ShipConstructor 2011 R2.0.2

TechNotes (fixed issues / new features) **Total: 3**

NA

Subtotal: 1

Issue ID: 18390

Title: Installer - Some ShipConstructor drawings may refuse to open in NavisWorks after NavisWorks is installed on top of ShipConstructor SC2011 R1 or R1.1

Description: Some ShipConstructor drawings may refuse to open in NavisWorks after NavisWorks is installed on top of ShipConstructor SC2011 R1 or R1.1.

For example, consider the following scenario:

1. The user has installed AutoCAD;
2. The user has installed ShipConstructor 2011 R1.0 or R1.1;
3. The user has installed NavisWorks.

If the user attempts to open a ShipConstructor drawing in NavisWorks, an error may happen. This is an intallation error that happens behause some of the NavisWorks enabler files don't get copied to the appropriate location during the installation process.

Issue Type: Issue

Shared

Subtotal: 2

Issue ID: 16684

Title: ShipConstructor - Plotting Drawings - Curved plates may fail to appear correctly in drawing plots if the "Hidden" shadeplot option is used

Description: Curved plates may fail to appear correctly in drawing plots if the "Hidden" shadeplot option is used.

The behaviour may have slightly different variations. For instance:

1. When the "Hidden" plotting mode is set, curved plates may appear as completely non-transparent objects that has only the outer contour line and miss all of the lines on the inside edges.
2. When the "Hidden" plotting mode is set, curved plates may appear as completely transparent wireframes with other objects shining through them.

To reproduce the behaviour, the following steps can be followed:

1. Create a Structure model drawing that contains curved plates;
2. Open the "Structure Drawing Options…" dialog and set all options to "Show";
3. Switch to the layout tab;
4. Select the viewport and set its "Shade Plot" property to "Hidden;"
5. Type the word "Plot" in the command line and hit Enter;

If the user displays opens plot preview window or prints the drawing, he or she may see that the plot has visual defects in curved plates. The behavior occurs to ShipConstructor objects only. Native AutoCAD solids always appear correctly in drawing plots.

Issue Type: Issue

Issue ID: 19694

Title: Production - After upgrading to SC2011, the "Rank" keyword as well as keywords for assembly UDAs don't appear in the "Insert Keyword" dialogue for existing Assembly Drawings

Description: After upgrading to SC2011, the "Rank" keyword as well as keywords for assembly UDAs don't appear in the "Insert Keyword" dialogue for existing Assembly Drawings. For example, consider the following scenario:

1. A project has been started under SC2008;
2. A few assembly drawings has been created in the project;
3. The project has been updated to SC2011.
4. One of the previously existing assembly drawings has been opened.

If the user runs the "Insert Keyword" command, some of the keywords will be missing from the list in the "Insert Keyword" dialogue. The missing keywords are: the "Rank" keyword and all of the keywords that appear for assembly UDAs. The issue doesn't happen to assembly drawings that are created under the SC2011 version of the product after the update is done.

In the correct situation, all assembly drawings should display the full list of keywords regardless of the ShipConstructor version under which the drawings were created.

Issue Type: Issue

ShipConstructor 2011 R2.0.1

TechNotes (fixed issues / new features) **Total: 3**

Distributed Systems **Subtotal: 1**

Issue ID: **19489**

Title: Distributed Systems - Modeling - Opening a model drawing appears to change the length of a valid bent pipe or HVAC part without first warning the user

Description:

Opening a model drawing appears to change the length of a valid bent pipe or HVAC part without first warning the user. For example consider the following situation:
1. Create a bent pipe or HVAC part with multiple bends;
2. Modify one or more of the straight segments of the bent pipe/HVAC part so that they are shorter than the minimum length of the stock, as defined in the pipe or HVAC stock catalogue, used to create the bent pipe/HVAC part;
3. Save and close the drawing;
4. Open the drawing and notice that each segment of the pipe/HVAC part, whose length was less than the minimum stock length defined in the catalogue, has been extended to the minimum stock length with the exception of the last segment of the part which is unaffected.

Alternatively (this case is mentioned for clarity, but is in fact not possible in ShipConstructor 2011 due to a modeling constraint which prevents the creation of a straight pipe/HVAC which is less than the minimum stock length):
1. Create a straight pipe or HVAC part in a version prior to ShipConstructor 2011R1 having a total length less than the minimum stock length;
2. Save and close the drawing;
3. Open the drawing after upgrading to an affected version and notice that the pipe/HVAC part has been modified so that the length is now equal to the minimum stock length.

In the case of affected part having anchors defined upon it, the anchors will move to accommodate the new segment lengths.

In the case of the affected part having a lock defined upon it, the model will appear to have had its segments extended to the minimum stock length, but the modifications shown in the model will NOT be written back to the database unless the user unlocks the part.

In the case of other parts being connected to the affected part, ShipConstructor will attempt to maintain the connections by moving any connected part. If the connected part cannot be moved, or there are anchors and/or locks defined on connected parts, the connections will break.

In all cases the changes displayed in the model drawing are NOT written to the database unless the user performs one of the following actions:
- Saves a drawing containing affected pipe or HVAC parts.
- Runs the "Update Model and System Drawings" command (which effectively opens and saves each distributed systems drawing).

The behavior of opening a model drawing and having the length of a pipe or HVAC stock change is incorrect. Under no circumstance should the length of a pipe or HVAC part change without the user being notified.

Issue Type: Issue

NA **Subtotal: 1**

Issue ID: **19460**

Title: ShipConstructor 2011 R2 Release Notes Spelling Mistake

Description:	There is a spelling mistake in the ShipConstructor 2011 R2 Tech Notes included with the initial release. Every instance (5 total) of the command _SCFXDUPLICATEPRODDWGS should have been _SCFIXDUPLICATEPRODDWGS.
	Issue Type: Issue

Shared

Subtotal: 1

Issue ID:	**19485**
Title:	ShipConstructor - Shared - An Insufficient permissions error repeatedly appears on the command line in ShipConstructor 2011R2
Description:	An Insufficient permissions error repeatedly appears on the command line in ShipConstructor 2011R2. For example, consider the following situation: 1. A user is created which has rights only to structure and not to Pipe or HVAC; 2. The user opens a structure drawing; 3. Messages appear on the command line as follows: "Insufficient permissions: Pipe\Spools\Pipe Spools - Edit/Delete." "Insufficient permissions: HVAC\Spools\HVAC Spools - Edit/Delete." The messages appear on the command line even though there may not be distributed systems in the current drawing. This behaviour is incorrect. If there are no distributed systems in the current drawing then no messages should appear regarding distributed systems.
	Issue Type: Issue

ShipConstructor 2011 R2 Update: Important Information

Split & Merge Projects:

- Prior to updating to or through ShipConstructor 2011 R2, all project splits must be merged back into the master project and split links broken if *Project Split & Merge* control of any product hierarchy unit has been split to non-master project participants.

All Projects:

- After updating to ShipConstructor 2011 R2, the command _SCFIXDUPLICATEPRODDWGS should be run before any project work is performed.

Merging Project prior to Updating to ShipConstructor 2011 R2

Prior to updating to ShipConstructor 2011 R2, all project splits must be merged back into the master project and split links broken if Project Split & Merge control of any product hierarchy unit has been split to non-master project participants. If this is not done, changes that are made to non-primary product hierarchies in project splits will be lost during the next merge operation. As an example, consider the following scenario:

1. When splitting a project using a ShipConstructor version prior to ShipConstructor 2011 R2, the master project delegates control of one or more product hierarchy units to other project participants by selecting these units on the Product Hierarchy tab of the Split & Merge Manager;
2. Changes are made in a non-primary product hierarchy by a non-master project participant. Changes could include: adding new ranks to the hierarchy, renaming existing ranks, changing properties of individual assemblies, or changing the product hierarchy location of individual parts.
3. The master project and all project splits are updated to ShipConstructor 2011 R2.

After updating to or past ShipConstructor 2011 R2, changes made to alternative product hierarchies in project splits will be lost during the next merge operation. To avoid losing non-primary product hierarchy changes made in project splits, all project splits must be merged back into the master project, and split links must be broken prior to updating the project to ShipConstructor 2011 R2.

The reason that this procedure must be followed is that the concept of a *Unit* has been removed from non-primary product hierarchies in ShipConstructor 2011 R2. The removal of non-primary product hierarchy units means that non-primary product hierarchies can no longer be split by units. Instead, they are split on a per product hierarchy basis. To address this change, control of all non-primary product hierarchy units is returned to the master project when updating *a project partitioned using Project Split & Merge* to or past ShipConstructor 2011 R2. This will result in changes made by split projects, to non-primary product hierarchies, being lost.

Running _SCFIXDUPLICATEPRODDWGS Command after Updating to ShipConstructor 2011 R2

After updating to ShipConstructor 2011 R2, the command _SCFIXDUPLICATEPRODDWGS should be run once before continuing work on the project. Running the command will ensure compatibility with the new mechanisms for synchronizing production drawing database records and production drawing DWG files.

Projects where _SCFIXDUPLICATEPRODDWGS has not been run may witness production drawings whose names contain the substring *$DUPLICATE$* in the *Navigator* dialog. In ShipConstructor 2011 R2, this signals synchronization issues that may have taken place as a result of unsupported actions such as copying, renaming, or deleting project files outside of ShipConstructor environment. Drawings whose names contain this substring will likely fail to open.

The _SCFIXDUPLICATEPRODDWGS command can be run at any time to synchronize production drawing database records with production drawing DWG files. _SCFIXDUPLICATEPRODDWGS is not a required regular maintenance operation.

ShipConstructor 2011 R2

TechNotes **Total: 171**

Issue **Subtotal: 144**

Issue ID:	**455**
Title:	Hull - Modeling - Adding trims or marklines to single curvature surfaces may distort their edges
Description:	Adding trims or marklines to single curvature surfaces may distort their edges. For example, consider the following scenario: 1. A single curvature surface has been created in a Hull model drawing. 2. The surface has been trimmed along some of its edges. 3. A markline or another trim has been added to the surface. If the newly added markline or trim happens to cross a plate edge that was created as a result of the initial trimming (step 2 in the scenario), the initially trimmed edge may become distorted or jagged depended on the particular shape of surface. **Issue Type:** Issue

Issue ID:	**9700**
Title:	Production - Assembly Drawings - Total Area and Total Weight fields in BOM tables fail to display values for assemblies
Description:	Total Area and Total Weight fields in BOM tables fail to display values for assemblies in assembly drawings. For example, consider the following scenario: 1. The user has created an assembly drawing with several assemblies included; 2. The user has inserted a BOM table that uses the "Assembly" collector and contains "Total Area" and "Total Weight" fields; After the user updates the BOM table, the "Total Area" and "Total Weight" fields will be empty. This is an incorrect behaviour. **Issue Type:** Issue

Issue ID:	**9769**
Title:	Distributed Systems - System Manager - Provide the ability to specify units for the "Density" attribute
Description:	Provide the ability to specify units for the "Density" attribute in the Systems Manager. Currently, density units are not mentioned when the user selects a system in System Manager. The issue is relevant for Pipe and HVAC modules. **Issue Type:** Issue

Issue ID:	**9987**
Title:	Distributed Systems - Equipment - Equipment and pipe connections with a single possible connection choice and no accessories still display the select connection dialog

Description: Equipment and pipe connections with a single possible connection choice and no accessories still display the select connection dialog.

For example, consider the following scenario:

1. The user has modeled an equipment part in a model drawing;
2. The user attempts to connect a fitting or a pipe part to the equipment part;
3. There is only one connection possible between the two ends that are getting connected.
4. There are no accessory packages at all that are defined for the connection, or there is only one possible accessory package, so the choice is explicit.

After the user clicks a free equipment end with the pipe or fitting part that needs to be connected to this end, the "Select Connection and Accessory Package" dialog will show up. In the dialog, the user won't be able to change anything because the only available option is automatically selected. After the user clicks the Ok button, the connection will be created regularly. In the correct situation, the "Select Connection and Accessory Package" dialog shouldn't show up at all because there are no options to select among. The dialog doesn't show up when two pipes, or a pipe and a fitting, or two fittings get connected together. The issue only happens in connections between equipment and pipe parts.

Issue Type: Issue

Issue ID: **10134**

Title: Project Split & Merge - If master/split project is missing Unit Drawings it doesn't control, an error message will appear when Navigator tries to recreate the missing drawings

Description: If master/split project is missing Unit Drawings it doesn't control, an error message will happen when Navigator tries to recreate the missing drawings. For example, consider the following situation:

1. Unit drawings are controlled by the remote project;
2. The local project has Structural control over the unit to which the unit drawings belong;
3. The remote project sends a split, merge, or refresh file;
4. Some unit drawings are missing from the split, merge, or refresh file (perhaps, they were manually deleted before the file was created by the remote project);
5. Depending on the file type, the file is used locally to accomplish one of the following: recreate the split project, update the split project, and merge the split project with the master;

Note: no errors will appear at this point.

If the user starts the local project and opens Navigator, an error message will be thrown when ShipConstructor recreates missing unit drawings. The error will happen one time only when Navigator is opened for the first time. In the correct situation, the error message shouldn't appear at all. ShipConstructor should silently recreate missing unit drawings, but, because the local project doesn't control these drawings, the drawings should be recreated empty.

Issue Type: Issue

Issue ID: **10156**

Title: ShipConstructor - Saving drawings that are opened via UNC paths causes a writing/closing file error

Description: Saving drawings that are opened via UNC paths causes a writing/closing file error. For example, a typical scenario would be a situation where the entire project is accessed via a UNC path. In such a scenario the error will be reproducible when saving any drawing.

