



Software Changes Document: EST-Duct

MAP Software Version: 2.40.062 SP3 Version LOK Code : 19 Release Date : 30/09/2010

New Patterns\Enhancements

Pattern Enhancements

- CID 2160 (Circular Branch on Straight) - Now supports inlet/outlet options.

Application Fixes

Carry Over

- Fixed carry over not working on free entry items and allow user to edit product lists already taken off in quick takeoff.

Database

- Fixed duplicate specification/material entries when importing new services (caused by initialised rotary size on gauges).

Design Line

- Fixed an issue with 4 way reducers in design line getting the reducer on the wrong output.

Sub Assemblies

- Now allow dimensions not covered by product data to be assigned by a dynamic sub assembly.
- Fixed sub assembly editor prompting the user two times for Cancel.

Pattern Fixes

Pattern Fixes

- CID 1144 (TriProDamper) - Increasing the handle length caused it to offset inward instead of outward.
- CID 839 (Circular Box on Straight) - Reducer end diameter was not adjusted with DW/Insulation applied.
- CID 970 (Circular Reducer + Holes) - Was not using the diameter type option.



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MAP Software Version: 2.40.059 SP2 **Version LOK Code :** 19 **Release Date :** 31/08/2010

Application Fixes

Auto Coupling

- Fixed so that it does not add a zero quantity of couplings when connectivity detects one connector end.

Combined Straight

- Fixed pattern 866 Option #15 Override, user was not able to cycle through the various types.

Design Line

- Fixed supports not filling in correctly when bounded by offset nodes.
- Fixed an issue with 4 way reducers in getting the reducer on the wrong output.

Item Folders

- Fixed create sub folder off 'item folders' actually adding the new folder as a root element, not a child of item folders.

Straight (Cut)

- Fixed pattern 1 Option #1 Straight Type, 4 parts was naming the last part development incorrectly.

Sub Assembly

- Fixed create catalogue item from sub assembly which had been actioning the edit of the sub assembly.

Units

- Fixed the entering of dimensions using feet, changed so no inch value required.

Worksheets

- Fixed Pattern Item Print on worksheets that was coming out black when printing.

Pattern Fixes

Pattern Fixes

- CID 7 (Rectangular Shoe) - Fixed program exit on Redraw when option "Throat Type" is set to Radius
- CID 523, 2523 (Circular Bend) - when Centreline Input enabled, outside insulation was not drawing correctly.
- CID 1, 35, 866 (Rectangular Straights) - Hole developments in certain scenarios were missing when using offsets. e.g. 2L part developments.



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MAP Software Version: 2.40.052 SP1 Version LOK Code : 19 Release Date : 05/08/2010

New Features

Annotation

- Added support for Object Text commands to work on preselected items.

New Patterns\Enhancements

Pattern Enhancements

- CID 846 - (Oval Tap on Straight) - Now supports right reducer (as per CID 1115/6)

Application Fixes

3D Viewer

- Fixed unused layers now being removed when no items exist on that layer.

Cost Breakdown

- Changed Cost Breakdown dialogue so uses fixed spacing and also changed the font to Lucida Console.

Design Line

- Fixed Source fittings failing to Fill in 3D (failed matching sizes).

Dialogs

- Fixed pressing Escape on dialogs that have 3D Viewers, stopped them closing when the user just presses Esc. to cancel selection.

Free Entry Items

- Fixed crash in Takeoff if user edits a Free Entry item and then attempts to click Redraw.

Insulation Specs

- Fixed insulation specifications applying the wrong library of connectors to transitional items.

Invalid connectors

- Fixed takeoff using invalid data for unused connectors.

Item Reports

- Fixed the "Available" filter.

Materials



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- Fixed insulation material links so that when selecting insulation in a drop down, the link to the insulation database appears as it should.
Fixed a crash if current material deleted from the material link.
Made changes to fix the way new or deleted material acts, for example; when prompting to copy/remove entries relating to all materials.

Multiple Item Properties

- Fixed an item having invalid insulation stopping Multiple Item Properties working at all.

PDF Import

- Fixed layering of different colours contained within PDFs. Now able to specify layer selection based on colour.
- Fixed the import of PDF underlays so that colour is shown even when selecting Monochrome display in Viewer Settings > Textures.
- Fixed an issue with line thicknesses so that when zooming, lines are kept proportionate and not thick lined when zoomed out. Had been causing visibility issues in the viewer.

Price\Times Editors

- Fixed potential crash in product listed price/times table editors if prodinfo columns are shown that have blank data.

Print Objects

- Fixed Object Connector Location Z Top\Bottom crashing reports.

Profiles

- Fixed Insulation and Hanger specifications to convert when creating extra profiles. Also introduced fix for Fabrication, Installation and Price Lists tables so they too are not deleted.

Setup Services

- Fixed editing a new button in the Service template editor reloading & losing the button just added.

Specifications

- Fixed dialogue that prompted to delete entries in the specification. Was deleting the entries for that material regardless of selecting No.

Splitters

- Fixed an issued with the splitter positioning for Radius Bends. When using the "Use Small End For Splitters" option, this calculated the small end for the quantity of splitters but used the large end for there positions.

Takeoff

- Fixed missing connector/seam numbers in Takeoff views. This now dsplays with the number for example "C1=DM25 500x400" previously displayed without the number "C=DM25 500x400".

Underlays

- New layers will now be automatically generated for different line weights along with colours.

Pattern Fixes

Pattern Fixes

- CID 1111 (Tee Coupling) - If Len1 is the same value as Len2 then Connectors C1 and C2 become active and can be used as "cut in" to pipe runs.
- CID 2938 (Circular Bend on Straight) - C5 connector now enabled.
- CID 988 (Oval Branch on Flat) - Fixed so that it uses Rectangular Specs instead of Oval.



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MAP Software Version: 2.40.039

Version LOK Code : 19

Release Date : 24/06/2010

Application Fixes

Grip points

- Priority now on grips so that annotation is the first available

Job Viewer Report

- Print object "Job Viewer Report" will now obey the justification properties.

Printing

- Fixed the size of text (dimensions) when printing using an imperial database.

Quick Takeoff

- Fixed potential crash with Quick Takeoff not deleting entries fully unless a refresh (F5 key) was pressed.

Stiffeners

- Fixed users not seeing Ancillary Materials assigned to stiffeners if the Costing option was not enabled on their dongle but the Estimating option had been.

Swap Out

- Fixed CAM/EST swap out so that if only the spec is changed during swap out we validate the material e.g. force koolduct material change from a galvanised



Software Changes Document: EST-Duct

MAP Software Version: 2.40.036

Version LOK Code : 19

Release Date : 15/06/2010

New Features

3D Viewer

- Viewer In Viewer (VIV) - New command "VIV" which allows the user to select items and view them in an isolated viewer. Any changes made (with some exceptions ie. delete) of these items will be transferred back to the main viewer when this dialogue is closed.
- Added BOD,TOD to tool tip when the user hovers over a connector snap node and also allowed the "ITEMDETAILS" or "ITMD" command to be used in the viewer to determine what item properties to display when selecting an item.
- New command for the 3D viewer called "SETLOD" which prompts for the level of detail on a scale of 1-5.
- New toolbar option and command for Takeoff Area "ADDAREA", allowing a selection of points to calculate the total area of a closed island. The closed island will be treated as a new item in Job Contents with the calculated area allocated.
- Added new command "ATTR" to allow user to display attributes of any item selected. Attributes configured by "ITEMDETAILS" command
- Added Fill Between Two Ends Command "F2E" or "FILL2ENDS" which uses design line logic to fill between 2 open ends when selected.

Application loading

- Optimised the application initialisation when executing with non-global active profiles.

Costing Database

- User can now assign a popup description for each of the value set tables within Fabrication and Installation table creation.
- Added the ability to use a Specification custom filter when creating Fabrication and Installation times tables.

Costing Tab

- Added new option for Life Span and also added extra Cost Types for Demolition and Relocation onto the Costing Tab of Item Properties.

Database Filtering

- New feature that enables users to filter out data from collapsable databases such as Connector and Seam databases. Users can Right Click any of the header fields and select Filter.

Design Line

- Added 'Take off as' option on the right click of Service buttons in design line mode.
- GUI: Auto elevation update button has now been amended to insert automatic offset lines when changing fixby position. Change in line position is relative to working width/depth.
- Auto elevation updates button has now been amended to insert automatic line offset lines when changing fixby position. Change in line position is relative to working width/depth.
- Changed Fitting Node dialogue to appear as toolbar. Also amended the command so the edit dialogue appears initially.
- Dummy terminals should now reduce or shape-change as necessary.
- Terminal styles database list now shows additional information about the terminal style, i.e. flex button code, flex min & max lengths and the flex through nodes option.
- Filling with CID 1107, 1174 (Partition Wall, Partition Corner) now supported.

DWG Import

- Added support for AutoCAD 2010 DWG format for importing 2D/3D proxy graphics as 3D Viewer underlays.

Elink - Importing Various Formats

- Added functionality to allow *.DWG, *.DWF, files to be E-linked into a model.



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Export DWG

- User can now export the 3D Viewer model as a DWG file format using the DWGEXPORT command.

Fill 2 Ends

- Added new fill two ends command, available as FILL2ENDS2 or F2E; includes totals for Weight, Area and Cost for each solution.

