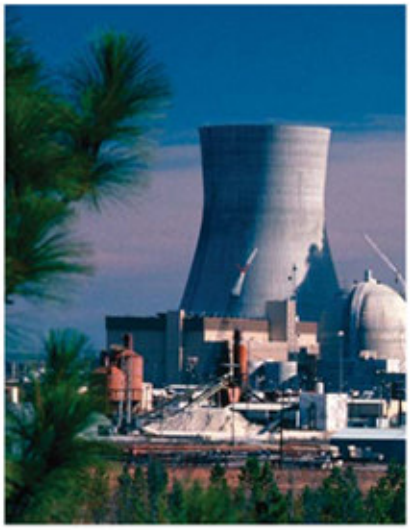
SmartPlant 3D

Reports Workshop Course Guide

Process, Power & Marine



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Methods for Generating a Report in SmartPlant 3D

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Two basic method for generating reports:

Private/Temporary Reports:
From the following tasks go to Tools → Run Report : Electrical, Common, Equipment and Furnishing, Grids, Hangers and Supports, HVAC, Piping, Catalog, Space Management, Structural Analysis, Structure, Systems and Specifications.

Pick from the Catalog the report you would like to run. When you run the report it will be automatically opened on your machine and saved to your hard drive. This report only lives on your hard drive and no one else accessing the model can see it in the dataset.

Public/Persisted Reports
From the Drawings and Reports environment, create a new spreadsheet component and use the "create report" command to add a report to the component.

When using the create report command, pick from the Catalog the report you would like to run. When you runt he report it will not automatically open, but a check mark will be placed on the icon in the Drawings and Report environment.

You can then open it by double clicking on the green check mark icon.

The report will be opened on your local machine in Excel. Any changes you make and then click Save to when closing the Excel file will be written up into the dataset. All users reading the dataset, can open the same report you have created and see your changes.

