- Title
- User who created or last modified the markup
- Status as New, Approved, Disapproved, or Done

Note: The status text is colored according to importance; the text is gray for 'Low', white for 'Normal', and red for 'High' importance.

- Date when created or last modified
- Latest comment

Selecting a markup tile sets the 3D view to the location of the markup, and the markup editor opens.

7.2. Creating a new markup

Typically, you create a new markup to request a change to be made to the model.

Prerequisites

- You have the permissions to create markups. Otherwise, the New button is not available to you.

Do the following:

1. In the 3D view, navigate to the location where you want to add the markup, and then select Markups to open the **Markups** view.
2. In the **Markups** view, select New.
3. If the **Select Markup Type** view opens, select the type of markup to create.
4. Enter a name for the new markup and select **OK**.

5. Optionally, enter a comment about the new markup and select **OK**. To not enter a comment, select **Cancel**.
6. Select the initial status.
7. Select the initial importance level.
8. If the **Select New Assignee** view opens, select the name of the user who should handle the markup or select "Unassigned" to not assign the markup to anyone yet.
9. You might be prompted to define a value for one or more attributes. Select or type the given value, as appropriate.
10. If there are multiple groups or a position ID that could be used as a linked reference object, you will be prompted to select a related object.
11. Select **OK** to continue.

Results

The new markup is added to the top of the **Markups** list.

Related Actions

Go to the **Models** view and select  to upload the new markup to eShare.

7.3. Creating a new markup in fast mode

Typically, you create a new markup to request a change to be made to the model.

Prerequisites

- You have the permissions to create markups. Otherwise, the  button is not available to you.

Do the following:

1. Open the project in 3D view.
2. Select the object to which you want to add a markup.
3. In the properties pane, select  .
4. Select the markup Type from the list.
5. If there are multiple groups or a position ID that could be used as a linked reference object, you will be prompted to select a related object.
6. The markup opens in Take a photo for the markup view.

7. Select  to take a photo.
8. If you are not happy with the result, select  to reject the photo.
9. To use flash, select  .
10. If you want to change the camera settings before taking a new photo, select  .
11. When you are happy with the result, select  to approve the photo and close the camera view.
12. The markup editor opens. Make the needed additions to the markup. See Using the markup editor for more information.
13. Select  to save the markup with default values. The name is automatically generated and it contains user name, date, and time.

Results

The new markup is added to the top of the **Markups** list.

Related Actions

Go to the **Models** view and select  to upload the newmarkup to eShare.

7.4. Using the markup editor

Use the markup editor to highlight specific aspects of the model with drawing and text tools. You can also add detailed model information by taking measurements and adding coordinate labels to objects.

Prerequisites

- You have the permissions to modify markups. Otherwise, you cannot open the markup editor.

Do the following:

1. In the main menu of the 3D view, select  to open the **Markups** view.
2. Select a markup from the list. The Markup editor and the properties pane open.
3. You can add measurements and labels.
    - Use the drop-shaped tools to add measurements, coordinate labels, and information labels to themarkup.

Tool	Description
	**Orbit Point** To specify a point around which the 3D view orbits, instead of orbiting around the user's viewing point. (Not displayed in the **Markups** view.)
	**Measurement** To add a measurement, first drag one measure droplet to the starting point, and then drag another measure droplet to the end point. The measuring tool can snap for example to connection points and pipe centerlines.
	**Coordinate Label** To add a coordinate label, drag the label droplet to the required position.
	**Information Label** To add an information label, drag the label droplet to the required position.

- To remove a measurement or label, first select the entity to display its droplet, and then drag the droplet to the trash can in the toolbar.

4. You can capture a photo.
   a. Select  . The camera view opens, and the camera of the device is switched on.
   b. Select  to take a photo.
   c. If you are not happy with the result, select  to reject the photo.
   d. To use flash, select  .
   e. If you want to change the camera settings before taking a new photo, select  .

   Camera Settings

Low resolution preview	• **Yes** – Use low resolution preview. • **No** – Use high resolution preview.
Flip camera feed	• **Yes** – Upside down camera view. • **No** – Normal camera view.

Video Source	
Video Capture Device	When the device has multiple cameras, for example front and rear camera, select which one to use.
Video Resolution	Select the video resolution to use.
Barcode Formats	
Available Barcode Formats	Select the barcode format or formats that you want to use. • AZTEC • CODABAR • CODE_39 • CODE_128 • EAN_8 • EAN_13 • ITF • MAXICODE • PDF_417 • RSS_14 • RSS_EXPANDED • UPC_A • UPC_E • AII_1D • UPC_EAN_EXTENSION • MSI • PLESSEY • QR_CODE • CODE_93 • DATA_MATRIX
Selected Barcode Formats	The barcode formats that you have selected.

f. When you are happy with the result, select 

to approve the photo and close the camera view.

5. You can use 2D drawing tools.

a. Select 

. Drawing tools are displayed on the left.

b. Add text.

   i. Select 

.

   ii. Enter the text to add, and select **OK**.

   iii. Drag the text to the required position.

   iv. Drag one of the four corner points to resize the text.

   v. Select 

to change the color of the text.

c. Draw a cloud shape.

   i. Select 

.

   ii. Draw the cloud shape.

   iii. Drag one of the four corner points to resize the cloud.

   iv. The cloud shape consists of small curve pieces, and you can modify the shape by dragging the curve end points.

   v. Select 

to change the color of the cloud.

d. Draw an arrow.

   i. Select 

.

   ii. Draw the arrow in the required position.

   iii. Drag the starting point or the end point to change the length of the arrow.

   iv. Select 

to change the color of the arrow.

e. Draw freehand lines.

   i. Select 

.

   ii. Draw lines as required.

   iii. The lines consists of short segments, and you can modify the lines by dragging the segment node points.

   iv. Select 

to change the color of the lines.

f. Delete an element from the drawing.

   i. Select the element to be deleted.

   ii. Select 

.

g. Change the color of an element.

i. Select the element.

ii. Select 

.

iii. Select the color from the list.

h. Move or rescale a 2D element.

i. Select the element.

ii. Move the element by dragging.

iii. Make the element bigger or smaller by dragging its corner points.

6. You can add a comment.

a. Select 

.

b. Enter a comment, and select **OK**.

Note: Even though eGo only shows the latest comment in the Markup tile, the complete history of comments and other changes is recorded, and after synchronization to eShare the latest comment as well as all previous comments can be viewed in eShare.

---

7. You can select the viewing mode.

a. Select 

to show the 3D model using current object visibility settings.

b. Select 

to show the current view and the original view at the same time.

c. Select 

to show the 3D model as it was in the original Markup.

d. Select 

to view the photos added to the Markup. You can use drawing tools to draw on the photo view. All photos display the drawing.