HASP Notice

- **IMPORTANT:** Changes to MAP licensing now only allows HL type keys to be used when running this version and future releases of the software. We have now dropped support for HASP4 and Parallel keys and users are reminded that for information on Swapping out their keys, they should be contacting their local distributor/dealer.

Please be aware that this update will install the SRM Drivers associated with these HL keys in order for you to obtain access to the latest version of the software.

ITM Links

- Add ability to add links to item files; can only be setup via scripting and appears as a separate "links" tab in item folders.

Multi Service Fill

- Implementation of elevation control for Multiple Service line (including auto/angled-risers).
- Working in CAM with a Service Layout.
Working in CAD with a selection of items.
- "Offset" parameter added to line segments to allow entire frame to be 'lifted' for tee situation.

OpenGL

- Removed depreciated non-OpenGL drawing code - OpenGL is now a minimum requirement.

Price Lists

- Made importing price lists compatible with Notepad and OpenOffice enabling the use of copy/paste into or from a CSV file type.

Print Objects

- Additional print objects for tie rod/bolt/material/corners (per stiffening position).

Product Lists

- Revamped product lists so that dim/option columns don't use visible indexes - this means unlocked dims can be skipped and fixes issues with new dims added on patterns with holes.
We now no longer reload catalogue lists all the time (use console command 'reloadprods' to force reload on old jobs). We cache similar lists instead of discarding them.

IMPORTANT NOTE: This change breaks all forwards compatability - product definitions will be lost to old versions if items are saved in this version.

Reports

- Each report now has the option to Override the default Printer assigned. Useful for creating a duplicate report and saving one as PDF. Available by Options interface of each report.

Scripting

- Added item.canrotary() and item.rotarynest = true/false to the scripting references

Sections

- Implemented new option for Retrofit % onto Section properties.

Service Editor

- Optimised the service template editor to be quicker at initialising; so it doesn't copy every template, just in case the user cancels, it copies them as and when needed.



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Service Information Print

- Users can now print out Service information such as Service Template name, Button Mappings, Layering information and Offset rules applicable to each service.

Spool Drawing

- Now have the ability to select a run/object and create multiple spool drawings. This creates new tabs in the 3D viewer that has dimension annotation applied automatically. The 3D Viewer commands for their creation is "SPOOLS" and "DSPL" is used to define which objects are required. Further Spool related commands can be found via the command list filtering for the word "Spool".

Step Down connectors

- Support added to draw step down rectangular connectors in Takeoff views (CAD and CAM) and in the 3D job Viewer (CAM,EST).

Stiffeners

- Revamped stiffeners to include breakpoint tables for ancillaries and rod data. Now allows advanced configuration to comply with specifications.

Table Links

- Now when selecting the Hypernext next to the table assignment from Costing Tab of Item Properties, selection will now jump to the relevant price list code, fabrication or installation table in use.

Takeoff Dialogue

- Takeoff options added to the toolbar to provide more area to display the graphical elements.

Takeoff Views

- Users can now double click the viewport to maximise or restore the original view.
- New Takeoff Views introduced to provide the user with more flexibility and advanced settings on annotation, graphical elements, views, colour and textures.

Wrap pattern

- Now allow the Wrapper pattern to work with Electrical Only dongle.

New Patterns\Enhancements

New Patterns

- CID 1172 (Radius Bend - Angled ends)
- CID 1179 (Taper + Bend 2 Way)
- CID 1167 (Rectangular Triple Offset Tee)
- CID 1176 (Structural Camber)
- CID1173 (Circular Branch On Bend) - Allows branch to be positioned anywhere on the segmented bend.
- CID 1171 (Rectangular Angled Straight)
- CID 1180 (Linear Radius Diffuser)
- CID 1178 (Ductboard Sarajevo Taper)
- CID 1165 (Cabinete)
- CID 1166 (Rectangular Sloped Elbow)
- CID 1174 (Partition Corner)

Pattern Enhancements



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- CID 929 (Kymen Macro) - Added a new dimension for the back holes' offset; front/back options to offset from top instead of "centre".
- CID 878 (Cable Bend) - Added new type Horizontal Elbow.
- CID 916 (Waste Trap) - Added OpenGL annotation and a new dimension for C2 (different inner diameter whilst not affecting pipe diameter).
- CID 2881/2/3/5 (Radius Branches) - Now allow collars to be stretched.
- CID 2965 (Circular Tee with Reducers) - Branch length now taken from the pipe axis when using the Centreline Input option.
- CID 521 (AHU pattern) - Amended holes' (unused) collar allowance option to allow select hole type as normal, or doors or a directional arrow.
- CID 965/2965 (Circular Tee Reducer) - Added centre-line and option for left/right lengths to include extensions.
- CID 838 (Hanger: Clevis) - Added clevis seismic rod options.
- CID 878 (Cable Bend) - Added option for Outside or Inside Width when set to Horizontal option type.
- CID 900 (Cable Riser) - Added new type Vertical Elbow.
- CID 6, 330 (Reducing Offset, Radius 2-way Offset) - Now support stiffeners.
- CID151 (Rectangular Angled Taper) - Now supports double wall.
- CID 838 (Hanger) - Added arrow draw to wrap-round & clipped flat strap types.
- CID 397 (Insulation Cladding Valve Box) - Now supports add hole.
- CID 59 (Segment) - Added option to enter by Central or End Diameter dimension.
- CID 910 (Girder) - New option for minimum size connector (stopped drawing a rectangle around 'I' shape ends).
- CID 900 (Cable Riser) - Added new option for Outside or Inside Width.
- CID 838 (Hanger) - Type "V Bottom Clevis" now support seismic rods.
- CID 2326 (Circular Branch On Bend) - Now allows different top/bottom body diameters.
- CID 399 (Rectangular Drop Bend) - Now supports Splitters.
- CID 472 (Rectangular Double Offset) - New option & dimension to input middle width.
- CID 399 (Rectangular Drop Cheek Bend) - Now supports splitters.
- CID 838 (Hanger) - Types "J" and "J2" now support seismic rods.
- CID 394 (Circular Elbow) - Added option to define the number of splitters.
- CID 877 (Electrical Straight) - Now supports "Add Hole" (Type "Closed" only)
- CID 838 (Hanger) - New type added "J2".

Application Fixes

3D Snap Functionality

- 3Dsnap, selection accuracy more efficient, Users can also customise snap symbol "Size" & "Snap" distance. Within the : Veiwew Settings > Snap options > Distance

3D Viewer Worksheets

- Added the ability to use company address fields on Worksheets.
- Fixed "Job Viewer Report" print object, now displays totals for the selected columns.
- Fixed large printouts with high DPI failing due to windows limitation. Reduced the auto-DPI to rectify this.

Change Object(s) Properties

- Fixed issue with multiple item selection when having items with insulation and double wall/materials settings that vary; was not obeying/reporting "Mixed Values" consistently.

Compact Database

- Fixed "compact database" wiping out hanger and insulation specifications.



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Connectors

- User can now multiple select connectors by using isolated selection using the CTRL key and also for block selection using the SHIFT key. Now gives the user the ability to edit more than one connector at a time.

Decoiler

- Decoiler Output - Multiple Coils/Standard widths
 - a) Ensure items are treated as standard if the length matches any of the standard lengths
 - b) Ensure correct coil width selection for items takes correct account of whether non standard length items will be made on the second line

Design Line

- Round up sizes logic now restricted to match button coded Hangers. Would round up to the next product listed size if the size isn't available.
- Fixed Line Editor > Change Constraints dialog, was only listing a maximum of 20 constraints.
- Design line hangers and offset rules filled with 2 elbows: hangers were getting placed on the line when the fittings don't follow the line.
- Design line & multiservice fill now call for an Auto Save (if required) prior to filling in 3D.
- Fix implemented for when using offset lines that are not orientated perfectly. Positions were incorrect and could fill in 3D cutting out parts of the duct in certain situations (u type runs).
- Enhanced dynamic fill, was producing gaps and re-filling when it wasn't necessary.
- Fixed an issue with hangers not getting sized correctly on design line, when using specs that have different OD sizes to nominal sizes.
- Removed 'Take Off' & 'TakeOff As Cutin' menu elements when in design line mode as not required at this point.
- Terminal styles: fixed some issues with flex not working between the min & max ranges correctly.
- Stopped a crash when no service active in design line mode.
- Fixed an issue with Fitting Complex Node - when the design line containing the complex node was filled, the fitting was being wiped.
- Fixed an issue with 'redbend' expansions where the bend required a shape change and is a riser. The shape change e.g. a square-to-round onto a rectangular riser would go in with the width/depth misaligned to the riser line.
- Terminal styles - no flex option on a terminal style was sometimes adding random fittings.
- a) Stopped hangers being filled where offset rules have been applied.
b) Fixed the filling of offsets using two bends when using non-centreline fixbys.
- Flow-sized terminals were not being reduced when needed.
- a) Fixed hangers on "dropper lines" placing the hanger on the line rather than the expanded fittings (floating elevation).
b) Shape changing in a round spigoted terminal on a Rectangular line was placing a Rect-to-Oval rather than Rect-to-Round.
- Design line straight filling was missing or using incorrect couplings where multiple straights are required.

Free Entry Items

- Fixed the editing of Free Entry items when product listed.

