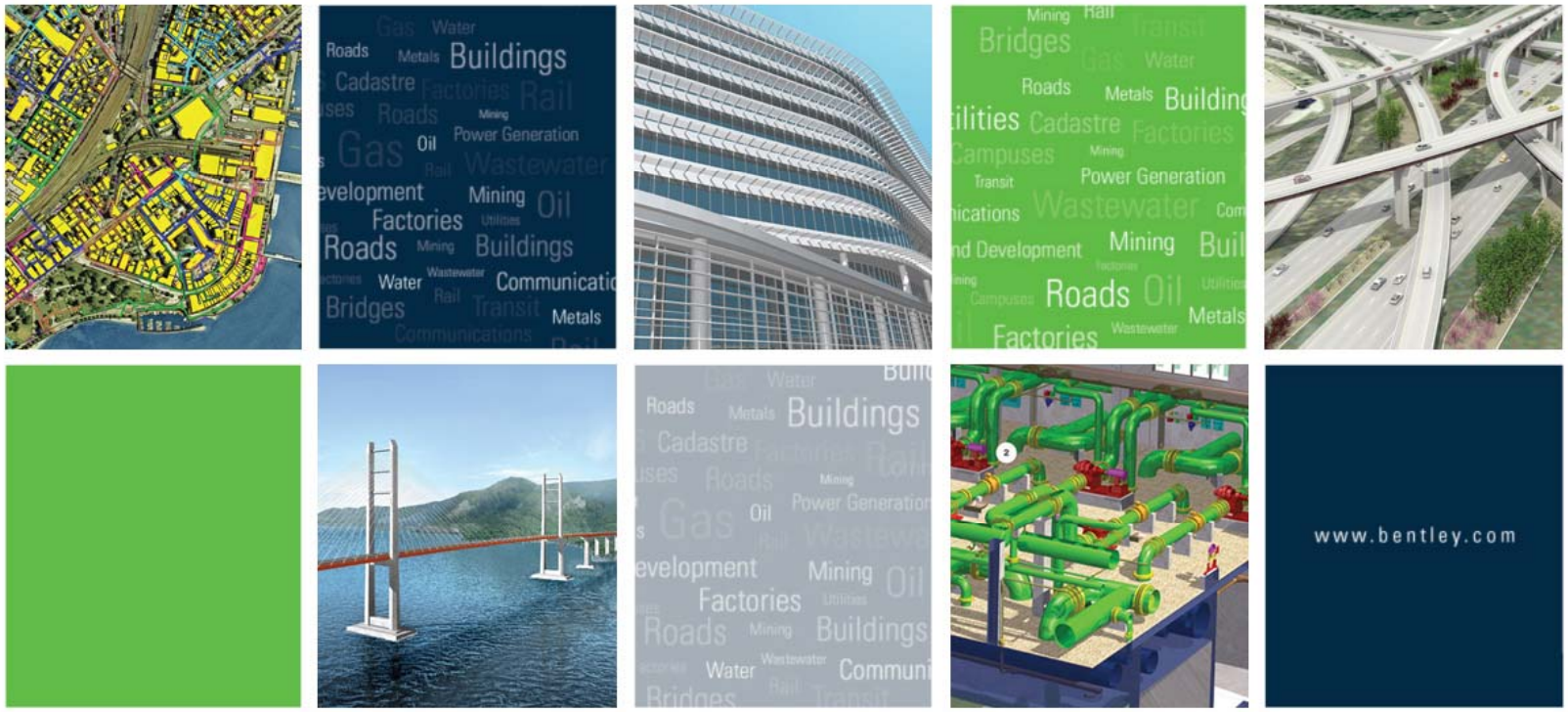


# OpenPlant

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Industry Consultant, Bentley Plant



Bentley
Sustaining Infrastructure

# Introduction

- What is OpenPlant?
  - OpenPlant is the branding for the next generation of applications and tools based on ISO 15926

# Introduction

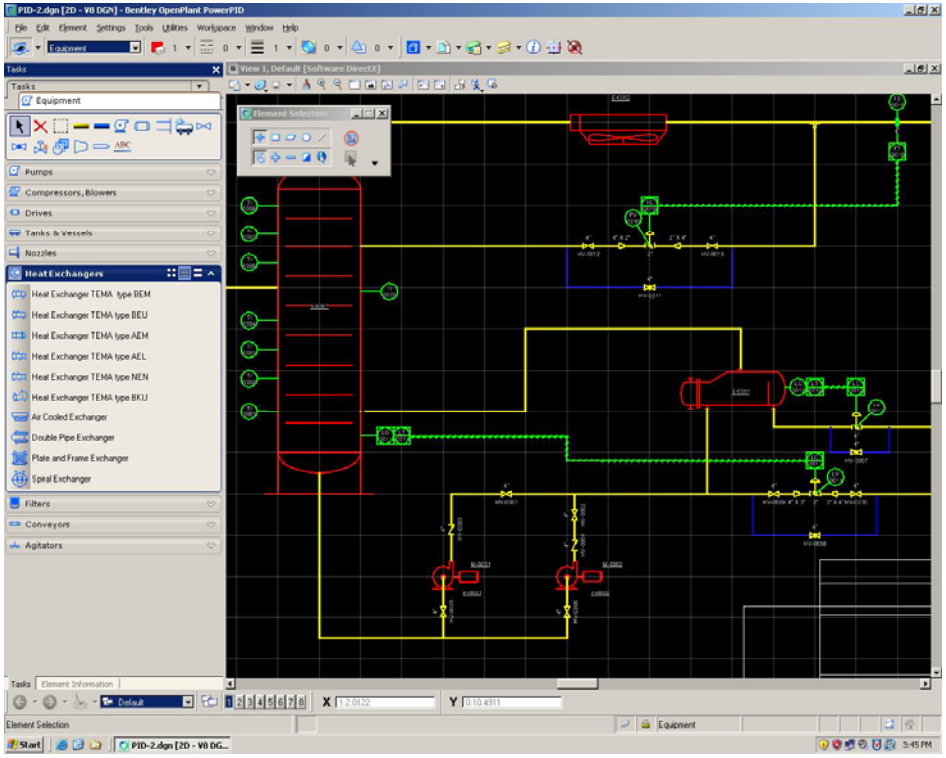
- What is OpenPlant?
- What is ISO 15926?
  - ISO 15926 is the international standard for the exchange of process plant life-cycle information
  - It is also an excellent data model for persistence of plant data