8. You can edit the Markup properties.

In the properties pane, click the value field of the setting you want to change.

- **Importance** – Select a new importance value from the list.
- **Status** – Select a new status value from the list.
- **Assignee** – Select to whom to assign the Markup or "Unassigned", as appropriate.
- **Markup Custom Attributes** – Change the values of custom attributes, as appropriate.

9. Select 

to save the changes and return to the **Markups** view.

Results

The photos, 2D drawings, and comments you added or modified are stored in the Markup.

Related Actions

Go to the **Models** view and select  to upload the changes to eShare.

7.5. Deleting markups

You can delete redundant markups, regardless of who has created them.

Prerequisites

- You have the permissions to delete markups. Otherwise, the delete button is not available to you.

Note: Deleting markups in eGo will delete them also from eShare during the next synchronization.

Do the following:

1. In the main menu of the 3D view, select  to open the **Markups** view.
2. Use the **Filter** field if needed to locate the markups to be deleted.
3. Select  to enable the markup deletion mode.
4. To delete a markup, select the markup from the list, and select **Yes** when prompted to approve the deletion.
5. When you have deleted all redundant markups, select  to disable the deletion mode.
6. Select  to return to the 3D view.

Related Actions

Go to the **Models** view and select  to upload the changes to eShare.

8. Smart Points

Smart Points are specialized markers that are linked to an object or object group and display information about that entity. You can add Smart Points also in the bubble view of a point cloud. The information that a Smart Point contains can be user-defined or obtained from an external system or database—as defined in the Smart Point Type configuration in eShare. Smart Points can be seen as icons in the 3D model, and the user can select a Smart Point to see the information that it contains. If the Smart Point uses attributes, the user can also add information by editing the attribute values. Smart Points can be created and modified in both

eShare and eGo, and the changes can be synchronized from one program to the other. Accordingly, Smart Points can be used to quickly add status information or other comments during a meeting or an on-site visit.

If you have sufficient permissions, you can see, edit, and create Markups in eGo. In **Model Settings > Visualization / 2D** you can define whether Smart Points are shown in the 3D view, as described in Smart Points. After you have created or modified a Smart Point in eGo, synchronize the model with eShare.

Note: eShare synchronization can fail, for example, because of changed permissions. If eGo could not synchronize the Smart Point, eGo asks you if you want to interrupt synchronization or copy the unsynchronized Smart Points to the recovery folder. When you synchronize the model again, eGo attempts to resynchronize the items in the recovery folder.

8.1. Creating a new Smart Point

You can create new Smart Points to add object-specific information to the 3D model.

Prerequisites

- The project administrator has created the required Smart Point Type for this project.
- You have the permissions to create Smart Points of the given type. Otherwise, the  button is not available to you.

Note: You can use the same button to add also Markups if you have permissions to create them. See Creating a new markup in fast mode.

Do the following:

1. Open the project in the 3D view.
2. Select the object to which you want to add a Smart Point.
3. In the properties pane, select  .
4. Select the Smart Point Type from the list.
5. Enter a name for the new Smart Point and select **OK**.
6. You might be prompted to define a value for one or more attributes. Select or type the given value, as appropriate.

7. If there are multiple groups or a position ID that could be used as a linked reference object, you will be prompted to select a related object.
8. Select **OK** to continue.

Results

eGo adds the Smart Point to the location that you selected in the 3D view.

Related Actions

Go to the **Models** view and select  to upload the new Smart Point to eShare.

8.2. Editing Smart Point attributes

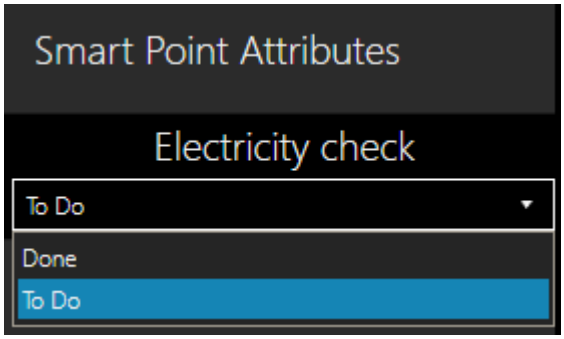
If the Smart Point uses attributes, you can change the attribute values in the properties pane.

Prerequisites

- You have the permissions to modify Smart Points of the specified type.

Do the following:

1. Open the project in the 3D view.
2. Locate and select the Smart Point that you want to modify. The properties pane opens, displaying the Smart Point details.
3. In the **Smart Point Attributes** section, select the value field of the attribute you want to modify and change the value as appropriate, by typing or by selecting a predefined value from a list.



4. Select  to close the properties pane.

Related Actions

Go to the **Models** view and select  to upload the change to eShare.

8.3. Deleting Smart Points

Smart Points cannot be deleted in eGo.

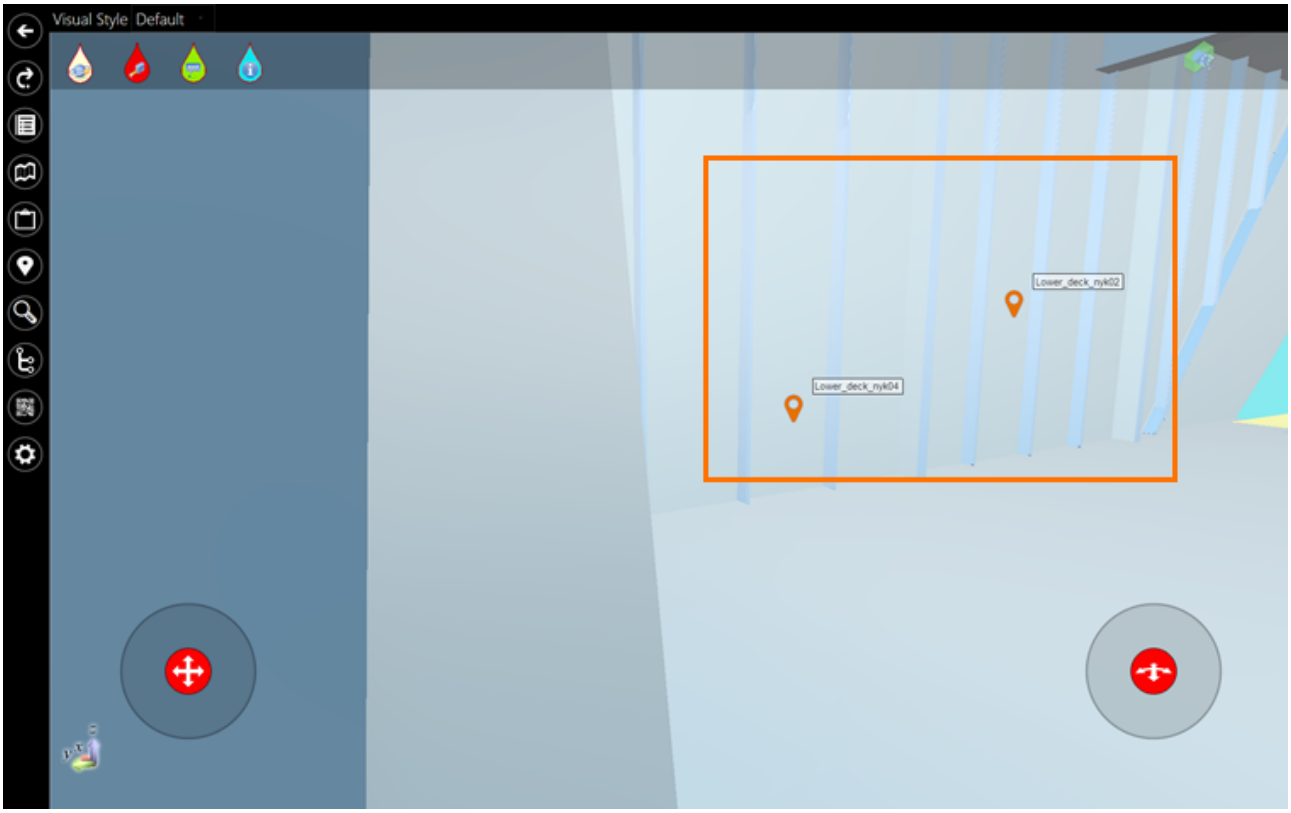
Use eShare or eShare App to delete redundant Smart Points from the model, and then in eGo synchronize the model from eShare.

