



What's new in CADWorx

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Intergraph CADWorx & Analysis Solutions



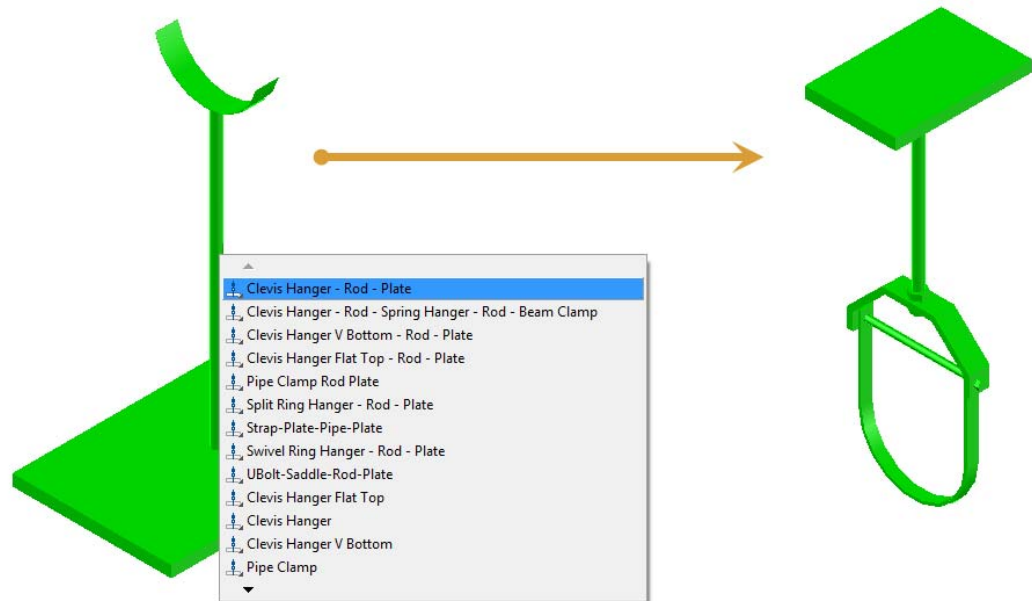
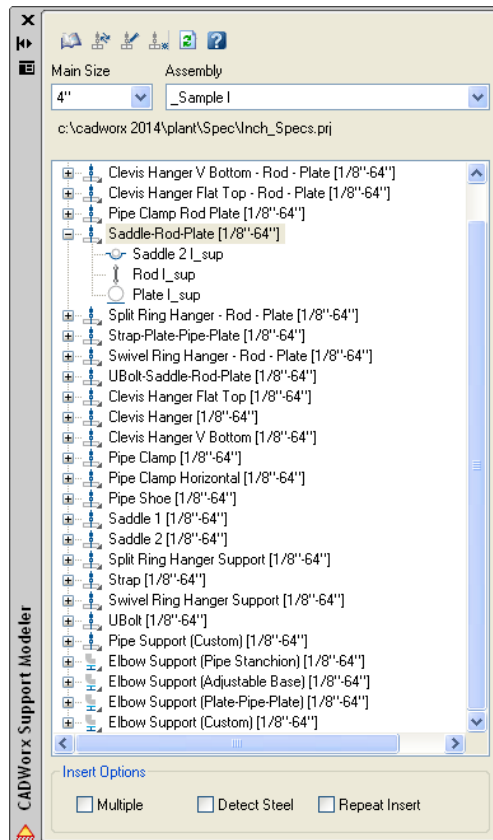
2014 Product Update

- 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

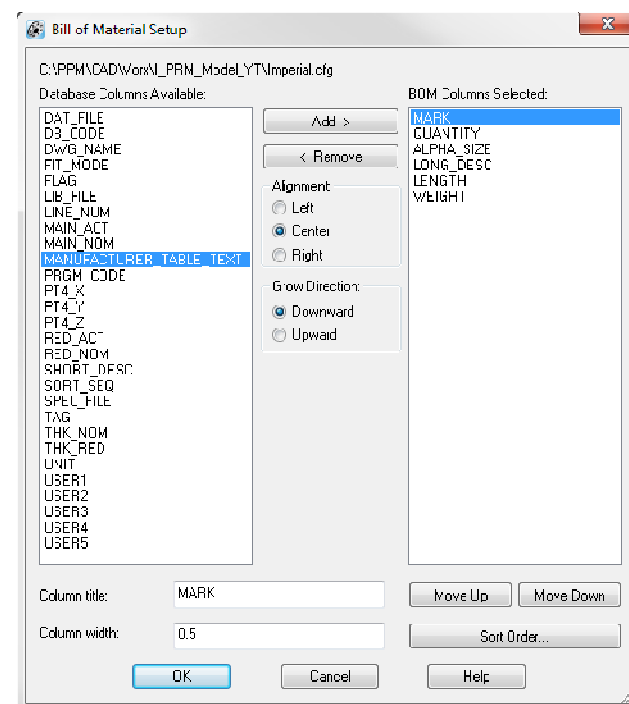
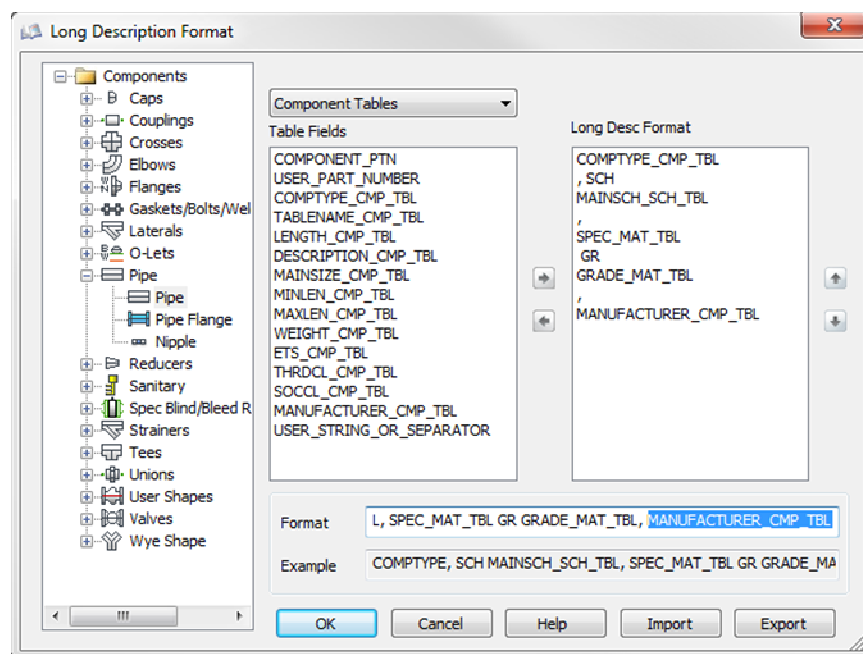
- Replace Pipe Support and Regenerate Pipe Support Data
- Pipe Support updates with Change Size and pipe movement





2014 Custom Data

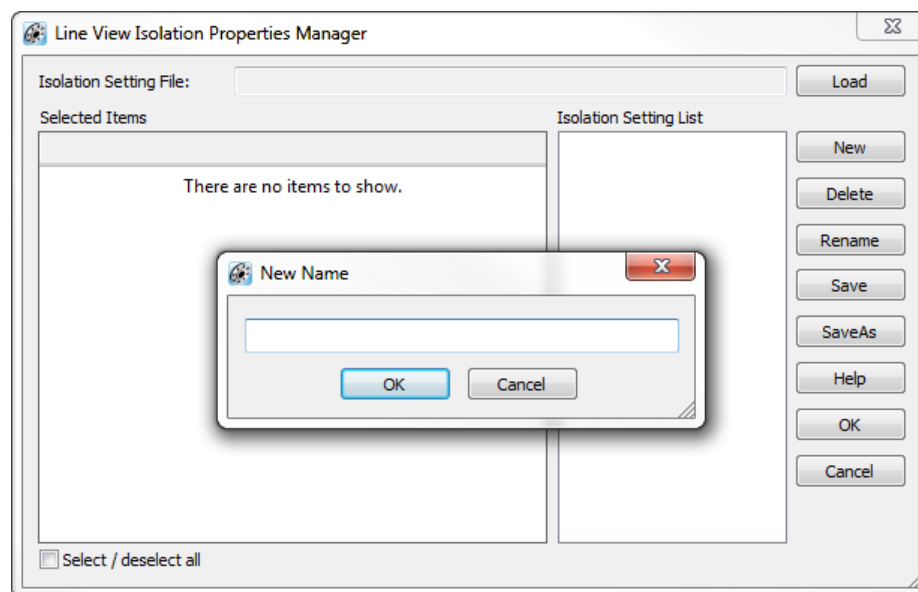
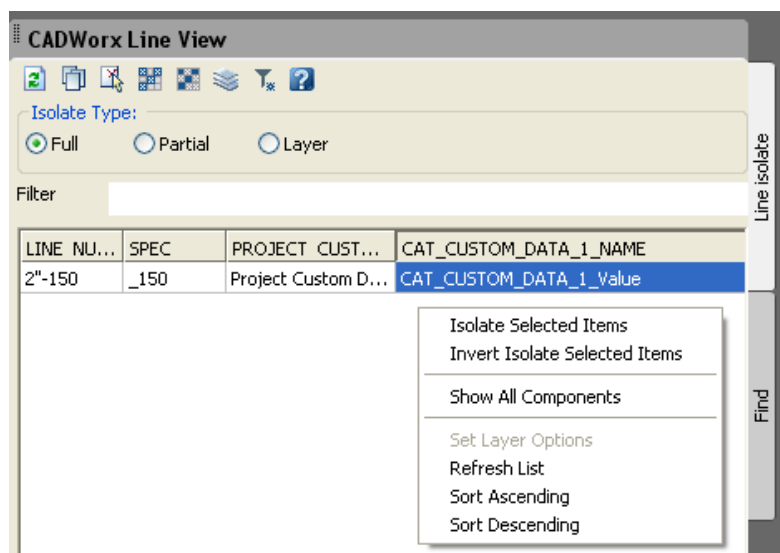
- Custom Data can be added to the Catalog and Specification
- Custom data can be added to any component category
- Custom data can be sent to the model and database





