Devotech Group of Companies

DEVOTECH iDAS v12.3

Document version: 01

DEVOTED TO ENGINEERING EXCELLENCE

CONTENT

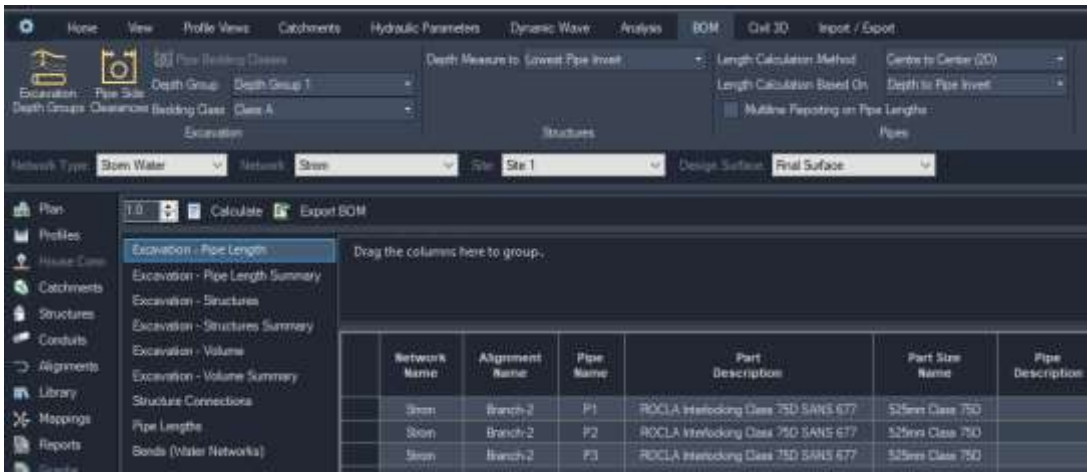
NEW FEATURES

Supported Civil 3D Versions

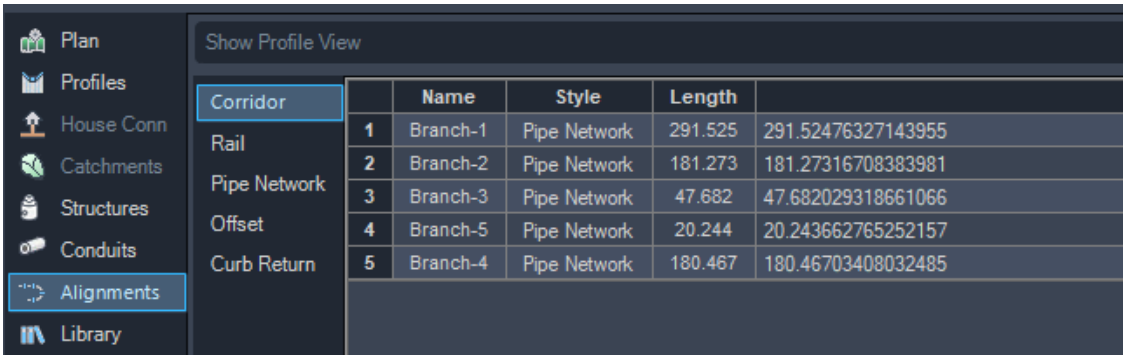
Civil 3D 2018-2023

Pipe Manager New Features

- Pipe network quantities offer more settings such as:
  - Excavation depth group
  - Structure depth measure to (Lowest Pipe Invert or Bottom of Floor)
  - Length calculation method
  - Length calculation based on
  - Multiline reporting

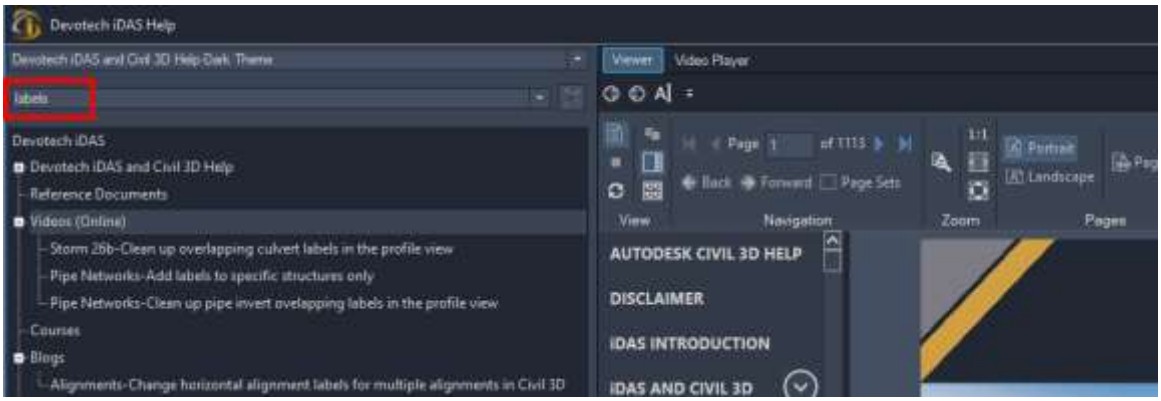


- Alignment tab was added:



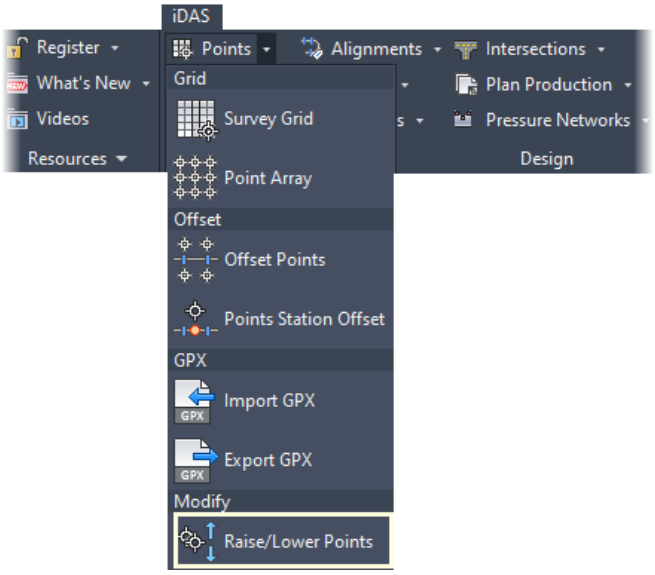
New Commands from iDAS Ribbon

- New Help system with **Search** functionality across help files, videos, and web content:



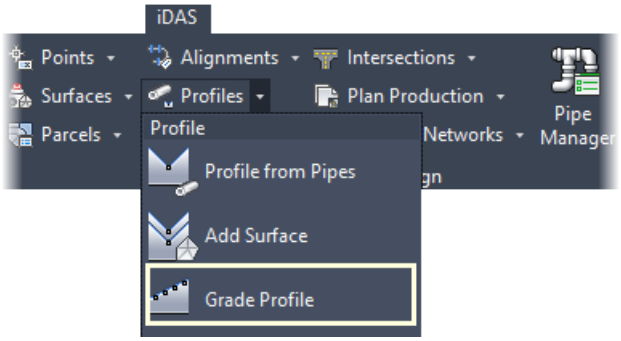
- New command: **Raise/Lower COGO Points**

  This command allows to rise or lower multiple COGO points with the specific value, or to set an elevation for multiple COGO points:



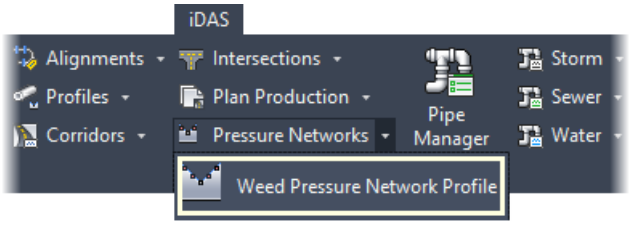
- New command: **Grade Profile**

  This command grades a profile between two selected points of vertical intersection (PVIs). The PVIs between the selected points are adjusted as well:



- New command: **Weed Pressure Pipe Run Profile**

  This command weeds a pressure network profile. All the vertices, that are not at the pressure structures, are removed:



- New **Devotech License Manager** that streamlines the registration and provides more information:

Cloud tab offers the tools for testing the connection to the cloud license server:

Pipe Network Catalog News

Devotech iDAS **does not set** the pipe network catalog automatically during installation, the user must decide which catalog he/she wants to use for the design.

Pipe Classes

We introduced more pipe classes. The details about old and new classes can be found below:

- DEV_Class – it is a string type and it shows any class from the classes below (some pipes use PN, some SDR and some SN). It can also combine two classes, for example the part Acu-Tech HDPE SDR 11 PN 16 AS NZS 4130 will have DEV_Class: SDR 11 PN 16
- DEV_Pressure_Class – it is string type, e.g.: PN 16, PN 10
- DEV_Pressure_Class_Numeric – it is a float type, e.g.: 16, 10 (this numeric value can be used for labels, expressions, calculations)
- DEV_SDR_Class – it is a float type e.g.: 11, 13.6 (this numeric value can be used for labels, expressions, calculations)
- DEV_Stiffness_Class – it is a string type used for ring stiffness SN, only a numeric value is used e.g.: 6, 8. It is a string type therefor it cannot be used for labels, expressions and calculations but we believe that it should not cause any inconveniences.

Notes:

1. The **String** type means a text, the **Float** type is a numeric type.
2. We thought that the string format will work best, hence why the **Stiffnes Class** and **Pressure Class** are strings. During development we found that the float format can be used for labels, expressions and calculations and that's why the **SDR Class**, which was developed later on, is a float type. For this reason, we added **Pressure Class Numeric**. We did not see a need to add the numeric type for the **Stiffness Class**.

