Experience modern plant design

Build on the power and familiarity of AutoCAD with multidiscipline plant design solutions
Autodesk® Plant Design Suite provides comprehensive plant design, modeling, and review software in an economical package that helps customers to design more efficiently, innovate ahead of the competition, and communicate with greater clarity. Use it to help keep projects on schedule and within budget. Building on the power of Autodesk® AutoCAD® software and Autodesk® 360 cloud services, the suite adds plant-specific content and functionality to help drive greater productivity and better project coordination.

Autodesk 360 cloud services
Extend your workflow on the desktop to the more secure and virtually infinite computing power in the cloud, helping you to more rapidly design, visualize, simulate, and share your ideas almost anywhere, anytime. More securely store files in the cloud, access your data from your desktop and mobile devices, and support better collaboration with extended teams.

Project management
Set up projects more easily by entering pertinent information such as project standards and specs that will be used to help drive creation of piping and components. Identify and add a variety of stock or custom components and specifications, which will populate the tool palette when design begins.

General design & drafting
Autodesk® AutoCAD® Design and draft with the powerful and flexible features of one of the world’s leading CAD tools.

P&ID design & drafting
Autodesk® AutoCAD® P&ID
Create, modify, and manage P&IDs, and then reconcile underlying data with the 3D model.

Equipment & skid design
Autodesk® Inventor® with Routed Systems
Model plant equipment and skids and import to the 3D process plant model.

Project visualization & review
Autodesk® Navisworks® Manage and Autodesk® 3ds Max®
Aggregate models from multiple design packages, create near-photorealistic project visuals, and identify clashes.

3D modeling & documentation
Autodesk® AutoCAD® Plant 3D
Autodesk® AutoCAD® MEP
Design, model, and document process plants with easier isometric and orthographic creation.

Structural design & analysis
Autodesk® Revit® Structure
Design and model 3D structural components.
Streamline P&ID design and 2D drafting

AutoCAD P&ID software is included in all editions of Autodesk Plant Design Suite and features simple reporting, editing, sharing, validation, and exchange of design information. Routine piping and instrumentation diagram (P&ID) work tasks are more streamlined or automated to help boost productivity, while component and line information is more easily accessed and shared as you work.

Symbol libraries
Place industry-standard symbols (PIP, ISA, JIS, and ISO/DIN) and customized symbols directly into drawings.

Validation tool
Perform error checking to help identify, highlight, and navigate drawing inconsistencies. Promote greater accuracy and minimize the time required to identify potential inconsistencies in P&IDs.

Dynamic lines and components
Help reduce manual breaking and mending of lines with intuitive grip editing and manipulation. Create, move, and snap lines into place. Lines automatically break, maintain flow direction, and attach to components inserted on the line. When a component is removed, lines mend automatically.

Start easier
Using the standard AutoCAD-based functionality, AutoCAD-trained professionals can start using AutoCAD P&ID with minimal training.

Save time
Developed specifically for P&ID designers, AutoCAD P&ID includes a collection of tools to help automate and simplify many detailed everyday design and editing tasks.

Support data integrity
Whether you need to generate in-drawing reports or export information to other project team members, AutoCAD P&ID includes many features to help boost data integrity in the face of ongoing design changes and modifications analysis.

Tagging and annotations
More easily create, edit, and customize tags and annotations based on industry-standard formats. Simply drag data properties from the Data Manager into the P&ID drawing as annotations that automatically update.

Data management and reporting
More easily report, edit, exchange, and share project information, and understand the impact of external data updates for change management. Export data into drawing data tables and various file formats such as Microsoft® Excel®. More quickly sort and organize information for easier referencing. Enhanced change management, viewing, and editing functionality help promote the integrity of design information.

The results are compelling—the “headline” productivity gain was found to be in the region of 40 percent—and this was based on a rigorous and wide-ranging test of AutoCAD P&ID capability.

–Tony Christian
Cambashi Limited
AutoCAD P&ID Productivity Study
AutoCAD Plant 3D software is included in the Premium and Ultimate editions of Autodesk Plant Design Suite. Developed to address the challenges of 3D plant design and engineering work, AutoCAD Plant 3D software helps simplify design and editing of 3D plant models.

Enhance design productivity
Training and startup time can be minimal because AutoCAD Plant 3D is built on the widely used AutoCAD platform. Costly server-based systems and database administration are not required. AutoCAD Plant 3D software’s specification-driven technology and modern interface help simplify modeling and editing.

Promote accuracy and consistency
Within AutoCAD Plant 3D, underlying data is directly exchanged between the 3D model, P&IDs, isometrics, and orthographics to help information stay consistent and up to date. Search and query for information, and then more easily review and edit the data in the drawings.

