

Bentleyuser.dk ÅRSMØDE 2011

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Bentley OpenPlant Update

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Today's Agenda

OpenPlant PowerPID SELECTseries 4

OpenPlant Modeler SELECTseries 3

Interoperability & Design Collaboration

Focus on OpenPlant PowerPID V8i

OpenPlant PowerPID V8i is the first version of our newest P&ID application. OpenPlant PowerPID is the first commercial application based on the ISO 15926 Open Data Standard

- OpenPlant PowerPID is Data Centric
- OpenPlant PowerPID uses an industry data model and not a proprietary model
- Data in OpenPlant PowerPID belongs to the user and is not locked into the application
 - Data can be imported and exported using the OWL format produced through the use of iRING tools.

Focus on OpenPlant PowerPID V8i

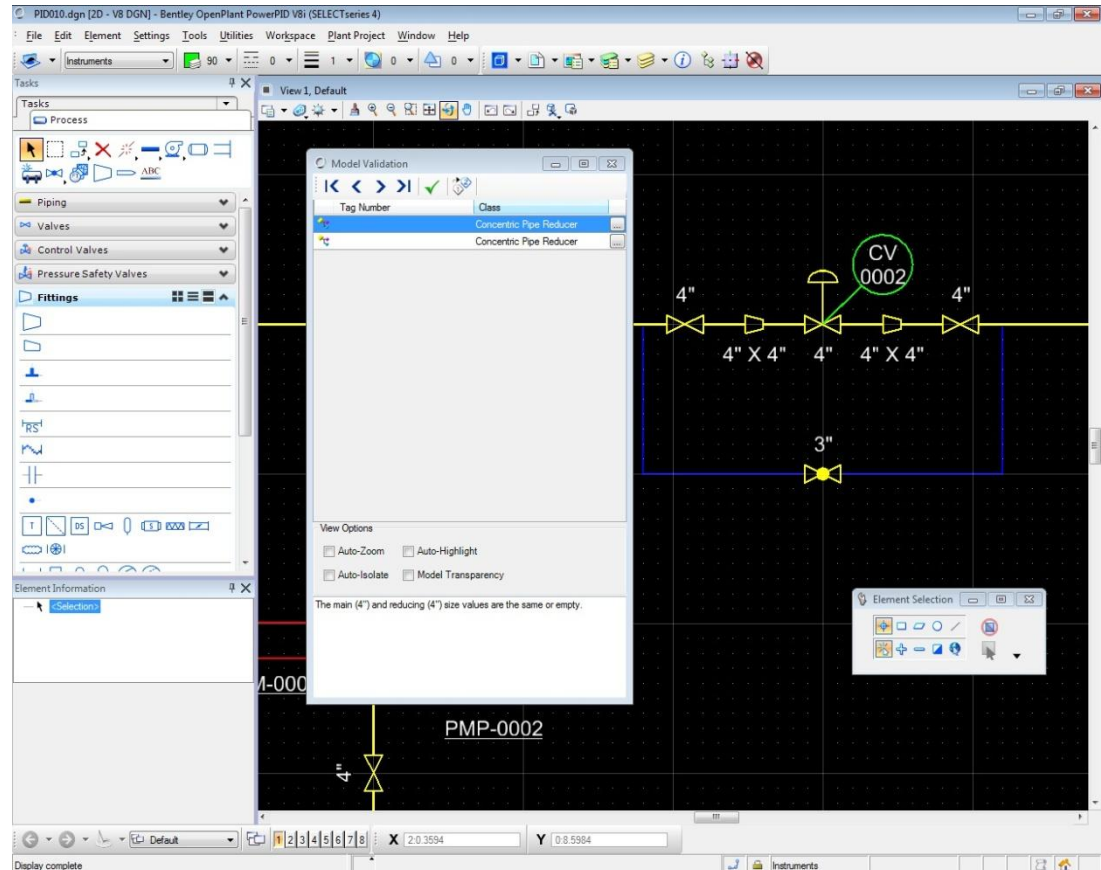
Key Innovations

- Support for both DGN and DWG
 - Native use of DGN or DWG formats – The drawing intelligence is persisted in the ISO15926 class structure regardless of format.
 - Your users can work in a single P&ID application and overall training costs go down.

