

CAXperts

ReviewManager

Reference Guide



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1 Introduction

ReviewManager is an easy-to-use add-on for Intergraph SmartPlant Review that enhances the plant design review process. It supports graphical reviewing, and data reporting from both PDS and SmartPlant 3D.

1.1 General conventions




This document contains many visual cues to help you understand the meaning of certain words or phrases. The use of different fonts for different types of information allows you to scan the document for key concepts or commands. Symbols help abbreviate and identify commonly used words, phrases, or groups of related information

Typefaces

<i>Italic</i>	Indicates a system response, which is an explanation of what the software is doing. For example, <i>The text is placed in the viewing plane.</i>
Bold	Indicates a command name, parameter name, or dialog box title. Command paths are shown using an arrow between command names. For example, Choose File → Open to load a new file.
Sans serif	Indicates a system prompt or message, which requires an action be taken by the user. For example, Select first segment of alignment
Normal typewriter	Indicates an actual file or directory name. For example, The ASCII report is stored in the layout.rpt file.
Bold typewriter	Indicates what you literally type in. For example, Key in original.dat to load the ASCII file.

Symbols

This document uses the following symbols to identify special information:

-  Note – important supplemental information.
-  Map or path – shows you how to get to a specific command or form.
-  More information – indicates there is additional or related information.

2 Installation

2.1 Setup

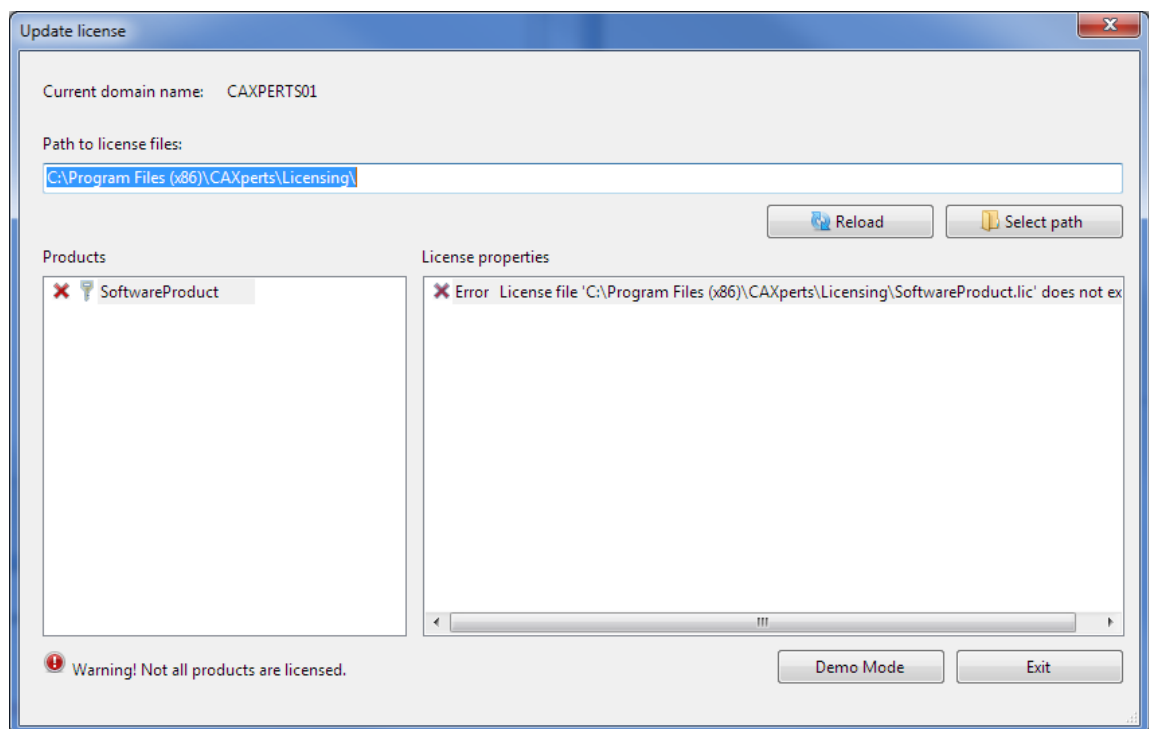
Requirements:

- Operating system: Windows 2000 SP4/XP/2003/2008/Vista/7
- Intergraph SmartPlant Review, Version 2008 or later
- Microsoft Excel 2003 or later (for Reporting)
- Microsoft .NET Framework 2.0

Administrator rights are required on each computer to install **ReviewManager**.

