

Project Manager

Tekla Structures 11.0 Basic Training August 16, 2005

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Project Manager

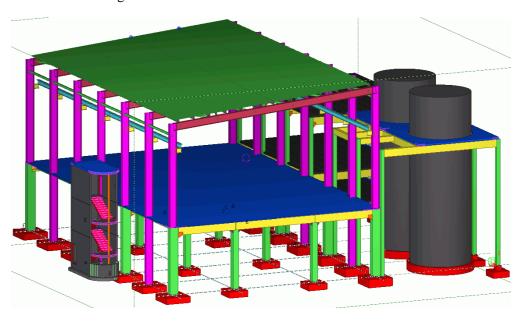
In this lesson

In this lesson we will go through the basic functionalities of Tekla Structures Project Manager. We will open a model and examine it in different ways. We will also learn how to use the 4D tool in different ways. Then we will import attributes, learn to use the 4D tool and learn to make some reports.

In the first section, we will briefly discuss some of the ways to utilize Tekla Structures Project Manager to give you an idea of the possibilities there are.

In this lesson, you will learn how to:

- Create views
- Examine the model
- Create lots and sequences
- Import attributes
- Use the 4D tool
- Create your own reports
- Check drawings.



1.1 About Tekla Structures Project Manager

What is Project Manager?

What is Project Manager? For whom is it intended? What are the benefits?

Tekla Structures Project Manager is add-on software of Tekla Structures to followup the status of the project and review changes that have occurred during a project. It is a means to ensure that the information flow is efficient, both if your company is alone on the project or if there are multiple companies involved.

In Tekla Structures Project Manager, you can contain the follow-up information for the total structural engineering project from conceptual design to fabrication and erection.

In case there is one company involved, it might be the drawing office manager, the fabrication manager, and the account manager who use the program. In case there are several companies involved, it could be the owners, the customers, the fabrication managers, the chief engineers, the project managers, and the drawing office managers who use the program.

What do you use Project Manager for?

What do you use Project Manager for? How do you manage your project with Project Manager?

- The project manager can assign parts of the project to different persons or to other organizations and then follow-up and update the status.
- You can add project data to the structural objects or groups of objects.
- You can follow-up your project visually: you can view different parts in your model by highlighting according to certain criteria or status.
- You can make reports based on the project status, parties involved, dates, etc.
- You can publish your project model on the Web to other parties.
- You can share your model by collaboration: multi-user, share your model.
- You can do status tracking, scheduling, task assignments, visualization, reporting of structure.
- You can view and check drawings.

1.2 Working with Views

In Tekla Structures, you work in views. Each view has properties which define its appearance. In this section, we will learn to open the model to use the view list and to create some new views.

Open the model

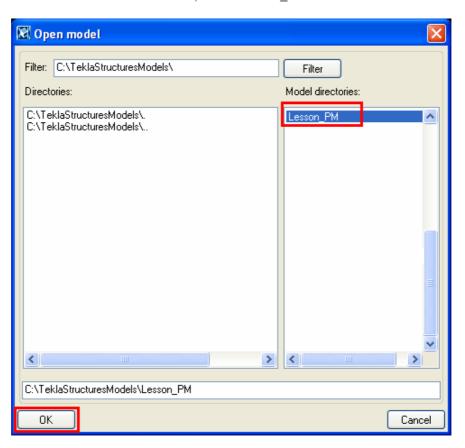
Open the model Lesson_PM.

Open a model

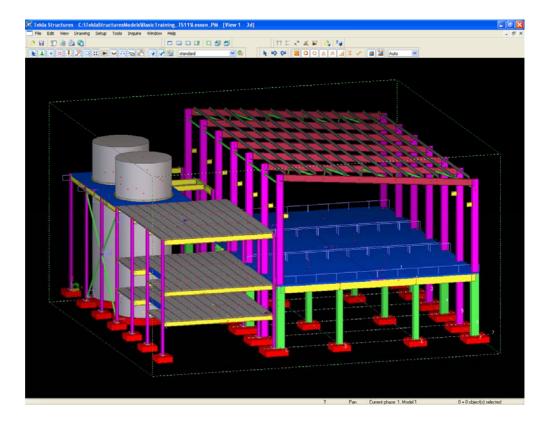
1. Select File > Open... from the pull-down menu or click the Open icon in the Standard toolbar to open the Open model dialog box.



2. In the Model directories list, select Lesson_PM.



3. Click the **OK** button to open the model.



Open the view list

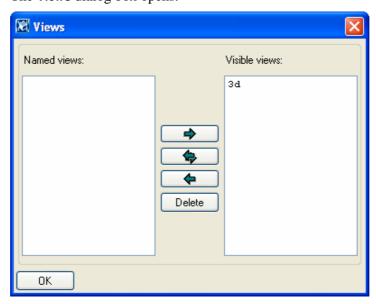
You look at the model in different views. If there are already views created in your model, you can find them by clicking the **Open named view list** icon:

Open the view list

1. Click on the Open named view list icon.



The Views dialog box opens.



This list contains all the created views. All invisible named views are listed on the left, and all visible views on the right.

If the list is empty, you must create your own elevation and plan views.

Create plane views along gridlines

We will now learn to create Elevation and Plan views along the grid lines created in the previous section.

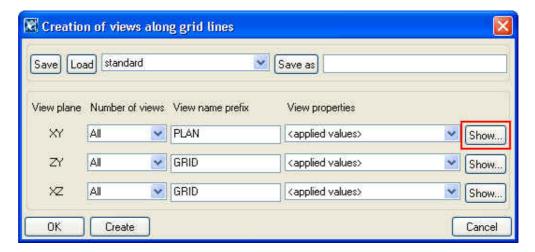
A view is a representation of a model from a specific location. Each view is displayed in its own window inside the Tekla Structures window. Each view has a view plane on which the grids are visible and points are represented as yellow crosses. Points outside the view plane appear as red dots.

For more information, see: Help: Modeling > Getting started > Views.

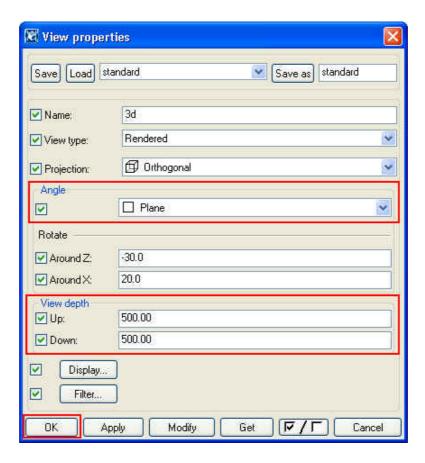
Create grid views

To create views along grid lines,

- 1. Select one gridline.
- 2. Right-click and select **Create view > Grid views** from the pop-up menu to open the **Creation of views along grid lines** dialog box.