The UNC path is a file or folder path that points to a network location and contains such characters as "\\."

Issue Type: Issue

Issue ID: **11281**

Title: Hull - Edit Marklines - A crash may occur in the "Configure Offset Output" dialog that is a part of the "Print Offsets" procedure

Description: A crash may occur in the "Configure Offset Output" dialog that is a part of the "Print Offsets" procedure. For example, consider the following scenario:

1. The user has opened the "Edit Markline" dialog for a Hull surface;
2. The user has deleted all marklines under a specific category such as "Section Marklines" or some other;
3. The user has clicked the category name with the right mouse button and selected the "Print Offsets" command;
4. The user has selected a location group;

If the user clicks the "Save" button in the "Configure Offset Output" dialog that should appear after the location group has been selected, a crash will occur. This is an incorrect behaviour that must be handled better.

Issue Type: Issue

Issue ID: **11311**

Title: Structure - Modeling - Applying a shoulder endcut to a curved stiffener leaves a sliver in the stiffener solid

Description: Applying a shoulder endcut to a curved stiffener leaves a sliver in the stiffener solid.

Issue Type: Issue

Issue ID: **11408**

Title: Hull - Edit Marklines Dialogs - Marklines toggled as Forming Templates aren't displayed in bold font when the "Filter Marklines" option is used

Description: Marklines toggled as Forming Templates aren't displayed in bold font when the "Filter Marklines" option is used. For example, consider the following scenario:

1. In a Hull model drawing, the user has selected a surface;
2. From the context menu, the user has run the "Edit Marklines" command to open the "Edit Marklines" dialog;
3. In the dialog, the user has activated an option to filter marklines by type.

If the user toggles a marklines as a forming template markline, the markline name won't show up in bold fort although, normally, it should.

Issue Type: Issue

Issue ID: **11412**

Title: Structure - Modeling - If a construction path of a stiffener or a faceplate finishes with an arc, an endcut may fail to apply correctly to this end

Description: If a construction path of a stiffener or a faceplate finishes with an arc, an endcut may fail to apply correctly to this end. For example, an endcut may not show up at all, or it may produce an incorrect 3D solid. However, if the part is lengthened with a straight piece of additional material, the endcut may be displayed flawlessly.

Issue Type: Issue

Issue ID: **11565**

Title: Manager - Naming Conventions - The "Generate" button in the "Generate Names" dialog is enabled and given focus by default even when there are no objects selected

Description: The "Generate" button in the "Generate Names" dialog is enabled and given focus by default even when there are no objects selected. If the user clicks this button when there are no objects to which generate names are selected, the progress bar will be shown, but nothing essential will be done. This is a UI defect. In the correct situation, the "Generate" button should not be enabled until, at least, one object is selected.

Issue Type: Issue

Issue ID: **11607**

Title: Manager - Edit Cutout Shape - A fatal error and a crash will occur if the user clicks "Save" or "Cancel" while routing a polyline in the profile cutout drawing

Description: A fatal error and a crash will occur if the user clicks "Save" or "Cancel" while routing a polyline in the profile cutout drawing. If the polyline routing is finished before the button is clicked, everything will work as it should. The error is only reproducible when the button is clicked while the polyline command is in process.

Issue Type: Issue

Issue ID: **11710**

Title: Report - Values of the "Component" attribute of profile trims are named confusingly in reports

Description: Values of the "Component" attribute of profile trims are named confusingly in reports. For example, when trimming a stiffener in a Structure model drawing, the Component attribute can take the following values:

1. All
2. Web
3. Flange
4. Both Flanges (for channel and W profiles)
5. Bottom Flange (for channel and W profiles)
6. Top Flange (for channel and W profiles)

If a report is generated, Component values that used to be "Flange," "Both Flanges," "Bottom Flange," or "Top Flange" in model drawings will appear as "Flange All" in the report. This is an incorrect behaviour. The reported trim component value should exactly repeat the value in the model drawing.

Issue Type: Issue

Issue ID: **12242**

Title: Production - Batch plotting of Profile Plot and Plate Nest drawings is impossible when the "DWG to PDF.pc3" printer driver is used

Description: Batch plotting of Profile Plot and Plate Nest drawings is impossible when the "DWG to PDF.pc3" printer driver is used. Instead of creating multiple PDF files, ShipConstructor overwrites the same file again and again. It is incorrect behaviour. In the correct situation, each drawing should be plotted into its own PDF.

Issue Type: Issue

Issue ID: **12894**

Title: Hull - Surface Expansion - Expanded Single curved surfaces do not support displaying isoline densities other than "None" or "All"

Description: Expanded Single curved surfaces do not support displaying iso-line densities other than "None" or "All." The issue doesn't happen to double curvature surfaces, and it only happens to single curvature surfaces after the surface is expanded.

Issue Type: Issue

Issue ID: **13025**

Title: Administrator - File paths that are shown in log records related to database backups contain double backslashes where single ones should be

Description: File paths that are shown in log records related to database backups contain double backslashes where single ones should be.

For example, a file path may look as follows: "E:\Projects\\test.bak." In the correct situation, it should be "E:\Projects\test.bak"

Issue Type: Issue

Issue ID: **13466**

Title: Penetrations - Plate-nested penetration components ask for an update after the containing structure model drawing is saved

Description: Plate-nested penetration components ask for an update after the containing structure model drawing is saved. For example, consider the following scenario:

1. The user has created a penetration of a pipe part through a Structure plate;
2. The penetration has a doubler as a penetration component;
3. The user has nested the doubler in a plate nest drawing;
4. The user has reopened the structure model drawing that contains the penetration;
5. Without doing any changes, the user has saved the structure drawing.

If the user opens the plate nest drawing, the user will get the message that the nested doubler part has changed and needs to be updated. In the correct situation, ShipConstructor shouldn't ask to update nested parts if the parts don't change.

Issue Type: Issue

Issue ID: **13470**

Title: Administrator - The "Manage Users" dialog won't show ShipConstructor users if the "use NT authentication only" option is chosen on the SQL server

Description: In Administrator, the "Manage Users" dialog won't show ShipConstructor users if the "use NT authentication only" option is chosen on the SQL server where the project database is deployed. As a result, ShipConstructor project administrators will be unable to modify ShipConstructor users' properties and project access permissions. In the correct situation, the "Manage Users" dialog should display all registered users.

Issue Type: Issue

Issue ID: **13527**

Title: Distributed Systems - Spool Manger - Switching between project drawings is possible even when Spool Manager is open

Description: Switching between project drawings is possible even when Spool Manager is open. For example, consider the following scenario:

1. The user has opened a pipe model drawing;
2. In the pipe model drawing, the user has opened Spool Manager.

If the user goes to Navigator and selects another drawing, ShipConstructor will load it, but Spool Manager will still be open. In the new drawing, Spool Manager will display old data from the previous drawing. If the user attempts to perform operations in Spool Manager, it may lead to various mistakes.

Issue Type: Issue

Issue ID: **13534**

Title: Manager - Hanger Stock Catalog - In-use Nominal Sizes and Material Grades can be disassociated from in-use hanger stocks

Description: In Hanger Stock Catalog in Manager, in-use Nominal Sizes and Material Grades can be disassociated from in-use hanger stocks.

For example, consider the following scenario:
- A hanger stock is associated with nominal size A and material grade B;
- A hanger part instance has been inserted into the model to hang a pipe with nominal size A and material grade B;
- The association with nominal size A and material grade B can be removed from the hanger stock thereby invalidating the hanger stock instance in the model.

In the correct situation:
- The In Use column of the Hanger Stock Catalog 'Nominal Size' dialog and 'Allowable Material Grades' should only show in use if the selected hanger stock is hanging a pipe with the particular nominal size or material grade;
- The user should not be able to disassociate a nominal size or material grade from a hanger stock if they are in use with a hanger stock;
- The user should be able to generate a usage log for the hanger stock and material grade or nominal size combination.

Issue Type: Issue

Issue ID: **13560**

Title: NC-Pyros - User Preferences Dialog - The Input Filter -> Origin Position value isn't filled correctly when the data is loaded storage from the profile file that stores user preferences

Description: The Input Filter -> Origin Position value isn't filled correctly when the data is loaded storage from the profile file that stores user preferences.

For example, consider the following scenario:
1. Create a new NC-Pyros preferences profile or load an existing one;
2. Use menu command <File\Preferences> to open the 'Preferences' window;
3. Go to the third Tab called 'Input Filter';
4. Change Radio-switcher in the 'Origin Position' group;
5. Save preferences in an external preferences profile file.

After reloading preferences from the preferences profile, the 'Origin Position' information on the 'Input Filter' tab won't be recreated from the file correctly. The rest of the settings will be loaded correctly.

Issue Type: Issue

Issue ID: **13626**

Title:	Structure - Modeling - Plate parts with different geometric shapes may still be considered identical if a specific modification is applied to their identical construction lines
Description:	Plate parts with different geometric shapes may still be considered identical if a specific modification is applied to their identical construction lines. For example, consider the following scenario: 1. The user has modeled a plate part which borders are defined by a set of four straight construction lines; 2. Inside the plate part, two construction lines are related as identical; 3. The user has copied the plate part and all its construction lines, so there are 2 identical parts and 8 construction lines. (Four construction lines should be related as identical.) If the user moves one of the construction lines and, in the update related objects dialog, unchecks one of the related construction lines, parts will get modified and their shapes will become different. However, if the user opens the part information dialog for either of the parts, he or she will see that the parts are still considered to be identical regardless that their shapes are different. In the correct situation, the identical relationship should be broken. **Issue Type:** Issue
Issue ID:	**13702**
Title:	Pipe - Modeling - An approved spool will become modified if two or more of its parts are copied while the selection is done in one step
Description:	An approved spool will become modified if two or more of its parts are copied while the selection is done in one step. Consider the following scenario: 1. A drawing contains a defined unmodified spool 2. Copy, Mirror, or Array command has been started and it's going to be used on the whole spool or some of its parts 3. Two or more pipe parts of the spool have been selected in a single selection operation. This could be a forward-drag selecting rectangle, or backward drag selecting rectangle, or the fence method, or a poly-line selection. 4. After Copy, Mirror, Array command execution finishes the spool will become modified This shouldn't happen because, in fact, no changes have been made to the spool. Some other details regarding this issue: 1. A spool with all pipe parts anchored will become modified in the scenario above 2. A spool will all pipe parts locked won't become modified in the scenario above **Issue Type:** Issue
Issue ID:	**13746**
Title:	Production - Nesting - Export to DXF doesn't transfer data from Quality Control Matrixes
Description:	Export to DXF doesn't transfer data from Quality Control Matrixes Consider the following scenario: 1. A Quality Control Matrix was created in a plate nest drawing 2. The 'Export to' command was run from the upper menu (SC Nesting \ NC-Pyros) 3. Export options was set to include all objects inside the border 4. Export was made After these steps the Quality Control Matrix will be transferred to DXF file but all of the data in its cells will be shown as #######. Also, quality control matrix labels won't be transferred to the DXF file. **Issue Type:** Issue
Issue ID:	**13769**
Title:	Manager - Distributed Systems Catalogs - Handling zero and negative values of weights in stock catalogs requires some improvement

Description: Handling zero and negative values of weights in stock distributed systems catalogs requires some improvement.

The following corrections need to be made in Pipe and HVAC catalogs:
1. Entering zero and negative stock weights should not be allowed in distributed systems stock catalogs.
2. Negative and zero stock weights values should be detected immediately, conducted with a warning message, and then corrected to the previous positive value.
3. In the table view in Pipe and HVAC catalogs, warning messages should be shown upon entering zero or negative stock weights. For example, the message could be, "The stock weight must be positive."
4. HVAC stock edit dialog should throw a warning message upon specifying an incorrect stock weight.

Currently,
1. Pipe stock catalog allows zero stock weights indication but produces an error upon saving the catalog.
2. For some stock types, ShipConstructor doesn't check negative stock weights until the catalog is saved.
3. The warning message in the Pipe stock catalog that says, "Value must be non-negative," is incorrect because it assumes that zero value is acceptable, which is not the case. It should be, "The stock weight must be positive."
4. HVAC stock edit dialog lacks a warning message upon specifying an incorrect stock weight.

Issue Type: Issue

Issue ID: **13771**

Title: Distributed Systems - System Manager - An icon is missing from the "New System" button in the System Manager dialog

Description: An icon is missing from the "New System" button in the System Manager dialog.

Issue Type: Issue

Issue ID: **13796**

Title: Structure - Modeling - Plate Flanges can be drawn incorrectly for certain plate shapes and thicknesses

Description: Plate Flanges can be drawn incorrectly for certain plate shapes and thicknesses. For example, consider the following situation:

1. The construction path of a plate part has a specific shape containing a thin relatively long edge cut with 90 degree corners;
2. The plate part has a specific thickness;
3. A certain flange is being added to the plate edge.

Depending on the throw direction, plate shape, plate thickness, and flange parameters the flange can be drawn incorrectly.

Issue Type: Issue

Issue ID: **13823**

Title: Manager - Project Settings - Typos in the description of the "Project Length Units" item in the "General" group

Description: The description at the bottom edge of the "Project Settings" dialog contains a couple of typos: "This setting indiacates the usits that the AutoCAD geometry will be drafted in." In the correct situation, the text should be: "This setting indicates the units that the AutoCAD geometry will be drafted in."

