Devotech Group of Companies

WHAT'S NEW IN DEVOTECH iDAS v12.5

Document version: 01

DEVOTED TO ENGINEERING EXCELLENCE

CONTENT

SUPPORTED CIVIL 3D VERSIONS

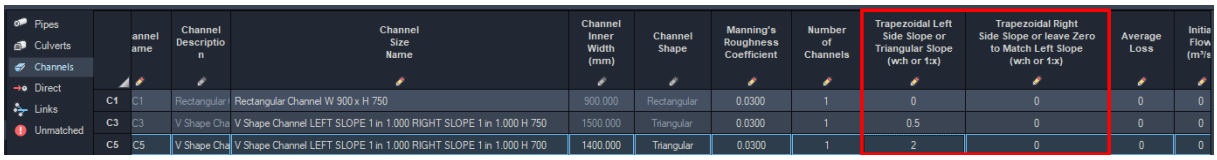
Civil 3D 2020-2024

OLD DRAWINGS COMPATIBILITY

Any old drawings are fully compatible with the new iDAS version however some adjustments might be needed, see further chapters.

Drawings with channels

If the old drawing (version 12.3 and before) contains V-shape or trapezoidal channels then double check the side slopes:



Drawings with valves

If the old drawing (version 12.3 and before) contains valves with the Fixed Status being set to Open, then this property **must** be changed to “None”. Fixed Status property was improved and offers all the options the EPANET engine supports:

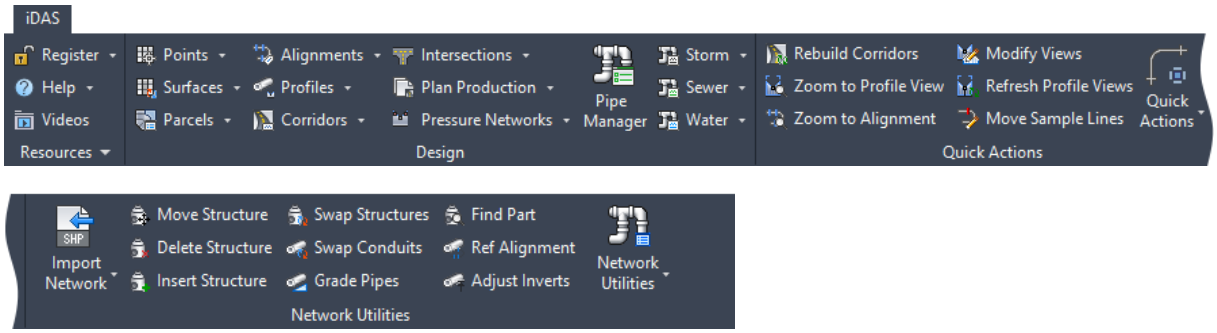
- “None” - a valve operates as a valve
- “Open” - a valve operates as an open conduit
- “Closed” - a valve operates as a closed conduit

NEW FEATURES

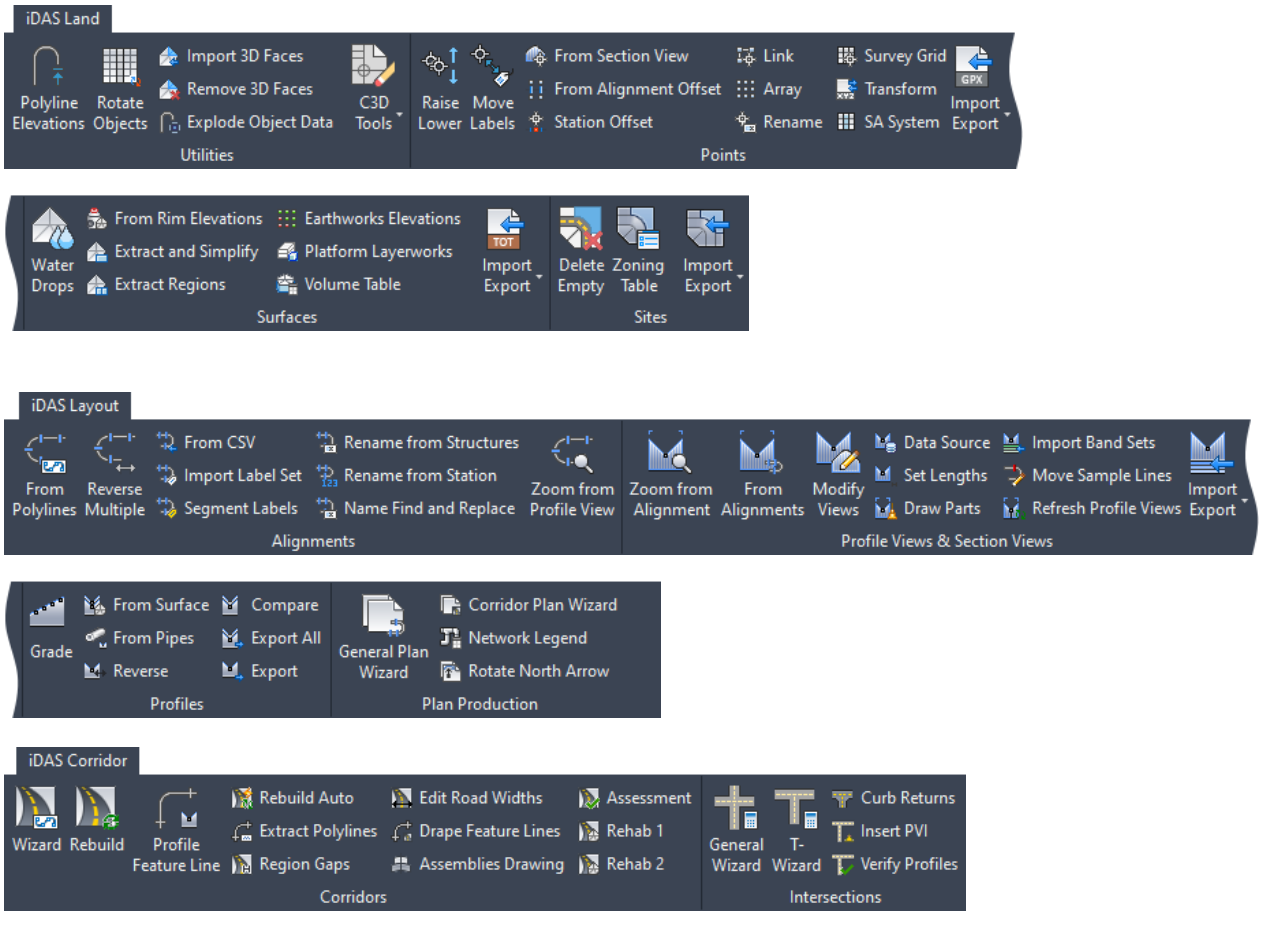
New Ribbons

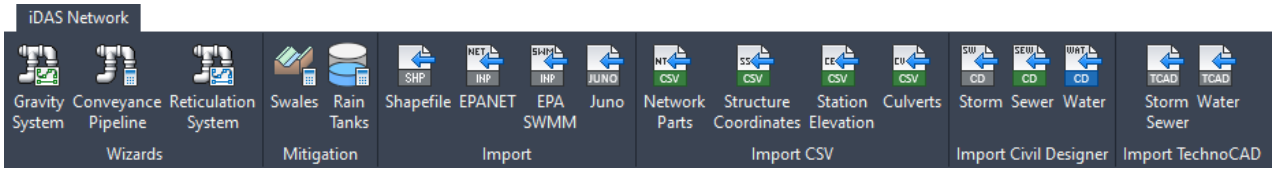
With this release new ribbons were created to more easily access all the iDAS commands. The previous ribbon is still available. There are now two types of ribbon sets available: **Compact** and **Extended**. The new **Switch Interface** command will quickly switch between the two ribbon sets.

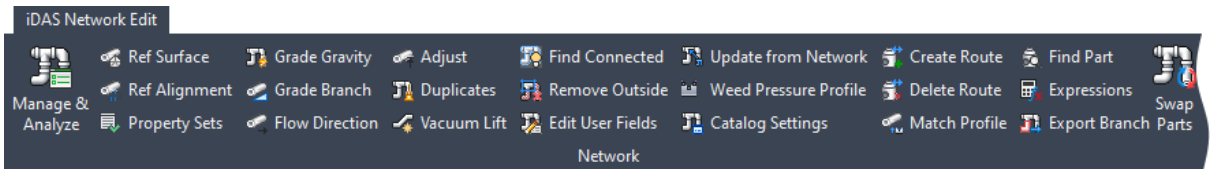
Compact: The compact ribbon set contains all iDAS commands on a single ribbon with most of the commands available via drop-down menus.

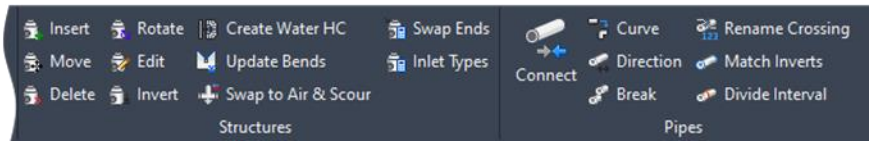


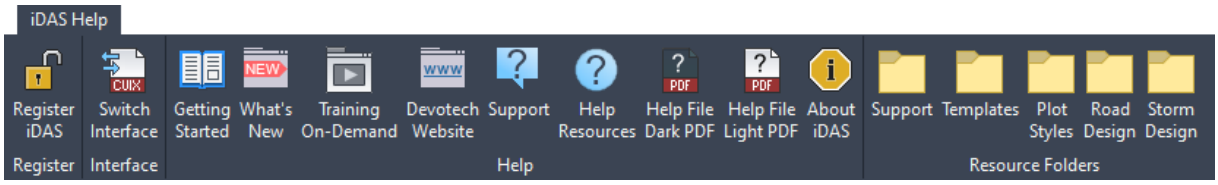
Extended: The extended ribbon contains all iDAS commands on multiple ribbons. Each ribbon contains a group of similar commands. Nearly all commands are clearly visible and very few drop-down menus are used.





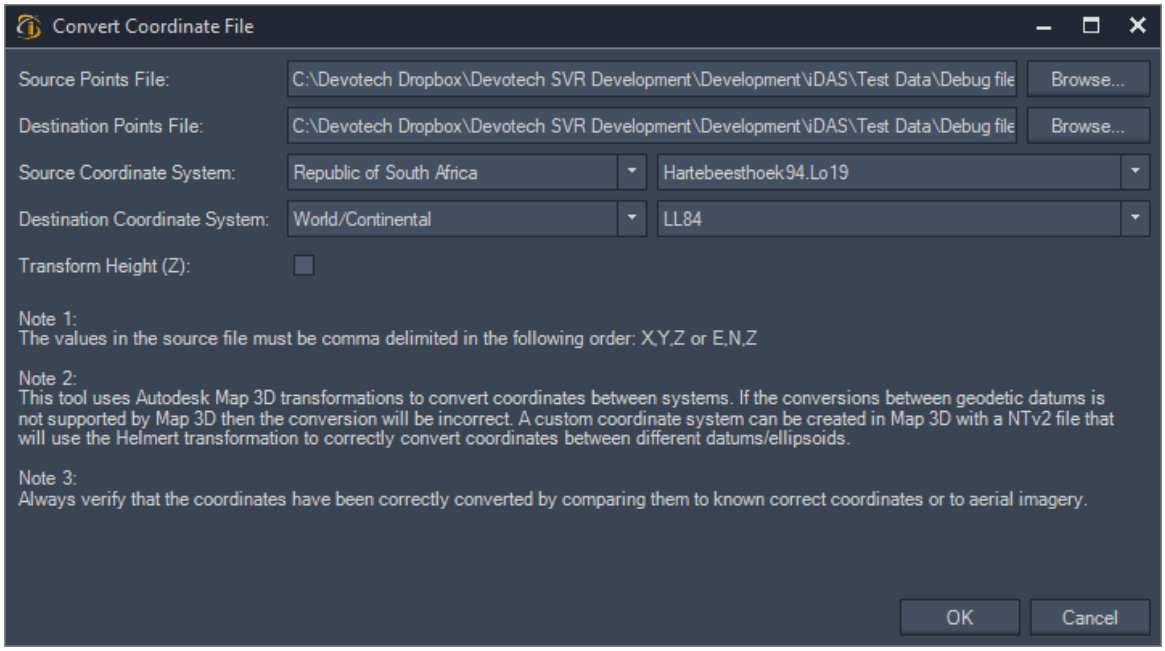






Convert Point File Command

This command takes a points text file and converts it between two coordinate systems defined in Civil 3D (Map 3D). The coordinate system definitions and transformation definition must already exist in Civil 3D. The resulting text file can then be imported into Civil 3D as points or a surface, or it can be used in other programs that can read XYZ point files.



Help PDF Dark Command

Opens the iDAS help file PDF with a dark page background color.

Help PDF Light Command

Opens the iDAS help file PDF with a light page background color.

Getting Started Command

Opens the Devotech iDAS getting started webpage.

Remove 3D Faces Command

Deletes all 3D faces outside the extents of a polyline.

Switch Interface Command

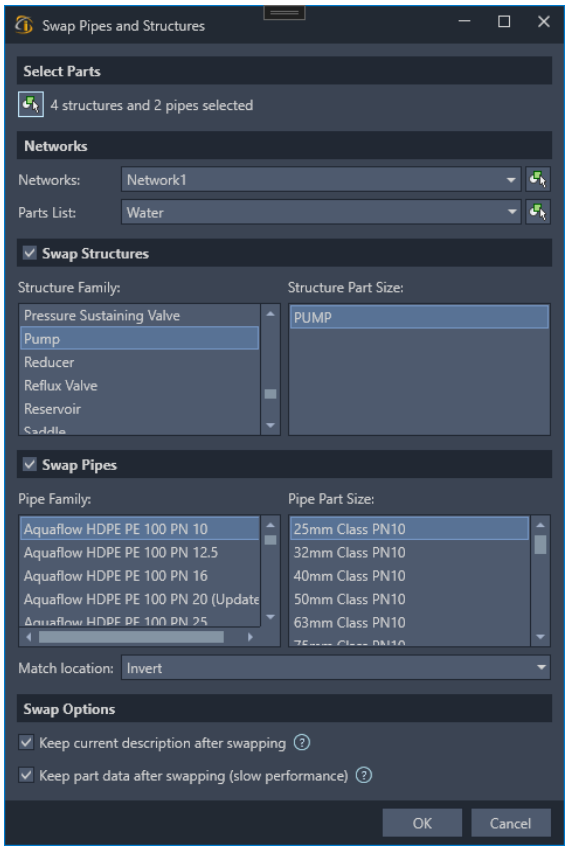
Switches the iDAS ribbons between the **Compact** and **Extended** styles.

Convert Straight to Curved Pipes Command

Converts straight pipes to curved pipes using an alignment's geometry to determine the curve.

Swap Parts Command

Swap multiple pipes and structures in plan and profile at the same time.

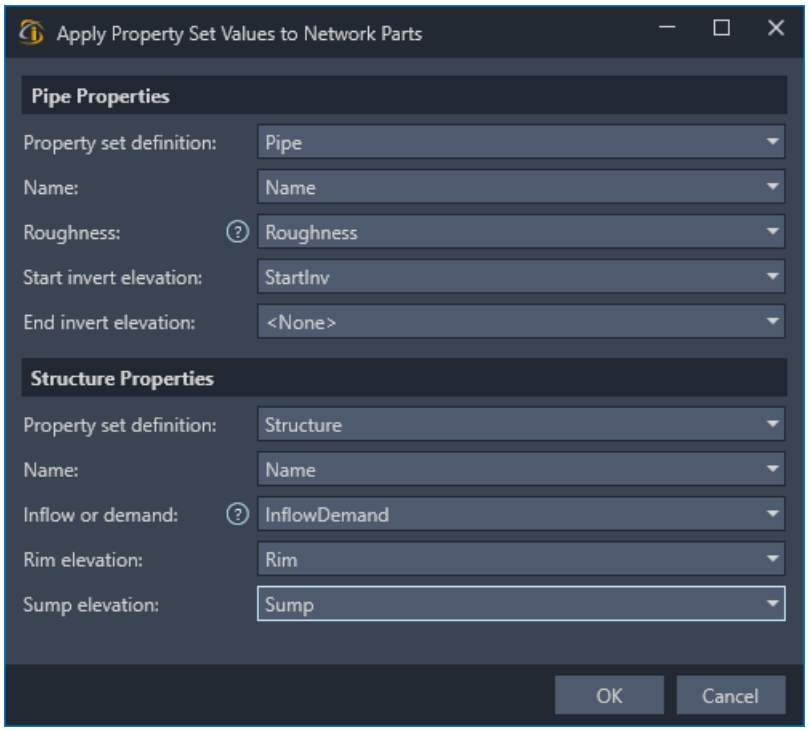


Break Pipe Command

This command breaks a pipe into two pipes at an indicated point or at a structure location. If the pipe is broken at a structure location the two pipes are then connected to the structure. This is useful for joining an existing structure to an existing pipe.

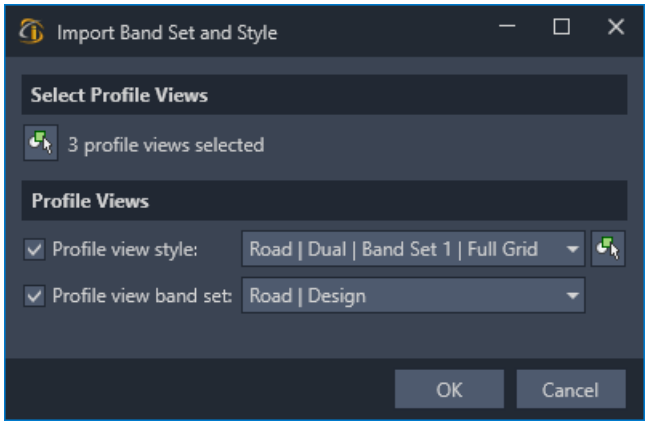
Apply Property Set Command

Applies property set data to pipes and structures (e.g. name, invert elevation, rim elevation, etc.)



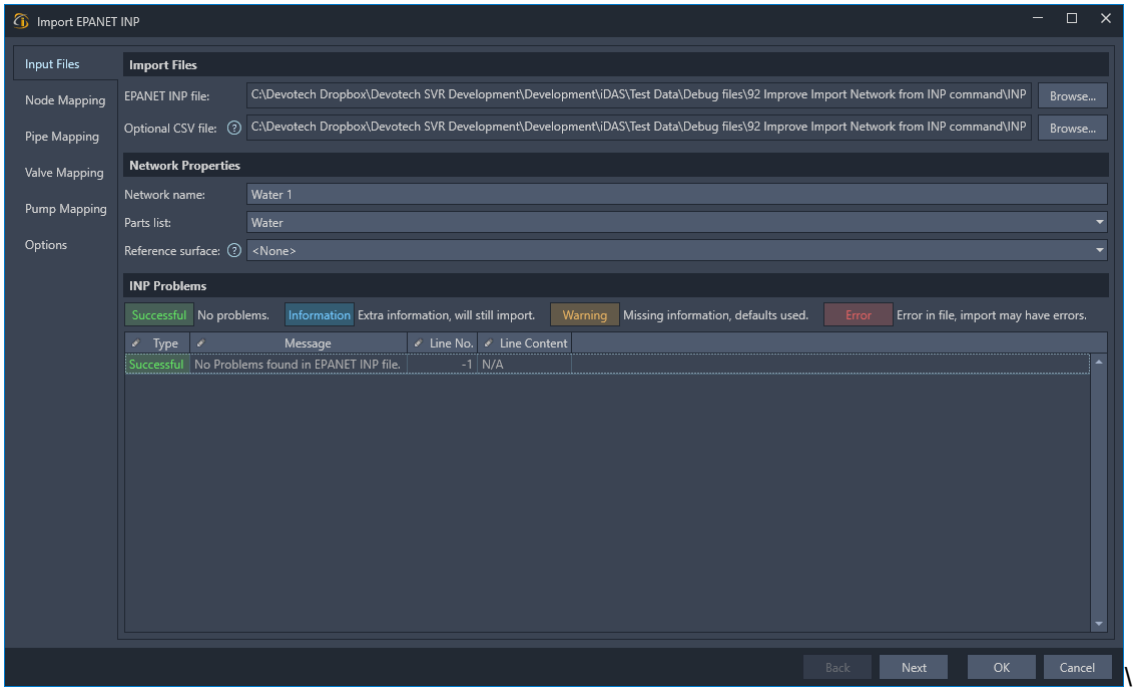
Import Band Sets Command

Imports a band set and/or a profile view style to multiple profile views at the same time.