9. Point clouds

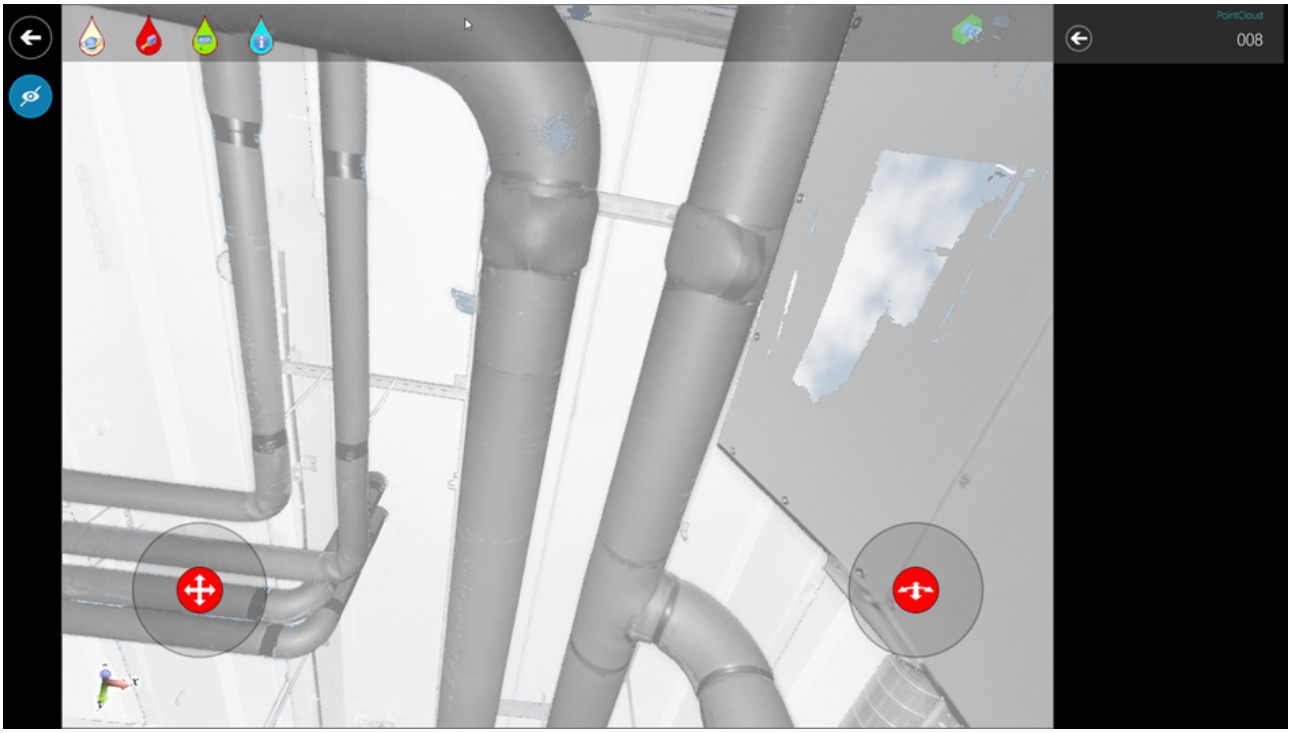
Point clouds represent existing structures that have been scanned with a 3D scanner. Use point clouds, for example, to see how old and new structures fit together when redesigning an existing building or ship.

When the eShare administrator has imported point clouds to the eShare server, after synchronization you can see them also in eGo. Point clouds are in the model tree in a separate **Point Clouds** branch. The subnodes of the branch are in alphabetical order.

eGo shows the point cloud scanner locations with the point cloud scanner's name also in the 3D model. You can access the bubble view by tapping the point cloud scanner symbol.



In eGo, you can view point clouds both from the eShare server and offline, synchronize point clouds from the eShare server, and select point clouds for offline viewing. If the model has Smart Points or Markups, also they are shown when you are viewing the point cloud.



9.1. Viewing point clouds

Open the point clouds from the model view. You can navigate the point cloud in the same way as the 3D model. See Gestures and navigation.

Note: Point Clouds are always defined in project coordinates.

Do the following:

1. In the 3D view, select 

to open the model tree.
2. Expand the **Point Clouds** branch to get a list of the model's point clouds.
3. Select the point cloud that you want to view. eGo loads the point cloud automatically. If eGo could not connect to the eShare server, eGo displays an error message that indicates that it could not open the point cloud.
4. To view only the point cloud but not the other objects in the model, select 

.

5. Select  to make all other objects except the examined object(s) transparent.
6. Select  to set the selected object(s) to X-ray mode.
7. Select  to add new markup to the point cloud. After entering a name for the markups, it opens in edit mode.
8. To close the point cloud and return to the 3D view, select  .

9.2. Selecting point clouds for offline viewing

You can select point clouds for offline viewing. The point clouds that you have selected to be synchronized for offline viewing are also available when eGo cannot connect to the eShare server.