Issue Type: Issue

Issue ID: **14011**

Title: Hull - Marklines / Datum Lines - In Imperial projects, when units are set to "inches," the "Location Groups" dialog displays Position and Spacing incorrectly for marklines and datum lines

Description: In Imperial projects, when units are set to "inches," the "Location Groups" dialog displays Position and Spacing incorrectly for marklines and datum lines.

For example, consider the following scenario:

1. The user works in an originally Imperial project
2. In the Hull module the user has run the 'Marklines from Sections' command and selected a surface
3. In the 'Location Groups' dialog, the user has selected one of the groups and clicked 'Edit Locations'
4. In the 'Locations' dialog the user has set units to "inches"

If the user enters a number in a field in the 'Position' column, the number will become greater by 1" after the user finishes editing the field. This is just one particular example of the incorrect behaviour. In general, Position or Spacing values may be calculated incorrectly in many different fashions. As a result of the issue, location and spacing values that are shown in the "Locations" dialog may be different from the actual locations and actual spacing distances in model drawings.

The issue is reproducible in originally Imperial projects. Changing an originally metric project into Imperial won't make the issue happen.

Issue Type: Issue

Issue ID: **14261**

Title: Structure - Modeling - A snipe endcut applied to a slightly bended faceplate may leave a small sliver on the faceplate

Description: A snipe endcut applied to a slightly bended faceplate may leave a small sliver on the faceplate. The behaviour was reproduced in a situation where:

1. The endcut was applied to a faceplate that was created along a slightly curved edge of a plate.
2. The endcut was represented by two snipes on the opposite sides of the web.

Overall, chances to reproduce behaviour vary depended on the shape of the faceplate to which the endcut is applied to.

Issue Type: Issue

Issue ID: **14460**

Title: Pipe - Modeling - After a Valve is modeled, it gets transferred to the "Unspooled Pipe" assembly regardless the user choice

Description: After a Valve is modeled, it gets transferred to the "Unspooled Pipe" assembly regardless the user choice.

Normally, when modeling a valve part, ShipConstructor asks user about the assembly the valve should be placed to. However, regardless of the location specified by the user, the valve is always placed to the "Unspooled Pipe" assembly.

Issue Type: Issue

Issue ID: **14638**

Title: Hull - Surfaces - For specific datasets, the "Print Offsets" command (SCOFFSETSSURF) may yield duplicate offsets data

Description: For specific datasets, the "Print Offsets" command (SCOFFSETSSURF) may yield duplicate offsets data. When it happens, every second offset is incorrect. For example, in a scenario where "Frame" is the primary axis and "Waterline" is the secondary one, the command will yield two (Y) half-breadth offsets. The second of these two offsets will be incorrect.

Issue Type: Issue

Issue ID: **14716**

Title: Hull - Modeling - The "Sweep One Rail" procedure may produce incorrect results on specific geometry when the fixed X, Y, or Z option is used

Description: The "Sweep One Rail" procedure may produce incorrect results on specific geometry when the fixed X, Y, or Z option is used. When it happens, the resulting surface may not follow the original rail line correctly; instead, the surface's rail line may be scaled or stretched along the surface.

Issue Type: Issue

Issue ID: **14731**

Title: Manager - Hanger and Support Template Catalogs - Cycling through individual cells in the stock properties table doesn't support the "tab" key method

Description: In HVAC and Support Template catalogs, cycling through individual cells in the stock properties table doesn't support the "tab" key method. In the correct situation, pressing the Tab key on the keyboard should move the selection to the next cell on the left.

Issue Type: Issue

Issue ID: **14734**

Title: Supports - Modeling - An attempt to save a model drawing that contains a support that has a vertical base plate with all dimensions set to zero throws an error

Description: An attempt to save a model drawing that contains a support that has a vertical base plate with all dimensions set to zero throws an error.

For example, consider the following scenario:
1. In the Support Template Catalog, the user has created a support definition that has a vertical base plate with all dimensions set to zero;
2. The user has saved a catalog and opened a model drawing;
3. The user has inserted the support into the model drawing.

If the user attempts to save the drawing, a saving error will be thrown.

Issue Type: Issue

Issue ID: **14804**

Title: Manager - Weld Standards - An error occurs on an attempt to import a weld standard that uses a text style that is not defined in the current project

Description: An error occurs on an attempt to import a weld standard that uses a text style that is not defined in the current project. For example, consider the following situation.

1. A weld standard has been defined in the project A.
2. The weld standard has an associated weld process that uses a keyword of a specific text style.
3. The user has exported the weld standard from the project A.
4. The user is importing the weld standard into the project B.

If the project B doesn't have the same text style (Manager\General\Text Styles) that is used by the weld standard, an unhandled exception will be thrown. In the correct situation, the error shouldn't happen. ShipConstructor should automatically add the text style definition that is required by the weld standard.

Issue Type: Issue

Issue ID: **14964**

Title: Structure - Modeling - While saving a drawing, a database error will occur, if the USC that is used to mark a group intersection is removed from the drawing

Description: While saving a drawing, a database error will occur, if the USC that is used to mark a group intersection is removed from the drawing. For example, consider the following scenario:

1. The user has added a UCS to a structure drawing
2. The user has used the new UCS to mark the intersection with a UCS from another drawing
3. The user has saved the drawing
4. The user has deleted the UCS that he has previously created in the step 1
5. The user attempts to save the drawing

The saving operation will be aborted with the message that tells that an error occurred while updating the database. The error is handled correctly by ShipConstructor, and it doesn't lead to a crash or other consequent errors.

Nevertheless, ShipConstructor should allow users saving their drawings after deleting a custom UCS that has been used to mark group intersection. Simultaneously, group intersection marklines should be cleared of the dependency with the deleted UCS.

Issue Type: Issue

Issue ID: **15023**

Title: Hull - Modeling - The "Spacing" column in the "Locations" dialog is unavailable for editing when locations are shown in inches in the "1/16" format

Description: The "Spacing" column in the "Locations" dialog is unavailable for editing when locations are shown in inches in the "1/16" format. For example, consider the following scenario:

1. The user has opened the "Project Setting" dialog in Manager.
2. The user has activated the option to display lengths in the "1/16" format. (This option is only available in imperial projects.)
3. The user has opened a Hull model drawing.
4. In the Hull model drawing the user has selected a surface, right-click it with the mouse, and run "Marklines > From Surface > Sections" to open the "Location Groups" dialog.
5. In the "Location Groups" dialog, the user has selected any location group and opened it for editing in the "Locations" dialog.

If the user attempts to edit spacing in the "Locations" dialog, the user won't be able to accomplish this task.

Issue Type: Issue

Issue ID: **15088**

Title: Manager - Pipe - End treatments for branches and crosses are transferred incorrectly into the stock catalogue when importing a pipe stock definition

Description: In the Manager, end treatments for branches and crosses are transferred incorrectly into the stock catalogue when importing a pipe stock definition.

In case of a branch, "End Treatment 2" and "End Treatment 3" will be missing the size quality. Those end treatments will only be characterized with end treatment types. In case of a cross, "End Treatment 3" and "End Treatment 4" will have the same issue. Normally, end treatments are combinations of an end treatment type and a pipe size.

Because the size characteristic is missing for some end treatments in imported branches and crosses, these stocks will be modeled incorrectly. Missing sizes will be supplemented by copying the "End Treatment 1" size. As a result, a stock that used to have different end treatment sizes will have equal end treatment sizes after importing it.

Additionally, when importing branches and crosses into a pipe stock catalog:
1. New Size Definitions that are used by "End Treatment 2" and "End Treatment 3" for branches, and "End Treatment 3" and "End Treatment 4" for crosses won't be added to the catalog
2. No errors or warning messages arise during the import process

Issue Type: Issue

Issue ID: **15125**

Title: Licensing - "Licensing" Dialog - The "License is not PS&M" message looks inaccurate in a situation where no licenses are available for a ShipConstructor module

Description: When registering into a project, in the "Licensing" dialog, users may see an inaccurate message that says, "License is not PS&M."

The message is displayed when no licenses are available for a certain module. The situation has nothing to do with the Project Split & Merge. The message text should be reworded to better correspond to the situation that it refers to. For example, instead of displaying the text such as "License is not PS&M," the "Licensing" dialog could just say "No Licenses."

Issue Type: Issue

Issue ID: **15144**

Title: Reports - An unhandled SQL exception will be thrown if the user attempts to run a report that has a definition that contains a large number of UDAs

Description: An unhandled SQL exception will be thrown if the user attempts to run a report that has a definition that contains a large number of UDAs. The critical number of UDAs that causes the error is about sixteen.

Issue Type: Issue

Issue ID: **15161**

Title: Hull - Modeling - Extracting NURBS curves from marklines and joining them may result in duplicate control points inside NURBS curves

Description: Extracting NURBS curves from marklines and joining them may result in duplicate control points inside NURBS curves.

If such NURBS curves are used to create surfaces, the surfaces are likely to be corrupted.

Issue Type: Issue

Issue ID: **15236**

Title: Manager - Pipe Stock Catalog - Importing elbows that are bent by 180 degrees or higher may result in extremely large elbow end lengths

Description: Importing elbows that are bent by 180 degrees or higher may result in extremely large elbow end lengths. For example, consider the following scenario:

1. The user has created an elbow definition in the pipe stock catalog in Project A;
2. The bend angle of the elbow definition is 180 degrees or more;
3. All of the parameters of the elbow definition are valid;
4. The user has exported the elbow into an XML file;
5. The user has imported the elbow into Project B.

After the import is done, the elbow ends' lengths in Project B will have extremely large values. Somehow, the import process transforms correct elbow definitions into incorrect ones.

Issue Type: Issue

Issue ID: **15427**

Title: Hull - Plate Expansion - Template intersection markings don't show up on the sightline template unless the "Show on plate surface" option is selected

Description: Template intersection markings don't show up on the sightline template unless the "Show on plate surface" option is selected in the plate expansion dialog. For example, consider the following scenario:

1. The user has created a surface in the Hull model drawing;
2. The user has assigned a Structure stock to the surface;
3. The user has run the "Expand Surface" command;
4. In the "Plate Expansion Options" dialog, the user has switched to the "Template" tab and selected the following options:
   - "Type" was set to "Standard";
   - "Auto-Level" was checked off;
   - "Style" was set to "Plates";
   - "Create sightline template" was checked off.
   - "Show on Plate Surface" wasn't checked.

After the expansion is done, the user will see that template intersection marklines aren't marked on the sightline template. If the user re-expands the surface while having the "Show on Plate Surface" option activated, he or she will see that intersection marklines appear on templates. In the correct situation, template intersection marklines should be marked on template surfaces regardless of the "Show on Plate Surface" setting state.

Issue Type: Issue

Issue ID: **15442**

Title: Manager - Naming Conventions - Standard Assemblies' Assembly naming conventions don't become "in-use" after Standard Assembly instances are created

Description: In the "Naming Conventions" dialog in Manager, Standard Assemblies' Assembly naming conventions don't become "in-use" after Standard Assembly instances (SAI) are created in model drawings. In the correct situation, placing SAI in model drawings should turn naming conventions into the "in-use" state.

Issue Type: Issue

Issue ID: **15466**

Title: Hull - The Print Curve Offsets command may print multiple blank offsets for a single location

Description: The Print Curve Offsets command may print multiple blank offsets for a single location.

Issue Type: Issue

Issue ID: **15482**

Title: Structure - Check Group DWG - The "Check Group DWG" operation should try fixing bevels that are incorrectly assigned to plate parts when the user chooses the "fix errors" option

Description: The "Check Group DWG" operation should try fixing bevels that are incorrectly assigned to plate parts when the user chooses the "fix errors" option.

The user may run into a situation when an incorrect bevel standard is assigned to a plate part. For example, consider the following scenario:
1. The user has created a plate part;
2. The user has assigned a bevel standard that is only applicable to certain stock types to the plate;
3. The user has changed the stock of the plate part to the one that is unsupported by the bevel standard that is currently assigned to the plate.

If the "Check Group DWG" operation identifies an inconsistency between the plate stock and the associated bevel, it should try fixing the error by doing the following things:

1. Under the same bevel code, the procedure should search for bevel standards that are associated with the modified plate stock;
2. If a new standard is successfully found, it should be used with the plate;
3. The fix should be logged in the log file.

Issue Type: Issue

Issue ID: **15496**

Title: Structure - Modeling - Profile cutouts that have their insertion point outside of the stiffener extents don't get applied to the part

Description: Profile cutouts that have their insertion point outside of the stiffener extents don't get applied to the part. For example, consider the following scenario:

1. The user has modeled a stiffener;
2. The user started adding a cutout to the stiffener;

If the user specifies the insertion point of the cutout outside of the part extends so that the cutout only partially overlaps with the part, the cutout won't be applied to the part.

The same issue occurs to faceplates and twisted stiffeners.

Issue Type: Issue

Issue ID: **15706**

Title: Administrator - Database Backups - Automatic database backups produce files where the database version # is missing from the file name

Description: Automatic database backups produce files where the database version number is missing from the file name. In the correct situation, the database version should be integrated into the file name using the same format as the one that is used by the "suggested" backup when the user updates the database for example.

