

Drawing Creation Tutorial

Creating a Report



Version 2014

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SESSION 13

Creating a Report

Objective

By the end of this session, you will be able to:

- Create reports by using the Create Report command in the Drawings and Reports task.

Prerequisite Sessions:

- SP3D Overview
- Drawings and Reports: An Overview

Overview:

Reports list the objects that exist in the model along with the parameters such as part number, class, description, location, and approval status. These parameters are defined in the report template that you select while creating a report. Report templates control the content and format of the reports. These templates contain the necessary SQL statements and links to other templates to extract the required information to produce a report.

In the Drawings and Reports task, you create reports by using the Create Report... command. You can also add, delete, modify items in a report and compare it with a previously created report to view the changes between the two reports.

Reports are divided into two categories, personal reports and Catalog reports. Personal reports use templates that you create and save. Catalog reports include report templates that are delivered with the software and the templates of the reports created by users. The Catalog reports are further divided into report component folders. For example, the Piping-related reports and all their supporting files are located in the Piping folder. The reports in this location are Catalog reports and are bulkloaded into the Catalog database.

This session will cover the procedure for creating a report from a template delivered as a Catalog report.

Creating a Report

Create a report to include all the Electrical, HVAC, and Process equipment placed in Unit U01. The report should include the parameters: Location – with Unit of Measure - Primary ft and Secondary in, Matrix – Global, Description, Permission Group, and Approval Status of the equipment.

Click the Tasks > Drawings and Reports command to switch to the Drawings and Reports task.

In the Management Console, right-click the spreadsheet reports component, and click Create Report to create a new report, as shown in Figure 4.

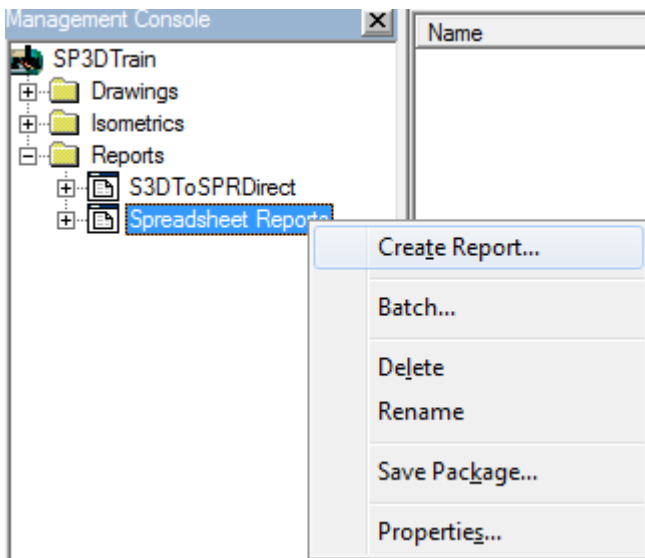


Figure 4: Create Report... Command

In the Select Report Template dialog box shown in Figure 5, select the Equipment category under the Types of Reports folder to select a report template to include equipment in the report.

The names of the report templates are listed in the right side of the Select Report Template dialog box along with their descriptions. Select the Equipment Location Sorted by Equipment Name Style 1 report template to include the equipment with their location, description, permissions, and approval status and click OK, as shown in Figure 5.

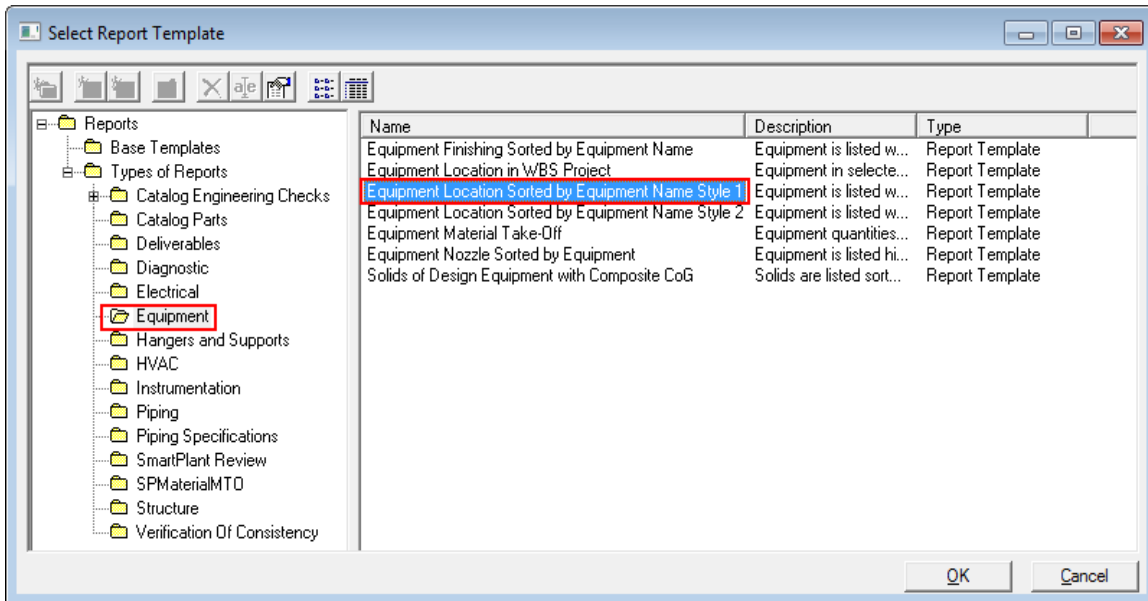


Figure 5: Select Report Template Dialog Box

The software prompts for parameters or a filter if the selected report template requires these inputs. In the Filter Properties for Asking Filter dialog box, select Unit U01 to include as a parameter in the report, as shown in Figure 6.