Do the following:

1. In the 3D view, select  to open the model tree.
2. Select  . eGo displays a list of the point clouds in the project.
3. Select the point clouds that you want to synchronize for offline viewing.
4. Select  until you are in the **Models** view, and synchronize the model from eShare.

9.3. Synchronizing point clouds

To make recently added point clouds available in eGo, synchronize eGo with eShare.

Do the following:

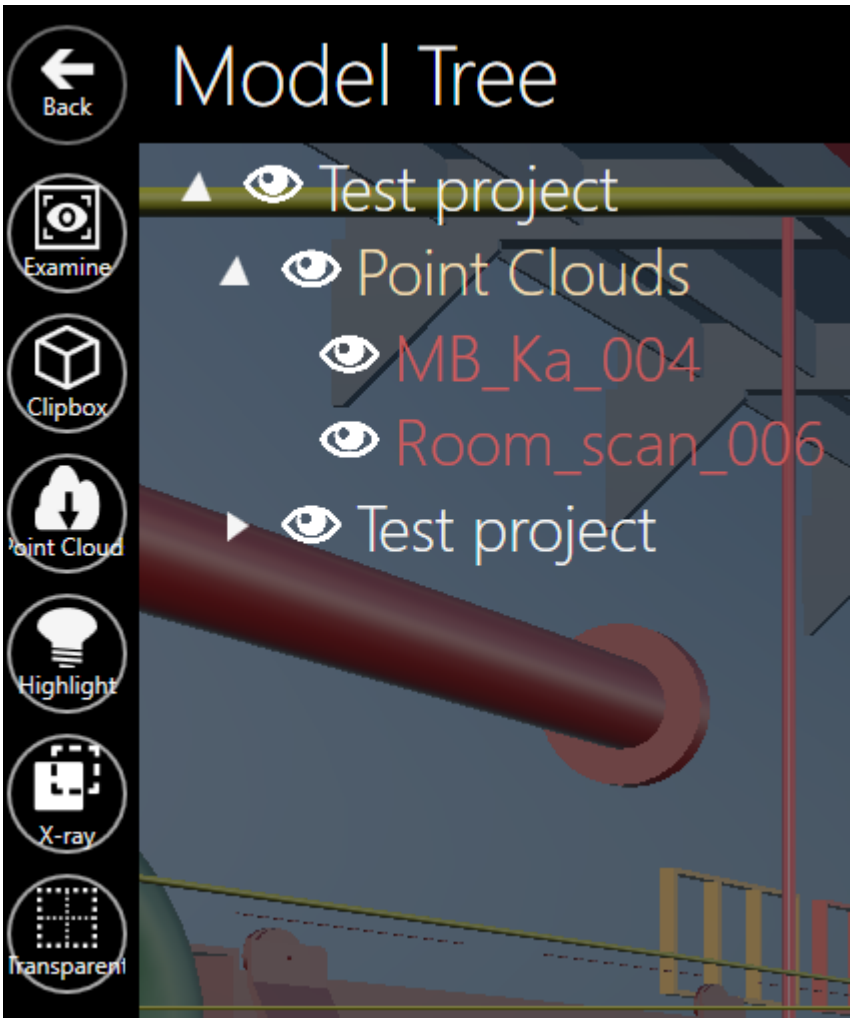
1. Open the **Models** view.
2. Locate the model that you want to synchronize, and select  to synchronize the project.
3. eGo starts to synchronize the project. If eGo cannot connect to eShare, eGo displays an error message.

9.4. Viewing point clouds in offline mode

When eGo is not connected to eShare, you can view the point clouds that you have selected for offline viewing.

If you have synchronized point clouds to eGo, you can also view them when eGo is not connected to the eShare server. In the list of point clouds in the project, the ones that are not available for offline

viewing are displayed in red.



If eGo is not connected to eShare but you select a point cloud that has not been synchronized for offline viewing, eGo displays an error message.

Do the following:

1. In the 3D view, select  to open the model tree.
2. Expand the **Point Clouds** branch to view the point clouds of the model.
3. Select the point cloud that you want to view.
4. eGo loads the point cloud.
5. To close the point cloud and return to the 3D view, select  .

10. Clip box

In the 3D view, you can use a clip box to limit the visible area of the model, so that you can easily review all the objects inside a certain block or compartment.

You can clip the model using the sides of the clip box parallel to the model's main planes (normal to main axis X, Y, and Z). If the boundaries of the clip box intersect with an object, you will not see those parts of the object that are outside the clip box.

Enable the clip box from the 3D view if you want to examine a certain area, or from the model tree if you want to view a certain object in a clip box.

You can store the currently visible clip box by creating a new scene. When you return to the scene, it shows the clip box, as described in Places.

10.1. Enabling the clip box in the 3D view

Enable the clip box to see fewer items in the 3D view.

Do the following:

1. In the 3D view, select the clip box icon  in the top-right corner.
2. The control box icon  appears next to the clip box icon.
   The clip box settings are displayed at the bottom of the screen. Use the sliders and menus to

adjust the size of the clip box.

10.2. Opening objects in a clip box

You can open an object or objects in the clip box view from the model tree view. The clip box also includes other objects or parts of other objects that fit in the clip box, that is, eGo does not hide them.

Do the following:

1. In the 3D view, select 

. The **Model Tree** view opens.
2. Select the object or object hierarchy that you want to open in a clip box.
3. Select 