Issue Type: Issue

Issue ID: **15711**

Title: Supports - Modeling - Using the "Auto Support" option with supports that have a non-zero "Angle" attribute results in misplacing the support from its supposed location

Description: Using the "Auto Support" option with supports that have a non-zero "Angle" attribute results in misplacing the support from its supposed location. For example, consider the following scenario:

1. The user has created a support template in the Support Template catalog in Manager;
2. In the template, the user has assigned a non-zero value to the "Angle" attribute;
3. In the pipe model drawing, the user has modeled a group of parallel parts that run close to each other so that they can be supported with a single support.

If the user places an auto support from the support template described in p.2, the support will snap to the pipe lines incorrectly so that one pipe hangs unsupported. The misplacement occurs in the step when the user is asked to specify the length of the support legs.

Issue Type: Issue

Issue ID: **15724**

Title: Supports - Modeling - Copied supports may not allow adding new hangers if the location of a hanger interferes with one of the locations of hangers that existed on the source part

Description: Copied supports may not allow adding new hangers if the location of a hanger interferes with one of the locations of hangers that existed on the source part. The reason for this behaviour is that copying a support does not clear the hanger information out of the database record of the support copy. As a result, when the user attempts to add a hanger to the support copy, ShipConstructor thinks that there is already a hanger at this location. In the correct situation, all of the information about hangers should be cleaned out of supports after copying.

Issue Type: Issue

Issue ID: **15727**

Title: NC-Pyros - In specific cases, the "Check Lead Collision" test may report false collisions that don't exist in the reality

Description: In specific cases, the "Check Lead Collision" test may report false collisions that don't exist in the reality.

Issue Type: Issue

Issue ID: **15766**

Title: Hull - Modeling - Object selection may consistently fail when some of the ShipConstructor commands are run under the Polish installation of AutoCAD

Description: Object selection may consistently fail when some of the ShipConstructor commands are run under the Polish installation of AutoCAD.

For example, if the user launches the "Extract Marklines" command in a Hull model drawing, the command will immediately return the following string in the command line: _SCEXTRACTMARKLINES No marklines selected! After this message appears, the command will automatically terminate itself. There will be no error messages or additional steps where the user is, normally, asked to select the surface and individual marklines to extract them out of the surface. In another example, if the user launches the Hull "Split" command and doesn't select the surface and its cutting objects in advance, the command will fail with the "None of the selected cutting objects can be used to split the surface." message after its first step where the user selects the surface to split.

The errors were confirmed in the Polish installation of AutoCAD under the Polish version of Microsoft Windows. At the same time, the behaviour doesn't appear in the English localization.

Issue Type: Issue

Issue ID: **15770**

Title: Production - Support Construction Drawing - Supports are not sorted by name within assembly groups when selecting then in the Wizard dialog

Description: Supports are not sorted by name within assembly groups when selecting then in the Wizard dialog. In the correct situation, supports should be sorted alphabetically.

Issue Type: Issue

Issue ID: **15773**

Title: Structure - Modeling - Undoing modeling a stiffener on a pair of related plates may lead to a save error in a specific scenario

Description: Undoing modeling a stiffener on a pair of related plates may lead to a save error in a specific scenario. For example:

1. The user has modeled a plate part;
2. The user has copied the plate part to create an identical one;
3. The user has modeled a stiffener to one of the plate's surface.
4. In the "Update Related Parts" dialog, the user has confirmed creating an identical stiffener on the second plate;
5. The user has quick-saved the drawing;
6. The user has undone quick-saving the drawing;
7. The user has undone modeling the stiffener (overall, there should be 2 undo steps after saving the drawing);

If the user attempts to save the drawing now, a saving error will happen.

Issue Type: Issue

Issue ID: **15809**

Title: ShipConstructor - The Center of Gravity location (CG point) should be reported as (0, 0, 0) for assemblies where the total weight is zero

Description:	The Center of Gravity location (CG point) should be reported as (0, 0, 0) for assemblies where the total weight is zero. Currently, it is possible to model an assembly that consists of zero-weight parts only. In such a situation, if an attempt to calculate the CG point coordinates is made, a "division by zero" error will occur. The error shows up in a number of places across the application.
	Issue Type: Issue
Issue ID:	**15829**
Title:	Licensing - Opening the Licensing dialog when there is no license servers set or servers are not available on the network results in a "License Error"
Description:	The first time the user opens ShipConstructor 2009 and connects to a project, the Licensing dialog opens, but since there are no license servers currently set, the dialog throws a License Error stating "Unable to connect to server." The same error will be thrown if an existing server is currently unavailable at its last network location. The error message should be appear in a user-friendly manner, and it should take into account two different scenarios: 1. There are no license servers set in ShipConstructor; 2. One or more existing license servers are currently unavailable at their network locations.
	Issue Type: Issue
Issue ID:	**15873**
Title:	Manager - Equipment Library - All equipment manufacturer names are incorrectly displayed as "SSI.ShipConstructor.General.Manufacturer" in the grid view
Description:	In the Equipment library in Manager, all equipment manufacturer names are incorrectly displayed as "SSI.ShipConstructor.General.Manufacturer" in the grid view. This is a minor visual defect that doesn't affect the real data. All of the manufacturers that were selected for equipment class definitions are correctly stored in the project database and correctly displayed in the equipment stock edit dialog.
	Issue Type: Issue
Issue ID:	**15892**
Title:	Production - Arrangement Drawings - Space Allocation objects disappear from arrangement drawings after the first update operation
Description:	Space Allocation objects disappear from arrangement drawings after the first update operation. For example, consider the following scenario: 1. When creating an arrangement drawing, the user has selected a model drawing as a source of information for the arrangement drawing; 2. The selected drawing has space allocation objects that are loaded into this drawing; After the user creates the arrangement drawing, space allocation objects will be visible in the drawing. If the user updates the drawing, space allocation objects will disappear from the drawing.
	Issue Type: Issue
Issue ID:	**15895**
Title:	Structure - Modeling - Lap and Tapered Lap endcuts doesn't show up correctly on specific twisted stiffeners
Description:	Lap and Tapered Lap endcuts doesn't show up correctly on specific twisted stiffeners.
	Issue Type: Issue
Issue ID:	**15932**
Title:	Project Split & Merge - The "Refresh" operation may suspend ShipConstructor if the master project is deployed on SQL Server 2005 and the split project is on SQL Server 2008
Description:	The "Refresh" operation may suspend ShipConstructor if the master project is deployed on SQL Server 2005 and the split project is on SQL Server 2008. For example, consider the following scenario. When it happens, in the beginning, the user sees is the error message that says, "server versions different." Then, after the error message is dismissed, the progress bar stays still and the application becomes unresponsive.
	Issue Type: Issue
Issue ID:	**15960**
Title:	Structure - Modeling - Text marking with blank text values should be prohibited on parts

Description: Text marking with blank text values should be prohibited on parts.

Currently, using the "Edit Component" tool, it is possible to set the text value of a marked text object into the blank state. As a result, the marked text object will be still assigned to the part, but there will be no way how to select, modify, or remove the text after the text value is made blank. This incorrect behavior leads to a number of negative consequences; for example, the Text Style that is used by the text marking will be locked in the drawing without the ability to purge it out.

Issue Type: Issue

Issue ID: **15986**

Title: Manager - Importing some Structure disciplines from Metric projects into Imperial projects doesn't convert Text Sizes to the destination project's units

Description: Importing some Structure disciplines from Metric projects into Imperial projects doesn't convert Text Sizes to the destination project's units.

Specifically, the following attributes fail to recalculate after being imported to the project:
- Corrugation Mark Text Size,
- Curved Plate Mark Text Size,
- Plate Part Mark Text Size,
- Standard Plate Part Mark Text Size,
- Weld Standards Tail Note Text Size,
- Orientation Icon TextSize.

Issue Type: Issue

Issue ID: **15990**

Title: Production - Arrangement Drawings - BOM table items that are retrieved with the Pipe Hanger Accessories collector are not labeled in viewports

Description: BOM table items that are retrieved with the Pipe Hanger Accessories collector are not labeled in viewports.

For example, consider the following scenario:
1. A pipe arrangement drawing contains, at least, one pipe with a hanger on it
2. There is an accessory package that goes with the hanger
3. A BOM table with the Pipe Hanger Accessory collector has been inserted into the arrangement drawing
4. The Pipe Hanger collector is not among the BOM table collectors; otherwise, Issue 15991 will take place

If the user relabels all parts in the viewport out of the BOM table, Pipe Hanger Accessory items won't be labeled. Manual relabeling items from parts also won't work for hanger accessories.

This is incorrect behavior. In the correct situation, labels should be visible for hanger accessories as they are normally visible for pipe connection accessories.

Issue Type: Issue

Issue ID: **15991**

Title: Production - The Pipe Hanger collector suppresses the Pipe Hanger Accessories collector in BOM tables

Description: The Pipe Hanger collector suppresses the Pipe Hanger Accessories collector in BOM tables.

If the BOM table definition simultaneously uses both of the following collectors: the Pipe Hanger collector and the Pipe Hanger Accessories collector, the table instance won't display any rows that contain Pipe Hanger Accessories data. At the same time, if the Pipe Hanger collector is not added to the BOM table definition, the table instance will display rows with Pipe Hanger Accessories items.

In the correct situation, Pipe Hanger Accessories items should always be visible in table instances if the corresponding collector is included into the table definition.

Issue Type: Issue

Issue ID: **16014**

Title: Equipment - Modeling - An attempt to insert an equipment part that has quotation marks in the stock name may produce the "Corrupt Memory" message

Description: An attempt to insert an equipment part that has quotation marks in the stock name produces the "Corrupt Memory" message. For example, consider the following scenario: in Equipment library in Manager, an equipment stock has been created that has quotation marks (") in its name;

If the user attempts to insert the stock instance into a model drawing, he or she may receive an error message that tells about the corrupted memory. If the user skips the message, the work can be continued without any visible problems. The error doesn't happen every time, but quite frequently.

Issue Type: Issue

Issue ID: **16034**

Title: NC-Pyros - The "Generate Complete Path" command can work slow if shapes contain arc segments of very large radii

Description: In NC-Pyros, the "Generate Complete Path" command can work slowly if shapes contain arc segments of very large radii.

Usually, the behaviour occurs with arc segments that have the start angle greater than zero and the end angle is slightly less than 2*PI. The arc direction should be clockwise.

Issue Type: Issue

Issue ID: **16045**

Title: Administrator - Update Database - Updating multiple databases is interrupted by the "Project Update Warning" message when switching to the next database

Description: While updating multiple databases in the Administrator, the process is interrupted by the "Project Update Warning" message when switching to the next database. The warning message tells that, if the project database is updated from SC2008 to SC2009, it may take much longer time to perform the operation than it would normally do. The fact that the warning message pops up at each next database and requires the user to press the "Yes" button prevents users from letting the entire process be unattended. For example, users cannot run the update process over a night.

In the correct situation, if several databases get updated in one operation, the warning message should show up only once, before the first database started to update.

Issue Type: Issue

Issue ID: **16057**

Title: Manager - "Predefined Assembly Drawing Format" dialog - Support non-primary Product Hierarchies in the dialog

Description: Support non-primary Product Hierarchies in the "Predefined Assembly Drawing Format" dialog that is available in Manager under General -> Production Output -> Predefined Assembly Format. Currently, users are not allowed to select alternative product hierarchies in this dialog. By default, the main build strategy is used.

Issue Type: Issue

Issue ID: **16063**

Title: Distributed Systems - Modeling - ShipConstructor allows entering illegal negative or zero values as a start value for the spool name autonumber in the "Spool Properties" dialog

Description: ShipConstructor allows entering illegal negative or zero values as a start value for the spool name autonumber in the "Spool Properties" dialog when the user defines a new spool.

If negative values or zero are entered, unhandled exceptions will occur. Some of the errors may result in the Spool Manager's being caught in the corrupted state where the user can't see the list of pipe spools that exist in the drawing. The "Spool Properties" dialog should correctly handle user attempts to enter negative or zero values as a start value for the spool name autonumber.

Issue Type: Issue

Issue ID: **16064**

Title: Distributed Systems - Modeling - AutoCAD rotation commands will leave connection symbols at their initial locations if the selection of target objects doesn't include connection symbols

Description: AutoCAD rotation commands will leave connection symbols at their initial locations if the selection of target objects doesn't include connection symbols; for example, consider the following scenario:

1. The user has selected a group of connected HVAC or Pipe parts to rotate them
2. The selection group doesn't include connection symbols that are in-between parts. Perhaps, the user selected parts by clicking each of them individually
3. The user has used one of the following AutoCAD commands to rotate the group of parts: ROTATE, 3DROTATE, or ROTATE3D

As a result, all of the pipe parts will be rotated, but connection symbols will stay at their initial locations. Connections between parts won't be broken. Regenerating or reloading the drawing from the database won't be able to bring connection symbols to their expected locations. At the same time, the MOVE command transfers connections correctly even if they are not included into the original selection.

AutoCAD rotation commands should deal with connection symbols similar to the MOVE command, which means they should transfer connection symbols to follow their corresponding parts even when the selection includes parts only.

Issue Type: Issue

Issue ID: **16068**

Title: Production - Arrangement Drawings - New equipment parts show up as "manually deleted" parts while updating arrangement drawings

Description: New equipment parts show up as "manually deleted" parts while updating arrangement drawings. For example, consider the following scenario:

1. An arrangement drawing has been created based on a pipe model drawing
2. The pipe model drawing is the only source drawing for the arrangement drawing
3. An equipment part has been added to the pipe model drawing
4. The pipe model drawing has been saved and closed
5. The arrangement drawing has been opened

If the user updates the arrangement drawing, the newly added equipment will be shown as a part that was "manually deleted" from the arrangement drawing. It will be incorrect because the "manually deleted" state can only be assigned to parts that the user has previously deleted from the production drawing and that still present in the model drawing. To ensure that the newly added equipment shows up in the pipe arrangement drawing, the user will have to put a mark in a checkbox next to the part name in the update dialog, which is the standard procedure for manually deleted parts.