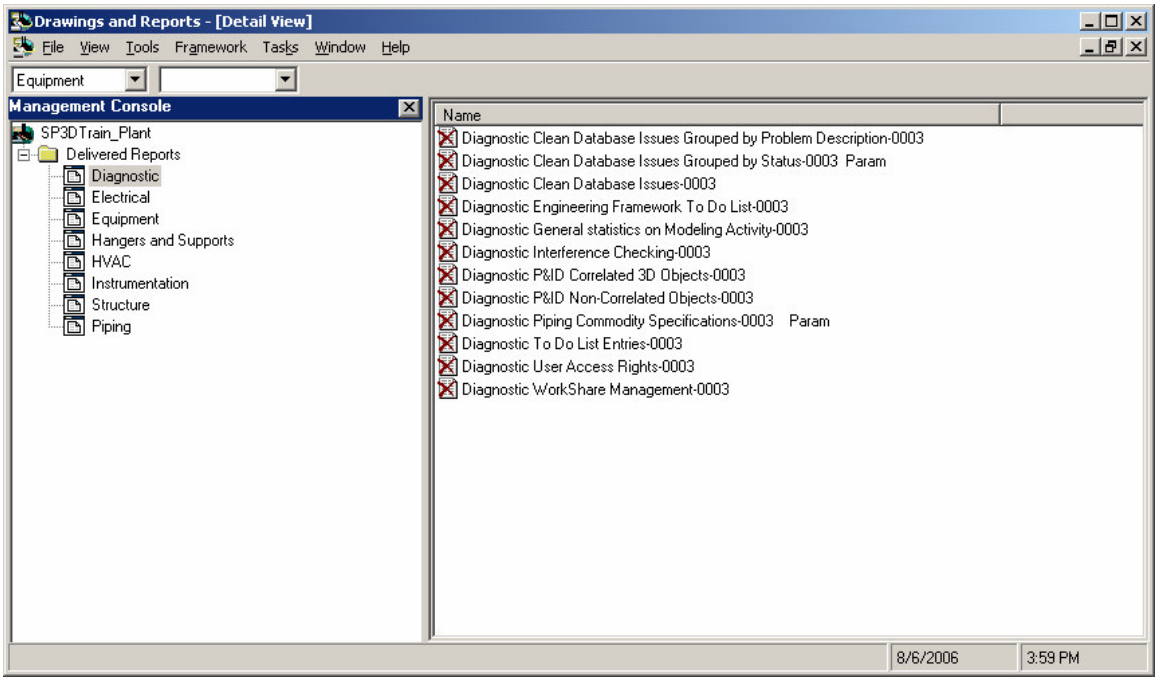
Breakdown of the delivered Reports

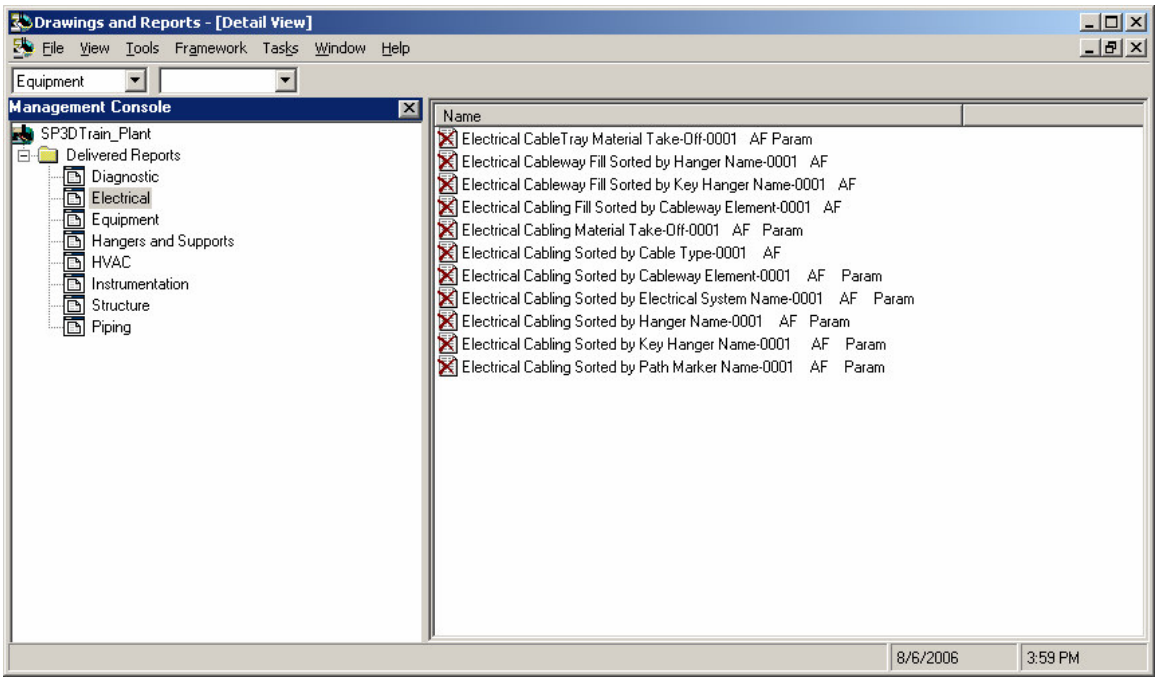
The component hierarchy depicted here matches the hierarchy in the delivered Catalog Database for the V6.1 SP1 SmartPlant 3D software. At the end of the name, notations have been placed to emphasize some of the additional functionality each particular report may be using. Definitions for the notations are as follows:

AF = Ask Filter, the Report prompt the user for information regarding the Scope that the report is based on. The Scope is set using selection from a Filter (a filter just like those used to define a workspace in SmartPlant 3D). Completing the Filter tabs is required to run the report.

Baseline = Baseline Reporting, the Report prompts the user to provide an optional previous workbook from the same report. This Baseline will allow special colorations to be shown on the new report as a comparison between the old and the current state of the report. Providing the baseline report is optional and the report can be executed if one is not provided.

