

What's new in CADWorx

Sonia Delgadillo Intergraph CADWorx & Analysis Solutions



2014 Product Update



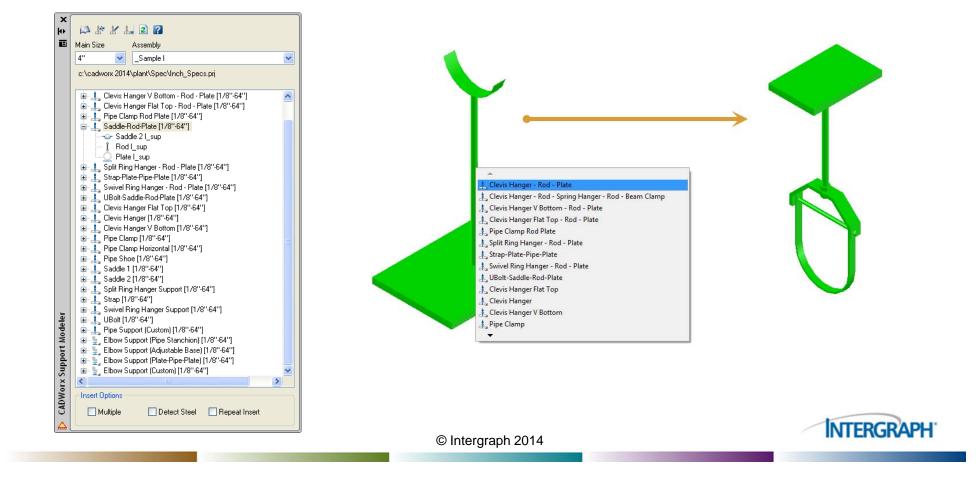
- Dynamic Pipe Supports
 - Specification Based Pipe Support
- Custom Data
 - Manage assets better by tracking design areas
- Line View Palette Updates
 - Isolate by Custom Data
- Generic Attach for Nozzles
- Import SmartPlant Reference Data
 - Create a CADWorx Catalog and Specification
- ISOGEN Repeatability
 - ISOGEN CEDIT Sheet Number
- New Mitered Elbow Component
- Route with mitered elbows
- O-let Minimum Spacing Rule
- Automatic Coupling Insertion
- OrthoGen for CADWorx Interface



2014 Dynamic Pipe Supports



- Replace Pipe Support and Regenerate Pipe Support Data
- Pipe Support updates with Change Size and pipe movement



2014 Custom Data



- Custom Data can be added to the Catalog and Specification
- Custom data can be added to any component category
- Custom data can be sent to the model and database

Components ⊕ - B Caps ⊕ - D Couplings ⊕ - Couplings ⊕ - Crosses ⊕ - D Elbows ⊕	Component Tables Table Fields COMPONENT_PTN USER_PART_NUMBER COMPTYPE_CMP_TBL TABLENAME_CMP_TBL UENGTH_CMP_TBL DESCRIPTION_CMP_TBL MAINSIZE_CMP_TBL MINLEN_CMP_TBL ETS_CMP_TBL THRDCL_CMP_TBL SOCCL_CMP_TBL SOCCL_CMP_TBL USER_STRING_OR_SEPARATOR	•	Long Desc Format COMPTYPE_CMP_TBL , SCH MAINSCH_SCH_TBL SPEC_MAT_TBL GR GRADE_MAT_TBL , MANUFACTURER_CMP_TBL	
· 단 Tees · 바 Unions · 단 User Shapes · 단 Valves · 안 Wye Shape			_MAT_TBL, MANUFACTURER_CM CH_TBL, SPEC_MAT_TBL GR GRAD	DE_M

USER1 USER2 USER3	
USER4 USER5 Column title: MARK	Move Up Move Down



2014 Line View Palette Updates



- Isolation Manager > Isolation Settings File > Set isolation filter
- LineViewIsolationSettingsFile can be set in the configuration file
- CONVERTEROMPRJDATA controls updates to custom data

