



OpenPlant® Modeler

Perform multidiscipline 3D modeling

OpenPlant Modeler empowers you to efficiently create 3D designs for plant piping, HVAC, and mechanical and electrical equipment within an open, collaborative digital twin environment using Bentley's iTwin® framework. It offers intuitive, specification-driven parametric modeling tools that ensure accurate engineering for projects of any size. Seamless integration with iTwin supports distributed teams and enables the creation of a digital twin from the early stages of design.

Scalable multidiscipline design in a collaborative environment

OpenPlant Modeler includes a comprehensive design functionality for piping, equipment, supports, instrumentation, HVAC, structural, electrical, and other components in an open, intuitive, and collaborative environment, ensuring fully integrated design models. Enhance project collaboration through seamless integration with building and structural design through iTwin workflows and use of ProStructures™ modeling tools within OpenPlant Modeler. Work efficiently in a cloud-enabled environment that supports online, offline, and remote teamwork, offering scalability for projects of any size.

Collaborate anytime, anywhere with connected workflows

OpenPlant Modeler enhances team collaboration by supporting both standalone work and synchronized participation in distributed project environments. With ProjectWise® integration, users can contribute to globally dispersed projects through a federated workflow—without the need for local database replication or constant connectivity.

Ensure consistency and accuracy with intelligent design data

OpenPlant applications use a common tagging mechanism, enabling OpenPlant Modeler to read piping and instrumentation diagram (P&ID) created in OpenPlant PID and leverage existing data to accelerate 3D design. This shared tagging also supports consistency checks, helping ensure that 3D models align with the requirements in critical P&ID documents required for contractual and regulatory compliance. Accelerate design reviews with a flexible, cloud-based review process that utilizes data and models from various formats—including DGN, DWG, JT, point clouds, and PDFs—within a digital twin environment for greater design accuracy.

Design with confidence using a connected digital twin

OpenPlant integrates seamlessly with PlantSight, empowering users to deliver comprehensive digital twins for all their projects. By leveraging iTwin technology, OpenPlant supports distributed teams, facilitates component-based workflows, consistent data, and efficient change tracking and management. These workflows allow for bidirectional referencing between 2D and 3D representations of plant components, so multiple designers can collaborate remotely without relying on traditional file-based systems resulting in reliable models, schematics, and construction deliverables.

Reuse legacy data and standards to reduce costs and save time

OpenPlant Modeler is the first plant design application to use ISO 15926 as its intrinsic

data model. This makes seamless and dynamic data exchange between OpenPlant, other plant design software, and supplier databases possible. It also allows users to reuse existing designs, models, and data from systems like PDS, AutoPLANT®, and PlantSpace®, accelerating project startup and ensuring design continuity.

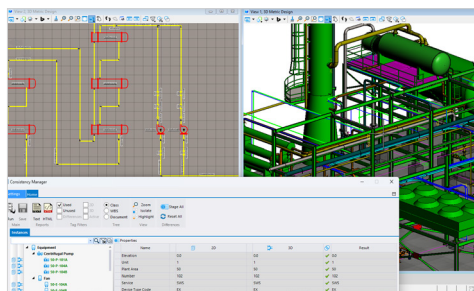
In addition to leveraging its own catalog and specification tools, OpenPlant can read and convert piping catalogs and specifications from legacy systems, helping reduce design time, administrative overhead, and verification efforts.

Incorporate real-world site conditions using point clouds

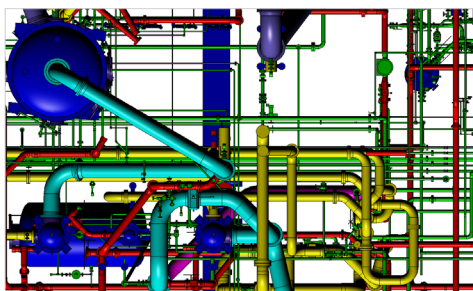
Point clouds offer an effective way to visualize existing facilities and geospatial conditions. With Bentley Descartes™, OpenPlant Modeler integrates point clouds directly into 3D models, enabling precise and efficient retrofit designs. This integration enhances accuracy, improves safety, accelerates project timelines, and helps eliminate costly field rework.