# Agenda

- OpenPlant PowerPID
  - Key functionality
  - Project database connection
- OpenPlant “Physical” Suite
  - OpenPlant Modeler
  - OpenPlant Isometrics Manager
  - OpenPlant Isometrics
  - Common Catalogues and Specs

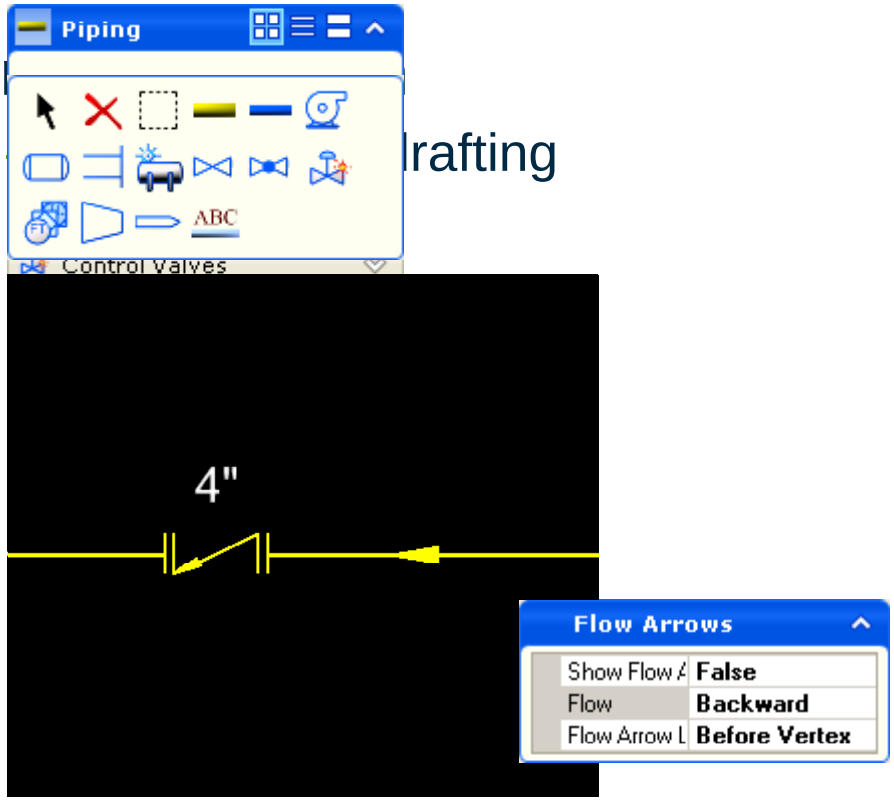
# OpenPlant PowerPID

- ISO15926 class definitions used as the base schema
- Supports DGN or DWG modes of operation
- Based on the MicroStation Power Platform



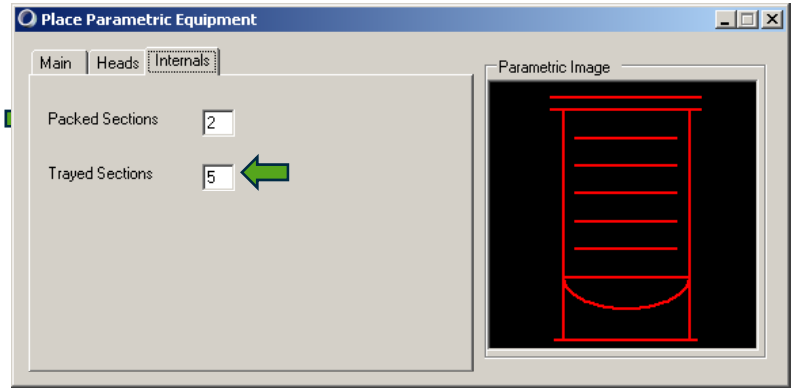
# Drafting

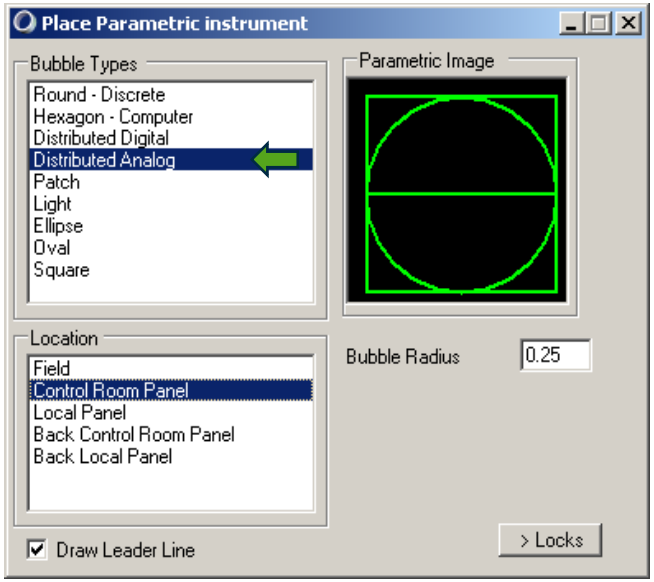
- Easy to use task-focused interface
  - Task-based
  - Favorites
- I




rafting

# Parametric Equipment and Instruments




Equipment:

- Dynamic Orientation
- Dynamic Vessel Heads
- Dynamic Internals
  - Definable number of Packed/Trayed sections

Instrumentation:

- Dynamic Valve Body
- Dynamic Actuator Type
- Dynamic Bubble Types
- Dynamic Location





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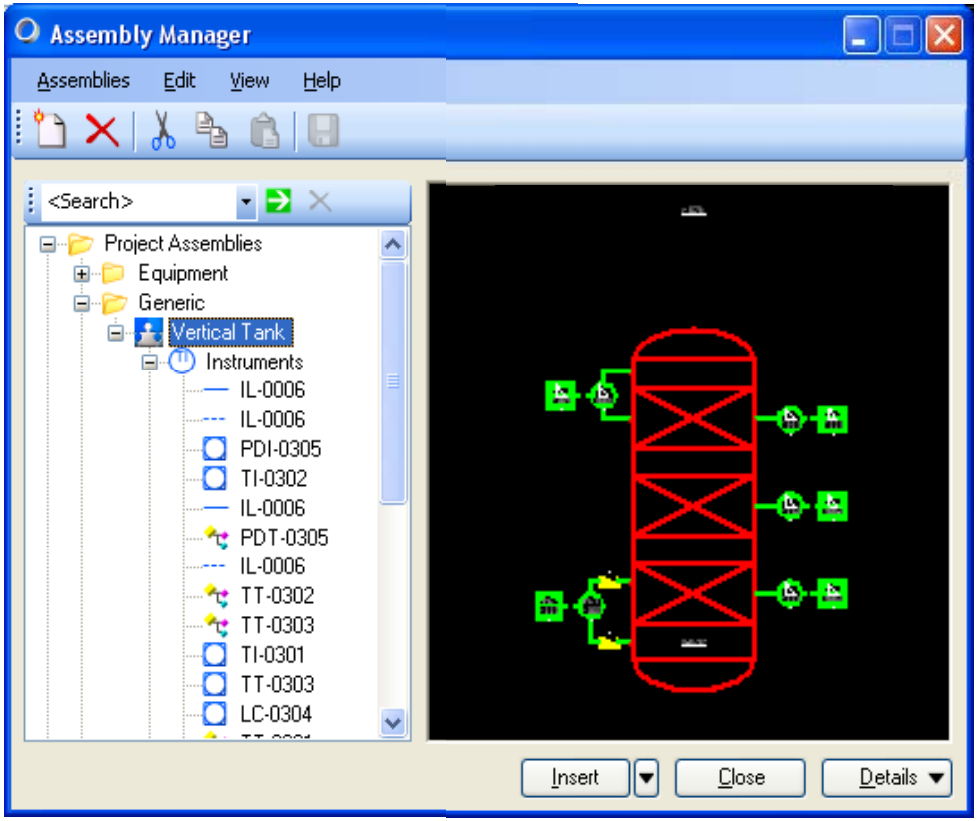
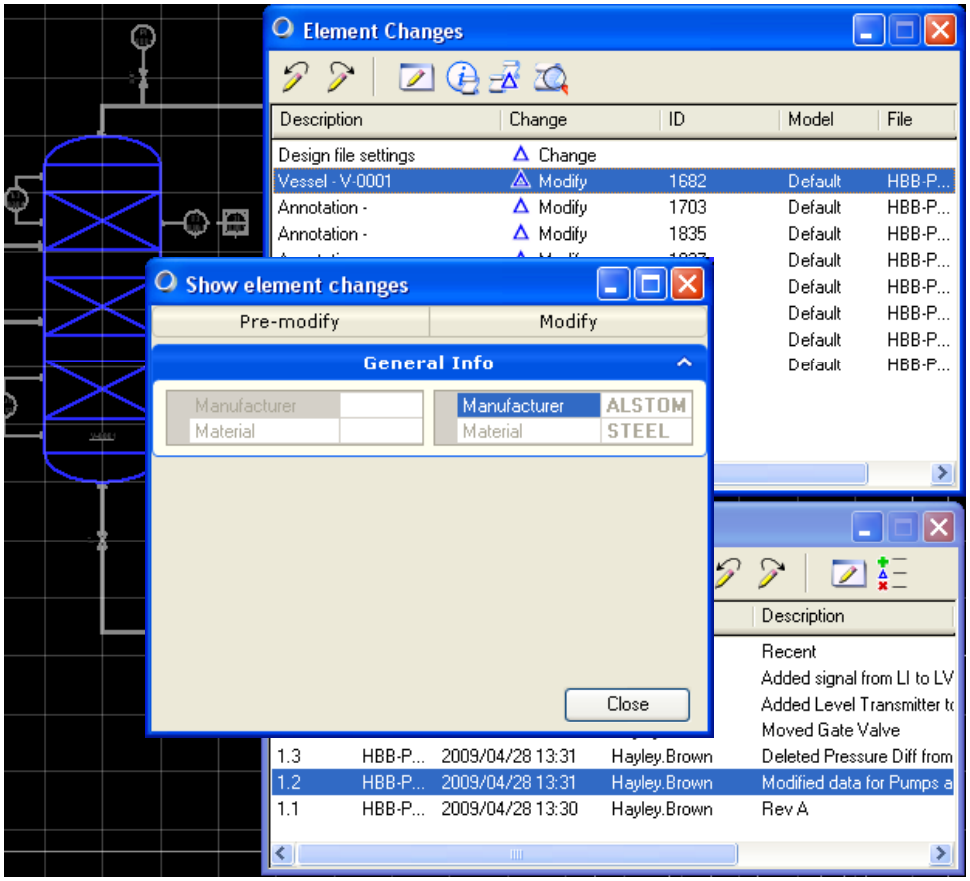
# Assembly Manager