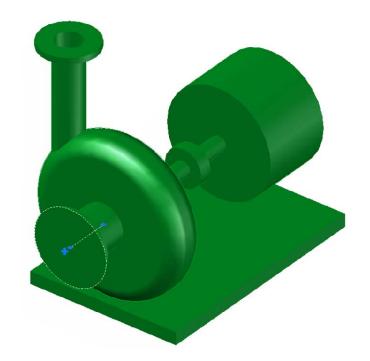
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2014 Generic Attach for Nozzles



🚱 Nozzle Generic	Attach (Edit)
Description: Equipment Name: Size: Flange Rating: Flange Thickness: Flange Type: Layer:	Suction Nozzle P-101 6" 150 1" BEWN Equip
Color:	ByLayer Remove Cancel Help





2014 Import Specification from SPRD



Project Specs		
Inch_Specs.prj		
		Add Specification
		Sort Specification Ascending
900		Sort Specification Descending
1500	.	Import Legacy Specification
		Import AutoPLANT Specification Data
		Import AutoCAD Plant 3D Specification Data
	SPRD	Import Specification From SPRD File
	F	Rename
	57	Collapse
	œ	Properties



2014 ISOGEN Repeatability



■ I-Configure or OS Switch 109

■ ISOGEN CEDIT Control for Sheet, Mark, Spool Number

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🗄 🚹 Project1		Path	Text1	
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🛅 Final-Fab		SplitPoints	False	
🖻 Final-Weld-Box		SpoolID	Off	
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CADWorx Plant Setup			X			
···· Current Drawing	ElbowCenterLine	0				
- Configuration Settings	FittingWidth	1.000				
 Specification / Size Configuration Layers 	HVACLibraryDirectory	C:\CADWorx 2013\Plant\HVAC				
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	ISOGENSetting	3	-			
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	LineNumberSystem	1				
	LineViewIsolationSettingsFile	0				
	PipeDescriptionCat	1				
	PipeSupportSetting	1				
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	ISOGENSetting 0=All settings off 1=Import Mark/Sheet data from repeat file 2=Import Spool data from repeat file 2=Import Mark/Sheet (Speed data from repeat file					
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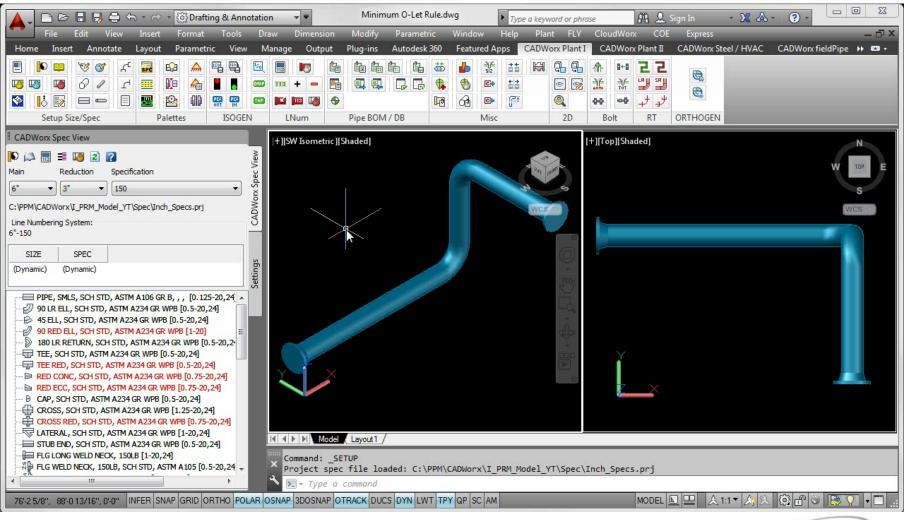
Routing Mitered Elbows