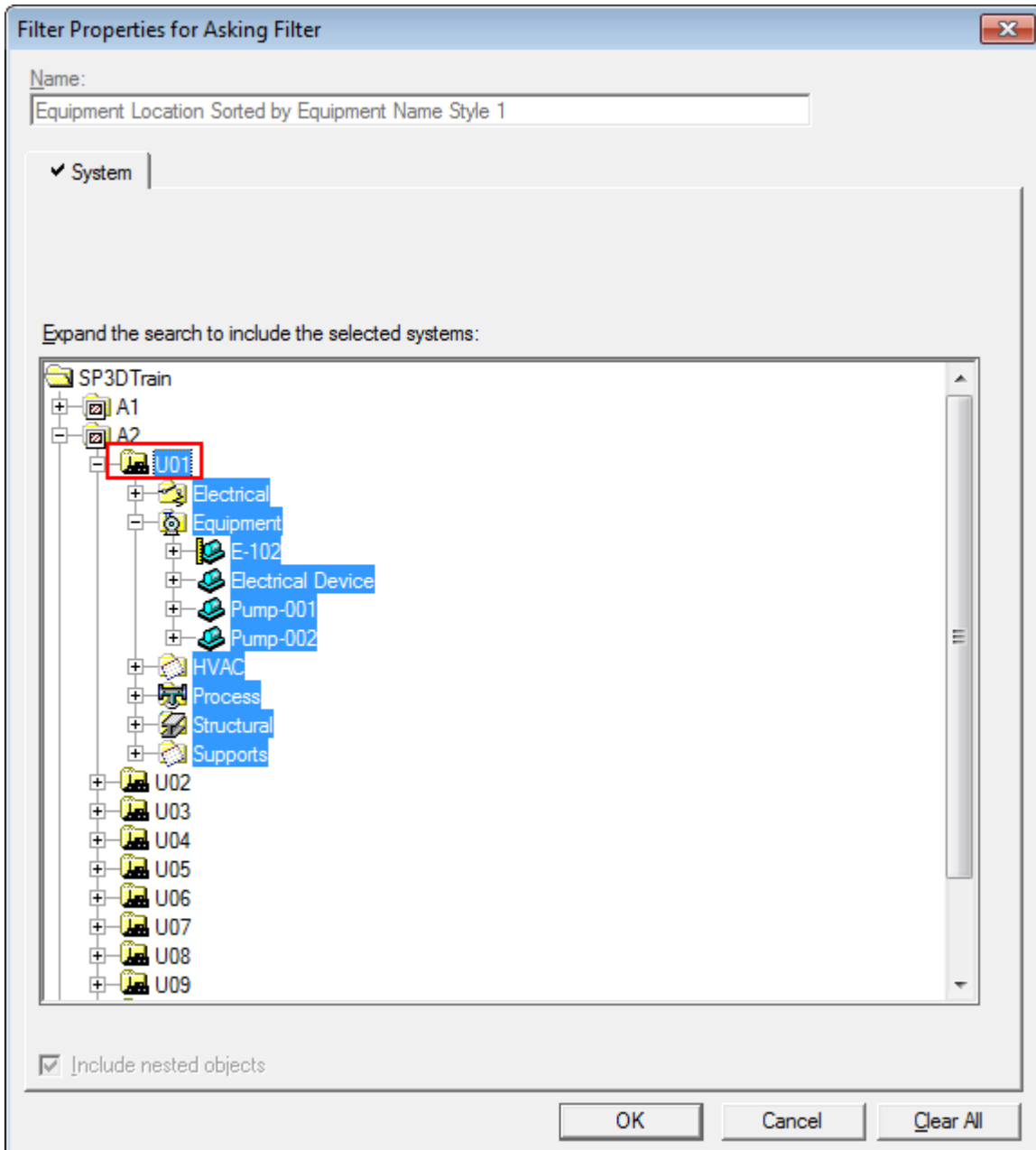


Figure 6: Filter Properties For Asking Filter Dialog Box

The Report Parameters dialog box appears as shown in Figure 7. You can click browse to select a baseline report if you want to compare the report with any previously created report.

Click Next to continue if you do not have any baseline report created or you do not want to compare this report with any other report.

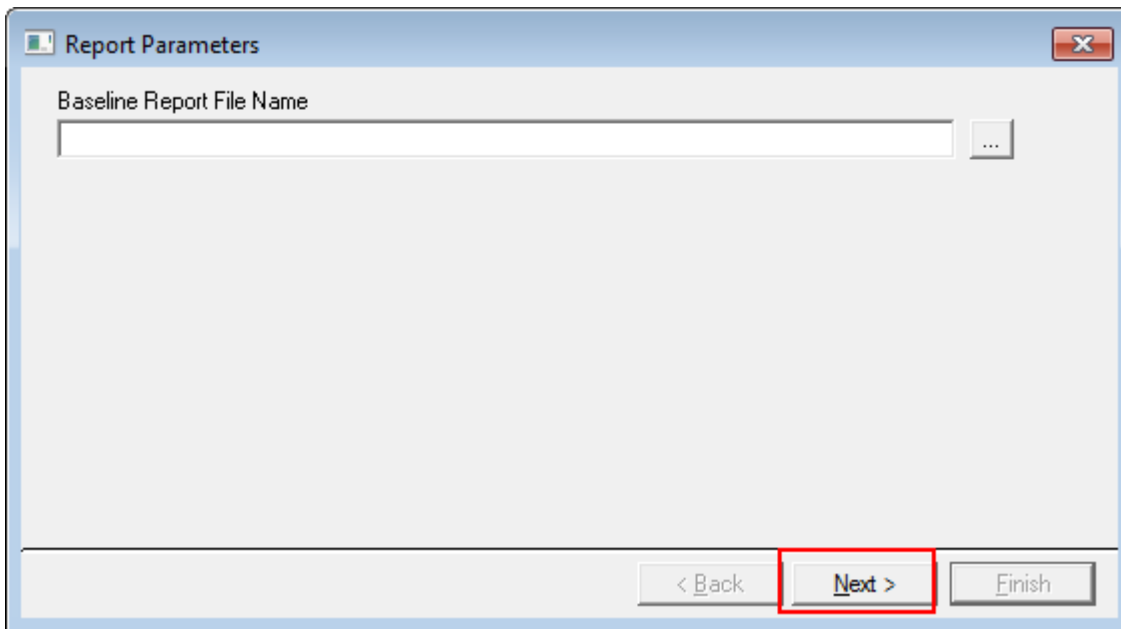


Figure 7: Report Parameters Dialog Box

The Report Parameters dialog box displays the Unit of Measure and Matrix properties for the report. You can change these properties as per your requirements, and then click Finish, as shown in Figure 8.