Param = Paramaterized Reporting, the Report has certain properties appearing on it that can be adjusted via a form when the report is invoked. Typically these properties have to do with UOM or Coordinate System basis. These properties will generally have a default value supplied, and unless something other than the default is needed, the user can Next> through the form without changing the values.

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Electrical CableTray Material Take-Off-0001 AF Param
Electrical Cableway Fill Sorted by Hanger Name-0001 AF
Electrical Cableway Fill Sorted by Key Hanger Name-0001 AF
Electrical Cabling Fill Sorted by Cableway Element-0001 AF
Electrical Cabling Material Take-Off-0001 AF Param
Electrical Cabling Sorted by Cable Type-0001 AF
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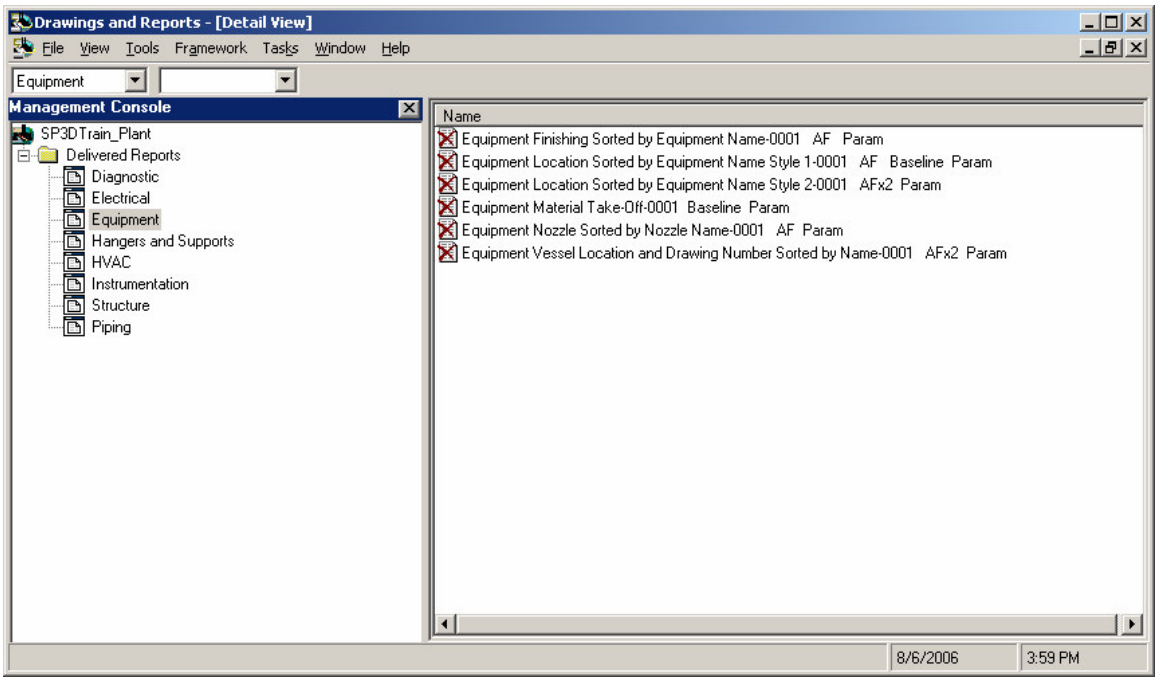
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Equipment Location Sorted by Equipment Name Style 1-0001 AF Baseline Param