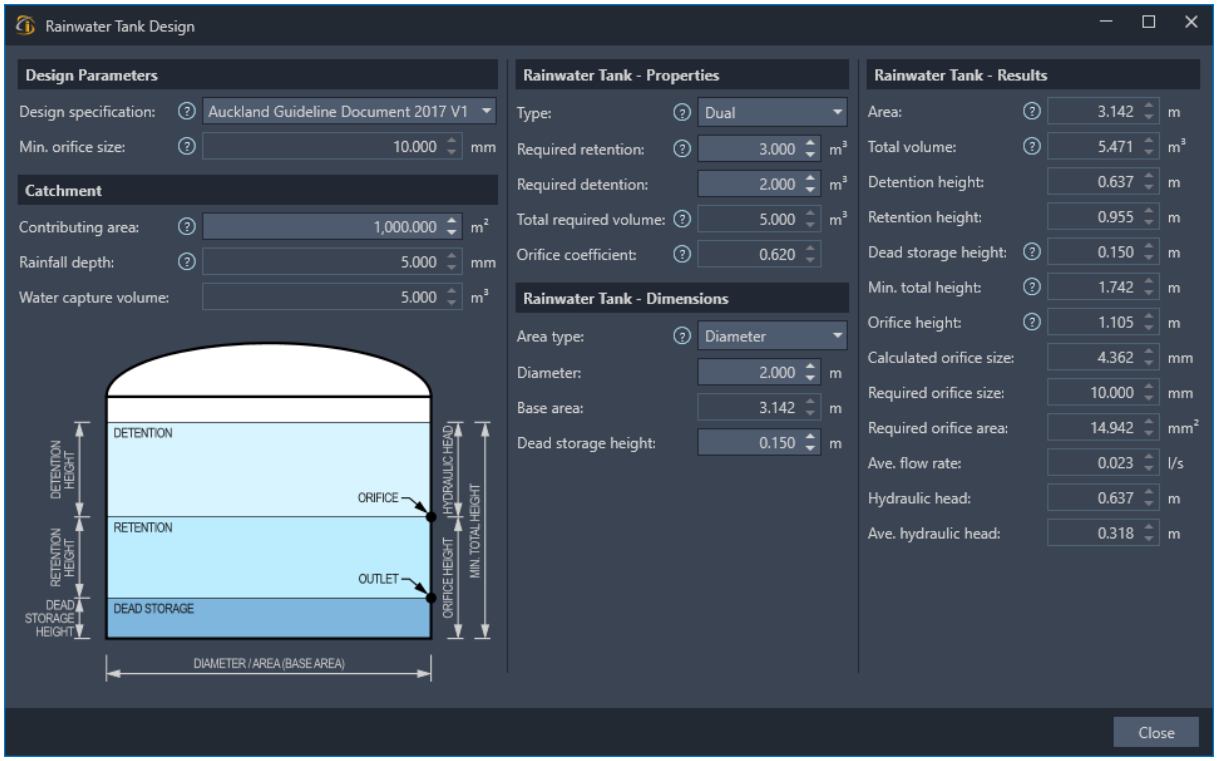
Import EPANET INP Command

This command imports all the geometry and analysis properties supported by iDAS (it does not import quality properties as iDAS does not support water quality analysis). All the nodes, pipes, valves and pumps can be mapped to Civil 3D pipes and structures.



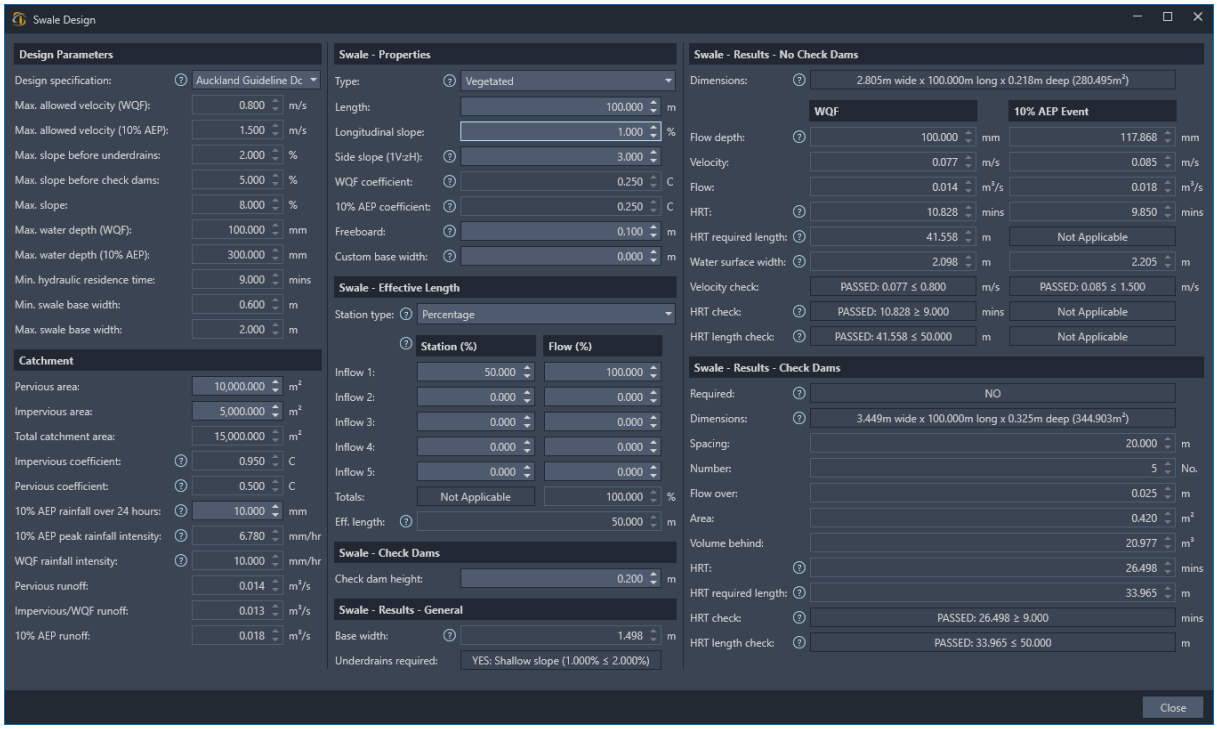
Rainwater Tank Design Command

This command performs the calculations for a rainwater tank to a design specification or by custom properties.



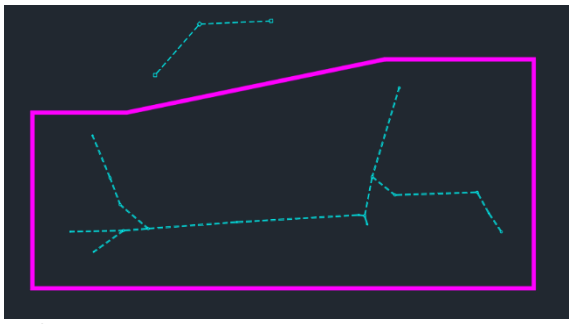
Swale Design Command

This command performs the calculations for a swale to a design specification or by custom properties.

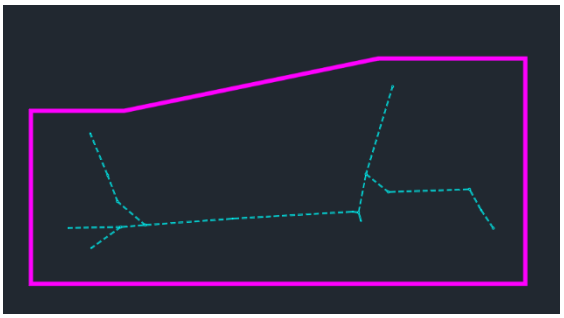


Remove Parts Outside Command

Deletes all parts in a network that fall outside a selected polyline.



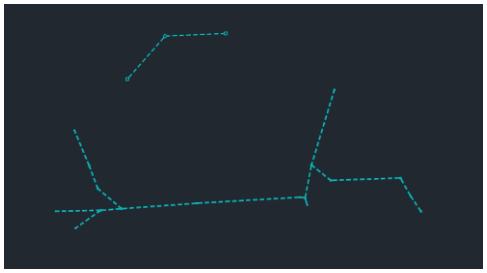
Before



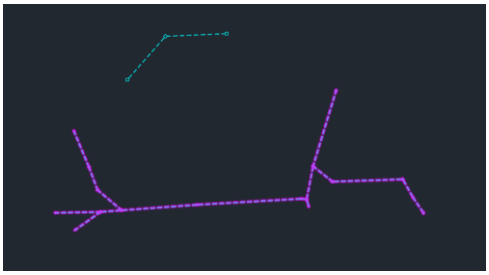
After

Display Connected Parts Command

This command highlights or selects all parts in a network that are connected to a single structure. This is used to interrogate a network to discover if any parts are disconnected or connected incorrectly.



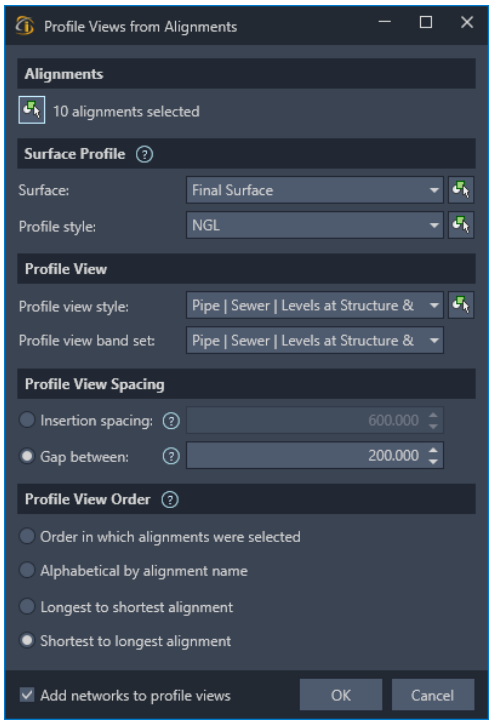
Before



After

Profile Views from Alignments Command

Create multiple profile views from multiple alignments at one time.

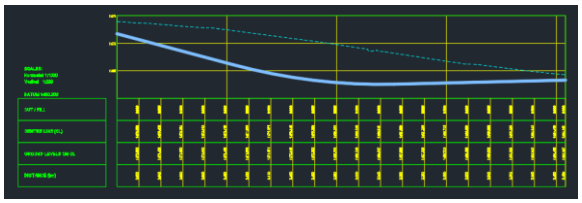


Reverse Alignments Command

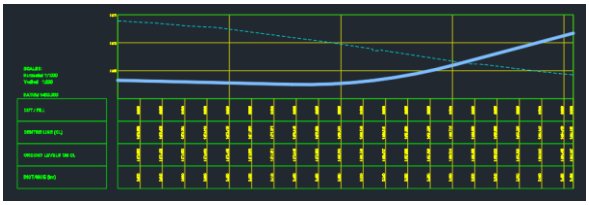
This command will reverse multiple alignments at the same time. All profiles attached to the alignments will also be reversed.

Reverse Profiles Command

This command will reverse multiple profiles at the same time. Only static (design) profiles can be reversed as dynamic profiles are linked to other objects (i.e. surfaces).



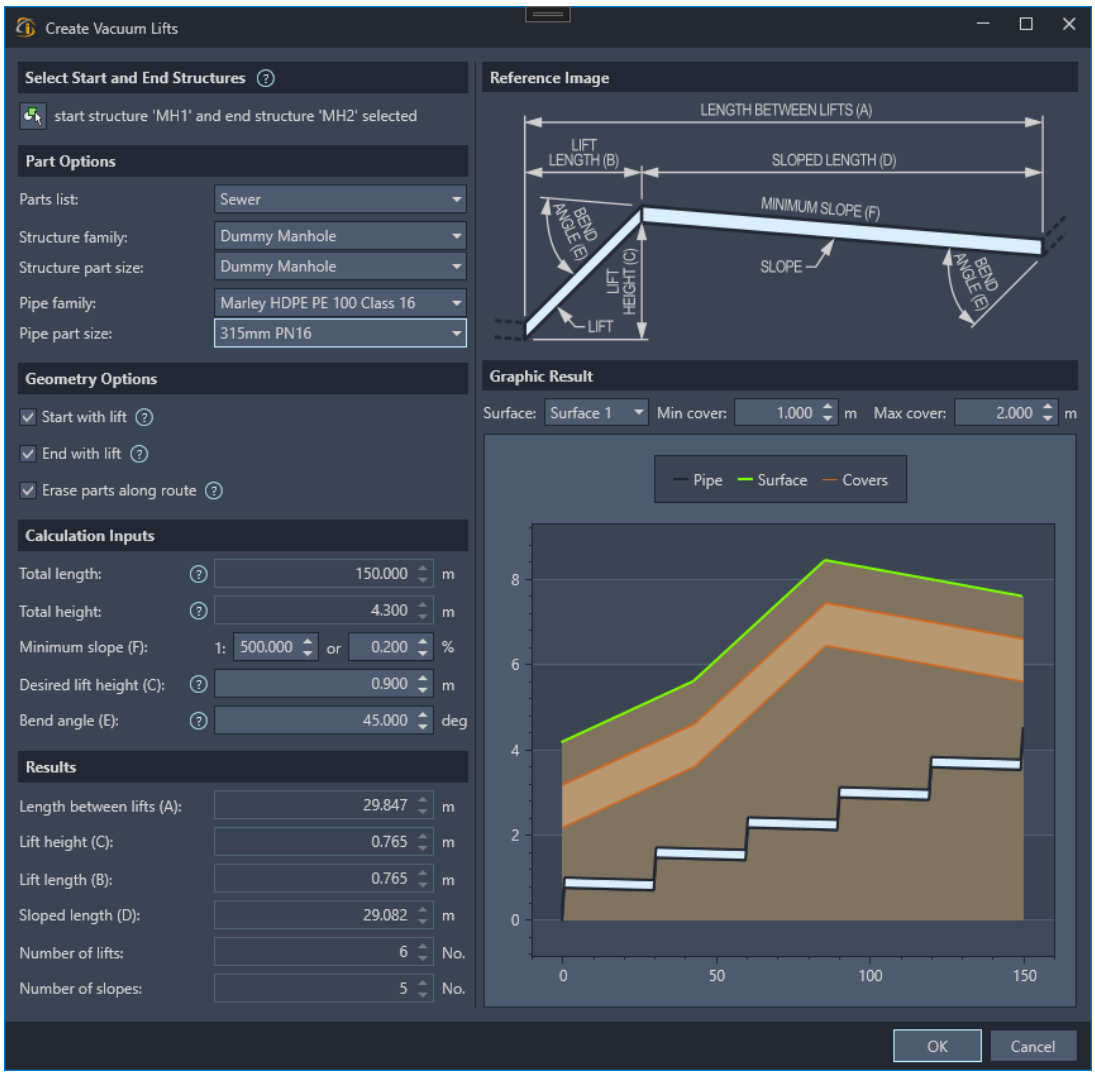
Before



After

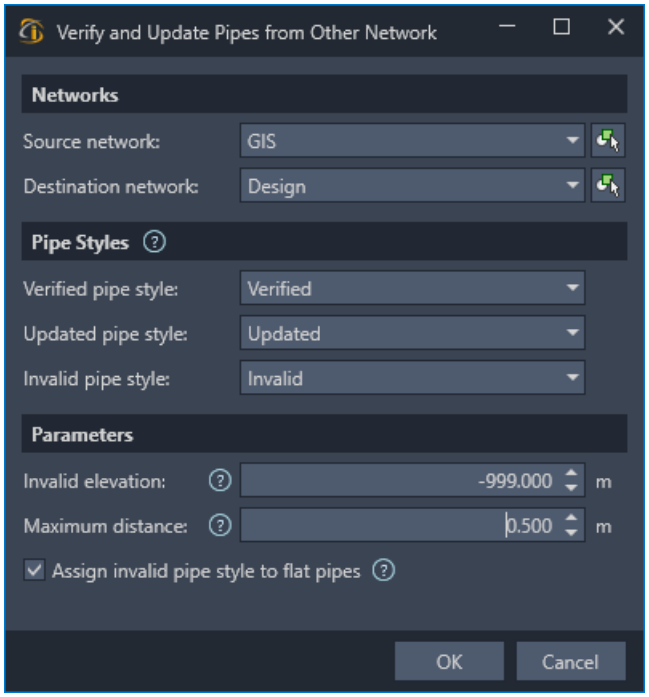
Create Vacuum Lift Command

This command creates a saw-tooth vacuum lift between two structures. Various options can be set for calculating the vacuum lift geometry.



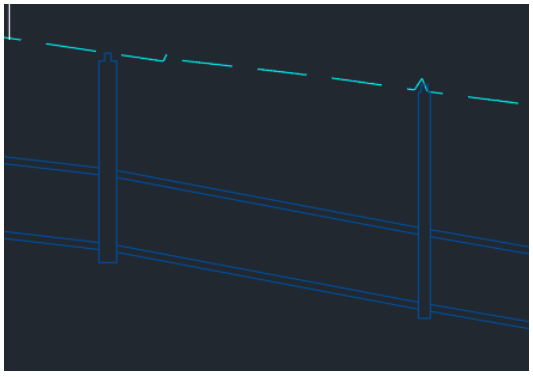
Update Network from Source Command

Updates a network from another network. Update the network with location and level validation and apply styles to verify the updated properties.

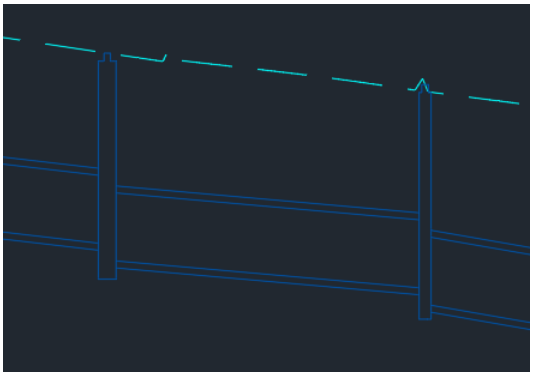


Match Pipe Inverts Command

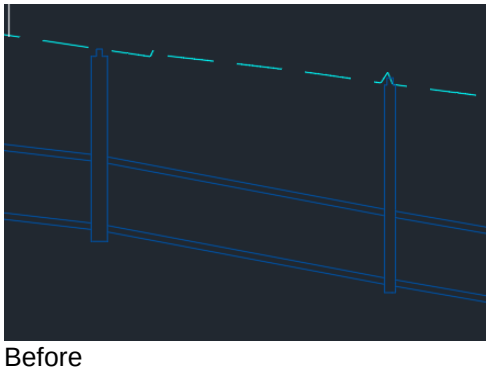
Updates the start and/or end levels of a pipe relative to connected pipe inverts.