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- 9 ²⁰ 45 5W ELL [2-4] - 3 ² 0 TEE SW STRAIGHT [2-4]				
950 45LATERAL SW [2-4]				
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HEI BALL VALVE FLG [2-4]				
P-I CHECK VALVE FLG (2-4)				
- P-4 CHECK VALVE SW [2-4] [24] GATE VALVE FLG [2-4]				
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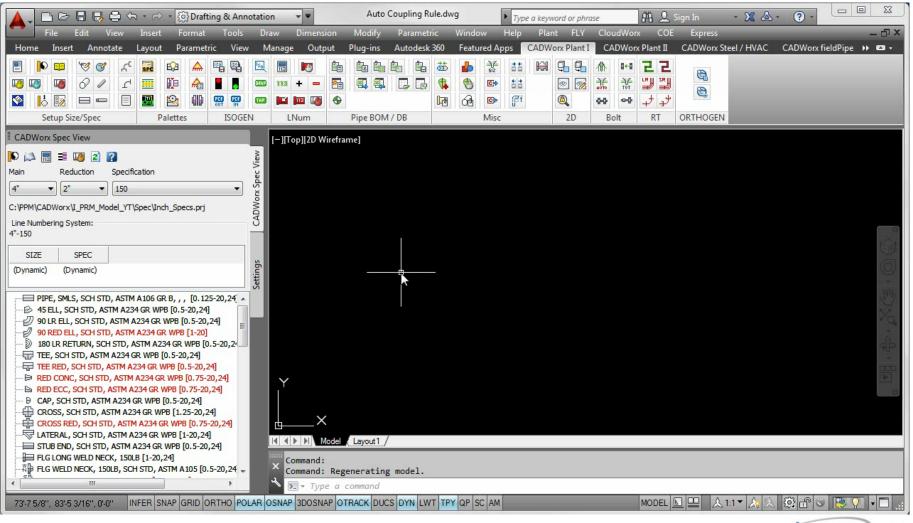
2014 O-let Min Spacing Piping Rule







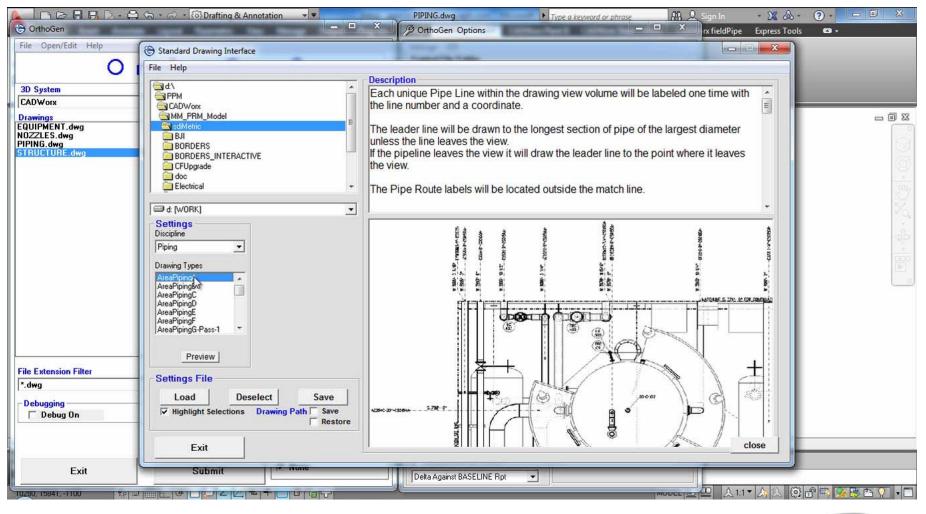
2014 Automatic Coupling Insertion





2014 OrthoGen for CADWorx Interface Automatic 2D layouts & GAs







2015 Product Enhancements: Specification Editor



- Custom Data Lists
 - □ Create a pull-down list of items for model
- New Catalog Tables
 - Bolt Diameter, Bolt Length and End Prep Table
- Pre-define ISOGEN end types symbols for components
 - □ Start, End, Branch(s)
- Description fields in schema update
- Import multiple AutoCAD Plant 3D specifications
- Create threaded needle valves with male threaded by female threaded ends
- Add index code table field in description schemas
- Add spaces and underscores in the description formats
- Add multiple class and ratings for multiple end-types
- Add the reducing size field to the description format