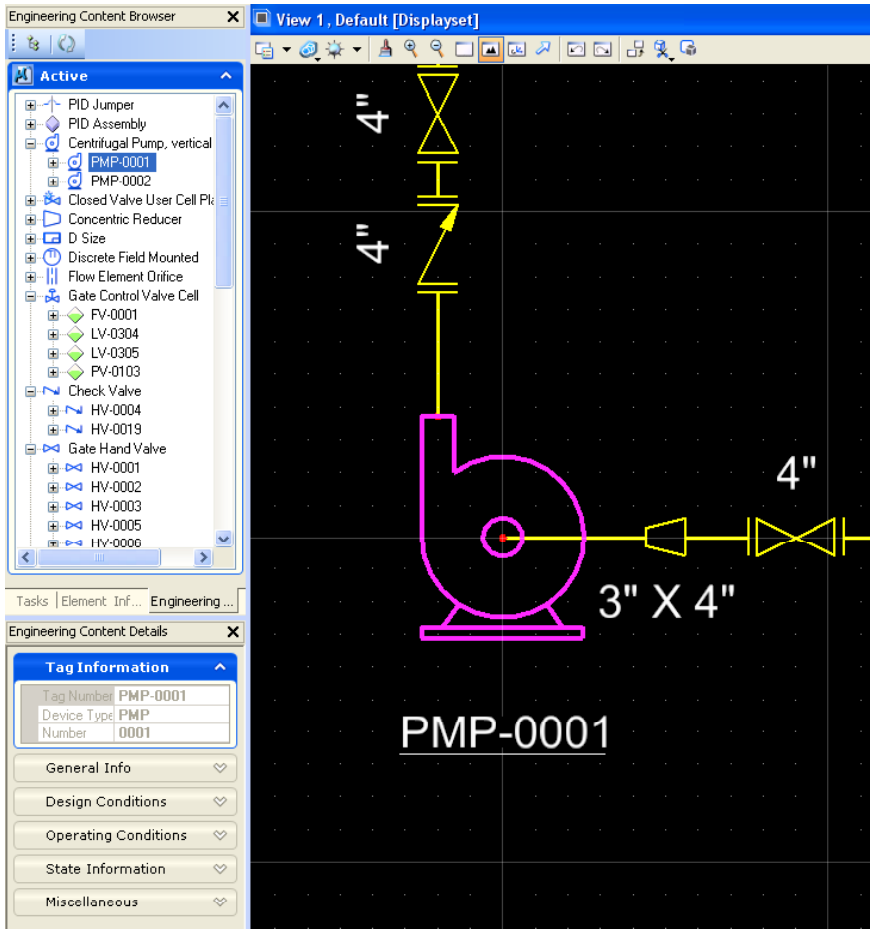

- Choose location (local or server)
- Preview pane
- Insertable as an Assembly or individual components
- Inline insertion options
- Editable

# Design History




- Review element changes
- Ability to roll back or roll forward revisions
- Highlight changes of any revision

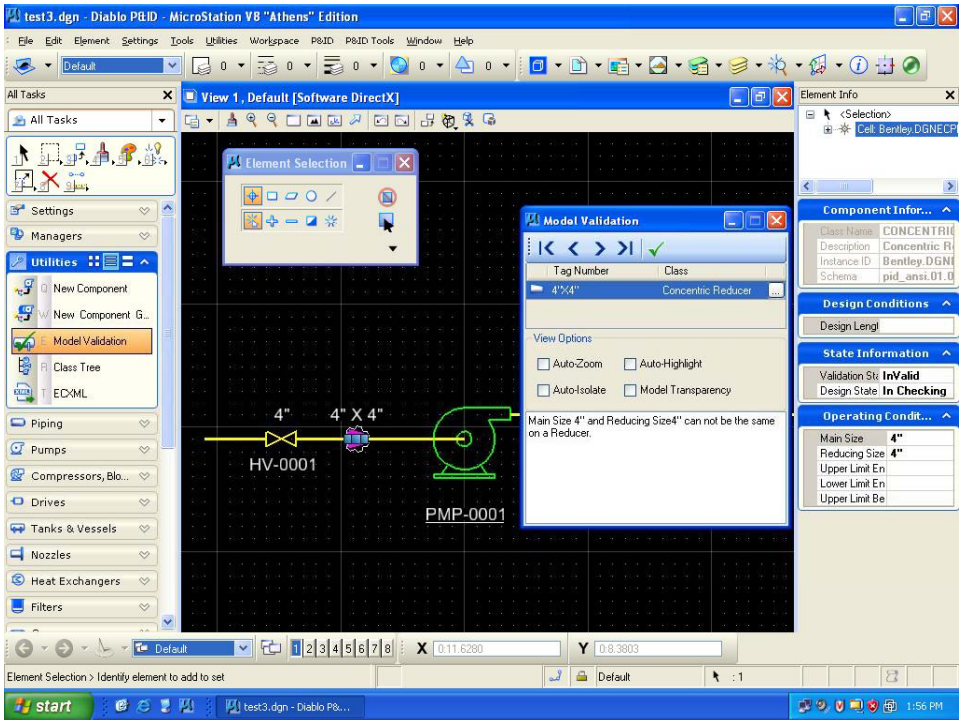
# Engineering Content Browser




- Review and edit data in a “tree” view
- Traverse up or down through related items
- Apply filters to focus on engineering data for different groups