Focus on OpenPlant PowerPID V8i

Key Innovations –

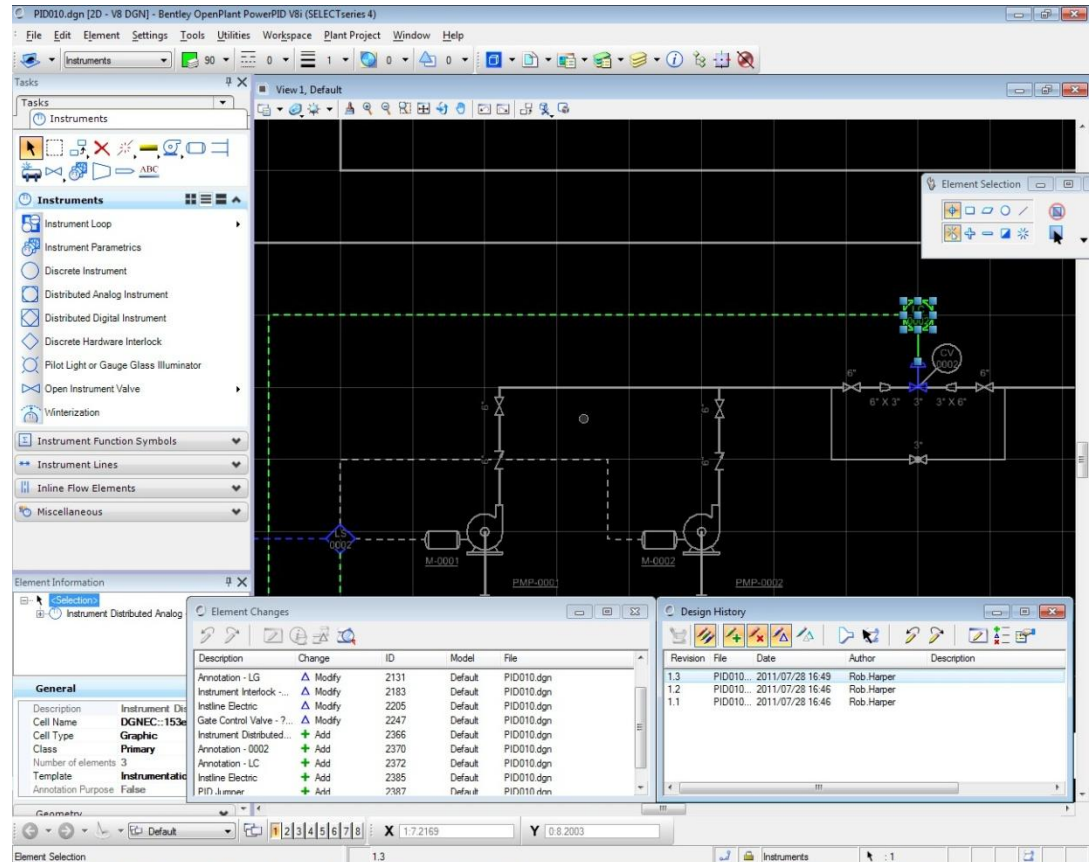
- Model Validation Rules for Easy Customizations
 - Design Rules to validate components in your P&IDs. Ensures that your components meet your requirements.



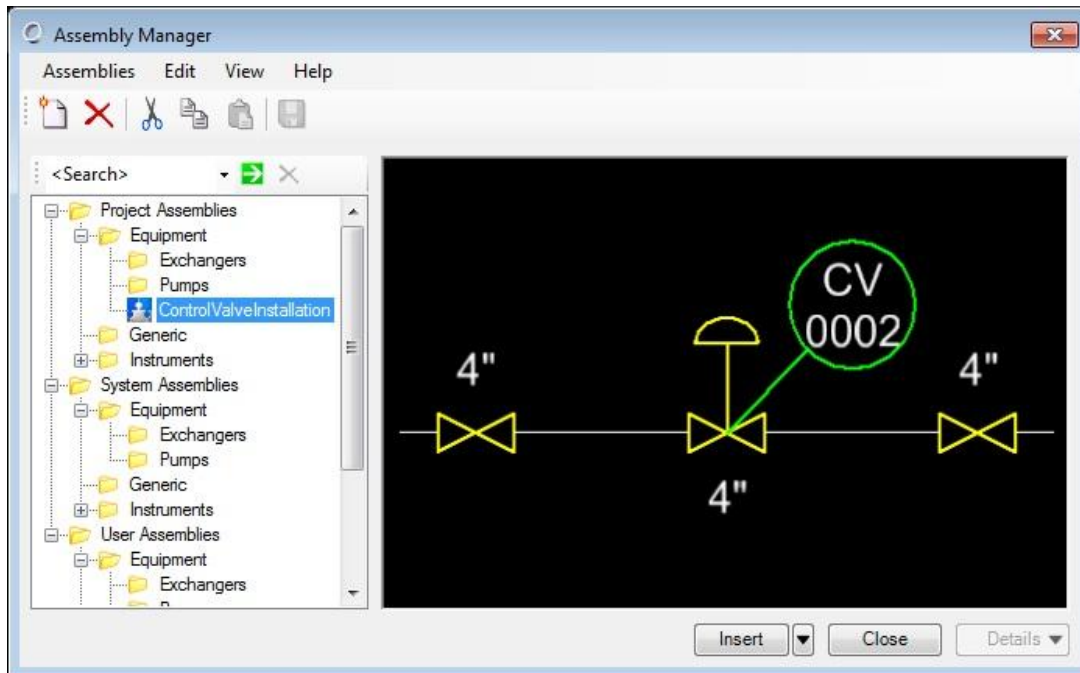
Focus on OpenPlant PowerPID V8i

Key Innovations –

- Design History
 - Ability to save revisions and rollback to a previous design state.
 - Visual indication of changes made, both graphical and data, allowing users to review previous revisions directly in the design application.