Devotech iDAS is shipped with the **iDAS Pipe Catalog** which contains:

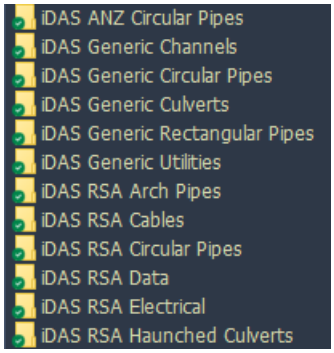
- Australia and New Zealand (ANZ) pipes and structures
- South African (RSA) pipes and structures (former **SAPC**)
- Generic pipes and structures

This catalog is saved in the following path:

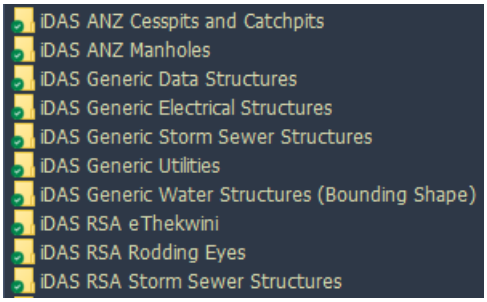
C:\ProgramData\Autodesk\ApplicationPlugins\DEVOTECH.Bundle\Contents

iDAS Pipe Catalog chapters:

Pipes:



Structures:



Newly developed chapters and families

iDAS Generic Circular Pipes

Pipe Circular 1 Barrel
Pipe Circular 2 Barrels
Pipe Circular 3 Barrels
Pipe Circular 4 Barrels
Pipe Circular 5 Barrels
Pipe Circular 6 Barrels
Pipe Circular 7 Barrels
Pipe Circular 8 Barrels
Pipe Circular 9 Barrels
Pipe Circular 10 Barrels
Pipe Circular

iDAS Generic Rectangular Pipes

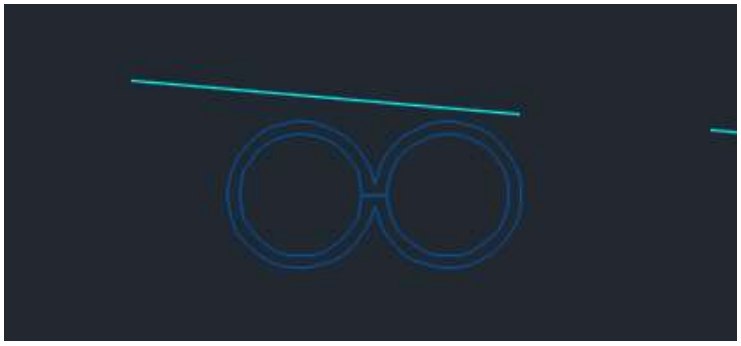
Pipe Rectangular 1 Barrel
Pipe Rectangular 2 Barrels
Pipe Rectangular 3 Barrels
Pipe Rectangular 4 Barrels
Pipe Rectangular 5 Barrels
Pipe Rectangular 6 Barrels
Pipe Rectangular 7 Barrels
Pipe Rectangular 8 Barrels
Pipe Rectangular 9 Barrels
Pipe Rectangular 10 Barrels
Pipe Rectangular

iDAS Generic Culverts

Culvert Circular 1 Barrel
Culvert Circular 2 Barrels
Culvert Circular 3 Barrels
Culvert Circular 4 Barrels
Culvert Circular 5 Barrels
Culvert Circular 6 Barrels
Culvert Circular 7 Barrels
Culvert Circular 8 Barrels
Culvert Circular 9 Barrels
Culvert Circular 10 Barrels
Culvert Circular

Culvert Rectangular 1 Barrel
Culvert Rectangular 2 Barrels
Culvert Rectangular 3 Barrels
Culvert Rectangular 4 Barrels
Culvert Rectangular 5 Barrels
Culvert Rectangular 6 Barrels
Culvert Rectangular 7 Barrels
Culvert Rectangular 8 Barrels
Culvert Rectangular 9 Barrels
Culvert Rectangular 10 Barrels
Culvert Rectangular

Example of circular culvert with two barrels in profile view:



iDAS Generic Channels

They have sizes from 1 mm up to 20 000 mm.
Channel Rectangular
Channel Trapezoidal
Channel V Shape

iDAS Generic Utilities (Conduits)

Communication Conduit
Gas
HV Power Conduit
Lighting Conduit
LV Power Conduit
Management System Conduit
Mixed Services Duct Circular

iDAS ANZ Circular Pipes

Acu-Tech HDPE SDR 7.4 AS NZS 4130
Acu-Tech HDPE SDR 7.4 PN 25 AS NZS 4130
Acu-Tech HDPE SDR 9 AS NZS 4130
Acu-Tech HDPE SDR 9 PN 20 AS NZS 4130
Acu-Tech HDPE SDR 11 AS NZS 4130
Acu-Tech HDPE SDR 11 PN 16 AS NZS 4130
Acu-Tech HDPE SDR 13.6 AS NZS 4130
Acu-Tech HDPE SDR 13.6 PN 12.5 AS NZS 4130
Acu-Tech HDPE SDR 17 AS NZS 4130
Acu-Tech HDPE SDR 17 PN 10 AS NZS 4130
Acu-Tech HDPE SDR 21 AS NZS 4130
Acu-Tech HDPE SDR 21 PN 8 AS NZS 4130
Acu-Tech HDPE SDR 26 AS NZS 4130
Acu-Tech HDPE SDR 26 PN 6.3 AS NZS 4130
Acu-Tech HDPE SDR 33 AS NZS 4130
Acu-Tech HDPE SDR 41 AS NZS 4130
Acu-Tech HDPE SDR 41 PN 4 AS NZS 4130
Ductile Iron FLCL AS NZS 2280 2014

Ductile Iron PN 20 AS NZS 2280 2014
Ductile Iron PN 35 AS NZS 2280 2014
Ductile Iron with Cement Mortar Lining FLCL AS NZS 2280 2014
Ductile Iron with Cement Mortar Lining PN 20 AS NZS 2280 2014
Ductile Iron with Cement Mortar Lining PN 35 AS NZS 2280 2014
Humes Naylor Vitrified Clay Drainage System BS EN295-1
Humes Titan Flush Jointed Concrete Class 2 AS NZS 4058 2007
Humes Titan Flush Jointed Concrete Class 3 AS NZS 4058 2007
Humes Titan Flush Jointed Concrete Class 4 AS NZS 4058 2007
Humes Titan Roller Compacted Concrete Class 2 AS NZS 4058 2007
Humes Titan Roller Compacted Concrete Class 4 AS NZS 4058 2007
Humes Titan Skid Ring Jointed Concrete Class 2 AS NZS 4058 2007
Humes Titan Skid Ring Jointed Concrete Class 3 AS NZS 4058 2007
Humes Titan Skid Ring Jointed Concrete Class 4 AS NZS 4058 2007
Humes Titan Spun Rubber Ring Jointed Concrete Class 2 AS NZS 4058 2007
Humes Titan Spun Rubber Ring Jointed Concrete Class 3 AS NZS 4058 2007
Humes Titan Spun Rubber Ring Jointed Concrete Class 4 AS NZS 4058 2007
Humes Titan Vibration Technology Concrete Class 2 AS NZS 4058 2007
Humes Titan Vibration Technology Concrete Class 4 AS NZS 4058 2007
Hynds Hyspec Flush Joint Concrete Class 2 AS NZS 4058 2007
Hynds Hyspec Flush Joint Concrete Class 3 AS NZS 4058 2007
Hynds Hyspec Flush Joint Concrete Class 4 AS NZS 4058 2007
Hynds Hyspec Spun Rubber Ring Joint Concrete Class 2 AS NZS 4058 2007
Hynds Hyspec Spun Rubber Ring Joint Concrete Class 3 AS NZS 4058 2007
Hynds Hyspec Spun Rubber Ring Joint Concrete Class 4 AS NZS 4058 2007
Hynds Hyspec VCT Rubber Ring Joint Concrete Class 2 AS NZS 4058 2007
Hynds Hyspec VCT Rubber Ring Joint Concrete Class 4 AS NZS 4058 2007
Hynds Skid Ring Joint Concrete Class 2 AS NZS 4058 2007
Hynds Skid Ring Joint Concrete Class 3 AS NZS 4058 2007
Hynds Skid Ring Joint Concrete Class 4 AS NZS 4058 2007
Iplex Apollo PVC-O (Series 1) PN 10 AS NZS 4441
Iplex Apollo PVC-O (Series 1) PN 12.5 AS NZS 4441
Iplex Apollo PVC-O (Series 2) PN 12.5 AS NZS 4441
Iplex Apollo PVC-O (Series 2) PN 16 AS NZS 4441
Iplex Blackline PE 100 SDR 7.4 PN 25 AS NZS 4130
Iplex Blackline PE 100 SDR 9 PN 20 AS NZS 4130
Iplex Blackline PE 100 SDR 11 PN 16 AS NZS 4130
Iplex Blue Brute PVC-U (Series 2) PN 6 AS NZS 1477
Iplex Blue Brute PVC-U (Series 2) PN 9 AS NZS 1477
Iplex Blue Brute PVC-U (Series 2) PN 12 AS NZS 1477
Iplex Blue Brute PVC-U (Series 2) PN 15 AS NZS 1477
Iplex Blue Brute PVC-U (Series 2) PN 18 AS NZS 1477
Iplex Blue Rhino PVC-M (Series 2) PN 9 AS NZS 4765
Iplex Blue Rhino PVC-M (Series 2) PN 12 AS NZS 4765
Iplex Blue Rhino PVC-M (Series 2) PN 16 AS NZS 4765
Iplex Blue Rhino PVC-M (Series 2) PN 20 AS NZS 4765
Iplex Blueline PE 80 SDR 11 PN 12.5 AS NZS 4130
Iplex Nexus PE TNZ F2 2000
Iplex Novadrain PVC-U SN 4 AS NZS 1260
Iplex Novadrain PVC-U SN 6 AS NZS 1260
Iplex Novadrain PVC-U SN 8 AS NZS 1260
Iplex Novadrain PVC-U SN 10 AS NZS 1260
Iplex Novadrain PVC-U SN 16 AS NZS 1260