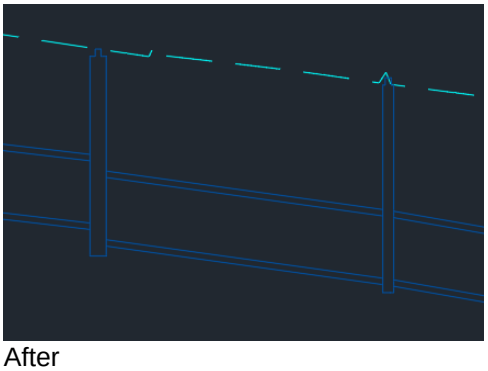
Before



After



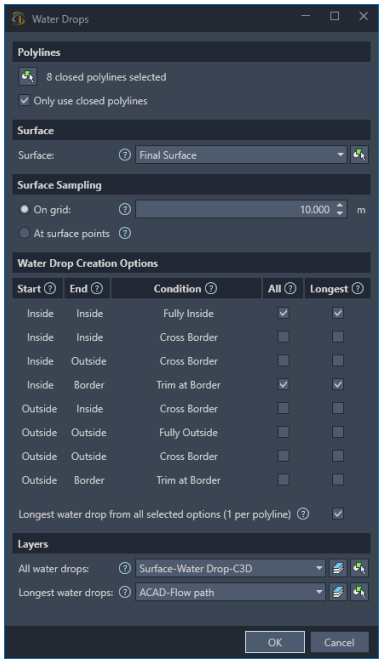
Before

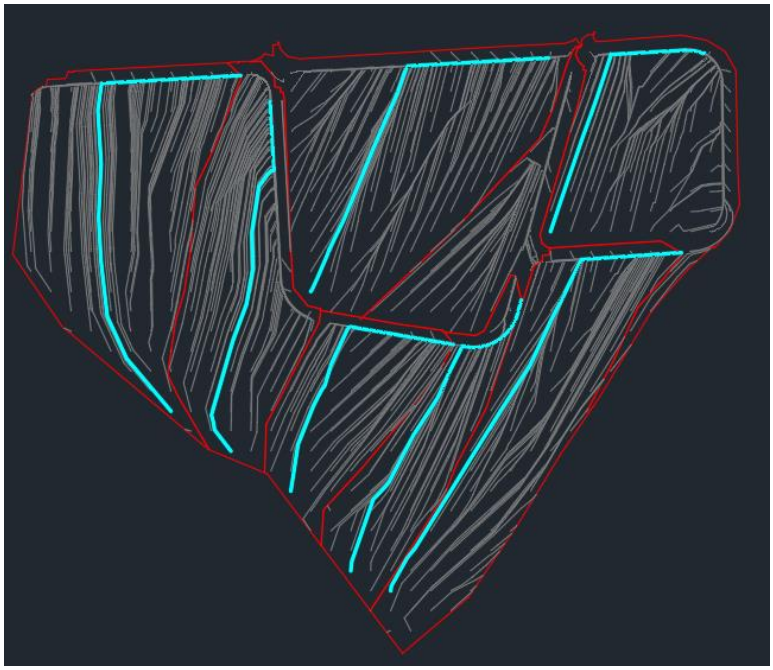


After

Water Drops Command

Generate all overland water drop paths for a surface within polylines and alternatively display the longest water drop for each polyline.





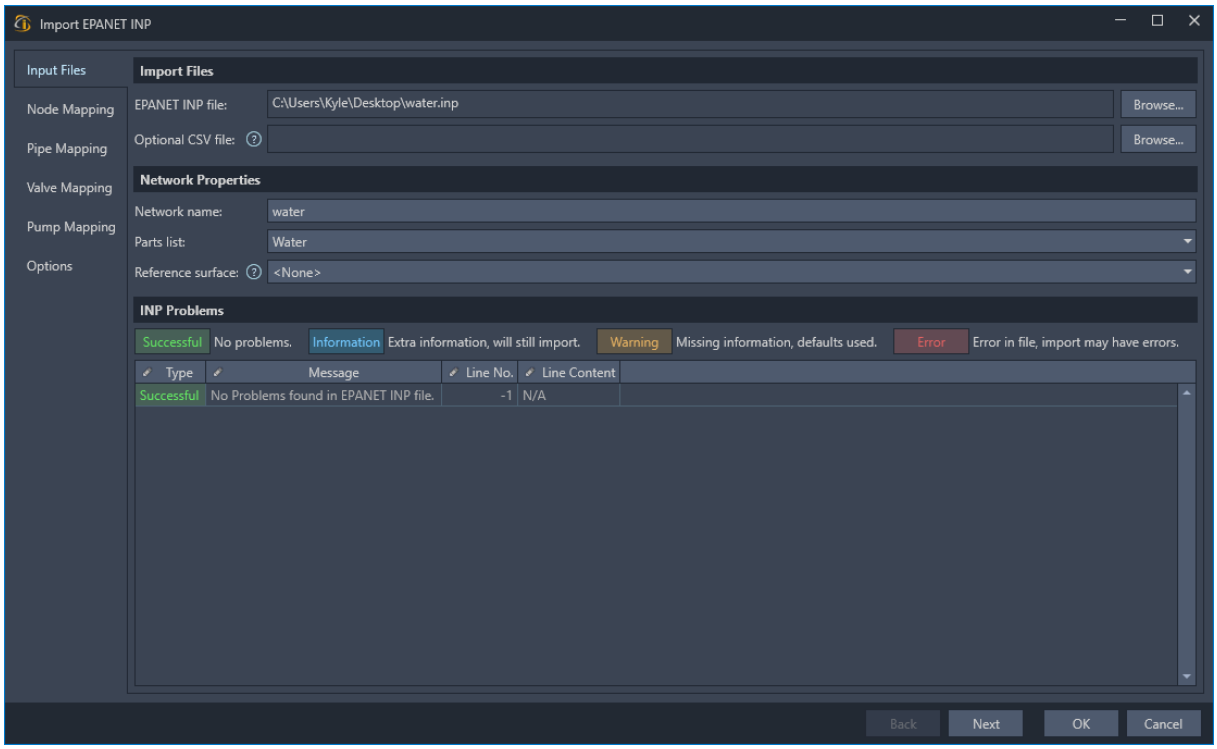
COMMAND IMPROVEMENTS

Create Parts from Alignment command reference surface and reference alignments problems

A crash would occur if the network did not have a reference surface set in the network properties dialog. Also, the reference alignment would not get set for pipes. The selected alignment is now set as the reference alignment.

Import EPANET INP file

The import INP file has been split into two commands, one for EPANET and one for EPA SWMM. The EPANET command has been redone from the ground up and now supports all EPANET properties that are supported by the iDAS pipe manager with complete part mapping capabilities.



Stormwater, Sewer and Water Wizards disabled OK button

If the option to create a new network was selected then the OK button was disabled until the parts list was selected. The OK button will now be enabled when all the options in the dialog are correctly set.

Swap Pipes command does not use match option

When swapping pipes the match option (invert, center, crown, etc.) was not used. The swap pipes command has been completely redone and now uses the match option when swapping.

Set Reference Surface and Set Reference Alignment commands excludes reference networks

The Set Reference Surface and Set Reference Alignment commands did not allow the selection of networks that were referenced into the drawing via data shortcut. This has been fixed and referenced networks will now appear as part of the selection choices.

Import TOT command fails when "&" is present in the file path

If "&" is in the path name of the TOT file an XML error would occur. This has now been fixed and "&" can be used in a path name.

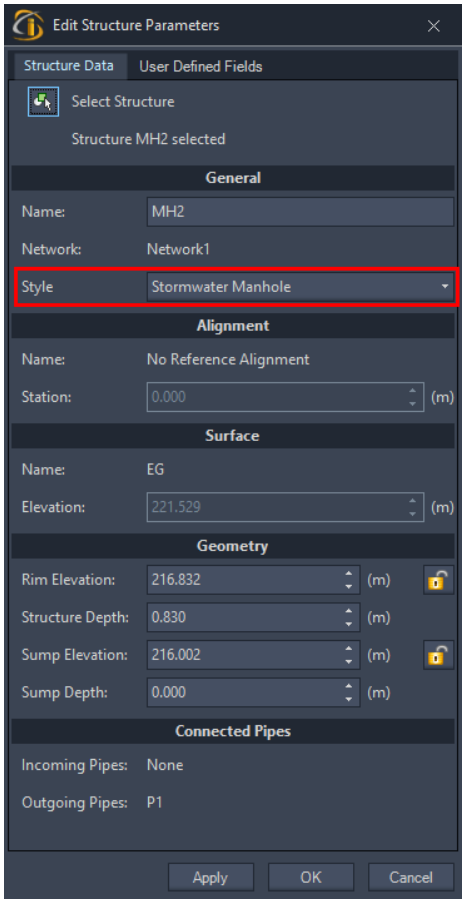
The LandXML file has also been updated with the updated program details. The suffix "_XML" will no longer be added to the file name. This was done to prevent the chance that the new file path could be longer than the Windows maximum path length that could lead to errors.

Remove Duplicate Network Parts command does not work for multiple networks

When using the remove duplicate parts command in a drawing that had more than one network present, the command would fail to find any duplicates. This has been resolved and the command can now work with multiple networks.

Style property added to Adjust Structure command

The style property has been added to the Adjust Structure command to easily allow for style changes while editing other structure properties.

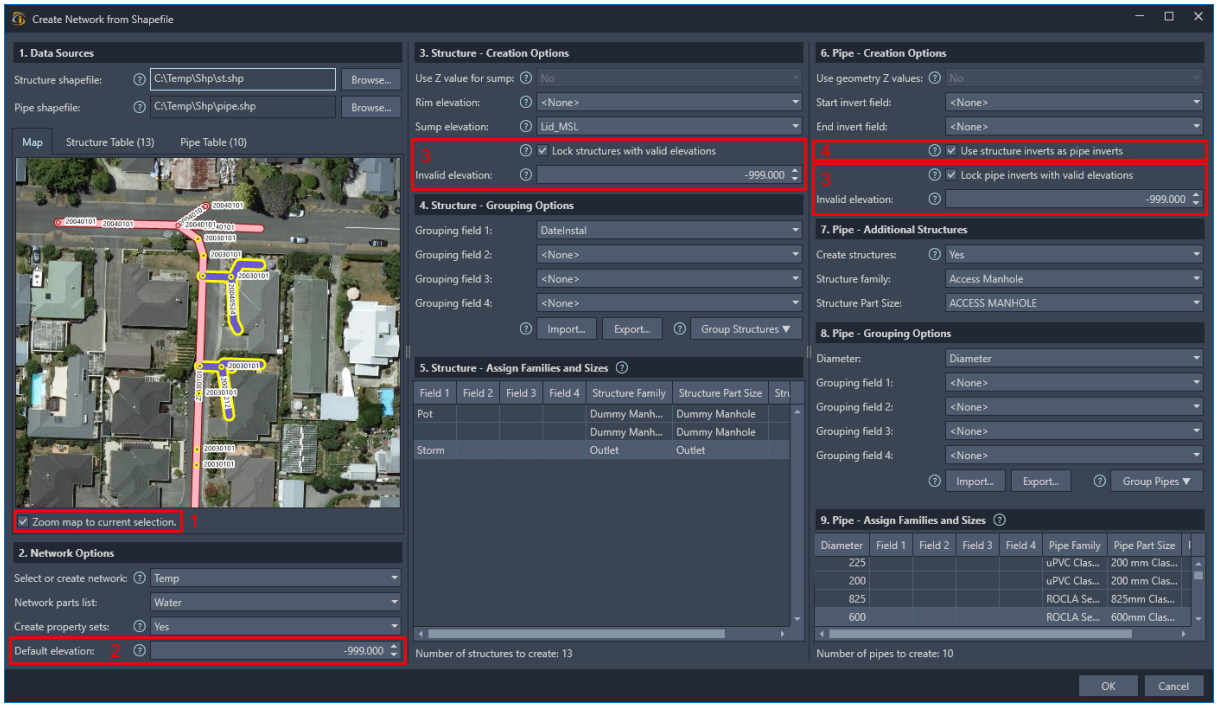


Insert Structure command error when missing surface

The insert structure command would display an error when the surface was not set in the dialog. This has been fixed so that the error no longer is displayed.

Import Shapefile Command pipe inverts from structures, lock parts and zoom features

The import shapefile command has been improved with the following features:



1. When selecting pipes or structures from the group grids the map will zoom to the selection.

2. If the shapefile fields for elevations contain invalid numbers (alphabetic character or null) then the invalid value will be replaced with the value specified.

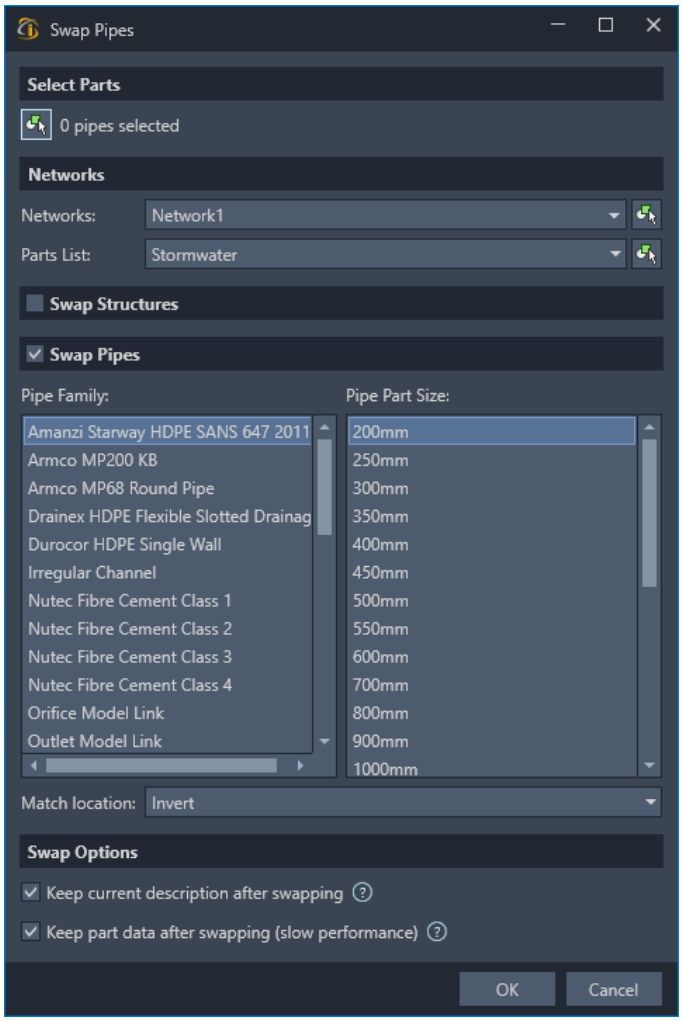
3. Pipes and structures can be “Locked” if their elevation are valid. These locks apply to iDAS commands that modify pipe and structure inverts.

4. Pipe inverts can be read from structure sump elevations. This is useful when shapefile models do not specify pipe inverts in a pipe shapefile and instead assume the pipe’s invert is the same as the structures’ inverts.

Swap Pipes and Swap Structures commands new dialog, new options and performance

The commands share a new interface. The interface will be configured based on whether the Swap Pipes or Swap Structures command is run. The command is much more versatile now and lets the user swap both pipes and structures at the same time (or either pipes or structures separately). In addition to this:

- Multiple networks can form part of the swap and the swap can be limited to selected networks.
- The part description can be retained after swapping.
- All valid part data can be retained after swapping.\
- The time it takes to swap parts in large networks has been greatly improved



General Plan Production command does not create profile views

The command would fail to create profile views if the calculated graph area was shorter than 0 units. This occurs if the spacing between the profile views was insufficient. This has been corrected.

Adjust Inverts command does not support negative values

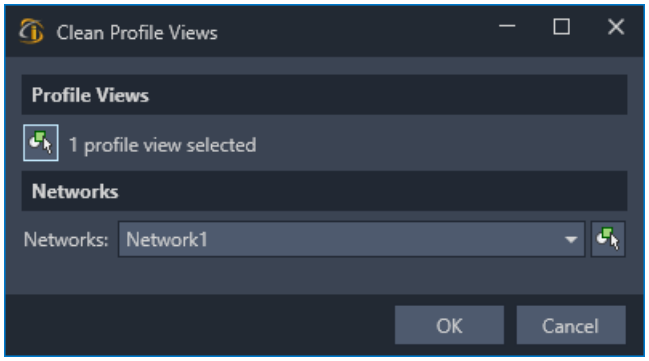
The command prevented negative values from being entered into the structure's "Amount" field preventing the structure from being lowered. This has been fixed and negative values now work as expected.

Plan Production command does not zoom viewport to profile view after creation

Occasionally, the command will not update the viewport to show the profile view properly. This would only occur on old viewports that had been modified or copied from those viewports. This has been corrected and should now work on all viewports that do not have a rotation or "twist" applied.

Clean Up Profile View command new interface

The command has been enhanced to include a dialog and now supports multiple network selections. Additionally, the command automatically removes all parts from the selected networks that fall outside the extents of the profile views. This optimization is aimed at improving editing and regeneration performance in Civil 3D.



Plan Production shows « Maximum number of layouts reached" error when invalid characters are used.

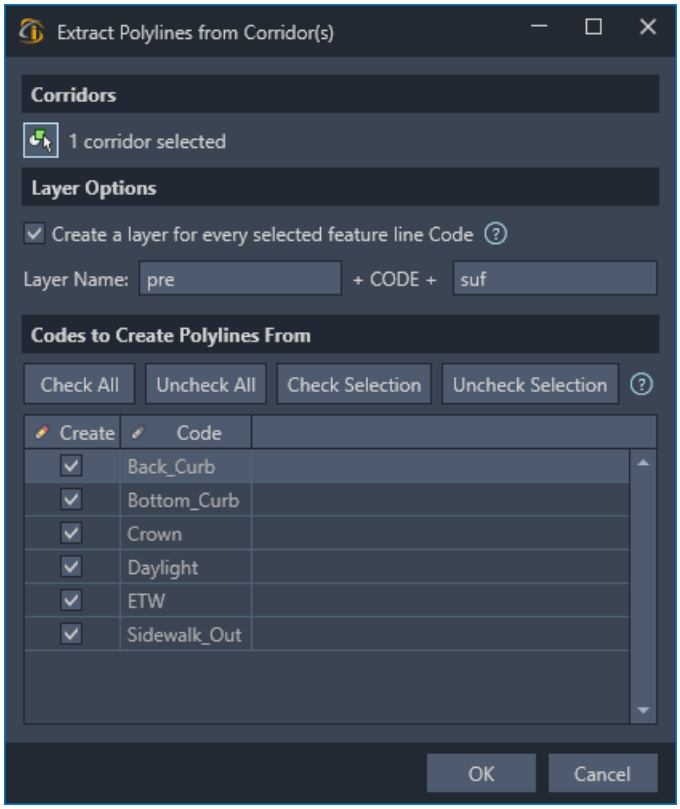
If characters that Civil 3D considers illegal (e.g. <>/\"'`':;?*,=) are used in the naming of the layout. When the OK button is clicked a message is now displayed if illegal characters are used and the command will not continue until the illegal characters are removed.

Swap Conduits and Structures dialog reworked

The swap conduits and swap structures commands have been reworked so that both pipes and structures can be swapped from the same dialog. Network filtering and multiple network swapping has been added. Options for keeping descriptions and part data has been added.