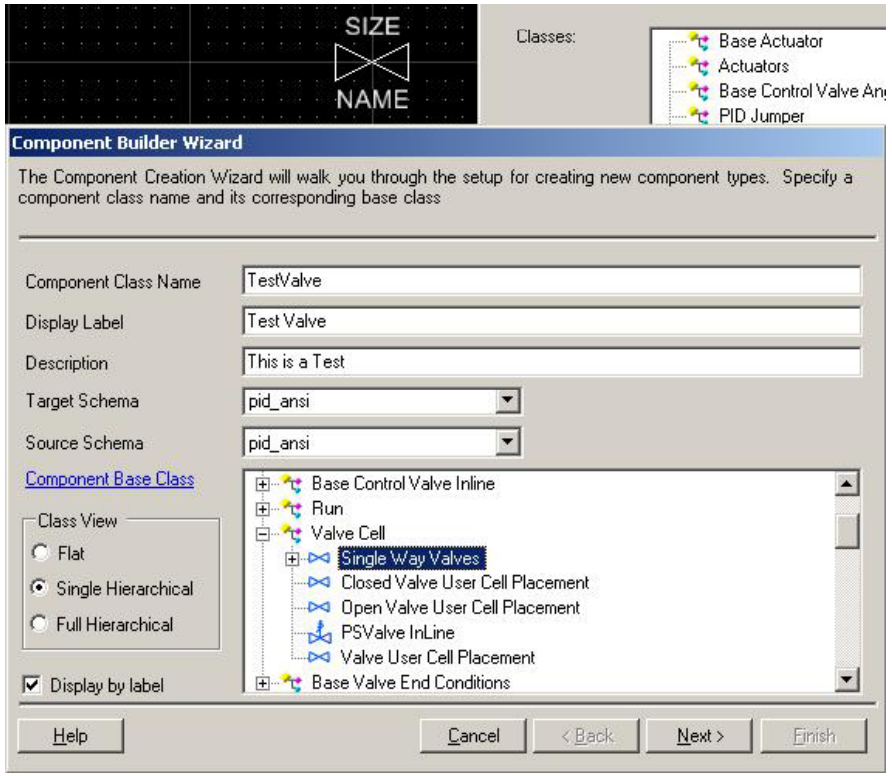
# OpenPlant PowerPID – An Overview

- Rules Engine for Customizations
  - Design Rules to Validate components on your P&IDs
- Reporting
  - DGN, Grid, and Crystal Reports
  - Database



# OpenPlant PowerPID – An Overview

- Component Manager
  - Create Components from Cells or Any Graphical Element
- User Equipment
  - Create new components and classify them from anything drawn



# Presentation

# Future Directions for OpenPlant PowerPID

## Functionality

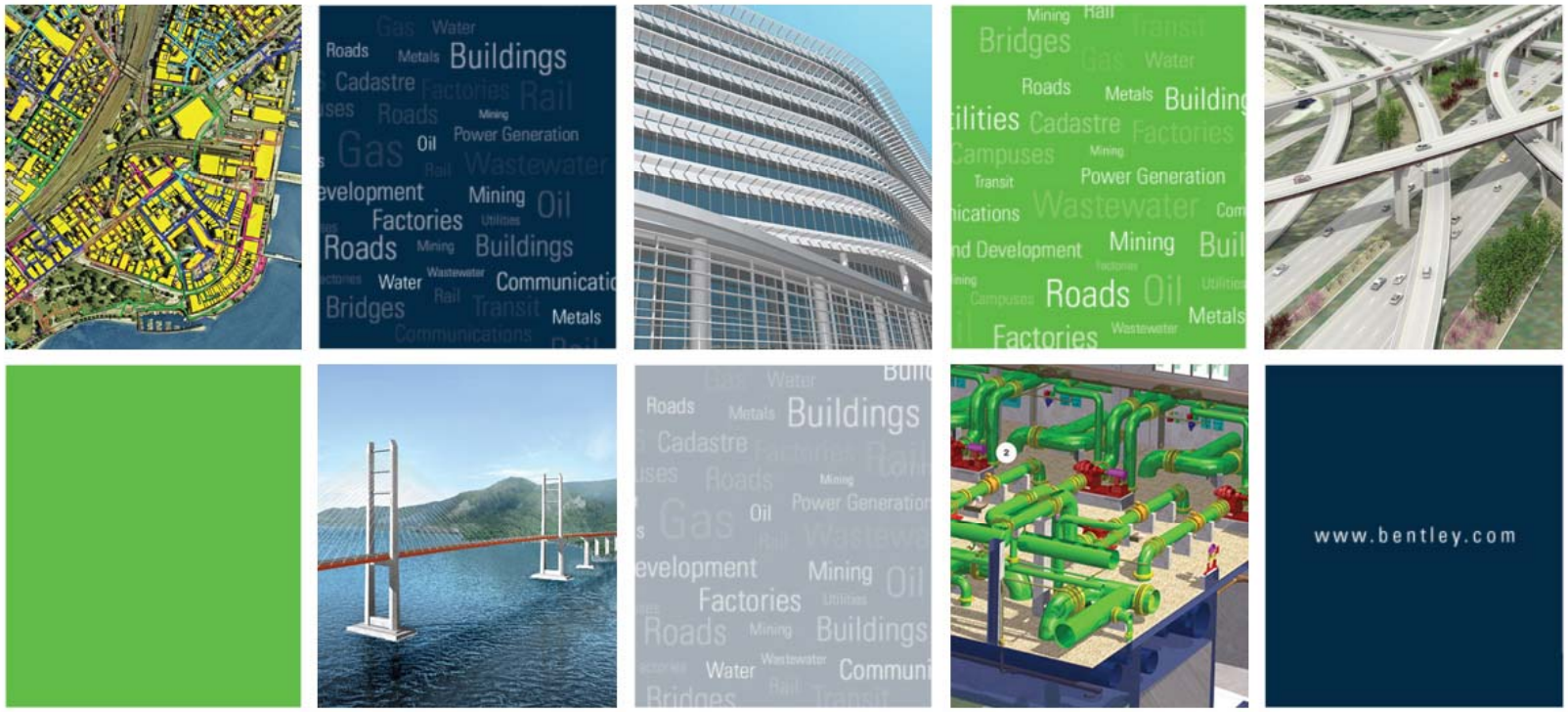
- P&ID Auto-Generation
- Support for additional Standards