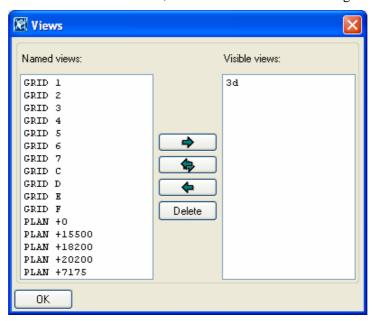


- 3. Click the **Show...** button of the XY view plane to open the **View properties** dialog box
- 4. Change the **Angle** and **View depth** values as shown below and click **OK** to close the dialog box.



5. Select the number of views as All and click Create in the Creation of views along grid lines dialog box.

The **Views** dialog box appears presenting all the created views. All invisible named views are listed on the left, and all visible views on the right.



For more information on view properties, see:

Help: Modeling > Getting started > Views > View properties

Display or hide views

To display or hide views:

1. Click the **Open named view list** icon to open the **Views** dialog box (which is now already open).



- 2. Select one or several views you want to display or hide. To select several views, use Ctrl and Shift keys.
- 3. Use the arrows to move views from left to right (visible) or vice versa (invisible).



Do not keep too many views open at the same time. Nine is the maximum number of open views. You can open or close named views by clicking the **Open named view list** icon. Delete unnecessary views from the view list.

To switch between views, press Ctrl+Tab.

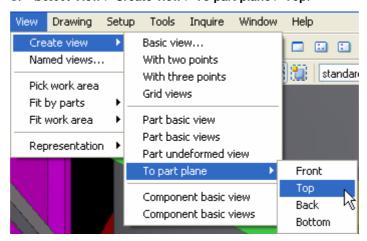
Create a true plan view

Often, we need to create other views than grid views. In addition to creating grid views, we can create

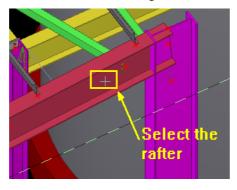
- views with two points or with three points,
- part or component basic views, or
- views to part planes: either top, front, back or bottom.

Let's create a view that is parallel to the roof slope by creating a view to the top or the rafter on gridline 1.

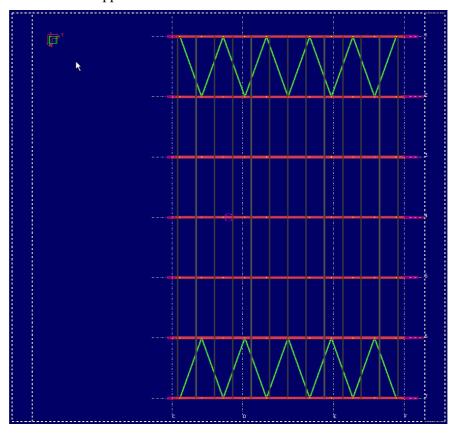
1. Select View > Create view > To part plane > Top.



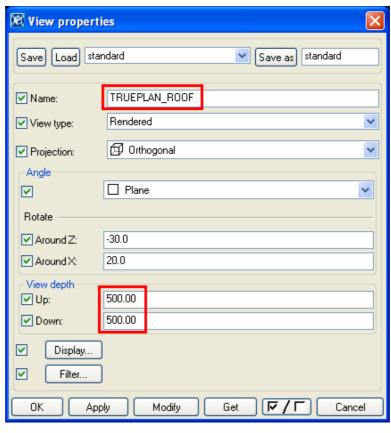
2. Select the rafter on gridline 1.



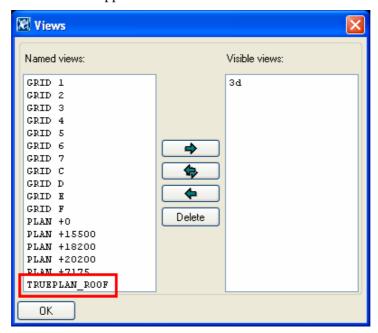
The new view appears.



- 3. Double-click on the background.
- 4. Define the name TRUE PLAN_ROOF for the new view, change the view depth and click **Modify**.



The new view appears on the view list.



1.3 Examine the Model

Zooming and rotating

You can zoom in and out in several ways. You can click the **Page Up** or **Page Down** keys or, if you have a wheel mouse, scroll the mouse wheel forward to zoom in, and backward to zoom out.

Practice zooming

- 1. Press the Page Up and Page Down keys to see how the zooming works.
- 2. If you have a wheel mouse: Scroll the mouse wheel forward to zoom in. Scroll the mouse wheel backward to zoom out.

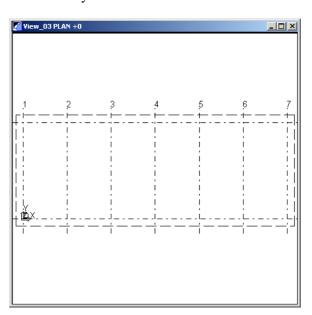
Rotate the model

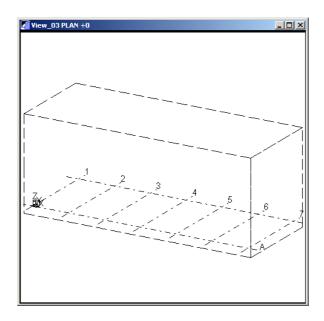
You can rotate the model in a 3D view with rendered view type.

- 1. Hold down the **Ctrl** key, and click and drag with the middle mouse button.
- 2. To change the center of rotation, press the key v.
- 3. In the view, pick a center of rotation.
- 4. Again, hold down the Ctrl key, and click and drag with the middle mouse button.

Change between 3D / Plane

With the shortcut **Ctrl+P** you can change the view angle between 3D and Plane, which is very useful.



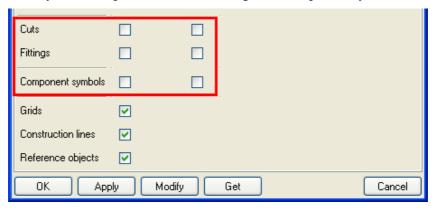


Displaying and hiding objects in the view

Object representation

To define which objects are visible and how they are displayed in a view:

- 1. Double-click on the view.
- 2. In the View properties dialog box, click **Display...** . The View setup dialog box appears.
- 3. Set the visibility and representation for different objects and for components. Try, for example, to hide cuts, fittings and component symbols.