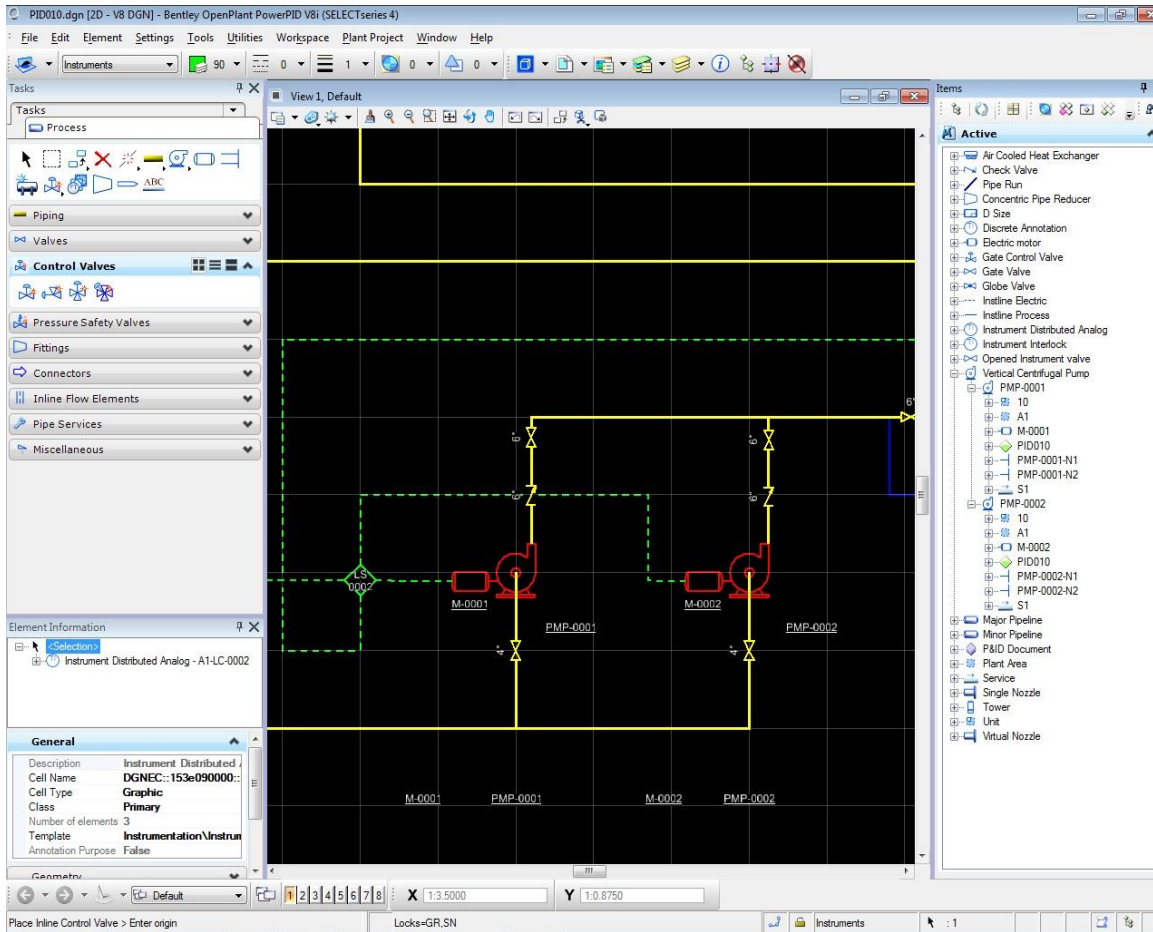


OpenPlant PID V8i Assembly Manager



- Choose location to store assemblies (local or on a server)
- Insert as an Assembly or as individual components
- Inline assemblies are also available (Control Valve stations, etc)
- Store frequently used assemblies for repeated use and lower drafting time.

Content Browser

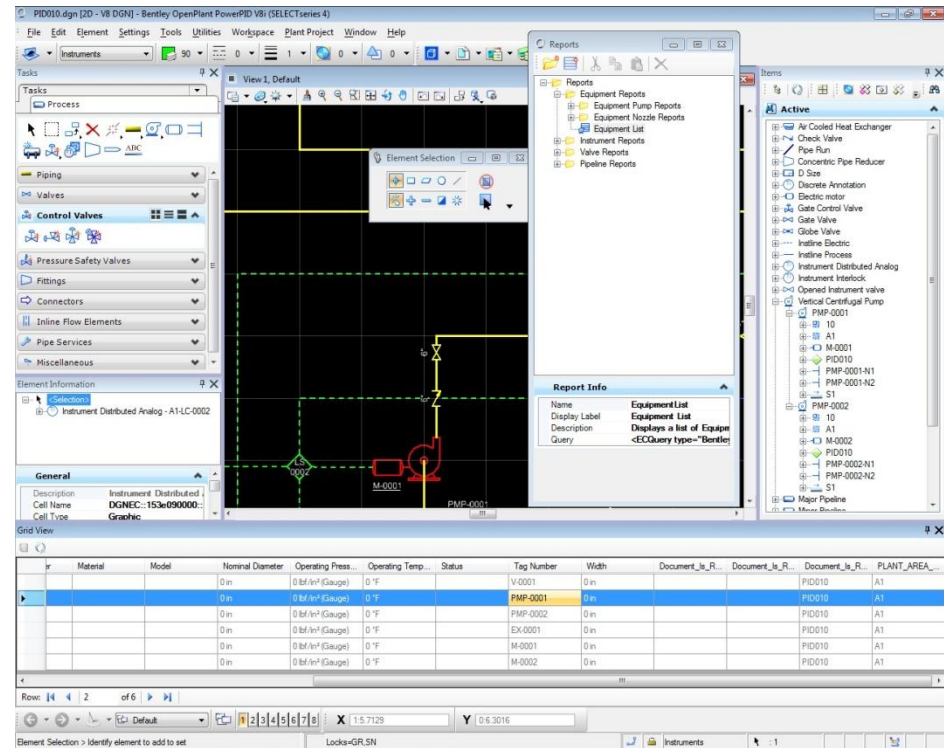


- Easy way to navigate your dense P&IDs
- Find Components – Zoom to them, Isolate them, or highlight them
- Navigate to connected components

Focus on OpenPlant PowerPID V8i

Key Innovations –

- Reporting
 - Reports can be placed directly on the P&ID or viewed and edited in different formats
 - Reports can be generated for specific classes of components or groups of classes
 - Reports can be generated through OpenPlant PowerPID or through Data Manager.