2014 Line View Palette Updates

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





2014 Generic Attach for Nozzles

Nozzle Generic Attach (Edit)

Description: Suction Nozzle

Equipment Name: P-101

Size: 6"

Flange Rating: 150

Flange Thickness: 1"

Flange Type: RFWN

Layer: Equip

Color: ☐ ByLayer

End Point: End

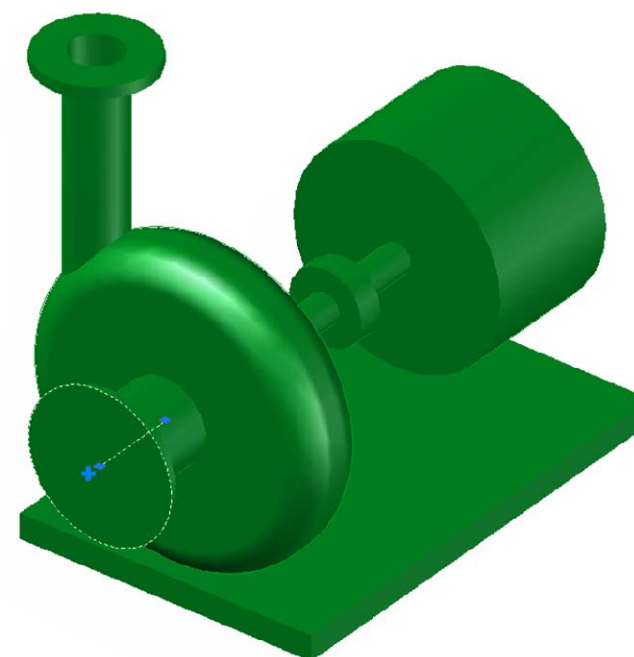
Specify On-screen

X: 45'

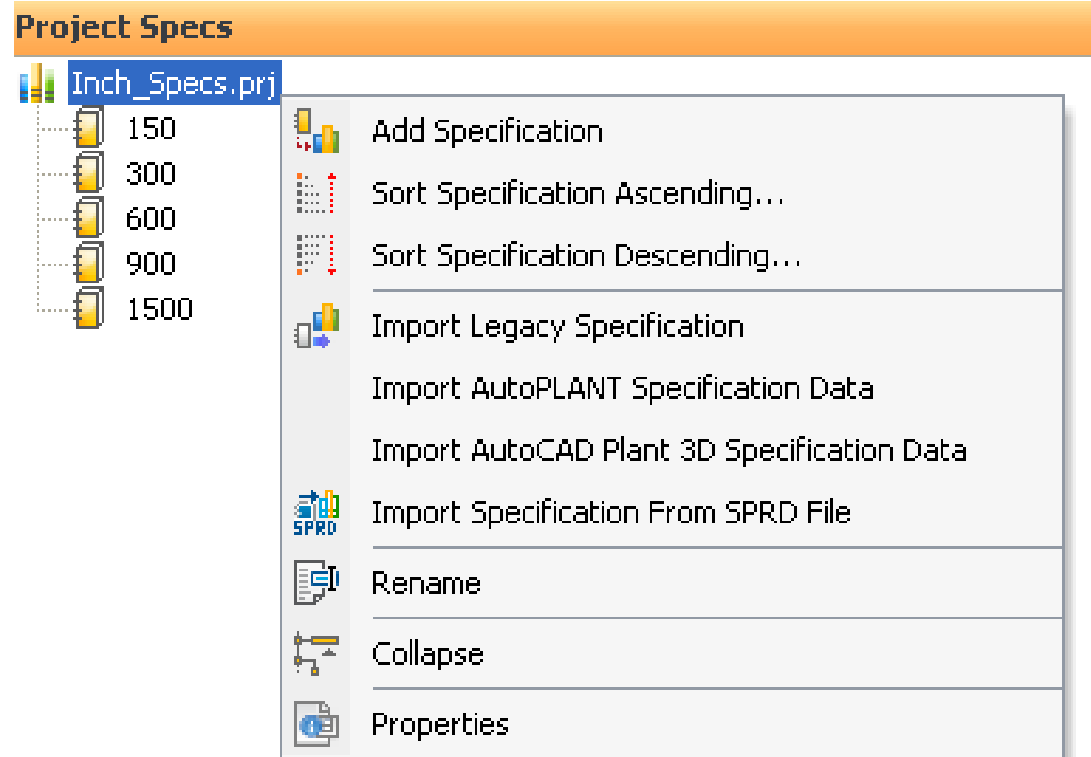
Y: -11'-6 5/8"

Z: 1'-2"

OK Remove Cancel Help



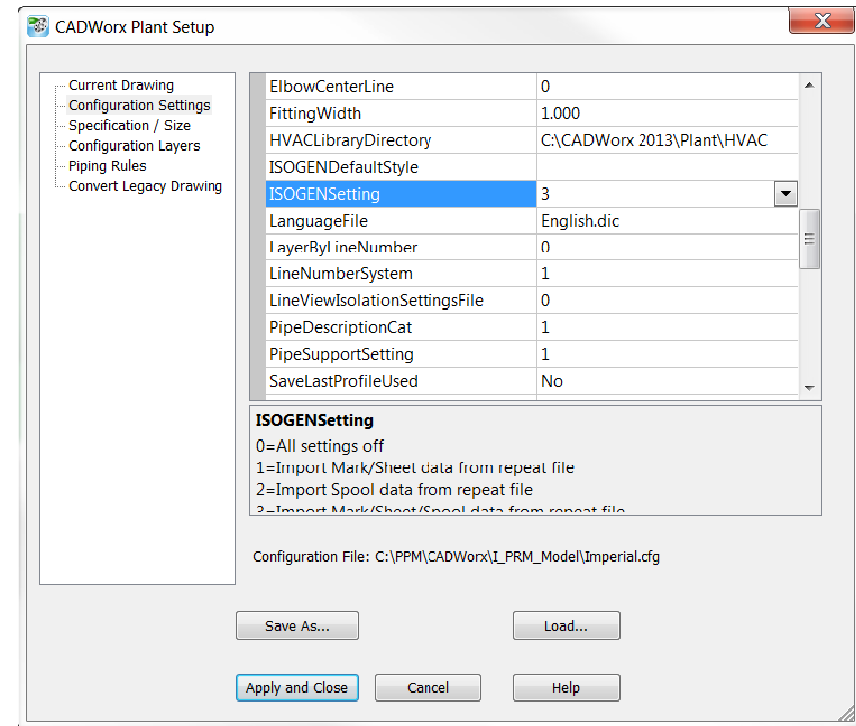
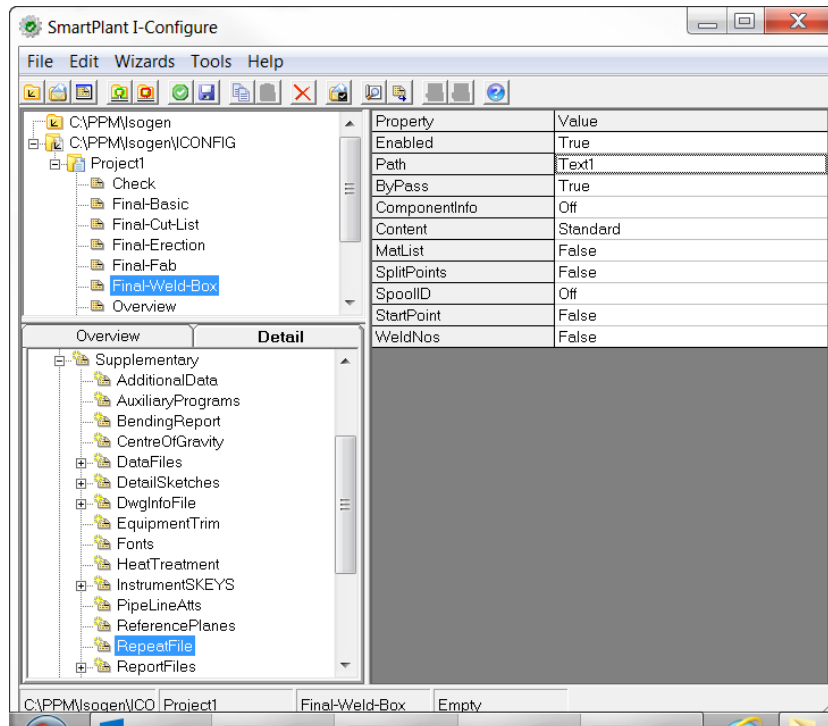
2014 Import Specification from SPRD