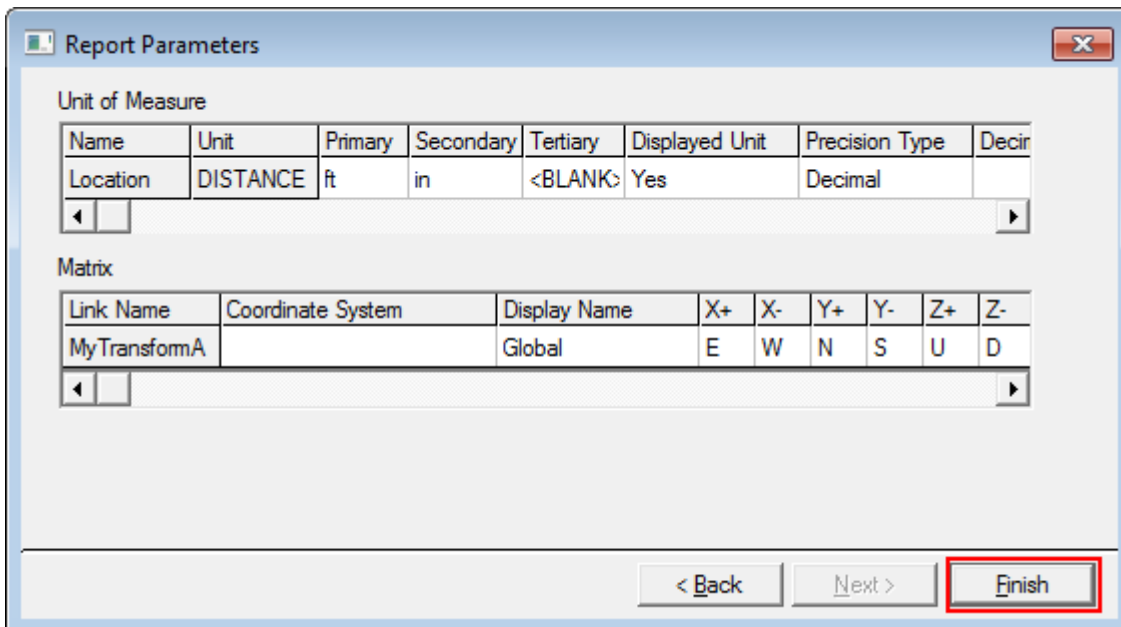


Figure 8: Report Parameters Dialog Box

The software creates the report document in the Detail View, as shown in Figure 9.

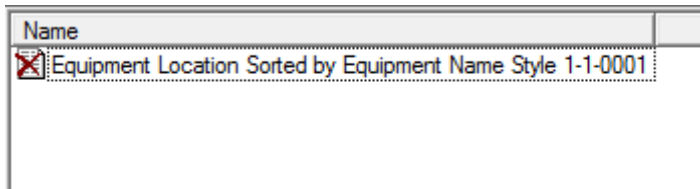


Figure 9: Report Created in Detail View

Right-click the report, and click Update Now to update the report to the model database as shown in Figure 10.

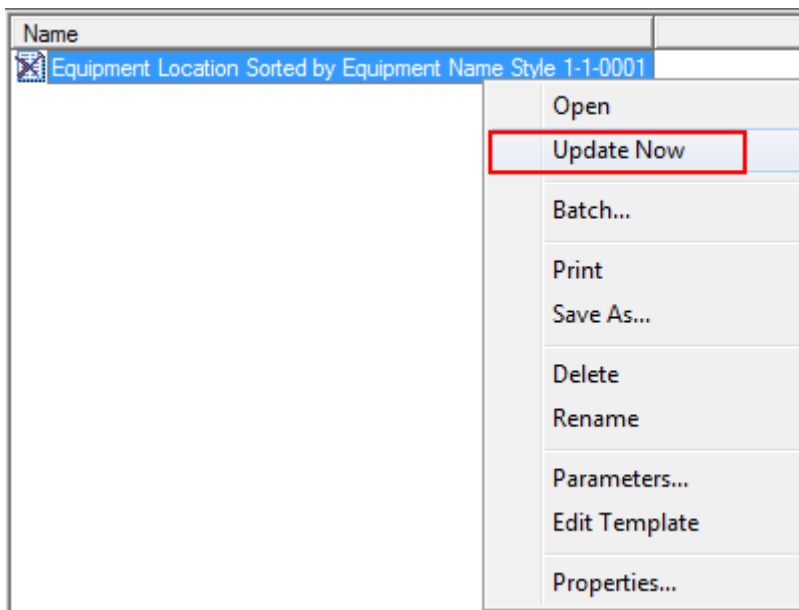


Figure 10: Update Now Command

After updating the report the software displays the report in the Detail View, as shown in Figure 11.

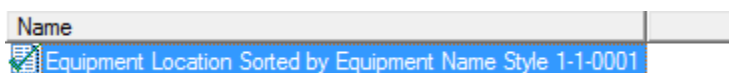


Figure 11: Report Updated in Detail View

Double-click the report to view it. The software generates the report in the standard format, as shown in Figure 12. The default file format of reports in SP3D is Microsoft Excel®.

Equipment Location Sorted by Equipment Name Style 1-1-0001.xls [Read-Only] [Compatibility Mode] - Microsoft Excel

Plant Name: SP30Train
 Filter Name: Equipment Location Sorted by Equipment Name
 Filter Location: Catalog
 Filter Description: [System IN (U01)] [Object Type IN (Equipment&Furni)]

Date: 7/2/2014 3:04:29 PM

User: INGRNET\sdongre

Equipment Location Sorted by Equipment Name (Style 1)

Equipment	Location ft in Global	Description (General Notes)	Permission Group	Approval Status
E-102	E 85 ft 0 in S 10 ft 0 in U 6 ft 0 in		Equipment	Working
Electrical Device	E 85 ft 0 in N 52 ft 0 in U 3 ft 0 in		Electrical	Approved
Pump-001	E 107 ft 0 in N 14 ft 0 in U 1 ft 6 in		Equipment	Working
Pump-002	E 107 ft 0 in N 22 ft 0 in U 1 ft 6 in		Equipment	Working

Figure 12: Output – Generated Report

Editing Report Parameters

The Parameters... command specifies the parameters for a report, such as units of measure and coordinate systems. This command can be accessed by right-clicking a report in the Detail View. Parameters are defined in the report template.

In the Drawings and Reports task, locate the report Equipment Location Sorted by Equipment Name Style 1-1-0001 that was created in the previous lab. Right-click the report and select Parameters... from the right-click menu, as shown in Figure 13.