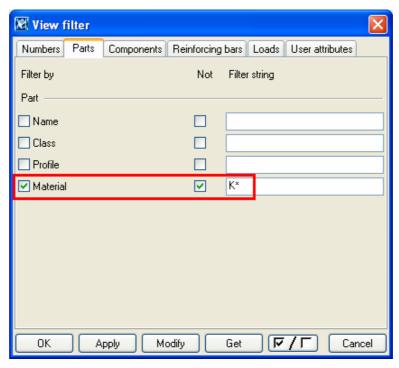
4. Click Modify.

Filtering objects

To more precisely define which objects are displayed in a view, use the view filter. In the **View filter** dialog box you can define the visible objects in the view according to their properties.

To filter out all concrete parts from the view:

- 1. Double-click the view.
- 2. In the View properties dialog box, click Filter....
- 3. In the View filter dialog box, select the Parts tab, check Material, also the not box, and write K^* in the Filter string field.



4. Click Modify.

Using and defining select filters

Tekla Structures includes some select filters, such as beam filter, column filter and plate filter. You can, however, easily create your own select filters, too (see below).

Use select filter to hide parts

1. Select the select filter called beam_filter on the select filter list.



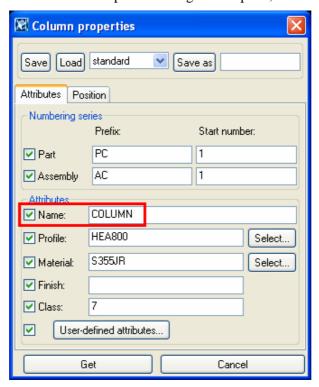
- 2. Make an area selection by dragging the mouse, selecting the whole model. The beams become highlighted.
- 3. Right-click and select hide. All beams are hidden.



To display hidden objects again, select the view (the view is selected when it is blue), right-click anywhere on the blue background and select **Redraw window!**

Define your own select filters

To make the selecting of parts easier, we will define select filters for each part type. We will use the name of the part as the filtering criteria. This name is the one that is defined in the Properties dialogs of the parts, see below.





To view the **Properties** dialog of an object, select the object, right-click and select **Properties...** .

For steel/concrete beams and columns we will add also the material as the filtering criteria to be able to filter them separately.

Help: Modeling > Settings and tools > Filter > Select filter

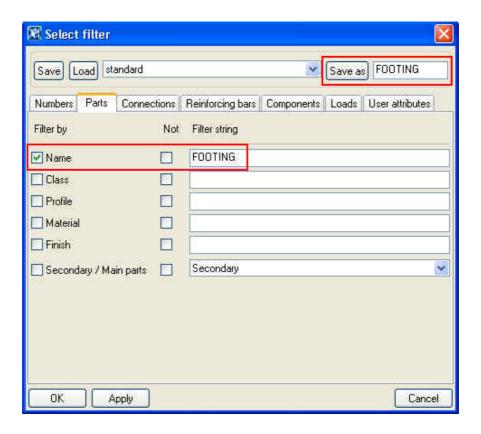
Define select filter for footing

1. Click the Display select filter dialog icon to open the Select filter dialog box.



- 2. Load the **standard** filter to turn out all the possible filtering.
- 3. Enter name **FOOTING** in the **Name** field of **Parts** tab.
- 4. Enter name **FOOTING** in the **Save as** field and click **Save as**.

You can now choose the new filter from the drop down list.



By following the procedure above define select filters for:

- Slabs
- Hollowcore slabs
- Silos

Define Select filter for plates

To define select filters for plates created both manually and by the connections:

- Enter name *PLATE* in the Name field of Parts tab.
 (*PLATE* matches all parts of which name includes word PLATE)
- 2. Enter name **PLATE** in the **Save** as field and click **Save** as

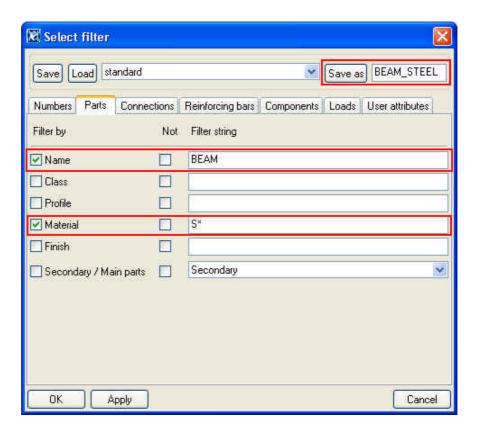
Define Select filter for steel beams

To define select filters for Steel Beams:

- 3. Enter the name **BEAM** in the **Name** field of **Parts** tab.
- 4. Enter S* in the Material field of Parts tab.
 - $(\mathbf{S}^{\star}$ matches all materials with a material name that begins with the characters $\mathbf{S})$
- 5. Enter name **BEAM_STEEL** in the **Save as** field and click **Save as**.

By following the procedure above define select filters for:

- Concrete beams
- Steel columns
- Concrete columns



Save the model

Finally save the model.

Check objects by phases

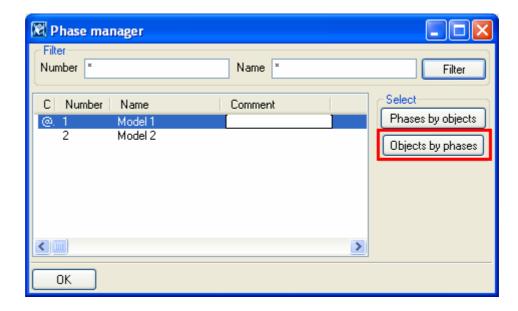
In Tekla Structures, phases are used to break up a model into different sections. Phases are often used to indicate erection sequences. You can create reports and views, hide objects, and copy objects from other models, according to their phase number.

Check objects by phases

1. Select **Setup > Phase manager...** to open the **Phase manager** dialog box.

In our model, there are two different phases. We have named the phases **Model1** and **Model2**.

- 2. Select Model1.
- 3. Click Objects by phases.



The objects that belong to the selected phase become highlighted.

Check phases by objects

- 1. Select any part in the model.
- 2. Click Phases by objects.

The phase to which the selected part belongs becomes active on the **Phase manager** dialog.

3. Repeat steps 1 and 2 several times selecting different parts, and by dragging an area selection containing several parts.

Help: Modeling > Settings and tools > Settings > Phases

1.4 Lotting and Sequencer

Lotting

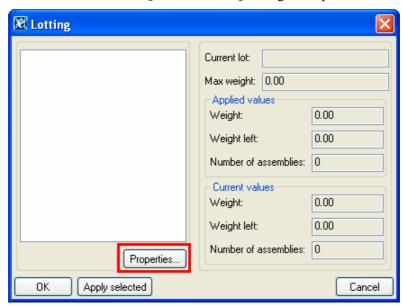
With lots you can group assemblies e.g. for transporting to site. The lotting tool can be used as a help when planning loading schemes. The lotting function keeps track of the weight and the number of assemblies of each lot, but not the physical size of the assemblies, such as the length of a beam.