Iplex Novakey PVC-U (Series 1) PN 6 AS NZS 1477
Iplex Novakey PVC-U (Series 1) PN 9 AS NZS 1477
Iplex Novakey PVC-U (Series 1) PN 12 AS NZS 1477
Iplex Novakey PVC-U (Series 1) PN 15 AS NZS 1477
Iplex Novakey PVC-U (Series 1) PN 18 AS NZS 1477
Iplex Poligas PE 80 SDR 9 AS NZS 4130 Series 3
Iplex Poligas PE 80 SDR 11 AS NZS 4130 Series 3
Iplex Poliplex PE 80 SDR 7.4 PN 20 AS NZS 4130 Series 1
Iplex Poliplex PE 80 SDR 9 PN 16 AS NZS 4130 Series 1
Iplex Poliplex PE 80 SDR 11 PN 12.5 AS NZS 4130 Series 1
Iplex Poliplex PE 80 SDR 13.6 PN 10 AS NZS 4130 Series 1
Iplex Poliplex PE 80 SDR 17 PN 8 AS NZS 4130 Series 1
Iplex Poliplex PE 80 SDR 21 PN 6.3 AS NZS 4130 Series 1
Iplex Poliplex PE 80 SDR 33 PN 4 AS NZS 4130 Series 1
Iplex Poliplex PE 80 SDR 41 PN 3.2 AS NZS 4130 Series 1
Iplex Poliplex PE 100 SDR 7.4 PN 25 AS NZS 4130 Series 1
Iplex Poliplex PE 100 SDR 9 PN 20 AS NZS 4130 Series 1
Iplex Poliplex PE 100 SDR 11 PN 16 AS NZS 4130 Series 1
Iplex Poliplex PE 100 SDR 13.6 PN 12.5 AS NZS 4130 Series 1
Iplex Poliplex PE 100 SDR 17 PN 10 AS NZS 4130 Series 1
Iplex Poliplex PE 100 SDR 21 PN 8 AS NZS 4130 Series 1
Iplex Poliplex PE 100 SDR 26 PN 6.3 AS NZS 4130 Series 1
Iplex Poliplex PE 100 SDR 41 PN 4 AS NZS 4130 Series 1
Iplex Restrain PVC-U SN 16 AS NZS 1260
Iplex Superstorm Roading PVC-U SN 4 AS NZS 1254
Iplex Superstorm Roading PVC-U SN 8 AS NZS 1254
Iplex Superstorm Stormwater PVC-U SN 4 AS NZS 1254
Iplex Superstorm Stormwater PVC-U SN 8 AS NZS 1254
Iplex White Rhino PVC-M (Series 1) PN 6 AS NZS 4765
Iplex White Rhino PVC-M (Series 1) PN 9 AS NZS 4765
Iplex White Rhino PVC-M (Series 1) PN 12 AS NZS 4765
Iplex White Rhino PVC-M (Series 1) PN 15 AS NZS 4765
PE 80 PN 3.2 AS NZS 4130 2018
PE 80 PN 4 AS NZS 4130 2018
PE 80 PN 5 AS NZS 4130 2018
PE 80 PN 6.3 AS NZS 4130 2018
PE 80 PN 8 AS NZS 4130 2018
PE 80 PN 10 AS NZS 4130 2018
PE 80 PN 12.5 AS NZS 4130 2018
PE 80 PN 16 AS NZS 4130 2018
PE 80 PN 20 AS NZS 4130 2018
PE 100 PN 4 AS NZS 4130 2018
PE 100 PN 6.3 AS NZS 4130 2018
PE 100 PN 8 AS NZS 4130 2018
PE 100 PN 10 AS NZS 4130 2018
PE 100 PN 12.5 AS NZS 4130 2018
PE 100 PN 16 AS NZS 4130 2018
PE 100 PN 20 AS NZS 4130 2018
PE 100 PN 25 AS NZS 4130 2018
Pipe Generic from 1 to 2000 mm
PVC-M (Series 1) PN 6 AS NZS 4765
PVC-M (Series 1) PN 9 AS NZS 4765
PVC-M (Series 1) PN 12 AS NZS 4765

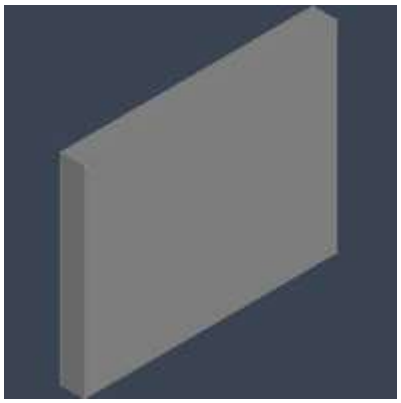
PVC-M (Series 1) PN 15 AS NZS 4765
PVC-M (Series 2) PN 9 AS NZS 4765
PVC-M (Series 2) PN 12 AS NZS 4765
PVC-M (Series 2) PN 16 AS NZS 4765
PVC-M (Series 2) PN 20 AS NZS 4765
PVC-O (Series 1) PN 10 AS NZS 4441
PVC-O (Series 1) PN 12.5 AS NZS 4441
PVC-O (Series 2) PN 12.5 AS NZS 4441
PVC-O (Series 2) PN 16 AS NZS 4441
PVC-U (Series 1) PN 4.5 AS NZS 1477
PVC-U (Series 1) PN 6 AS NZS 1477
PVC-U (Series 1) PN 9 AS NZS 1477
PVC-U (Series 1) PN 12 AS NZS 1477
PVC-U (Series 1) PN 15 AS NZS 1477
PVC-U (Series 1) PN 18 AS NZS 1477
PVC-U (Series 2) PN 6 AS NZS 1477
PVC-U (Series 2) PN 9 AS NZS 1477
PVC-U (Series 2) PN 12 AS NZS 1477
PVC-U (Series 2) PN 18 AS NZS 1477
PVC-U (Series 2) PN 20 AS NZS 1477
PVC-U SN 4 AS NZS 1260
PVC-U SN 6 AS NZS 1260
PVC-U SN 8 AS NZS 1260
PVC-U SN 10 AS NZS 1260
PVC-U SN 16 AS NZS 1260
Rocla Flush Joint Concrete Class 2 AS NZS 4058 2007
Rocla Flush Joint Concrete Class 3 AS NZS 4058 2007
Rocla Flush Joint Concrete Class 4 AS NZS 4058 2007
Rocla Rubber Ring Joint Concrete Class 2 AS NZS 4058 2007
Rocla Rubber Ring Joint Concrete Class 3 AS NZS 4058 2007
Rocla Rubber Ring Joint Concrete Class 4 AS NZS 4058 2007
Vinidex StormFLO PP SN 6 AS NZS 5065 2005
Vinidex StormFLO PP SN 8 AS NZS 5065 2005
Vinidex StormPRO PP SN 8 AS NZS 5065 2005
Welded Steel with Concrete Lining NZS 4442 1988
Welded Steel with Epoxy Lining NZS 4442 1988

iDAS Generic Utilities (Chambers)

Communication Chamber Circular
Communication Chamber Rectangular
Gas Chamber Circular
Gas Chamber Rectangular
HV Power Chamber Circular
HV Power Chamber Rectangular
Lighting Chamber Circular
Lighting Chamber Rectangular
LV Power Chamber Circular
LV Power Chamber Rectangular
Management System Chamber Circular
Management System Chamber Rectangular
Mixed Services Chamber Circular
Mixed Services Chamber Rectangular

iDAS Generic Headwalls

Headwall Rectangular Variable Height
Headwall Rectangular Constant Height



iDAS Generic Water Structures (bounding shape)

These structures are from the original SAPC (South African Pipe Catalog). The 3D representation is very simple, only bounding shape is shown.

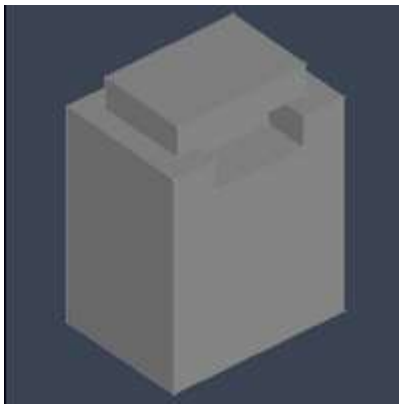
Access Manhole
Actuating Valve
Air Valve with 600mm MH
Air Valve
Ball Valve
Bend
Borehole
Butterfly Valve
Catchment Node
Channel Joint
Check Valve
Combined Thrust Block
Connect to Existing Pipe-Water
Connect to Existing System-Water
Connect to Existing-Water
Crossing-Conveyor
Crossing-Pipe
Crossing-Rail
Crossing-Road
Disconnect Existing Pipe-Water
Double House Connection
End Cap
Endcap
Expansion Joint
Fire Hose Reel
Fire Hydrant
Flow Control Valve
Gate Valve
General Purpose Valve
Globe Valve
Horizontal and Vertical Bend
Horizontal Bend

Horizontal Thrust Block
Inline Butterfly Valve
Inline Sluice Valve with Double Scours
Inline Sluice Valve
Isolating Valve
Junction
Mag Flow
Magnetic Flow Meter
Meter
Non-Return Valve with Double Scours
Non-Return Valve
None Structure
Orifice
Outlet
Pipe connection
Pipe Locator Test Point
Pressure Breaker Valve
Pressure Network
Pressure Reducing Valve
Pressure Relief Valve
Pressure Sustaining Valve
Pump
Reducer
Reflux Valve
Reservoir
Saddle
Scour Valve
Shut-off Valve
Single House Connection
Stand Pipe
Tank
Tap
Throttle Control Valve
Transition Structure
Vertical Bend
Vertical Bend
Vertical Thrust Block
Water Hammer Eliminator
Water Hammer
Water Well
Weir

iDAS ANZ Cesspits and Catchpits

Humes Cesspit Back Entry
Humes Cesspit Flat Top
Humes Max Pit
Hynds Cesspit Back Entry
Hynds Cesspit Flat Top

Examples of 3D representation:




iDAS ANZ Manholes

Humes Manhole Closed Flanged
Humes Manhole Closed Unflanged
Humes Manhole Eccentric Hole Flanged
Humes Manhole Eccentric Hole Unflanged
Humes VT Manhole Centre Hole
Humes VT Manhole Eccentric Hole
Hynds Hyspec Manhole Centre Hole
Hynds Hyspec Manhole Closed
Hynds Hyspec Manhole Offset Hole
Hynds Perfect Manhole Centre Hole
Hynds Perfect Manhole Closed
Hynds Perfect Manhole Offset Hole
Hynds Pinnacle Manhole Centre Hole
Hynds Pinnacle Manhole Closed
Hynds Pinnacle Manhole Offset Hole

Examples of 3D representation:


Compatibility with old drawings

The iDAS Pipe Catalog is fully compatible with old drawings, and there is no need for any adjustments.