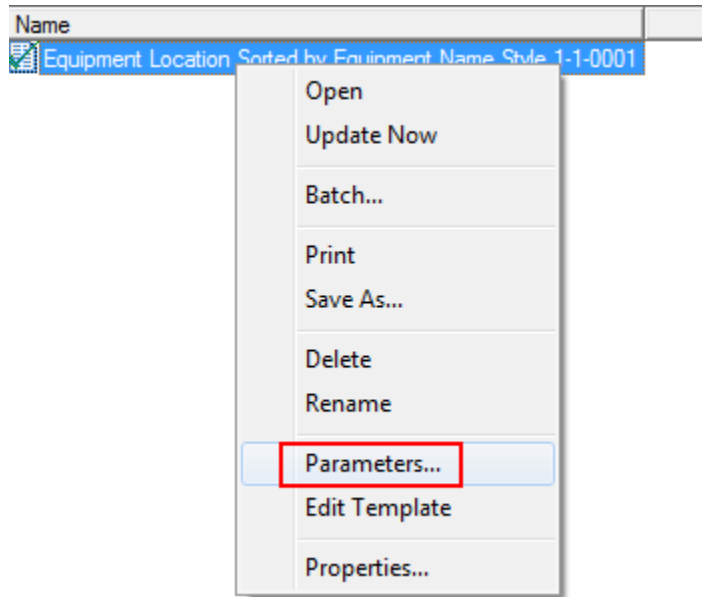


Figure 13: Parameters Command

The software prompts for parameters or a filter if the selected report template requires these inputs. In the Filter Properties for Asking Filter dialog box, select Unit U01 to include as a parameter in the report, as shown in Figure 14.

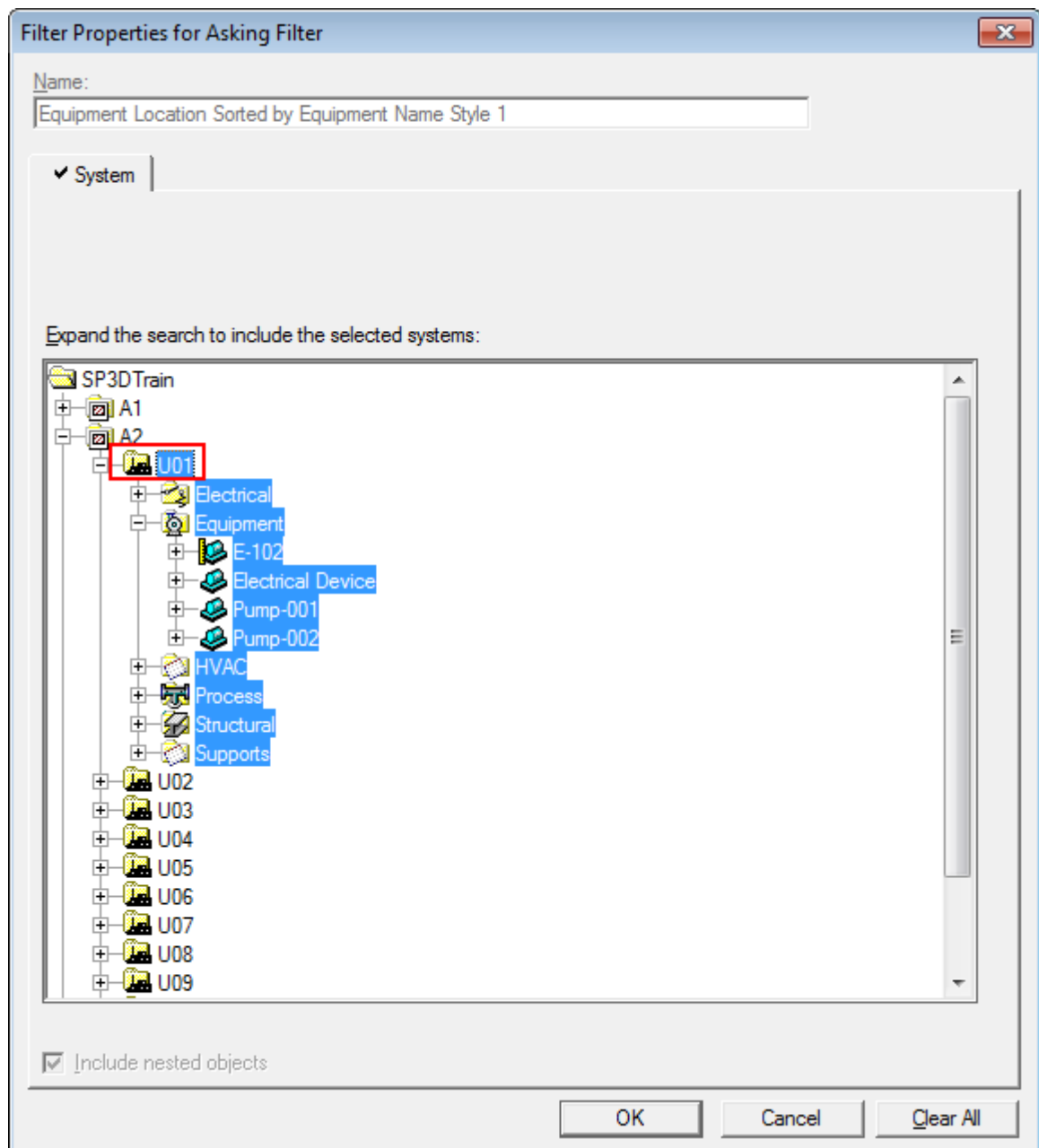


Figure 14: Filter Properties For Asking Filter Dialog Box

The Report Parameters dialog box appears as shown in Figure 15.

Click Next to continue if you do not have any baseline report created or you do not want to compare this report with any other report.