Custom Data Lists



📖 Edit Field		L.	🕼 List Items	X
Name :	DESIGN_PHASE		Item	Ē
Title:	Design Phase		FEED	×
Description:	Design_Phase		40% Detailing Phase 60% Detailing Phase	
Data Type:	List v		80% Detailing Phase	
Required Input:	No		Final Design As-built	
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	✓ Attach Field to Components			
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New Size Tables





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	Custom Data			Weight Factor	1.00	
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	1			Temperature Rating		1



Pre-define ISOGEN end types symbols for components



Edit component:	Crosses-Cross Reducing									
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IndexCode:		Тори	works:					Apply same	rating to	all ends
	Optional Component							Sort Sequence:	:	14



Description fields in schema update



Component Tables Table Fields Long Desc Format		Edit component	: Crosses-Cross Reducing(*)			
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Format COMPTYPE_CMP_TBL, SCH BRANCHSCH_SCH_TBL, SPEC_ Example Cross, SCH BRANCHSCH_SCH_TBL, SPEC_MAT_TBL GR GI		Short: Tag: Part Number:	Cross Reducing Buttweld Using Project Format COMPONENT_PTN-MAIN_SIZE_F	TN-RED_SIZE_PT		Notes:



2015 Product Enhancements: Model



- Apply Skew Pipe Maximum Angle rule
 - □ Used for sloped pipe
- Custom Data Lists
 - Use pull-down list of items for model
 - SPECVIEW Custom Data default override
- Turn updates on or off for Layer/color in the Apply Change Data Rule
- Branch Table Updates
 - □ Add crosses to the model based on the size of the branch component
- Appended End types for swages
- Increased CHANGESIZE routing options for tees
- Control visibility of TAPs with new SYSVIS command
- You can delete all components or not delete all components with SDBAUDIT
- AutoCAD 2015 Compatibility
- CAESAR II 2014 Compatibility