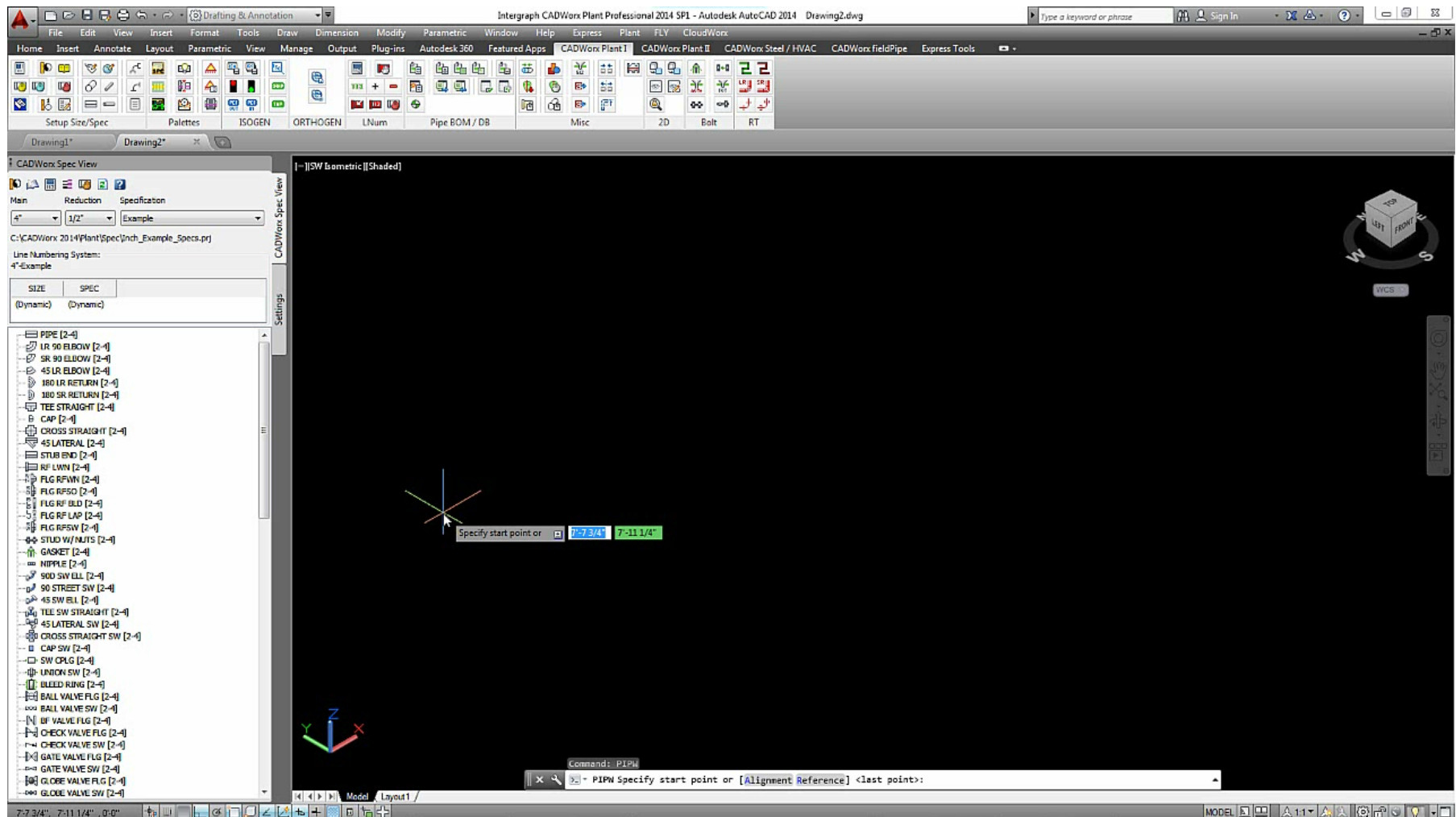
2014 ISOGEN Repeatability



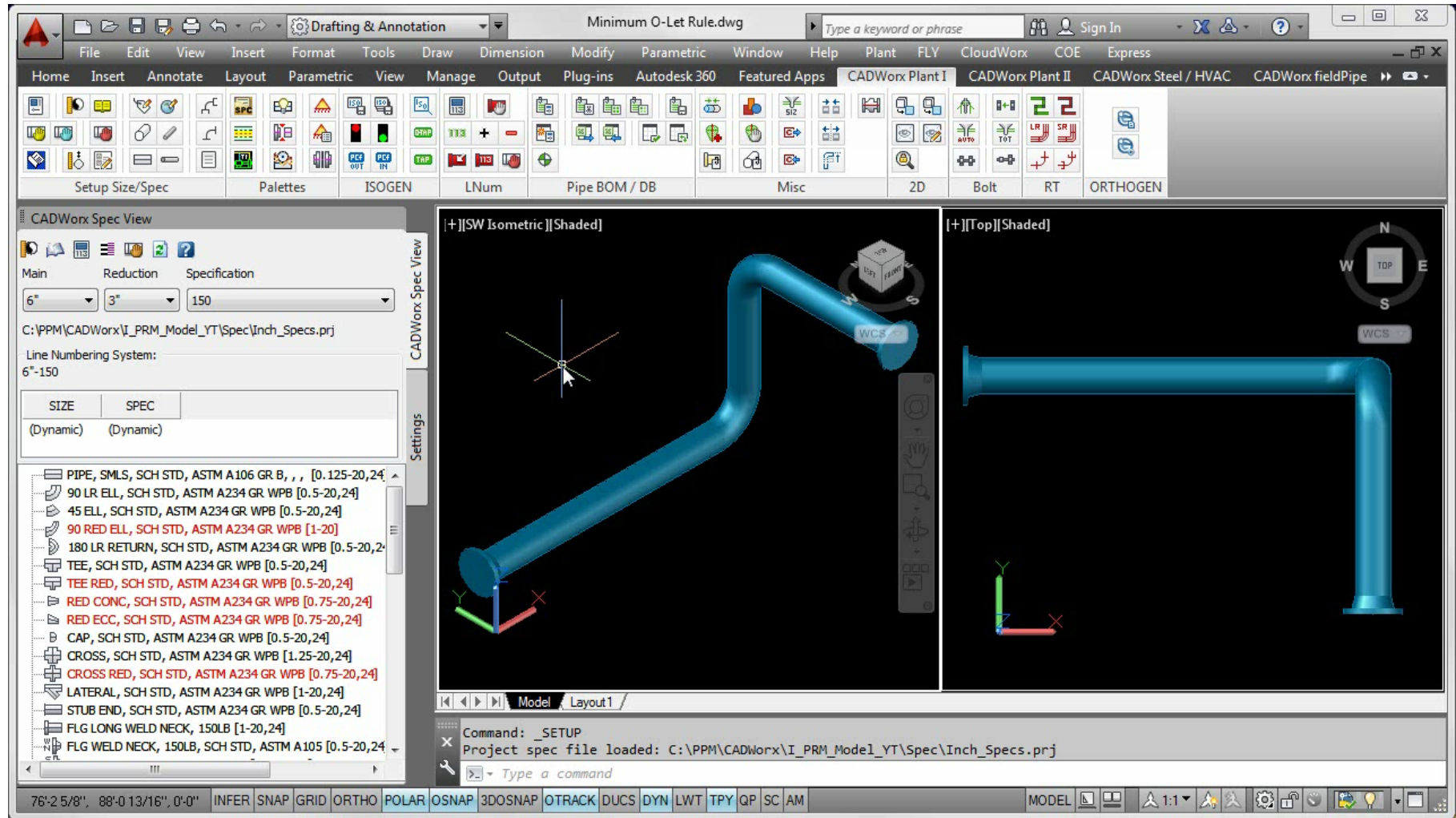
- I-Configure or OS Switch 109
- ISOGEN CEDIT Control for Sheet, Mark, Spool Number