We will create some lots according to the following loading capacities:

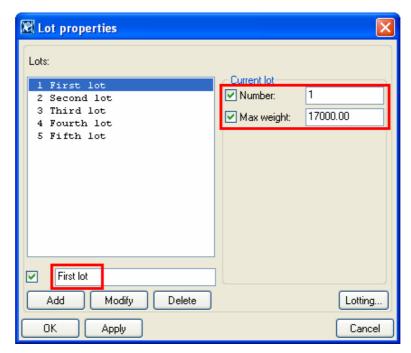
Lot 1	17000 kg
Lot 2	20000 kg
Lot 3	20000 kg
Lot 4	20000 kg
Lot 5	18000 kg

Create lots

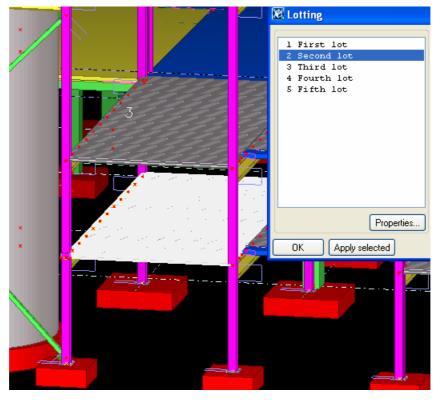
1. Click **Tools > Lotting...** . The **Lotting** dialog box opens.



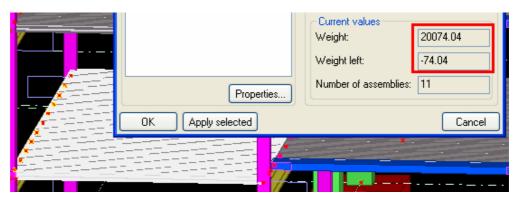
- 2. Click **Properties...** The **Lot properties** dialog box opens.
- 3. Give the lot you are to create the name "First lot", the number "1" and the maximum weight 17000, and click **Add**.



- 4. Create the rest of the lots by repeating step 3 for each lot with the information in the table above. Then click **OK**.
- 5. On the **Lotting** dialog box, select "1 First lot" on the list. In the model, select the columns on gridlines A and B holding down the **Ctrl** key. Then click **Apply selected**.
- 6. Assign the hollow-core slabs on the first floor between gridlines 4 and 5 to the second lot in the same way.



7. While selecting the slabs, check the **Weight** and **Weight left** values in the dialog. If they exceed the maximum weight of the lot, unselect the last slab.



- 8. Then, select the third lot on the list. In the model, continue selecting the hollow-core slabs on the first floor until the lot is full, click **Apply selected**.
- 9. Repeat for the fourth lot.
- 10. For the fifth lot, select as many concrete beams as the lot allows.





If you do assign too much weight to a lot, Tekla Structures gives the following message:



You can either choose to continue, or correct the situation, by selecting **Cancel**.

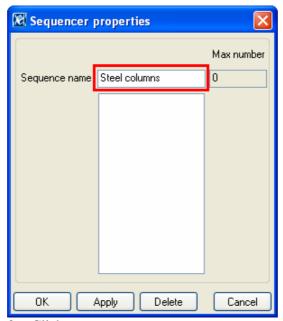
Now, when you select different lots in the Lotting dialog box, the parts belonging to each lot are highlighted in the model. Click OK.

Sequencer

The sequencer is used, for example, for naming sequences and defining the order in which to erect members. For example, the columns of a steel frame can have a certain sequence. One part can belong to several sequences.

Create sequences

- 1. Click Tools > Sequencer... . The Sequencer properties dialog box opens.
- 2. Type "Steel columns" as the sequence name.



- 3. Click Apply.
- 4. In the model, pick the steel columns on gridline A, one by one, starting from gridline 1, continuing with those on gridline B. (Tip: Apply the select filter for steel columns to make picking the right parts easier.) End the picking with Interrupt or the Esc key.

In the dialog, the number 14 now appears in the **Max number** field.

- 5. Type a new name "Concrete columns" in the **Sequence name** field.
- 6. Click Apply.
- 7. In the model, pick the concrete columns on gridlines C, D, E and F, one by one, starting from gridline 1. (Tip: Use the select filter for concrete columns.) Again, end the picking with Interrupt or the Esc key.
- 8. In the same way, define a sequence called "Hollow-core slabs floor 1" for the hollow-core slabs on level +3850.



You can't add a new part to a sequence, unless the new part is at the end of the sequence. If the sequence changes, you must redefine that whole sequence.

Check the sequence number

You can check the name and number of a sequence using the **Inquire object** command.



To check the name and number of a sequence using the Inquire object command, the sequence name must appear as a user-defined attribute in the objects.inp file. Objects.inp can be edited.

(Example?)

1.5 Attributes and Attribute Import

You can see the attributes of any part by double-clicking it.

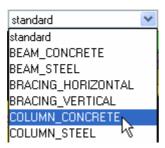
Check the attributes of a part

- 1. Double-click on one of the concrete columns in the model. A dialog called **Tekla Structures Concrete column (1)** opens.
- 2. Select the **Status** tab. You can see that there is no information here.
- 3. Close the dialog with **OK**.

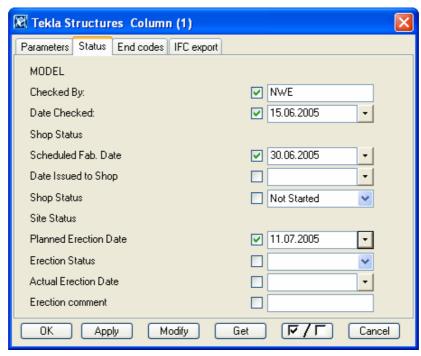
Now, let's input some information about the status of parts.

Define attributes via dialog

1. Activate the select filter COLUMN_CONCRETE.



- 2. Select all concrete columns in the model.
- 3. Holding down the **Ctrl** key, double-click on one of the highlighted columns to open the attributes dialog.
- 4. Select the **Status** tab. Fill in some information about the columns, see an example below.



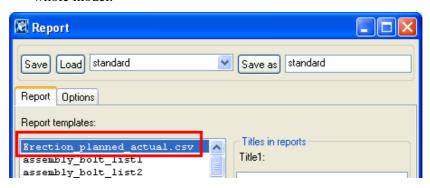
5. Click Modify.