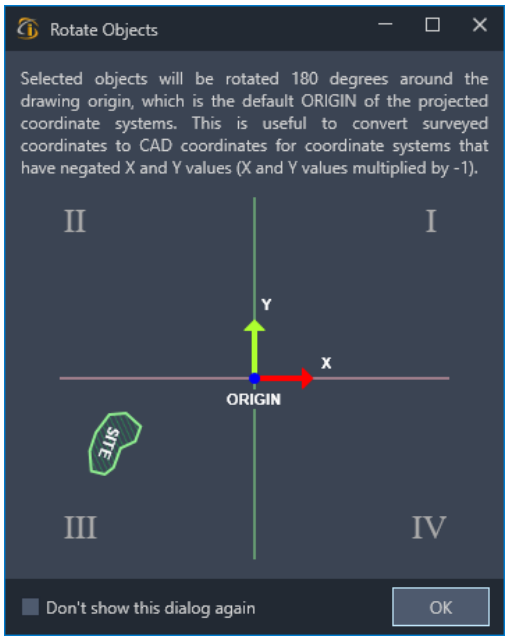
Extract Polylines from Corridor Feature Lines dialog improvements

The command's dialog has been improved by adding a selection button and by making the grid more user friendly.



SA Coordinates command renamed to Rotate Objects and interface improved

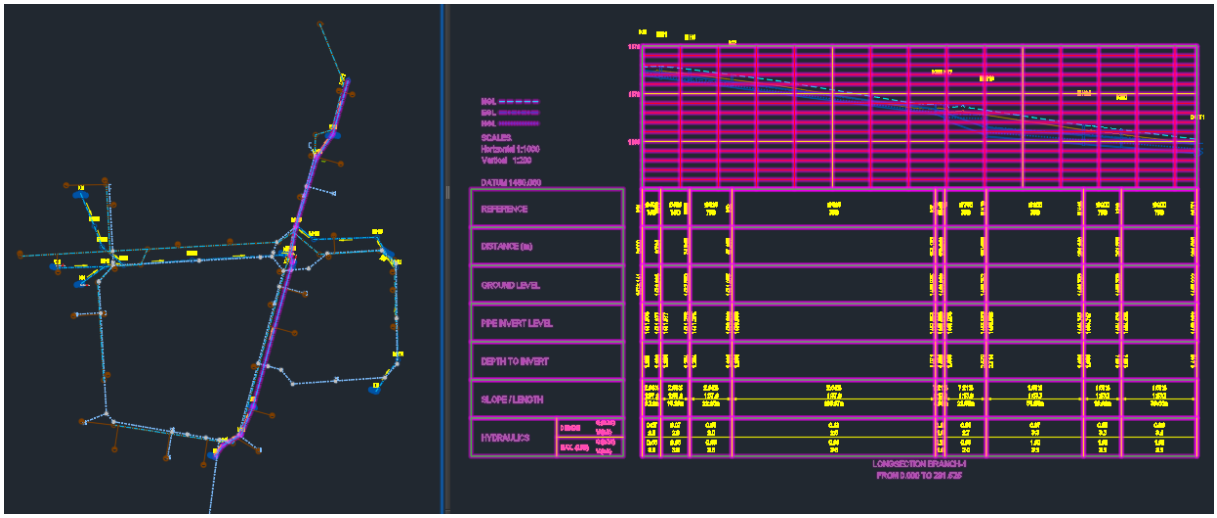
The SA Coordinate command has been renamed to Rotate Objects (in the extended CUI) and the hint dialog has been redone to make it clearer what the command does. The command will now also work on COGO points.



Zoom to alignment and Zoom to profile view

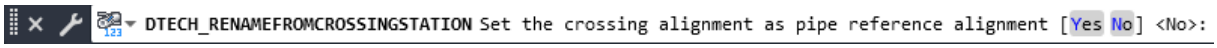
The zoom to alignment and zoom to profile view commands have been updated to work with multiple model space viewports. If the model space only has one viewport that viewport will update to display either the associated alignment or profile view. If there are two viewports, then the inactive viewport will update to display the associated alignment or profile view. If there are three or more viewport then you will be prompted to select the viewport to use to display the associated alignment or profile view.

Additionally, settings have been added that allow you to choose if the alignment, profile view, neither or both will remain highlighted after the command has finished. This is useful for identifying an alignment in a busy drawing.



Rename crossing pipes set reference alignment

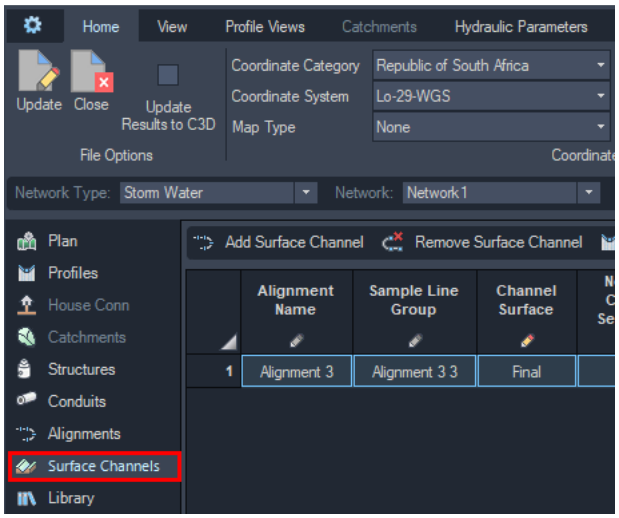
The command to rename pipes based on the station of a crossing alignment has been updated to allow you to set the crossing alignment as the reference alignment of the pipe.



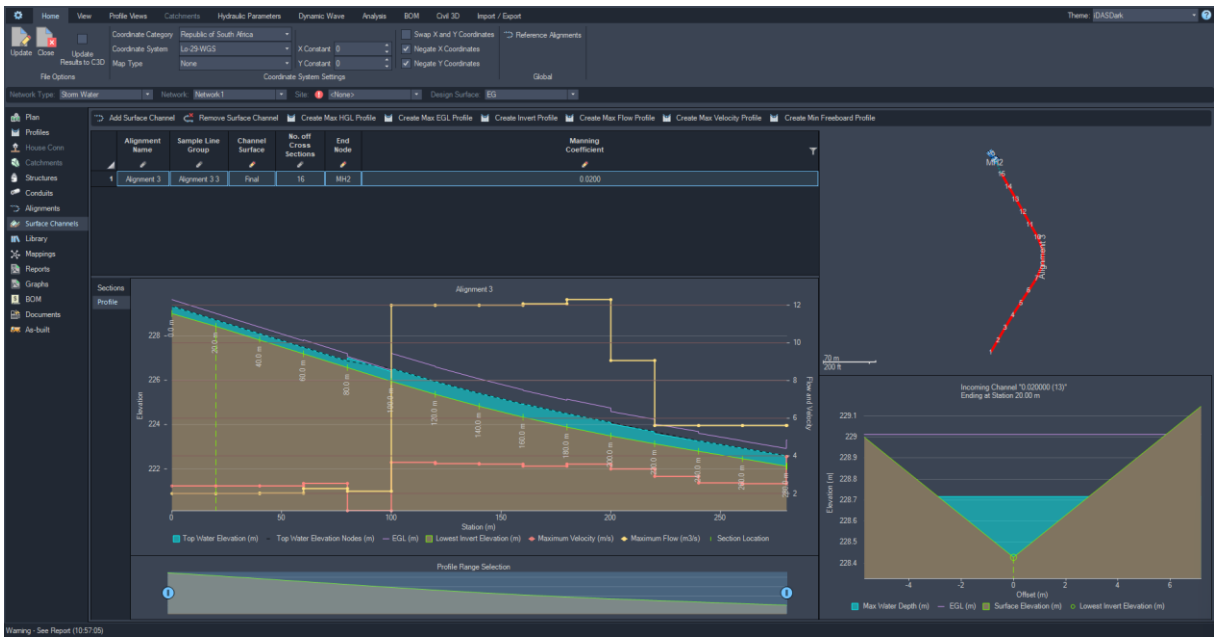
PIPE MANAGER IMPROVEMENTS

Surface channel analysis added to Pipe Manager

For storm water networks a new tab has been added to the pipe manager that enables the analysis of surface channels. Surface channels are represented by the combination of an alignment, sample lines and a surface sample source.



The analytical engine uses the alignment and sample lines to create channels (links) between sample lines and structures (nodes) at sample lines in the background. The channel shape is then defined by a surface sample source that is attached to the sample line. This creates a sequence of channels and structures that represent a channel modelled by a surface that is able to be analyzed by the EPA SWMM engine.

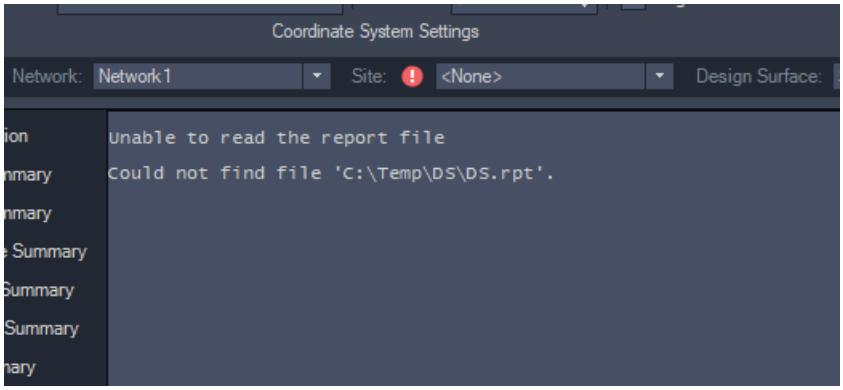


Network mapping fails if the same word is used in multiple parts list

When a parts list name is named in another parts list name, there can be a failure in mapping the network, leading to incorrect mapping. This issue has been addressed and fixed. However, when opening an older drawing in this iDAS version for the first time, it might occur again. But after remapping and saving the drawing, the issue will not reoccur.

Report file error when analyzing Stormwater and Sewer errors

When analyzing stormwater and sewer networks an error in the report file could be displayed.



This was due to a missing DLL in some versions of Windows 11 that EPA SWMM depends on. This has been resolved and the DLL is now included as part of the iDAS installation.

Incorrect units in the column header

Sometimes the incorrect units would be displayed in the columns' headers for conduits. This has been corrected and the appropriate units will be displayed depending on the network type.

Graphs item reordering

The grids used to display the results graphs reorder their items every time an item is clicked. This has been fixed and the order should remain intact when clicking, except if a value changes in a sorted column.

Analytical view incorrectly shown for stormwater and sewer networks.

The analytical view was shown for stormwater and sewer networks. The analytical view is for water networks therefore the view has been disabled for sewer and stormwater networks.

Error when deleting default water pattern

When the default water pattern specified in the water "Hydraulic Parameters" ribbon tab is deleted from the library, an error is displayed, and the default pattern input becomes blank. However, this issue has been resolved. Now, when deleting the default pattern, the default pattern input will be automatically set to "<None>".

BOM missing pipe and structure quantities

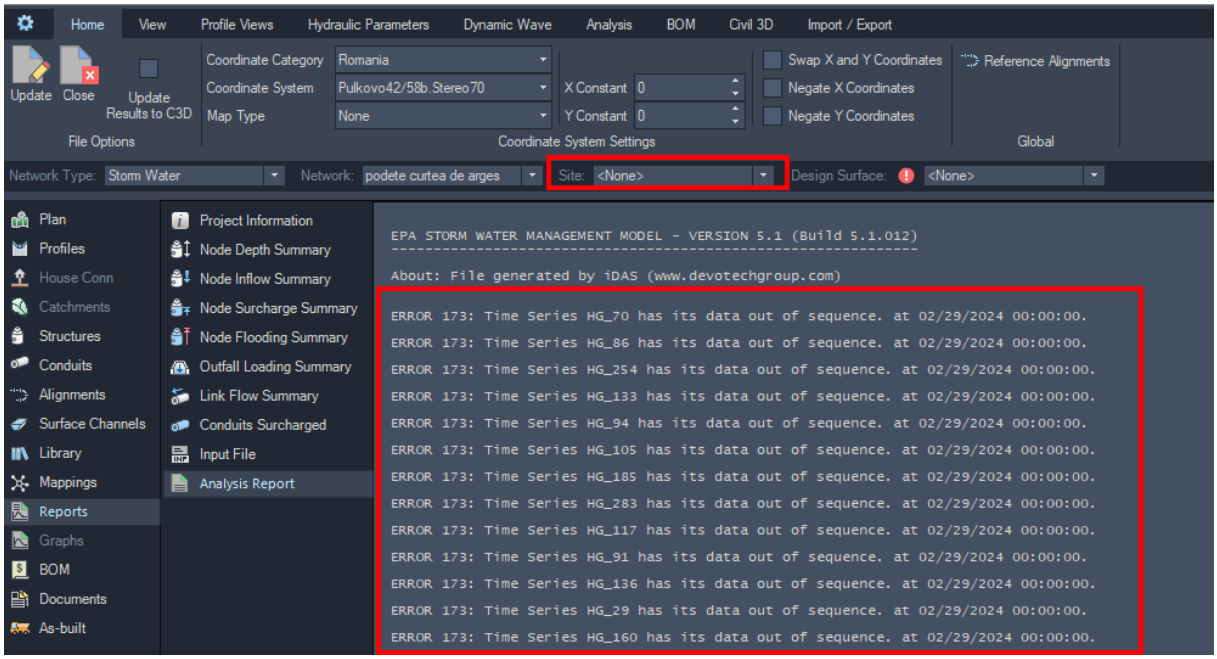
The BOM grids do not display pipe or structure quantities in the last column if the excavation depth is greater than the last depth category. This has been fixed and the final column will now display the quantities correctly.

Conduit mapping not working with "[" characters

If a style included a "[" character the style mapping would fail. This has been corrected and styles can now contain "[" characters.

<None> sites do not clear hydrograph data when analyzing

When working with stormwater and the site drop-down is changed to "<None>" the hydrographs from the previous site are not cleared and then when the network is analyzed the analysis fails with multiple 173 errors. This has been fixed.



Pattern and curve grids show blank when scrolling

Occasionally, when scrolling in the patterns or curves grid in the library, the grid shows a blank area. This has been fixed.

Sewer house connection types grid shows incorrect color

The house connections type grid shows the incorrect text color for newly added connection types. This has been fixed.

Sewer house connections new inflow groups unavailable in inflow group drop-down in grid

When a new inflow group is created it will not appear in the inflow group drop-down in the house connection grid until the pipe manager is restarted. This has been corrected and the new group will appear immediately.

Sewer house connections grid columns rearranged

The sewer house connections flow columns have been rearranged into a more logical order.

Offset alignment in profile tab not being restored after pipe manager reopened

The offset alignment in the profile tab is not remembered after closing and reopening the pipe manager. This has been fixed.

Inflow time pattern in sewer house connection grid not being restored after pipe manager reopened

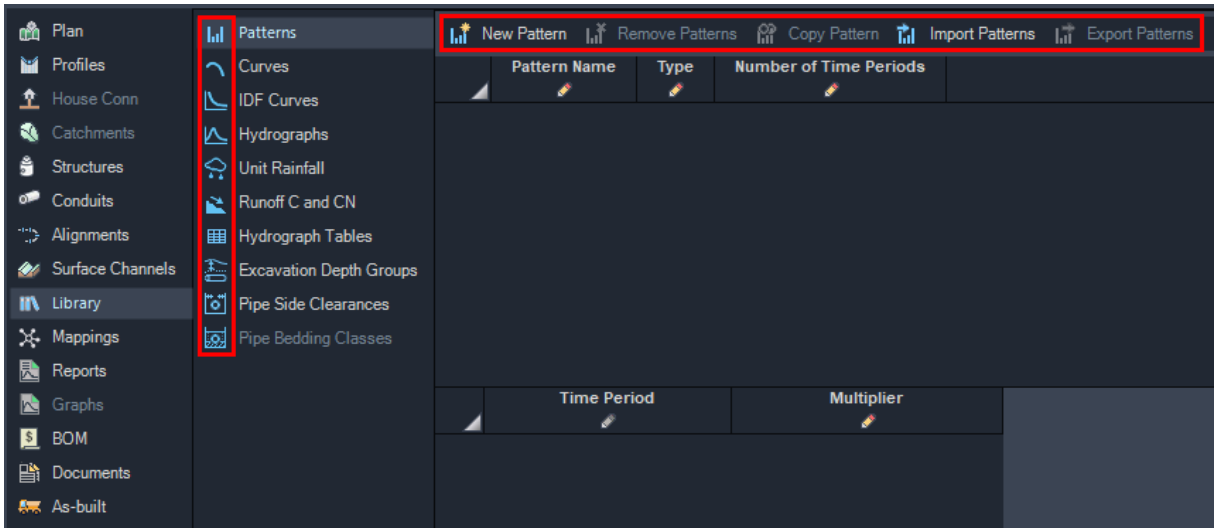
The inflow time pattern in the sewer house connection grid is not remembered after closing and reopening the pipe manager. This has been fixed.

Pipe adjustment value in the profile views ribbon tab not being restored after pipe manager reopened

Pipe adjustment value in the profile views ribbon tab is not remembered after closing and reopening the pipe manager. This has been fixed.

New icons for the library tab

The library tab icons have been updated with new icons to make the color scheme more consistent.



Node based controls for pumps and valves do not work

The node-based controls for pumps and valves are incorrectly generated during the EPANET analysis. This has been corrected but there are some known issues regarding link naming and the controls. See the known issues section.

Water controls not displaying drop down option in grids

When the pipe manager is first opened the control grids do not show the drop-down options when clicking in certain cells. This has now been fixed and the drop-down menus will show for all applicable cells.

Water pump speed pattern used as price pattern

When a pump speed pattern is applied to a water pump the speed pattern is also applied as the price pattern in the analytical engine. This has been fixed.

Water tank minimum volume value not editable

The water tank's minimum volume cannot be edited by the user. This has been fixed and is now editable.

Catchment error when flow path is not within a surface

Fixed an error that would display if a catchment flow path was not drawn within the extents of a surface.

Report graphs not displaying correctly

Flooded nodes do not display any graphs. This has been fixed and will now display correctly. Also, in some instances, the displayed charts will be shown very small at the bottom of the dialog. This has now been fixed and all displayed charts will now be evenly distributed.

Map pan and zoom

The map panning has been changed from left mouse button to middle mouse button to be more in line with Civil 3D panning.

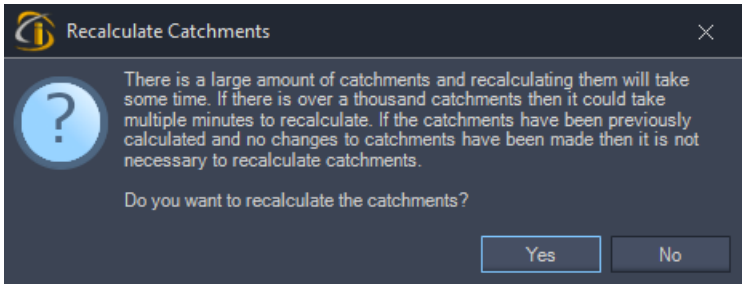
Zoom level has been increased when there is no imagery displayed in the background of the map (Map Type set to None). This allows for easier selection of pipe and structures that are drawn very close to each other.

Grid heights on high resolution

Fixed grid rows displaying too small on high resolution screens.