Other Pipe Catalog Adjustments

- Trapezoidal and V-Shape channels offer more sizes and side slopes.
- Added **DEV_Nominal_Diameter** structure property

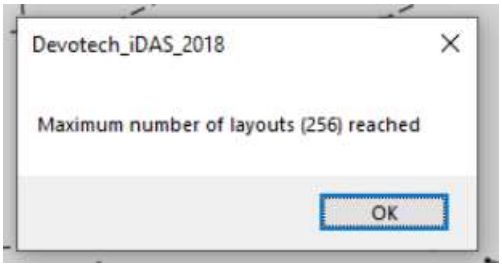
IMPROVEMENTS AND BUG FIXES

Pipe Manager Improvements

- Fixed issue where Froude number was not updated.
- Fixed issue where private sewer lines were drawn on empty layer.
- Fixed issue where pattern type could not be set to “Time Series”
- Fixed issue where time series patterns where not saved
- Fixed issue where no structures are selected on move command.
- Fixed issue where you get error if no subcatchment was selected for removal.
- Improved the function “Find Connected Parts”
- Fixed Error if catchment row is selected with subcatchments.
- Fixed issue where progress bar maximum value was not set when creating HC
- Fixed Fatal Error when no Surface is selected when trying to update.
- Fixed Plan production error if drawing did not contain NGL profile style.
- Fixed issue with channels mapping that had to be adjusted every time the Pipe Manager was opened
- Fixed issue with inflow time series that were removed when Pipe Manager was closed.
- Fixed issue when iDAS Pipe Manager did not remember the last selected IDF curve.
- Fixed issue when Tank values were not used for the analysis if they were inserted from the right click menu.
- Fixed the issue with the duplicate commands in the structures right click menu.
- Fixed terminology inconsistency for Maximum Flow and Maximum Velocity
- Fixed issue with the top inflow into the tank that caused the valve direction to be incorrect as well as valve diameter to be incorrect.
- Sewer house connection minimum depth is correctly implemented.
- Added option to edit minor loss for Gate Valves without using right-click menu
- Added multi-selection removal on subcatchments

Commands from iDAS Ribbon Improvements

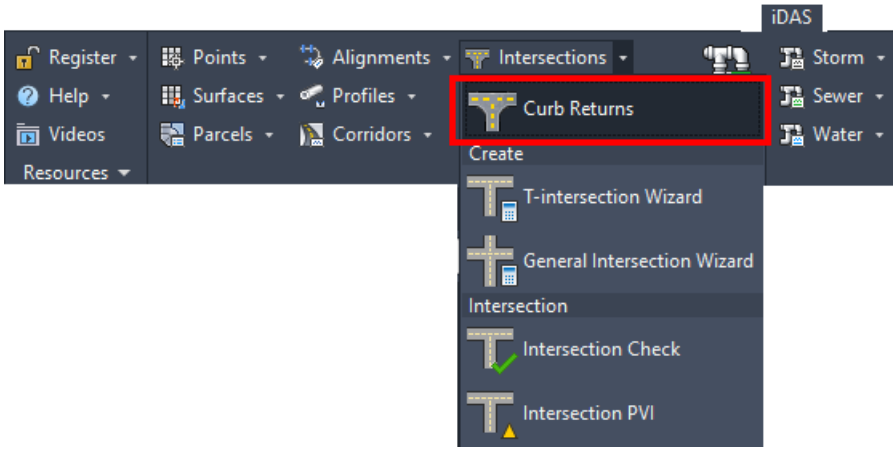
- Fixed Plan Production error about reaching maximum number of layouts (256) although this number was not reached:



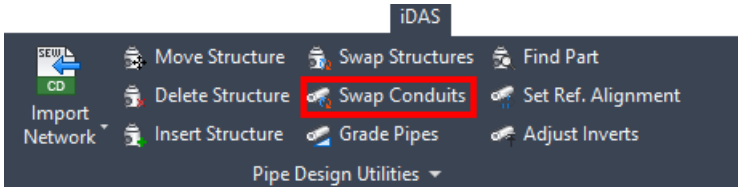
- iDAS menu bar matches the commands from iDAS ribbon.
- Fixed issue with Bulk Water wizard if profile layer was set to add use profile name as prefix or suffix.
- Fixed issue with the Insert Structure command if the depth is not specified.
- Corridor Wizard uses alignment name as a prefix for a profile from surface, e.g. Road 01 NGL and a corridor name as a prefix for ETW profiles, e.g. Road 01 ETW Left to avoid issues with the duplicate names when using Data Shortcuts.
- Create bellmouth polylines warns a user if the centreline alignment does not have offset alignments.
- Many iDAS commands are supporting drawings with empty networks (originally, some commands were terminated if the empty network was present in the drawing to make sure no empty networks are in the drawing. However, some clients set up their templates in a such a way that they preset the networks as well).
- iDAS toolbars match the commands from iDAS ribbon.
- Removed command Replace Diameter as this task can be performed with using of Prospector for selection and iDAS Swap Pipes command.
- What's new command opens the correct website.
- AutoMap command was renamed to Set Reference Alignment.
- Fixed issue with Import TechnoCAD Water command which gave unknown command error.

User Interface Improvements

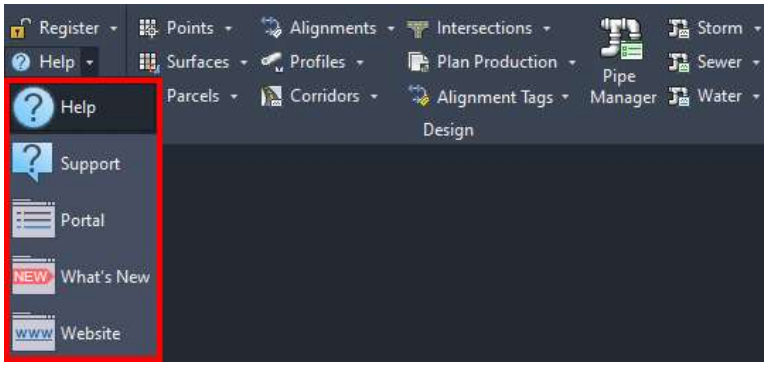
- **Bellmouths** command was renamed to **Curb Returns** to adhere with the Civil 3D terminology:



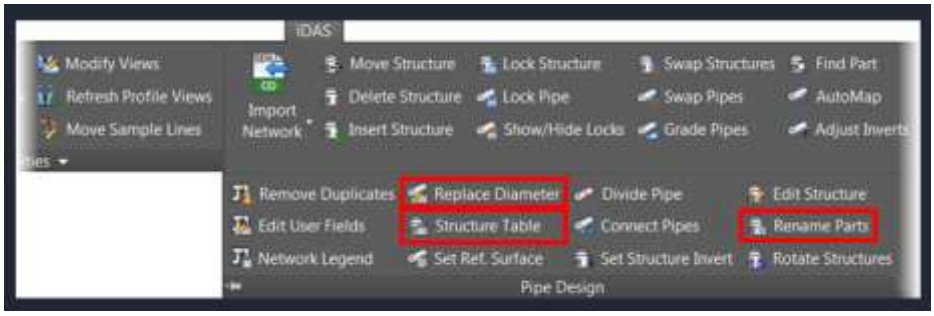
- **Swap Pipes** command was renamed to **Swap Conduits** because this command can swap pipes, channels and culverts:



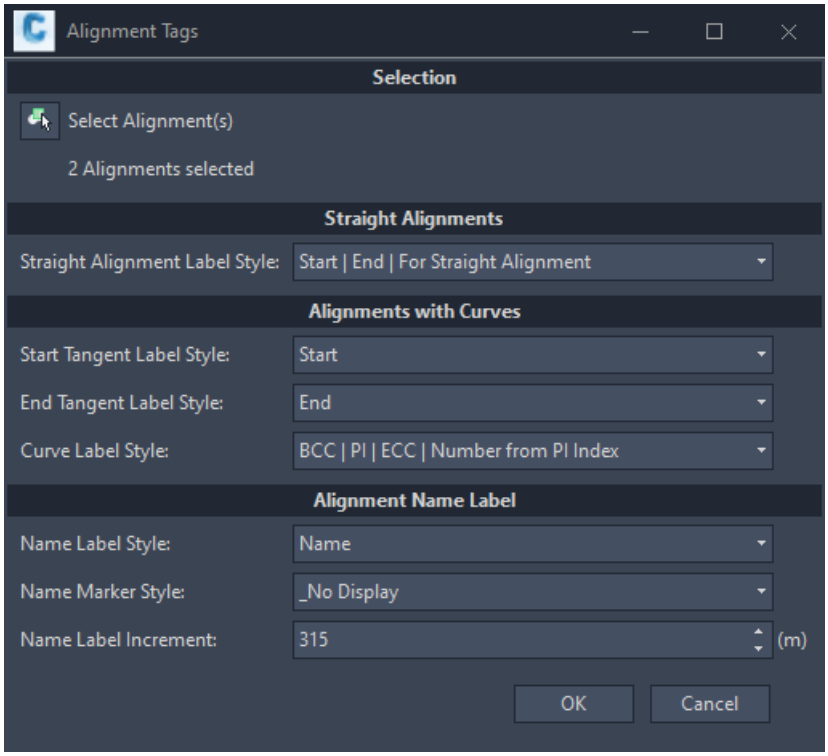
- Some icons were redesigned:



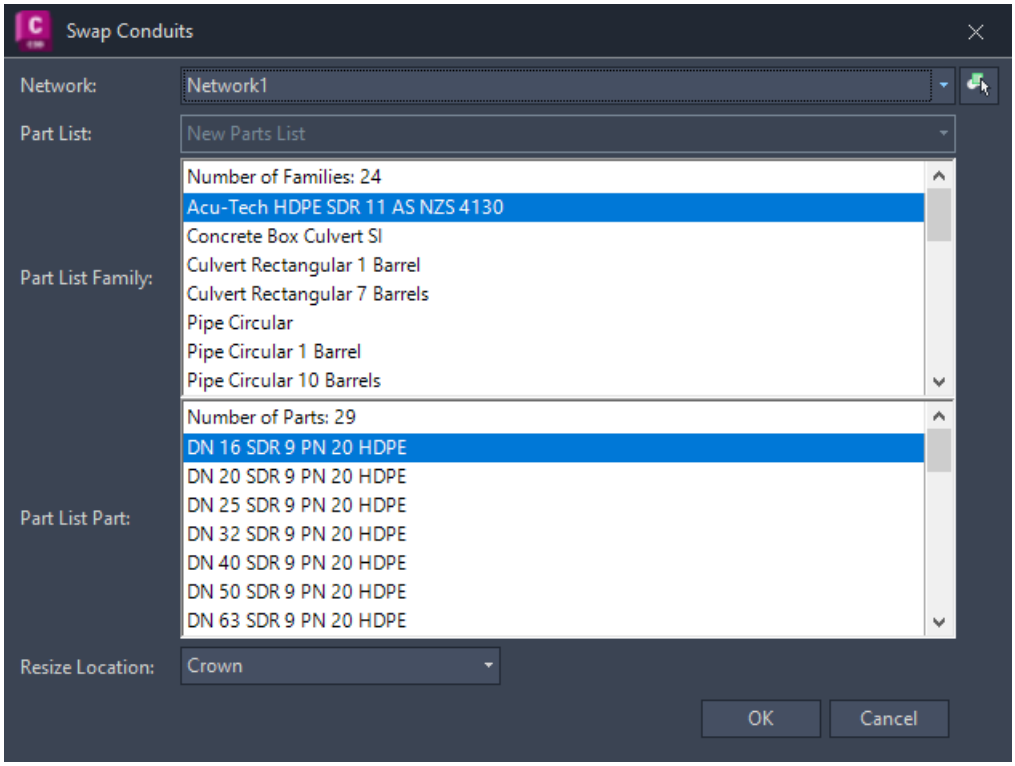
- The commands **Replace Diameter**, **Structure Table** and **Rename Parts** were removed because there are better tools to achieve the same results:



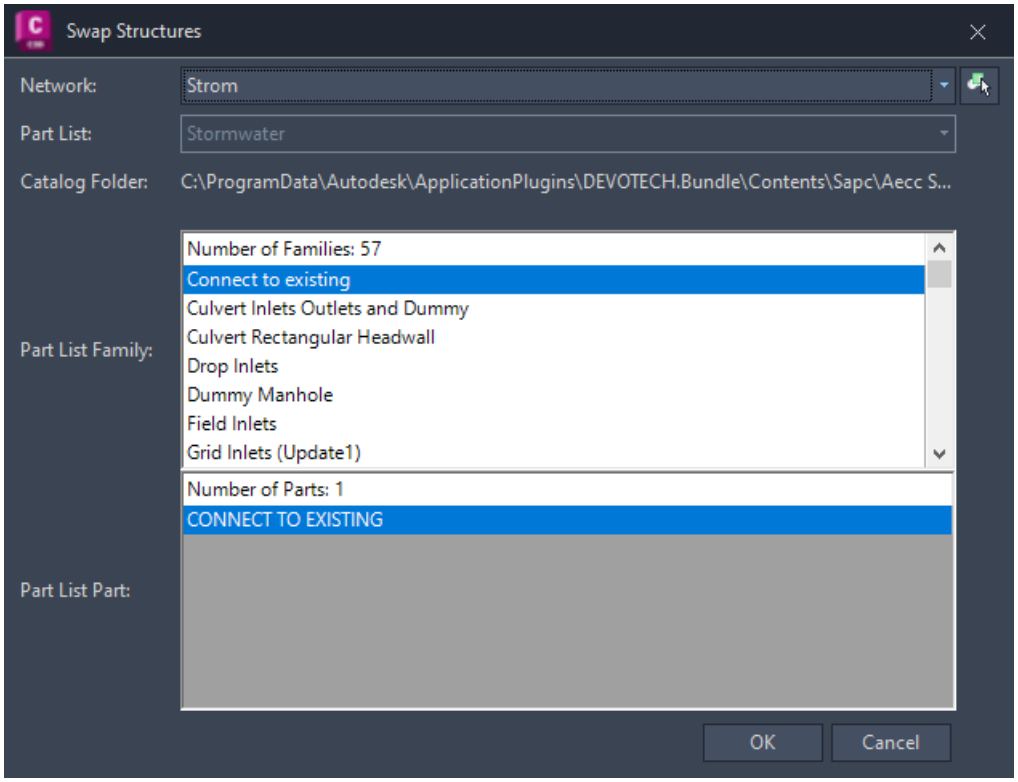
- **Alignment Tags** command has a new user interface and it allows selecting the label styles:



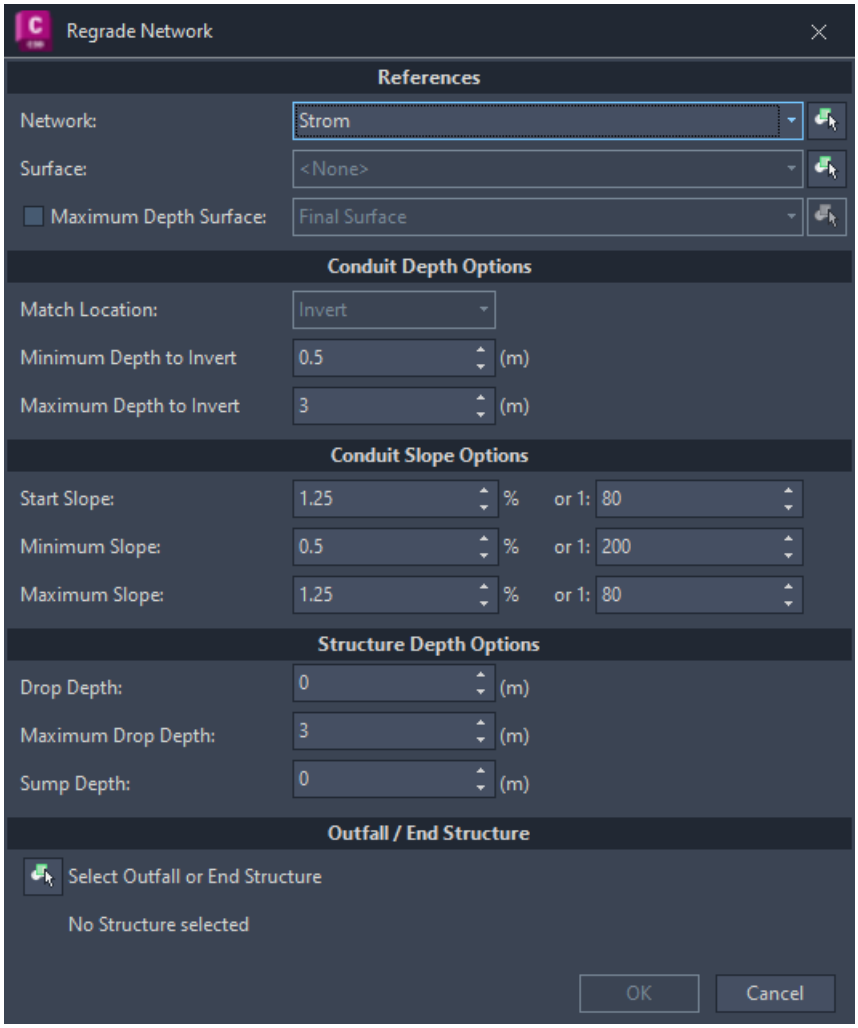
- **Swap Pipes** command has a new user interface to speed up part selection:



- **Swap Structures** command has a new user interface to speed up part selection:

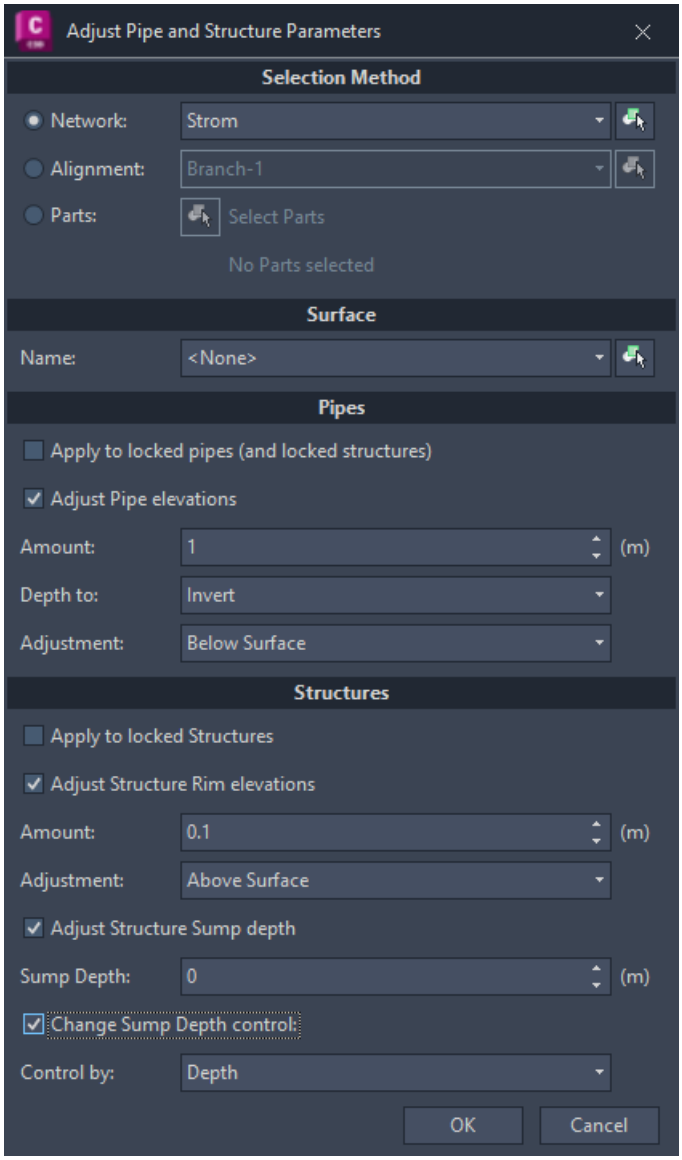


- **Regrade Network** command has a new user interface:

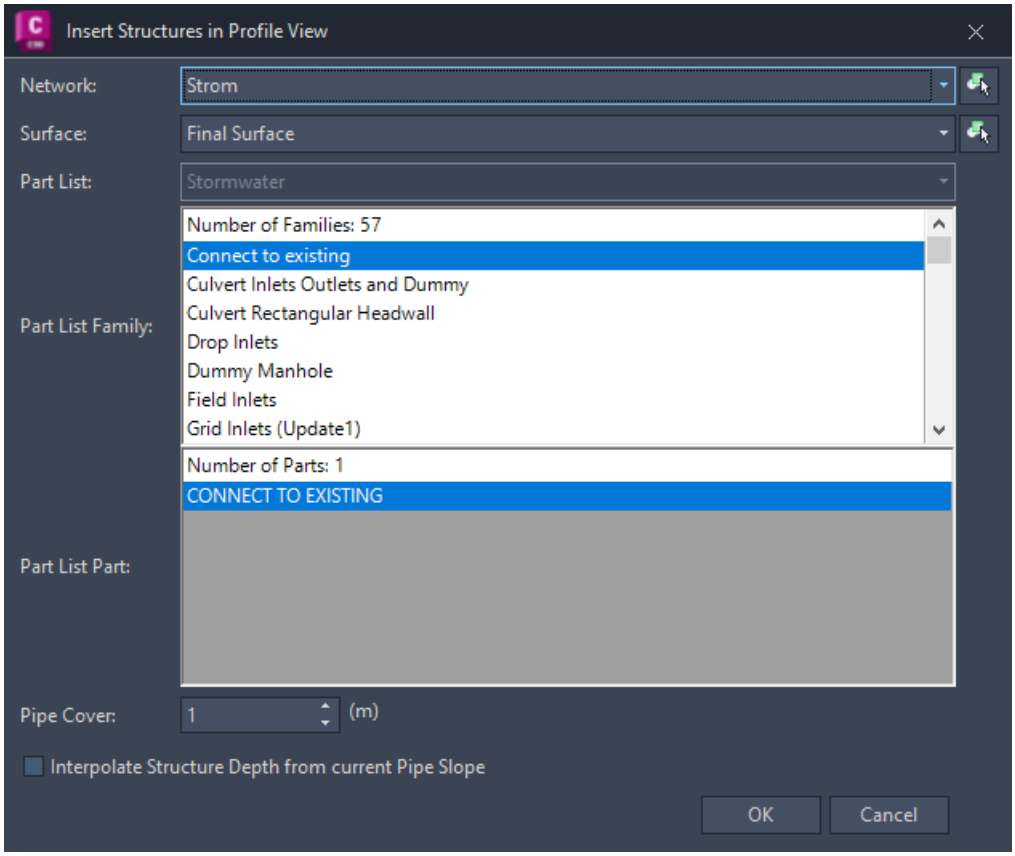


- **Set Reference Surface** command has a new user interface and it allows to assign a reference surface to multiple networks at the same time:

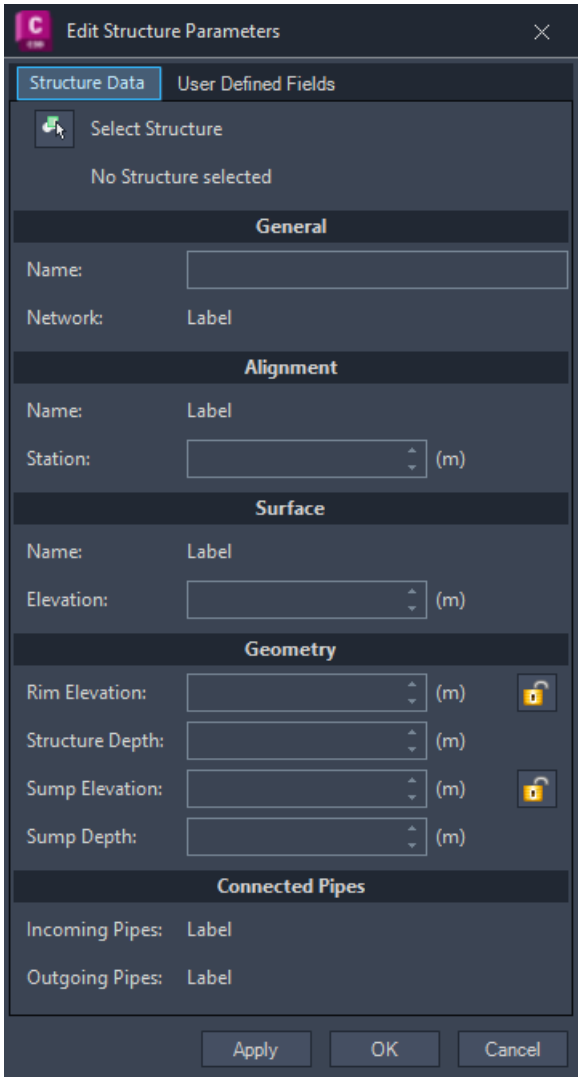
- **Adjust Inverts** command has a new user interface:



- **Insert Structure** command has a new user interface:



- **Edit Structure** command has a new user interface:



Subassemblies Improvements

- New version of Devotech SANRAL Cut Fill Ver-2018-19.
- New version of iDAS-Conditional Curb-2016-1.5.

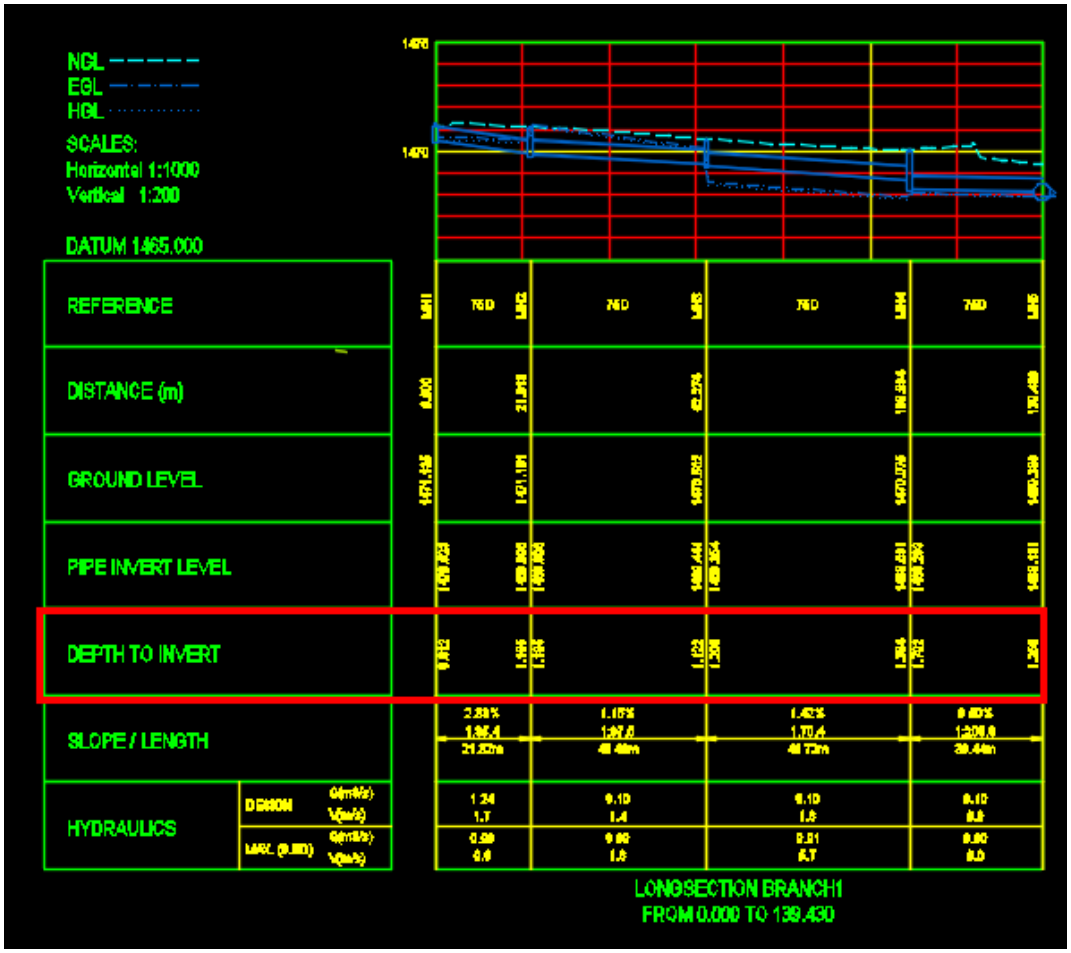
Details about the improvements are explained in the iDAS help file.