2.2 License


Once the setup has been completed and the program is started, a license key will be requested as shown below.



CAXperts will need your **Current domain name** to issue a license file (.lic).

Please place this license file into the folder where **Path to license files** points to, then press **Reload**.

You can also set the **Path to license files** to a different folder (e.g. a shared folder on a file server) using **Select path**.

 Note: Without a valid license file the software will run in demo mode.

3 Design Review Sessions

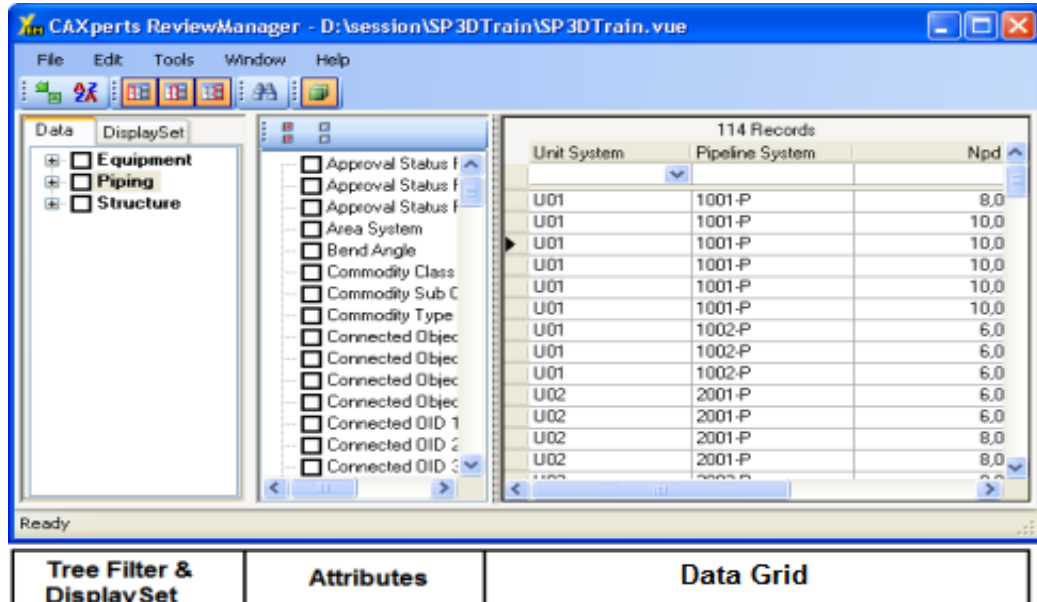
ReviewManager works with Design Review Sessions created directly by PDS and SmartPlant 3D, as well as sessions created via CAXperts **PDS ReviewExtractor** and CAXperts **3D ReviewExtractor**.




Some specialty features (such as line-tracking and automatic isometric file integration) are only available when using sessions created by CAXperts **PDS ReviewExtractor** or CAXperts **3D ReviewExtractor**.

4 Review data with SmartPlant Review

4.1 A brief overview

The **ReviewManager** window is separated into several sections as follows:

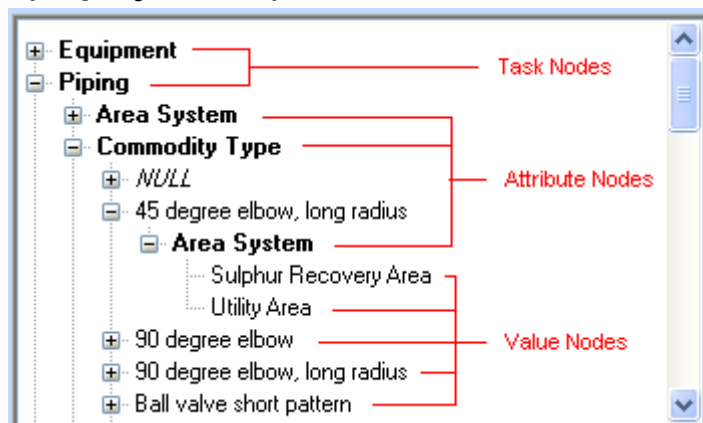


 Note: All sections can be resized and their visibility can be toggled. To show or hide a single section use the appropriate buttons (). Resizing can be accomplished by clicking and dragging the bars between the sections () and/or by resizing the window.