In the correct situation, newly added equipment should be shown under the new parts category when the user updates arrangement drawings. The user shouldn't be required to check the checkbox to include new parts into the drawing after the drawing is updated.

Issue Type: Issue

Issue ID: **16105**

Title: NC-Pyros - The Kinetic code will place the rotation R code at a wrong position if the rectangular plate has a constant bevel around it

Description: In NC-Pyros, the Kinetic code will place the rotation R code at a wrong position if the rectangular plate has a constant bevel around it.

Issue Type: Issue

Issue ID: **16149**

Title: Production - Part Property Labels - In 32-bit installations of ShipConstructor, "Copy Field Label Quick" creates labels that has ##### text on them

Description: In 32-bit installations of ShipConstructor, "Copy Field Label Quick" creates labels that has ##### text on them. For example, consider the following scenario:

1. The user is running 32-bit installation of ShipConstructor;
2. In a production drawing, the user has placed a property label (SC Utilities\Property Labels\Property Label; SCOBJECTFIELDLABEL);
3. The user has run the SCFIELDLABELCOPYQUICK command on the property label (SC Utilities\Property Labels\Copy Field Label Quick; SCFIELDLABELCOPYQUICK).

After the user finishes placing the label, the label will appear with the text that says "#####." In the correct situation the text should be meaningful as it should reflect property values.

An attempt to run the SCEDITFIELD command on the corrupted property label will generate an unhandled exception that says, "Attempted to read or write protected memory. This is often an indication that other memory is corrupt." The error message can be skipped without crashing the application.

Issue Type: Issue

Issue ID: **16206**

Title: Production - Labeling - After undoing a label transfer from one leader distribution line to another, the label becomes owned by both leader distribution lines

Description: In a production drawing, after undoing a label transfer from one leader distribution line to another, the label becomes owned by both leader distribution lines. It means, if the user shifts either of the lines, the label position will be affected by that. The behaviour is incorrect. In the correct situation, the label should always be owned by one leader distribution line only.

Issue Type: Issue

Issue ID: **16218**

Title: Project Split and Merge - Project Hierarchy UDAs that are removed by a remote project should disappear from the local project after merge/refresh

Description: Project Hierarchy UDAs that are removed by a remote project should disappear from the local project after merge/refresh. Currently, PH UDAs can only be added to assemblies or modified to match; however, removing UDAs is not handled.

Issue Type: Issue

Issue ID: **16230**

Title: Reports - In reports and BOMs, stiffener UDAs that are required and have default values may display the default value instead of the value that was assigned by the user

Description: In reports and BOMs, stiffener UDAs that are required and have default values may display the default value instead of the value that was assigned by the user.

This incorrect behaviour is a consequence of an internal non-critical database error where records that store default values that are assigned to stiffener UDAs get multiplied in the database. In the correct situation, the database should have one default value record by each UDA assignment.

Issue Type: Issue

Issue ID: **16239**

Title: Structure - Modeling - When plates with faceplates are mirrored, the resulting faceplates may fail to correctly acquire the mirror relationship

Description: When plates with faceplates are mirrored, the resulting faceplates may fail to correctly acquire the mirror relationship. The carrying plate parts, however, will be related as mirrors.

The issue has a number of consequences:

1. Faceplate part names can be different from names that mirrored parts should have;
2. The "Check Group DWG" command will be saying that the relationship between the two faceplates doesn't have any justification;
3. In the "Part Information" dialog, the two faceplates won't be shown as related mirrors.

Issue Type: Issue

Issue ID: **16253**

Title: Production - "Create Assembly Drawing" Wizard - The sorting order of the product hierarchy tree has a minor mistake

Description: The sorting order of the product hierarchy tree has a minor mistake in the "Create Assembly Drawing" wizard dialog. Hierarchy levels of higher ranks may appear below those of lower ranks.

	Issue Type: Issue
Issue ID:	**16256**
Title:	ShipConstructor - Compatibility issues with the Blue Beam software (Bluebeam PDF Revu CAD Edition)
Description:	ShipConstructor displays some compatibility issues with the Blue Beam software (Bluebeam PDF Revu CAD Edition). When the Blue Beam software is installed along with ShipConstructor, the following ShipConstructor commands and dialogs may not work: 1. M-Link dialog; 2. Update assembly drawings; 3. Product Hierarchy dialog; As a workaround, turning off the Blue Beam plug-in is recommended while working in ShipConstructor. The Bluebeam PDF Revu CAD Edition was designed to enable one-button PDF document creation from within AutoCAD, Revit, SolidWorks and MS Office. The focus of this software lies within large-format drawings making it easy to convert drawings of any size while maintaining quality and saving time.
	Issue Type: Issue
Issue ID:	**16258**
Title:	Space Allocations - Modeling - Horizontal moving of a grip point where a space allocation tee is connected to a space allocation cross modifies profile shapes and sizes of both parts
Description:	Horizontal moving of a grip point where a space allocation tee is connected to a space allocation cross modifies profile shapes and sizes of both parts. For example, the cross can grow in the vertical direction while the tee can shrink. This is an incorrect behavior. Moving the grip point shouldn't change parts sizes and shapes in the direction perpendicular to the grip point displacement.
	Issue Type: Issue
Issue ID:	**16267**
Title:	Reports - Report Definitions - The "All Parts" section of the "Build Strategy" report has several minor issues
Description:	The "All Parts" section of the "Build Strategy" report has several minor issues. For example, 1. The following fields are missing their descriptions: CG Long. CG Trans. CG Vert. Edge Length Name Stock Thickness Type 2. The "<blank>" field is not available in this section (which may also be the case for other sections); 3. The section contains duplicate fields such as "Model DWG" and "Model DWG Path." Adding both of these fields produces an unhandled exception when the report is generated. Similar issues exist in other sections as well. For example, it the "Model DWG Path" doesn't work properly in the "Plate Parts" section.
	Issue Type: Issue
Issue ID:	**16272**
Title:	Reports - Boolean fields should not be available as summary fields for groups in report definitions
Description:	Boolean fields should not be available as summary fields for groups in report definitions. Currently, it is possible to select Boolean fields as group summary fields. The Boolean field represents an attribute that can only have two possible values such as "Yes" or "No," or checked and un-checked.
	Issue Type: Issue
Issue ID:	**16286**
Title:	NC-Pyros - Turning the "BEVEL_OFFSET_PATH" off in the controller file may result in the bevel angle code's missing from the output

Description: Turning the "BEVEL_OFFSET_PATH" off in the controller file may result in the bevel angle code's missing from the output.

In the correct situation, setting "BEVEL_OFFSET_PATH" to "YES" or "NO" should only affect coordinates but not the bevel angle code.

Issue Type: Issue

Issue ID: **16298**

Title: Structure - Modeling - A Fatal Error will occur if rotated and copied part is copied again along with its source part twice

Description: A Fatal Error will occur if rotated and copied part is copied again along with its source part twice; for example, consider the following scenario:

1. The user has modeled a plate part in the Structure drawing.
2. The user has selected the plate part and started the ROTATE command.
3. After selecting the rotation center point, the user has chosen the "Copy" option of the ROTATE command.
4. The user has finished the ROTATE command creating a part that is a rotated copy of the original part.
5. The user has selected the source part and its rotated copy.
6. The user has started the COPY command

If the user copies the selected parts twice, AutoCAD will crash with a Fatal Error.

Issue Type: Issue

Issue ID: **16301**

Title: Structure - Modeling - Replacing a Hull trace line with another Hull trace line does not transfer construction lines that were offset from the old hull trace line over to the new hull trace line

Description: Replacing a Hull trace line with another Hull trace line does not transfer construction lines that were offset from the old hull trace line over to the new line. For example, consider the following scenario:

1. In a Structure model drawing, the user has offset a Hull trace construction line;
2. The user has run the Replace Hull Trace command (SCREPLACEHULLTRACE) on the Hull trace line;
3. The user has selected another Hull trace line to use it as a replacement for the first line.

After the operation is finished, the user will see that lines that were offset from the original Hull trace line remained at their old locations. In the correct situation, offset line should migrate over to the new hull trace line.

Issue Type: Issue

Issue ID: **16310**

Title: Manager - Equipment - Modifying HVAC ends in the Equipment Standard Drawing causes pipe connections with that Equipment instances to break in model drawings

Description: Modifying HVAC ends in the Equipment Standard Drawing causes pipe connections with that Equipment's instances to break in model drawings. In the correct situation, it should be HVAC connections that should get broken.

Issue Type: Issue

Issue ID: **16320**

Title: Structure - Modeling - Orientation icon information is missing after transferring (SCTRANSFER) curved plate parts to a remote drawing

Description:	Orientation icon information is missing after transferring (SCTRANSFER) curved plate parts to a remote drawing. For example, consider the following scenario: 1. The user has opened a curved plate drawing; 2. The user has run the SCTRANSFER command on a curved plate to transfer it to another drawing (When running the transfer command, it is important to choose an option such as deleting the curved plate from the current drawing. The reason is that curved plates don't support identical parts); 3. The user has opened a drawing to where the curved plate was transferred; 4. The user has selected the curved plate and run the MIRROR command on it. After running the MIRROR command, a dialog for setting the orientation icon text should appear. In this dialog, the user will see that some information is missing.
	Issue Type: Issue
Issue ID:	**16353**
Title:	ShipConstructor - Opening an assembly drawing when not connected to a project may generate an unhandled exception such as "No connection has been set."
Description:	Opening an assembly drawing when not connected to a project generates an unhandled exception such as "No connection has been set."
	Issue Type: Issue
Issue ID:	**16359**
Title:	Distributed Systems - Modeling- A single Pipe or HVAC end can be involved in multiple connections if connections are done by m-linking the containing drawing into other drawings
Description:	A single Pipe or HVAC end can be involved in multiple connections if connections are done by m-linking the containing drawing into other drawings. For example, consider the following scenario: 1. In Drawing A, the user has modeled a pipe part; 2. The user has m-linked Drawing A into drawings B and C; In both drawings, B and C, the user can connect parts to the same end of the pipe that is modeled in Drawing A. This is an incorrect behaviour. ShipConstructor shouldn't allow more than one connection per pipe or HVAC end.
	Issue Type: Issue
Issue ID:	**16402**
Title:	Structure - Modeling - Identical construction lines cannot be added to plate parts in one operation when the SCADDOBJECTSTOSTRUCTPART command is used
Description:	Identical construction lines cannot be added to plate parts in one operation when the SCADDOBJECTSTOSTRUCTPART command is used. For example, consider the following scenario: 1. In a Structure model drawing, the user has modeled a plate part a couple of identical construction lines that are not used by the plate part; 2. The user has started the SCADDOBJECTSTOSTRUCTPART command and selected the plate part. Then, the user has selected both construction lines to be added to the plate part in one step. After the command is finished, the user will see that only one of the two construction lines was added to the plate, which is an incorrect behaviour. The issue doesn't occur when non-identical construction lines are involved.
	Issue Type: Issue
Issue ID:	**16405**
Title:	Project Split & Merge - Split and Merge Manager Dialog - The "Exported" column in the dialog doesn't reflect the last date when the Refresh file was created
Description:	The "Exported" column in the Split and Merge Manager dialog doesn't reflect the last date when the Refresh file was created; instead, it displays the date when the split was created. In the correct situation, the "Exported" column should display the date when the last Refresh file was created.
	Issue Type: Issue
Issue ID:	**16411**

Title:	Space Allocations - Modeling - Using the "Undo" command while modeling space allocations can crash ShipConstructor
Description:	Using the "Undo" command while modeling space allocations can crash ShipConstructor.
	Issue Type: Issue
Issue ID:	**16431**
Title:	Structure - Modeling - Start and End ends of faceplates may happen to be reverse compared to how the user selected the ends when he or she was modeling the faceplate
Description:	Start and End ends of faceplates may happen to be reverse compared to how the user selected the ends when he or she was modeling the faceplate.
	Issue Type: Issue
Issue ID:	**16498**
Title:	Structure - Modeling - Some of the identical Construction Lines may break off from the group of related their related as a result of modification to one of the lines
Description:	Some of the identical Construction Lines may break off from the group of their related objects as a result of modification to one of the lines. For example, consider the following scenario: 1. Two instances of ShipConstructor are running simultaneously. 2. Each instance has a Structure model drawing open. The drawings are not the same. 3. Each drawing contains a construction line that is identical to the construction line in the other drawing. 4. The user has moved a grip point of a construction line in Drawing 1. The change was applied to all related objects. 5. The user has copied the construction line in Drawing 2 creating a new identical line. 6. The user has saved Drawing 1. 7. The user has saved Drawing 2. If the user checks the part information of the newest construction line in Drawing 2, he or she will see that the part has two identical construction lines, one is in Drawing 1 and another is in Drawing 2. If the user reloads Drawing 2 and checks the part information of the same construction line again, he or she will see that the part doesn't have any related objects. The relationship will be silently broken after the user reloads Drawing 2. This is incorrect behaviour. In the correct situation, all of the construction lines should remain related as identical.
	Issue Type: Issue
Issue ID:	**16520**
Title:	Hull - Modeling - Neutral Axis expansion of a single curvature surface can generate incorrect Forming Control data
Description:	Neutral Axis expansion of a single-curved surface can generate incorrect Forming Control data. For example, consider the following scenario: 1. In a Hull drawing, the user has modeled a single curvature surface that has a shape of an incomplete cylinder; 2. The user has assigned a plate stock to the curved surface; 3. The user has started the surface expansion process; 4. In the expansion settings dialog, the user has checked off the "Use Neutral Axis for Expansion" and "Draw Forming Control" options; After the surface expansion is generated, the forming control data will be incorrect: there will be a non-zero difference between the two values in forming control data that is displayed along the curved edge of the cylindrical surface. In the correct situation, both values in the control data should be equal for a single curvature surface.
	Issue Type: Issue
Issue ID:	**16523**
Title:	Manager - Pipe Hangers - Adding Required UDAs to Hangers creates database records that record the same default UDA values for all types of hanger stocks at once