## Product integration

- Integration with Conceptual Design
- Integration with 3D Physical Tools

## Platform interoperability

- i-Model export and import




# OpenPlant “Physical”



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# Introduction

- What is OpenPlant Modeler?
  - OpenPlant Modeler is the next generation of 3D Plant Design applications based on ISO 15926
  - Part of a comprehensive 3D design solution including component centric design and isometric management
  - Based on ProjectWise as both a document and component repository

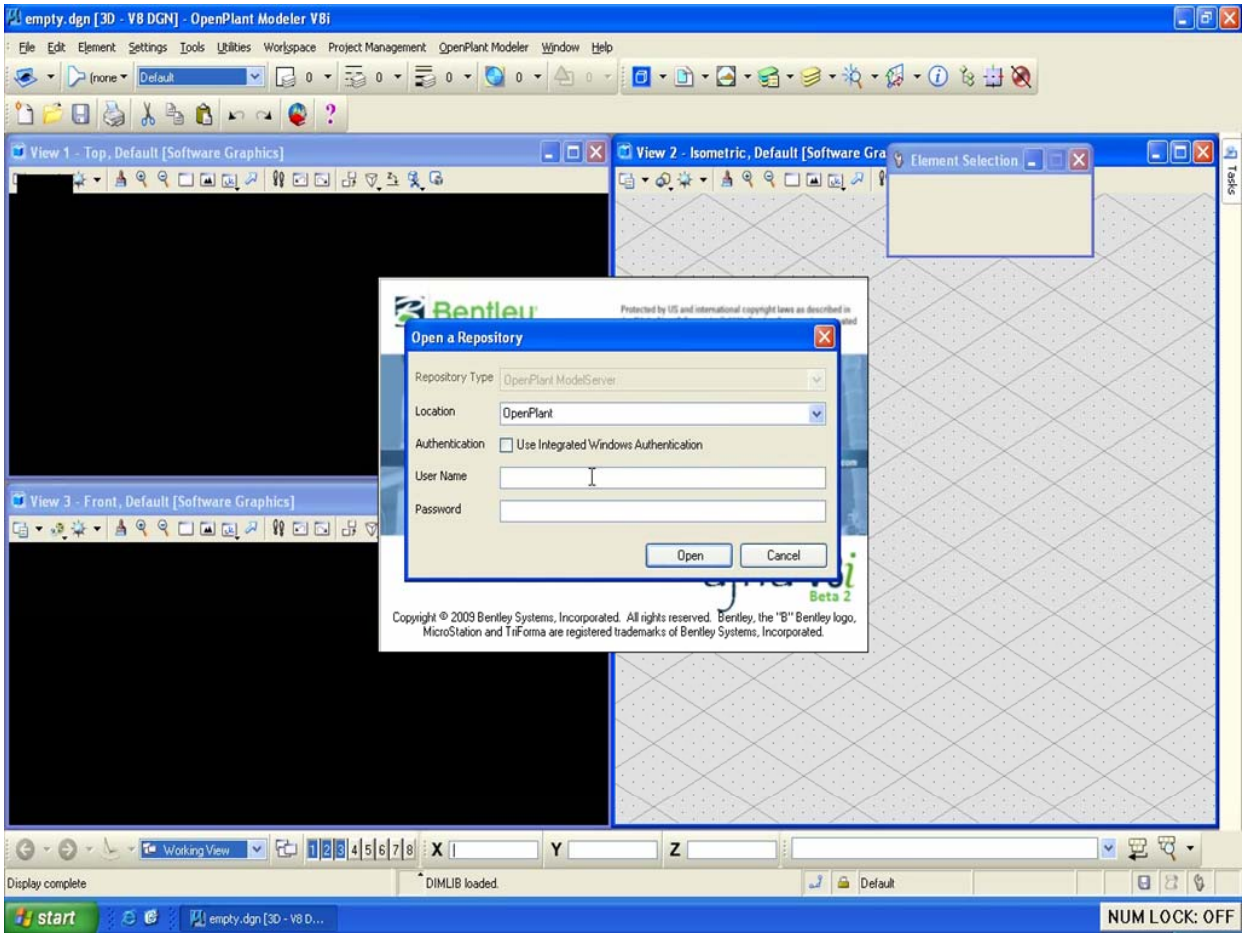
# OpenPlant Modeler

- New state of the art modeling environment
- Dynamic Views help visualize model
- Spec based pipe editing with intelligent selections
- Heads-up display shows critical dimensions, get your design right first-time
- Intuitive user interface
- Based on MicroStation