PDF Import

- Fixed text orientation when importing PDF underlays and when viewed in isometric.

Price Lists

- Fixed importing of a single line price list which was failing due to only have one line of data.

Print Screen

- Fixed capturing screen shots using Print Screen - Double middle button click on caption was not working if the caption contains invalid characters for filenames.

Report filters

- Fixed report filter 'not' duplication bug, optimised job contents for large jobs; fixed job contents section filter 'none' not working.



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Save As Icon

- Stopped the user from being prompted where to save the icon file to when using Save As Icon (defaults to the same location as the ITM file).

Takeoff

- Fixed crashes in takeoff with product listed wrapped items, dimensions not being preserved and the model column not working within the product list editor.

Trimble Export

- Now outputs points for all Seismic drop rods.

Worksheets

- Fixed text in print outs coming out very large when using an imperial database.

Pattern Fixes

Pattern Fixes

- CID 330 (Rectangular Radius Offset) - Seam cutbacks were not being applied correctly dependant on sides offsets.
- CID 988 (Oval Branch on Rectangular) - Was adding the insulation thickness to the Collar of the Skin when double wall or insulation applied.
- CID 1115 (Oval Conical Tee Cross with Reducer) - Fixed Double Wall adjusting the right extension dimension.
- CID 326, 327, 1173, 2326 (Circular Branch on Bend) - Added support for full 3D branch/bend intersections; so no restriction on branch diameter or number of segments straddled by.
- CID 2965 (Circular Tee Reducer) - Fixed incorrect pattern annotation when setting the body diameter; from "Auto" to a value different from the top diameter.
- CID 879, 901 (Cable Tee & Cable Reducer) - Fixed certain dimensions making rung intersections fail.
- CID 883 (Pump) - Fixed X/Y Rotate options not being applied.
- CID 33 (Straight + Shoes) - Connector 1 required flipping (was causing the patterns alignment to be flipped opposite to the alignment indicator).
- CID 959, 1178 (Rectangular Taper SE, Rectangular Taper Sarajevo KD) - Fixed missing CAD nodes.
- CID 927 (Filter Box) - Added CAD nodes.
- CID 395 (Reducer + Mitred Branch) - Fixed branch not being inset correctly, added missing CAD nodes.
- CID 2326 (Circular Branch on Bend) - Fixed the branch not drawing correctly; due to not being fully intersected with bend.
- CID 906 (Oval Saddle On Straight) - Fixed the display of the the branch's curved intersected sides; was only drawing one central triangle for each side.
- CID 1172 (Rectangular Angled Straight) - Stopped allowing certain invalid configurations (now prompts "Geometry Is Invalid" warning).
- CID 37, 185, 835 (Rectangular Drop Junction) - Fixed double wall for radiused heel bends; left/right height was not being adjusted.
- CID 73, 99, 100, 863, 869 (Circular Breeches) - Fixed double wall not drawing correctly when using "Auto" collars.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.221

Version LOK Code : 18

Release Date : 08/04/2010

Application Fixes

3D Viewer

- Fixed a crash in PM2000 if Job Contents is the default viewer but Quick Takeoff is used to enter an item in the 3D Viewer.

3D Viewer Worksheets

- Fixed Job Viewer Report print object to display totals for columns selected to do so.

Carry Over Insulation

- Stopped carrying over insulation if carry over insulation is off, but carry over double wall is on and double wall isn't being used.

Multiple Item Properties

- Stopped forcing the redevelopment of items when using multiple items properties, if user doesn't change the dimensions.
- Fixed multiple item property (with dims enabled) showing adjusted (skin) size for double wall if entering by skin size, not main body. When user clicked ok we then stored the skin size as the main body size and increased the size!

Price Lists

- Fixed being able to delete multiple Discount Codes from the Setup Discounts dialogue.

Quick Takeoff

- Fixed Quick Takeoff warning the user there were no assigned tables for Fabrication and Installation even though tables had been assigned.
- Fixed issue with Add Couplings option when in Quick Takeoff using Services mode, couplings are now automatically entered.

Stiffeners

- Fix introduced to enable stiffening at the end positions regardless of whether set to be stiffened centrally. Had not being getting these stiffeners previously if central had external assigned.

Pattern Fixes

Pattern Fixes

- CID 912 (Tank) - Holes added were positioned incorrectly when option "Branches Inset Centrally" and dim Inset "Top/Bottom".



Software Changes Document: EST-Duct

MAP Software Version: 2.38.217

Version LOK Code : 18

Release Date : 02/03/2010

Application Fixes

Design Line

- Hangers were not sizing correctly if Inside Insulation was on.

DWG Import

- Fixed imported DWG files missing some types of text when imported as an underlay inside the 3D Viewer.

Insulation Specifications

- Fixed insulation specs not always adjusting the skin size properly.

PDF Import

- Some PDF writers (CutePDF in particular) create text as filled polygons which had been ignored when importing the PDF underlay within the 3D Viewer.

Screen Capture

- Fixed capturing screen shots holding down Print Screen key and then double clicking middle mouse button to prompt the save of the active window.

Splitters

- Splitter holes are now set to zero if the inset value \geq half the splitter length to stop resulting in negative spacing.

Takeoff Screen

- Fixed the OpenGL View number 3 in takeoff mode to match non-OpenGL view 3.

Pattern Fixes

Pattern Fixes

- CID 996 (Terminal) - Fixed the round end takeoff carrying over the patterns rectangular size.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.214

Version LOK Code : 18

Release Date : 03/02/2010

Application Fixes

Design line

- Stopped crashes occurring when there were loop backs in the design line.
- Fix memory leaks stretching straights / filling design lines.
- Dynamic fill: fixed an issue with lines not being filled - particularly when an existing run had been tee'd into.

Locked Layers

- Fixed selection windows, they were not always being initiated if using imported underlay's and locked layers.

Pattern Fixes

CID 14 (Rectangular Breeches)

- Removed the incorrect display of left & right height dimensions.



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MAP Software Version: 2.38.212

Version LOK Code : 18

Release Date : 25/01/2010

Application Fixes

3D Viewer

- Fixed bend disappearing if stretched using CTRL held down (for adding straight lengths). Only occurs when pattern cache is disabled from UEDITMAP.

Conditions

- Fixed conditions on non-product listed items automatically selecting the correct item behind one button. Now attempts to swap out for the correct item if detecting there is a condition applied.

Design line

- Hangers on "dropper lines" issue: was placing the hanger on the line rather than the expanded fittings at the floating elevation. Fixed shape changing for a round spigot terminal on a rectangular line; was placing a rect-to-oval rather than rect-to-round.

Invalid Dimensions

- Fixed a problem with internal dimensions not working (wrong/bad dims) if they relied on dependant (calculated) dimensions.

MAP.ini

- Fixed paths being made absolute if using "../" reference to move back a directory.

Memory leak

- Fixed a memory leak in the valve pattern (CID 868).

PDF Import

- Removed the justification from text styles and also fixed PDF underlays displaying the text in the wrong positions.

Takeoff Colours

- Colours = None now only displays for the dimension background colour which was previously shown in the viewers.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.210

Version LOK Code : 18

Release Date : 12/01/2010

New Features

Database ID

- Now allow Database ID to be displayed in Folders view, will not display for Product Lists which have multiple entries.

Design Line

- Improvements made to "Custom Resistance Configuration", so that rules can be enabled or disabled without having to delete and recreate.
- Pressure Drop Rules: during 3D Fill of design line, if a node has a single item, and that item has a non auto rule, apply the rule to the item. Allows several items using same pattern to use different rules to look up resistance tables.
- CID 1122 (Drop Cheek Bend) is now supported.
- New feature which displays a warning message if Terminals have no flow rates applied, the warning gives the user the option to set the flow.

Dialog

- Now allow messages dialogs with expandable details to resize.

IFC Export

- Added colours to the IFC (step) export.

Item Scripting

- Added print object and scripting access to Item Decoiler Beading so can view whether set to Yes or No.

MAPUSER

- New entry added "Edit Sections", which only allows editing of the Sections Database without access to Service Database or Full Database.

PDF Importing

- PDFs now maintain their original line weights when imported into the viewer.

Price Lists

- Made price list discount field resizable and now shows the discount value on tool tip hover over. Sounds fixed for relevant areas of software.

Profiles

- New option added to EDITMAP and CAD/CAM Message Prompts for Switch Profiles. Allows the user to control whether a prompt appears when the software attempts to revert to the profile the drawing was completed in.

Services

- Change applied to allow renamed IEZ's to import without prompting any error.

Takeoff

- Added the ability to toggle between Metric and Imperial using the F11 key on the pattern takeoff view.

Textures

- Added Textures folder to MAP.INI. Revamped MAP.INI processing - removed support for importing ancient MAP.CFG.



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New Patterns\Enhancements

New Patterns

- CID 1150 (Splitter Damper Blade)
- CID 1152 (Structural Steel Arch)
- CID 1153-1155 (Ductboard Rectangular Reducers)
- CID 1156 (Ceiling Panel - Including developments for manufacturing)
- CID 1157 (Stairs)
- CID 1159 (Partial Grille)
- CID 1177 (Conical Branch)
- CID 1180 (Linear Radius Diffuser)
- CID 4522 (Rectangular Coupler) - Allows rectangular items to be coupled together in the same way as Round and Oval, based on connectivity matching.