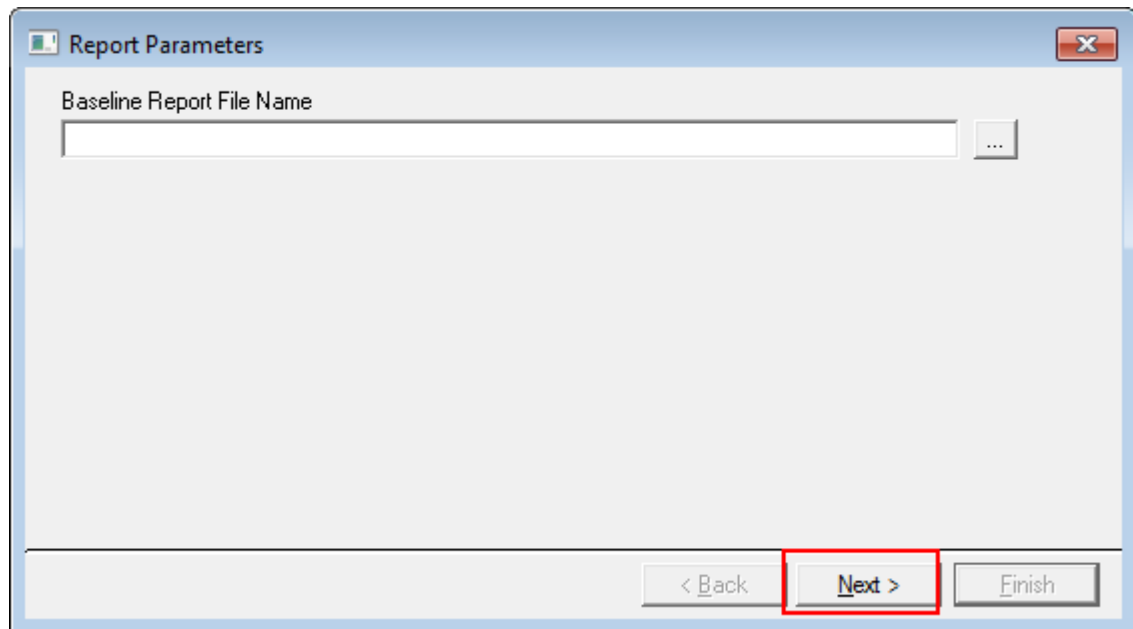


Figure 15: Report Parameters Dialog Box

The Report Parameters dialog box displays the Unit of Measure and Matrix properties for the report. For the Units of Measure setting, select in the Primary column, indicating primary units, and change the value to mm, as shown Figure 16. Likewise, for the Matrix setting, change column Z+ and Z- to contain the values EL and EL -, and then click Finish as shown in Figure 16.

Figure 16: Report Parameters Dialog Box

Right-click the report, and click Update Now to update the report to the model database, as shown in Figure 17.

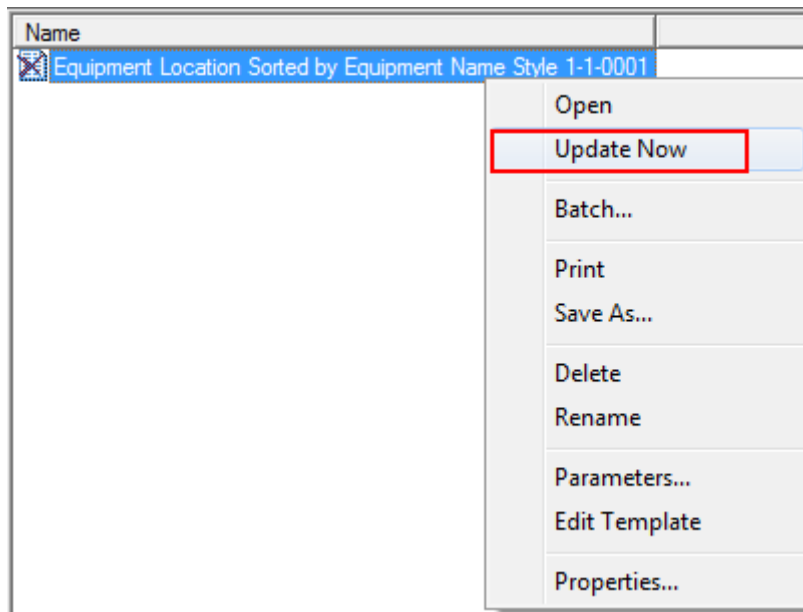


Figure 17: Update Now Command

After updating the report the software displays the report in the Detail View, as shown in Figure 18.

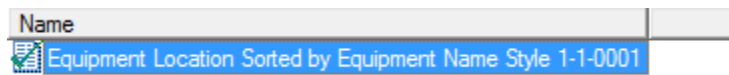


Figure 18: Report Updated in Detail View

Double-click the report to view it. Notice, in Figure 19, the Units of Measure and the Elevation labels on the Coordinate readout.

Equipment Location Sorted by Equipment Name Style 1-1-0001.xls [Read-Only] [Compatibility Mode] - Microsoft Excel

Plant Name: SP30Train
 Filter Name: Equipment Location Sorted by Equipment Name
 User: INGRINET\sdongre
 Filter Location: Catalog
 Date: 7/2/2014 3:13:39 PM
 Filter Description: [System IN (U01)] [Object Type IN (Equipment&Furni]

Equipment Location Sorted by Equipment Name (Style 1)

Equipment	Location mm Global			Description (General Notes)	Permission Group	Approval Status
E-102	E 25908 mm	S 3048 mm	EL1829 mm		Equipment	Working
Electrical Device	E 25908 mm	N 15850 mm	EL914 mm		Electrical	Approved
Pump-001	E 32614 mm	N 4267 mm	EL457 mm		Equipment	Working
Pump-002	E 32614 mm	N 6706 mm	EL457 mm		Equipment	Working

Figure 19: Output – Generated Report After Modifying Report Parameters

Creating a Baseline Report

Baseline Reporting uses a differential report showing changes in comparison to the baseline report. For example, you can view which items have been added, deleted, or modified in the two reports. Baseline information is not currently editable.

In the Drawings and Reports task, locate the report Equipment Location Sorted by Equipment Name Style 1-1-0001 that was created in the previous procedure. Right-click the report and select Save As from the right-click menu, as shown in Figure 20.

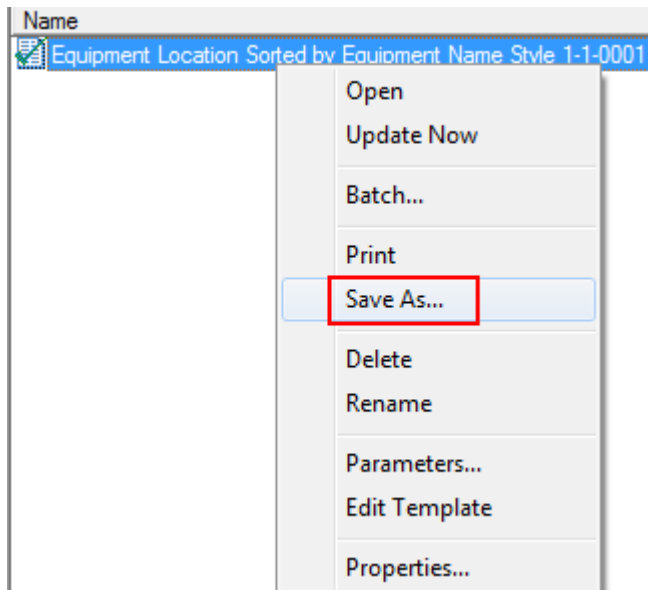


Figure 20: Save As Command

Use the Browse button in the Save As dialog box to navigate to the local machine's C: drive, as shown in Figure 21.