# OpenPlant ModelServer

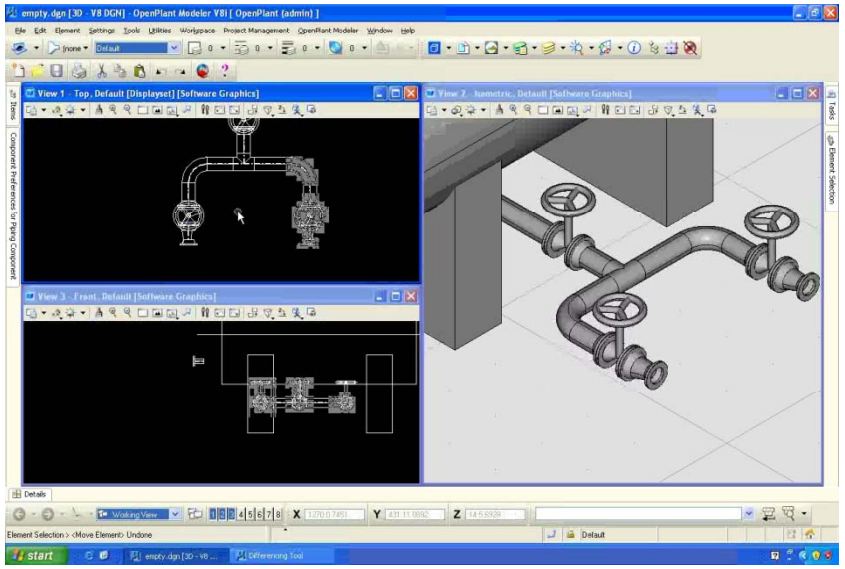
- Component level check-out and check-in
  - Full fidelity control of model
  - Report on components being modified
- 3D Index and Queries
  - allows you to work on any section of the model
- Configurable Browser
  - Configurable display of your project hierarchy
- Full Client/Server
  - Distributed project access
  - Load balance between Client and Server

# OpenPlant Modeler



# Model/ModelServer Differencing

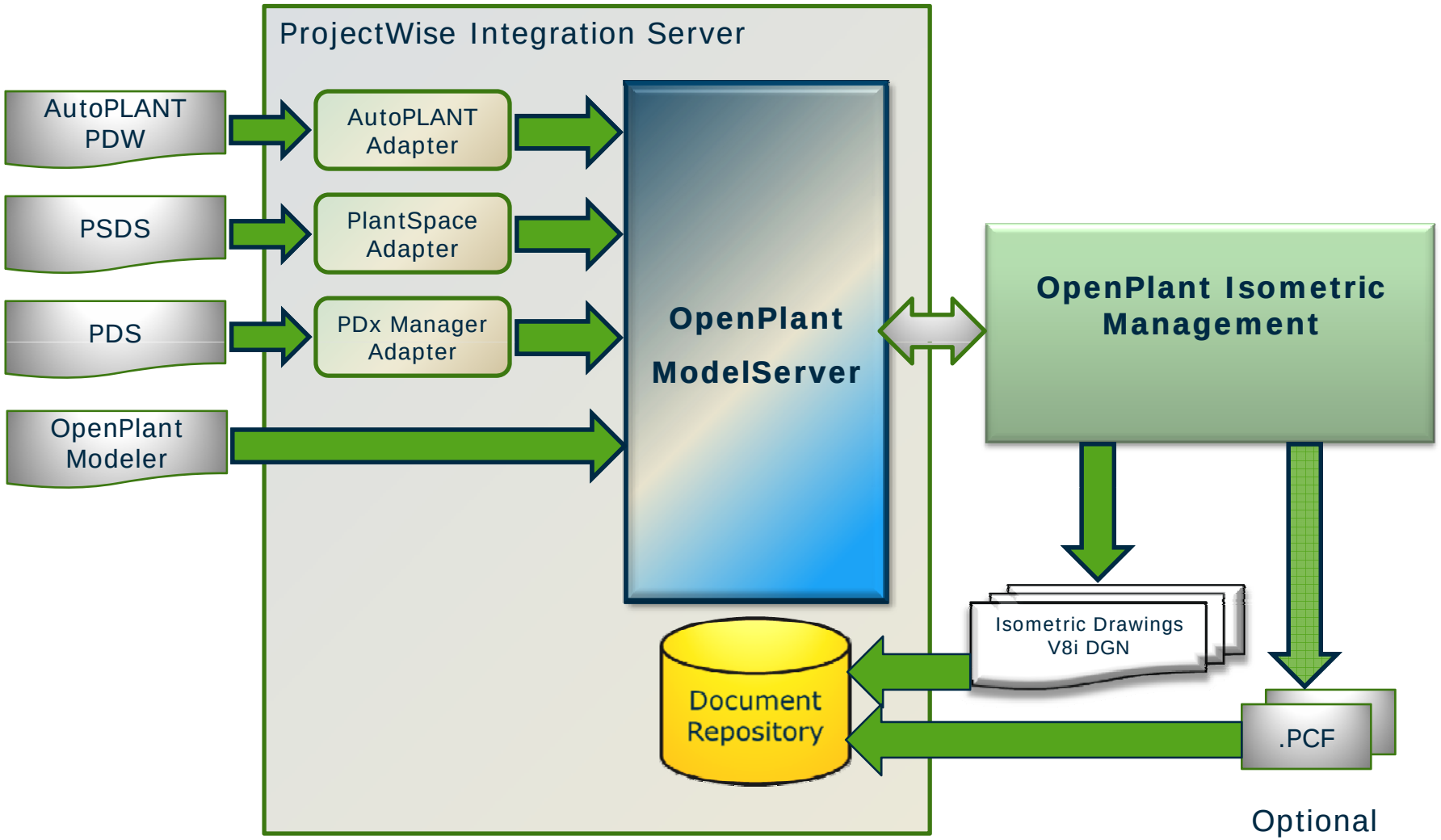
- Federated check-out
- Compare existing vs. current design
- Approve and consolidate changes
- Component by Component