Apply Skew Pipe Maximum Angle Rule



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AG 432 PPFE, SMS, SCH STD, ASTM ALDG (R8 (6-600) 9 Still, SCH STD, ASTM A234 GK WPB [15-600] 9 Still, SCH STD, ASTM A234 GK WPB [15-600] 9 CAP, SCH STD, ASTM A105 [15-600] 9 CAP, SCH SC								
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-os STUD BOLTS W/NUTS, LENGTH_CMP_TBLLG, ASTM A193/194 -m NPPLE, SCHXSS, J18 ^s THK [15-600] -m NPPLE, SCHXSS, J100] -m ² 4 SELL, SW, XUTHRD_ENK, 3000LB, ASTM A105 [6-80, 100] -m ² 4 SELL, SW, 3000LB, ASTM A105 [6-80, 100] -m ² 4 SELL SW, 3000LB, ASTM A105 [6-80, 100] -m ² 4 SELL SW, 3000LB, ASTM A105 [6-80, 100] -m ² 4 SELL SW, 3000LB, ASTM A105 [6-80, 100] -m ² 4 SELL SW, 3000LB, ASTM A105 [6-80, 100] -m ² 4 Command:erase 1 found -m ² 4 Command:erase 1 found -m ² 4 SELT SW, 3000LB, ASTM A105 [6-80, 100] -m ² 4 Command:erase 1 found -m ² 5 Type a command	→ 90 LR ELL, SCH STD, ASTM A234 GR WPB [15-600] → 45 ELL, SCH STD, ASTM A234 GR WPB [15-600] → 180 LR RETURN, SCH STD, ASTM A234 GR WPB [15-600] → TEE, SCH STD, ASTM A234 GR WPB [15-600] → TEE, SCH STD, ASTM A234 GR WPB [15-600] → GROSS, SCH STD, ASTM A234 GR WPB [15-600] → GROSS, SCH STD, ASTM A234 GR WPB [25-600] → FLG END, SCH STD, ASTM A105 GR [15-600] → FLG LONG WELD NECK, 150LB [25-600] → FLG SLIP ON, 150LB, ASTM A105 [15-600] → FLG SLIP ON, 150LB, ASTM A105 [15-600] → FLG LAP JOINT, 150LB, ASTM A105 [15-600]							° 📲 ، 🐥 رُ
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-p ² / ₀ 45 ELL, SW, 3000LB, ASTM A105 [6-80, 100] × Command: -p ² / ₀ TEE, SW, 3000LB, ASTM A105 [6-80, 100] × Command: -w ² / ₀ LATERAL, SW, 3000LB, ASTM A105 [6-80, 100] × Command: -w ² / ₀ LATERAL, SW, 3000LB, ASTM A105 [6-80, 100] × Command: -w ² / ₀ CARSES, SW, 3000LB, ASTM A105 [6-80, 100] × -w ² / ₀ CARSES, SW, 3000LB, ASTM A105 [6-80, 100] × -w ² / ₀ CARSES, SW, 3000LB, ASTM A105 [6-80, 100] × -w ² / ₀ CARSES, SW, 3000LB, ASTM A105 [6-80, 100] × -w ² / ₀ Command: erase 1 found -w ² / ₀ Command: erase 3 found -w ² / ₀ - Type a command	90 ELL, SW, 3000LB, ASTM A105 [6-80, 100]	Model / Layout1	/					
□G1 TEE, SW, 3000LB, ASTM A105 [6-80,100] □G2 LATERAL, SW, 3000LB, ASTM A105 [8-50] □G2 Command:erase 1 found □G3 Command:erase 3 found □G3 Type a command			omponent List/Slope/sKew/Elevation/F	lane/Reference/Fittin	ng mode/elBow type/Undo/Co	onnect/Toggle length/	Alignment]:*Cancel*	
Internal, SW, 3000LB, ASTM A105 [8-50] Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Command:erase 3 found III			ound					
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CADWorx 2014 Overview



Custom Data Lists



Component Edit (1 of 1)			×]	
Alpha size:	6''				
Short annotation:	Pipe				
Long annotation:	PIPE, SMLS, SCH STD, AST	M A106 G	iR B		
Line number:	6''-1 50		Component Custom	Data	X
Tag:			Field Title	Field Description	Field Value
Code:	9121-00150G-		Design_Phase	Design_Phase	40% Detailing Phase
Weight:	18.95428				FEED 40% Detailing Phase
Sort sequence:	1				60% Detailing Phase 80% Detailing Phase
Length:	39.64099				Final Design As-built
Component type:	Pipe (Command=PIPW) (Engli	sh/Inch)			
Specification		BOMI			
150		💿 Fa			
Coordinates	Miscellaneous	🔘 Ere		OK Cancel	Help
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OK	Cancel Exit	H	1elp		
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Custom Data List Override



Field Title	Description	Default value	Viev
Design_Phase	Design_Phase	40% Detailing Phase	Dec
		FEED 40% Detailing Phase 60% Detailing Phase 80% Detailing Phase	CADWorx Spec View
		Final Design As-built	Settings
			Custom Data