Focus on OpenPlant PowerPID V8i

Database Connectivity

- Synchronization Options

- Manual – Sync when you choose from drawing to database or vice versa
- Timed – Choose how long inbetween automated synchronizations and which direction
- Automatic – Synchronize your work with the project database as you perform the changes.
- Synchronization on File open is also available.

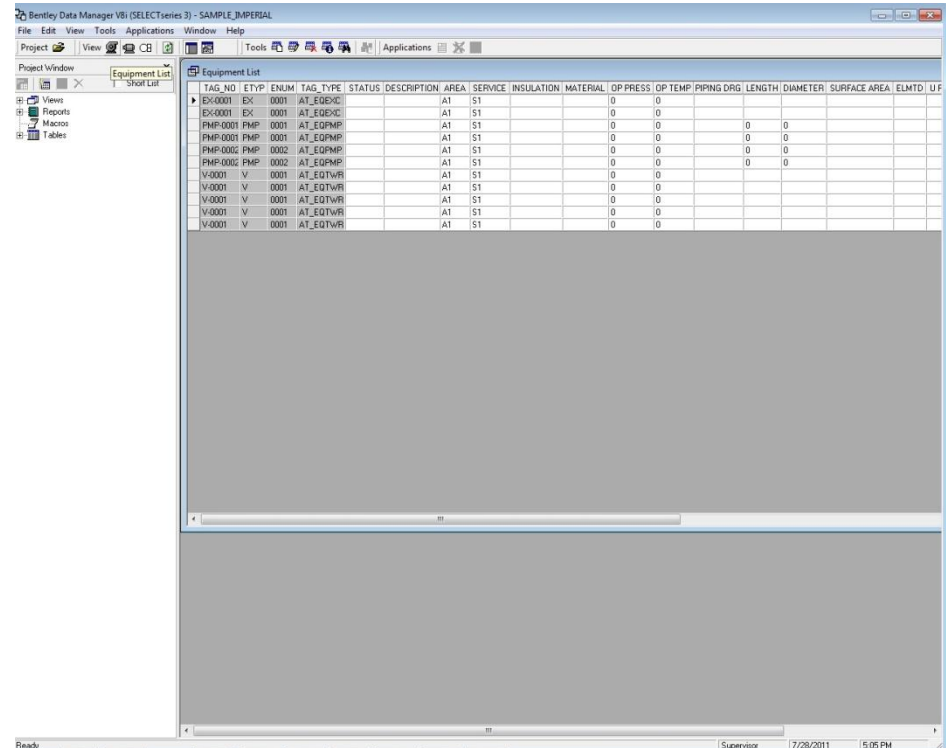
- Variety of synchronization options allows the user to decide how to operate.



Focus on OpenPlant PowerPID V8i

Database Connectivity

- Connect to the Plant Project Database to store data and share with other applications
 - Data Manager
 - Bentley DataSheets
 - Bentley Instrumentation and Wiring
 - Promis*e
 - Bentley AutoPLANT Plant Design Workgroup
 - Bentley Vision
- Project-Wide Reporting with Data Manager



The screenshot displays the Bentley Data Manager V8i interface for a project named 'SAMPLE_IMPERIAL'. The main window shows an 'Equipment List' table with the following data:

TAG_NO	ETYP	ENJUM	TAG_TYPE	STATUS	DESCRIPTION	AREA	SERVICE	INSULATION	MATERIAL	OP PRESS	OP TEMP	PIPING DRG	LENGTH	DIAMETER	SURFACE AREA	ELMTD	U F
EX-0001	EX	0001	AT_EDGE<C			A1	S1			0	0						
EX-0001	EX	0001	AT_EDGE<C			A1	S1			0	0						
PMP-0001	PMP	0001	AT_EDPMP			A1	S1			0	0		0	0			
PMP-0001	PMP	0001	AT_EDPMP			A1	S1			0	0		0	0			
PMP-0002	PMP	0002	AT_EDPMP			A1	S1			0	0		0	0			
PMP-0002	PMP	0002	AT_EDPMP			A1	S1			0	0		0	0			
V-0001	V	0001	AT_EDTVR			A1	S1			0	0						
V-0001	V	0001	AT_EDTVR			A1	S1			0	0						
V-0001	V	0001	AT_EDTVR			A1	S1			0	0						
V-0001	V	0001	AT_EDTVR			A1	S1			0	0						
V-0001	V	0001	AT_EDTVR			A1	S1			0	0						

OpenPlant PowerPID V8i - Interoperability

OpenPlant PowerPID in conjunction with Bentley AXSYS.Process can provide an excellent solution for Conceptual Design through Detailed Design workflows.

Bentley AXSYS.Process Provides

- Import capabilities for a wide variety of commercial Process Simulators
- Automated PFD and Preliminary P&ID Creation
- Excel integration for Datasheets and Calculation Templates
- Preliminary Sizing calculations including links to HTRI and HTFS for Heat Exchanger Sizing
- DGN Export bringing P&IDs and Data to OPPID

Bentley OpenPlant PowerPID Provides

- Conversion framework to import data and graphics from AXSYS DGN files
- Detailed P&ID development tools
- Integration with the Plant Project Database providing links to a full suite of Plant Design tools.

OpenPlant PowerPID V8i - Interoperability

OpenPlant PowerPID also can import and export OWL files providing interoperability with any applications that have mapped their application schema to the ISO 15926 standard using iRING tools.