Elements

As can be seen on the above screenshot, **ReviewManager** consists of four main parts. Each component performs its own specific function in order to give the best control over **ReviewManager**. The following sections describe the each part and function briefly.

Tree filter (or project tree)



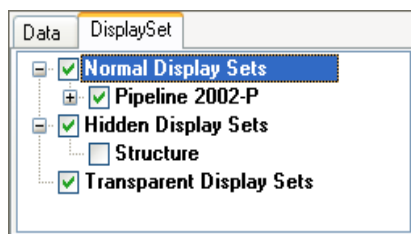
The **tree filter** is a visualisation of the data contained in the open **SmartPlant 3D** or **PDS** Review Session. Each node listed in the **tree filter** represents a task, attribute or value in SmartPlant 3D or PDS.

As seen in the above figure, the base nodes are always task nodes, and can be added, or removed with the **AttributeManager** (Tools → AttributeManager). Task nodes cannot be renamed.

The second node type visible are the attribute nodes. These nodes can be differentiated from the value nodes by bold text and from the task nodes by position. The last type of node seen in the above figure is a value node type. These represent the existing values for an attribute.

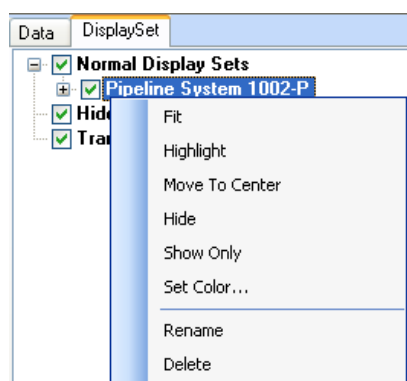
Display Set tab

The display set tab manages the available display sets. New display sets can be easily created via a context menu (right click) on the items in the **tree filter**.



There are three classifications of display sets defined in **ReviewManager**. The **Normal display sets** header contains all of the display sets that were created via the context menu item **Add to display set**.

Operations such as renaming, highlighting, setting the colour of the display set contents, etc. can be performed via a right mouse context menu.



The **Hidden display sets** node stores those display sets which were marked as hidden via the context menu item **"Hide"** on the items in the **tree filter**.

The **Transparent display sets** node stores those objects which were marked as transparent via context menu item **"Transparent"** on the items in the **tree filter**.

Display sets can be removed via the **Delete** context menu item.

Attributes

The **attributes panel** lists the attributes of a selected object in the **tree filter**. Checking or un-checking an attribute adds or removes the corresponding column in the **data grid**.

Data grid

The **data grid** displays the data that is selected in the **project tree** and **attributes panel**. All columns shown are based on selections made in the **attributes panel**.

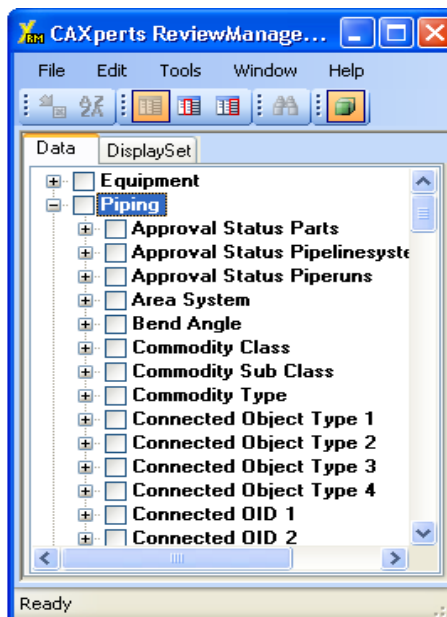
The **data grid** may contain two types of columns:

- Path columns are shown in italics and reflect the **path attribute** selected. If they have a value selected in the **project tree**, the column will not be filterable.
- Attribute columns reflect all other attributes selected in the **attribute panel**.