However, there is a more efficient way of getting the attributes into your model. We can import the data as a file. This way, the persons at the building site, for example, can write such information as actual erection dates in an Excel sheet, which can be imported into the model in text file format.

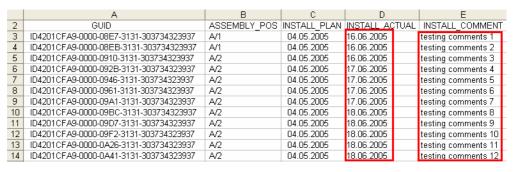
We will first need a csv format (= comma separated value) report file. In this example, we will use the report template Erection_planned_actual.csv.rpt.

Import attributes with txt file

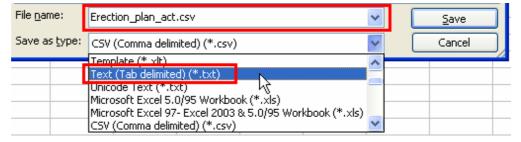
1. Open the **Report** list and run the report Erection_planned_actual.csv from the whole model.



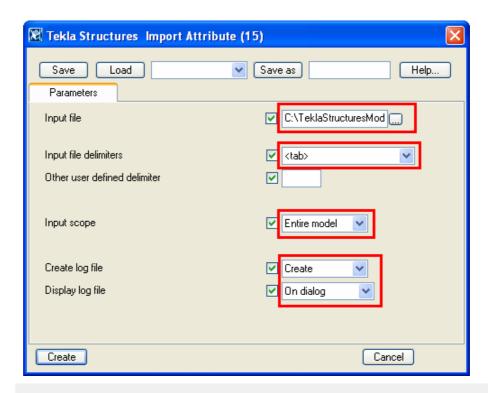
- 2. Open your model folder (**Tools > Open model folder**), and double-click on the csv file (Erection_planned_actual.csv) to open it in Microsoft Excel. It is located in the **Reports** folder.
- 3. Input actual erection dates for all parts of the model. Also write some text in the erection comment fields.



4. Save the file as a tab-delimited text file - Text (Tab delimited (*.txt)), and shorten the name to Erection_plan_act.csv.



- 5. Close the file.
- 6. Select File > Import > Attributes....
- 7. In the **Import Attribute** dialog, browse with the (...) button to select the input file (Erection_plan_act.txt).
- 8. Select the alternatives shown below, click **Create**.





The file path of the input text file can contain a maximum of 79 characters, which is why we shortened the file name of the text file. If the import doesn't work, try to shorten folder names or file names.

The attributes that you added in the Excel spreadsheet are now imported into your model.

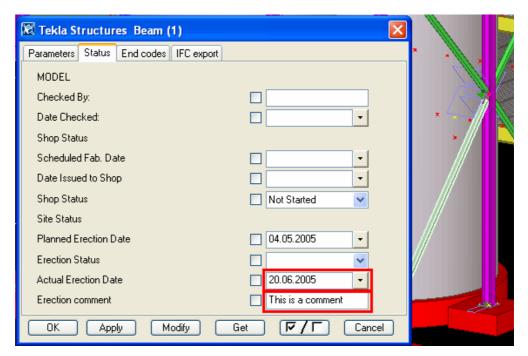


To see the **Erection comment** field on the attributes dialog, we need to edit objects.inp file a little (we added the text INSTALL_COMMENT). Also, the file import_macro_data_types.dat must be edited. In the examples, the edited objects.inp and import_macro_data_types.dat files are assumed to be in use.

Check the attributes

Now, let's check that the attributes were imported correctly!

- 1. Double-click on any part.
- 2. Select the **Status** tab.
- 3. Check the Actual Erection Date and Erection comment fields.



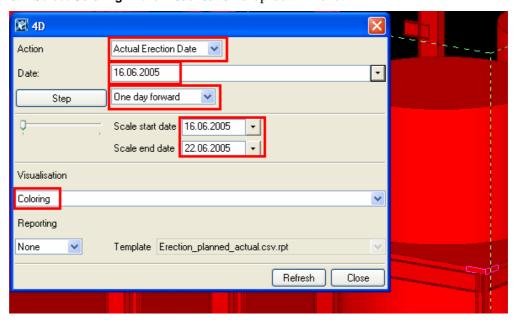
(More on this?)

1.6 4D Tool

With the 4D tool (**Tools > 4D...**), we can visualize different attributes of our model objects on the time scale. Among other things, we can visualize the progress of the erection of a building. Let's do this, using the actual erection dates that we have just imported into our model.

Visualize the actual erection

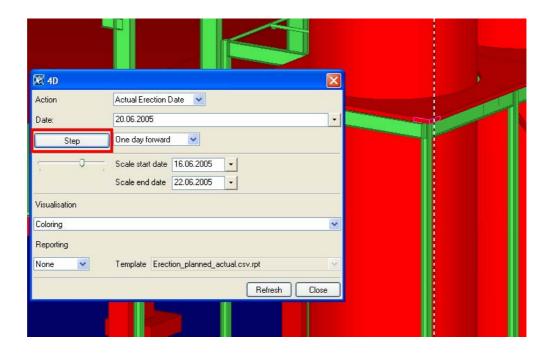
- 1. Select **Tools > 4D...** to open the **4D** dialog.
- 2. Select the attribute you want to look at in the **Action** list, in this case **Actual Erection Date**.
- 3. Set the current date, it can be the first day of the period you want to look at.
- 4. Set the step to **One day forward**. (If the actual erection dates you defined in the import file span over months instead of days, select **One week forward** or **30 days forward**!)
- 5. Set start and end dates for the period during which the actual erection takes place.
- 6. Select **Coloring** in the **Visualisation** drop-down menu.



Part in the model that have the current date that is shown on the dialog, are shown in green color, others in red.

7. Click Step.

For each step, the parts with the current actual erection date become green.

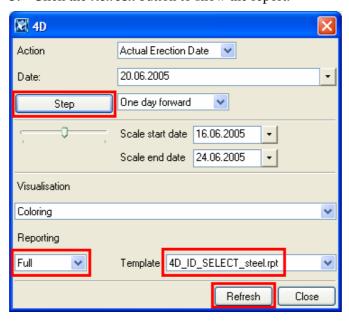


Select parts from model using reports

We will first create a report of all parts that are visible in the 4D tool window to be able to select parts based on it.

Create a report

- 1. Set Reporting to Full.
- 2. In the **Template** list, select the report template 4D_ID_SELECT_steel.rpt.
- 3. Click the Refresh button to show the report.



A list of the parts in the 4D view is displayed. The list updates automatically if you change the date by clicking the Step button.

Now, let's select some parts and change their actual erection dates with the help of the report.