Simplify brownfield projects with reality modeling

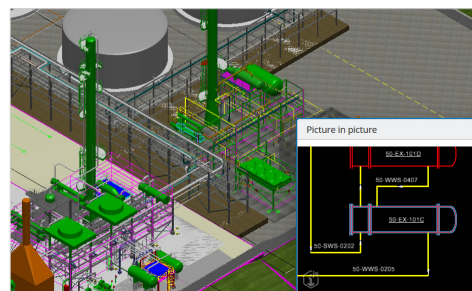
OpenPlant Modeler simplifies brownfield project workflows by integrating with reality models generated through iTwin Capture Modeler, using digital photographs to capture existing site conditions. These reality visualization capabilities deliver highly realistic context for design reviews, project hazard and operability, and progress meetings, expediting project design.



2D/3D data consistency ensures greater project accuracy.



Intuitive and easy-to-use component modeling reduces complexity in designs.



PlantSight integration streamlines digital reviews and data management.

System requirements

Minimum: Windows 11 or 10 (64 bit)/ Windows 11 (24H2) or Windows 10 (21H2), Windows Server 2019, Windows Server 2022 (64 bit) Intel or AMD Processor 2.5 GHz or greater, 16 GB memory
Recommended: 32 GB memory

OpenPlant Modeler at-a-glance

Open data model

- Uses ISO 15926 as the intrinsic data model
- Enables data exchange across applications using iModels
- Supports referencing iModels from heterogeneous systems like PDS, SP3D, and PDMS to create comprehensive plant models
- Publish plant models via iModels to PlantSight's Design Review service for clash detection, and to ConstructSim for construction simulation and WorkFace Planning
- Export to a wide range of formats such as DGN, DWG, DXF, IGES, CGM, STL, SVG, OBJ, U3D, and more
- Import formats such as IGES, Parasolids, ACIS SAT, CGM, Step AP203/AP214, STL, Terrain Model Land XML, and CAD files

Ease of use

- Leverages the powerful MicroStation graphical user interface
- Features a new streamlined, intuitive ribbon interface
- Allows quick and easy copying of reusable design information
- Enables faster and more intelligent editing and modification of designs

Reality modeling support

- Reference point clouds and iTwin Capture Modeler reality models directly in 3D models
- Supports point cloud interaction via Descartes in OpenPlant Modeler

Reuseable catalogs and specifications

- Supports EN, DIN, and other enhanced catalogs to comply with European design standards
- Create piping specifications from scratch or by editing example specifications
- Access AWWA standard fittings to speed up water/wastewater projects
- Access Lindab standard HVAC components
- Automate selections for bends, flanges, and branches

Component features

- Task-based menu grouping related components (piping, equipment, cable tray)
- Element manipulators for easy editing
- Automatic placement of fittings
- Ensures precise alignment at connection points with intersecting components
- Insert components from any point (branch, center, or run of a tee)
- Modify size or specification of individual components or entire lines

Common modeling environment

- Includes OpenPlant Support Engineering within OpenPlant Modeler
- Utilize Bentley Raceway and Cable Management™ modeling tools inside OpenPlant Modeler
- Supports ProStructures modeling tools inside OpenPlant Modeler
- Enables in session isometrics generation using OpenPlant Isometrics Manager

Material reporting

- Enables powerful queries that allow selection by any property or field
- New reporting capability with easy to customize interface

Clash detection

- Run clash detection in the active design session

Bentley

Find out more at **Bentley.com**
 1.800.BENTLEY (1.800.236.8539)
 Outside the U.S.: +1.610.458.5000
 Global office listings: [bentley.com/contact](https://www.bentley.com/contact)

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