Assemblies Drawing

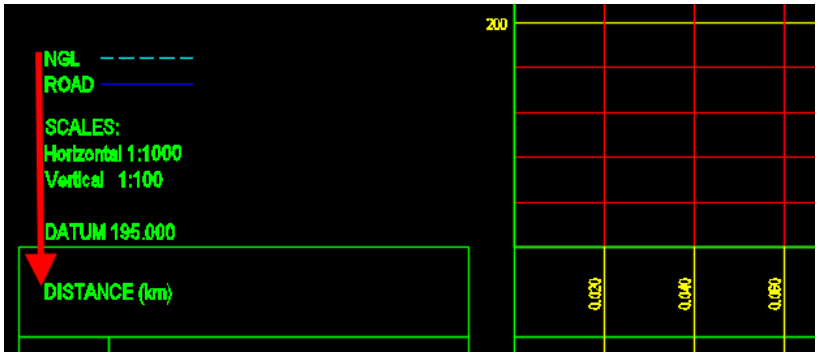
The assemblies for township road design without sidewalk were added:

Template Improvements

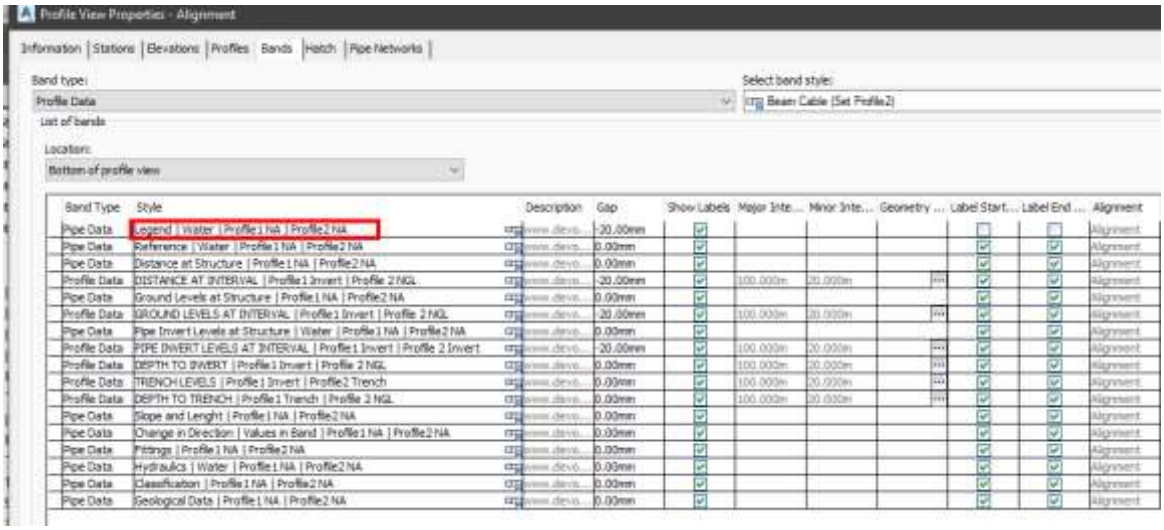
- iDAS is shipped with RSA and ANZ templates. Each template contains part lists applicable to the specific region.
- The latest version for Civil 3D 2018 and 2019 is version 323, the latest version for Civil 3D 2020, 2021, 2022 and 2023 is version 334. Autodesk introduced expressions for profile view bands in Civil 3D 2020 so we adjusted **Depth to Invert** band to use these expressions instead of using labels. The expressions display Depth to Invert automatically:



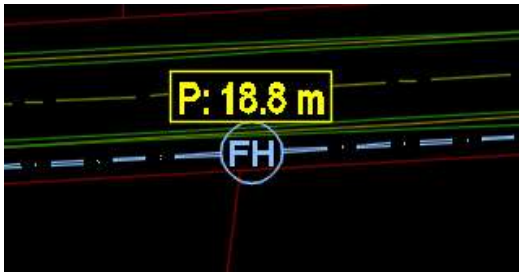
- Road profile view legend is on as default.
- Dual road profile view Scale and legend are aligned with the band headings:



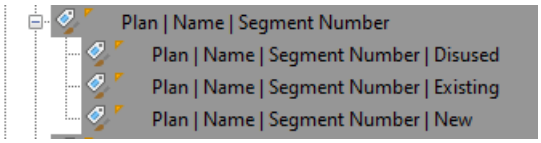
- Pipe plan and profile label expressions are not broken
- Profile view legends are in the Legend band and not part of Reference or other band styles:

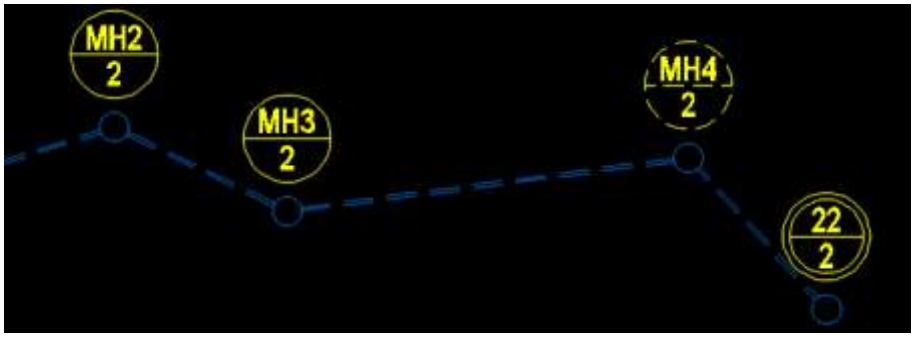


- Added new pipe style _No Plot style.
- Added default layers for pressure network parts.
- Some layer names were adjusted to match the naming convention, e.g.: Surface Legend Table-C3D was renamed to Surface-Table-C3D.
- Added new link codes for Corridor code set style (Drain_Top, Drain_Datum)
- Added structure label to display **pressure** in plan:

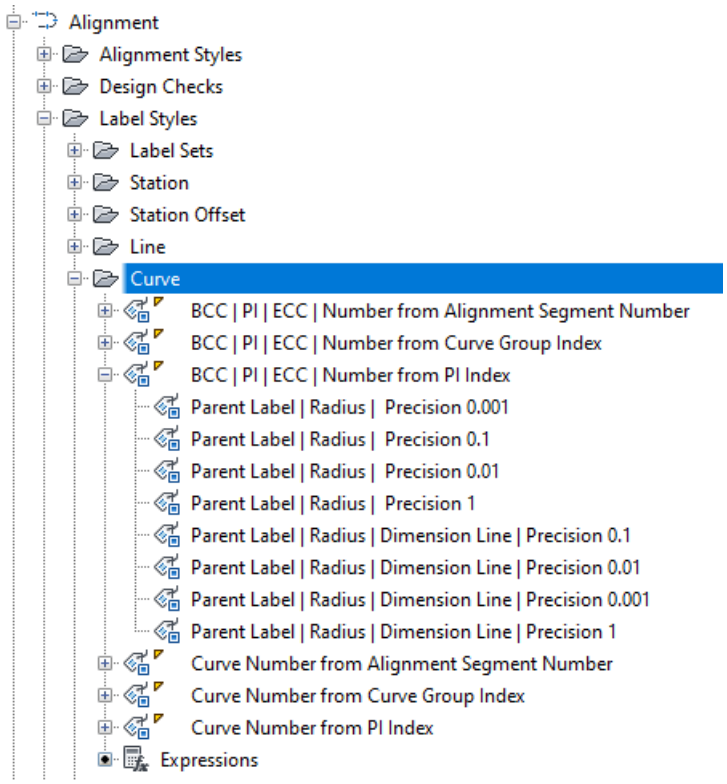


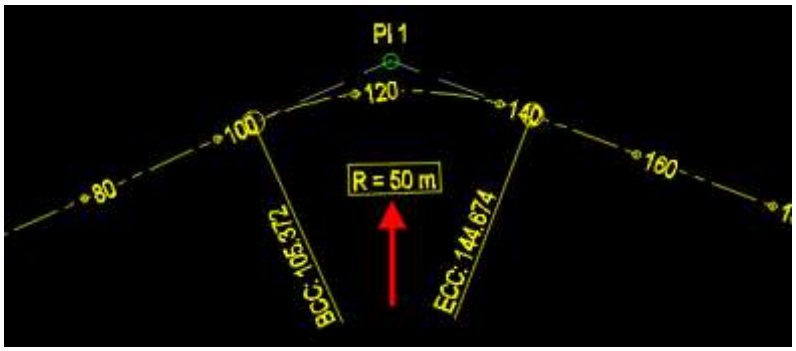
- Added structure label to display **name** and **segment number** in plan:

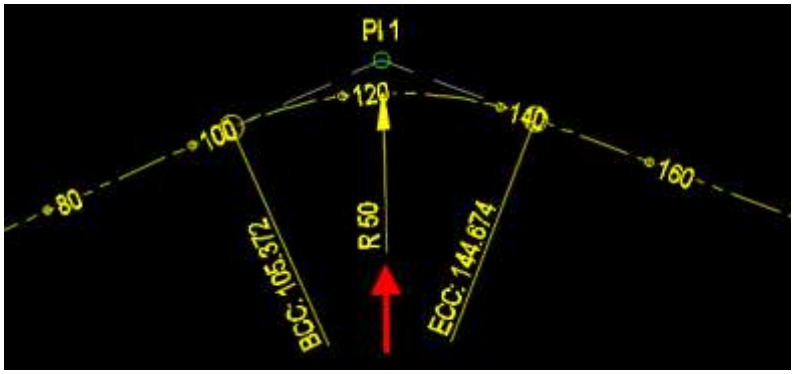




- All Curve label styles display PI point label, and they also have child styles that display radius with or without dimension line:







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 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.