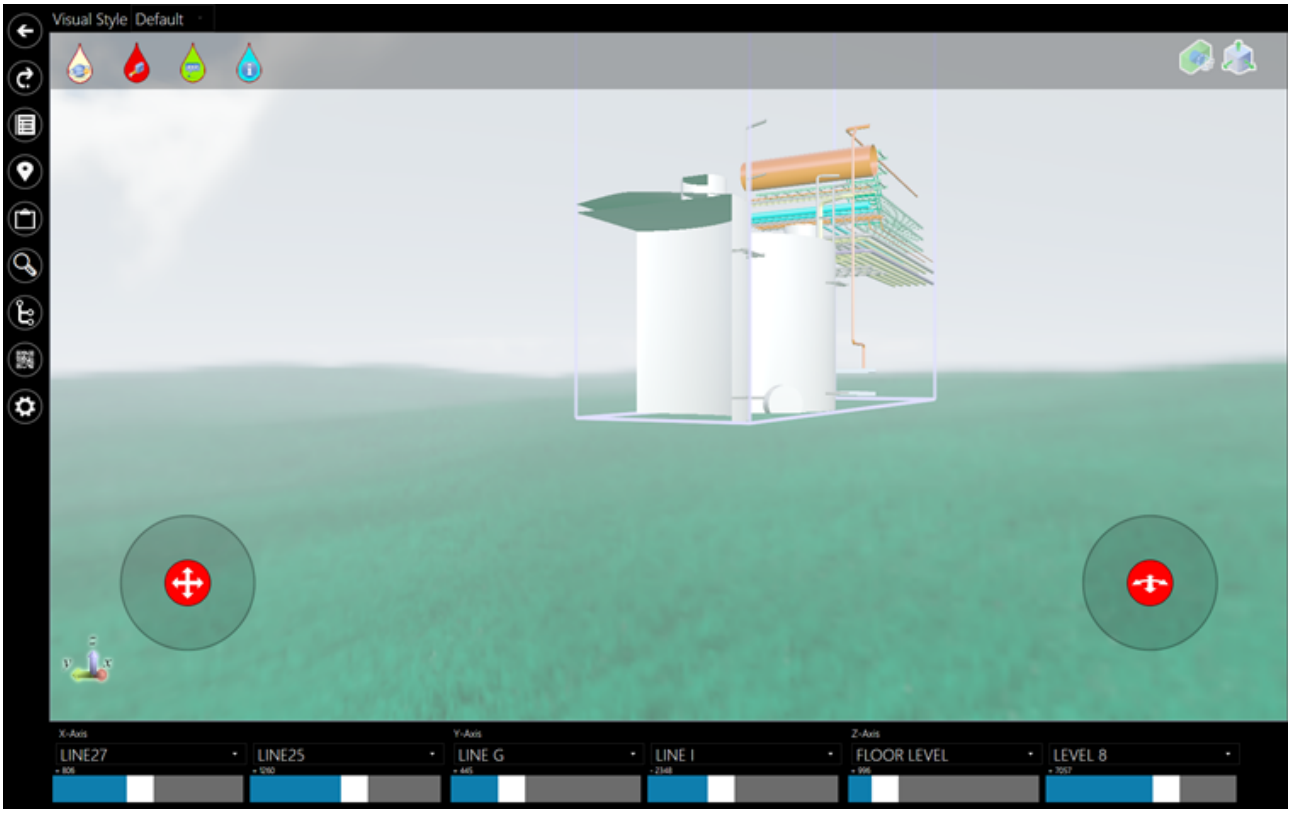
and then 

. The 3D view opens.
4. In the 3D view, the object is enclosed in the clip box. You can adjust the size of the clip box as needed.

10.3. Adjusting the size of the clip box

You can adjust the size of the clip box, as needed.

When the clip box settings are displayed at the bottom of the screen, drag the sliders to resize the clip box area, or select the appropriate coordinate levels from the menus. eGo clips the model according to your selection.



You can move in the clipped area and select objects.

You can also adjust any of the sides of the box by using a finger or by holding down the right mouse button and dragging.

To return to the non-clipped model, select the clip box icon  in the top-right corner.

11. Search

In the **Search** view, you can find objects or object groups based on a search string, and then open the found entity in the 3D view. The search can find text from the name of the object or object group, or from model attributes that are designated in eShare as a "Key Attribute" or "Group Defining Attribute". The search is not case-sensitive.

11.1. Using the search

Use the search to find an entity from the 3D model.

Do the following:

1. In the 3D view, select 

.
2. To use quick search, enter the search string in the **Quick Search** box, and select **OK**.
   You can set the search result list to show either **Objects** or **Groups**. Select an entity from the list to display it in the 3D view, or you can select 

to examine all listed objects or groups.
3. To use Advanced search, select **Cancel** in the **Quick Search** box.
   In the Advanced search, you can do the following:
   - Enter search terms using different operators. To start search, select 

   - Select **Add search term** to add more search terms.
   - Select 

to remove search terms.
   - Select 

to do a quick search.
   - Select 

to search from Smart Points. Enter the search string, and select **OK**.
   - Select 

to search from documents in eShare. Enter the search string, and select **OK**.
     If the searched object does not exist in the current submodel, eGo will show a prompt.
   - Select 

to search from Markups. Enter the search string, and select **OK**.

   If the search found only one entity, the entity is automatically displayed in the 3D view.
   If the search found multiple entities, the search results are shown.
   Select an entity from the list to display it in the 3D view, or you can select 

to examine all listed objects or groups.
4. In the 3D view, you can do the following:
   - Select 

to hide all other entities.
   - Select 

to return to search results (if there were multiple results).
   - Select 

to hide 3D Spaces.
5. To exit the search, select 

.

12. Model tree

In the **Model Tree** view, you can browse the object hierarchy list of the model.

12.1. Using the model tree

You can navigate to a specific object in the 3D model by browsing a hierarchical object tree.

Do the following:

1. In the 3D view, select 

. The **Model Tree** view opens, and if tree preview has been enabled in model settings you see the 3D model in the background.
2. Select the required tree-sorting method from the drop-down menu in the top-right corner.
3. Select an object and then 

to close the model tree and examine the object or object group in the 3D view.
4. Select 

to hide all other objects from the 3D view.
5. Select 

to fit clip box into selected object(s). When used in examine mode, the clip box will disappear after exiting examine mode.
6. Select 

to toggle the visibility of the 3D spaces related to the object.
7. Select 

to make all other objects except the examined object(s) transparent.
8. Select 

to choose point clouds for offline use.
9. Select 

to highlight selected object(s).
10. Select 

to set the selected object(s) to X-ray mode.
11. Select 

to make the selected object(s) transparent.
12. Select 

to return to the main 3D view.

Related Topics

Model settings

13. Model settings

In the **Model Settings** view, you can adjust model-specific settings such as visualization, displaying of virtual joysticks, and measurement units.

13.1. Visualization / General

Flip Horizontally	• **Yes** – Horizontally mirrored camera view. • **No** – Normal camera view.
Tree Preview	• **Yes** – The **Model Tree** view is displayed on top of the 3D view. • **No** – Do not use tree preview.
Flip Camera	• **Yes** – Upside down camera view. • **No** – Normal camera view.
Invert Turning	Available when **Flip Camera** is set to **Yes**. • **Yes** – Inverted horizontal panning. • **No** – Normal horizontal panning.
Split Screen	• **Yes** – Split screen in use. • **No** – Split screen is not in use.
Projection Mode	• **Perspective** – Perspective view in use. • **Orthographic** – Orthographic view in use.
View Angle	• **EBM Defined** (default) – Use the viewing angle defined in the 3D model. • **Tele (30°)** • **Normal (50°)** • **Wide Angle (90°)** • **Fish Eye (120°)**
Coordinate System	Select the used coordinate system from the options available.

13.2. Visualization / 3D

Show Welds	• **Yes** – Show welds.