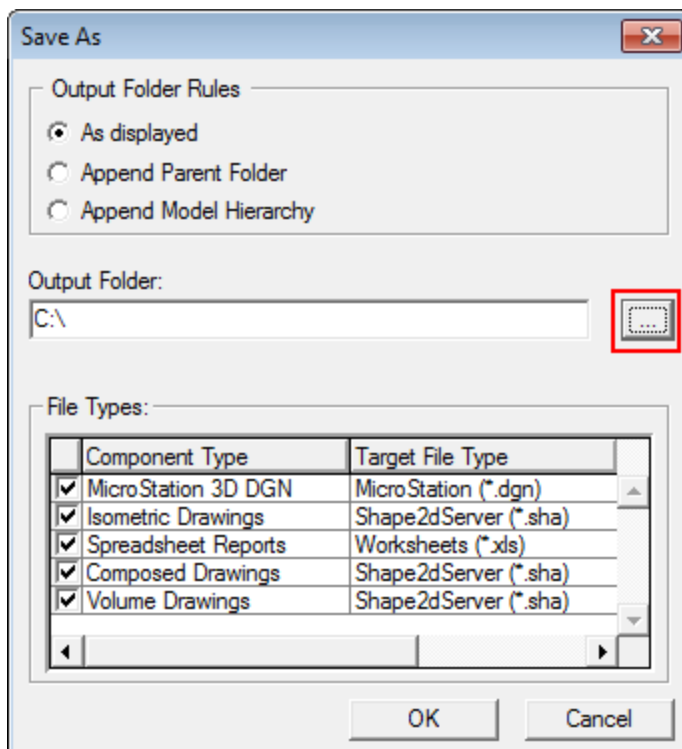


Figure 21: Save As Dialog Box

Change tasks to the Equipment and Furnishings task and right-click the equipment named E-102, and select Properties from the menu, as shown in Figure 22.

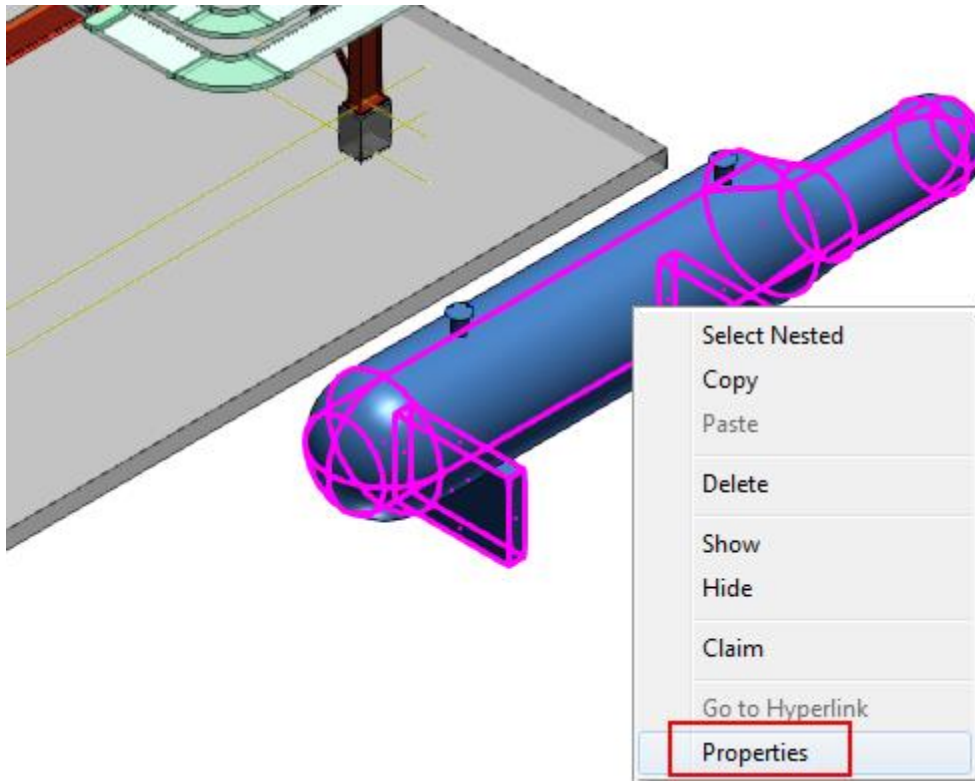


Figure 22: Equipment Properties Command

In the Equipment Properties dialog box, navigate to the Configuration tab and change the Status of the equipment from Working to Rejected and click OK in the dialog box to apply the changes, as shown in Figure 23.