OpenPlant PowerPID V8i - Migration

Migration Strategies involve several different applications:

- PlantSpace P&ID – Migration Tools are currently available
- Microstation – Conformance Tools for Microstation cells are currently available including Line conformance added in SELECTseries 4
- AutoPLANT P&ID – AutoPLANT P&ID Migration tools are currently in development and scheduled to be released at the beginning of 2012
- AutoCAD – Similar tools will be available as for PlantSpace and AutoPLANT and are scheduled to be released at the beginning of 2012

OpenPlant Modeler SELECTseries 3

What's Next

OpenPlant V8*i* (SELECTseries 3)

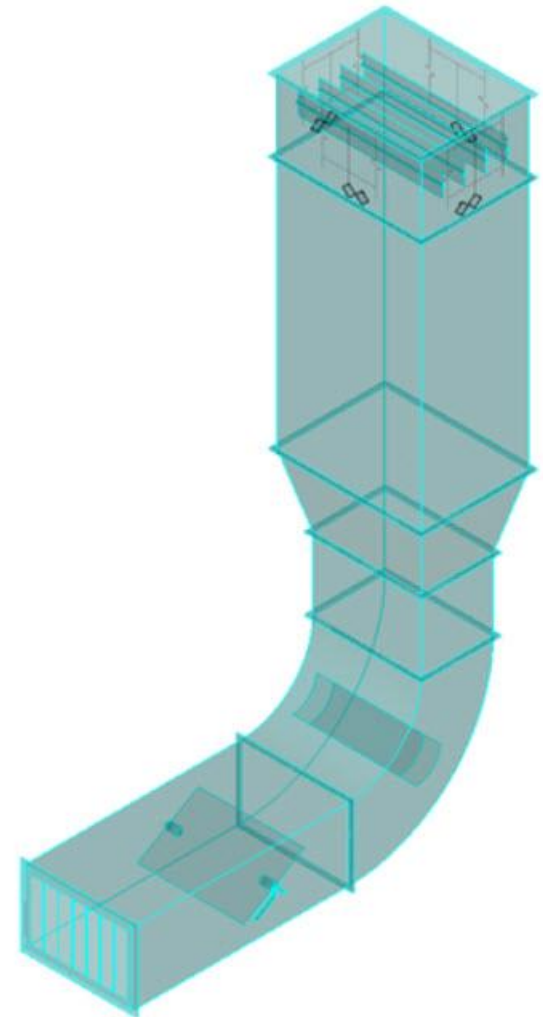
- Added Support for:
 - ProjectWise V8*i* (SELECTseries 2 & 3)
 - Bentley Navigator V8*i* (SELECTseries 2 & 3)
 - MS SQL Server 2008 R2