Description:	Adding Required UDAs to Hangers creates database records that record the same default UDA values for all types of hanger stocks at once. For example, consider the following scenario: 1. The user has selected a UDA and assigned it as Required to a hanger type; 2. The user has specified some default value for the required UDA. Inside the database, there will be multiple records created that record the same default value for every stock type. The extra records in the database are not only abundant but can lead to potential issues down the road. **Issue Type:** Issue
Issue ID:	**16546**
Title:	Administrator - Administrator should verify the SQL server configuration every time it establishes a connection with the server
Description:	Administrator should verify the SQL server configuration every time it establishes a connection with the server. The settings that must be verified are: - max degrees of parallelism (should be set to 1), - data/log/backup paths, - custom errors, - xp_cmdshell, - Agent XPs. If settings are not configured properly, Administrator should advise users to run Server Setup to ensure that all settings are setup correctly. **Issue Type:** Issue
Issue ID:	**16557**
Title:	Production - Arrangement Drawings - A "timeout expired" error may occur in specific cases while updating arrangement drawings
Description:	A "timeout expired" error may occur in specific cases while updating arrangement drawings. As a result of the error the drawing may fail to update. The issue is more likely to happen to large-size arrangement drawings. **Issue Type:** Issue
Issue ID:	**16587**
Title:	Standard Assemblies - Modeling - The "awesome. fill in later." message appears in the command line when a standard assembly gets inserted into a drawing
Description:	The "awesome. fill in later." message appears in the command line when a standard assembly gets inserted into a drawing. **Issue Type:** Issue
Issue ID:	**16597**
Title:	Distributed Systems - Modeling - The "SCHEPCONNECT" command doesn't inform users when no valid connections exist for two parts that are being connected
Description:	The "SCHEPCONNECT" command doesn't inform users when no valid connections exist for two parts that are being connected. For example, consider the following scenario: 1. The user has modeled two pipe parts and aligned them so that the parts can be easily connected; 2. The user has run the "SC Pipe\Connect" command on these two pipes; In a situation where no connections exist for the two parts, ShipConstructor will still ask user to pick which part to move, and, once the user has selected the part, the SCHEPCONNECT will terminate without any visible effect or any messages in the command line. In the correct situation, the command should produce a warning message that tells that no connections have been defined for the selected parts. Then, the command should exist before it asks the user to select the part that should be moved. **Issue Type:** Issue
Issue ID:	**16628**
Title:	Structure - Modeling - Rectangle endcuts with the X position > 0 don't appear correctly on some twisted stiffeners
Description:	In Structure model drawings, rectangle endcuts with the X position > 0 don't appear correctly on some twisted stiffeners.

Issue Type: Issue

Issue ID: **16630**

Title: Project Split and Merge - The merge process will fail on Synchronizing Pipe Part Names if the part names don't contain Auto Number

Description: The merge process will fail on Synchronizing Pipe Part Names if the part names don't contain the Auto Number element. For example, consider the following scenario:

1. The user is working in a split project;
2. A naming convention for pipe part names consists of only one field: GUID. At some point, SSI was suggesting users to have such a naming convention to avoid naming conflicts saving errors in pipe model drawings (Issue 15854);
3. The user is merging the split project into the master project;

After the merge project reaches the "Synchronizing Pipe Part Names" stage, an "index out of range" exception will occur. The unhandled exception will abort the merge process making it impossible integrate changes from the split project into the master project.

Issue Type: Issue

Issue ID: **16638**

Title: Hull - Pin Jigs Drawing - Pin jigs may be drawn with incorrect lengths; in this case, they are piercing through the thickness of the plate

Description: Pin jigs may be drawn with incorrect lengths; in this case, they are piercing through the thickness of the plate. For example, consider the following scenario:

1. In a Hull model drawing, the user has created a surface that curves upwards;
2. The user has changed the surface properties so that the mold side lies inside the surface curvature;
3. The user has copied the surface into a pin jigs drawing;
4. The user has run the "Auto-Level All Plates" command to auto-level the surface;
5. The user has generated pin jigs.

The pin jigs will be generated from a zero level under the surface to the mold side of the plate. Because the mold side of the plate lies inside the surface curvature and represents the top side of the plate, pin jig will pierce the surface thickness until they reach the mold side.

The behaviour is incorrect. ShipConstructor shouldn't pay any attention to the location of the mold side of the surface. It should just draw pin jigs from the zero level until pins meet with the bottom side of the surface regardless of whether it's the mold side or not.

Issue Type: Issue

Issue ID: **16673**

Title: Manager - Naming Conventions - Allow each Product Hierarchy to have its own "Active" naming convention for naming Assembly Drawings

Description: Allow each Product Hierarchy to have its own "Active" naming convention for naming Assembly Drawings.

Currently, different Product Hierarchies can have independent naming conventions for naming Assembly Drawings, but the "Active" naming convention has to be a single one that is effective for all Product Hierarchies at the same time. This paradox must be resolved by allowing each Product Hierarchy to have its own active naming convention for assembly drawings.

Issue Type: Issue

Issue ID: **16674**

Title: Reports - Plate Nest Report - The "Nest Scrap Utilization" field truncate value decimal digits instead of rounding them, which leads to incorrect "Nest Utilization" and "Nest Scrap Utilization" calculations

Description: The "Nest Scrap Utilization" field truncate value decimal digits instead of rounding them, which leads to incorrect "Nest Utilization" and "Nest Scrap Utilization" calculations. For example, consider the following scenario:

1. The user has created a nest drawing;
2. The user has nested some parts so that the nest scrap utilization equals 6.99% (the value choice is arbitrary).

If the user inserts a keyword in the plate nest drawing or displays the "Nest Scrap Utilization" column in the Nest Manager (SC Nesting\Nest Manager), he or she will see that the "Nest Scrap Utilization" value is shown as 7%, and the "Nest Utilization" value is shown as 93%, which is correct. However, if the user generated a report, the "Nest Scrap Utilization" value will be shown as 6% and the "Nest Utilization" value as 94% in the report, which is incorrect.

The "Nest Scrap Utilization" and "Nest Utilization" fields should be rounded in reports to the number of decimal places specified, rather than simply truncating the decimal part of the "Nest Scrap Utilization" value.

Denis 5/12/2010: The Dec Places field for NestUtilization cannot be modified. you should be able to set this.

Issue Type: Issue

Issue ID: **16690**

Title: Structure - Modeling - Mirrored twisted stiffeners may fail to have the same volume, surface area, and length

Description: Mirrored twisted stiffeners may fail to have the same volume, surface area, and length. For example, an original twisted stiffener may have the following attributes:

Volume : 1757611.7281 mm^3
Surface Area: 361668.4 mm^2

If the stiffener is mirrored, the mirror may have slightly different values for the same attributes:

Volume : 1757626.7006 mm^3
Surface Area: 361670.9 mm^2

Issue Type: Issue

Issue ID: **16710**

Title: Project Split & Merge - The rules for adding new branches to Systems should be defined more accurately in split projects

Description: The rules for adding new branches to Systems should be defined more accurately in split projects. Users should be able to add branches to systems if

- they have a permission to model in that system in, at least, one unit; OR
- the System hierarchy is owned by the current project.

Issue Type: Issue

Issue ID: **16735**

Title: Reports - Report Definitions - The "Equipment Parts" section in the "Build Strategy" report shouldn't contain the "Length" field

Description: In report definitions, the "Equipment Parts" section in the "Build Strategy" report shouldn't contain the "Length" field because the field doesn't make much sense for equipment.

Issue Type: Issue

Issue ID: **16750**

Title: Revisions - Project revisions should collect information on events generated from using space allocations

Description: Project revisions should collect information on events generated from using space allocations.

Issue Type: Issue

Issue ID: **16809**

Title: ShipConstructor - Export to DWG - Improve usability of the "Export to DWG" command

Description: Several changes are proposed to improve usability of the "Export to DWG" command:

1. Remove the "Help" option;
2. Ensure that the command can be cancelled with the ESC key;
3. Use Enter to finish the current step of the command;
4. Allow using configuration files to store user settings in the XML format.

Issue Type: Issue

Issue ID: **16850**

Title: Hangers - Modeling - The "New Hanger" command option such as "Change Stock" will disappear if the "Distance between Hangers" is set to a non-zero value

Description: The "New Hanger" command option such as "Change Stock" will disappear if the "Distance between Hangers" is set to a non-zero value. For example, consider the following scenario:

1. The user has run the "New Hanger" command from the "SC Support & Hanger" menu in a pipe model drawing;
2. The user has selected a pipe to place the hanger on;
3. The user has selected the hanger stock;
4. The user has placed the first hanger on the pipe;
5. The user has typed "D" in the command line to set the distance between hangers;
6. The user has placed one more hanger on the pipe on the pipe and finished the command.

If the user starts the "New Hanger" command again, there will be two consequent steps:

1. Select Pipes to hang,
2. Choose which side hangers will be inserted

Between the two steps, there will be no chance for the user to change the hanger stock or reset the Distance between hangers. In the correct situation, the option to change the stock and the option to reset the distance should be available. For example, the options may be shown in the command line in the first step of the command, "Select Pipes to hang."

Issue Type: Issue

Issue ID: **16877**

Title: Reports - The "Profile Nest" report doesn't populate "Weight with Green" and "Volume with Green" columns with values when the report is generated

Description: The "Profile Nest" report doesn't populate "Weight with Green" and "Volume with Green" columns with values when the report is generated. The columns remain blank.

Issue Type: Issue

Issue ID: **16909**

Title: Structure - Corrugated plates with transverse corrugation directions become modified after saving the model drawing

Description: Corrugated plates with transverse corrugation directions become modified after saving the model drawing. For example, consider the following scenario:

1. The user has opened a Structure model drawing;
2. The user has saved the drawing after doing nothing in it.

All corrugated plates with transverse corrugation directions will be recorded as modified in the database. As a result of this change, all assembly drawings that contain modified corrugated plates will become out-of-date, so user will be required to update each of them.
In the correct situation, corrugated plates shouldn't become modified if the user just saved the drawing.

Issue Type: Issue

Issue ID: **16912**

Title: Manager - Support Template Catalog - Entering data in the catalog should be more convenient

Description: Entering data in the Support Template catalog should be more convenient.

Currently, ShipConstructor validates the entire support template record when the user changes any of the individual fields. It leads to a situation where the user it required to fill all of the fields in a specific order; otherwise, conflicts may arise. If a conflict happens, the user won't be able to apply the value in the field until superior fields have some meaningful values.

In the correct situation, the user should be able to enter record values in any order, and the validation should happen upon an attempt to switch from the current record to any other.

Issue Type: Issue

Issue ID: **16941**

Title: Pipe - Modeling - A fatal error and a crash will occur if a pipe with the zero minimum length defined in the Pipe Stock catalog is assigned with the zero length in the model drawing

Description: A fatal error and a crash will occur if a pipe with the zero minimum length defined in the Pipe Stock catalog is assigned with the zero length in the model drawing.

Issue Type: Issue

Issue ID: **16942**

Title: HVAC - Modeling - The "SCToggleOTFMode" command should be presented in the command menu and in the ribbon

Description: The "SCToggleOTFMode" command should be presented in the command menu and in the ribbon. Currently, the command is only available as a button on the HVAC toolbar.

Issue Type: Issue

Issue ID: **16954**

Title: Penetrations - Changing the "Process" attribute via OPM should be prohibited for "Applied" penetrations

Description: Changing the "Process" attribute via OPM should be prohibited for "Applied" penetrations.

Currently, the Process of an applied penetration can be changed in the OPM although the same action is prohibited in the Penetration Manager. For example, consider the following scenario:

1. The user has created a penetration and applied it in the Penetration Manager.
2. The user has selected the penetration object in the model drawing.

The user will be able to change the "Penetration Process" attribute in the OPM. However, if the user opens the Penetration Manager and attempts to change the "Process" attribute, the user will be given a message saying that changing the Process of an applied penetration is not allowed. ShipConstructor should consistently prohibit changing the Process setting of Applied penetrations to avoid conflicts between workshop production and project design.

Issue Type: Issue

Issue ID: **17020**

Title: Revisions - Project Revisions Dialog - Ensure that all revision types and sub-types have appropriate names

Description: Ensure that all revision types and sub-types have appropriate names in the "Project Revisions" dialog.

Currently, some of the types are named as "PartRemoved" or "HierarchyModification". In the correct situation, the space symbol should be inserted between words.