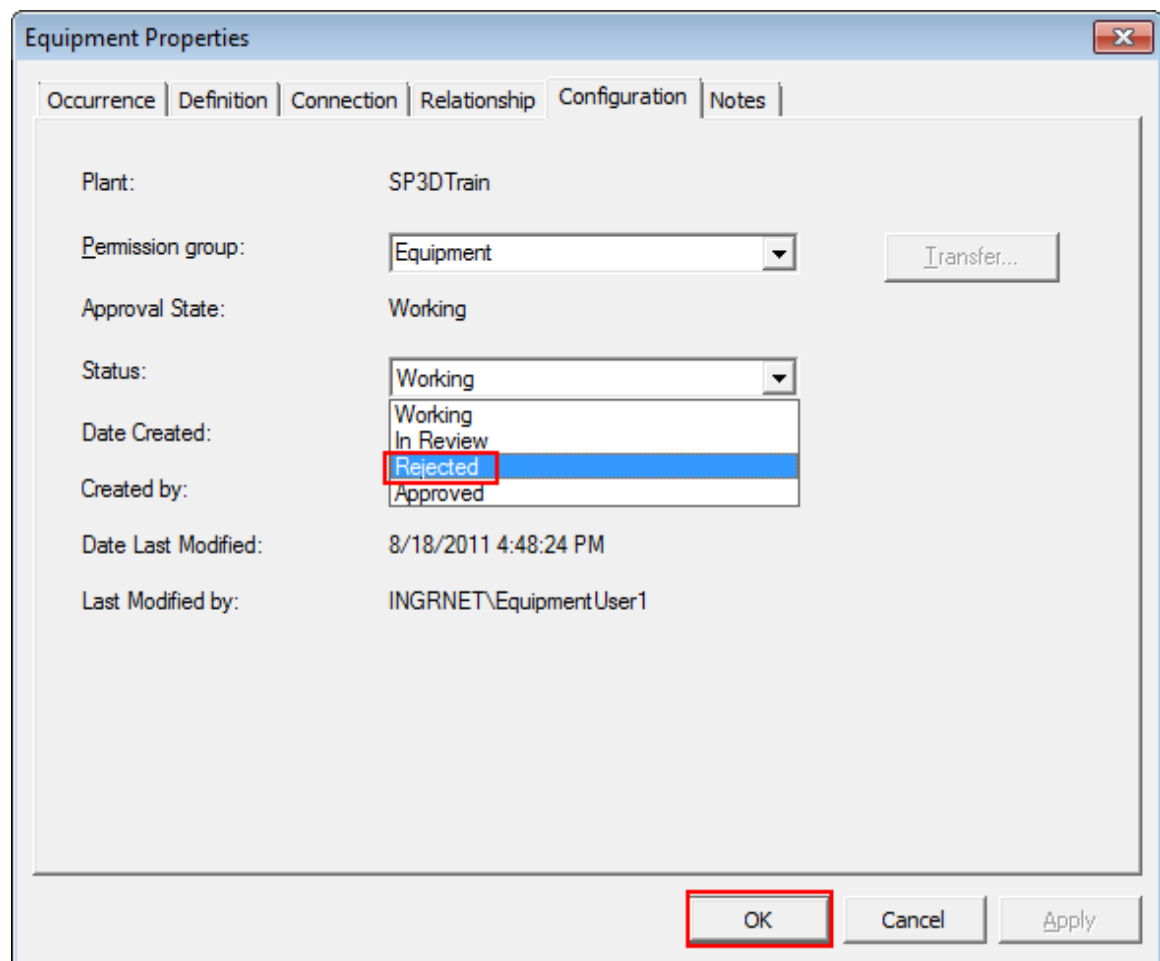


Figure 23: Equipment Properties Dialog Box

Change tasks back to the Drawings and Reports task. Locate the report Equipment Location Sorted by Equipment Name Style 1-1-0001 and right-click the report. Select the Parameters option in the right-click menu, as shown in Figure 24.

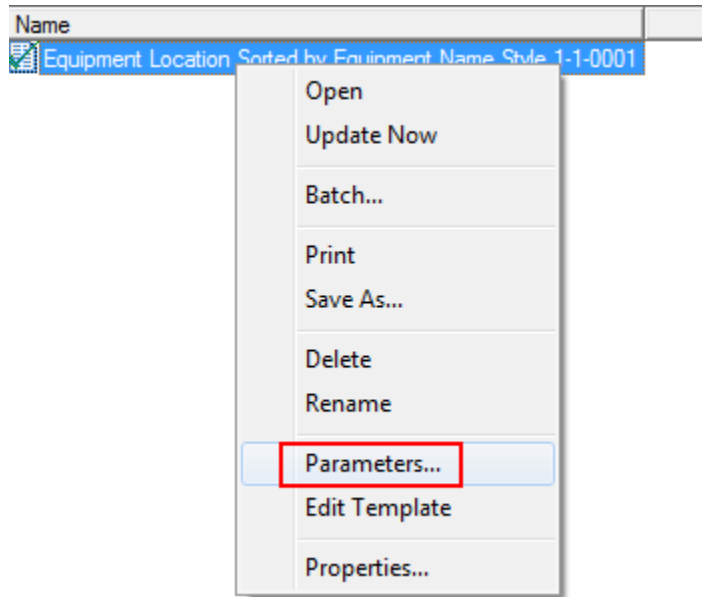


Figure 24: Parameters... Command

The software prompts for parameters or a filter if the selected report template requires these inputs. In the Filter Properties for Asking Filter dialog box, select Unit U01 to include as a parameter in the report, as shown in Figure 25.



Figure 25: Filter Properties For Asking Filter Dialog Box

The Report Parameters dialog box appears as shown in Figure 26. You can click browse to select a baseline report if you want to compare the report with any previously created report.

Select the Browse button and navigate to the report that was saved in C: drive in step 2.

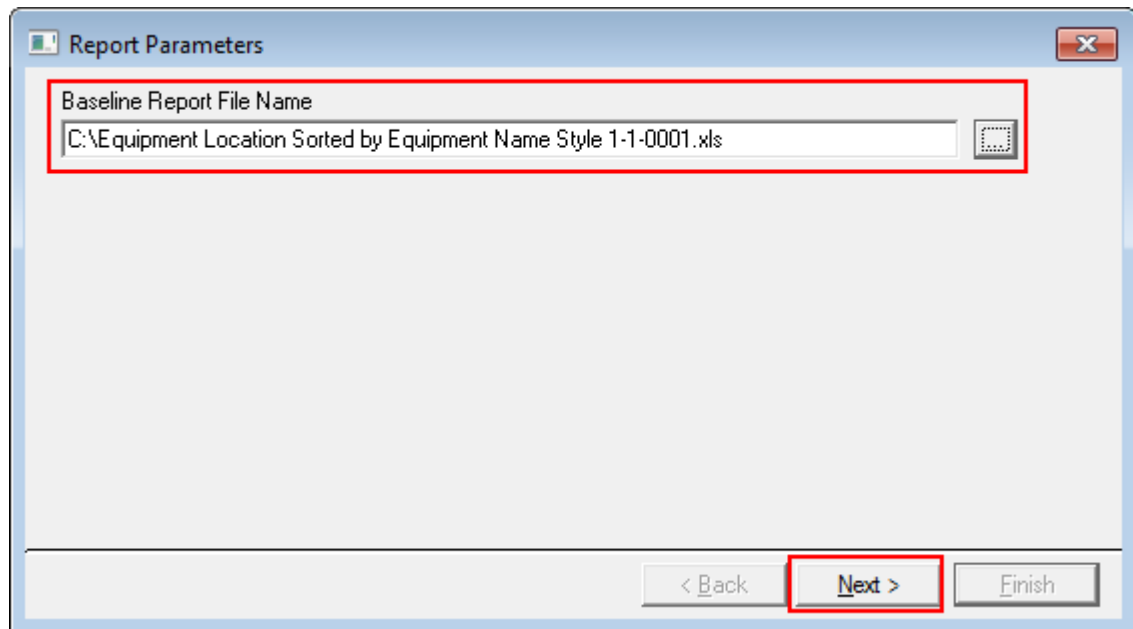


Figure 26: Report Parameters Dialog Box

The Report Parameters dialog box displays the Unit of Measure and Matrix properties for the report. You can change these properties as per your requirements, and then click Finish, as shown in Figure 27.