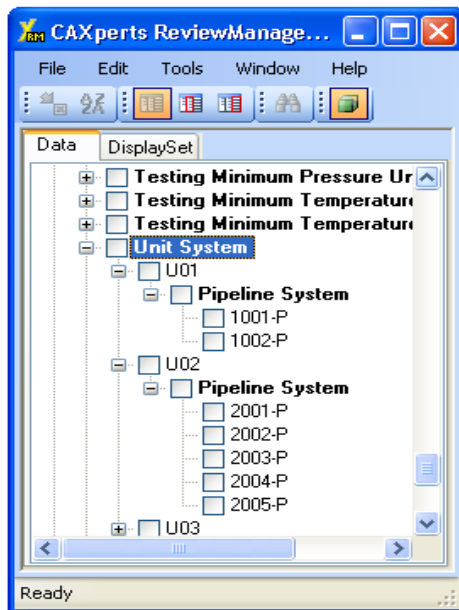
4.2 Review project

Tree hierarchy

After loading a Design Review Session (SmartPlant Review Files (*.dri, *.vue)), the tasks / disciplines and attributes will be displayed in the tree view. For reviewing alongside SmartPlant Review, it is better to turn off the attribute panel and the data grid panel.



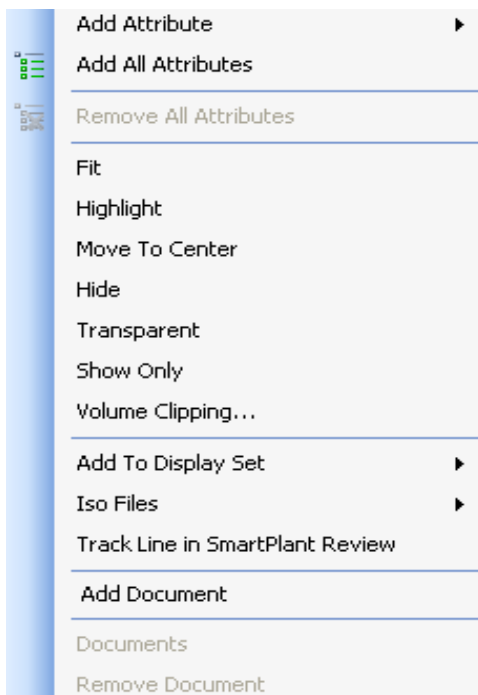
The **project tree (or tree filter)** can be used to filter attributes and values. For this purpose the desired attribute nodes may be nested. Select **Add attributes/Remove attributes** from the appropriate task or attribute node's context menu (right click) to achieve your desired tree hierarchy. For example, if you wish to know which pipe lines are in a particular unit system, you can right mouse click on the attribute “Unit System” to add the attribute “Pipeline System” below the main node:



This process can be repeated recursively until the desired granularity has been reached.

Context menu

A click with the right mouse button on any item in the tree view opens the context menu:



The context menu provides (depending on the item selected) numerous functions:

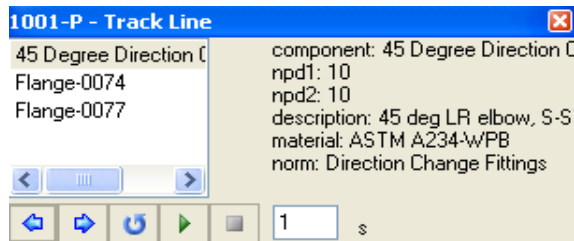
- Configure the tree filter (**Add attributes, Add all attributes**)
- Fit the selected item to the main view of SmartPlant Review (**Fit**)
- Highlight the selected item in SmartPlant Review (**Highlight**)
- Move the selected item to the centre of the main view (**Move to centre**)
- Hide or make the selected item transparent (**Hide, Transparent**)

- Show only the selected item (**Show only**). Context menu **Clear show only/Volume clipping** will be available after **Show only**.
- Show the selected item and its environment with an offset (**Volume clipping...**)



Using the up or down button will increase or decrease the offset. If **Inside only** is checked, only the objects fully inside the volume will be shown. Otherwise, objects overlap with the volume will also be shown.