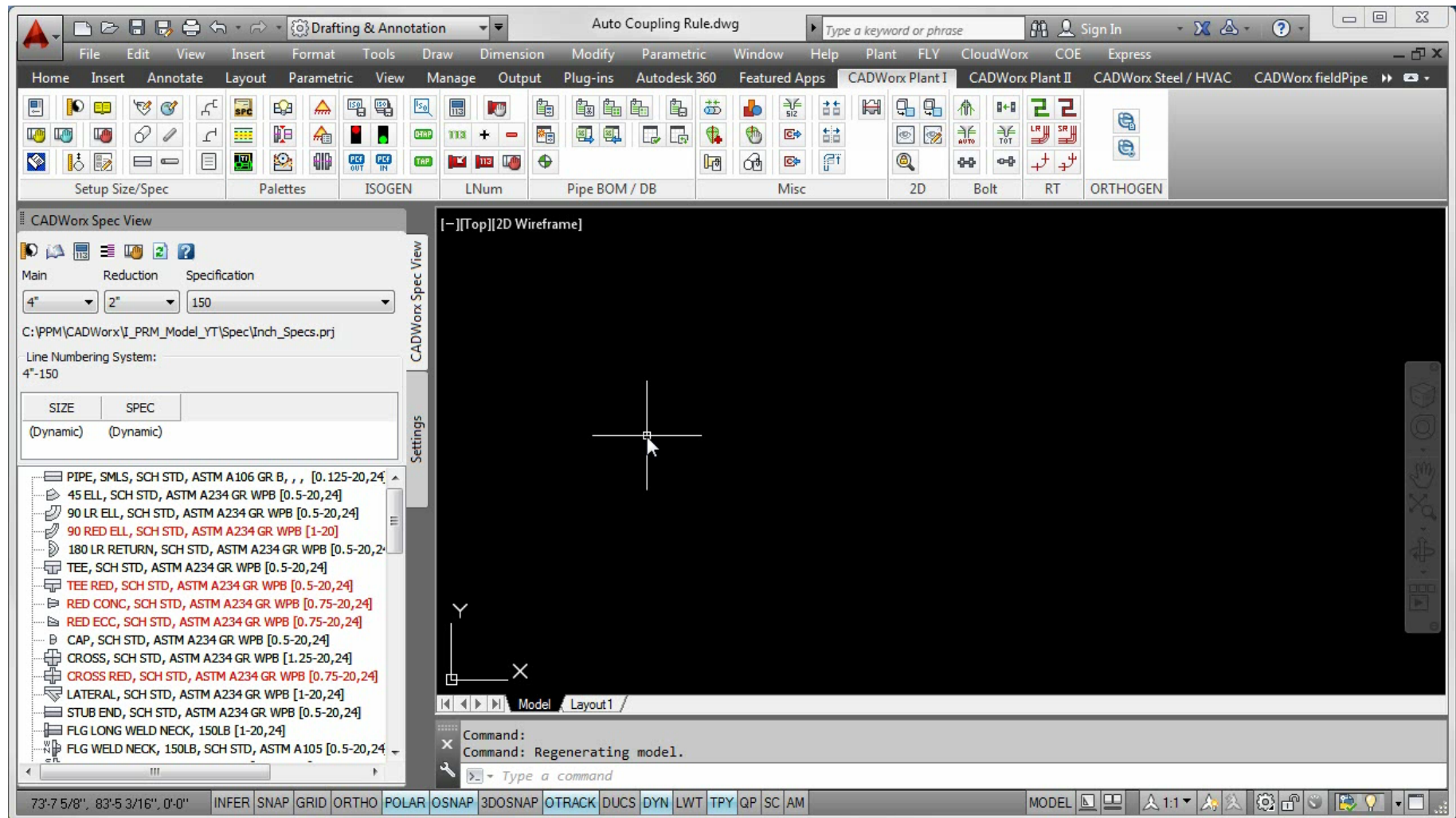
Routing Mitered Elbows



2014 O-let Min Spacing Piping Rule

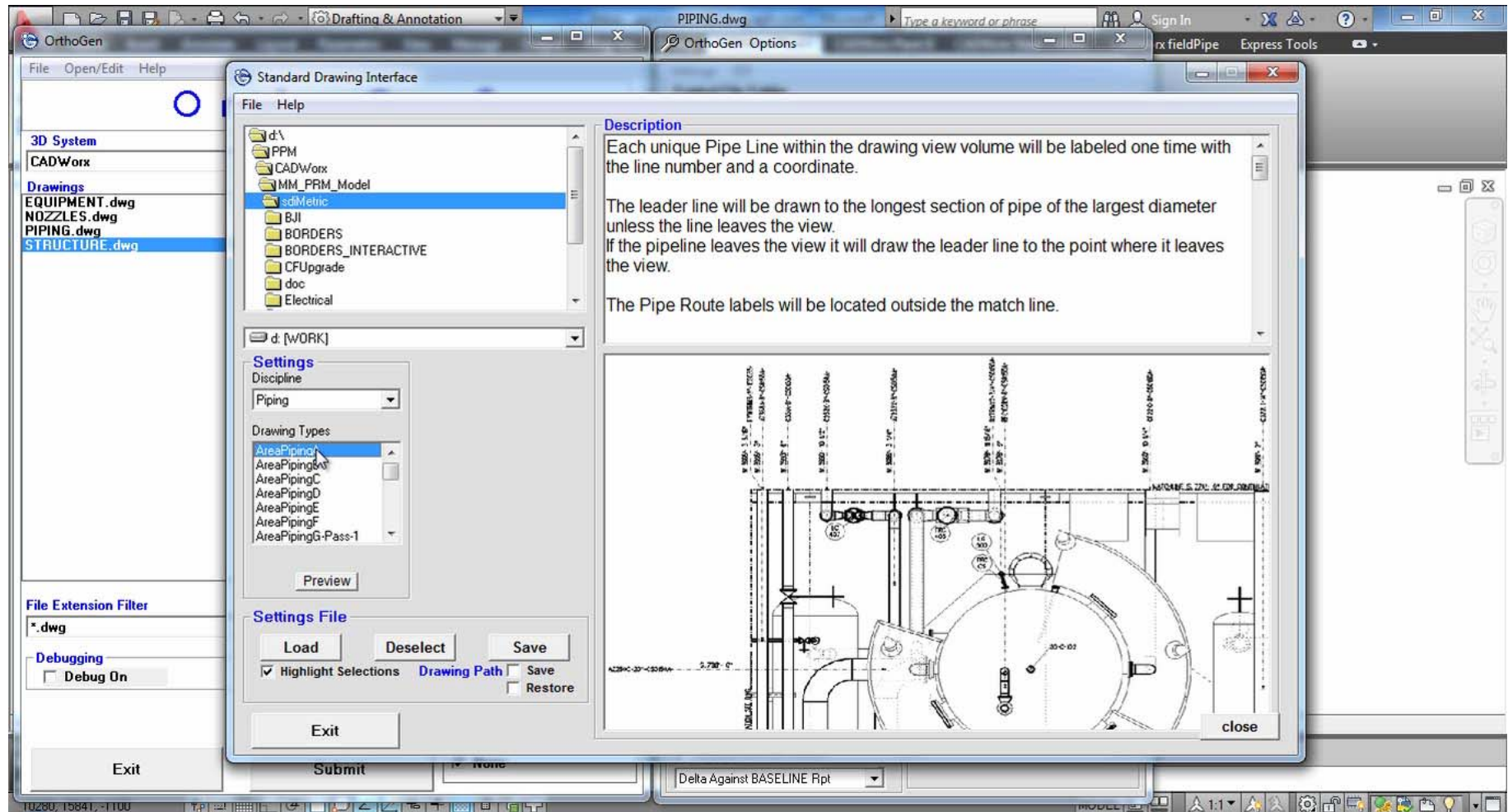


2014 Automatic Coupling Insertion



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

Name: DESIGN_PHASE

Title: Design Phase

Description: Design_Phase

Data Type: List

Required Input: No

Validation Rule:

Default Value:

☒ Attach Field to Components

OK Cancel Help

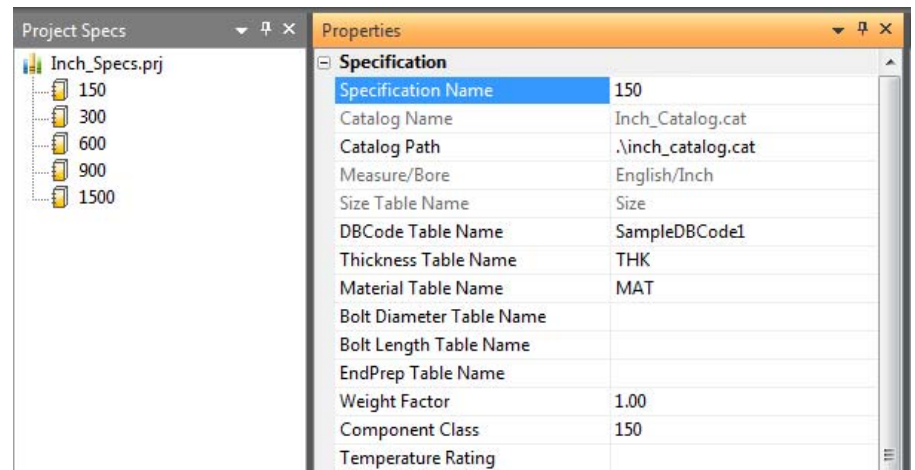
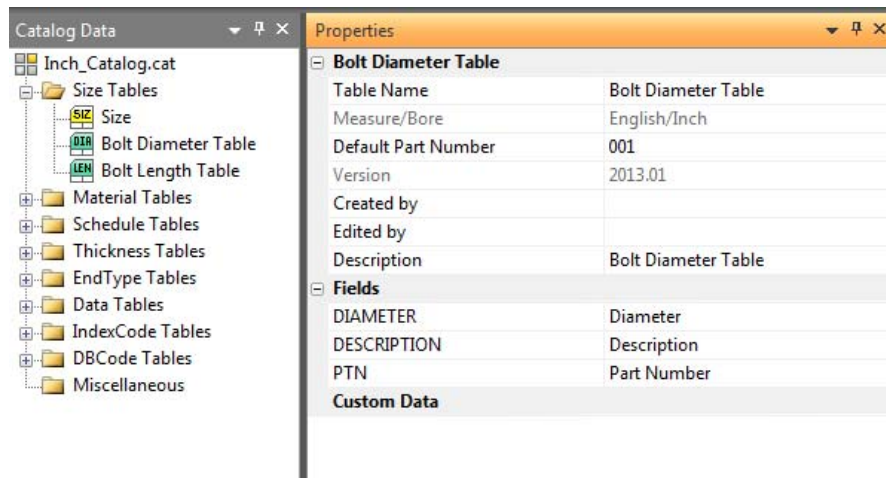
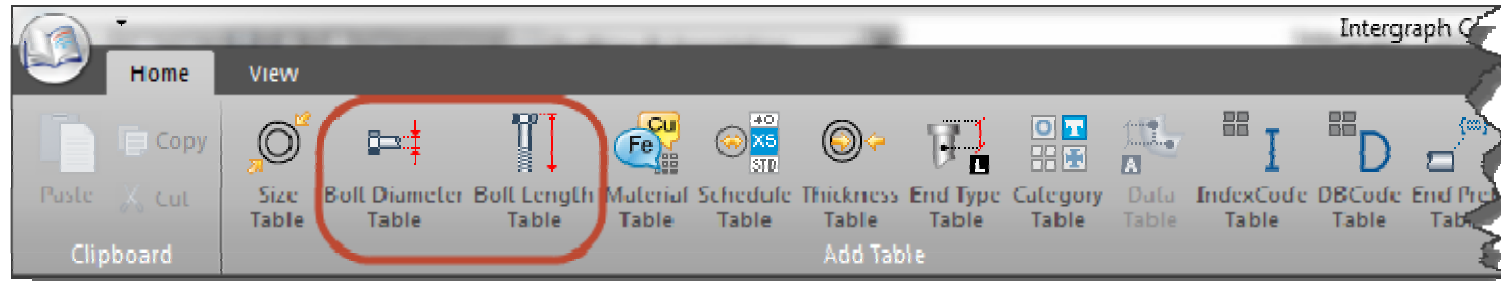
List Items