Improve project team coordination
Materials lists and reports are easy to generate and share with project teams. Portable AutoCAD Plant 3D files can be opened by other engineering disciplines with AutoCAD-based software. The data also can be exported to a variety of file formats for integration into other applications.

Piping
From the initial spec through the final design, AutoCAD Plant 3D software optimizes the creation and editing of spec-driven pipelines. Route pipe, edit pipeline and its component elements, and manage a system of connections. You can route pipe semi-automatically or manually. As you insert fittings, required connection components such as gaskets or flanges are added automatically. After routing pipe, export the information as piping component format (PCF) files for integration into other applications such as stress analysis.

Equipment elements
Create, modify, manage, and use equipment in your plant model. A comprehensive library of standard equipment is available from the tool palette. Add custom content to your library and import Autodesk Inventor equipment models.

Structural elements
You can also externally reference structural drawings created in Autodesk Revit Structure software, AutoCAD Structural Detailing software, and other applications.

Structural elements
You can also externally reference structural drawings created in Autodesk Revit Structure software, AutoCAD Structural Detailing software, and other applications.

Specifications and catalogs
AutoCAD Plant 3D helps streamline the placement of piping, equipment, support structures, and other plant components through spec-driven technology and standard parts catalogs such as ANSI/ASME (B16) and DIN/ISO. When you need to create a spec, you can work directly with included content-rich catalogs, or you can modify the catalogs to better meet your project requirements.

Spec converter
Import specs from third-party plant design applications such as Bentley® AutoPLANT® and Intergraph® CADWorx® software.

Construction document generation
From the 3D model, you can more easily generate and share isometrics, orthographics, and other construction documents. Information is directly exchanged with the 3D model, so your construction documents are more accurate, consistent, and up to date.

Reality capture
Bring 3D processing plant scans to life. AutoCAD software includes reality capture tools to help you more quickly visualize scanned objects directly within the modeling workspace and create 3D data.
Better coordinate piping and structures

With the structural design capabilities of Autodesk Plant Design Suite Premium and Ultimate editions, you can import preliminary structural models from AutoCAD Plant 3D into Autodesk Revit Structure for detailed structural design and analysis. You can then bring back the detailed structural design into AutoCAD Plant 3D to visualize the complete structure together with the piping.

Autodesk Revit Structure software is an intelligent 3D modeling solution developed for structural engineers. Included in the Premium and Ultimate editions of Autodesk Plant Design Suite, Revit Structure provides tools for structural design, analysis, and documentation, helping teams to drive more efficient designs, improve multidiscipline coordination, minimize errors, and enhance cross-team collaboration.

Coordinate design of plant equipment and skids

Align equipment and skids with piping design

With the equipment and skid design features of Autodesk Plant Design Suite, you can import 3D models from Autodesk Inventor into AutoCAD Plant 3D and intelligently connect to the piping. There is no need to remodel the equipment and skids.

Included in the Ultimate edition of Autodesk Plant Design Suite, Autodesk Inventor with Routed Systems software provides a comprehensive and flexible set of 3D modeling and mechanical design tools, including functionality for designing routed systems, such as tubing, piping, cabling, and electrical harnesses. Produce and document complete 3D digital prototypes that help you validate the form, fit, and function of every assembly you design. This helps minimize the need for physical prototype tests, decrease the number of change requests, and reduce cycle times.
Create near-photorealistic visuals
Use the 3D modeling, animation, and rendering tools in Autodesk 3ds Max software to help create near-photorealistic project visuals and 3D construction animations of process plants, as well as perform rigging studies for erection and lifting of complex equipment. 3ds Max is available in Plant Design Suite Premium and Ultimate editions.

Create 3D presentations from CAD data
With Autodesk Showcase software, you can more quickly and easily transform plant and equipment designs into compelling imagery, movies, and real-time presentations. Explore design variations dynamically with colleagues and clients in an immersive 3D environment.

More clearly communicate design intent

Autodesk Navisworks products enable smoother design review and model aggregation. Autodesk Navisworks Simulate software is available in Plant Design Suite Premium.

Model and file aggregation
Multidisciplinary projectwide design data created in a variety of design and engineering applications can be combined into a single integrated project model for efficient whole-project review.

Increase efficiency
Advanced tools can be used for collaboration and analysis of project information. Minimize project delays and rework with tools to help coordinate more effectively, plan more accurately, and identify problems earlier in the project cycle.

4D scheduling
Simulate construction schedules and logistics in 4D to help visually communicate, analyze, and validate project activities and reduce sequencing problems.