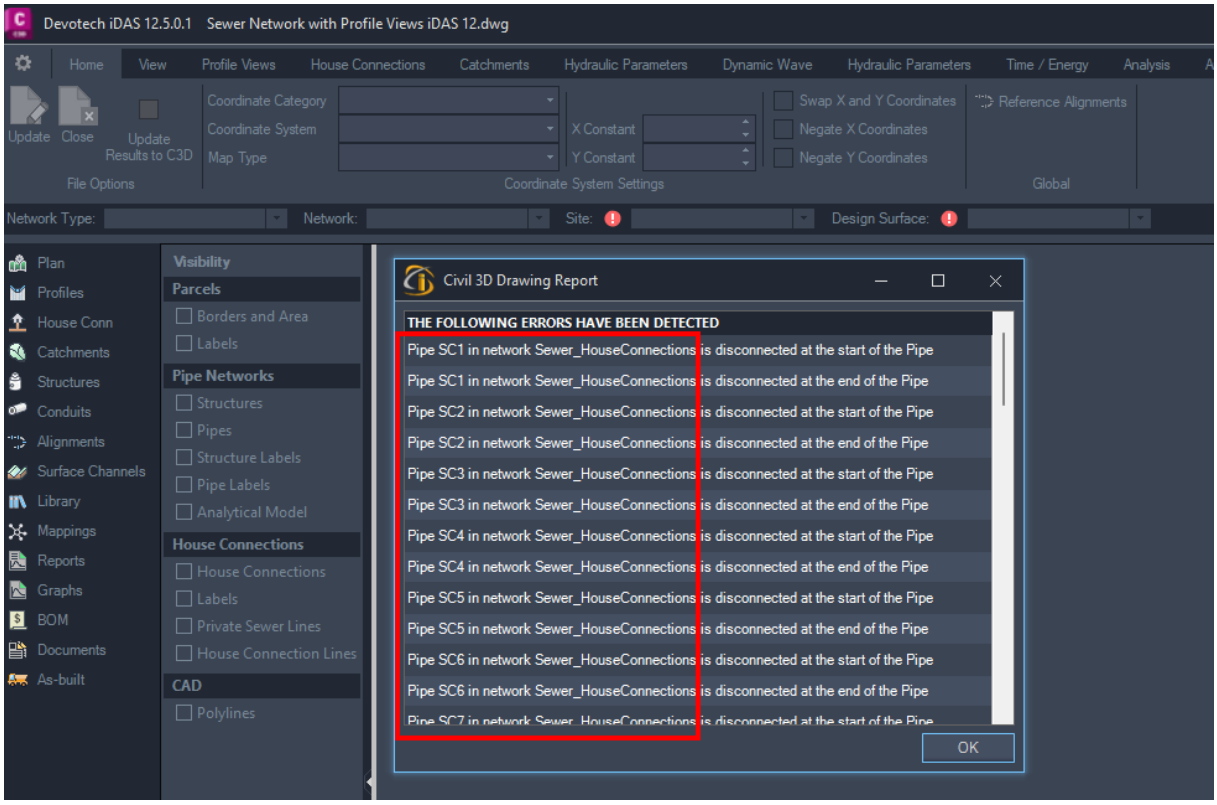
Stormwater Catchment recalculation when analyzing

When analyzing large networks with many catchments the catchment calculation stage can take a while to analyze. In order to improve analysis time, the dialog below will now be displayed if the drawing contains more than 200 catchments. This gives the user the option to recalculate catchments, which is only necessary if there were changes to a catchment since the last analysis was run.



Sewer house connection error report

When opening the pipe manager when a drawing contains a sewer house connections network a report error would be displayed for each house connection indicating that the pipe does not have a connected structure. This has now been fixed and any networks with a name ending in "_HouseConnections" will be excluded from the connected structure check.

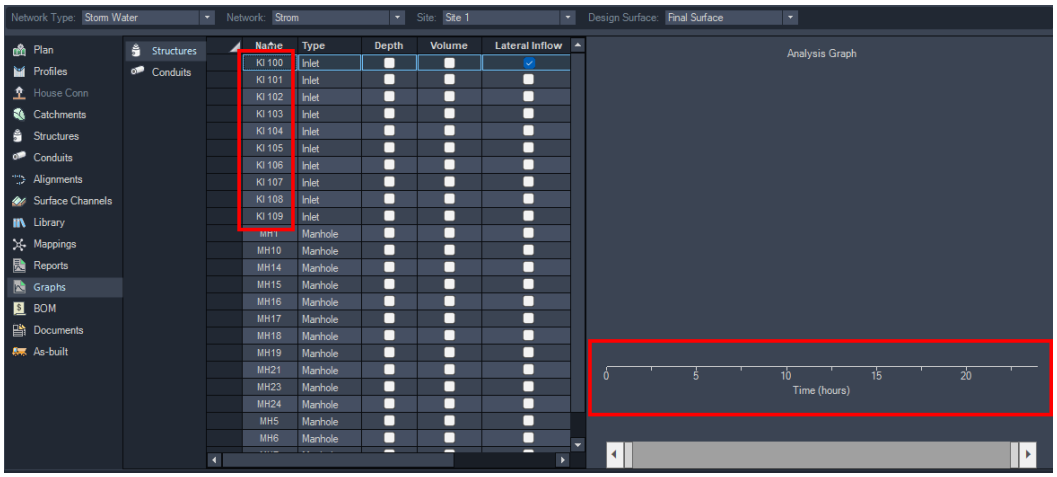


Catchment flow path override reverts value to default value

When overriding the catchment flow path length for the **Hydrograph** hydrology method the override would revert to the length of the polyline.

Empty graphs if sewer or storm water parts contain spaces

If a pipe or structure contains a space the results graphs would display empty. This has been fixed.



Multiple catchment hydrographs not merging

When using the **Hydrograph** hydrology method, if multiple catchments were assigned to one structure the catchment hydrographs would not be merged and only one hydrograph would be used. This has been fixed.

Stormwater catchment incorrect average slope heading for hydrograph method

The average slope column for catchments in the hydrograph method showed the average slope as being a percentage. This has been fixed and changed to show the average slope as m/m

Stormwater storage tanks, weirs, orifices and outlets improvements

Many fixes and improvements were done to storage tanks, weirs, orifices and outlets. Below are a few of the most notable changes.

Storage tanks

- The user can now assign a custom storage curve. This allows for a tank to be modeled as per the manufacturers specifications.
- The closest storage tank to a weir, orifice or outlet is always determined and assigned when the pipe manager opens

Orifice

- Height and width do not automatically populate and now they are completely user driven to provide maximum flexibility
- Discharge coefficient gets a default values when changing the shape and has a default value for a circular shape when it is first created, otherwise it is completely user driven
- Updated all number column formats to 3 decimal places

Weir

- Default coefficient set first time a weir is created
- Height and width do not automatically populate and now they are completely user driven to provide maximum flexibility
- Updated all number column formats to 3 decimal places

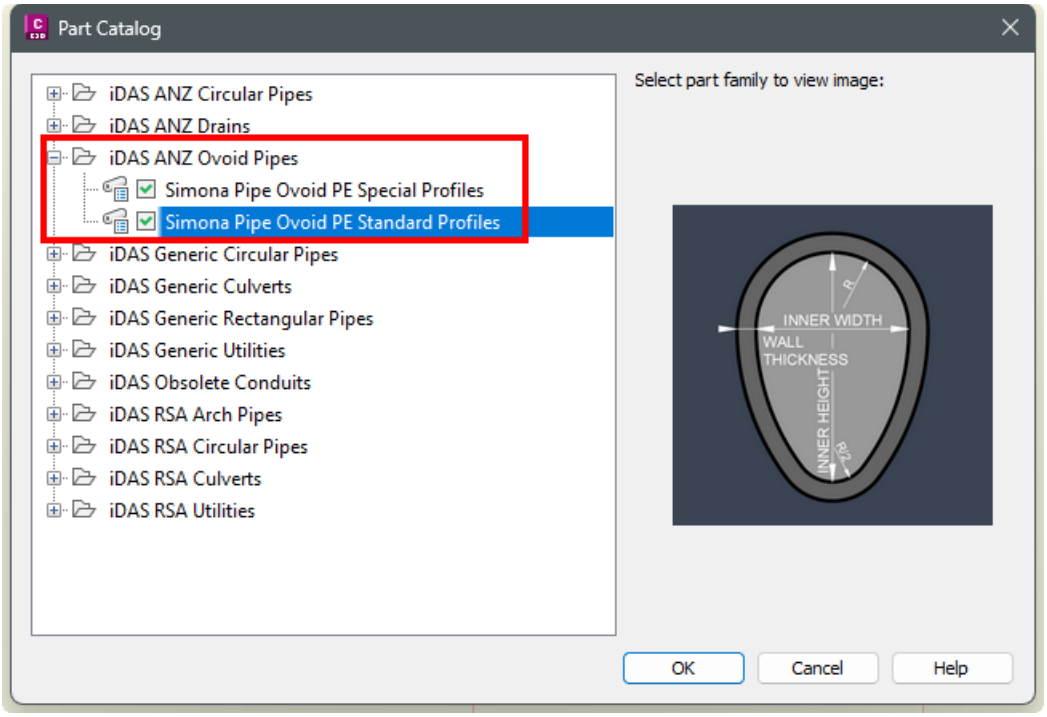
Outlets

- Set default coefficient to 10 as per SSA and EPASWMM
- Set default exponent to 0.5 as per SSA and EPASWMM
- Updated all number column formats to 3 decimal places

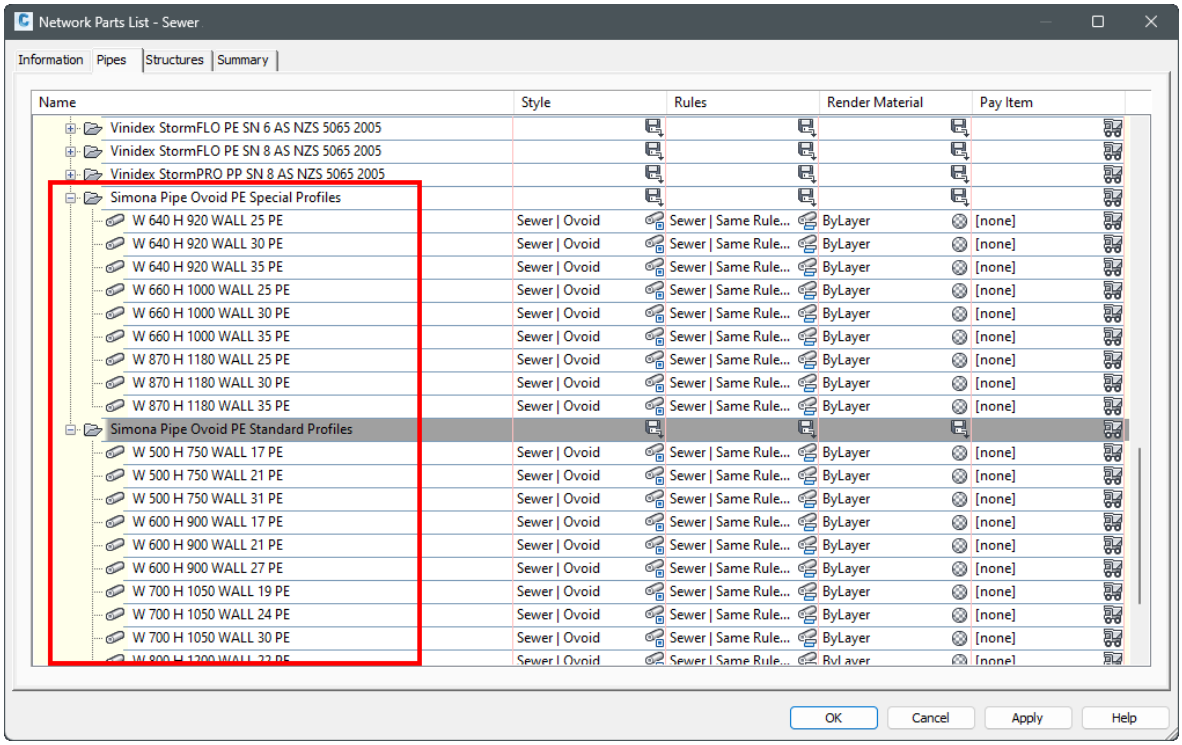
iDAS PIPE NETWORK CATALOG IMPROVEMENTS

New pipe families

Simona Ovoid Pipes



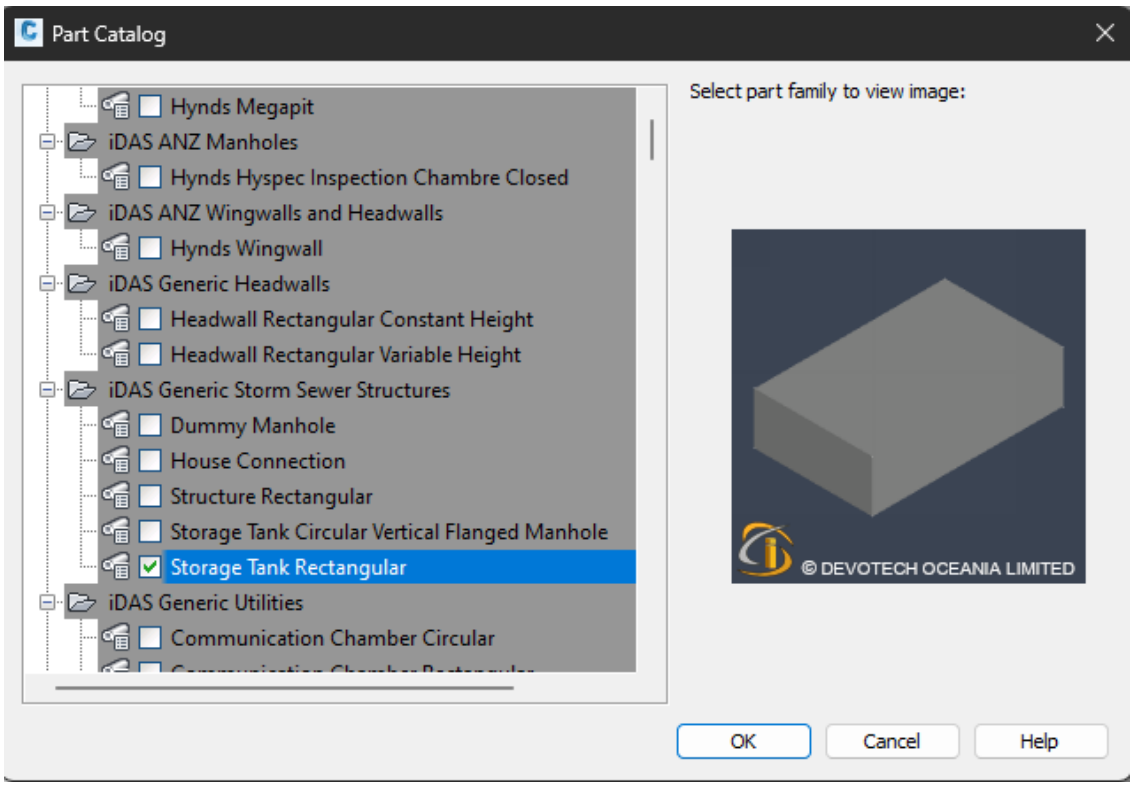
They are available in iDAS ANZ template (Stormwater and Sewer part lists), but they can be imported to any template:



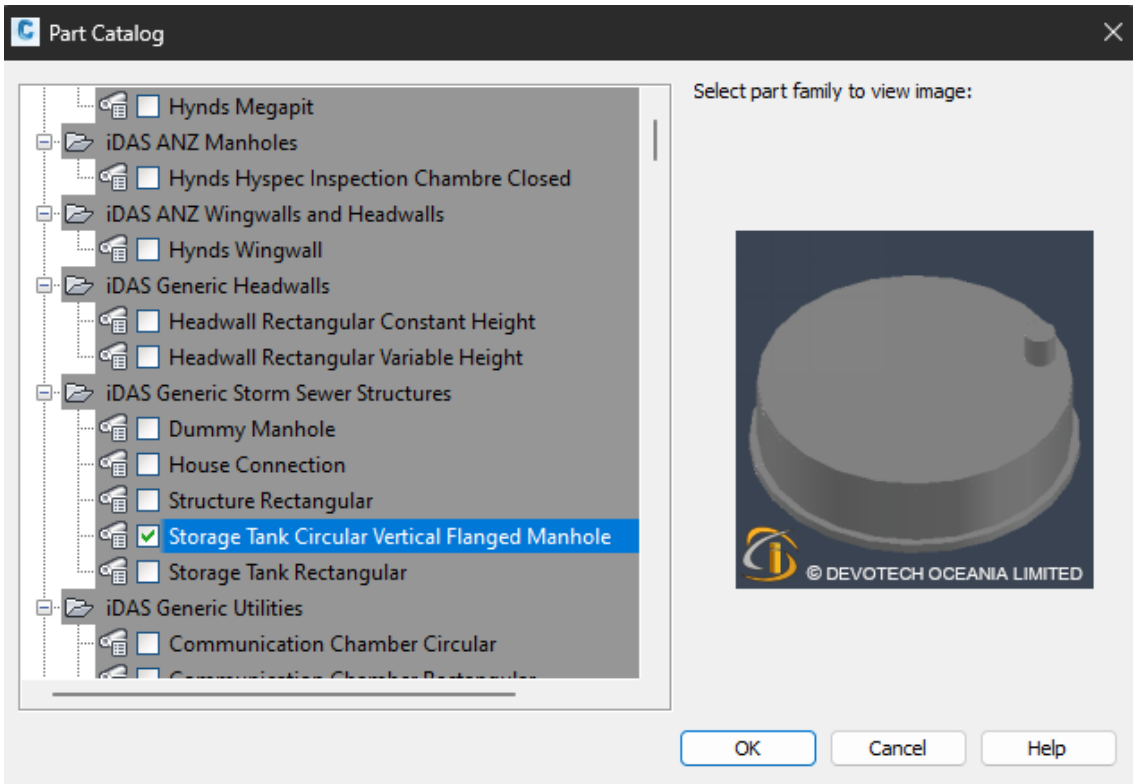
Note that ovoid pipes cannot be analyzed in the Pipe Manager.