Item

- FEED
- 40% Detailing Phase
- 60% Detailing Phase
- 80% Detailing Phase
- Final Design
- As-built

OK Cancel

New Size Tables



Pre-define ISOGEN end types symbols for components



Edit component: Crosses-Cross Reducing

Component Setup:

Group: Crosses

Type: Cross Reducing

Data Table: CRS_RD_BW

☐ Data Table Update Only

Size Range: 1.25-24

BOM Type: Fabrication

Layer Name: 150

Color Index: 7 - White/Black

IndexCode:

☐ Optional Component

EndType Data Table

☒ Apply same end type to all ends

	ISOGEN Sym.
Start: BW	BW
End: BW	BW
Branch1: BW	BW
Branch2: BW	BW

ISOGEN Symbol Information:

Identifier:

SKEY:

Topworks:

Schedule & Material:

Main: Use Specification Schedule

Reduction: Use Specification Schedule

Material: ASTM A234-WPB

Class & Rating :

Connection: Start

Component Class: 150

Temperature Rating:

Pressure Rating:

☐ Apply same rating to all ends

Sort Sequence: 14

Description fields in schema update



Long Description Format

Component Tables

Table Fields

COMPONENT_PTN	LE
USER_PART_NUMBER	DE
COMPTYPE_CMP_TBL	US
TABNAME_CMP_TBL	
LENGTH_CMP_TBL	
DESCRIPTION_CMP_TBL	
MAINSIZE_CMP_TBL	
REDSIZE_CMP_TBL	
CENEND1_CMP_TBL	
CENEND2_CMP_TBL	
CENEND3_CMP_TBL	
CENEND4_CMP_TBL	
WEIGHT_CMP_TBL	
ETS_CMP_TBL	
COMPONENT_PTN	
USER_PART_NUMBER	
COMPTYPE_CMP_TBL	
TABNAME_CMP_TBL	

Long Desc Format

COMPTYPE_CMP_TBL
, SCH
BRANCHSCH_SCH_TBL
,
SPEC_MAT_TBL
GR
GRADE_MAT_TBL

Format: COMPTYPE_CMP_TBL, SCH BRANCHSCH_SCH_TBL, SPEC_MAT_TBL GR

Example: Cross, SCH BRANCHSCH_SCH_TBL, SPEC_MAT_TBL GR GRADE_MAT_TBL

OK Cancel Help

Edit component: Crosses-Cross Reducing(*)

Component Setup:

Group: Crosses

Type: Cross Reducing

Data Table: CRS_RD_BW

☐ Data Table Update Only

Size Range: 1.25-24

BOM Type: Fabrication

Layer Name: 150

Color Index: 7 - White/Black

Index Code:

☐ Optional Component

EndType Data Table

☒ Apply same end type to all ends

ISOGEN Sym.

Start: BW BW

End: BW BW

Branch 1: BW BW

Branch 2: BW BW

ISOGEN Symbol Information:

Identifier:

SKEY:

Topworks:

Description:

Long: COMPTYPE_CMP_TBL, SCH BRANCHSCH_SCH_TBL, SPEC_MAT_TBL GR GRADE_MAT_TBL

Short: Cross Reducing Buttfield

Tag: Using Project Format

Part Number: COMPONENT_PTN-MAIN_SIZE_PTN-RED_SIZE_PTN-MAIN_SCHEDULE_PTN-REDUCE

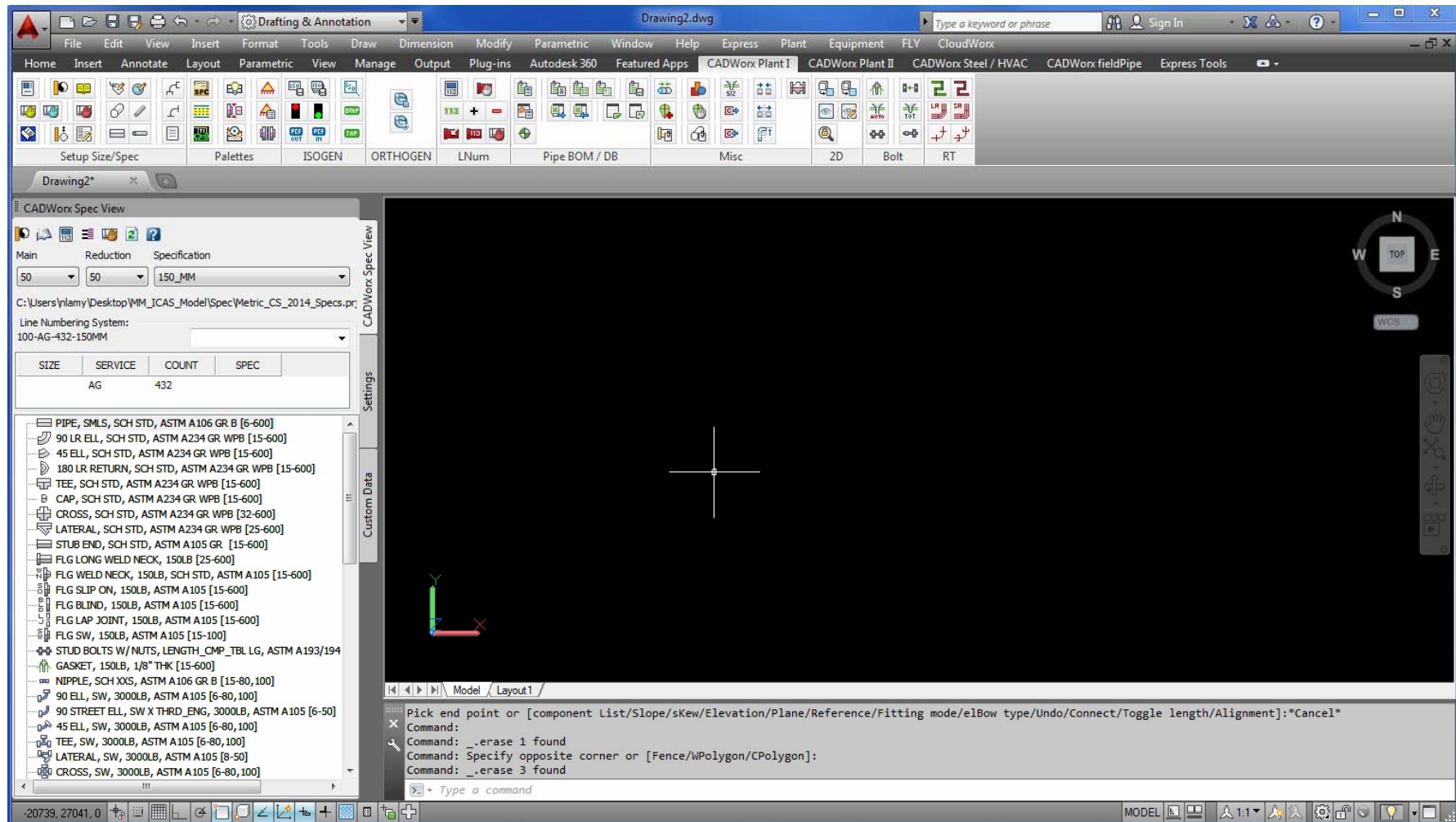
Notes:

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



CADWorx 2014 Overview

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Custom Data Lists

Component Edit (1 of 1)

Alpha size: 6"

Short annotation: Pipe

Long annotation: PIPE, SMLS, SCH STD, ASTM A106 GR B

Line number: 6"-150

Tag:

Code: 9121-0015-0G-

Weight: 18.95428

Sort sequence: 1

Length: 39.64099

Component type: Pipe (Command=PIPW) (English/Inch)

Specification: 150

Coordinates: ☒ World ☐ Iso

Miscellaneous: ☐ Existing

ISOGEN Custom Data Remove

OK Cancel Exit Help

Component Custom Data

Field Title	Field Description	Field Value
Design_Phase	Design_Phase	40% Detailing Phase
		FEED
		40% Detailing Phase
		60% Detailing Phase
		80% Detailing Phase
		Final Design
		As-built