- A display set can be created using one click of a right mouse context menu (**Add to display set**). One display set will be created automatically in SmartPlant Review, and the created display set will also be added to the display set tab automatically, where you can rename and manipulate the display.
- By right mouse clicking on a PDS “line_id” or on a SmartPlant 3D “Pipeline System”, available isometric files will be shown (**Iso files**). This functionality is reserved solely for sessions created from CAXperts **PDS ReviewExtractor** (for Intergraph PDS) or CAXperts **3D ReviewExtractor** (for Intergraph SmartPlant 3D). The iso files can be opened by clicking on the filename via the context menu.
- For the same item as describe above of “Iso Files”, one can track line on an item of PDS “line_id” or an item of SmartPlant 3D “Pipeline System” (**Track line in SmartPlant Review**). This feature works only with the sessions created from CAXperts **PDS ReviewExtractor** or CAXperts **3D ReviewExtractor**.

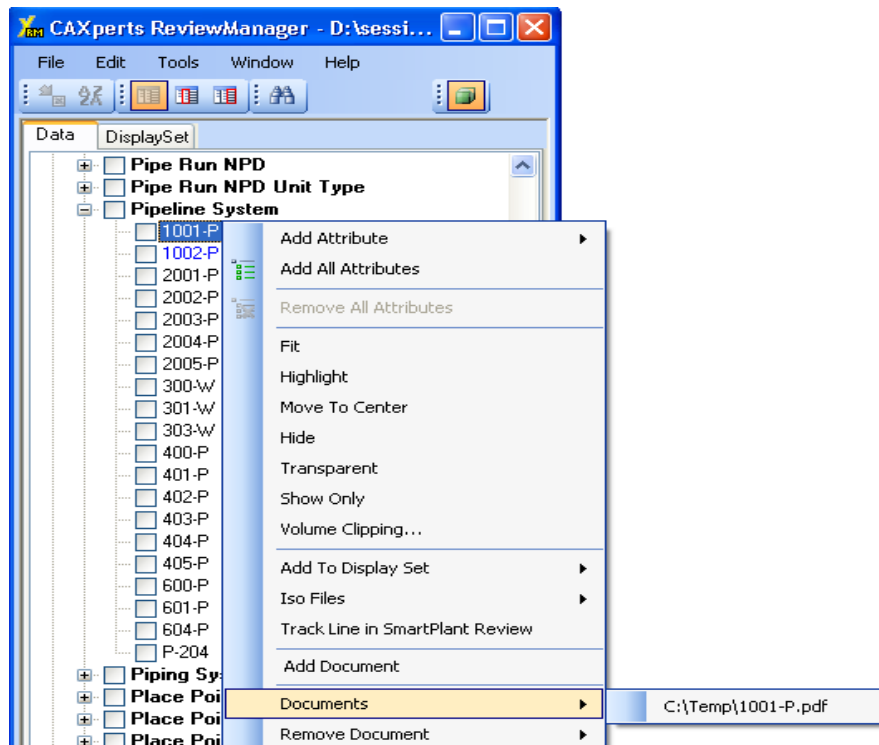


The user may select a component, use previous (←), next (→), restart (↺), play (▶) and stop (■) buttons and choose a step interval.

- Any type of file can be linked (**Add documents**) to a node in the tree view. Captions of nodes with links attached become blue coloured. Linked documents can be reviewed or removed via the context menu. Documents can also be linked via an Excel list using **Tools** → **Add documents from Excel**. The input Excel file should have the following format with four columns in the first Excel sheet. The first column is the task or discipline name. The second and third columns are attribute name and attribute value, where the documents should be linked to. The fourth column is for the path input of the document to be linked.

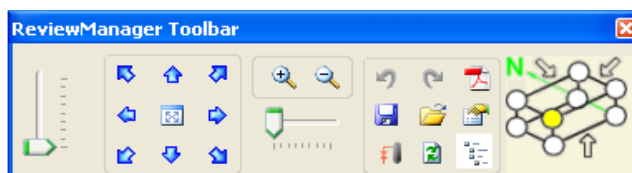
	A	B	C	D
1	Task	Attribute	Value	Document path
2	Piping	Pipeline System	1001-P	c:\temp\1001-P.pdf
3	Piping	Pipeline System	1002-P	c:\temp\1002-P_memo.doc
4				