	• **No** – Do not show welds.
Edges	• **Yes** – Draw the edges of objects. • **No** – Do not draw object edges.
Connection Points	• **Yes** – Show the connection points (nodes) of equipment and pipes. • **No** – Do not show connection points.
Insulations	• **Hide** • **Semitransparent** • **Transparent** • **Opaque**
Select Background	• **Gradient Blue** – Use a gradient color background. • **Solid Black**, **Solid White** – Use a solid color background. • **Default** – Use the default background of the application. • **EBM Defined** – Use the background defined in the 3D model. (If not defined, use the default background of the application.) • **Desert2**, **Grass_field5**, **Ocean2** – Use a background that displays desert, grass field, or ocean.

13.3. Visualization / Clip box

Clipped Objects	• **Solid** – Show clipped surfaces as solid. • **Hollow** – Show clipped surfaces as hollow.
Fit To Extents	Expands the clip box to the maximum values, that is, the whole model.

13.4. Visualization / Information displays

Show Coordinates	• **Yes** — Show current camera coordinates at the bottom of the 3D view. By default it shows named coordinates, but if named coordinates are not available, Cartesian coordinates are shown instead. • **No** — Do not show camera coordinates.
Coordinate Axes	• **Yes** — Show the main axis marker in the bottom-left corner of the 3D view. • **No** — Do not show the main axis marker.
Visual Style Legend	• **Used** — Show only the visual styles of visible objects in the visual styles legend. • **All** — Show all visual styles in the visual styles legend.
Object Identification Labels	• **Yes** — Show object identification labels in the 3D view. The label shows primarily the value of a key object tag such as object name, and secondarily the value of the *pli* tag—if object has neither of these, the label is not shown. • **No** — Do not show object labels.
ID Label Config	Opens the **Label Config** view for selecting which attributes to show in addition to the ones that are shown by default.
Font Size	Drag the slider to increase or decrease the font size.

13.5. Visualization / 2D

Markers	• **Yes** — Show markers in the 3D view. • **No** — Do not show markers.
Info Label Config	Opens the **Label Config** view for selecting which attributes to show in addition to the ones that are shown by default.
Smart Points	• **Yes** — Show Smart Points in the 3D view. • **No** — Do not show Smart Points.
Markups	• **Yes** — Show markups in the 3D view. • **No** — Do not show markups.
Scanners	• **Yes** — Show point cloud scanner points in the 3D view. • **No** — Do not show point cloud scanner points.

Snap	• **Yes** — Measuring tool snaps to 2D lines. • **No** — Do not use snapping.
Measure Angles	• **Yes** — Measuring tool shows angle information. This can be the angle between two lines or the angle of a single line in reference to the XY-plane. • **No** — Measuring tool does not show angles.
Reference coordinate grid	• **Yes** — Show reference grid lines. • **No** — Do not show reference grid lines.
Measure Units	• **Millimeters (mm)** • **Centimeters (cm)** • **Meters (m)** • **Inches (1/16)** • **Feet + inches (1/16)**
Drop Size	Drag the slider to increase or decrease the size of the drop tools.

13.6. Movement

Virtual Joystick	• **Yes** — Show the virtual joysticks in the 3D view. • **No** — Do not show the virtual joysticks.
Virtual Joystick Speed	Drag the slider to change the speed of the virtual joysticks.
Virtual Joystick Alignment	• **Top** • **Center** • **Bottom**

13.7. Advanced

Screen space ambient occlusion (SSAO)	• **Yes** — The screen space ambient occlusion technique is used to approximate the occlusion (diminishing) of light on objects in shaded views. This technique provides realistic, real-time shading effects without putting too much stress on the hardware. • **No** — Do not use screen space ambient occlusion.
Image-based	• **Yes** — The background image is used for applying lighting effects to shaded views; use the slider to adjust the intensity of lighting.

Lighting	• **No** — If image-based lighting is disabled, the more realistic background images cannot be used.
Lighting Intensity	Drag the slider to increase or decrease the intensity of lighting.
Occlusion culling	• **Yes** — Use occlusion culling. • **No** — Do not use occlusion culling.

14. eShare documents

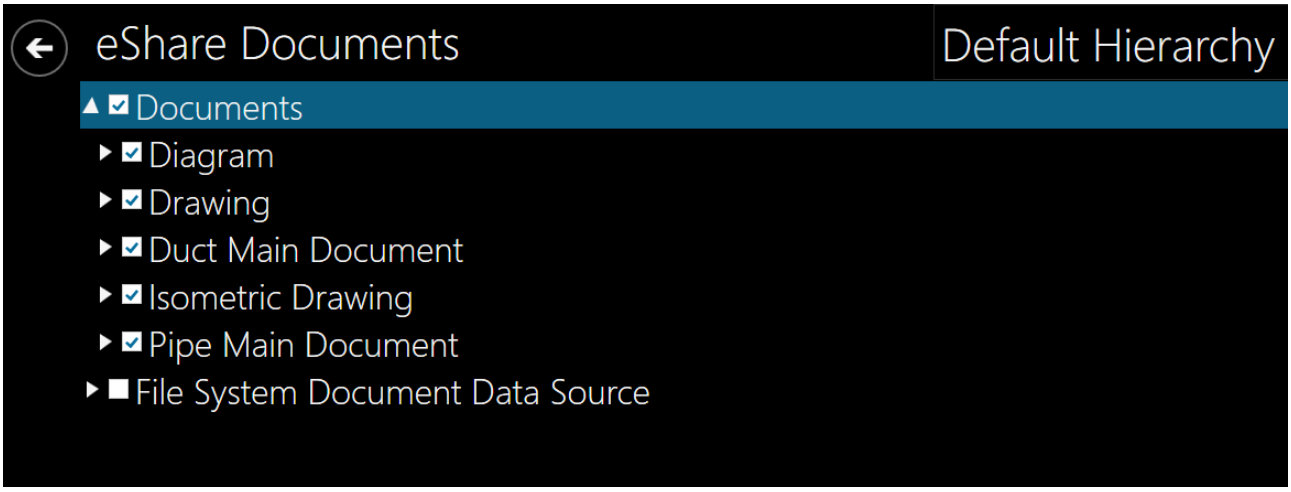
In the **eShare Documents** view, you can see the project document list retrieved from CADMATIC eShare during the last synchronization, select which documents to make available for offline viewing, and open directly supported documents using either a built-in document viewer or the default viewer of the tablet device, as specified in Global settings. If the document has links to 3D model objects and the linked objects are present in the eGo model, selecting such link opens the associated object in the 3D view.