OK Cancel Help

Custom Data List Override



CADWorx Spec View

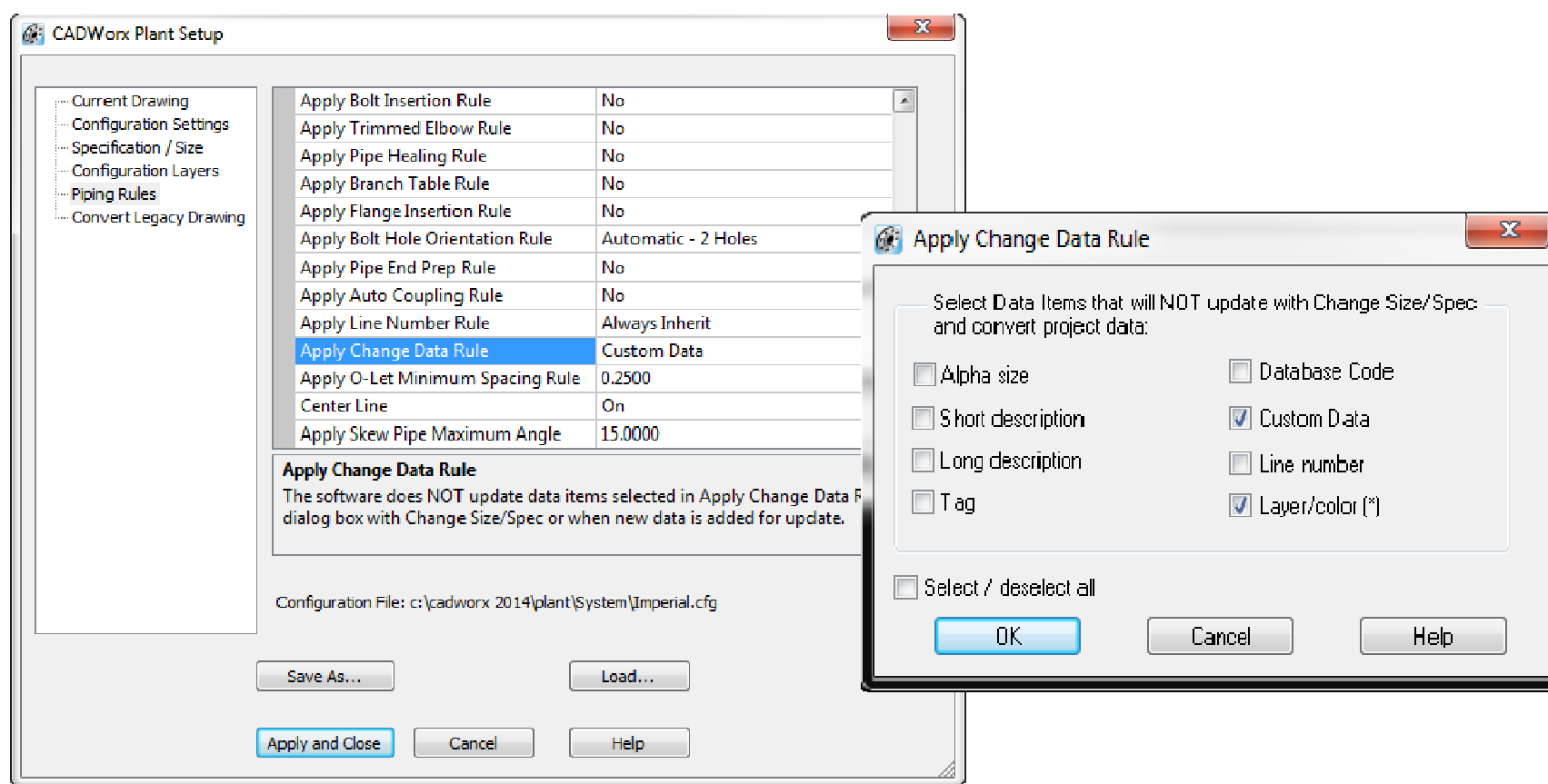
Field Title	Description	Default value
Design_Phase	Design_Phase	40% Detailing Phase

FEED
40% Detailing Phase
60% Detailing Phase
80% Detailing Phase
Final Design
As-built

CADWorx Spec View
Settings
Custom Data

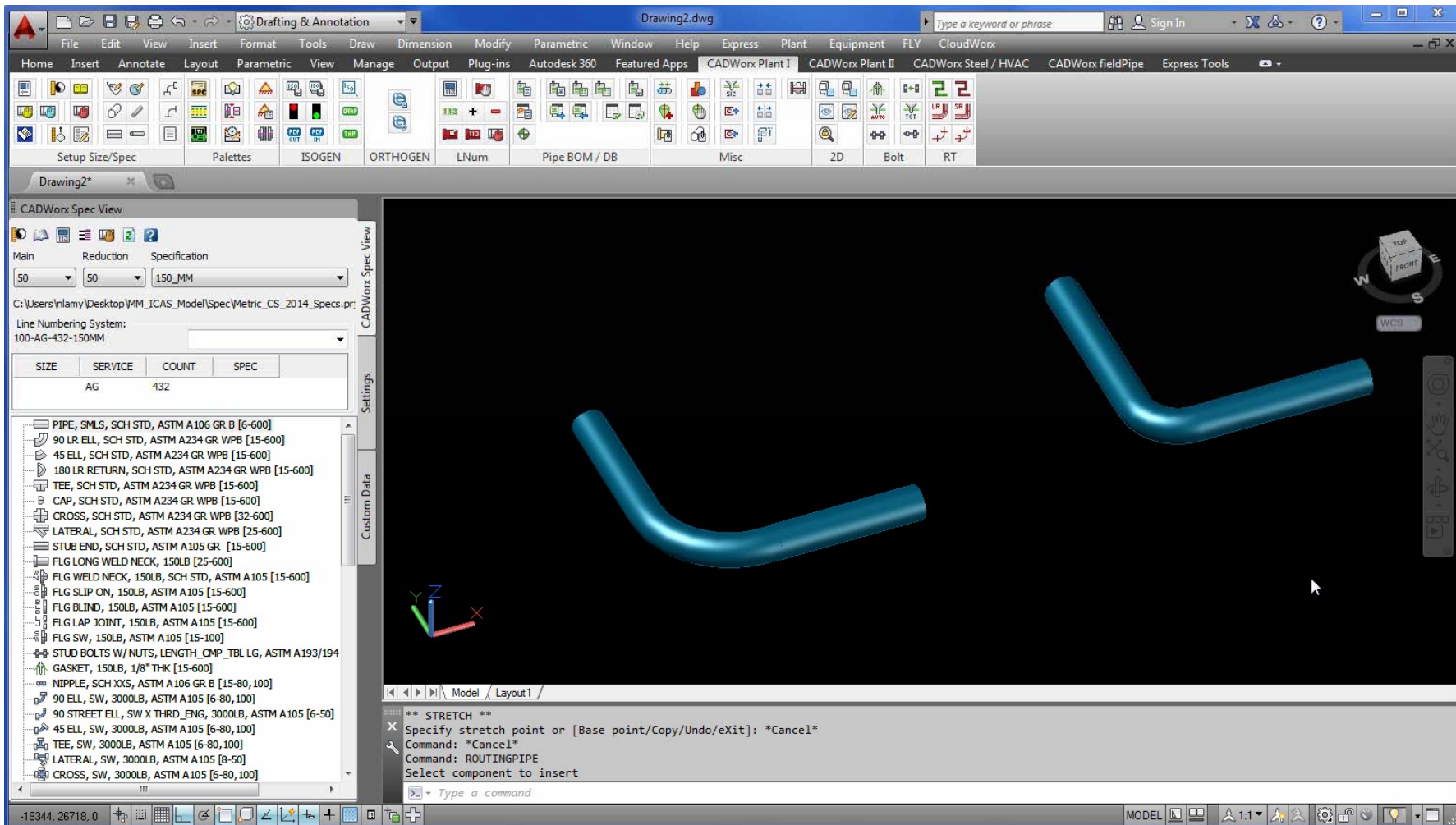


Apply Change Data Rule





Insert O-lets on Bends or Elbows



CADWorx 2014 Overview

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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



ECP ISOGEN CONFIGURATION

Final-Weld-Box Drawing Area Piping Components

Search

Piping Components

- Pipe
- Valves
- Instruments
- Supports
- Bends
- Elbows
- Flanges
- Gaskets
- Multi-Port
- Alternative Texts

MATERIAL LIST - SECTION

ITEM NO	ITEM CODE	DESCRIPTION	QTY
1	PIPE	PIPE, ASTM A106 Gr. B, 2.0 m	1
2	FLANGE	FLANGE, ASTM A106 Gr. B, 2.0 m	1
3	VALVE	VALVE, 2.0 m, ASTM A106 Gr. B, 2.0 m	1
4	ELBOW	ELBOW, 2.0 m, ASTM A106 Gr. B, 2.0 m	1
5	FLANGE	FLANGE, ASTM A106 Gr. B, 2.0 m	1
6	VALVE	VALVE, 2.0 m, ASTM A106 Gr. B, 2.0 m	1
7	ELBOW	ELBOW, 2.0 m, ASTM A106 Gr. B, 2.0 m	1
8	FLANGE	FLANGE, ASTM A106 Gr. B, 2.0 m	1
9	VALVE	VALVE, 2.0 m, ASTM A106 Gr. B, 2.0 m	1
10	ELBOW	ELBOW, 2.0 m, ASTM A106 Gr. B, 2.0 m	1