New Structure Families

Storage Tank Rectangular

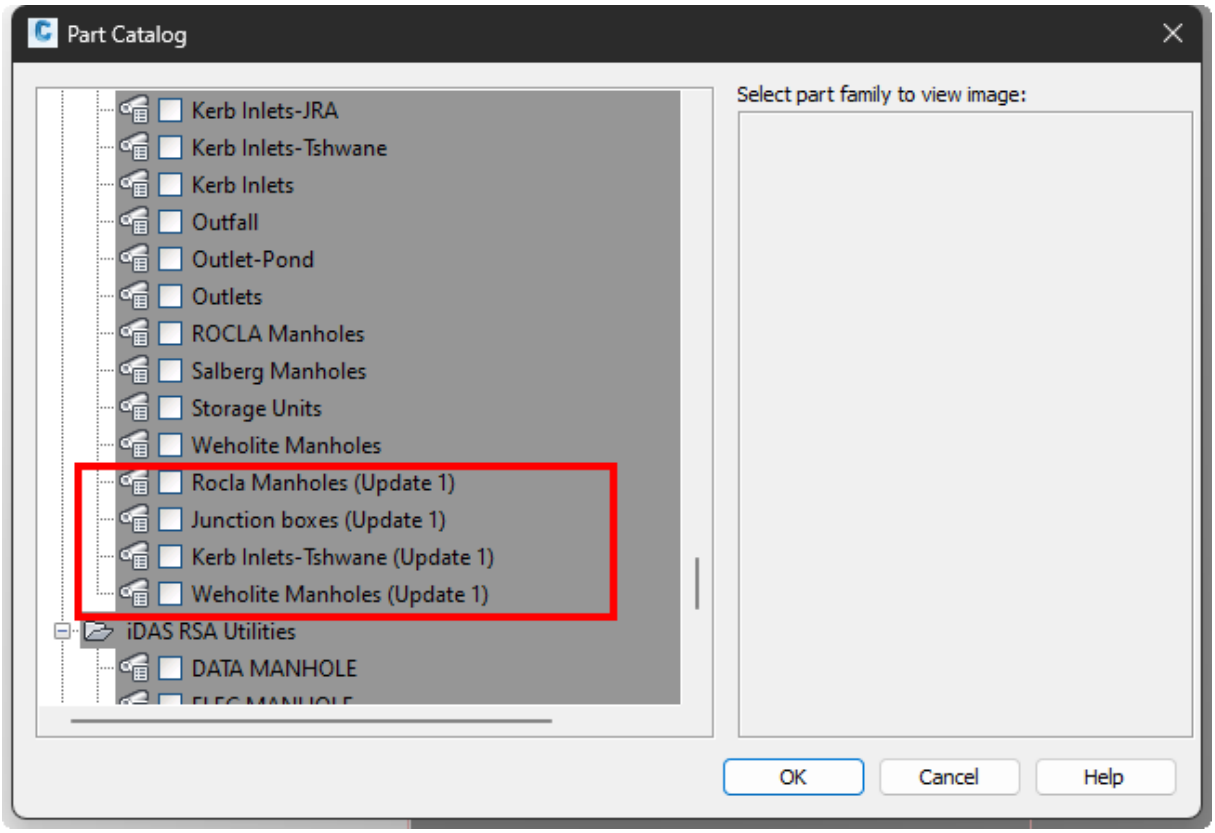


Storage Tank Circular Vertical Flanged Manhole



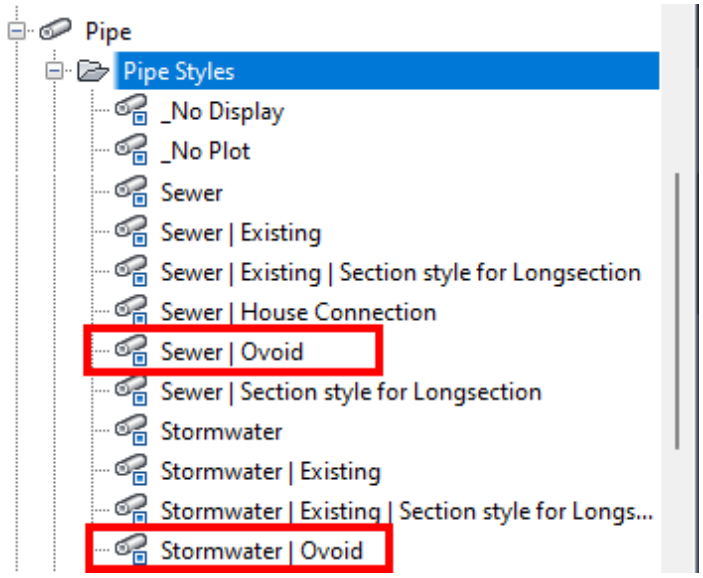
Updated structure families

- Rocla Manholes (Update 1)
- Weholite Manholes (Update 1)
- Junction boxes (Update 1)
- Keb Inlets-Tshwane (Update 1)



iDAS C3D TEMPLATE IMPROVEMENTS

New pipe styles for ovoid pipes

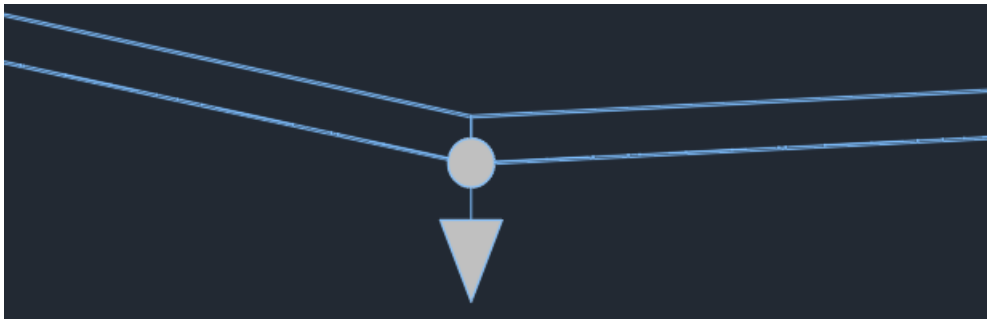


Incorrect Kerb inlet part size name

Some kerb inlets in the parts lists had the incorrect part size name assigned. This has been corrected.

Scour Valve Symbol Position in Profile view

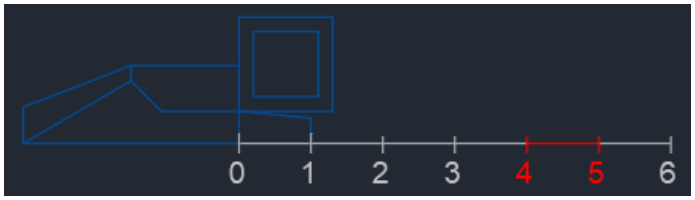
The scour valve symbol is displayed at the pipe invert in the profile view:



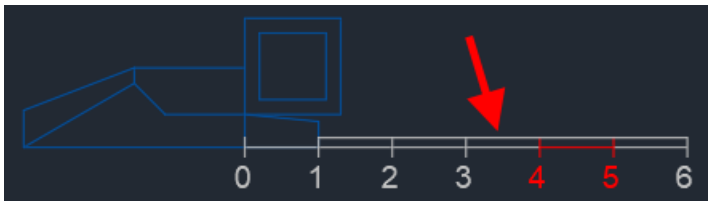
Tshwane curb inlet styles with distance ruler adjustments

Tshwane curb inlet styles were modified to overcome the Civil 3D bug which caused the structure labels to be locked to their position (when the structure label was moved, it always reverted to its original position). This bug seems to be caused by the block object that does not form a closed boundary. Adding a double lane to the distance ruler solved the problem.

Before:

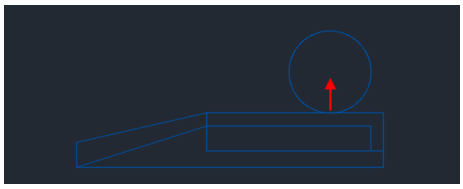


After:



Kerb inlet styles adjustments

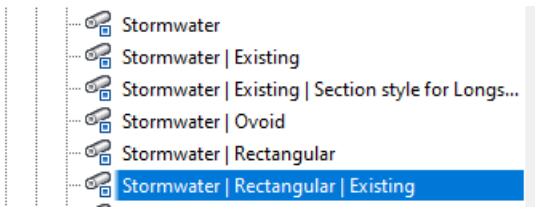
Various curb inlet styles were modified to overcome the Civil 3D bug which caused the structure labels to be locked to their position (when the structure label was moved, it always reverted to its original position). This bug seems to be caused by the block object that does not form a closed boundary. Moving the curb shape one millimeter up to overlap with the circle solved the problem (if the circle touched the curb shape at one-point, Civil 3D struggled to form a closed boundary).



Modified inlet blocks (XXX in the list below represent other characters)**:**
Structure-Storm-Kerb Inlet XXX
Structure-Storm-Kerb Inlets-JRA XXX
Structure-Storm-Kerb Inlets-Tshwane XXX

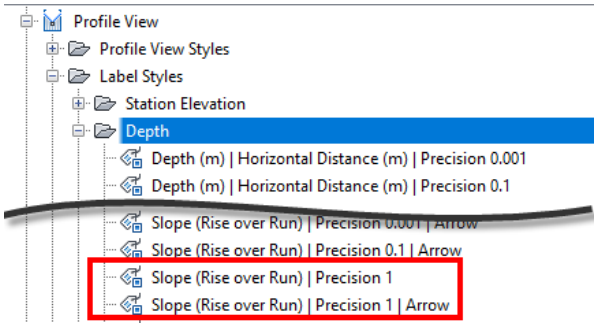
New stormwater pipe style for rectangular pipes

The new pipe style **Stormwater | Rectangular | Existing** was added:



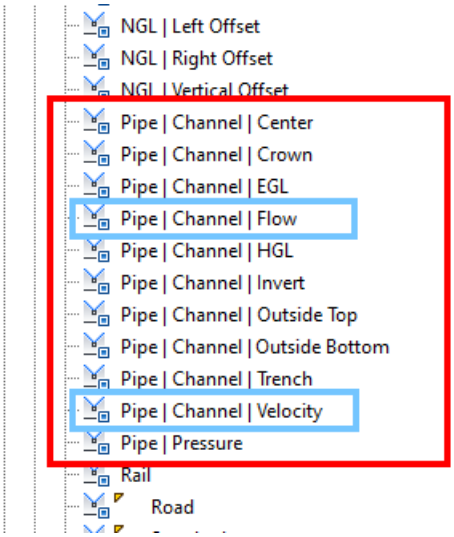
New profile view depth label styles

The new profile view depth label styles with "**Precision 1**" for the slope defined by **Rise over Run** were added:



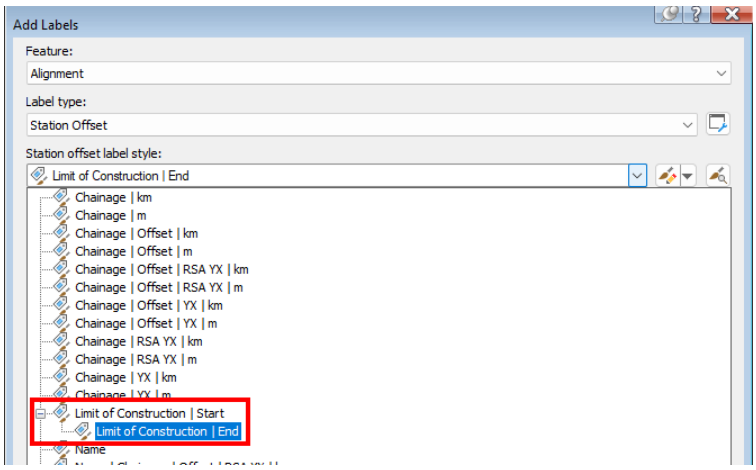
New pipe profile styles

The new pipe and channel profile styles for the **flow** and **velocity** were added and existing pipe profiles were renamed to also include **| Channel |:**

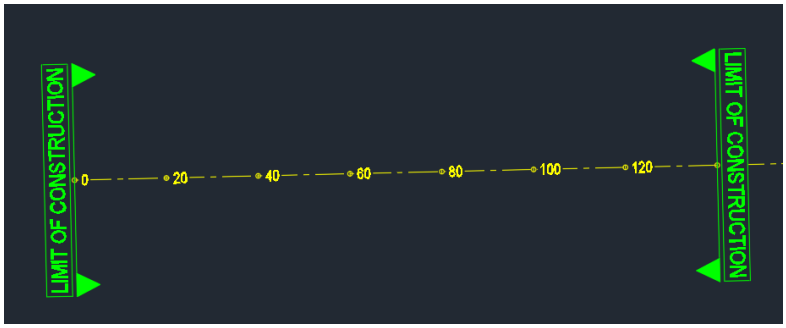


New limit of construction alignment label

The new alignment station offset labels to define the limit of construction were added:

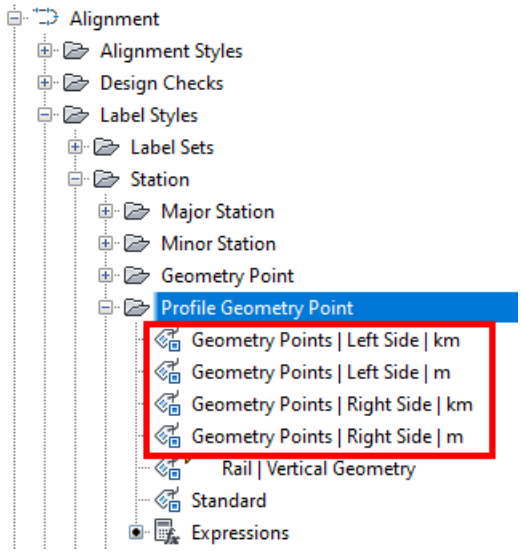


Preview in plan:



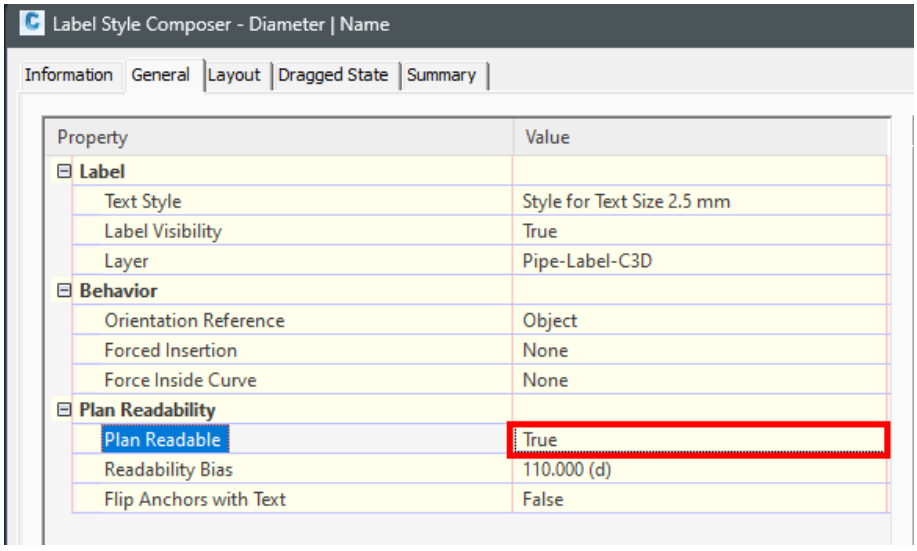
Alignment profile geometry point labels name adjustment

Alignment profile geometry point labels were renamed because they can be used for any geometry point, not just for High or Low points as the original name stated:



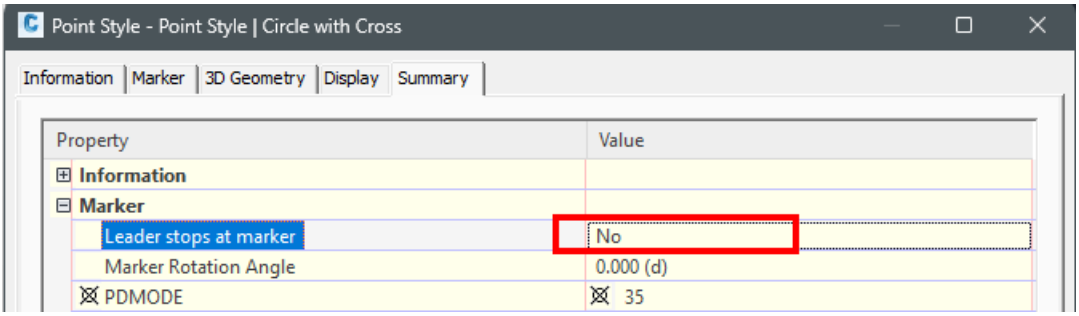
Pipe and structure labels readability adjustment

All the pipe and structure labels have plan readability set to **True**:



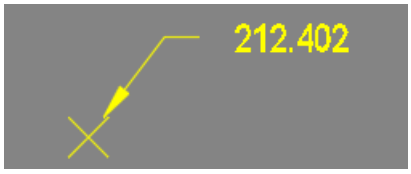
Point style leader settings adjustment

The **Leader stops at marker** setting was set to **No** for the point styles:



This setting forces the leader to not to stop at the point marker boundary but to extend to the point center:

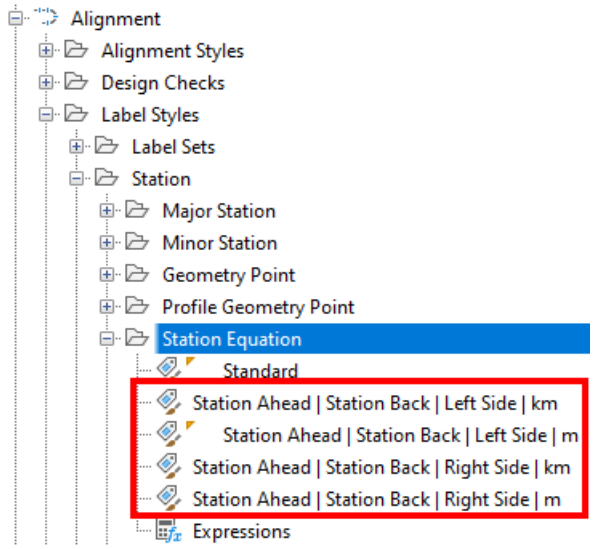
Before:

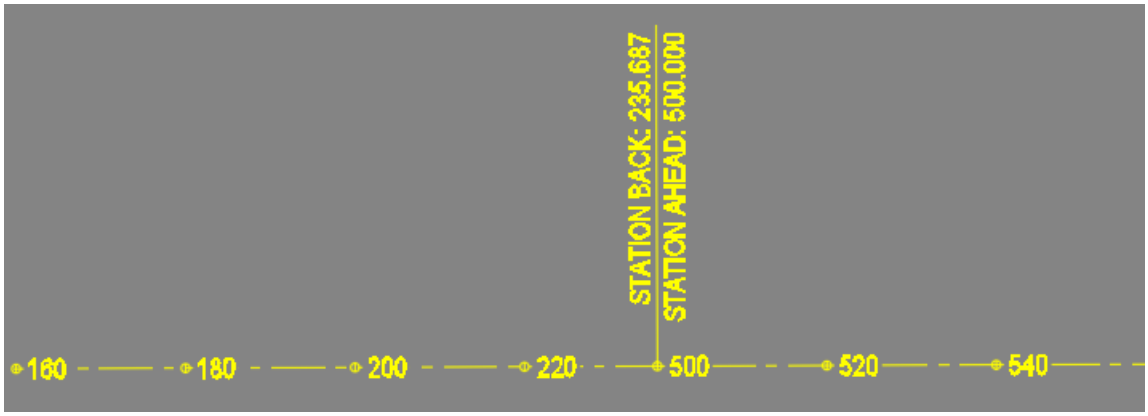


After:

New alignment station equation labels

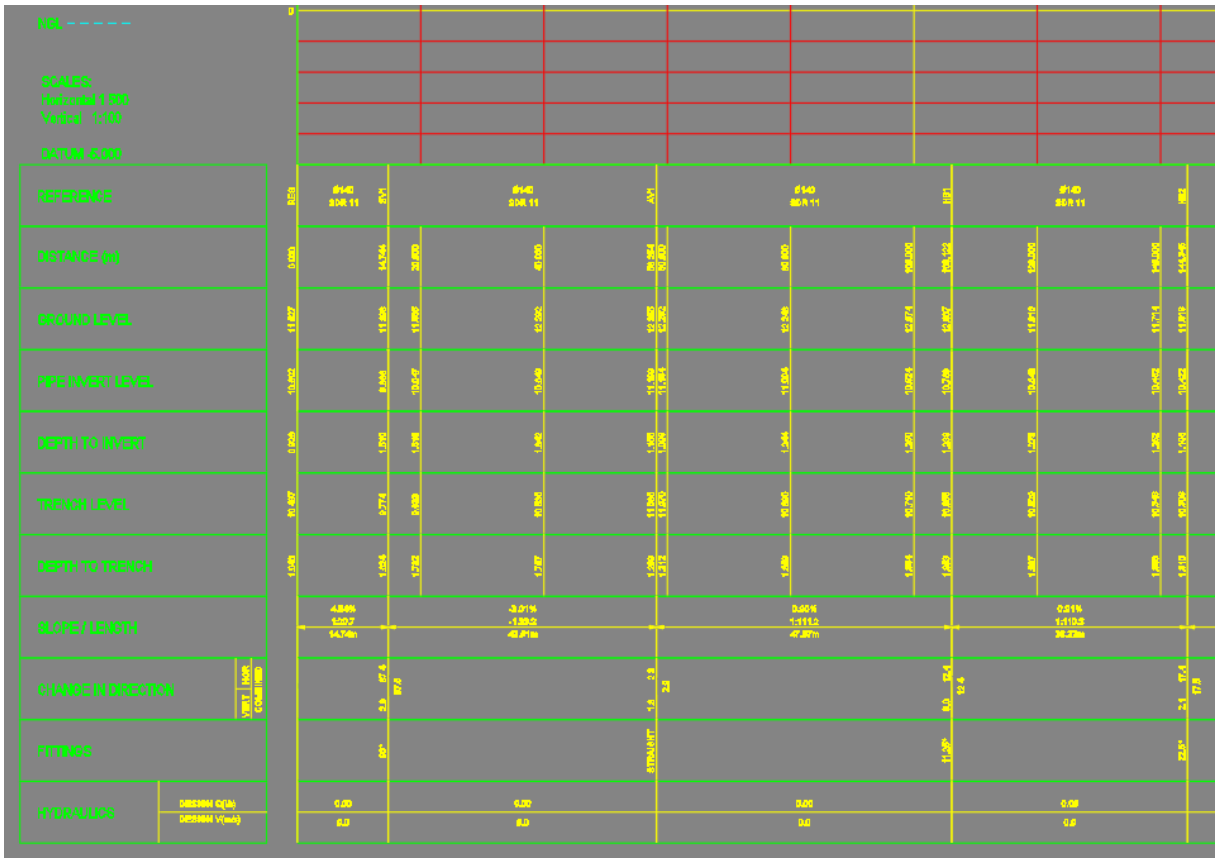
The new styles for alignment station equation were added:





New band set for bulk water pipelines

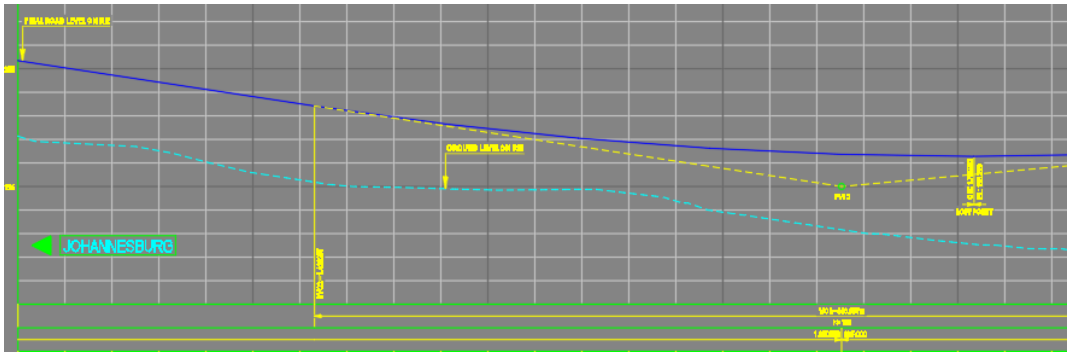
New bulk water pipeline band set 3 and corresponding profile view style were added. This band set makes cleaning up overlapping labels much easier. It was used in the **Clean-up overlapping labels in profile view** video:
https://www.devotechgroup.com/bulk-water-training?wix-vod-video-id=93264f7895a44e0284c6f0357dc673a6&wix-vod-comp-id=comp-jck6l0rb



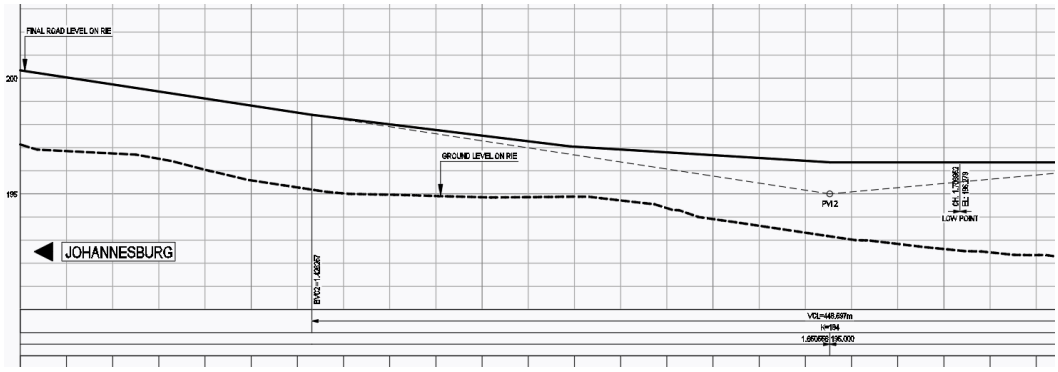
Profile view grid colors adjustments

Profile view grid colors were changed to grey for the major grid (color 252) and minor grid (color 253) to make the design features (profiles, structures, pipes and labels) more visible in the printed drawings.

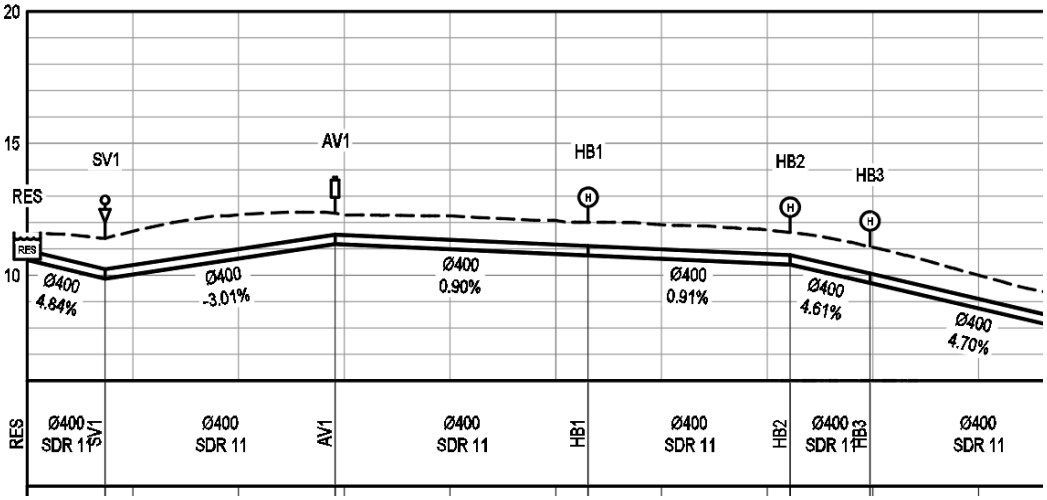
Road profile view example in the model space:



Road profile view example in the paper space:

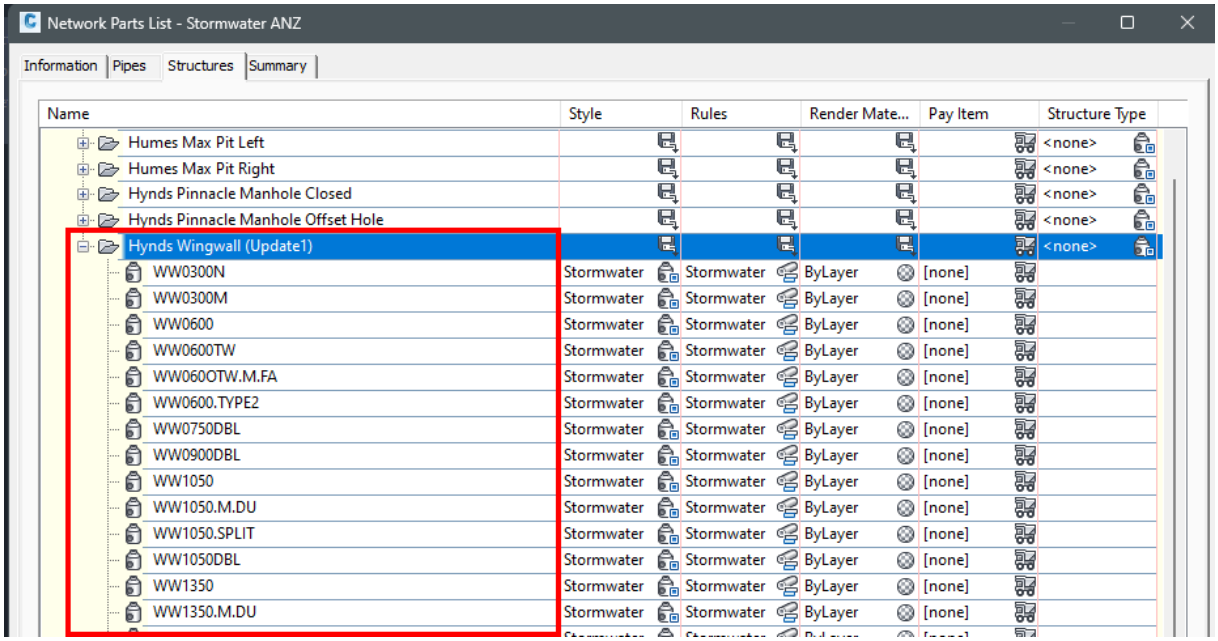


Bulk water pipeline profile view example in the paper space:



Imported Hynds wingwalls to ANZ Stormwater part list

Hynds wingwall structures were imported into Stormwater part list:

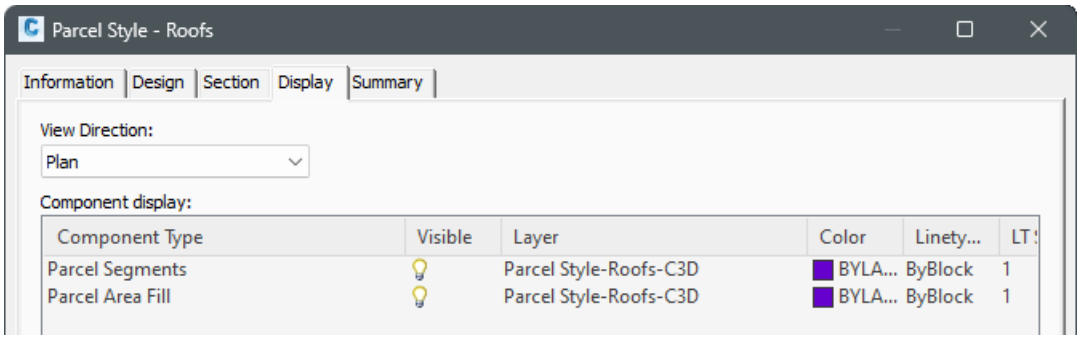


New outfall structure style

The new outfall structure style was added:
Stormwater Outfall | Plan-3D Solid | Profile-Boundary

New parcel style for roofs

The new Roofs parcel style was added:



Pipe profile styles name adjustment

Pipe profile style names were adjusted to also include the channels, for example **Pipe Invert** profile style was renamed to **Pipe | Channel | Invert**.

New profile styles for pipes and channels

The following new profile styles for pipes and channels were added:

- Pipe | Channel | Flow
- Pipe | Channel | Velocity
- Pipe | Channel | Freeboard

Deleted profile styles

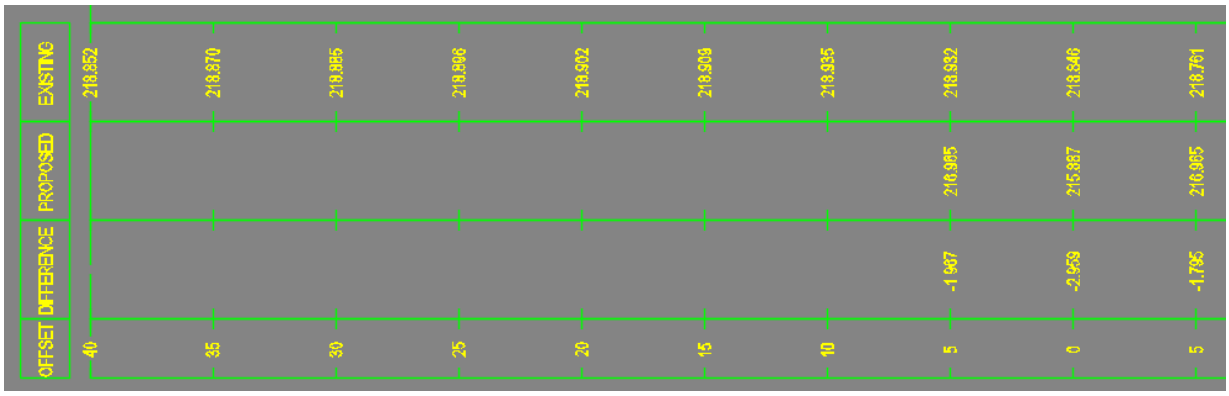
The EGL and HGL profile styles were deleted because users can use Pipe | Channel | EGL and Pipe | Channel | HGL profiles.

New section view bands and bend set

The following new section view bands were added:

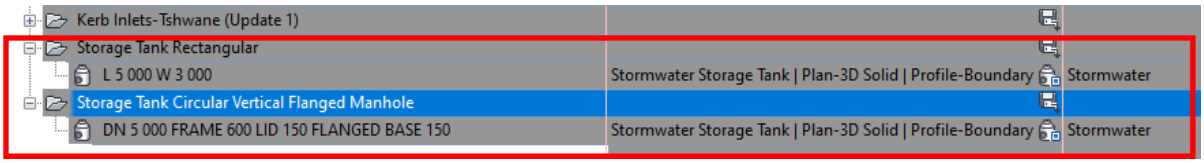
- Difference | Surface1 Top | Surface2 NGL
- Existing | Surface1 NGL | Surface2 NA
- Offset | Surface1 NA | Surface2 NA
- Proposed | Surface1 Top | Surface2 NA

These bands are part of new section view band set:
Existing | Proposed | Difference | Offset



Storage tank structures in stormwater part lists

Storage tank structures were imported to Stormwater ANZ and RSA part lists:

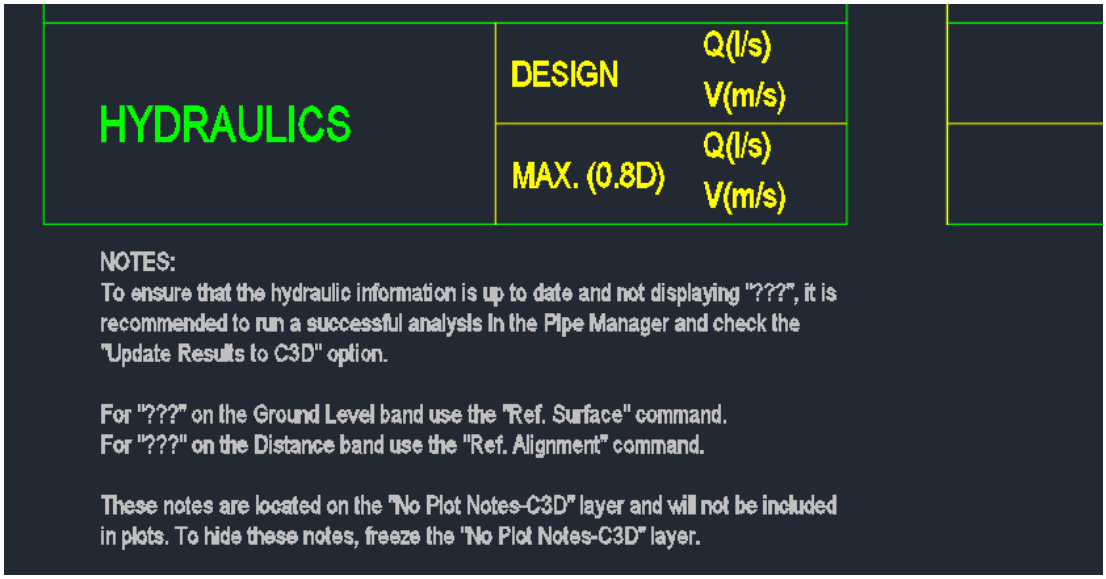


Orifice and weir styles adjustment

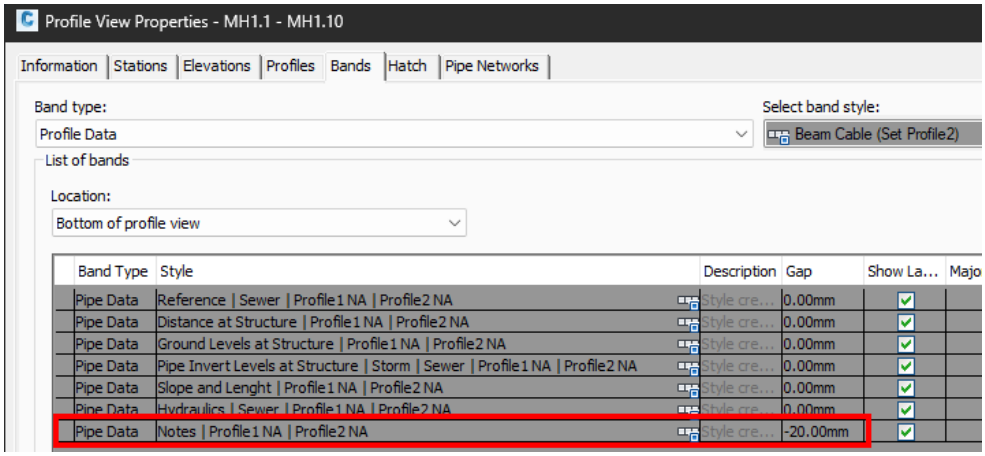
The orifice styles have prefix “O” and the weir styles have prefix “W” in the plan and profile:

Note related to question marks in the profile views

A note was added to each pipe network profile view band set to assist users to remove question marks from some profile view bands (Distance, Ground Level, Hydraulics):



This note is in a separate band. It uses -20 mm offset to not have an impact on the plan production when longitudinal section height is calculated from the profile view height and profile view band set height:



iDAS AND CIVIL 3D HELP IMPROVEMENTS
New chapters
iDAS Template Versions and Updates

This chapter provides details about iDAS Civil 3D template released with iDAS. Below is a chapter example:

Devotech iDAS and Autodesk Civil 3D Help – Devotech RSA Drawing Template Manual *Page **468** of **1272***

iDAS Template Versions and Updates

When the template is updated, a new version number is assigned. The number of template updates between new iDAS releases varies, therefore, only the most recent template version is released. For example, the template released with iDAS 12.4 has number 336, but the template version released with the following iDAS version 12.4 Update 1 is not 337 but 338 because there were two updates done on the template between the consecutive iDAS releases.

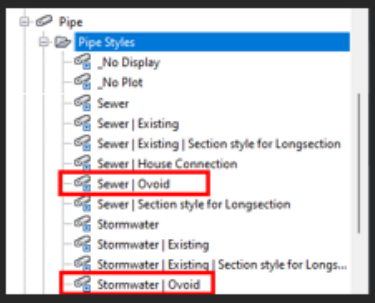
Below is a list of updates for each template version. We started to record these changes from the template version 339.

Version 339

Update date: 2024-01-09.