14.1. Using the document list

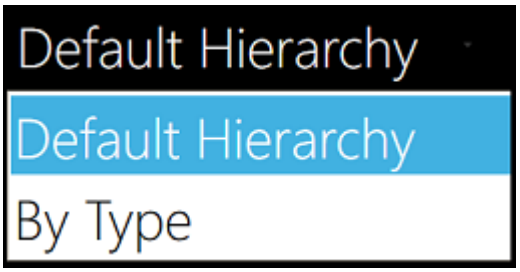
As eShare can get documents from various sources, the document list is arranged by source. For example, documents that CADMATIC Plant Modeller has sent to eShare are in a different node than documents that eShare has retrieved from the file system. There might also be image files as well as file types that eGo cannot open. You can open the unsupported files in the associated application or download the files to your device.

Some branches of the document list hierarchy are not retrieved until the user opens them, if the data sources have been configured dynamic by administrator in eShare. To enable the dynamic loading,eGo must have a connection to eShare.

eGo's internal document viewer converts multi-page documents one page at a time. If you have opened the page earlier and it is up-to-date, eGo shows the page from the cache.



If additional document hierarchies have been defined in eShare, you can select the hierarchy to use from the drop-down menu in the upper right corner.

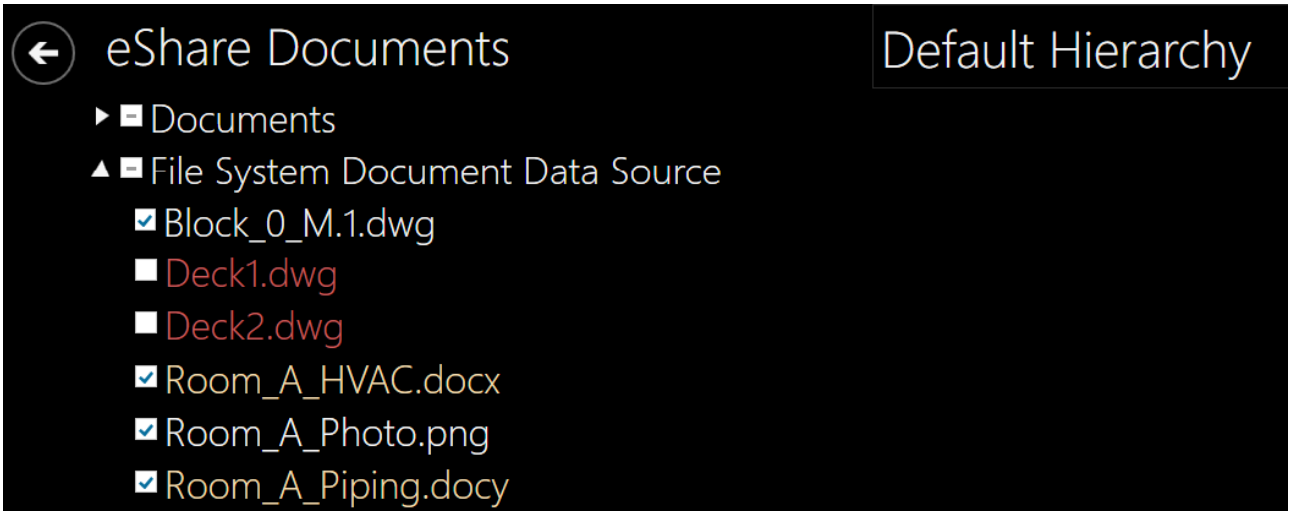


14.2. Opening a document

You can open a document in the following ways:

- Click a document link in the properties pane of the 3D view.
- Double-click or double-tap a document name or branch name in the **eShare Documents** view. The color indicates availability:
  - White name indicates that the document or branch is available and eGo can open it.
  - Yellow document name indicates that the document is available but it uses a file type that eGo cannot open. If you select to open such document, you are prompted whether to try to open the document in another application (select **Yes**) or copy the document's URL to the clipboard (select **No**). If you try to open the document and its file type is not associated with any application, eGo displays a message that the document could not be opened.
  - Red name indicates that the file or branch is not available—eGo is not connected to eShare and you have not selected the document to be available offline or eShare

administrator has configured the branch as dynamic. If you try to open the document, eGo displays a message that the document could not be opened.



Note: If eGo is configured to use the default third-party document viewer installed in the tablet device, the document viewer opens outside the eGo user interface.

14.3. Making documents available offline

You can make documents to be available also when eGo is not connected to eShare.

Make all documents available offline

- Go to **Global Settings**, and in the **Synchronization** section set **Synchronize Documents by Default** to "Yes", as described in Global settings.

Make selected documents available offline

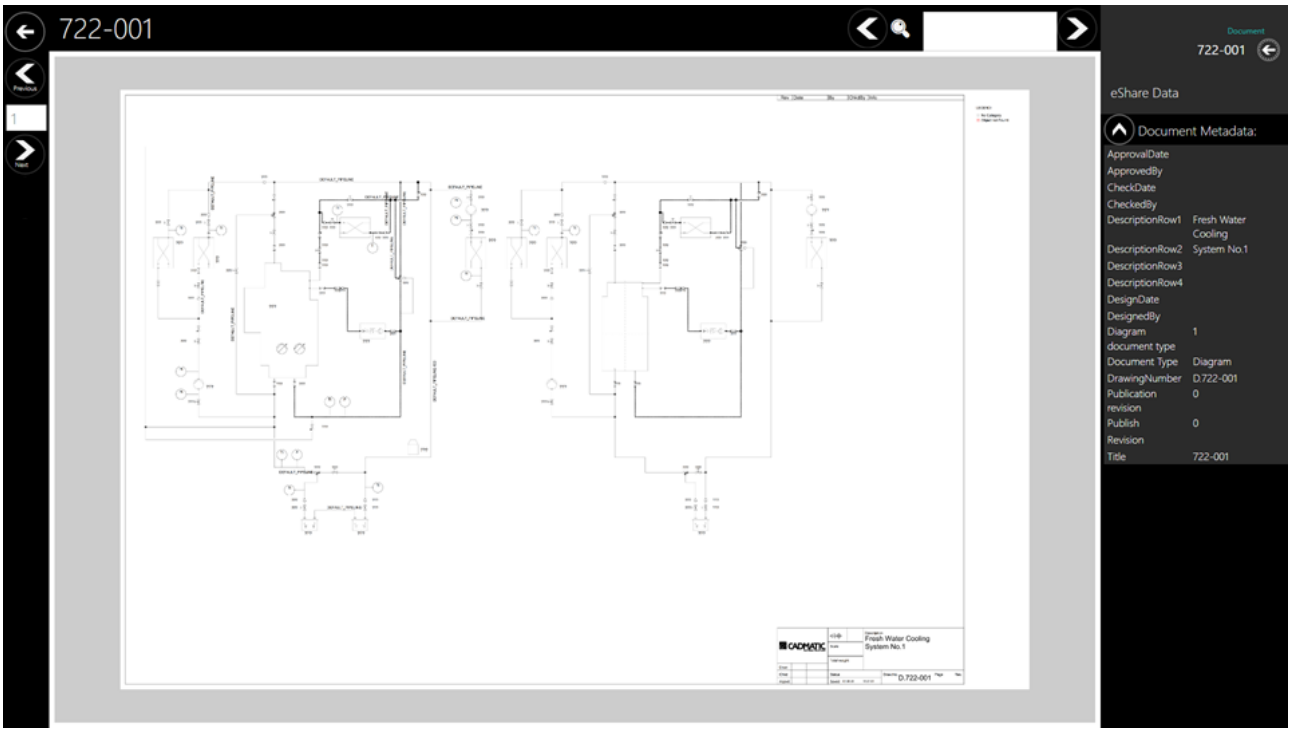
- In the **eShare Documents** view, select the check box of the documents you want to access offline.