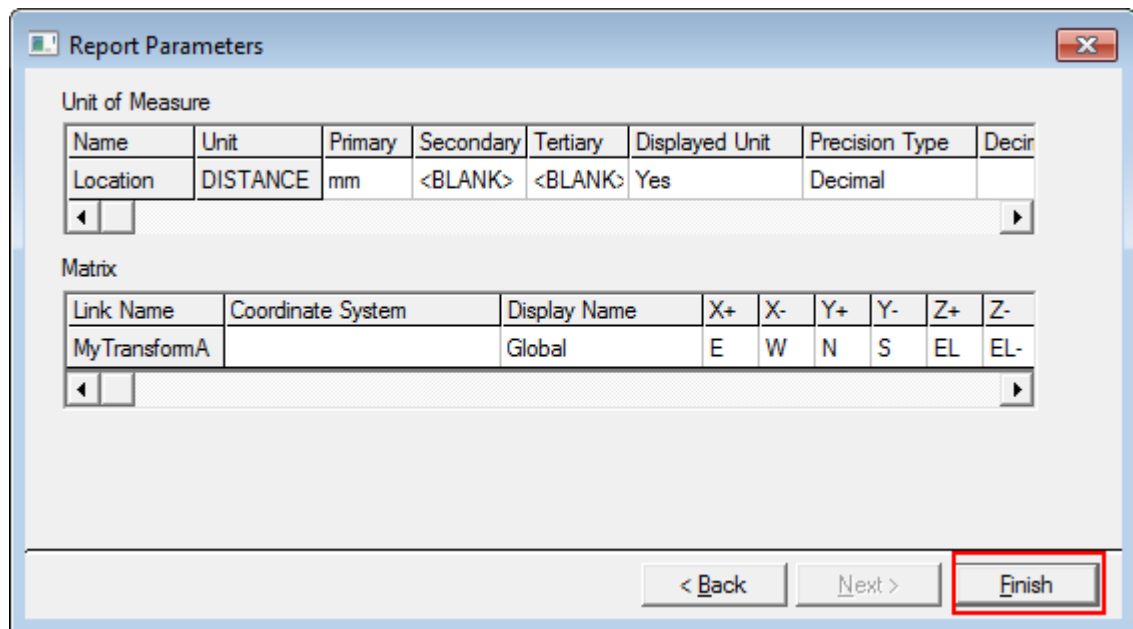


Figure 27: Report Parameters Dialog Box

In the Detail View of the Drawings and Reports task, right-click the report Equipment Location Sorted by Equipment Name Style 1-1-0001 and select Update Now, as shown in Figure 28.

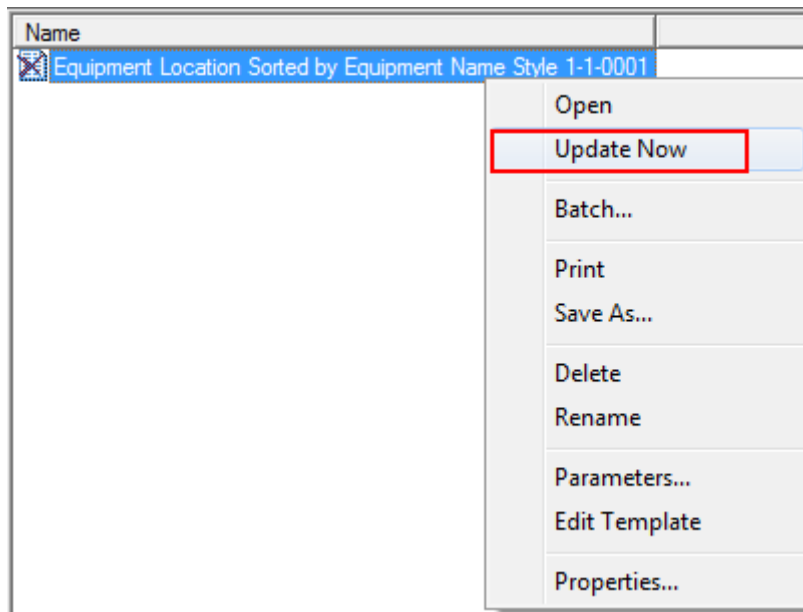


Figure 28: Update Now Command

Double-click the report to view it. The software generates the report in the standard format, as shown in Figure 29. The default file format of reports in SP3D is Microsoft Excel®.

Notice the change noted on the report from the last time that the report was run. The row in dark gray is the row that has changed preserving all the values as they were found in the report we used as the Baseline Report. Then notice the row, immediately following the grayed out row, contains the newly defined value.

Equipment Location Sorted by Equipment Name (Style 1)				
Equipment	Location mm	Description (General Notes)	Permission Group	Approval Status
E-102	E 25908 mm S 3048 mm	EL1829 mm	Equipment	Working
E-102	E 25908 mm S 3048 mm	EL1829 mm	Equipment	Rejected
Electrical Device	E 25908 mm N 15850 mm	EL914 mm	Electrical	Approved
Pump-001	E 32614 mm N 4267 mm	EL457 mm	Equipment	Working
Pump-002	E 32614 mm N 6706 mm	EL457 mm	Equipment	Working

Figure 29: Output – Generated Report Using Baseline Report

Overview

Change tasks back to the Equipment and Furnishings task and right-click the equipment named E-102, and select Properties from the menu.

Change the Status of the equipment E-102 back to Working and delete equipment E-102.

Change tasks back to the Drawings and Reports task and re-update the report.

View the report. Notice, in Figure 30, the E-102 equipment row being called out is highlighted in red with a line marked through the entire row. This indicates that the equipment has been deleted out of the model from the last time that this report was run (using Baseline Reporting).

Equipment Location Sorted by Equipment Name (Style 1)

Equipment	Location mm	Description (General Notes)	Permission Group	Approval Status
E-102	E 26908 mm S 3048 mm EL1829 mm		Equipment	Working
Electrical Device	E 25908 mm N 15850 mm EL914 mm		Electrical	Approved
Pump-001	E 32614 mm N 4267 mm EL457 mm		Equipment	Working
Pump-002	E 32614 mm N 6706 mm EL457 mm		Equipment	Working

Figure 30: Output – Generated Report Using Baseline Report

For reports to view on computers, you need to modify the security settings in Excel to allow Visual Basic projects to run. To change this setting, open Excel, and click Tools > Macro > Security. On the Trusted Publishers tab, select Trust access to Visual Basic Project. You should verify this setting before creating reports.