Results:






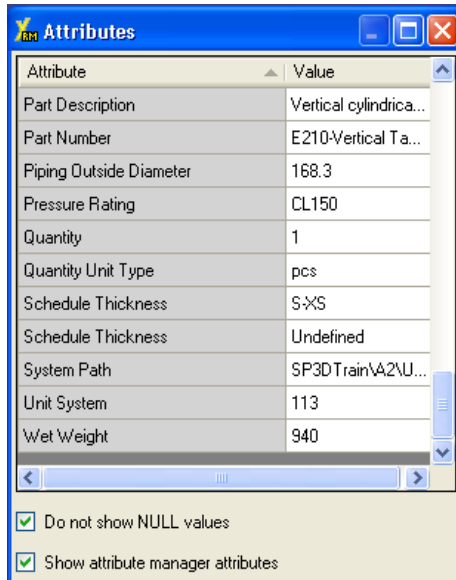
ReviewManager navigation toolbar

ReviewManager features a floating toolbar that allows a quick navigation on top of SmartPlant Review.







- **Pan & fit** () – Move the viewpoint along the model. Use the slider on the left hand side to change the step size of each move. Click the button in the middle () to fit the whole model into the view.
- **Zoom in/out** () - Use the slider to change the step size.
- **Undo/redo** () – Undo/redo view operations.

- **Create PDF report** () – Generate a sheet with screenshots of the current view and the three main views
- **Load/save ReviewManager session** () – Save the current state or scenario as ReviewManager session or load a ReviewManager session.
- **Show object attributes** () – Show the attributes of the object that has been selected. Click this button, select an object with a left click or abort with right click. Afterwards a box like the following will be shown listing the object attributes. One can use the option **Show attribute manager attributes** to have a better attribute list configured from attribute manager.



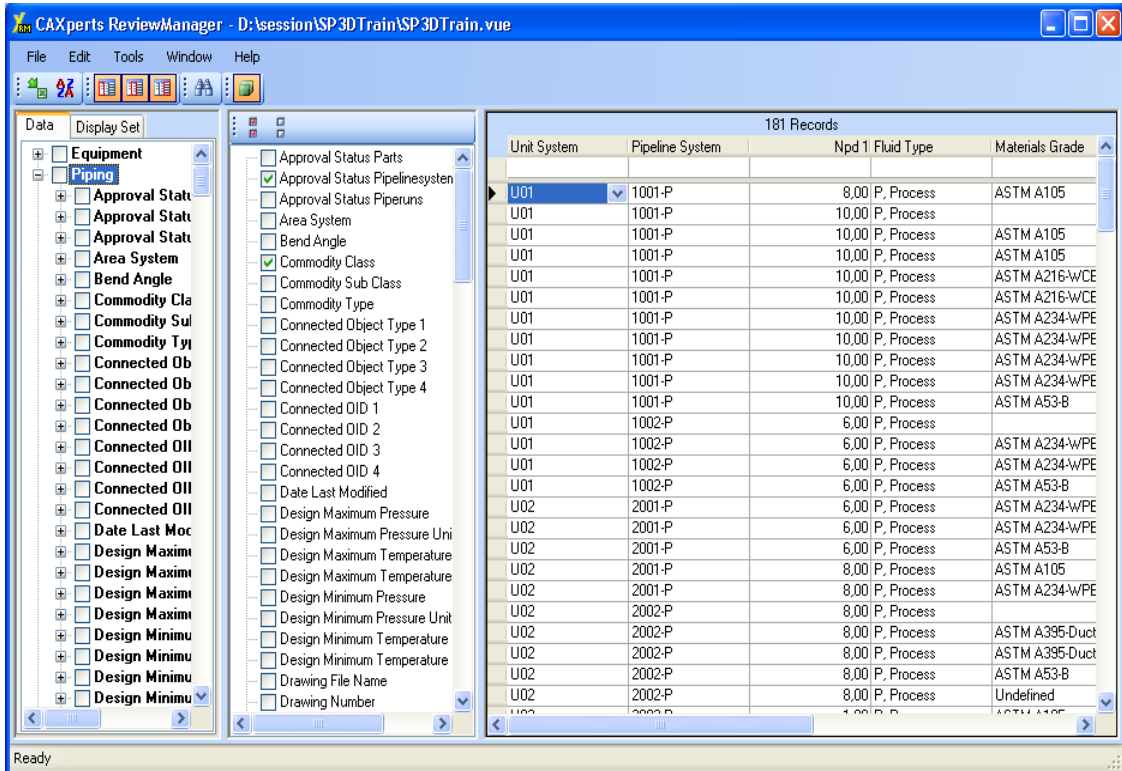
Attribute	Value
Part Description	Vertical cylindrica...
Part Number	E210-Vertical Ta...
Piping Outside Diameter	168.3
Pressure Rating	CL150
Quantity	1
Quantity Unit Type	pcs
Schedule Thickness	S-XS
Schedule Thickness	Undefined
System Path	SP3DTrain\A2\U...
Unit System	113
Wet Weight	940