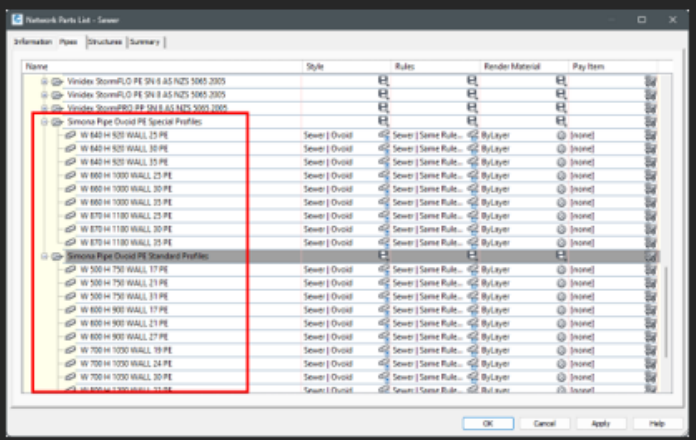
New pipe styles for ovoid pipes

The **Sewer | Ovoid** and **Stormwater | Ovoid** pipe styles were added to iDAS Civil 3D template:



Simona Ovoid Pipes were added to part lists

Simona ovoid pipes were imported to iDAS ANZ template (Stormwater and Sewer part lists).



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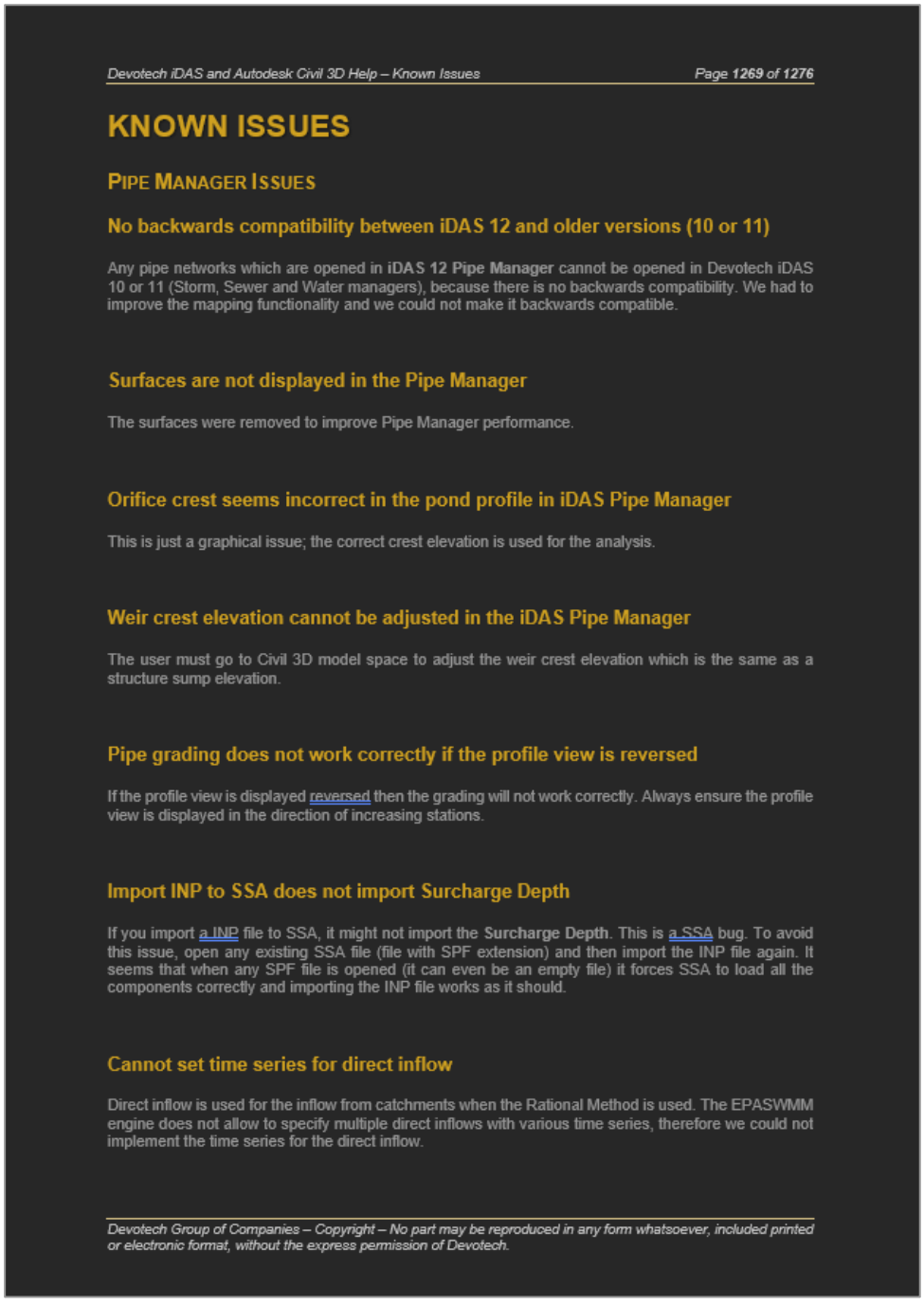
Known Issues

Known issues chapter was added to the help file for a quick reference:



Devotech iDAS and Autodesk Civil 3D Help – Known Issues *Page **1269** of **1276***

KNOWN ISSUES

PIPE MANAGER ISSUES

No backwards compatibility between iDAS 12 and older versions (10 or 11)

Any pipe networks which are opened in **iDAS 12 Pipe Manager** cannot be opened in Devotech iDAS 10 or 11 (Storm, Sewer and Water managers), because there is no backwards compatibility. We had to improve the mapping functionality and we could not make it backwards compatible.

Surfaces are not displayed in the Pipe Manager

The surfaces were removed to improve Pipe Manager performance.

Orifice crest seems incorrect in the pond profile in iDAS Pipe Manager

This is just a graphical issue; the correct crest elevation is used for the analysis.

Weir crest elevation cannot be adjusted in the iDAS Pipe Manager

The user must go to Civil 3D model space to adjust the weir crest elevation which is the same as a structure sump elevation.

Pipe grading does not work correctly if the profile view is reversed

If the profile view is displayed reversed then the grading will not work correctly. Always ensure the profile view is displayed in the direction of increasing stations.

Import INP to SSA does not import Surcharge Depth

If you import a INP file to SSA, it might not import the **Surcharge Depth**. This is a SSA bug. To avoid this issue, open any existing SSA file (file with SPF extension) and then import the INP file again. It seems that when any SPF file is opened (it can even be an empty file) it forces SSA to load all the components correctly and importing the INP file works as it should.

Cannot set time series for direct inflow

Direct inflow is used for the inflow from catchments when the Rational Method is used. The EPASWMM engine does not allow to specify multiple direct inflows with various time series, therefore we could not implement the time series for the direct inflow.

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iDAS Commands chapter improvement

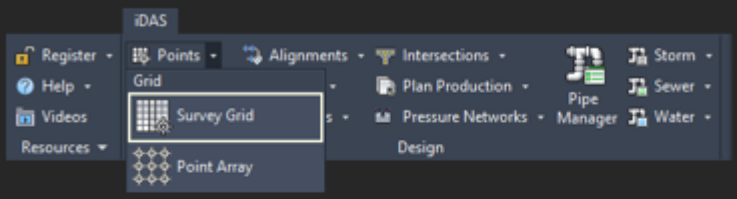
The following items were added to each command:

- **Description**
- **Location on Compact Ribbon**
- **Location on Extended Ribbon**
- **Instructions**

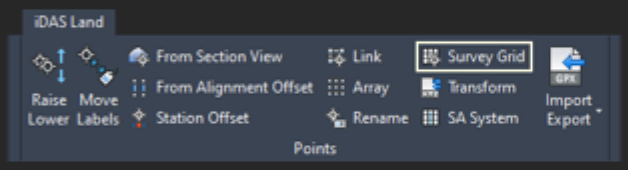
Survey Grid Command

Description:
Creates a survey grid within a polyline's extents.

Location on Compact Ribbon:

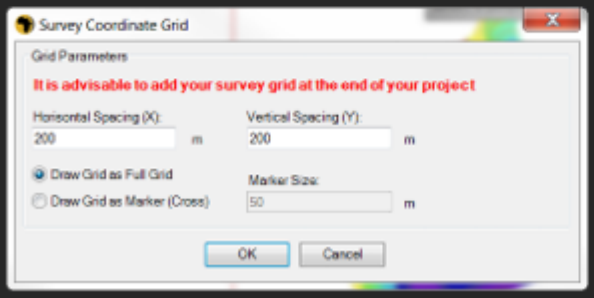


Location on Extended Ribbon:



Instructions:
Survey Grids are often necessary for civil engineering projects. To create grids, first draw a closed polyline to specify the area in which you want to create the survey grid.

1. Click on the command in the ribbon.
2. Specify the grid spacing. If you select **Draw Grid as Marker (Cross)**, the **Grid Size** option becomes available. Otherwise, the grid lines will be created as continuous lines (full grid):



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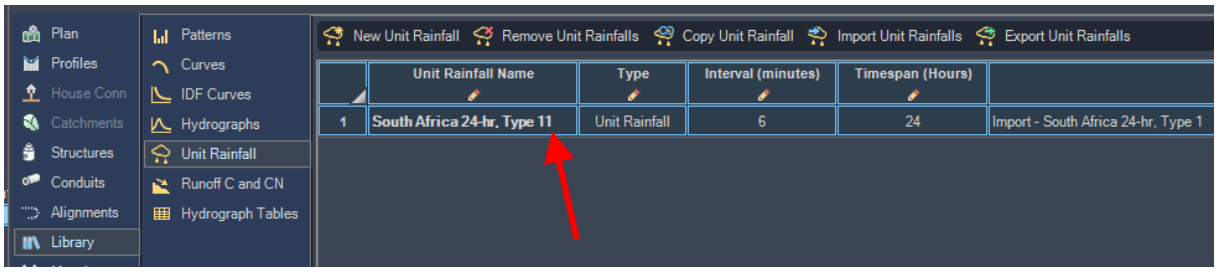
Import library objects always adds number 1 at the end of the name

This behavior changes the name of the imported object, e.g. Pattern, Curve, Hydrograph etc., therefore it does not match with the description. This behavior is intentional to avoid issues with the duplicate names.

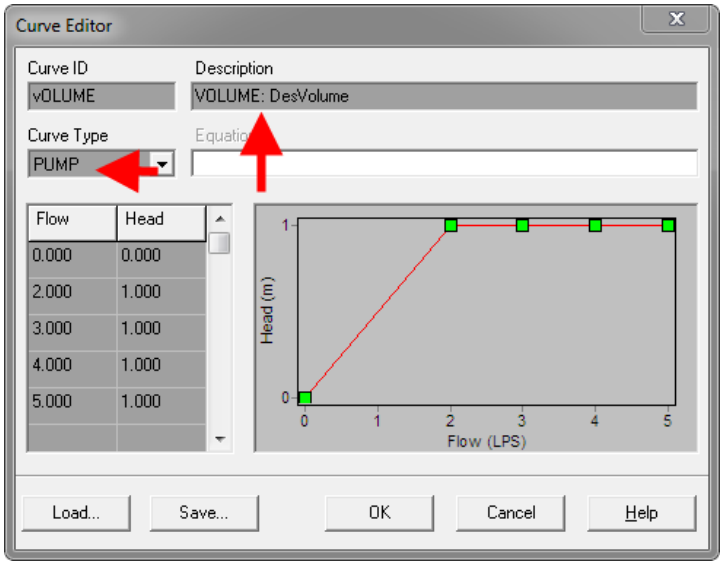


Cannot set time series for direct inflow

Direct inflow is used for the inflow from catchments when the Rational Method is used. The EPASWMM engine does not allow to specify multiple direct inflows with various time series, therefore we could not implement the time series for the direct inflow.

Curve type is not correctly imported to EPANET

When importing INP file to EPANET v 2.00.12 and newer, the curve type is not correct, all the curves have PUMP as type. This is an EPANET bug. EPANET v 2.00.10 works as expected.



Kerb inlet overflow links are not implemented

Ovoid (egg shape) pipes cannot be analyzed

Pipe mapping offers to map egg shape pipes to a pipe style but the pipes do not appear under conduits in the pipe manager.

Stormwater detention ponds have multiple bugs

Currently, it is possible to analyze a detention pond using Devotech iDAS Pipe Manager. However, there are some known bugs that we are actively working to fix in future updates.

Water controls limitations

Pipe and structure names

The pipe and structure names cannot contain any of the following words: "Node", “Link”, “If”, “Below”, “Above”, “Closed”, “Time”, “At”, “Open”, e.g.:

- Node, Node1, Node 1, Node1.1 etc.
- Link, Link1, Link 1, Link 1.1 etc.

Renaming pipe and structures used in water controls

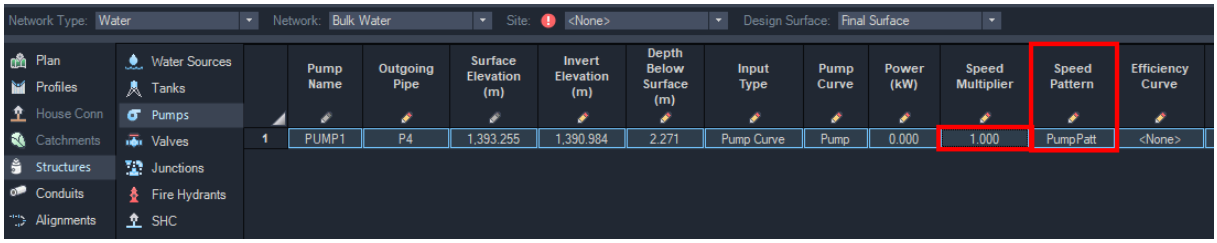
If you rename pipe or structure used in the water controls, the water controls do not update automatically, you must manually reassign pipes and structures in the water controls otherwise they will use the old name.

Water pump speed multiplier is not used

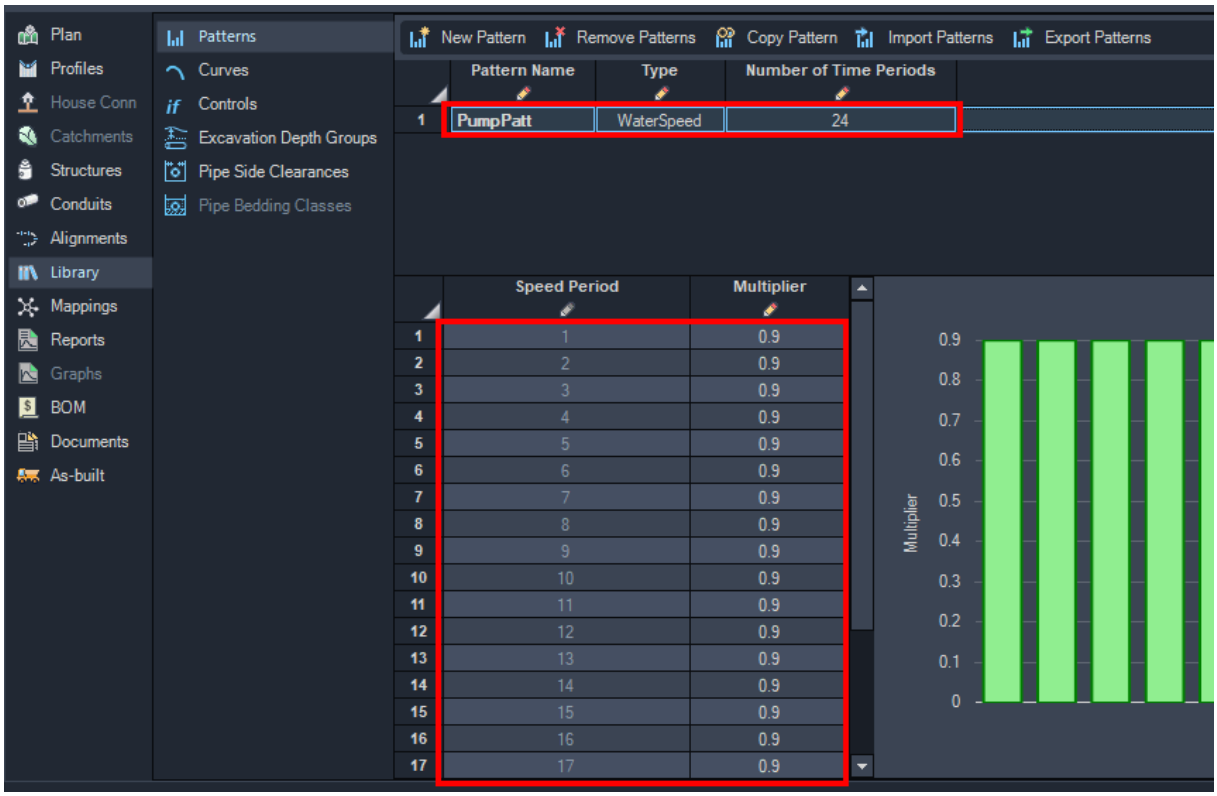
If you use pump speed multiplier then it is not used in the analysis. However, if you take the INP file generated by iDAS during the analysis and import it into EPANET, the speed multiplier will be used as expected.

iDAS uses the EPANET DLL for the analysis which has this limitation. The EPANET standalone program does not have this limitation.

If you use a pattern to override the speed multiplier, then the correct value is used (use 1 for Speed Multiplier and use the desired values in the pattern):



Pattern definition in the Library tab:



iDAS Commands Issues

Help command limitations

- Help center takes a bit longer when opened for the first time (it must load all the resources)
- The videos do not play on a single click (only sound plays), a user must double click on the video
- On some computers scrolling does not work if the Help center window is moved to a non-primary screen.

The profiles from pipes do not update dynamically

User Interface Issues

Menu bar icons might show question marks in older Civil 3D versions

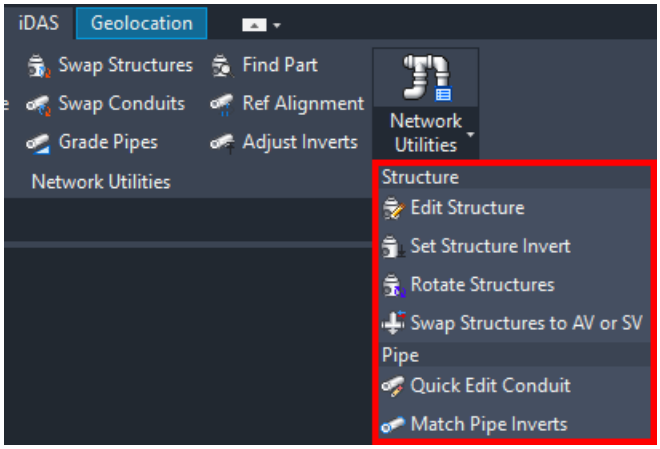
We could not find a solution for this problem.

Some icons are difficult to see on light themes

The icons were primarily developed for a dark theme therefore, the visibility might be sacrificed on light themes.

Missing commands in Network Utilities drop-down

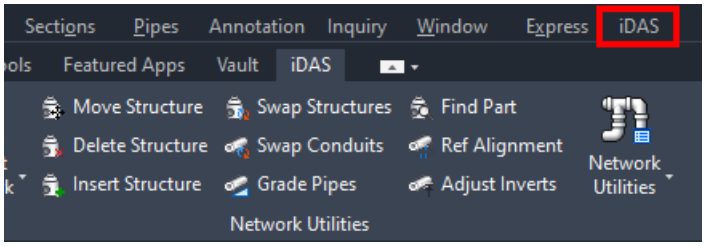
If you click on the Network Utilities drop-down (in the compact ribbon) while Civil 3D is still starting up, then the drop-down might not show all the commands:



To fix this problem, restart Civil 3D. Do not click on the drop-down while Civil 3D is still loading.

Missing iDAS menu in menu bar

If you switch between compact and extended ribbons and vice versa, then the iDAS menu might not appear in the menu bar. To fix this problem, restart Civil 3D.



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