Equipment Location Sorted by Equipment Name Style 2-0001 AFx2 Param
Equipment Material Take-Off-0001 Baseline Param
Equipment Nozzle Sorted by Nozzle Name-0001 AF Param
Equipment Vessel Location and Drawing Number Sorted by Name-0001 AFx2 Param
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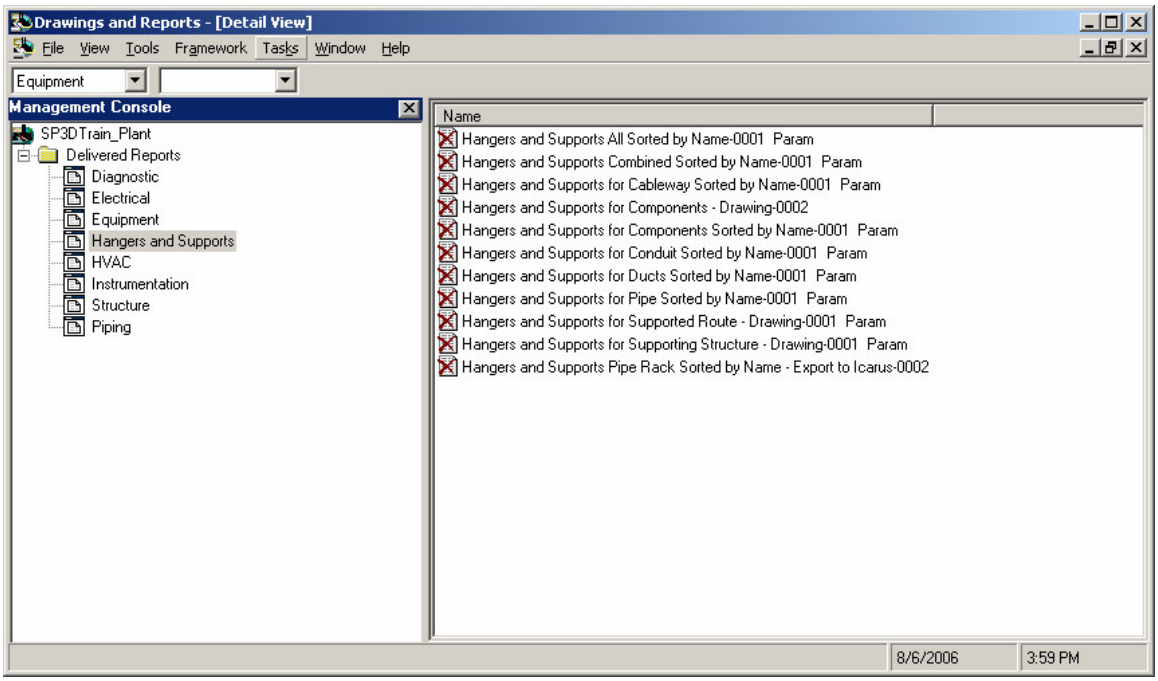
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Hangers and Supports Combined Sorted by Name-0001 Param
Hangers and Supports for Cableway Sorted by Name-0001 Param
Hangers and Supports for Components - Drawing-0002
Hangers and Supports for Components Sorted by Name-0001 Param
Hangers and Supports for Conduit Sorted by Name-0001 Param
Hangers and Supports for Ducts Sorted by Name-0001 Param
Hangers and Supports for Pipe Sorted by Name-0001 Param
Hangers and Supports for Supported Route - Drawing-0001 Param
Hangers and Supports for Supporting Structure - Drawing-0001 Param
Hangers and Supports Pipe Rack Sorted by Name - Export to Icarus-0002
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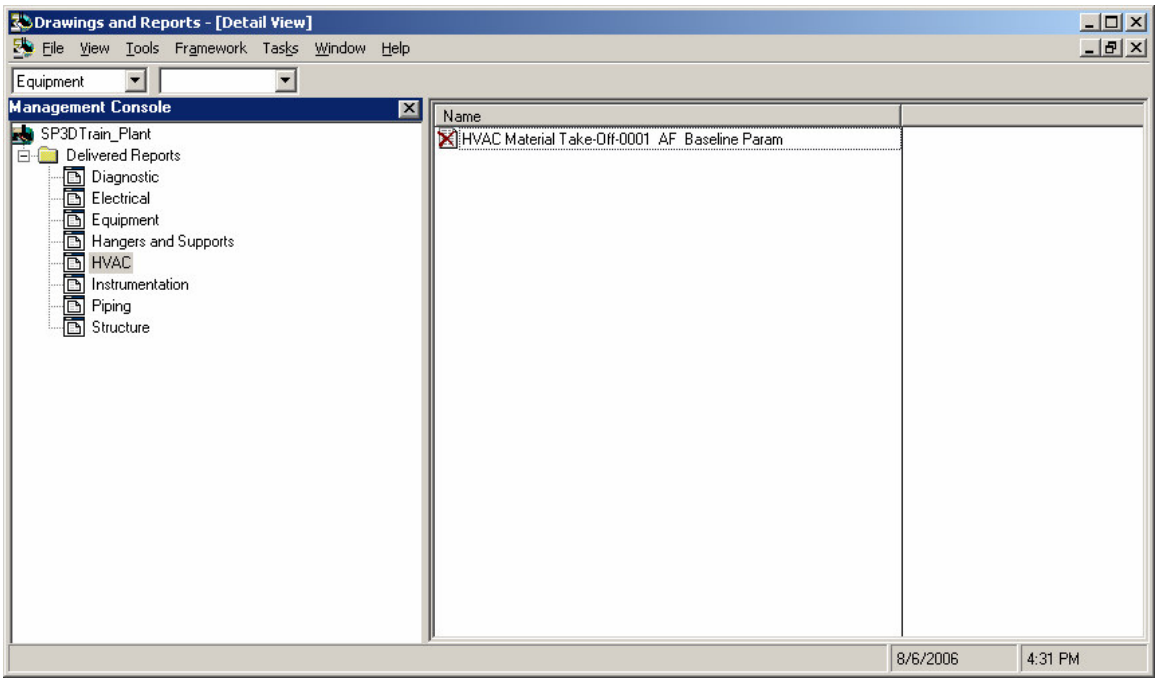