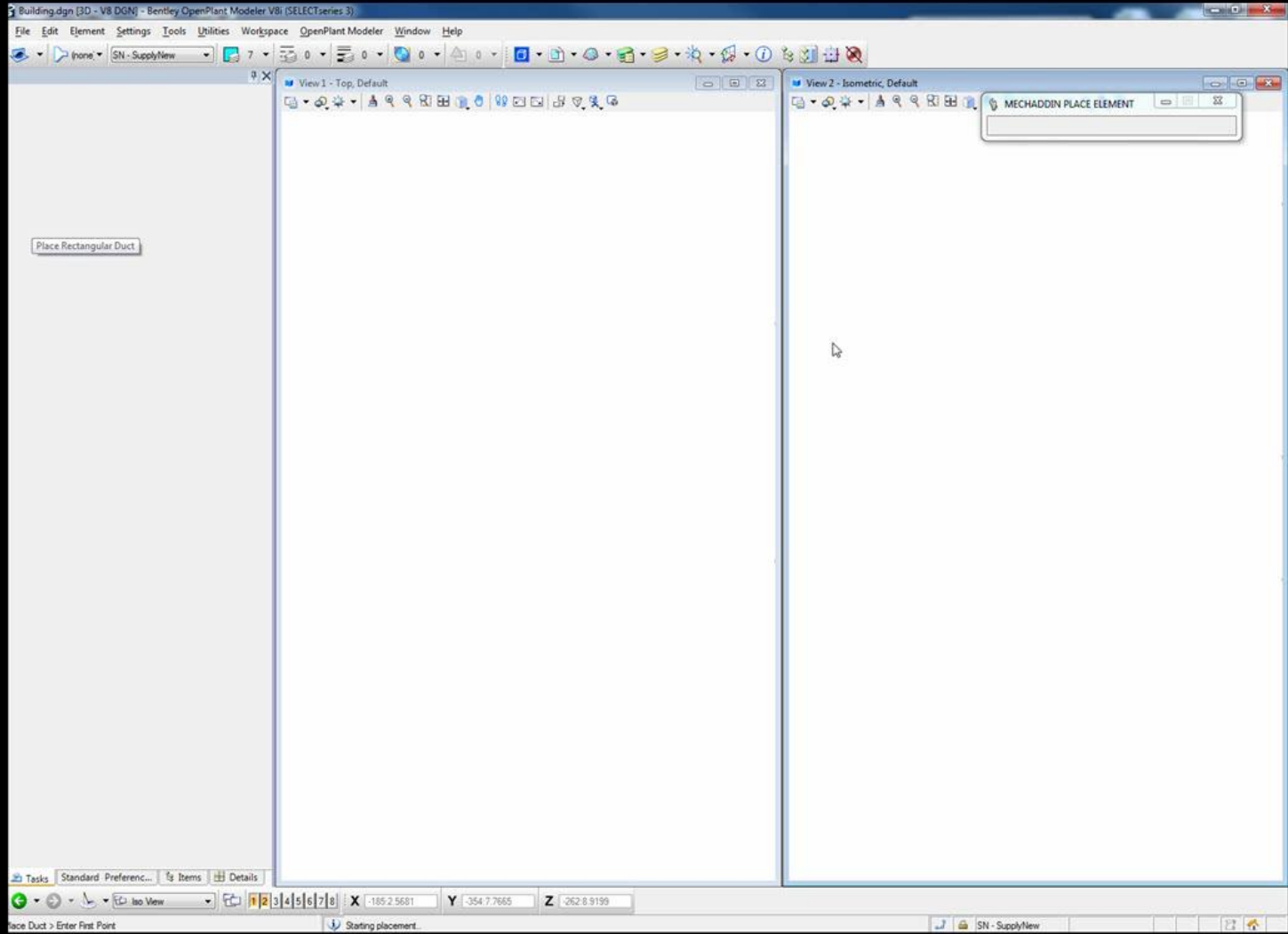


OpenPlant V8i Modeler (SELECTseries 3)

HVAC

- Duct layout and placement
 - Placement Point controls
 - Define end types
 - AutoFitting
- Modeling Tools
 - Place rectangular, oval, round duct, etc
 - Take Offs
 - Dampers
 - Component Builder
 - Over 126 different component types





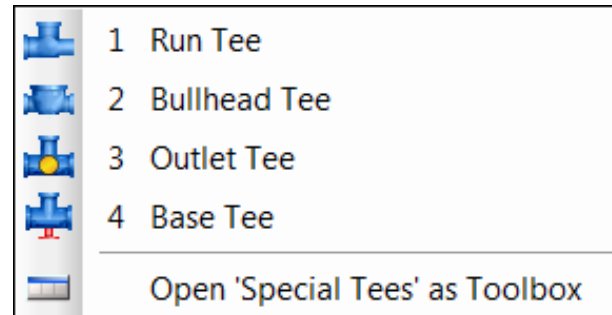
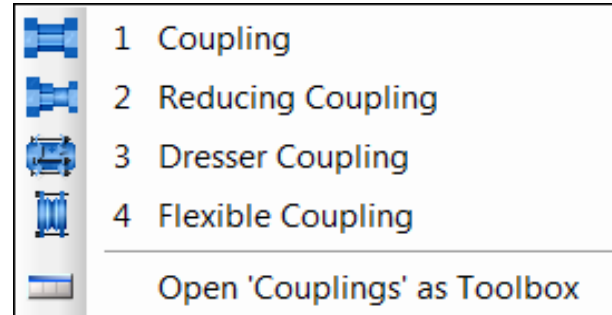
OpenPlant V8i Modeler (SELECTseries 3)

New Fitting Types

- Adapters and transition pieces
- Flanged and flexible couplings
- Bellows / expansion joints
- Pulsation dampeners
- Run, bullhead, outlet & base tees
- Dresser Couplings
- Y-Strainer
- Gear Operators

New End Preps

- Mechanical Joints
 - Restrained
 - Field
 - Coupled
- Push On
- Cam and Groove



OpenPlant V8*i* Modeler (SELECTseries 3)

Other Enhancements

- Mixed Metric project Support
- Autofitting support for Stub-ins, RBR & UBR
- Place components from cell library
- Tapping updates
- Specification Generator Updates
- Documentation Updates
- Attach/Match to pipe in reference file
- Automated Branch Placements
- Editing/Replacement of graphics of User Defined Equipment

Enhanced Catalogs

- DIN / EN
- ASME
- AWWA
- Victaulic

OpenPlant V8*i* Isometrics Manager (SELECTseries 3)

i-Model Support

- Reads AutoPLANT i-models

PowerPlatform

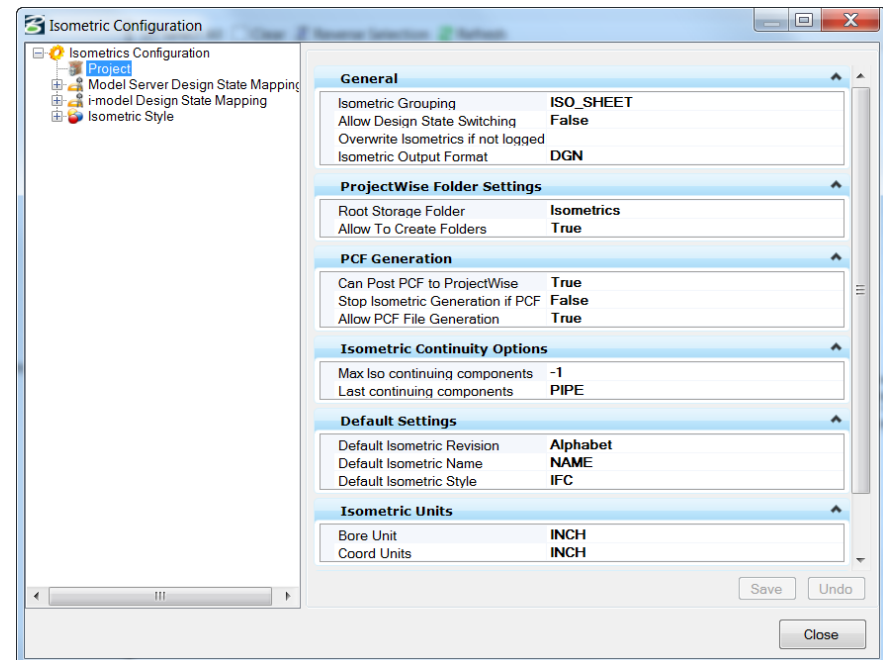
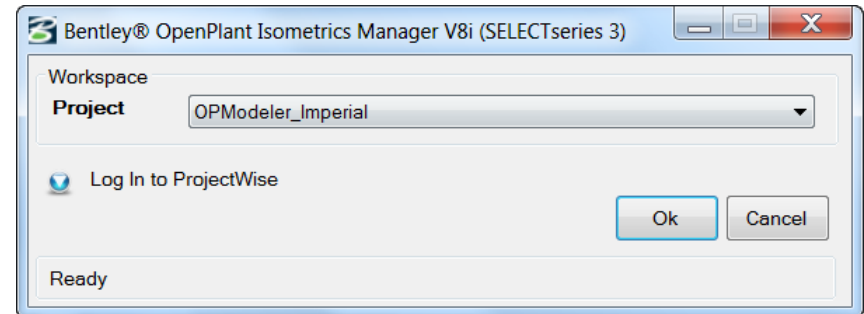
- Does not need to be installed on workstation with Modeler