Apply Change Data Rule



CADWorx Plant Setup									
···· Current Drawing	Apply Bolt Insertion Rule	No	*						
- Configuration Settings	Apply Trimmed Elbow Rule	No							
- Specification / Size	Apply Pipe Healing Rule	No							
Configuration Layers Piping Rules	Apply Branch Table Rule	No							
- Convert Legacy Drawing	Apply Flange Insertion Rule	No							
	Apply Bolt Hole Orientation Rule	Automatic - 2 Holes	💮 Apply Chang	e Data Rule		X			
	Apply Pipe End Prep Rule	No							
	Apply Auto Coupling Rule	No	Select Data	Select Data Items that will NOT update with (
	Apply Line Number Rule	Always Inherit	and convert						
	Apply Change Data Rule	Custom Data							
	Apply O-Let Minimum Spacing Rule	0.2500	📃 📃 Alpha size		🔳 Database	Code			
	Center Line	On	Short descr	intion	📝 Custom D	ata			
	Apply Skew Pipe Maximum Angle	15.0000		ipuori		ala			
	Apply Change Data Rule		📃 📃 Long descri	iption	📃 Line number				
	The software does NOT update data iter dialog box with Change Size/Spec or wh				🚺 Layer/col	oi (*)			
	Configuration File: c:\cadworx 2014\plant\Sy	/stem \Imperial.cfg	Select / dese	lect all					
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Branch Table Update



Branch Size NPS																								
	Inch	0.125	0.25	0.375	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	5	6	8	10	12	14	16	18	20	24
	24	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S
	20	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S	
	18	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S		
	16	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S			
	14	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S				
	12	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S					
	10	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S						
	8	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S							
	6	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S			- T ()	C	_			
	5	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S		☑ [R] R ☑ [O] (g Tee /	Cross				
	4	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S			☑ [0] €		uplina					
	3.5	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S				✓ [S] S							
	3	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	R,O,	T,S					[TR]	Straigh	t Tee/C	ross + R	educe			
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Insert O-lets on Bends or Elbows



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- p ² 90 ELL, SW, 5000LB, ASTM A105 [6-50, 100] - p ² 90 STREET ELL, SW X THRD_ENG, 3000LB, ASTM A105 [6-50] ** STREETC	4 **		
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CADWorx 2014 Overview



2015 Product Enhancements: ISOGEN

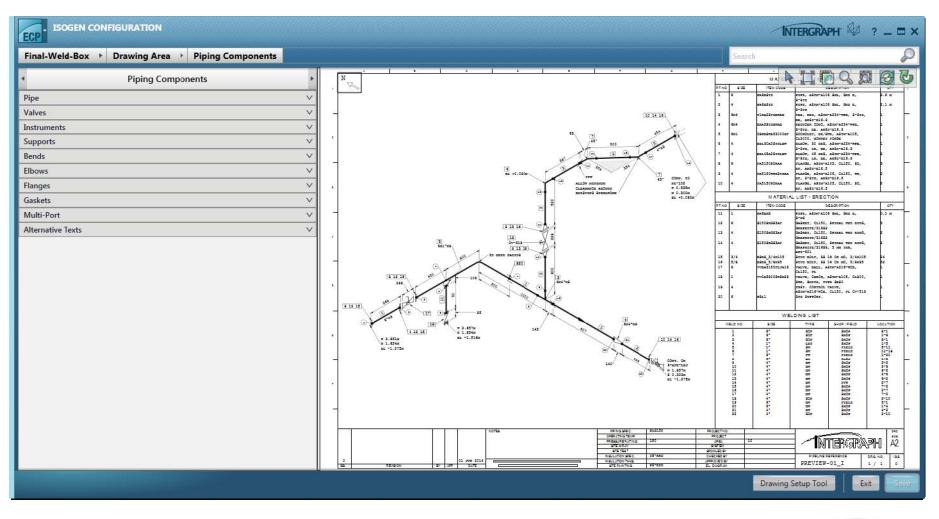


- Enterprise Control Panel
- Short Description Text Wrapping
 - □ -80 to display the short description column with text wrapping
- Support for Curved Pipe on IGO/IGB
 - □ Create curved piping by setting the Threshold