Application Fixes

3D Viewer

- Fixed importing of underlays (PDF/DWF/DWG), all layers in the imported underlay were coming in as white and staying as white even if the user selected a different colour in the layers dialogue.
- Fixed monochrome underlays (rasters) to display correctly. The background colour now to be transparent.
- Resolved problem with selection if UCS is enabled.

CID 838 (Hanger)

- When "Cutting In" Product Listed Hangers on Pipework with outer Insulation enabled, the Hanger was not taking into account the Pipe OD for upsizing to the correct Hanger.

Colours

- Fixed issue with material colour defaulting to colour of insulation if insulation removed from the item at a later stage. Occured when previewing or printing Worksheets and Labels.

Coupler logic

- Changed coupler logic to load Rectangular/Oval couplers when the width and depth are equal, was only loading round.

Design Line

- Added logic to allow unfilled complex nodes to be filled by a bridging pattern if there is one available. Other fixes introduced for how complex nodes behave between sessions.
- Changes made to complex node filling. Now resolved issue with straights no longer overlapping complex fittings.
- Fixed an issue with the bridging pattern (CID 1101) as used in design line ('Exception Fitting') reporting negative areas.
- Fixed an issue with Service Terminal Styles not appearing in the Terminal Styles drop down (when button type is set to Terminal). Issue occurs when accessing button properties through Edit Service Template dialog.
- Bridge Pattern change which now has the option to draw bounding box face around area of fitting in place of line detail alone.
- When services required couplings between pipes and bends; if a line only just fitted two bends and any required couplings, a slight gap could cause an odd pipe length to be inserted that overlapped one of the bends, now fixed.

Dropper Lines

- Fixed an issue with filling dropper lines which occurs when multiple mappings are attempted for the expansion. The various mappings having different effective offsets.

DXF Importing



Software Changes Document: EST-Duct

- Set the preview background colour to white, black or grey to ensure visibility of lines.

EDITMAP

- Fixed absolute paths being converted to relative paths on Save.

IFCs

- Fixed import of IFC file when no colour assigned (for example white on white background). When moving, it will now produce grey lines for visibility.

Import Services

- Selecting the "Browse" button was not updating the list of services to show the ones read from the newly selected file.

Insulation Specification

- Resolved inconsistencies when changing insulation specs.

Insulation Specs

- Allow item insulation spec assignment for product listed items in quick takeoff.

Item Reports

- Fixed colours of the header sections also affecting body of the report.

Printing

- Fixed problems with printing underlays that contained raster images. Print was producing grey rectangles.

Services

- Fixed the dialogue that appears when adding a new item to a service button. Dialogue now provides an even 50/50 split by default for the folder structure and item files.

Sub Assembly

- Fixed sub assembly form not closing properly if in orbit command.
- Product listed sub assemblies now uses takeoff to allow user to configure product definitions of the assembly.
- Fixed potential OpenGL leaks closing down the sub assembly editor.

Terminal Styles

- Fixed an issue with Service Terminal Styles not appearing in the drop down box when the Button Fitting Type is of type Terminal. Issue occurred when accessing Button Properties from the Edit Services Template dialogue.

Pattern Fixes

Pattern Fixes



Software Changes Document: EST-Duct

- CID 6 (Rectangular Offset) - Resolved issues with incorrectly angled holes if the item's offset height was a negative value, developed hole positions were positioned incorrectly.
- CID 28 (Square to Round - Angled) - Amended the length dimension annotation so it displays through the centreline of the isometric view.
- CID 31, 19, 21, 26, 382, 956 (Rectangular Grille Box) - Disabled options for number of parts and notch angle for lids. Ensured dimensions/options were made consistent throughout all patterns. Enabled multiple hole types (Round, Oval, Rectangular) and the ability to develop collars for the holes.
- CID 33 (Straight + Shoes) - Resolved issue with pattern's connector 2 direction being inverted, this resulted in the item attaching incorrectly.
- CID 73, 99, 100, 863, 869 (Circular Breeches) - Fixed CAD nodes being removed when double wall enabled.
- CID 127 (Plate with Holes) - Fixed hole positioning not allowing the hole to be within 25mm of the plate edge.
- CID 134 (Rectangular to Oval) - Fixed annotation line so displays correct length.
- CID 385, 842, 843 (Oval Straight with Branches) - Fixed dimensions being reported after recently added reducer dimensions on pattern 839.
- CID 802 (Rectangular End Cap) - Resolved an issue with added holes when configured as Oval, the connectors were being applied incorrectly.
- CID 835 (Breeches 2 Way) - Resolved inner arcs developing incorrectly.
- CID 988 (Flat Oval Branch) - Double wall now includes the branches extension.
- CID 1104, 1117, 1118 (Branch on Oval) - Resolved issue with incorrect positioning of "Fold Lines" on developments.
- CID 1110 (Auxiliary Box) - Fixed not adding added items correctly.
- CID 2148 (Multi Tap Mixed Branches) - Fixed branch insets by adding extra dimension fields. Annotation also adjusted to match relevant dimension references including a new center line field.
- CID 2326 (Stab-In on Round Elbow) - Fixed occasions when the top diameter was the same as the bottom diameter. Fixed the branch was not drawing correctly due to not being fully intersected with bend (branch outer end being partially within the bend).
- CID 2882, 2883, 2885 (Swept Branches) - Branch extension now draws centreline.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.200

Version LOK Code : 17

Release Date : 12/01/2010

New Features

Digitiser

- Added support for playing 'digidown.wav' sound file when digiser button pressed (if multimedia sounds enabled).

Application Fixes

Shortcut Keys

- CTRL+D now selects the dimension field for product listed items when Takeoff Product Lists by Dimension is enabled from the Main Database > Configuration dialogue.

Text Styles

- Fixed crash when changing a text style's "End Type Size". A value now needs to be specified between 1-8. Initially it would allow a value of zero but would crash when attempting to re-draw.
- Corrected the size of the dimension arrow head shown in the Text Style preview dialogue.

Pattern Fixes

CID 887 (Easy-Hard-Circular Branches on Hard-Circular Pipe)

- Fixed branch #1 connector using the dimensions from branch #2 .

CID 988 (Flat Oval Branch)

- Fixed double wall being drawn offset from the wrong end (C1).



Software Changes Document: EST-Duct

MAP Software Version: 2.38.197

Version LOK Code : 17

Release Date : 07/12/2009

New Features

Folders.ini

- Folders.ini now loads/saves to install path by default (still uses the working directory 'Start-In' path, if it exists).

Step Down Connectors

- Added support to draw Step Down Connector types in Takeoff views and the 3D Viewer.

Application Fixes

Couplings

- Coupler rule amended so that will only add in couplings to Straights when using non-connected mode via Quick Takeoff. (Non-CAD mode).

Design Line

- Sized Nodes when placed in the model were losing their size. Fixed so that sizes are filled correctly when generating the 3D.
- Fixed Access panels reverting to the last size entered. Product listed Access Panels when entered, if the size exists in the product list, will be drawn at the correct size.

Dimension Styles

- Fixed the dimensions in the viewer not using the correct precision configured from the style dialogue. Dimension text was using the original style it was created in for its precision settings rather than the selected style.

PDF Importing

- Fixed issue with text not appearing until a REGEN command is completed.
- Fixed an issue with imported PDFs not adding its own style into the database when the style had a bold or italic type. A '#' was represented in the database causing the font not to display or revert to the default style.
- Fixed problem with justification of text when importing PDFs as an underlay. Text styles created by PDFs no longer have a rectangular border displayed.

Saving with Compression

- Fixed errors when saving jobs or items when they are opened in read only and compression is turned on from the User Interface.

Scripting

- Fixed item.qty scripting variable which was being treated as a string, not a value (calculations when using this had been failing).

Shortcut Keys

- Fixed shortcut key for CTRL+D so that highlights the Dimensions field in Quick Takeoff (non-CAD mode).

Styles

- User is now able to change attributes on Default styles.

Sub Assembly



Software Changes Document: EST-Duct

- Items within Sub Assemblies were having their Qty incremented when collecting identical items for Job Contents/Reporting/Cam.

Swap Out

- Implemented change for swapping out non-product listed items that was breaking takeoff of simple non-conditioned items. There had previously been problems editing these items in Quick Takeoff.

Takeoff Views

- Takeoff views now represent whether Airturns, Splitters etc are displayed or not. Previously the view was not updated if disabling these options.

Template Items

- Introduced service button conditions for template items (non-product listed) and also the ability to swap out items based on the initial carry over value.

Pattern Fixes

CID 1101 (Bridging/Exception Pattern)

- Resolved issue with the Bridging Pattern causing the application to crash when manually adding into a drawing via takeoff.

CID 150 (Rectangular Branch on Straight)

- Fixed problem when developing this part with the 2 Parts = Yes/No option enabled. Added holes were being developed twice in certain instances.

CID 2051 (Pipework Circular Reducer)

- Resolved development of insulation when enabled and with the option for Length Includes Extensions set to Yes. The insulation length was previously greater than the body of the reducer.

CID 4, 17 (Radius, Reducing Bend)

- Fixed Double Wall when inner radius at zero or less than skin size.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.186

Version LOK Code : 17

Release Date : 03/11/2009

New Features

Scripting

- Added item.catalogue to scripting references. Will return a 1 if Catalogued and 0 if a Template item.