Synchronize offline documents

- Go to the **Models** view and select  . eGo downloads the documents you have selected for offline use and removes the offline copy of the documents whose check box you have cleared. See Synchronizing eShare models.

14.4. Built-in document viewer

When you open an eShare document and eGo is configured to use the built-in viewer, opening a document from a link in the 3D view automatically zooms to the right object and you can use the search tool to find text from the hyperlinks in the document. When eGo is connected to eShare, the properties pane displays document metadata from eShare. The document can also contain links to other documents, or Smart Points. Click on the link to open the linked document, or Smart Point. If the link contains links to multiple objects, Smart Points, or documents, select the correct one from the list.



Find text from links

The built-in document viewer displays a search box for finding a text string from object links (not from object labels) in the currently displayed document.

As you start typing the text string into the search field, the document automatically zooms to the first instance of the text string it finds from the document, and you can use the navigation buttons around the search box to jump to another instance.

Zoom

 — Use the +/- buttons of the on-screen toolbar or the mouse wheel to zoom in/out.

Previous/next

 — Use the Previous and Next arrow buttons of the on-screen toolbar to move to another page in the document. You can also enter a page number in the field to go directly to that page.

Keyboard

If your tablet has a keyboard, you can use the following keys to navigate in the document viewer:

- **Arrow keys** – Move left, right, up or down in the current page.

Mouse

If your tablet has a mouse, you can use the mouse wheel to zoom in and out.

15. Read QR code

In the **Read QR Code** view, you can scan a QR code with the device camera to open the 3D object, document, or smart point described in the QR code. If the device has multiple cameras, you can select which one to use for reading QR codes.

If your site uses custom QR codes and CADMATIC eShare administrator has prepared a script that enables eGo to read such QR codes, synchronizing the model with eShare as described in Synchronizing eShare models will download the script into the project. Then, if the QR reader cannot read a QR code with the default method intended for QR codes generated by eShare, it tries to read it with the script.

15.1. Reading a QR code

eGo can read QR codes from eShare model objects and eShare documents. The QR code can be either on a screen or in a print-out.

Do the following:

1. In the 3D view, select  .
   The **Read QR Code** view opens, and the camera of the device is switched on.
2. Point the camera toward the QR code to be read.
3. If there are problems reading the code, try the following:
   - Adjust the reading distance by moving the camera closer to or away from the QR code.
   - Change the camera settings. See Specifying camera settings.

Results

If the 3D object described in the QR code is found from the model, the 3D view opens and displays the object. If the QR code contained specific camera coordinates, the camera is set to use those coordinates.

If the QR code finds several objects from the model, the search result list is shown. See Search for more information.

15.2. Specifying camera settings

You can define camera settings, for example to switch to a different camera or to accommodate the QR reader for codes that are difficult to read.

Do the following:

1. In the **Read QR Code** view, select  .
2. In the **Camera Settings** view, you can define the following settings.
   You can select one or more barcode formats from the list. The default barcode format is QR_CODE.

Low resolution preview	• **Yes** – Use low resolution preview. • **No** – Use high resolution preview.
Flip camera feed	• **Yes** – Upside down camera view. • **No** – Normal camera view.
Video Source	
Video Capture Device	When the device has multiple cameras, for example front and rear camera, select which one to use.

Video Resolution	Select the video resolution to use.
Barcode Formats	
Available Barcode Formats	Select the barcode format or formats that you want to use. • AZTEC • CODABAR • CODE_39 • CODE_128 • EAN_8 • EAN_13 • ITF • MAXICODE • PDF_417 • RSS_14 • RSS_EXPANDED • UPC_A • UPC_E • AII_1D • UPC_EAN_EXTENSION • MSI • PLESSEY • QR_CODE • CODE_93 • DATA_MATRIX
Selected Barcode Formats	The barcode formats that you have selected.

3. To return to the camera view and use the specified settings, select 

.

16. Command line usage


You can run CADMATIC eGofrom a command prompt window or a batch file. You can use this, for example, to schedule a Windows task that automatically synchronizes project data with eShare at a time when eGo is normally connected to eShare and you are not using it.

16.1. Running CADMATIC eGo from command line

You can run eGo from the command line.

Do the following:

1. Open a command-prompt window as a user (*not* as an administrator), and navigate to the folder where *eGo.exe* is located.
2. Run *eGo.exe* with the required parameter. There is a short version and a long version of each supported parameter—you might want to use the long one if putting the commands into a batch file, to enhance readability.

Parameter (option 1)	Parameter (option 2)	Description
-m	--model	Opens the specified model file in eGo and leaves eGo open. This does not add the model to the eGo model folder; if you open the eGo front page, the model is not listed and thus you cannot return to the 3D view. *Syntax:* **ego.exe -m <model>** where *<model>* is the path to the model file (.ebm) to be opened. *Example:* **ego.exe --model "C:\Temp\My First Model.ebm"**
-s	--synchronize	Opens eGo, synchronizes the data of the specified project with the eShare server from which the project was downloaded, and then closes eGo again. *Syntax:* **ego.exe -s <project>** where *<project>* is either the project GUID (same as in eShare) or the project name. The name is not case sensitive; if the name contains spaces, put quotation marks around it. *Example:*

Parameter (option 1)	Parameter (option 2)	Description
		ego.exe --synchronize "my first project"
-d	--description	Opens eGo and sets the title of the eGo window to the specified value. If you have multiple eGo applications open at the same time, naming them makes it easier to switch from one application instance to another. *Syntax:* **ego.exe -d <title>** where *<title>* is the window title to use. If the title contains spaces, put quotation marks around it. *Example:* **ego.exe --description "App 1"**
-h	--help	Displays the command-line help. *Syntax:* **ego.exe -h**