WELDING LIST

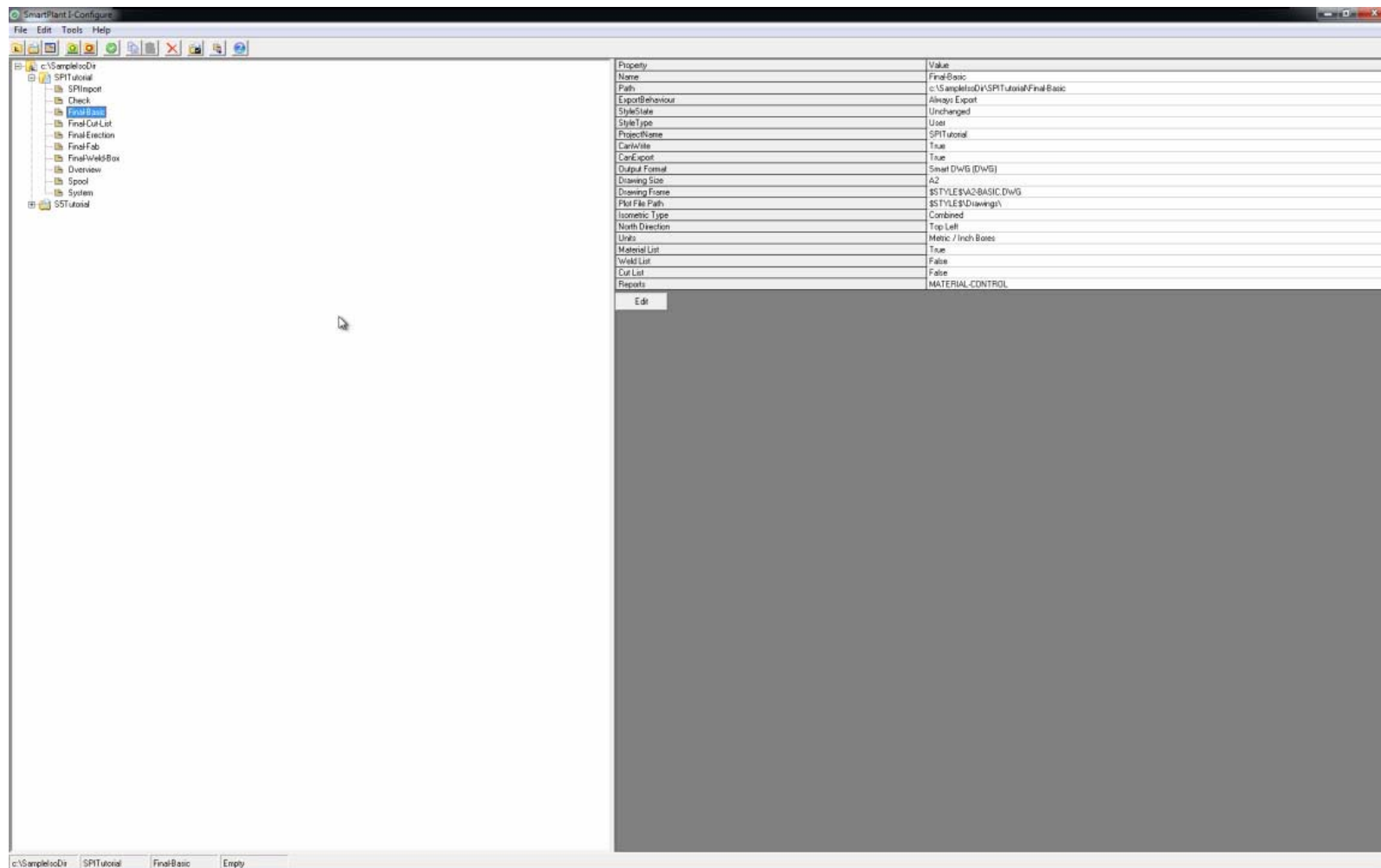
WELD NO.	ITEM CODE	TYPE	WELD FIELD	LOCATION
1	PIPE	PIPE	PIPE	1-1
2	FLANGE	FLANGE	FLANGE	1-2
3	VALVE	VALVE	VALVE	1-3
4	ELBOW	ELBOW	ELBOW	1-4
5	FLANGE	FLANGE	FLANGE	1-5
6	VALVE	VALVE	VALVE	1-6
7	ELBOW	ELBOW	ELBOW	1-7
8	FLANGE	FLANGE	FLANGE	1-8
9	VALVE	VALVE	VALVE	1-9
10	ELBOW	ELBOW	ELBOW	1-10
11	FLANGE	FLANGE	FLANGE	1-11
12	VALVE	VALVE	VALVE	1-12
13	ELBOW	ELBOW	ELBOW	1-13
14	FLANGE	FLANGE	FLANGE	1-14
15	VALVE	VALVE	VALVE	1-15
16	ELBOW	ELBOW	ELBOW	1-16
17	FLANGE	FLANGE	FLANGE	1-17
18	VALVE	VALVE	VALVE	1-18
19	ELBOW	ELBOW	ELBOW	1-19
20	FLANGE	FLANGE	FLANGE	1-20