Component Support

- Supports all new fitting types
- Supports all new End Preps

GUI Enhancements

- New Login
- Project configurations

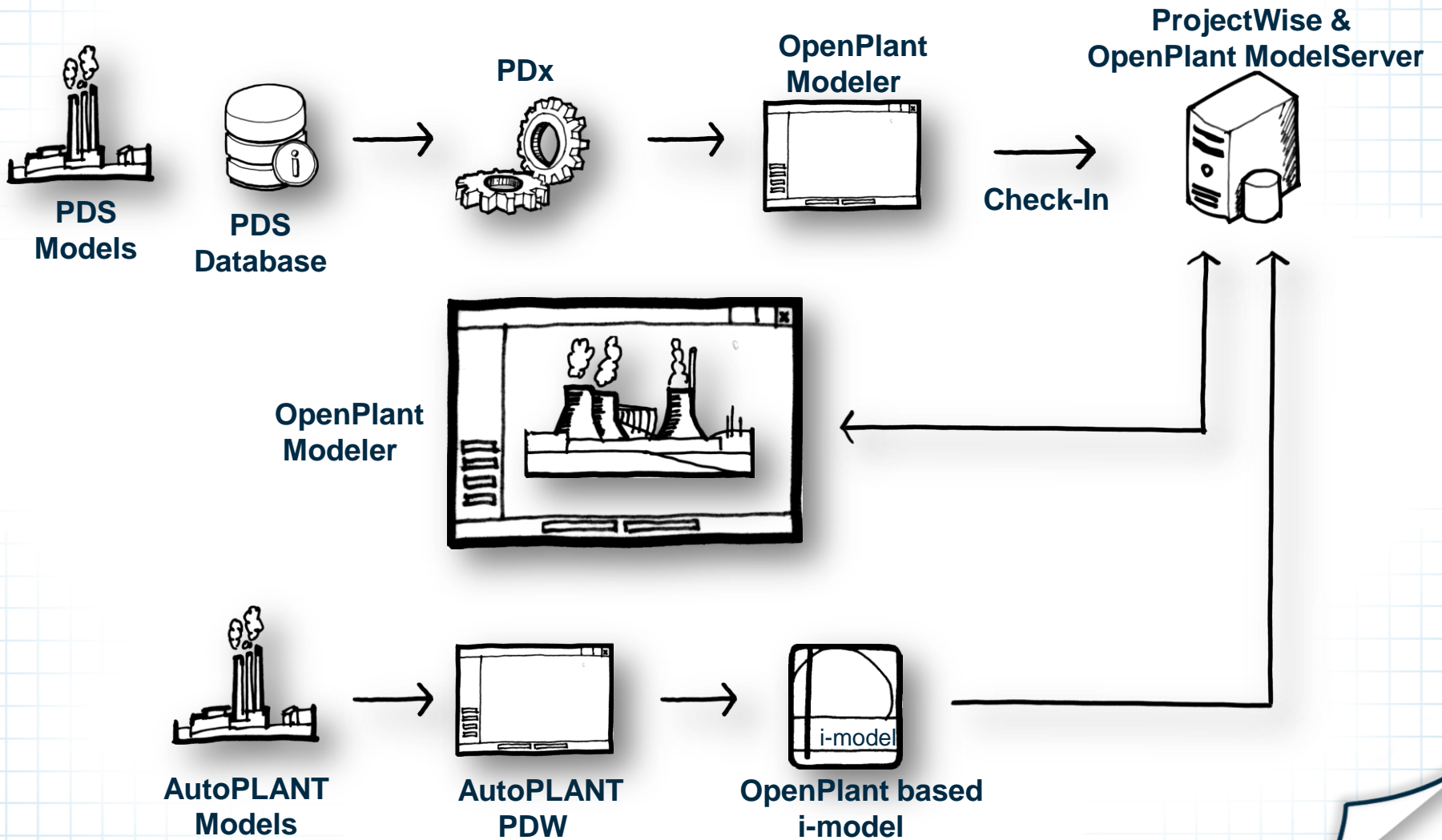


OpenPlant V8*i* ModelServer (SELECTseries 3)

- New Backup, Restore & Delete Instance
- Multi-Project Support (single schema)
- UI Updates

Interoperability & Design Collaboration

3D Data Consolidation





Computer



Recycle Bin



Class Editor
V8i

Orchestration Framework Administrator V8i (SELECTseries 3)