Issue Type: Issue

Issue ID: **17059**

Title: Manager - HVAC Stock Catalog - Applying changes in the catalog resets the "Female" type of slip-on end treatments into "Male"

Description: Applying changes in the HVAC stock catalog resets the "Female" type of slip-on (slipon) end treatments into "Male." For example, consider the following scenario:

1. In Manager, the user has opened HVAC stock catalog;
2. On the "End Treatments" tab the user has added a new "Slip-On" end treatment;
3. The user has set the "Male/Female" property of the end treatment to be "Female";

If the user applies changes in the catalog by clicking either "Apply" or "Done," the "Male/Female" property of the slip-on end treatment will be reverted to "Male." In the correct situation, it should preserve the value that was specified by the user.

Issue Type: Issue

Issue ID: **17083**

Title: Distributed Systems - Modeling - When the COPYBASE command is illegally used on a Pipe, HVAC, or Space Allocation part, the warning message should be displayed

Description: When the COPYBASE command is illegally used on a Pipe, HVAC, or Space Allocation part, the warning message should be displayed.

ShipConstructor doesn't support using the COPYBASE command on Pipe, HVAC, or Space Allocation parts. If the user attempts to use this command, the command will be ineffective. After the user selects all of the command inputs, nothing will simply happen. The behaviour looks confusing. In a better situation a warning message should be shown in the command line. The message should tell the user that the command is not supported for Pipe, HVAC, or Space Allocation parts.

A similar message has already been implemented for the COPYCLIP command.

Issue Type: Issue

Issue ID: **17085**

Title: ShipConstructor - Opening and then closing a Structure model drawing when not connected to a project may crash ShipConstructor

Description: Opening and then closing a Structure model drawing when not connected to a project may crash ShipConstructor.

Issue Type: Issue

Issue ID: **17087**

Title: Hull - Export to Structure - Exporting specific expanded surfaces to Structure may result in an incorrect warning message: "Underlying surface mesh definition extends further than outer trim loop"

Description: Exporting specific expanded surfaces to Structure may result in an incorrect warning message: "Underlying surface mesh definition extends further than outer trim loop". For example, consider the following scenario:

1. The user has created a simple flat surface in the hull model drawing;
2. The user has performed trimming and splitting operations over the surface;
3. The user has expanded the surface.

If the user attempts to export the expanded surface to Structure, he or she may receive the following warning message:

ERROR: 700-33 - Underlying surface mesh definition extends further than outer trim loop. Surface expansion will be inaccurate as a result. Contact ShipConstructor support for instructions on dealing with this problem. Alternately, create an inner trim on the surface and then remove the trim using the surface Edit Marklines Properties window.

The error doesn't crash the application, but it prevents the user from exporting specific surfaces to Structure.

Issue Type: Issue

Issue ID: **17097**

Title: Distributed Systems - Drawing Options Dialog - General improvements to the dialog

Description: Pipe, HVAC, Equipment, Pens, and Supports Drawing Options dialogs could use a few general improvements:

1. All of the checkboxes should be set into correct states when the dialog is opened;
2. Some commands should be renamed:
   _SCHVACOptions rename to _ SCDWGOPTIONSHVAC
   _SCHANGDWGOPTIONS rename to _SCDWGOPTIONSHANGANDSUPPORT
   _SCPIPEOPTIONS rename to _SCDWGOPTIONSPIPE
   _SCEQUIPDISPLAYOPTIONS rename to _SCDWGOPTIONSEQUIP
   _SCHEPDWGOPTIONS rename to SCDWGOPTIONSHEP

3. Provide an access to some individual drawing options via designated ShipConstructor commands.
4. Update manuals.

Issue Type: Issue

Issue ID: **17130**

Title:	Manager - User Permissions Dialog - The hourglass (wait) mouse cursor doesn't change to its regular state after the dialog is loaded
Description:	In Manager, the hourglass (wait) mouse cursor doesn't change to its regular state after the User Permissions dialog is loaded. All of the buttons in the dialog are 100% functional; however, that the cursor appears as if waiting was still in progress looks confusing to users. In the correct situation, the cursor should take on its normal image after the dialog is loaded.
	Issue Type: Issue
Issue ID:	**17153**
Title:	ShipConstructor - Export to Dwg - The "Unable to post the new entity to the database" error will prevent exported drawings from saving if the drawing contains penetration components
Description:	The "Unable to post the new entity to the database" error will prevent exported drawings from saving if the drawing contains penetration components. For example, consider the following scenario: 1. The user has started the "Export to DWG" command in a model drawing that contains penetration components. 2. The user has specified the location where to save the exported drawing and export settings. After the user clicks "Ok," the export process will start; however, before the operation properly finishes, the "Unable to post the new entity to the database" error will appear. The export process will be interrupted in a stage where a temporary file is opened in AutoCAD. All of the geometry in the temporary file will be properly copied from the original file and exploded, but the file won't be saved. Basically, the "Export to DWG" command will stop one step before the correct termination.
	Issue Type: Issue
Issue ID:	**17162**
Title:	Manager - Text Styles and Dimension Styles - Default text styles and dimension styles are always shown as in-use even when they are not in-use
Description:	Default text styles and dimension styles are always shown as in-use even when they are not in-use. In the correct situation, the in-use state should be reported according to the actual usage history of styles in the project. The behaviour should be identical for either default or user-created styles.
	Issue Type: Issue
Issue ID:	**17186**
Title:	Production - Spool Drawings - The "re-dimension" command may fail to find an existing dimension style that is specified as a default dimension style for the spool drawing
Description:	The "re-dimension" command may fail to find an existing dimension style that is specified as a default dimension style for the spool drawing. For example, consider the following scenario: 1. In Manager, the user has created a spool style that employs some dimension style as the default dimension style of a spool drawing. 2. The user has generated a spool drawing based on the spool style that was created before; 3. The user has started the "re-dimension" command; 4. In the "Select Dimension Attributes" dialog the user has checked and then un-checked the "Override Spool Style Dimensions" checkbox; 5. The user has dismissed the "Select Dimension Attributes" dialog with the "Cancel" button; 6. The user has restarted the "re-dimension" command; After the user clicks the "Ok" button in the "Select Dimension Attributes" dialog, the following message will be thrown: "Unable to find dimension style..." although the style should exist in the drawing because the drawing was generated with that style. This is incorrect behaviour.
	Issue Type: Issue
Issue ID:	**17199**
Title:	Production - Update Arrangement Drawing Wizard - The "Show Spools" checkbox on the "Step 1" page is incorrectly checked based on the last dialog state

Description:	The "Show Spools" checkbox on the "Step 1" page of the "Update Arrangement Drawing Wizard" dialog is incorrectly checked based on the last dialog state; for example, if the checkbox was checked the last time the dialog was opened, it will be checked the next time the dialog is opened. As a result, if the original drawing doesn't contain any spool sources but the checkbox happened to be checked when the "Update Arrangement Drawing Wizard" dialog is loaded, all of the available spools will be added as sources to drawing sources. It will slow down the update operation dramatically. In the correct situation, the "Show Spools" checkbox should be checked during the update operation only if the drawing already contains spool sources.
	Issue Type: Issue
Issue ID:	**17204**
Title:	Production - Export to DWG - Export to DWG generates invalid AutoCAD drawings that still contain entities that require loading ShipConstructor components
Description:	Export to DWG generates invalid AutoCAD drawings that still contain entities that require loading ShipConstructor components. If such a file is opened on a machine with just a plain AutoCAD installation, a crash may occur after a series of messages that tell that some ShipConstructor DBX files cannot be loaded. In the correct situation, drawings exported with the "Export to DWG" command should be free of any ShipConstructor dependencies.
	Issue Type: Issue
Issue ID:	**17223**
Title:	Manager - Materials Catalog - Density units are incorrectly displayed with an "A"-like symbol at the end of the text string
Description:	Density units are incorrectly displayed with an "A"-like symbol at the end of the text string in the Materials catalog in Manager.
	Issue Type: Issue
Issue ID:	**17248**
Title:	Weld Management - The Weld Management panel is missing from the AutoCAD ribbon
Description:	The Weld Management panel is missing from the AutoCAD ribbon. Currently, users can only access weld management commands from the command menu.
	Issue Type: Issue
Issue ID:	**17254**
Title:	Production - Creating a production drawing can be slow if the drawing contains curved plates
Description:	Creating a production drawing can be slow if the drawing contains curved plates.
	Issue Type: Issue
Issue ID:	**17255**
Title:	Manager - HVAC Stock Catalog - An "XML validation error" may occur upon an attempt to import an HVAC from an XML file when the stock has associated UDAs
Description:	An "XML validation error" may occur upon an attempt to import an HVAC from an XML file when the stock has associated UDAs. For example, consider the following scenario: 1. The user has created a new straight HVAC stock; 2. The user has assigned some not required UDAs to the stock; 3. The user has exported the stock to an XML file. If the user attempts to import the stock back from the XML, an "XML validation error" may occur.
	Issue Type: Issue
Issue ID:	**17272**
Title:	ShipConstructor - Edit Levels Dialog - An attempt to swap levels in the secondary Product Hierarchy tree fails with an error
Description:	In the Edit Levels dialog, an attempt to swap levels in the secondary Product Hierarchy tree fails with an error.
	Issue Type: Issue
Issue ID:	**17308**
Title:	Manager - Equipment Library - Adding insertion points to an equipment standard drawing may initiate an access violation error

Description: Adding insertion points to an equipment standard drawing may initiate an access violation error. For example, consider the following scenario:

1. In Equipment Library in Manager, the user has opened an equipment standard drawing;
2. The user has turned on basic AutoCAD OSNAPs;
3. The user has clicked the "Add Insertion Point" button and quickly snapped to a point in the equipment standard drawing to insert the point.

A few consequent attempts (5-6) to quickly add insertion points to the standard drawing may provoke an access violation error.

Issue Type: Issue

Issue ID: **17318**

Title: Report - In report definitions, the "Remnants" section should be renamed into "Plate Remnants"; otherwise, the name can be misinterpreted as profile remnants

Description: In report definitions, the "Remnants" section should be renamed into "Plate Remnants"; otherwise, the name can be misinterpreted as profile remnants.

Issue Type: Issue

Issue ID: **17352**

Title: Report - Report Definitions Dialog - The space character is missing in the name of the "BuildStrategy" section

Description: In the "Report Definitions" dialog, the space character is missing in the name of the "BuildStrategy" section. In the correct situation, the section name should be recorded as "Build Strategy."

Issue Type: Issue

Issue ID: **17375**

Title: Production - AutoCAD auto save modifies the original name of an assembly drawing in the database by adding to it a "_1_1_" followed by a random number

Description: AutoCAD auto save modifies the original name of an assembly drawing in the database by adding to it a "_1_1_" followed by a random number. For example, consider the following scenario:

1. The user has created an assembly drawing and opened it;
2. The user has modified the drawing;
3. The user has waited until AutoCAD auto save runs.

After the AutoCAD auto save operation is done, the name of the drawing in the database will be transformed to: <original name>_1_1_<random 4-digit number>. For example, if the original name of the drawing is "Drawing 1," the transformed name can be "Drawing 1_1_1_1823." As a result of the drawing's name being changed in the database, if the user opens Navigator, the user will see that the transformed name appears in the list of drawings. Along with the transformed name, the original drawing will also be listed in Navigator, but the original drawing will be shown with the blue icon as if it was detached from the database.

Issue Type: Issue

Issue ID: **17401**

Title: Production - Plate Nesting - Moving nested profiles directly from one nest into another results in a database error upon saving the drawing

Description: Moving nested profiles directly from one nest into another results in a database error upon saving the drawing. For example, consider the following scenario:

1. The user has created a nest drawing with, at least, two nests in it;
2. The user has nested some flatbars and twisted stiffeners;
3. The user has run the MOVE AutoCAD command and moved a profile part from one nest directly into another.

If the user attempts to save the nest drawing, a database error will occur. The error happens only when profile parts are moved between nests. If a plate part is moved, the drawing will be saved correctly.

Issue Type: Issue

Issue ID: **17403**

Title: NC-Pyros - When NC-Pyros connects to the ShipConstructor database, it asks for the user name and password twice and, then, fails to synchronize colors automatically

Description: When NC-Pyros connects to the ShipConstructor database, it asks for the user name and password twice and, then, fails to synchronize colors automatically. For example, consider the following scenario:

1. The user has opened NC-Pyros and opened a dxf file that was output by ShipConstructor;
2. The user has opened the Preferences dialog;
3. On the "ShipConstructor" tab, the user has checked off the "Use Database" checkbox.

After the user puts the mark in the "User Database" checkbox, the user will have to go through two login dialogs. After the connection with the ShipConstructor database is established, NC-Pyros layer colors won't be synchronized with layer colors in the ShipConstructor database automatically. The user will have to initiate the operation manually by opening the Preferences dialog, going to the Layers tab, and pressing the "Sync Colors with ShipConstructor" button.

Issue Type: Issue

Issue ID: **17404**

Title: Structure - Opening of Structure model drawings that contain Standards Parts with marking on them can be slow

Description: Opening of Structure model drawings that contain Standards Parts with marking on them can be slow.

For example, on a specific computer that has a reasonable performance speed, opening a drawing that contains 35 standard plates and 24 standard stiffeners may take about 20 seconds. If the number of standard plates is 60, and the number of stiffeners is 26, the loading time will be about 1 minute.

Issue Type: Issue

Issue ID: **17418**

Title: Production - Plate Nest Drawings - Updating BOMs in plate nest drawings can be slow

Description: Updating BOMs in plate nest drawings can be slow. In complex cases, it may take up to 20 minutes to update the drawing. Occasionally, slow updates can lead to timeout errors. Performance improvements should be done in this area.