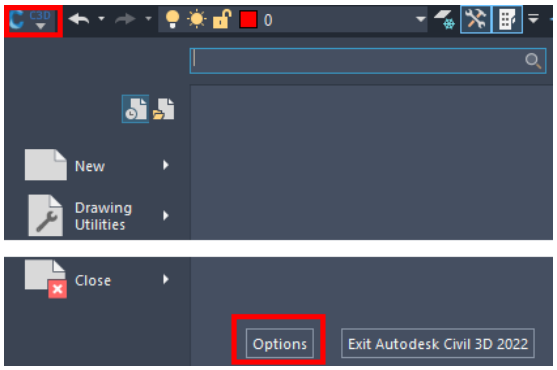
Water analysis Error 305

Some computers give an Error 305 when running the water network analysis. We believe that this issue has something to do with the Windows security settings.

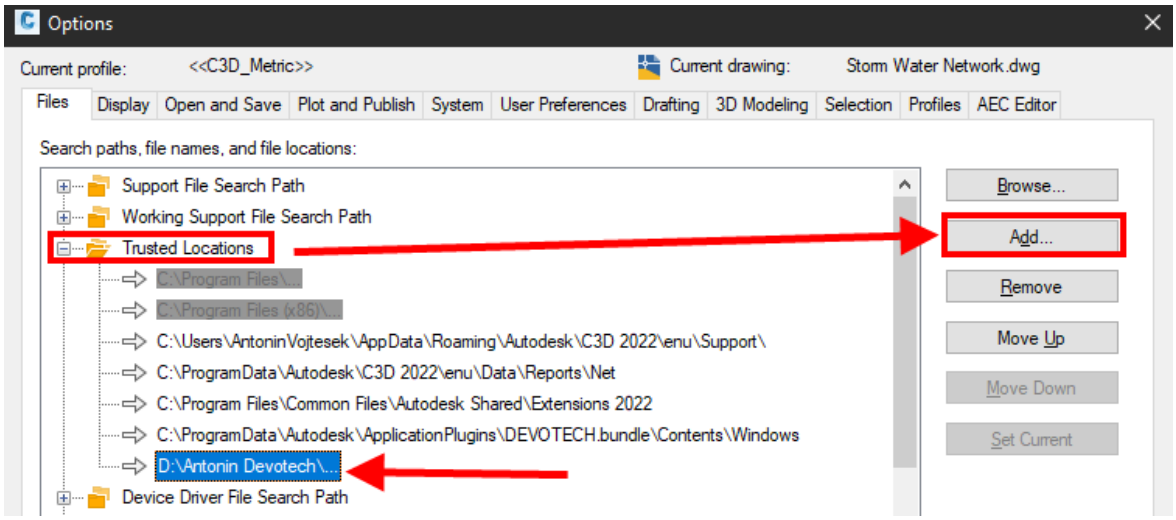
Problem 1: A drawing might reside in a directory to which the user does not have access rights to write to the folder.
Solution: Move the drawing to your desktop, open it from this new location and rerun the analysis.

Problem 2: Multiple Civil 3D instances are causing the issue.
Solution: Close all running Civil 3D instances for all the Civil 3D versions and start up only one Civil 3D instance.

Problem 3: Civil 3D limits the access to the location where the drawing is saved.
Solution: Set the folder where the drawing is saved as a **trusted location**. Open Civil 3D **Options**:

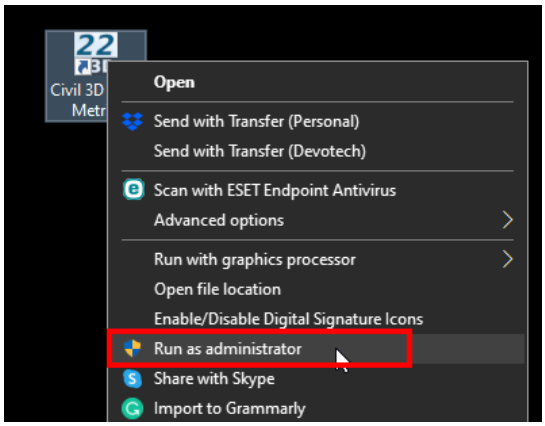


Select the **Trusted Location** folder, click on **Add** and browse to the folder where the drawing is saved. If you want to include the selected folder as well as its **subfolders**, you must add three dots "…" at the end of the folder path:



Problem 4: The drawing path or drawing name is too long.
Solution: Move the drawing to a folder with the shorter path or rename the drawing.

Problem 5: Civil 3D does not have privilege to create file in the location where the drawing is saved.
Solution: Run Civil 3D as **administrator** (right click on the Civil 3D icon and use **Run as administrator** command)

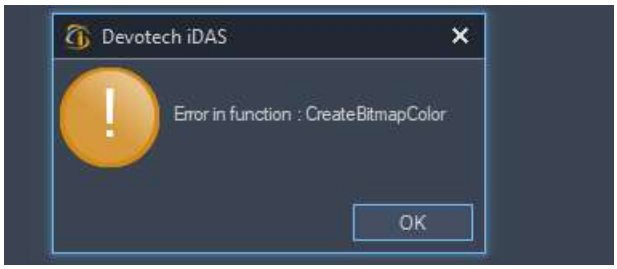


Problem 6: The user's antivirus is blocking the temporary file which is created by Devotech iDAS in the location where the drawing is saved when running the analysis.
Solution: Create an exception rule on the firewall to allow access to EPA SWMM and SSA.

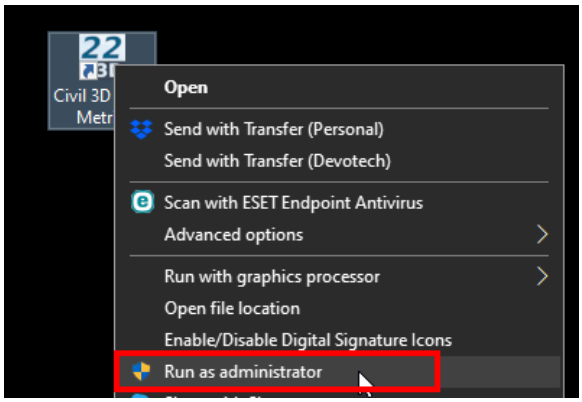
Problem 7: The user is using Bentley Project Wise and it does not allow the user to create that file type on the system.
Solution: Move the drawing to the C drive and then run the analysis.

Error in function: CreateBitmapColor

If you get the following error when opening the Pipe Manager:



Close Civil 3D and start it up as **administrator** (right click on the Civil 3D icon and use the **Run as administrator** command)



Surfaces are not displayed in the Pipe Manager

The surfaces were temporarily removed improve Pipe Manager performance.

Surface channels from corridors surfaces are not implemented

Incorrect coordinate system causes crash

Using the incorrect coordinate system with coordinates that falls outside of the coordinate system extents causes Pipe Manager to crash. Watch this video for details:

https://www.devotechgroup.com/post/unhandled-exception-coordinate-system-conversion-failed

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.

Grading does not work correctly if the profile view starts at Outfall

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.

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

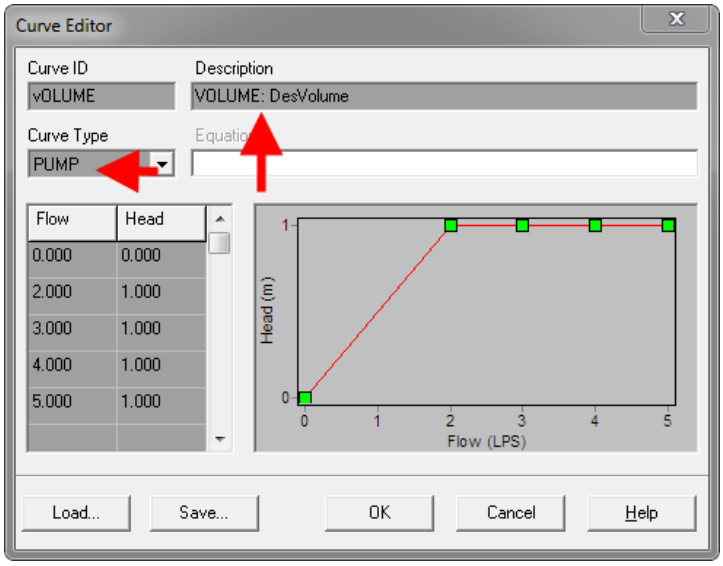
This behaviour changes the name of the imported object, e.g. Pattern, Curve, Hydrograph etc., therefore it does not match with the description. This behaviour is intentional to avoid issues with the duplicate names.

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

Stormwater detention ponds have multiple bugs

It is possible to analyse a detention pond with iDAS Pipe Manager but there are some bugs that we want to fix in the future.

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

The profiles from corridor do not work with an offset assembly

Rename command had to be removed

We could not use the old rename command because of the name conflicts. We want to implement new rename functionality. In the meantime, you can use the workflows in these videos:

Storm water, sewer and water reticulation networks:
https://www.devotechgroup.com/storm-water-training?wix-vod-video-id=a8a76c0535a14ef39519d81c77e93b71&wix-vod-comp-id=comp-jck4lbf2

Bulk water networks:
https://www.devotechgroup.com/bulk-water-training?wix-vod-video-id=2a53063bebf14e5e8880d5708eaff58d&wix-vod-comp-id=comp-jck6l0rb

iDAS Swap Pipes command and Swap Structures command delete user defined fields

If swap commands are used, then the **User Defined Fields** are deleted from the pipe or structure properties

iDAS Template

iDAS Generic 2019 template has some pipe label expressions broken

This is caused by a Civil 3D bug.

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.