New Patterns\Enhancements

CID 2881, 2882, 2883, 2885 (Radius Branches)

- Radius Branch patterns now allow stretching on end nodes which in turn increases the collar lengths; 2881 draws center line for branch collar.

Application Fixes

Insulation Specification

- Fixed crash when having Insulation Spec set to Off and attempting to save job.

Item Folders

- Fixed corrupt patterns causing the crash of item folders during fill. Will now report non-fatal errors on selection.

Printing

- Fixed crashing when printing Labels. Optimized the compiler to ensure does not crash when sending the label to the printer.

Services

- Fixed Cut In method from Services takeoff not applying carry over of item number to the new straight. This happened when the straight is split into 2 pieces.

Services Database

- Fixed being able to sort by columns within the Sections dialogue of the Services database.

Text Annotation

- Level text and Size text now use the precision values defined from the CAD Settings dialogue > Main Database > CAD Settings, as opposed to using the Configuration settings for its number of decimal places. This effected BODTOD and Duct Size annotation.

Pattern Fixes

CID 32 (Straight & Branches)

- Fixed crash if more than one hole had been added when opening in Release 2.38.179.



Software Changes Document: EST-Duct

CID 580 (Round Access Panel)

- Round Access panel type changed from Flat Oval to Round. This now becomes a successful 3D Fill when using Design Line.

MAP Software Version: 2.38.181

Version LOK Code : 17

Release Date : 20/10/2009

Application Fixes

Insulation

- Fixed locked insulation and double wall settings being over-ridden by insulation carry over if enabled.

PDF Import

- Fixed page border orientation when importing PDF files into the underlay.
- PDF Importing now ignores closed polygon paths that are solid filled and not stroked (filled but with no border).
- Fixed importing a schematic (PDF/DWF/DWG etc) to create missing text styles.

Scripting

- Out of Memory error fixed when processing some scripts.
- Fixed IF and ELSEIF statements reporting errors.

Pattern Fixes

CID 18 (Side Branch)

- Resolved issue with incorrect placement of connectors on holes added to item



Software Changes Document: EST-Duct

MAP Software Version: 2.38.179

Version LOK Code : 17

Release Date : 13/10/2009

New Features

Rectangular Coupling

- Added Rectangular Coupling CID 4522, allows rectangular items to be coupled together in the same way as Round and Oval, based on connectivity matching.

Application Fixes

3D Viewer

- Fixed issue when deleting objects in a drag/stretch mode.

Quick Takeoff

- Fixed automatic takeoff of hangers when using the Add Hangers option.

Pattern Fixes

CID 3, 7 (Rect. Bend & Rect. Branch)

- Fixed invalid dims warning if enabling double wall/insulation when extensions 0 or less than the skin size.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.177

Version LOK Code : 17

Release Date : 29/09/2009

New Features

Scripting

- 1. Add "WEIGHTLOCK" to scripting (item.weightlock = TRUE or FALSE)
- 2. Allow scripting to write to the "WEIGHT" field item.weight = 123.456

Application Fixes

Design Line

- Fixed an issue with terminal style filling.
Issue: adds a coupling to the terminal item and leaves a gap between the flex & straight.
Issue only occurred when flexing through bends (flex hits it's maximum length and couplings are used for the straights to fittings).

Sub Assemblies

- Fixed the carry over of dimensions for product listed sub assemblies not working.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.174

Version LOK Code : 17

Release Date : 17/09/2009

New Features

3D Viewer

- Improved speed of underlay import for BMP/PDF file types.

Cost sub assemblies

- Add option to cost sub assemblies as separate items only (auto-expands them on reports/export/est summary).

Design Line

- Introduced the ability to display the units of the entries when adding fields for Design Line Restrictions in Constraints to distinguish between Total Pressure Drop and Pressure Drop per length
- Constraints now have the option to sort in a user defined order, new buttons have been added to the Service Database interface to move individual entries up or down in the list. The "Design Line Editor" will display the constraints in the user defined order.
- The following patterns now support the filling of Complex nodes, CID 10 (2 Way Tee), 18 (Side Branch), 30 (Mitred Offset), 31 (Grille Box Cross), 1120 (Ductboard - Multi Way), 1121 (Drop Cheek Breeches).
- Added support for CID 2881 (Swept Branch) to be added as a Centre Line Branch
- Added the ability to edit prompted lengths in the line editor dialog.

IMPORTRUN Command

- "IMPORTABS" command renamed to "IMPORTRUN" and made available in the Viewer's Command list.

Item Reports

- Added the ability to access Job Custom Data inside of Item Reports

Item Scripting

- Added access to Item Centre Line Length via `item.length` and connector size through `item.connector[].width/depth`

Print Objects

- Added new Print Objects, "Duct End Size 4" & "Item Connector 4" to report out on the Item's end 4 size and connector name respectively

SysScrReport

- SYSSCRREPORT command will now default to creating a CSV file instead of an MDB as Microsoft Access JET support is not available in 64 bit windows. The user can still choose MDB if desired, it's an option in the file types.

New Patterns\Enhancements

CID 1111, 57, 840 (Tee Coupling , A P Saddle)

- Tee Coupling: added option for handle on top branch.
A P Saddle: added branch's collar length dim, and option to develop it; fixed bug: attacher didn't show on C2.

CID 1124, 1125 (Twin Bends)

- Modified both Twin Bend patterns, each individual bend now has its own bottom extension dimension entry.

CID 114 (Oval Branch on Straight)



Software Changes Document: EST-Duct

- Increased MAKEPAT branch lengths to stop invalid dims when double wall enabled.

CID 1146, 1147 (Rectangular Hood)

- New patterns added 1146 (Rectangular Double Hood) & 1147 (Rectangular Single Hood)

CID 1148 (Rectangular Sarajevo Taper)

- New pattern Sarajevo Taper which allows the input of extensions of different length on each side of top and bottom panels.

CID 115 (Oval Saddle)

- Now supports double wall.

CID 1151 (Socket Reducer)

- New pipework reducer pattern.

CID 123 (Oval to Round)

- Now supports double wall.

CID 140, 377 (Oval Crosses)

- Now supports double wall.

CID 24 (Shoe on Flat)

- Added option to not display internal lines.

CID 2938 (Wye + Bend)

- Added option to specify branch heights to ends of branch + bend.
Added option to specify branch insets to ends of branch + bend + extension.

CID 3071, 3386 (electrical versions of CID 71 Reducer & CID 2386 Offset Reducer)

- Electrical conduit: reducer and offset reducer patterns.

CID 33 (Straight + Shoes)

- New options added to position the branch insets from "C1 to branch Centre Line" and from "C2 to branch Heel".

CID 382 (Grille Box Variable Hole)

- Added new option to switch the hole size dimensions if necessary, according to holes positioning.

CID 3873 (Electrical Flex)

- New pattern based on Pipe Flex for Electrical Flex.

CID 42 (Circular Branch on Straight)

- Removed the minimum limit for pipe diameters.

CID 57, 840 (Circular Box on Straight)

- Added branch's collar length dim, and option to develop it; fixed bug: attacher didn't show on C2.

CID 62 (Saddle Tee)

- From centerline was affecting branch 1 offset instead of length.
- Added missing annotation.
- Now supports double wall.

CID 818 (Circular Box Shoe on Straight)

- Connector 5 added for the reducer to join to body of the fitting.



Software Changes Document: EST-Duct

CID 838 (Hanger)

- Wrap-round circular type; added a rect. box option on top of rod, which creates a CAD node for the top center of box.
- Support added for new types: stirrup (half oval), split ring (full oval), double profile bearer.
- New options added to CID 838 to enable the display of "Seismic Rods". When the pattern's "Type" option is set to "Profile Bearer", new option fields are displayed to show/hide the item's Front, Back, Left & Right "Seismic Rods".
- New options added to CID 838 to enable the display of "Seismic Rods". When the pattern's "Type" option is set to "Clevis Hanger", new option fields are displayed to show/hide the item's Front, Back, Left & Right "Seismic Rods".

CID 839 (Circular Box on Straight)

- Added reducer options to apply onto the main body and a connector 5 for joining.

CID 845 (Elliptical Reducer)

- Now supports double wall.

CID 859 (Cowl)

- Added connector (didn't have any).

CID 894 (Hard Offsetting Cross)

- Removed branch width/depth limit (minor < major), enabled double wall.

CID 898 (Cabinet)

- Added the ability to orbit in the takeoff dialogue.

CID 935 (Circular Offset Reducer Cross)

- Now allows branch 2 zero diameter/length to disable, added branch rotations.

CID 985 (Beam Strut)

- Option added to input total length.

Application Fixes

3D Viewer

- Fixed coupling when "Cut In" to straights. Now takes into account the correct length of coupling and separates the straight to suit.
- Fixed monochrome underlays (rasters) to display correctly as previously showing background colour to be transparent.
- Fixed window selection procedure in the 3D viewer to ignore snaps
- Stopped the 3D Viewer from crashing when closing the 3D viewer when the "prompt" was visible.
- Fixed the Takeoff colour, colour mode in the viewer (it was displaying the items in black which it should not have been). Changed the colour mode toolbar button from a 5 state button (ie. each click on it changes to the next colour mode) to a popup menu.
- Fixed DXF import method to obey colour/line styles/line weights when importing underlays into the 3D Viewer.
- Fixed viewer not displaying design line or objects due to colour blending issue when importing raster underlays.
- Stopped the connector mismatch dialog appearing one more time unnecessarily after manually matching the connector.