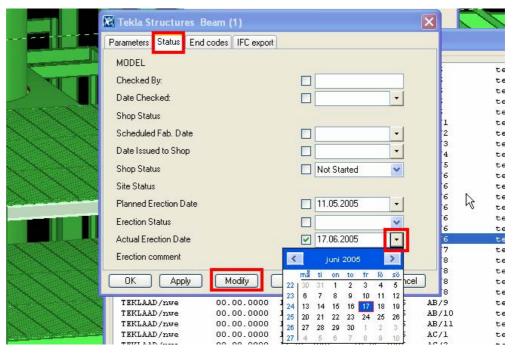
Change dates of parts

1. Select a line in the report.

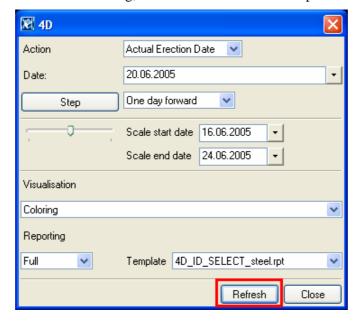
- 2. The corresponding part is selected in the model.
- 3. Right-click and click User-defined attributes....

The attributes dialog opens.

- 4. Select the **Status** tab.
- 5. Select a date from the calendar.



- 6. Click **Modify** to assign the date to the selected part.
- 7. Select other parts that you want to assign the same date to, and click **Modify** again.
- 8. In the **4D** dialog, click the **Refresh** button to update the report.



Export updated dates

Now, we will export the changed data using the Erection_planned_actual.csv.rpt report.

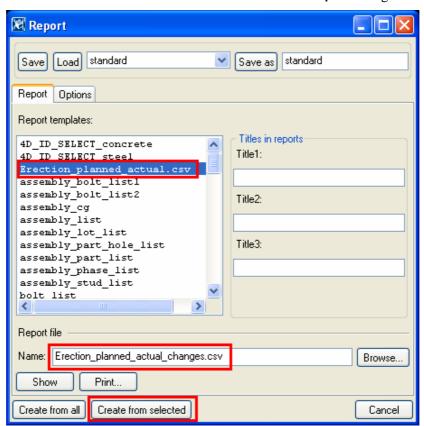
 Select those lines that you changed the erection date for in the 4D_ID_SELECT_steel list.

Now, all the objects that you changed the erection date for are selected.

2. Click the **Report** icon to open the list of reports.



- 3. Select Erection_planned_actual.csv on the list.
- 4. Edit the name of the report file to something else, otherwise Tekla Structures will replace the previous file with the new one.
- 5. Click on the Create from selected button on the Report dialog.

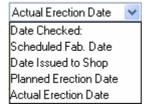


The report file is created into the model folder and can be opened in Microsoft Excel, to be edited further, if you wish, and imported back to the model.

The 4D dialog

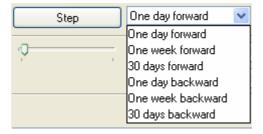
On the 4D dialog, we can select different actions, which are attributes of the objects, as well as different steps and different ways to visualize.

Action



The above date attributes are included by default. If an attribute on the list has input on the attribute dialogs, it can be selected as a 4D action.

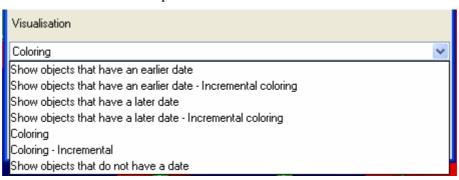
Step



For the step pace, there are also several alternatives: one day, one week, or 30 days, and forward or backward.

Visualization

There are several different possibilities for visualization.



If you select **Coloring – Incremental**, in our case, the parts erected at the current date will be shown in **green** color, the parts not yet erected will be shown in **red** color, and the parts erected before the current date will be shown in **grey** color.

If you want to check which parts do not yet have an actual erection date, you can use the **Show objects that do not have a date** alternative.

You can also choose to show objects that have a date earlier, or later, than the current date.

1.7 How to Show your Model to Others

Taking snapshots

Tekla Structures has a tool for taking snapshots of your model view: **Window > Snapshot**. You can also use the PrintScreen key on your keyboard, or any separate snapshot program, such as HyperSnap.

Let's take a snapshot.

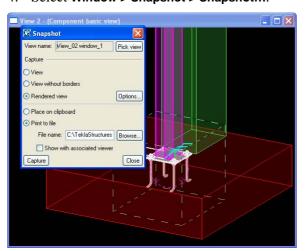
Take a snapshot

- 1. Select Window > Snapshot > Snapshot (view without borders). A message "Snapshot taken (<filename and location>)" is shown on the status bar at the bottom of the Tekla Structures window.
- 2. Select Tools > Open model folder.
- 3. Find the file snap_001.bmp, double-click on the filename to view the picture.

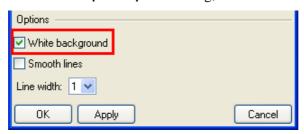
Let's send a picture of a footing baseplate to the site. This time we want our picture to have a white background. We will also highlight a detail in the picture.

Take a snapshot with white background

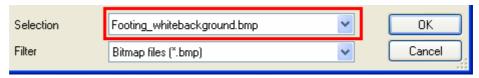
- 1. Select the footing connection at the footing on gridline intersection C-7.
- 2. Right-click and select Create view > Component basic view.
- 3. Change the component view to shaded wireframe (use the shortcut Ctrl + 2).
- 4. Select Window > Snapshot > Snapshot....



- 5. In the **Snapshot** dialog, click **Options...**.
- 6. In the Snapshot options dialog, select White background, and click OK.



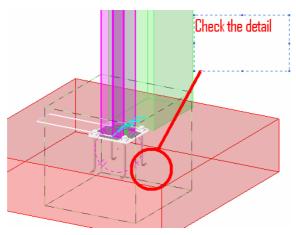
- 7. In the Snapshot dialog, tick the alternative Print to file and click Browse....
- 8. Define a file name, for example Footing_whitebackground, and click **OK**.



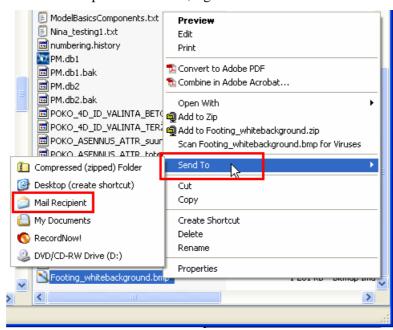
- 9. Click Capture.
- 10. Select Tools > Open model folder.
- 11. Find the file Footing_whitebackground, and open it to check it.