Connections Job View Tools Windows Help

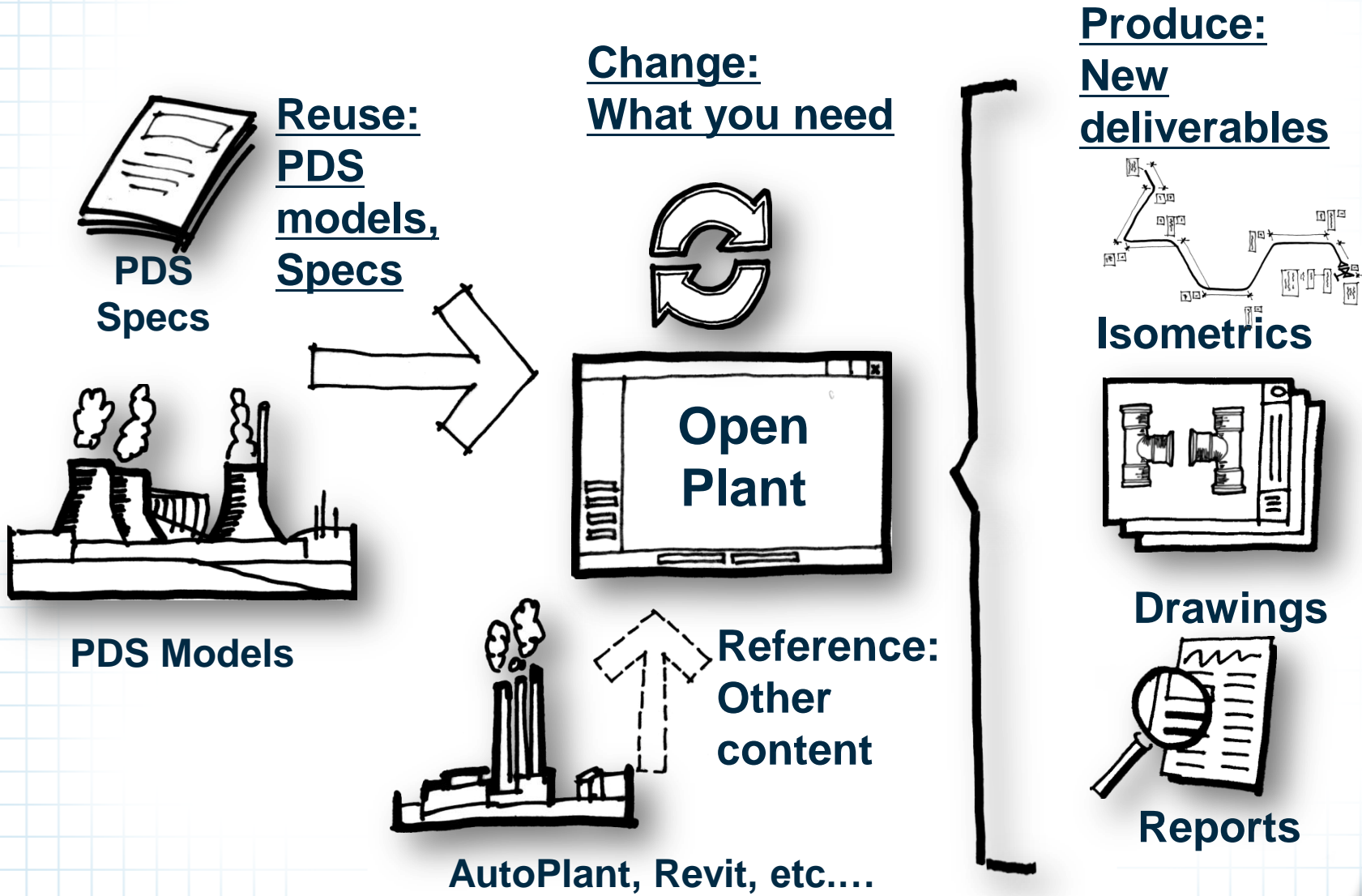
Automation Service Browser

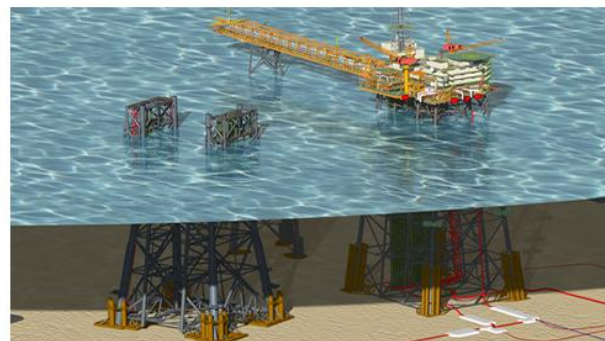
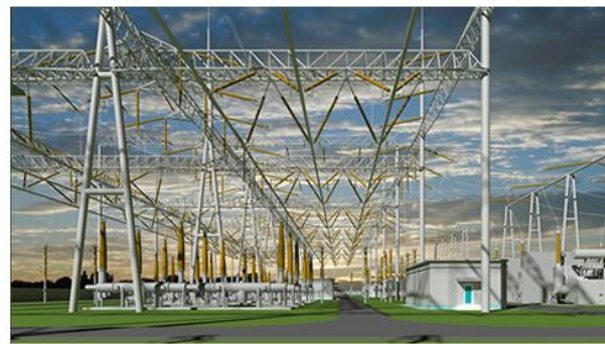
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- Configuration
 - Job Definitions



3D Design Interoperability Workflow





Thank You