Ancillaries

- Fixed price list / fabrication / installation ancillary links being wiped if ancillary kits were defined.

Auto Backup Job

- Fix auto backup job at key points being disabled.



Software Changes Document: EST-Duct

Design Line

- Resolved issue with placement of Oval "Cap Ends" on Rectangular runs.
- Fixed issues with offset rules and electrical offsets where they had been filled the wrong way round
- Fixed program error when using the command PRDROPS.
- Fixed issue with not being able to select access panels or hanger type nodes.
- Fixed RedInLine not placing Tapers correctly when dimensions set to values, rather than "Central".
- Improvements to the use of the "Flex Filled" line mode in "Design Line" when combining with lines drawn using "Normal Line" mode.
- CID 1108, 2108, 3108 (Hosepipe) - fixed this pattern causing the software to lock up - only experienced the issue with design line filling.
- Improvements made to "Terminal Style" filling.
- Fixed an issue with eol tee's that use straight, shoe, cap end type combination. Was failing to place product listed cap ends - was still doing straight & shoes though.
- Amended multiple reducer logic to avoid reversing fittings. Was resulting in an over-reduction in size such that a reversed reducer would be needed to increase the size up again.
The limit for multiple reducers has also been increased from 6 to 10.
- Fixed bug causing the program to hang when working on offset rules.
Terminal styles: fixed an issue that was producing long lengths of flex when a terminal is added to a run using the ceiling height.
- Fixed issue with complex nodes not filling in correctly. Fix introduced to stop the straights overlapping the complex fittings.
- Fixed crash in design line if item flex adjoined to is invalid.
- Applied fixes for how complex nodes behave particularly between sessions.
Added logic to allow unfilled complex nodes to be filled by a bridging pattern if there is one available.
- Offset rules: was incorrectly placing back-to-back rectangular elbows on oval lines.
- Fixed placement of hangers on "dropper lines".
Added support for CID 2881 (Swept Branch - no Pipe) as a centre line shoe type fitting.
- Hangers and cap end placement on "dropper lines" wasn't working correctly, ie where the line's fittings have been allowed to be displaced by e.g. an offsetting tee.
- Fix for dummy terminal logic, should now be able to add a riser starting at an existing cad node.
- Add riser logic amended - so that lines are added correctly.

Dimension Styles

- Dimensions now obey the Leader Type in the text style.
There is also a new option in Dimension styles to suppress the dimension reference lines.

Extra Over

- Fix extra over conversion not creating auto-nominated straights with same service as original item

Insulation Specification

- Fixed inconsistencies in changing insulation specs.
Implement change specs in 3d viewer.
- Fixed Insulation Specifications being carried over from catalogue items with Insulation Specifications locked against them.
- Fixed inconsistencies in changing insulation specifications and the redevelopment failing.
- Fixed insulation specs carrying over locked values from catalogue items.

Item Area & Weight

- Fixed issues with refresh after editing item areas and weights. Values had previously not been getting updated.

Item Reports

- Rectified issue with Item Sealant print object properties showing multiple indexes, this now only has the 1 sealant per item as it should.

Item Scripting



Software Changes Document: EST-Duct

- Resolved issue when developing Rectangular Taper patterns using the item.update()

Pattern Icons

- Fixed potential issue where icons didn't get refreshed properly in job contents / job browser / item folders when combinations open at the same time.

Pattern Takeoff

- Rectified memory issue when developing or redrawing Segment bend patterns

Price Lists

- Resolved issue with price list editor as it was not selecting the current discount code and was getting wiped each time the user clicked away.
- Fixed price list discount field not showing scrollbar & potentially showing list with no height

Product lists with "Auto" length

- Product listed items using "Auto" for length were filling in the "Auto" value with the length from the specification, which meant when changing spec or size which dictated a different length, the pattern was not updated to the new value. Applies to Pipe and Duct.

Report printing

- Fixed memory leak in report printouts that are grouped into tables.

Sub Assemblies

- Fixed product listed sub assemblies not drawing correctly for sub-items that use Pipe OD's (spec not being applied to sub items)
- Resolved issue with sub assemblies with holes when a new dimension added. Now changed the dimension reference to work from the UID rather than indexes.
- Fixed sub assemblies including wrapped items not displaying in the takeoff dialog (and possibly in AutoCAD).

Support Emails

- Fixed potential crash when sending support email.

View Menu

- Fixed View menu being disabled in takeoff, not just for standard parts.

Viewer: Item Annotation

- Item annotation in the viewer (bottom of duct, duct size and item number) now draw their leaders.

Pattern Fixes

CID 1104, 1117, 1118 (Oval Tees)

- All 3 patterns had same connector assignment which was only valid for 1104. Fixed connector assignment for 1117, 1118 and in 1118 this now uses C4 and C5 at joints between main pipe and reducers

CID 1115 (Oval Straight with Branches)

- If branch slope angle 0, develops with collar attached, not separate, and reversed direction of branch tilt (whilst maintaining compatibility).

CID 1118 (Oval Tee with Splitters and Reducers)

- Fixed connectors 4 & 5 were getting sizes of connectors 1 & 2, fixed showing Dimensions/Options for all 4 branches when only one enabled.



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CID 1119 (Oval Breeches)

- Fixed the ability to have an angle less than 45 degrees.

CID 1129 (Twin Straights)

- Add method to ensure that the parent item has decoiler info, to prevent crash on Accept following console command "makepat 1129"

CID 127 (Plate with Holes)

- Fixed hole positioning away from the plate edge; now allows you to position holes using the X, Y Offset, the minimum value is the radius of the plate holes.

CID 134 (Oval to Square with Extension)

- Fixed length annotation value to coincide with length entered

CID 14 (Breeches Piece)

- Resolved issue with pattern's extension being double the input value.

CID 18 (Side Branch)

- Fixed inside insulation, was being drawn using two points from outer wall instead of the inner.

CID 2097 (Circular Bend)

- Fix in place for when using centerline input on this pattern. Was causing center radius to report negative value as was not using diameter type = nominal. Was using Outer diameter and therefore being drawn incorrectly.

CID 2882 (88-Curved-Branch + Access)

- Fixed bad dimension annotation if collar 'Auto'.

CID 2938 (Twisted Cross)

- Fixed twist angles that were previously getting converted into imperial measurements

CID 31, 382, 956 (Grille Boxes)

- Fixed Item Connector Duct Depth #2 being displayed as 10000000 in Job Contents Items view if hole type is set to Round.

CID 324 (Twisted Angled Offset Square to Round)

- Fixed initial MAKEPAT dimensions.

CID 330 (Radius 2 Way Offset)

- Fixed Depth Out dimension which was incorrectly adding as annotation as opposed to a dimension

CID 360 (Oval 3 Way)

- Amended the initial 'makepat' dimensions; stops the "Invalid dims" warning when applying the double wall option.

CID 365 (Tap on Oval Elbow)

- Fixed hole development position when opting for Oval Tap or changing the seam position.

CID 398 (Sliced Lagging Tee)

- Fixed flat branch sections creating problems with the model views and developments.

CID 65 (Branch on Round)

- Resolved issue with CID 65's dimension placement for the "Right Extension"

CID 7, 9, 44, 875 (Circular Branch on Straight)

- Amended the branch lengths MAKEPAT dims, so ok if double wall enabled.



Software Changes Document: EST-Duct

CID 835 (Breeches 2 Way)

- Fixed bad dimensions when small right height and large right radius (arcs joined faces passed outside/below inner arc).

CID 838 (Hanger)

- Stirrup and oval depth dimension is now total depth (oval diameter instead of radius); removed cad nodes for both left & right straps.

CID 842 (Oval Cross Offsetting)

- Fixed connector #2 using connectors from the Circular group, now uses the correct Oval group
Added option to enable branches to rotate onto flat of Oval.

CID 866 (Decoiled / Plasma Cut Straight)

- Add method to ensure that the parent item has decoiler info, to prevent a crash on Accepting following the console command "makepat 866".

CID 895 (Easy Offsetting Saddle)

- Removed branch width/depth limit (minor<major), branch double wall sometimes missed intersections resulting in only a single branch (giving bad dims error).

CID 925 (Oval Reducer + Branches)

- Resolved issue with this pattern causing the application crash when opening.

CID 926 (Plenum Box)

- Resolved issue with holes added to pattern's left & right side, not using offset value.

CID 927 (Filter Box)

- In "Edit Developments" the extents area was over 20000000000; fixed by ensuring the developments contain no empty sections; is only fixed after an edit pattern and redevelopment.
- Not all seams had the angle applied to them, was missing some seam cutback from connectors.
- Fixed seam cutback on connectors which now has the angle applied.

CID 946 (Ductboard Rectangular Breeches)

- Fixed throat development length which was not compensating for material thickness.

CID 947 (Ductboard Shoe)

- Back wrapper develop Y size was wrong (was adding twice material thickness)
- Fixed the back wrapper development Y size as this was adding double the material thickness.

CID 970 (Circular Reducer (Add Hole))

- Rectangular branches had no cad nodes, oval/rect branches width/depth dims swapped, was also losing connectors when saved/reloaded, moved oval/circ cad nodes from branch base to end.