Edit the picture

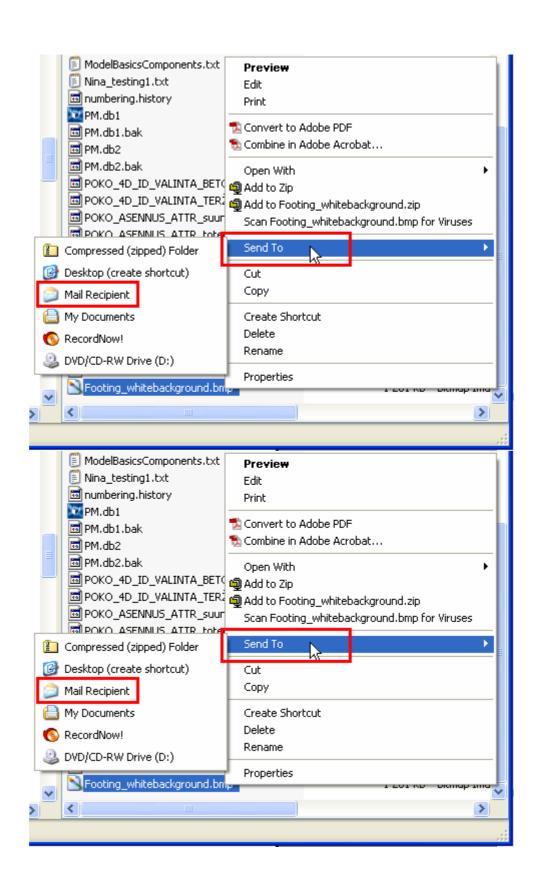
- 12. Close the file, and reopen it in a picture editor by right-clicking on it and selecting **Open With > Paint** (or another picture editor).
- 13. Add a red circle to emphasize a detail in the picture and a text, for example as below!

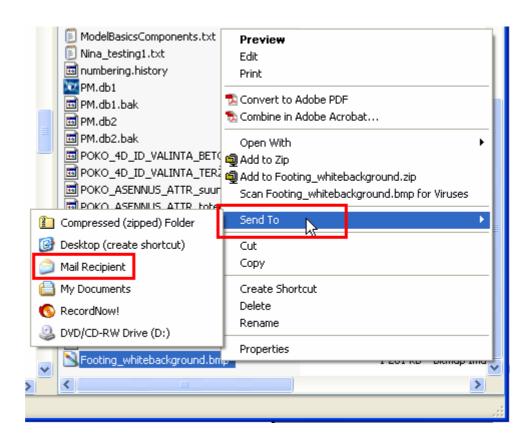


- 14. Close the picture editor and save the picture.
- 15. Select the picture filename, right-click on it and select **Send To > Mail recipient**.



16. Type the e-mail address of the recipient in the **To**... field, add a message and send the picture.



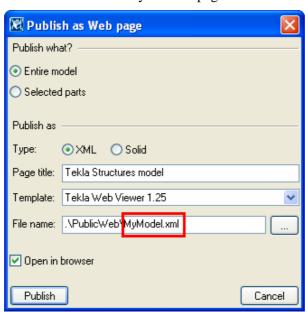


Publishing the model as a web page

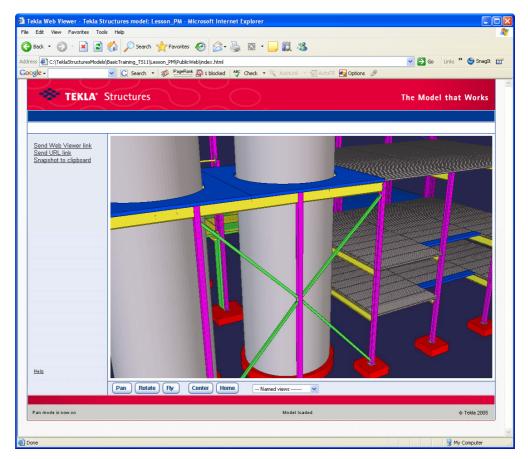
Any model created with Tekla Structures can be published for the Internet. Other persons can watch the model using any standard web browser (so Tekla Structures is not needed). This is an easy and effective way to show e.g. the current status of a model.

Publish model as a web page

- 1. Select File > Publish as Web page...
- 2. Define a name for your web page file.



3. Click the **Publish** button. A separate Tekla Web Viewer window appears.



4. Test the functions Pan, Rotate and Fly in Tekla WebViewer.

See Help: System > Import and export > Tekla WebViewer.

See Help: System > Import and export > Tekla WebViewer -> How to move and zoom?



To e-mail a published model, zip the entire PublicWeb folder. Remember to use the folder structure. Then, attach the .zip file to an e-mail message and send it to the recipient. The recipient can then unzip the files and save the contents.

When you receive a zipped WebViewer model, ensure you keep the folder names when you unzip it. To open the model, double-click the index.html file.

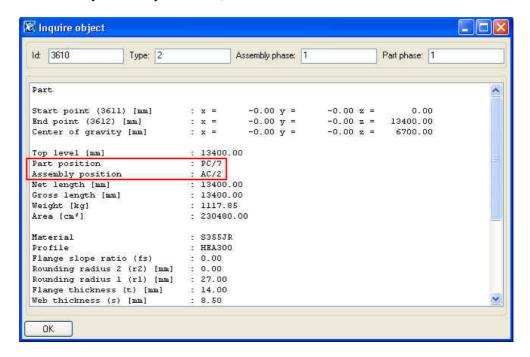
1.8 Reports

We will now check the marks assigned to parts, assemblies and cast units.

Inquire part

- 1. Select Inquire > Object...
- 2. Select any column.

The **Inquire object** dialog box opens. Now the steel columns have Part position and Assembly position numbers and concrete columns cast unit numbers (the position numbers may differ in your model).



We will next create assembly part list and cast unit list of the whole model.

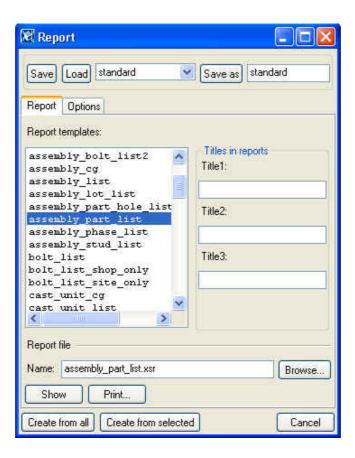
Help: Drawing > Printing > Printing reports > Producing reports on entire model

Create assembly part list and cast unit list

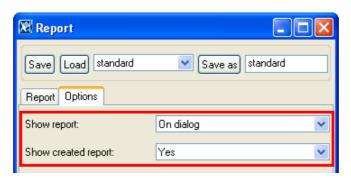
1. Click on the **Report** icon to display the **Report** dialog box.