Do not show NULL values
 Show attribute manager attributes


- **Transparent view mode** () – Make all objects transparent, except for those in the created display sets in **ReviewManager**.
- **Refresh view** ()
- **Show or hide the tree view/report window** ()
- **View control** () – Change the common view on your project.

4.3 Reporting

For the currently selected node in the tree filter (of the left panel), the related data will be shown in the grid view as shown below:

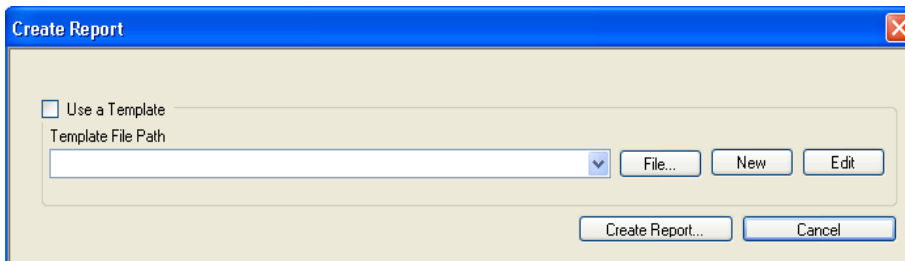


The columns displayed in the data grid can be configured by checking/unchecking the attributes in the middle attribute panel.

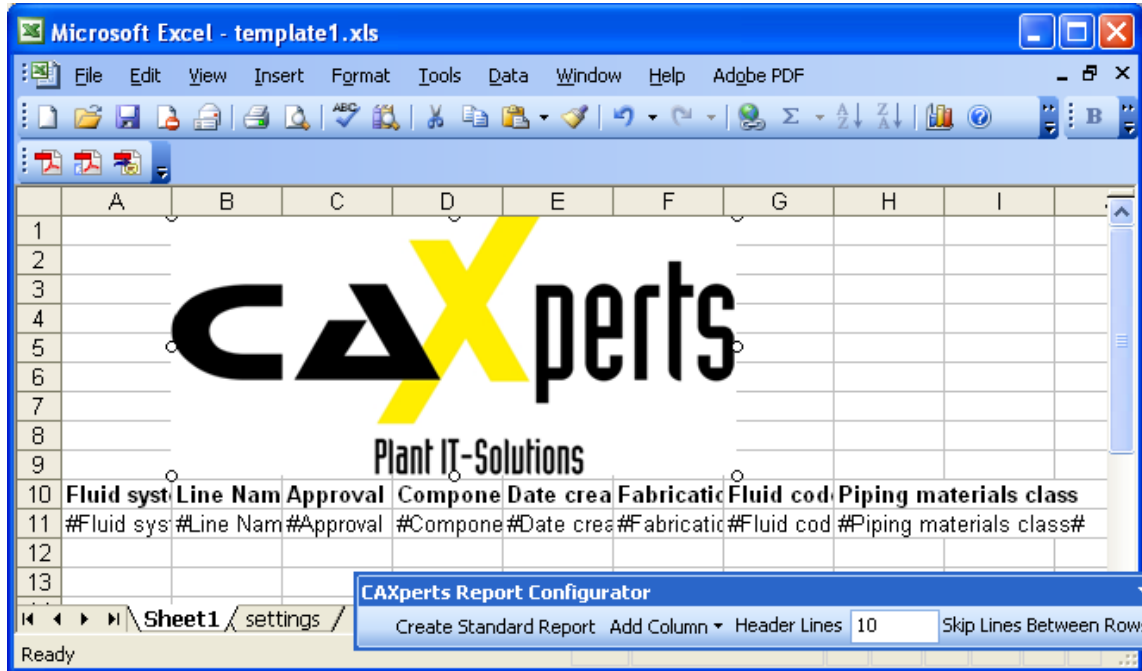
Within the **data grid**, columns can be sorted, moved, filtered or resized. Click on the **Custom sort**  icon to sort the grid. To reorder the columns, grab and drag the column you want to move and drop it to its new location. Click on the field under the column name in the data grid and select a value in the dropdown box to make a filter. Drag the space between columns to the right in order to increase the width of a column, and to the left in order to decrease the width of the column.