CID 994 (Extruded Item)

- Fixed so if using the "Mirror" Option, points on the part are now reversed.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.089

Version LOK Code : 17

Release Date : 29/05/2009

Application Fixes

Design Line

- Fixed small bug that stopped the design lines being selectable after an "Undo" operation, fixed drawing 3D underlays in wireframe causing a program crash.

Estimate Summary

- When specifying a new value from the Disperse costs tab, the software has now been fixed to stop beeping when the user types a value in so that the rate or extension cost goes over the 1000 mark.

File Export

- Fixed Export of Binary XML, was parsing some characters incorrectly.

Input Units

- Fixed toggling the units in pattern takeoff not converting the dimensions.

Straights (Stiffener Qty)

- Fixed small length straights getting the wrong stiffener qty costed for normalisation (was using full un-decoiled length, not broken down lengths to calculate).

Sub Assembly

- Fixed sub assembly editor not allowing user to change item properties in item folders, fixed crashes in item folders when they are edited (especially from outside the program), fixed drag/drop item folders.

Takeoff

- Fixed toggling units in takeoff resetting altered dimensions to the previous values, unless the redraw command was used.

Pattern Fixes

CID 1118 (Oval Conical On Oval)

- Fixed bad geometry by calculation (e.g. $C = F+100$) when changed from metric to imperial.

CID 1122 (Ductboard Drop Cheek Bend)

- Area calculation was being doubled up due to error in a general routine used to convert metal cheek developments to ductboard. Also affects CID's 944, 946, 950, 951, 1121, 1131.

CID 356, 359 (Oval Straight with Round Branch(s))

- The round connectors were being displayed as oval with depth of 0. Now include missing branches connector annotation.

CID 378, 1116 (Oval Cross Shoes, Oval Shoe Cross with Reducer)

- If pipe is oval and "Allow Branches On Flats" option was set to Yes, branch holes development was positioning the holes incorrectly.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.079

Version LOK Code : 17

Release Date : 22/04/2009

New Patterns\Enhancements

CID802 (Cap End)

- New option added to enable the item to "Mirror" when fixing

Application Fixes

Scripting

- Application fix to resolve issue with scripting objects that reported Top and Bottom of items, were not taking into account Pipe OD's.

Pattern Fixes

Area Calculations

- Fixed area calculations on Ductboard patterns CID 1122, 944, 946, 950, 951, 1121 and 1131.

CID 33 (Straight + Shoes)

- Resolved issue with pattern missing connectors.

CID378 & 1116 (Oval + Shoe)

- Resolved issue with pattern's hole developments being incorrectly positioned.

CID521 (AHU Pattern)

- Dimension checking relaxed, holes can now be positioned off the main body of the pattern.

CID866 (Dual Purpose Straight)

- Resolved issue with adding holes to pattern, the settings were not displayed when the item was saved and then re-opened.

CID970 (Circular Reducer)

- Resolved issue with application crashing when CID970 was taken off in "Quick Takeoff" mode.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.077

Version LOK Code : 17

Release Date : 09/04/2009

New Patterns\Enhancements

CID866 (Dual Purpose Straight)

- New option added to draw the Model at the entered length (Lengths Include Connector Adjust) when using "Step Down" connectors, the development still includes the full turnover, the 3D model will shorten the length by Line4 allowance.

Pattern Fixes

CID 521(AHU Pattern)

- Relax new Dimension checks for CID 521, in 2.38.076 latest release it was not allowing holes/openings to be positioned off the main body.

CID134 (Square to Oval)

- Resolved issue with annotation line displaying at the incorrect length.



Software Changes Document: EST-Duct

MAP Software Version: 2.38.076

Version LOK Code : 17

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New Features

3D Viewer

- Added new options for "Filter" selection sets in the 3D viewer. Enables selection sets to be created on item properties that can then be used for collision detection, isolation etc.
- Camera Add and Rename icons enabled in the "Global" tab, previously only enabled in other tabs.
- ADDTEXT command, user can now edit any text and its size which has been placed in the 3D Viewer.
- Line weight settings moved from "Line Styles" to Service Database CAD Types.
- Added feature to apply Centre of Gravity grip point using the following command: COG.
- SetZ, new command to allow an object(s) to be moved to a user defined Z value in the model. Multiple objects of different heights can be selected and moved to a common Z value defined in the command
- ZIP support added for read/write IFCXML
- "E-Links" can now be offset and orientated within the 3D Viewer

Database Export

- Item Base Material Cost now available on Database Export command.

Design Line

- Constraints Editor now displays the current units, the entered values are displayed in the converted units
- Option added to annotation settings to display the parameter's units after the values when showing the text on Design Lines
- Pressure Drop Dialog: Added facility to apply a source pressure to evaluate real flows for circuits.
- Pressure Drop Calculations: Added a 'Calculate Actual Flows' option, with this ticked the non-index run circuit flows are adjusted to balance the pressure losses in the index run. This will increase the flows in the terminals so that each circuit has the same pressure loss as the index run. A side effect of this is that the index run pressure drop will increase because of the increase in source flow.
Use of dampers on the non-index run circuits to limit the flow on the other terminals will restore the original index run pressure loss.
- Added the ability to add eccentric reducers to form part of a non-centre line tee.
- Added "Auto Elevation" update mode.
With this enabled on the Design Line interface changes in fixby to or from centreline amend the working elevation automatically.
- New feature added to Hanger Specifications for use with Design Line, option added to apply before and/or after joint positions.
- Optimisation of Design Line Pressure Drop calculations to improve efficiency.
- New feature added to "Button Properties" dialog to set a "Prompt for Length" attribute. When the fitting is taken off to apply to Design Line, a dialog is displayed to prompt the user to enter the fitting's length. This overrides the fitting's default length.
- Editor dialog
Can now select lines using the select lines button in CAM.
- Now allows end of line couplings that are configured as reducers to be filled at end of line - in a similar way to cap ends.

Digitiser Setup

- Added the ability to use .PNG files as well as .BMP file in the images list view on Template Cell Setup dialogue.

Import Underlay

- Add conversion of unicode symbols in Text
eg \U+00B0 converts to ° (degree symbol)
- Support added for the following: leader line, arc to polyline, table & Trace(2D face) imports.
- Improved "Import Underlay" to bring in 3D ellipses as polylines



Software Changes Document: EST-Duct

Pattern Type

- Pattern Type of "Rectangular Duct" added to the following CID's
CID 1120 (Taper + 2 Bends)
CID 1130 (2 Bends)
CID 1131 (Taper + Bend)

Price Lists

- Added support to convert SET for per qty and REEL for per ft/m as recognised tags when updating price lists.

Print Objects

- New print objects added for Item material, Skin and insulation colour.

Service Database

- New option added to "Service Database" to enable user to apply which Status fields can be output to ESJ/MAJ files, when executing the export to CAM function.

Splitter Tabs

- Splitters now support the addition of "Tabs" on developments, options added to splitter setup in Pattern Database to set tab width, length and quantity. Note: CAD-Duct users can access this in Full Database Edit mode.

Sub Assembly

- Improved support for "Sub Assemblies" in Design Line.

New Patterns\Enhancements

CID 1111 (Mechanical Tee)

- 2 new options added, Fix Relative and Rotate. With Fix Relative set to Yes, it behaves like a centre line branch when positioned in design line, with Rotate set to Yes the branch aligns to the small arrow when Auto Attaching.

CID 32 (Straight + Branches)

- Now supports double wall.

CID 328 (Trouser Piece)

- Now supports double wall.

CID 33 (Straight + Shoes)

- Now supports double wall.

CID 836 (Radius Double Offset)

- Now supports double wall.

CID 838 (Hanger)

- Oversized option added to the Support pattern allowing it to be configured to span multiple pipe runs (Width can be set when "Pipework" option is set to Yes).
- New option added to the hanger pattern to draw a circle at the top of the drop rods representing the "Area of Influence", i.e. no go zone, the symbol is drawn onto the 2D layer.

CID1133 (Rectangular Straight + Integral Reducer)

- New Rectangular Ductwork Pattern, options include: setting angle of damper blade, item developments which include fixing holes for blade.

CID1141 (Segment Bend + Spacing Tabs)



Software Changes Document: EST-Duct

- Round segment bend made in single segments with options to add small spacing tabs along the connector and seam edges.

CID1142 (Ellipse)

- Ellipse pattern

CID12 (Rectangular Cap End)

- New Option added to pattern to enable the part to be mirrored, this ensures that it will always attach to the straight.

CID183 (Lagging Straight + Cut Out)

- Added new option to enable the addition of a hole with angled sides.

CID521 (AHU Pattern)

- New option to draw an Attenuator symbol on item.

CID764 (Filter Box)

- New "Filter Box" pattern.

CID765 (Louvre Box)

- Louvre Box pattern.