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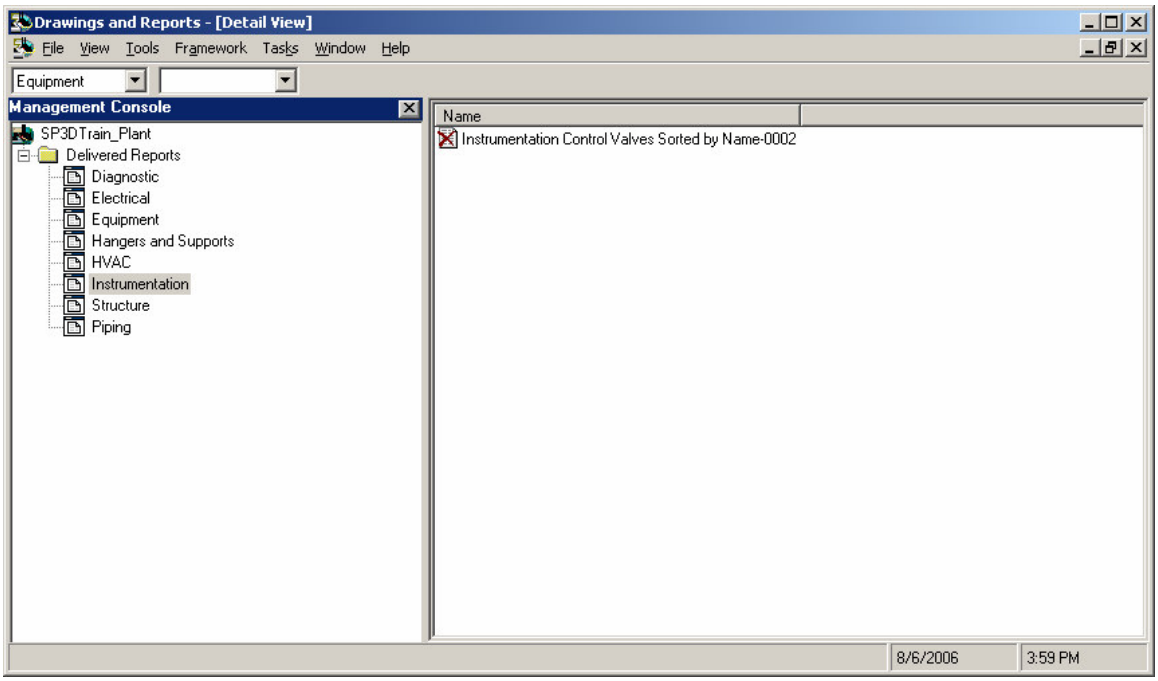
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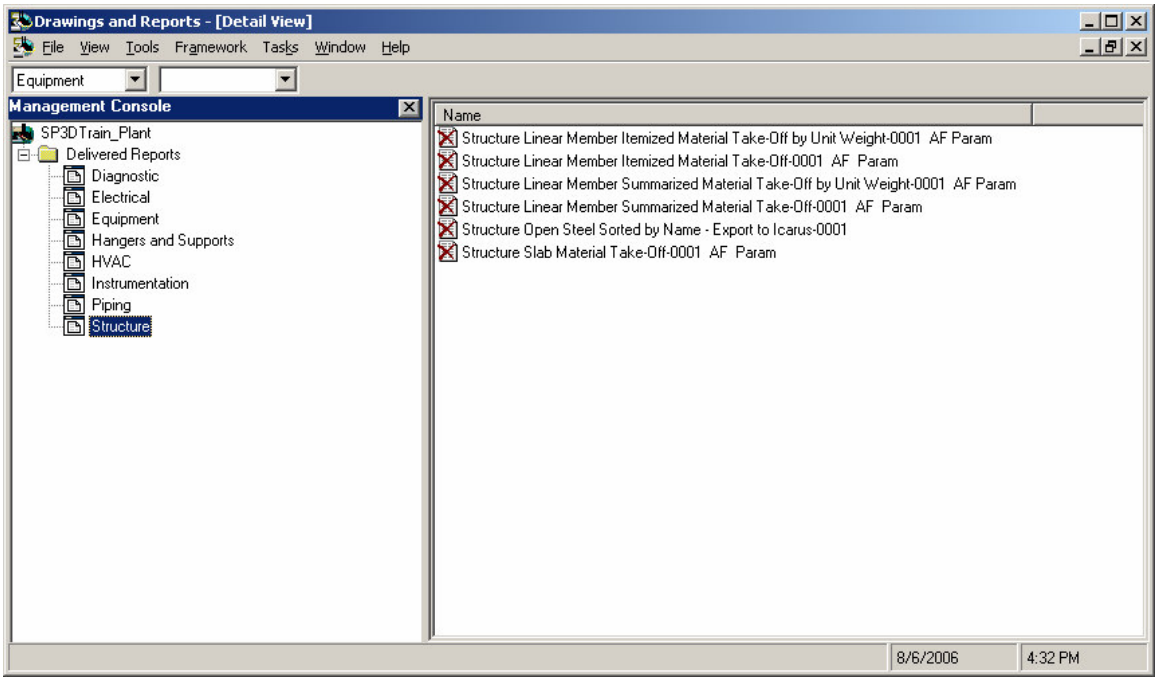
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Structure Linear Member Itemized Material Take-Off-0001 AF Param
Structure Linear Member Summarized Material Take-Off by Unit Weight-0001 AF Param
Structure Linear Member Summarized Material Take-Off-0001 AF Param
Structure Open Steel Sorted by Name - Export to Icarus-0001
Structure Slab Material Take-Off-0001 AF Param
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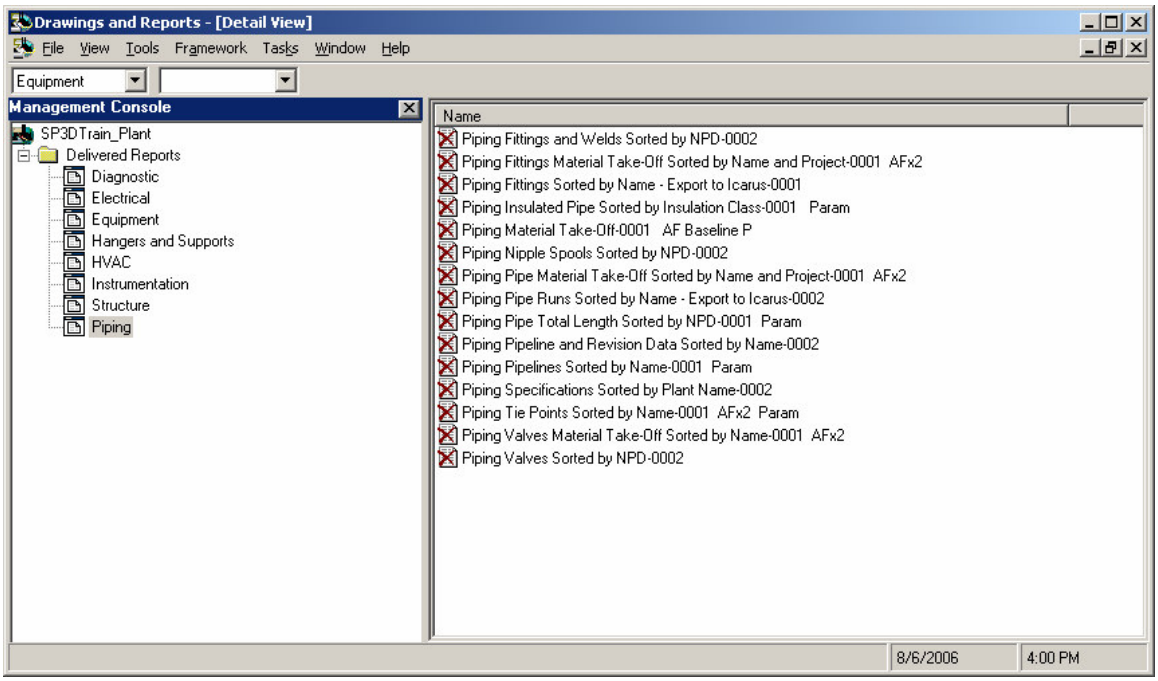
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Piping Fittings Material Take-Off Sorted by Name and Project-0001 AFx2
Piping Fittings Sorted by Name - Export to Icarus-0001
Piping Insulated Pipe Sorted by Insulation Class-0001 Param
Piping Material Take-Off-0001 AF Baseline P
Piping Nipple Spools Sorted by NPD-0002