Export to Microsoft Excel

To export a report into a spread sheet select **Export to Excel...** The following dialog will appear.



When **Use a template** is checked the selected file will be used to format the data. It is recommended to create a template using the **New** button. This will invoke an Excel macro which helps to create and customize a template.

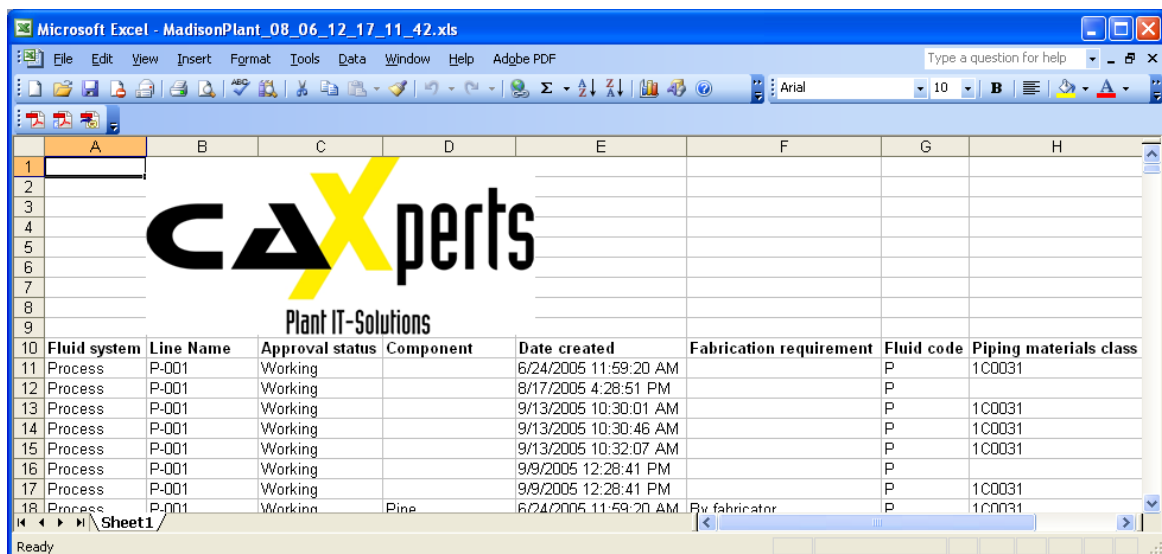


The macro offers the following options/settings:

- **Create standard report** – apply the Header and Skip Lines setting and rebuild the sheet
- **Add column** – insert a column wildcard in the cell currently selected
- **Header lines** – insert the number of rows that should be between the upper border and the column wildcards
- **Skip lines between rows** – insert the given number of rows between each line with data

Additionally you are able to insert pictures, i.e. your company logo, as well as further text and formatting.

Close and save the template when you have finished. The **Create Report** dialog will be displayed again. Hit **Create Report** to generate the report.



ReviewManager contains only basic reporting functionality. For further reporting functionality, including aggregate function (sum, max, min etc.), creating reports across multiple applications (e.g. produce a line list with associated data from SmartPlant® P&ID, 3D and Materials), as well as to check, validate and combine data between applications, please use **CAXperts UniversalReporter**.

5 Technical support

Need further assistance? Contact CAXperts support online, by email, or by phone:

<mailto:support@caxperts.com>

http://www.caxperts.com/component/option,com_contact