INTERGRAPH A2

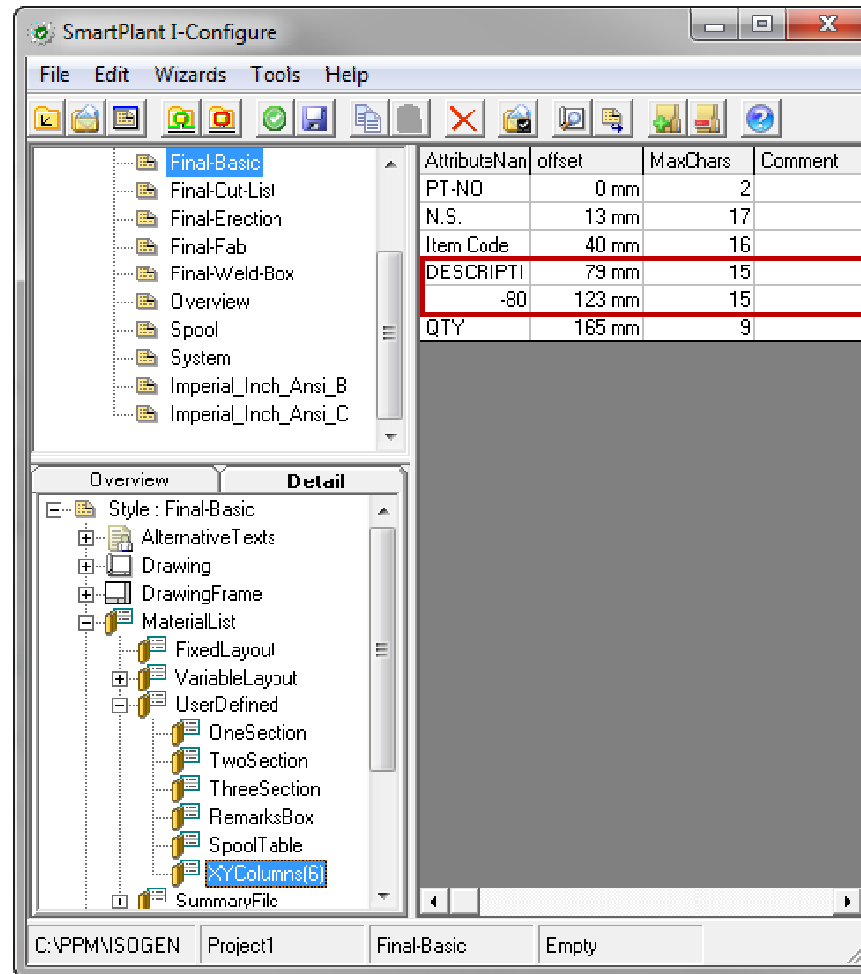
PREVIEW-01_1

Drawing Setup Tool Exit Save

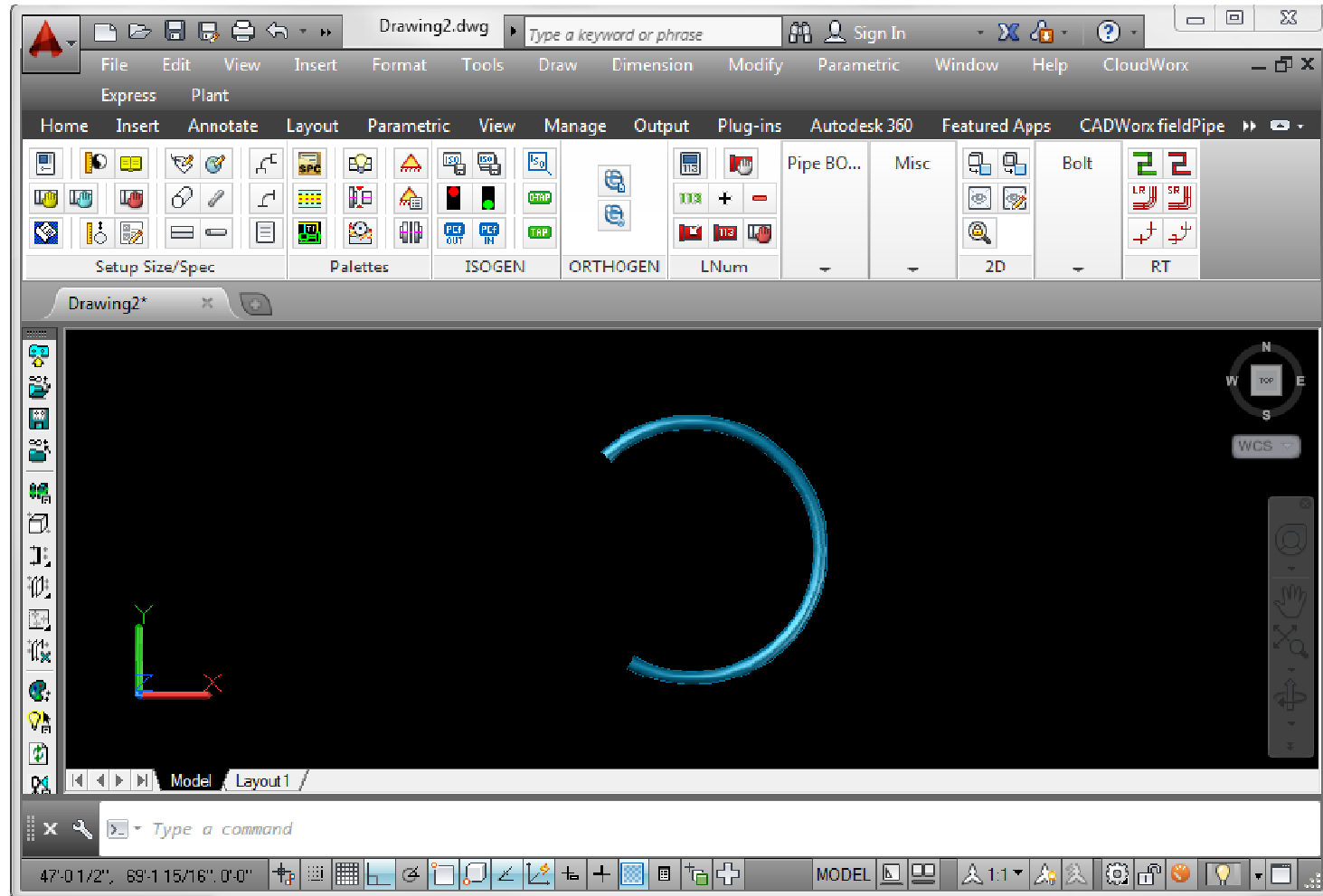
ISOGEN Configuration



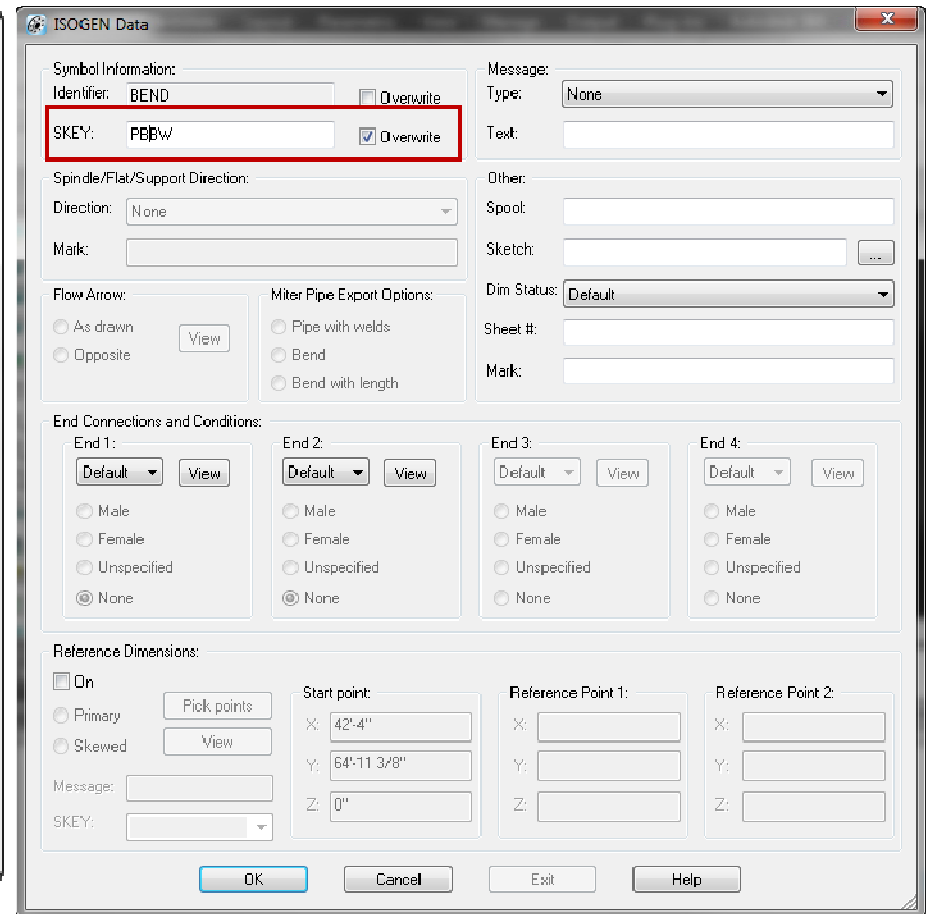
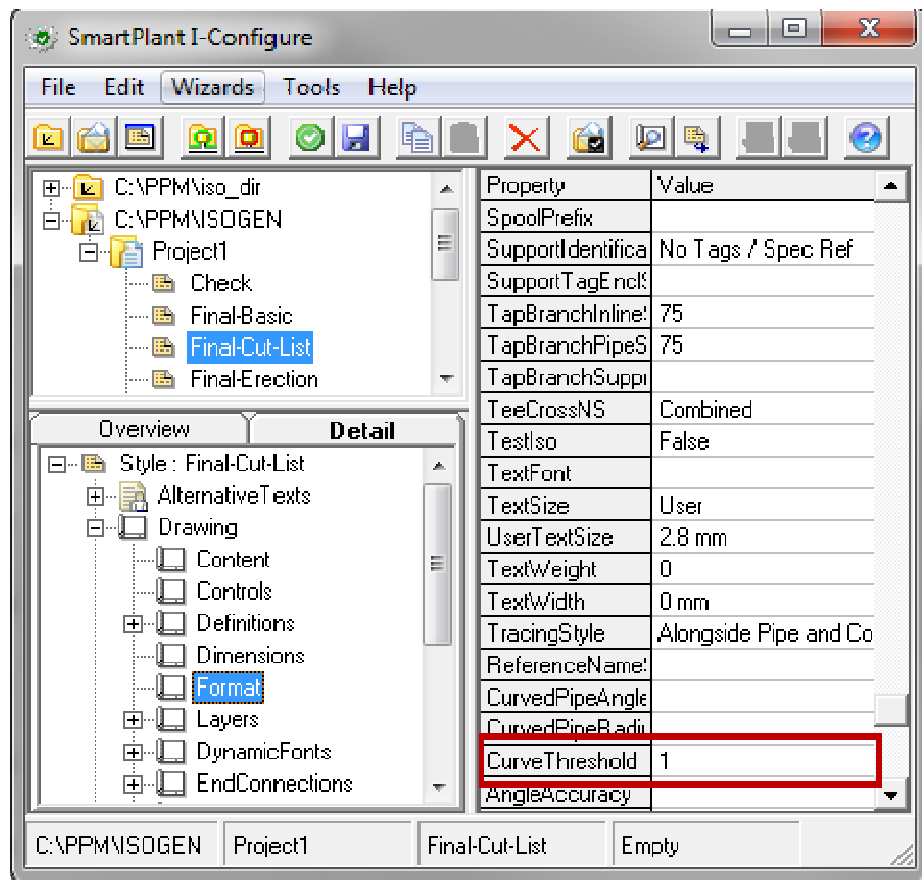
Short Description Text Wrapping



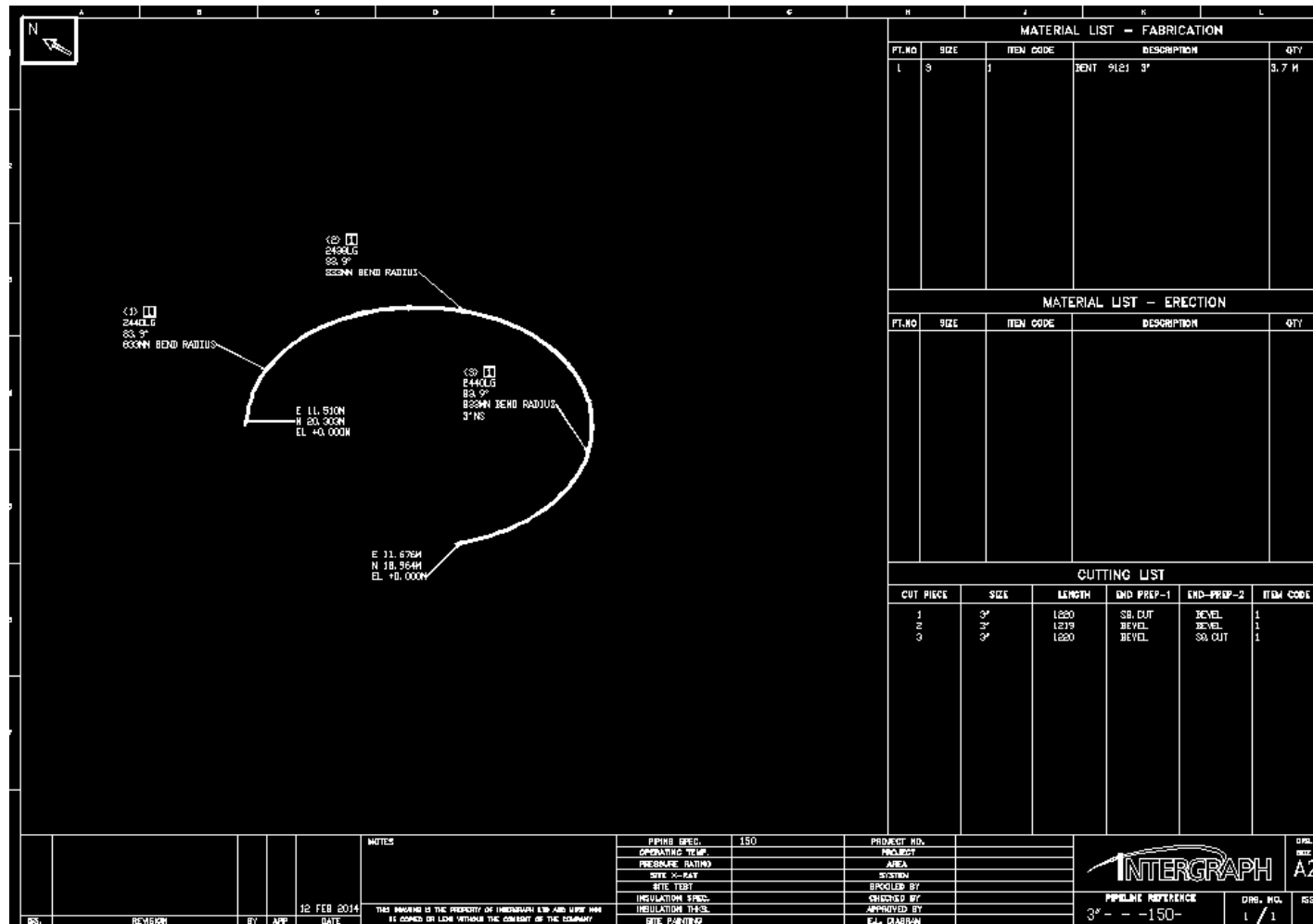
Support for Curved Pipe on IGO/IGB



Support for Curved Pipe on IGO/IGB



Support for Curved Pipe on IGO/IGB



Thank You