Piping Pipe Material Take-Off Sorted by Name and Project-0001 AFx2
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Piping Pipelines Sorted by Name-0001 Param
Piping Specifications Sorted by Plant Name-0002
Piping Tie Points Sorted by Name-0001 AFx2 Param
Piping Valves Material Take-Off Sorted by Name-0001 AFx2
Piping Valves Sorted by NPD-0002
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Other Functionalities for SP3D Reports

Grouping - Grouping can be applied by the report designer such that similar items can be grouped based on similar properties. Typically, this functionality is set by the report designer – someone executing the report will see the results of the configuration that the report designer has chosen.

Sorting - Items returned in reports can be Sorted based on a series of properties returned in the report. Multiple columns can be used for sorting, allowing greater granularity in the overall Sort. Typically, this functionality is set by the report designer – someone executing the report will see the results of the configuration that the report designer has chosen.

Hierarchy - Hierarchies can be applied to split across sheets. Such as reporting out a separate piece of equipment on each sheet, because the remainder of the report is detailed information on the ports of each equipment. The result is a single report that gives a different sheet for each equipment, and on each sheet are the full details of all ports residing on that equipment. Typically, this functionality is set by the report designer – someone executing the report will see the results of the configuration that the report designer has chosen.

Labels - Labels are a form of reporting in SP3D. Tooltip labels can be made and activated by any users. However, embedded labels (like those used on the reports to change UOM for certain properties) are typically set by the report designer. However, if parameterization has been used with the report, the person executing the report and can easily change the UOM shown for the various properties.