# OpenPlant Isometric Manager

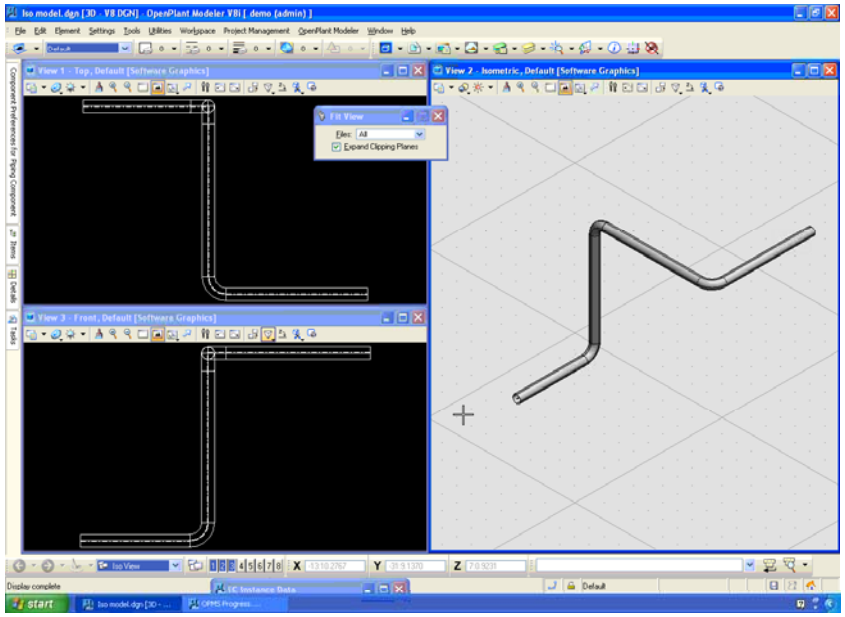
- Manage Isometrics for both existing legacy models or new OpenPlant models
- Configurable Isometric status control
- Configurable Isometric styles
- Central control over Isometric production
- Ensure consistently applied standard for Isometrics
- Detailed reporting and tracking of Isometrics

# OpenPlant Isometric Manager



# OpenPlant Isometric Manager

- Management tool for the production of isometrics
- External to the piping application



# OpenPlant Isometrics

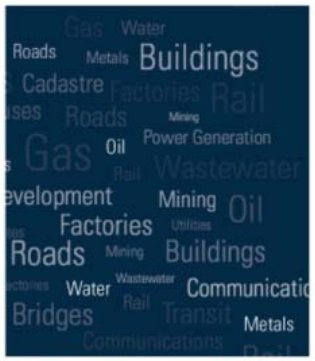
- Fully intelligent automatic Isometric generation
- Full capabilities for white-space management for legible drawing production
- Editable document to add/remove intelligent annotations as required
- Graphics and full-fidelity data stored in the DGN file
- Use in design review sessions using review tools
- Search/Query/Browse document
- Edit Isometric properties update back to model (future)

# Common Catalogues & Specifications

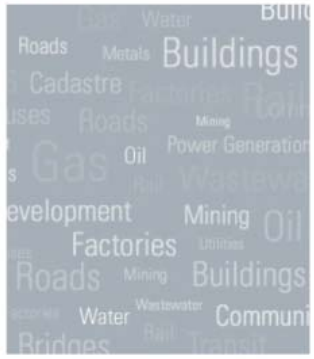
- Manage your master catalogs and specs based on the ISO 15926 format
- Provides easy to use tools to manage and edit
- Migrate existing catalogues and specs into this open format.
- OpenPlant Modeler can optionally connect directly to PDS catalogs and specs without migration

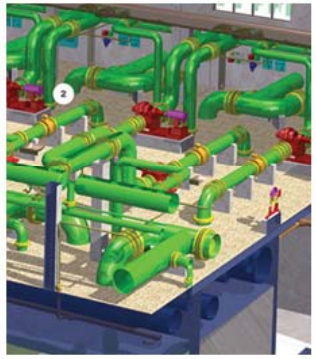
# Summarizing OpenPlant Benefits

| | |
|---|---|
| **Save time and effort** | Does not requiring “translating” information |
| **Flexibility in your work practice** | You can work online or offline and edit with no bandwith |
| **Reduce learning curve** | Intuitive task-based interfaces |
| **Maximize global resources** | Leverage existing applications you have in place & control work execution |
| **Improved project collaboration** | All team members have equal access to information |
| **Deliver better quality documents** | ▪ Open, based on ISO 15926<br>▪ Truly intelligent deliverables<br>▪ Self-contained with graphics and data<br>▪ Repurpose information easily without the original authoring application |






# Thank-you



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