Issue Type: Issue

Issue ID: **17425**

Title: Structure - Modeling - Updating specific Structure model drawings or recreating them from the database can cause ShipConstructor to suspend or produce an exception error

Description: Updating specific Structure model drawings or recreating them from the database can cause ShipConstructor to suspend or produce an exception error. For example, consider the following scenario:

1. The user has opened a specific Structure model drawing in his\her project;
2. The user has run the SCReload command.

ShipConstructor will fail to update the drawing; instead, it may suspend or produce an exception error. The mistake happens very rarely. It is caused by a database error of an unknown origin that cannot be sustained by the application.

Issue Type: Issue

New Feature

Subtotal: 23

Issue ID:	**6977**
Title:	Administrator - Command Menus - Improve general organization and appearance of command menus in Administrator
Description:	Improve general organization and appearance of command menus in Administrator by introducing tool strips and menu icons.
	Issue Type: New Feature
Issue ID:	**8389**
Title:	Report - Provide a new field such as Faceplate Offset Position in reports
Description:	Provide a new field such as "Faceplate Offset Position" in reports. The field should present the "Position" value that tells what the faceplate orientation relatively to its plate is. The "Position" attribute is set by the user in the "Faceplate Properties" dialog.
	Issue Type: New Feature
Issue ID:	**8390**
Title:	BOM - Provide a new field such as Faceplate Offset Position in BOM definitions
Description:	Provide a new field such as "Faceplate Offset Position" in BOM definitions. The field should present the "Position" value that tells what the faceplate orientation relatively to its plate is. The "Position" attribute is set by the user in the "Faceplate Properties" dialog.
	Issue Type: New Feature
Issue ID:	**8590**
Title:	Report - Edit Report - Enhance the "Repeat Header" option with three possible values
Description:	In the "Edit Report" dialog that can be opened from the "Report Definitions" dialog, enhance the "Repeat Header" option with three possible values: - Once Per Section (don't repeat the header on page breaks) - Once per Page (don't repeat the header if the section occurs multiple times on the same page) - Each Section Page (repeat the header for all section/page breaks). Currently the "Repeat Header" option, which is available for each section inside the report definition, offers two options only, "Yes" and "No."
	Issue Type: New Feature
Issue ID:	**8683**
Title:	Report - Edit Report Dialog - Eliminate the "Show Details" column from the list of report sections because this column doesn't have much influence
Description:	In the "Edit Report" dialog, eliminate the "Show Details" column from the list of report sections because this column doesn't have much influence on the report output and may be considered as redundant.
	Issue Type: New Feature
Issue ID:	**10859**
Title:	Production - Bill of Materials - Add the following columns to BOMs: "Total Length with Green," "Total Weight with Green," and "Total Volume with Green"
Description:	Production - Bill of Materials - Add the following columns to BOMs: "Total Length with Green," "Total Weight with Green," and "Total Volume with Green"
	Issue Type: New Feature
Issue ID:	**11545**
Title:	Hull - The "Hull Objects List" dialog (SCHULLOBJLIST) doesn't display native AutoCAD objects
Description:	The "Hull Objects List" dialog (SCHULLOBJLIST) doesn't display native AutoCAD objects, which is incorrect behaviour. In the correct situation, the dialog should display ellipses, closed ellipses, circles, arcs, lines, and splines.
	Issue Type: New Feature
Issue ID:	**13099**
Title:	Report - Report Definitions - Enable "Remnant Width" and "Remnant Length" fields in Plate Nest report definitions
Description:	Enable "Remnant Width" and "Remnant Length" fields in Plate Nest report definitions. The "Remnant Width" and "Remnant Length" properties already exist for remnants in plate nest drawings. They can be marked as a text on the remnant surface. However, the same information is not available in reports.
	Issue Type: New Feature

Issue ID: 13104

Title: Report - Report Definitions - In Profile Nest reports, provide a field that displays the Cumulative Length of the profile stock measured from the beginning of the stock up to the current nested part

Description: In Profile Nest reports, provide a field that displays the Cumulative Length of the profile stock measured from the beginning of the stock up to the current nested part.

The cumulative length value should reset to zero in the beginning of each profile nest. Within each nest, the field should report cumulative length of all profile parts, green material, and kerfs that precede the current part. A similar field used to exist in profile nest reports in SC2005.

Issue Type: New Feature

Issue ID: 13179

Title: NC-Pyros - Support a specific version of the ESAB bevel controller

Description: In NC-Pyros, support a specific version of the ESAB bevel controller.

Issue Type: New Feature

Issue ID: 13276

Title: Hull - Modeling - Provide the ability to update twisted stiffeners that were previously exported to Structure from stringers in Hull

Description: Provide the ability to update twisted stiffeners that were previously exported to Structure from stringers in Hull. Currently, if a stringer changes in Hull, users have to delete its corresponding twisted stiffener and re-export it from Hull to Structure from scratch.

The new function should do all of the routine steps automatically and provide some additional benefits such as saving existing trims, endcuts, green, and cutouts while updating the part.

Issue Type: New Feature

Issue ID: 14808

Title: Administrator - A confirmation message should be shown before the compact process begins

Description: A confirmation message should be shown before the compact process begins. Additionally, the "Cancel" button should be available while in the middle of the compact process. This is a standard measure to protect the system from accidental clicks.

Although there is no harm in compacting the database, the process can be slow.

Issue Type: New Feature

Issue ID: 15302

Title: Production - Provide the ability to batch-update production drawings

Description: Provide the ability to batch-update production drawings. The update operation should work similar to "Update Model & System Drawings."

Issue Type: New Feature

Issue ID: 15878

Title: Licensing - Show license server status in licensing dialog

Description: Currently, the ShipConstructor Licensing dialog displays a list of locks in the 'Lock Info' group. 'Lock Info' should be changed to 'Server and Lock Info'. This list should display one or more rows for each server in the license server list.

If the network server can be contacted and has no lock attached, there should be one row indicating the name of the server and that no lock could be found. If the network server cannot be contacted then there should be one row indicating that the server could not be contacted. If the server can be contacted and there are locks attached, one row should be displayed for each lock as is currently displayed in the 'Lock Info' list.

No message boxes should be displayed if license servers in the license server list cannot be contacted.

Issue Type: New Feature

Issue ID: 16252

Title: Project Revisions - Improve usability and functionality of the "Project Revisions" dialog

Description:	Improve usability and functionality of the "Project Revisions" dialog. The following improvements are suggested: 1. Provide a new column such as "Revision Sub Type"; 2. Redesign the "Revision Type" control so that it's easier to work with revision types; 3. Move "Plate Nest" and "Profile Nest" revision categories from the "Stocks" group under "Structure"; 4. By default, select all of the revisions type to display in the dialog; 5. Users are now warned if
	Issue Type: New Feature
Issue ID:	**16280**
Title:	Reports - Add the Equipment Class "Description" field to all relevant sections in report definitions
Description:	Add the Equipment Class "Description" field to all relevant sections in report definitions.
	Issue Type: New Feature
Issue ID:	**16418**
Title:	Project Split and Merge - Automatically delete incomplete or corrupted *.rfs or *.mrg files
Description:	Automatically delete incomplete or corrupted *.rfs or *.mrg files that may occur as a result of an error during the create merge or create an update file operation. Currently, incomplete and corrupted merge or update files may be produced by ShipConstructor. In most of the cases when an error occurs, users are informed of the error; however, sometimes, the notification may fail to appear depended on how the error happens (Issue 16146). The fact that an incomplete or corrupted file may be created is dangerous because the file may still be usable in the merge or refresh process, and it can affect the project database in a later operation. ShipConstructor should mark or delete corrupted *.rfs or *.mrg files automatically.
	Issue Type: New Feature
Issue ID:	**16484**
Title:	Production - Provide additional DWG Options Commands
Description:	The following commands are now available for modifying drawing options SCDWGOPTIONSALL SCDWGOPTIONSSTRUCT SCDWGOPTIONSPIPE SCDWGOPTIONSHVAC SCDWGOPTIONSEQUIP
	Issue Type: New Feature
Issue ID:	**16537**
Title:	ShipConstructor - Product Hierarchy - Remove the Unit constraint in non-primary Product Hierarchies
Description:	Remove the Unit constraint in non-primary Product Hierarchies. Currently, in the primary and non-primary Product Hierarchies (Build Strategies), parts must be sorted according to their Units. For example, it is impossible to keep parts that belong to different Units in the same hierarchical group. This behaviour must be changed for secondary Product Hierarchies. In case of non-primary product hierarchies, users should be able to group parts without having a Unit constraint over grouping.
	Issue Type: New Feature
Issue ID:	**16675**
Title:	ShipConstructor - Upgrade the set of performance monitoring commands to more powerful Diagnostic Manager to monitor performance, memory usage, and network traffic
Description:	Upgrade the set of performance monitoring commands to more powerful Diagnostic Manager to monitor performance, memory usage, and network traffic. To replace the old functionality, the old commands such as SCSPM, SCDPM, and SCEPM should be disabled. Then, Diagnostic Manager should be made available. The commands to work with the diagnostic manager are: SCDiagnosticStart, SCDiagnosticStop, SCDiagnosticShow, SCDiagnosticExport, SCDiagnosticExportText, and SCDiagnosticManagerReset.
	Issue Type: New Feature

Issue ID:	**16921**
Title:	ShipConstructor - Licensing - Rename the header of the "UM&S Date" column that is the part of the Lock information into "Subscription Date"
Description:	In License Monitor and in the "Licensing" dialog, rename the header of the "UM&S Date" column into "Subscription Date." The "UM&S Date" column is the part of the list that shows information about available locks. The Lock View list is available in both dialogs. **Issue Type:** New Feature

Issue ID:	**17184**
Title:	Production - Introduce the new SCFIXDUPLICATEPRODDWGS command to repair duplicate production drawing records after updating to SC2011R2
Description:	Introduce the new SCFIXDUPLICATEPRODDWGS command to repair duplicate production drawing records after updating to SC2011R2. This is a maintenance command that should only be run once after the user upgrades the project to SC2011R2. The user should run this command if he or she sees that some of the production drawing names contain "$DUPLICATE$" text in the Navigator dialog. The command should be typed in the command line while any ShipConstructor drawing is opened. The command is not presented in menus or toolbars. After running the command, all records that contain "$DUPLICATE$" in drawing names, will disappear from the Navigator dialog. More detailed information about this command is available in the Production manual. **Issue Type:** New Feature

Issue ID:	**17275**
Title:	ShipConstructor - Administrator and Split and Merge Manager - A warning message should tell users that database backups created on SQL Server 2008 R2 cannot be restored on SQL Server 2008 R1
Description:	In the Administrator dialog and Split and Merge Manager, a warning message should tell users that database backups created on SQL Server 2008 R2 cannot be restored on SQL Server 2008 R1. The reason for this behaviour is that SQL Server 2008 R2 and SQL Server 2008 R1 are both major SQL server releases. Usually, when a major SQL server release happens, databases backed up on a newer server version cannot be restored on an older version. This is a limitation of Microsoft SQL Server. ShipConstructor can only inform users that these things are possible. In addition to the warning message, using a different backup file extension is recommended when the backup is created by SQL Server 2008R2. For example, in this case, the file name could be: <name>.bak2008R2 **Issue Type:** New Feature

Paper Generation

Subtotal: 4

Issue ID: 16196

Title: ShipConstructor - Manuals - Transfer the section that explains how CUIs work from the Structure manual to the Project Management manual and extend the section with additional explanation

Description: Transfer the section that explains how CUIs work from the Structure manual to the Project Management manual and extend the section with additional explanation.

Currently, the CUI explanation is incorrectly included into the Structure manual (page 7) although it is related to the entire ShipConstructor product. The section is very short and lacks some detailed information on why AutoCAD needs several CUI files, what is stored in each of the CUI files, what is the correct way of customizing the user interface through CUI files, what direct steps that need to make a customization are, how to preserve custom changes and apply them to the next installation of ShipConstructor, etc.

The section should include examples and good practices. For example, it may instruct project administrators on how to setup the product when some CUIs are loaded from the central network location.

Issue Type: Paper Generation

Issue ID: 16226

Title: Manuals - Installation Guide - Page numbers are aligned incorrectly on some of the pages; Navisworks is spelled incorrectly

Description: The following mistakes were found in the "Installation Guide" manual:

1. Page numbers are aligned incorrectly along the left side of the document on pages 12, 13, and 14;
2. "Navisworks" is spelled incorrectly as "NavisWorks" on p. 18 and, possibly, in other places throughout the manual.

Issue Type: Paper Generation

Issue ID: 16266

Title: Manuals - Pipe - Assorted flaws and mistakes in the Pipe manual (SC2009)

Description: Assorted flaws and mistakes have been reported in the Pipe manual in SC2009.

Issue Type: Paper Generation

Issue ID: 16584

Title: Manuals - Standard Assemblies - Multiple unrecognizable characters present on Page 9 of the manual in place of readable text

Description: In the "Standard Assemblies" manual, multiple unrecognizable characters present on Page 9 in place of readable text, which looks like a font issue.

The manual document is corrupted at both of the following locations:

1. Manual files distributed with ShipConstructor installation,
2. ShipConstructor website:
http://www.shipconstructor.com/documents/manuals/2010/StandardAssembly.pdf

Issue Type: Paper Generation