Enterprise Control Panel







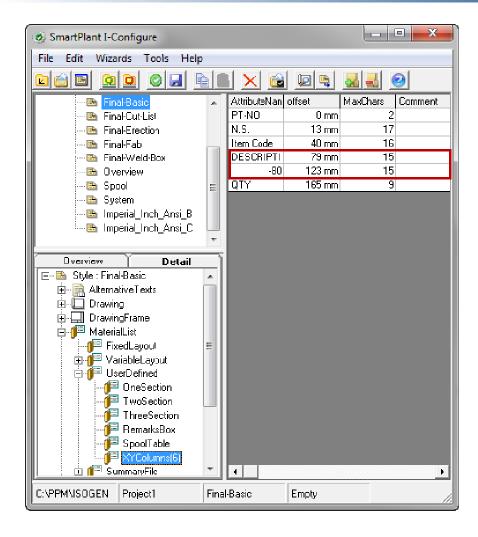
ISOGEN Configuration



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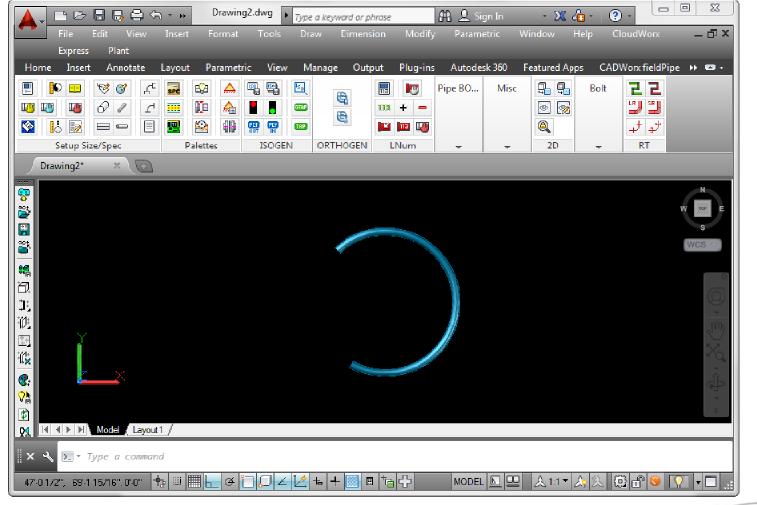
Short Description Text Wrapping







Support for Curved Pipe on IGO/IGB







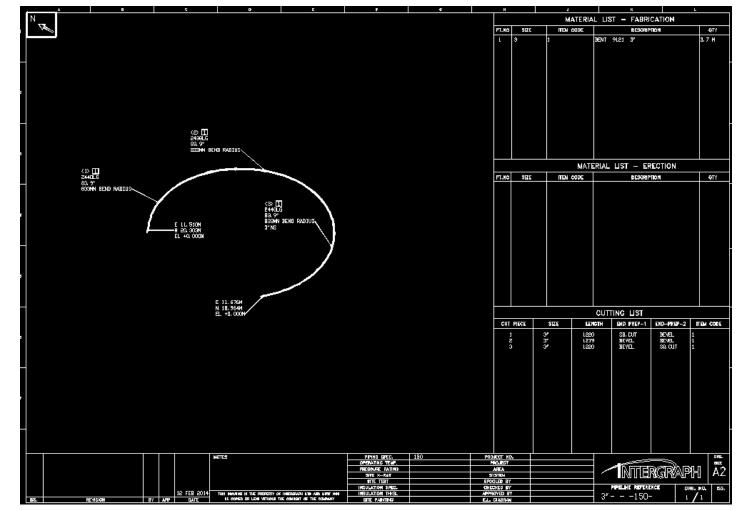
Support for Curved Pipe on IGO/IGB

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Support for Curved Pipe on IGO/IGB





Thank You