Ductboard

- New pattern CID 1136, Plenum Box, based on current pattern 926

New Pattern

- Added new pattern CID 1145, Duct Board Slot Plenum

Application Fixes

3D Viewer

- Fixed imported DWG files, with text containing upper case %%C, not being converted to the diameter symbol.
- Resolved issue causing application crash when using "R" to rotate item when applied with "Cut In" command.
- Fixed a bug in CircDoubleBend (CID 2155) causing application crash when viewed in 3D viewer, if rendering via shells.
- Resolved issue with text in "Dimension Styles" dialog displaying 7326 rather than displaying dictionary text.
- Fixed bug which was causing underlays to mask out other items in the 3D Viewer.
- Improvements made to printing from the 3D Viewer, this feature is dependant on the user's printer dpi and graphics driver capabilities.
- Import Underlay, issue resolved to fix the import of DWG layer handling so that lines, arcs, text etc are assigned to the correct layers.
- Resolved issue with branches breaking the pipe when "Cut In".
- Application fix to resolve the mapping of screen colours to paper colours when printing from the 3D Viewer.
- Resolved issues with DIMO & DIMA commands not drawing the dimension lines and arrows when executing these functions.
- Fixed application problem caused when applying annotation to an item.
- Fixed text placement and text colour when importing from DXF files. The text colour will now use the layer colour in preference to the global line colour.
- Resolved issue with "E-Links" not functioning correctly in layout views.
- Resolved issue with "Selection Sets" not functioning correctly with objects within "E-Links"
- Fixed program crash when using annotation and cadview.map file does not exist in the installation directory
- When importing a DXF/DWF/PDF the layer selection dialog could display negative colour values if the user clicked on either the invert selection or deselect all buttons.



Software Changes Document: EST-Duct

- Resolved issue with annotation not applying correct colour from CAD-Types in the Service Database e.g. Levels, Sizes etc.

Calculated Dim Fields

- Fix change not to show hidden dimensions on pattern dim calcs breaking calcs + show correct annotation when drawing part developments for skin + don't show bad C3/C4 annotation for double wall connectors in takeoff views

Design Line

- Resolved issue with Design Line "Auto Fill Hangers" feature, updating the job. This was effectively causing a regen each time.
- Resolved issue with "Overridden" bends not filling when placed on a "Flex Filled" Design Line.
- Improved shoe placements in Design Line, particularly for angled branches and non centre line tee junctions.
- Resolved issue with Design Line placing an incorrect shaped Cap End into the system.
- Improvement to Design Line fill routine for inline tees, will result in less branches bridging over more than one straight length.
- Resolved issue with Change Units option on terminal from wiping out the unit description.

Velocity Annotation

Fixed an issue with velocity annotation on the line not using the rounded sizes for the velocity calculations - an issue with multiply constrained lines.

Terminal Logic

Fixed an issue with template terminal logic creating invalid models, then also using incorrectly sized flex. Work-around for this is to setup carry-over dimensions on the terminals to be bigger than the required spigot sizes.

- Resolved issue regarding the defining of the "Source Point" on the Design Line, placing an item with a button code of "Source" eliminates the need to position manually.
- Fill in 3D
Design line failing to fill bends when template bends have locked angles even with very slight differences. Tolerances have now been relaxed to allow filling to be consistent with the way that product listed bends or catalogues are filled.
- Resolved issue with "OffsetShapeChange" node being generated incorrectly.

Digitiser Template

- Make any cell bitmap filenames located within the folder pointed to by the IMAGES path in MAP.INI get converted to relative names when the template is saved to allow moving of the IMAGES folder (e.g. to a network location).

Double Wall (Straights)

- Fixed Double Wall straights when set to Auto length, ending up with different skin / body finished lengths if the connector turnover allowances were different.

Ductboard

- Fixed a typo causing Ductboard seam islands to still be wrongly included in the area calculation.
- Fixed area calculations possibly appearing doubled with some ductboard tool settings.

Flexible Hose (CID 2108)

- Allowed normal nodetypes to be created at the junction between flexible & normal lines types.
Fixed a drawing issue that was omitting edge lines for hose patterns that were using different NSCs than the global NSC (via option).

Item Takeoff View

- Fixed issue with insulation/double wall using the CAD-Type colour defined in the Service Database. The item now uses the "Faces" colour defined in item's takeoff properties.
- Application fix to resolve issue with Item's Takeoff view not using the material's colour if specified in the settings, fix also applies to graphical view in print objects i.e. Item view in worksheets.

MAP Backup

- Improved error reporting when selecting zip file to restore, now prompt auto-popup browse dialog if not zip not found. Added support for profiles and new import/job file types.

Pattern Dependencies



Software Changes Document: EST-Duct

- When applying a Dependency to a dimension, restrict the list of available dimension descriptions to the ones used by the pattern, instead of all dimensions used by the Master pattern.

PDF Import

- Resolved issue with PDF import using clipping rectangular paths as actual paths.

Print Objects

- Resolved issue with "Dimension List" object not obeying "Show Real Values" switch, for example if Straight pattern is set to "Auto", switch displays item's actual length value in reports.

Scripting

- Resolved issue with application crash when script file was re-using a variable that was getting deleted.

Swap Out

- Fixed the swap out of Decoiled straight items failing. Now performing a Estimating Swap Out across services will accommodate for different materials and/or specifications.

Worksheets

- Fixed scaling issue and print quality when printing from Worksheets.

Pattern Fixes

CID 1 (Straight (Cut))

- Fixed bug that was not cutting holes in insulation when applied to this pattern.

CID 1129 (Twin Straight)

- Auto-length was not functioning.

CID 183 (Lagging Straight with cut-out)

- Fixed this patterns development; being split into two unequal-sized parts.

CID 2882 (88-Curved-Branch x 2)

- Fixed missing second branch since implementing proper intersections.

CID 3 (Square Bend)

- Fixed holes being positioned incorrectly when offset around the bend's corner and using double wall.

CID 33 (Straight + Shoes)

- Fixed the right hand side hole development being positioned incorrectly (offset).

CID 382 (Grille Box Variable Hole Options)

- Did not have correct hole position limiting, was unable to place holes touching the face edge.

CID 382 (Grille Box Variable Hole)

- The default hole was using just the hole width dim for its width and depth, now supports the depth dimension to allow for Rect, Round, and Oval holes.

CID 45, 46, 943, 954 (Ductboard Bends)

- Fixed mitred throat developments generating fold lines as per the radius throat.

CID 7 (Rectangular Shoe)



Software Changes Document: EST-Duct

- Double wall (skin and dims inside) lower end was not cut back, made to match top end.

CID 93, 325 (Bullnose Tee)

- Removed C4 connector annotation from pattern views.
- Fixed problem when developing part using the Option to develop in 2 Parts = Yes and when showing marking lines on development screen.

CID 947 (Ductboard Branch)

- Fixed Pen Mark seam edge development when made in 2 or 3 parts.

CID 952 (Ductboard - Square Bend)

- Fixed Pen Mark seam edge development when made in 3 parts.

CID 957 (Grille Box Side Entry)

- Added holes' inset/offset bad dimension check (previously would allow holes of the side of the pattern).

CID 96 (Lagging Dome)

- Pattern fix to resolve problems with segment development when adding fixing holes and making extensions as separate parts. Resolved issue with holes being placed off the item and placing on top of each other.

CID 996 (Swirl Diffuser)

- Relaxed the dimension checking errors when pattern 996 is configured as a Swirl Diffuser. It now allows the Width and Depth to be 0 x 0 (No plate).

CID1115 & 1116 (Oval + Branches)

- Resolved issues with CID1115 & 1116 developing incorrectly if body of item was set to round.

CID121 (Oval Branch)

- Resolved issue with CID121 displaying incorrectly when double wall settings were applied.

CID184 (Circular Bend on Straight)

- Resolved issue with item not displaying centre radius and angle annotation on takeoff view.

CID326 (Segment Bend + Round Tap)

- Resolved issues with incorrect hole positions and application crash when part was developed.

CID365 (Oval Bend + Round Tap)

- Resolved issue with CID363 developing incorrectly when tap size was equal to the body size.

CID889 (Oval Branch on Straight)

- Resolved issue with pattern being adjusted for "Double Wall" if the branch width/depth/length was set to zero, this resulted in an extra skin being created.

CID931 (Sliced Box Tee)

- Fixed application crash if CID 931 was developed with branch parts set to 2 and marking lines on.

Ductboard

- Added fold line's angle and extra development lengths for folding.
- All Ductboard patterns now have following pattern types: Rectangular/Ductboard. Dongle type of all Ductboard patterns now = Ductboard.
- Added lengths for fold lines on "Throat Wrapper".
- CID 1124, 1129 (Ductboard –Twin bend & Parallel Straight): added Patterns Connector Split-Dims, so patterns select gauge using split connector sizes (bottom connector's individual elements size, not connectors full size).

Ductboard Part - Area calculation



Software Changes Document: EST-Duct

- Use theTool selected in Pattern Database Ductboard Setup, when checking for ductboard seam islands, to calculate Duct Area

Ductboard Patterns

- Recent change to include ductboard seams in costing caused possible multiple section annotation texts which were superimposed and unreadable, added ductboard tool numbers to sections to enable create section annotation texts for the first island only.

Ductboard Patterns - Area calculation

- Fixed typo causing ductboard seam islands to be wrongly included in area calculations.

Insulation and Edge Lines

- Insulation and edge line fixes for the following patterns: 46, 189, 317, 347, 348, 349, 350, 351,352, 353, 369, 390, 828.

Pattern Change

- CID 184 (Segment Bend on Tee)
Bend height annotation was being measured incorrectly from the bend centre instead of from the pipe center