2. Select **Assembly_part_list** report template from the list.

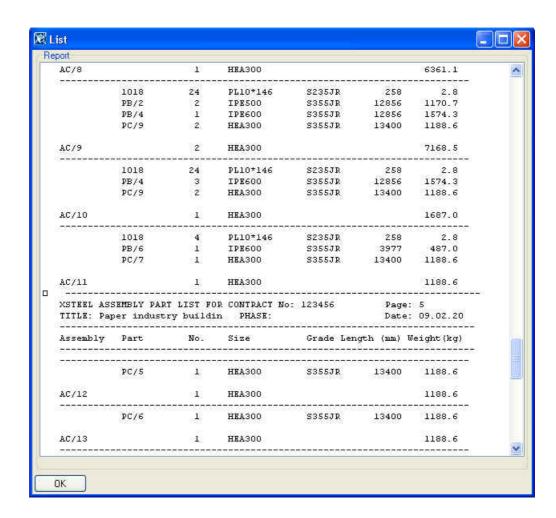


3. On the **Options** tab, select the options as shown below.



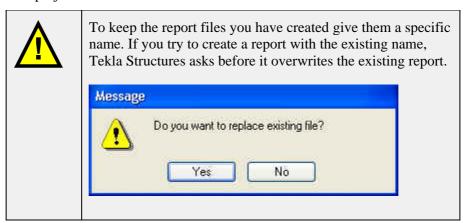
4. Click **Create from all** to run a report on the entire model.

The report is now automatically displayed in a dialog. Also the text file is created in the model folder.



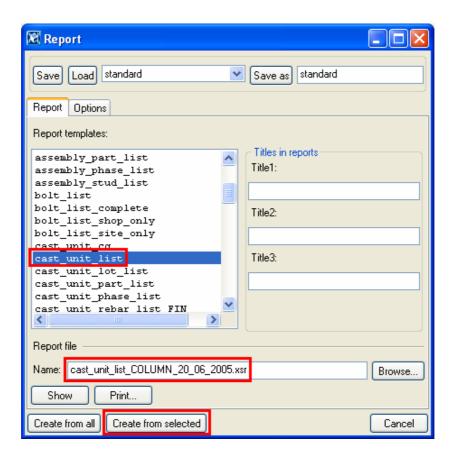
5. Repeat the procedure above to create a cast unit list of the entire model.

We will next create a cast unit list of all the concrete columns in our model. We will name the report with a specific name in order to keep the information on the stage of the project.



Create cast unit list of concrete columns

- 1. Use the select filter **COLUMN_CONCRETE** to select all the concrete columns.
- 2. In the Report dialog box, edit report file name to read: cast_unit_list_COLUMN_<insert_today's_date>.xsr. (See picture below.)
- 3. (Next time you create the cast unit list of columns just change the date)



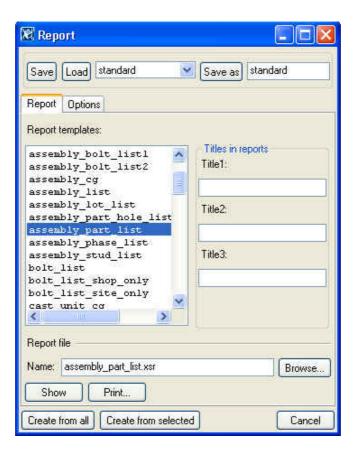
- 4. Click Create from selected.
- 5. The report is now displayed in a dialog box.
- 6. Select **Tools > Open model folder** to check that the actual text file appears in the model folder.



When you select a list entry that contains the ID numbers of the parts or assembly, Tekla Structures highlights them in the model.

Study different reports and check part marks

Tekla Structures can produce many different reports from the information contained in the model. Study the available reports. You can also print the report with the **Print** option.



Create reports

Create the following reports and check the model:

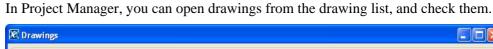
- Part_list Check the plate thicknesses for abnormalities
- Part_list Check zero lengths of material
- Part_list Check the steel grades
- **Assembly_part_list** Check the main item profile (plates or flats may indicate incorrect welding)
- Cast_list Check the main item profile
- Material_list Check the grades used are correct
- **Rebar_schedule_FIN** Check the number and types of rebars

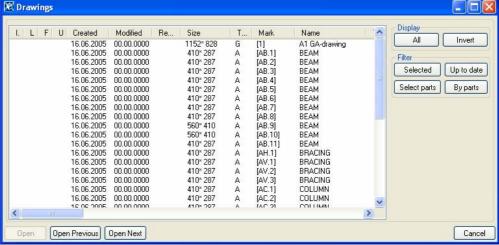
Other checks

Here are some other ways to check your model:

- Clash check the entire model: Select parts (or entire model), Tools > Clash check. Highlight the clashing parts in the model by selecting lines in the clash list.
- Check the erect ability of precast members.

1.9 Drawings





You can use the drawing list to:

- select and open the drawings for viewing
- display and filter drawings shown in the list
- choose drawings to select parts in the model, or show only the drawings of the selected parts in the list (not available for GA drawings)
- modify user-defined attributes of one or several drawings at a time.

The drawing list also displays the creation and modification dates of the drawings, drawing size and type, etc.

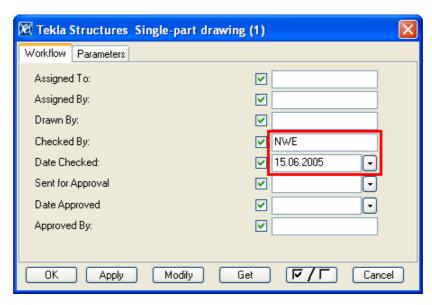


In some cases, the drawings of the project are not on the drawing list, and the functionalities described above are not available to you. This depends on whether the company who has done the design wants to make the drawings available via Tekla Structures or not.

Let's check some drawings.

Check drawings

- 1. Open the first drawing on the list.
- 2. View the drawing.
- 3. Right-click on the drawing and select Properties....
- 4. On the Drawing properties dialog, click User-defined attributes....
- 5. Mark your initials and the date of checking.



- 6. Click **Modify** and **OK**.
- 7. Press Ctrl + Page Down to open the next drawing on the list.
- 8. Repeat the checking (steps 2-6).
- 9. In the drawing list, scroll to the right to see the user-defined attributes.





You can also just view a number of drawings one by one (with Ctrl + Page Down or Page Up), then close the last one, and with Ctrl or Shift select all the viewed drawings on the list, right-click and change their attributes all at once.