Clash detection
Included in Autodesk Plant Design Suite Ultimate, Navisworks Manage software includes all the features of Navisworks Simulate, plus clash detection and problem tracking.

Help avoid potential problems before construction to minimize expensive delays and rework. View clashes in context of the model and in relation to other clashes. Manage and track clashes from identification to resolution.

Real-time navigation
Explore a whole-project model using advanced navigation tools, including Walk, Look Around, Zoom, Zoom Box, Pan, Orbit, Examine, Fly, and Turntable.

Project visuals
Create 3D animations and imagery for presentations. Customize and configure every render aspect, including materials, lights, backgrounds, and styles.

Rendered in Autodesk 3ds Max® software.
Build on AutoCAD expertise and resources

**Autodesk Plant Design Suite Ultimate 2016**
For multidisciplinary plant design, the Ultimate edition builds on the capabilities of the Premium edition with the addition of specialized software to support 3D plant equipment and skid design, as well as tools to help identify clashes early in the process.

**Autodesk Plant Design Suite Premium 2016**
The Premium edition builds on the capabilities of the Standard edition with additional software for modern 3D modeling, including piping design, structural design, isometric/orthographic generation, and projectwide model aggregation, as well as advanced tools for visualization and construction simulation.

**Autodesk Plant Design Suite Standard 2016**
The Standard edition supports foundational drafting and P&ID plant design workflows, enabling users to utilize available AutoCAD expertise and resources to streamline layout, drafting, and P&ID work.

<table>
<thead>
<tr>
<th>Products</th>
<th>ULTIMATE</th>
<th>PREMIUM</th>
<th>STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autodesk AutoCAD® 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk ReCap™ 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk AutoCAD® P&amp;ID 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk AutoCAD® Raster Design 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk Showcase® 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk AutoCAD® Plant 3D 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk AutoCAD® MEP 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk Revit® Structure 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk 3ds Max® Design 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk Navisworks® Simulate 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk Navisworks® Manage 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Autodesk Inventor® 2016 with Routed Systems</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

**Products and services available with Autodesk® Subscription**

| Optimization for Autodesk Inventor            | ✔️       |
| Structural Analysis for Revit                | ✔️       |
| Rendering                                    | ✔️       | ✔️      | ✔️       |
One of the more challenging aspects of undertaking a plant retrofit, revamp, or expansion is finding the right mix of tools to manage the complexities and nuances of individual projects. We see real value in Autodesk offering a compatible set of tools in one economical and convenient purchase. Autodesk Plant Design Suite helps reduce training time and minimizes support headaches for multiple tools and vendors, and also gives us access to more technology to help us innovate and differentiate ourselves from our competitors.

—Armando Valdez Cárdenas
Central Region Unit Manager
COMIMSA

Learn more or purchase
Access specialists worldwide who can provide product expertise, a deep understanding of your industry, and value that extends beyond your software. To license Autodesk Plant Design Suite software, contact an Autodesk Authorized Reseller. Locate a reseller near you at www.autodesk.com/reseller. To learn more about and to download free* trial versions of Autodesk Plant Design Suite, visit www.autodesk.com/plantdesignsuite.

Autodesk Education
Autodesk offers students and educators a variety of resources to help ensure that students are prepared for successful design careers. Educators can access design software, curricula, and teaching resources, while students can access free* software, training videos, design competitions, and career resources. Anyone can get expert guidance at an Autodesk Authorized Training Center (ATC®) site, and validate skills with Autodesk Certification. Learn more at www.autodesk.com/education.

Autodesk Subscription
Subscribe to Autodesk Plant Design Suite. Autodesk® Maintenance Subscription gives you an advantage with powerful cloud services, upgrades to the latest software releases, online technical support, and flexible licensing privileges.** Learn more at www.autodesk.com/maintenance-subscription.

Autodesk 360
The Autodesk® 360 cloud-based framework provides tools and services to extend design beyond the desktop. Streamline your workflows, effectively collaborate, and quickly access and share your work anytime, from anywhere. Learn more at www.autodesk.com/autodesk360.

*Free products are subject to the terms and conditions of the end-user license and services agreement that accompanies the software.

**All Subscription benefits are not available for all products in all geographies. Please consult your Autodesk reseller or sales representative for more information.

Autodesk, the Autodesk logo, AutoCAD, Autodesk Inventor, ATC, Inventor, Navisworks, ReCap, Revit, Showcase, and 3ds Max are registered trademarks or trademarks of Autodesk, Inc., and/or its subsidiaries and/or affiliates in the USA and/or other countries. All other brand names, product names, or trademarks belong to their respective holders. Autodesk reserves the right to alter product and services offerings, and specifications and pricing at any time without notice, and is not responsible for typographical or graphical errors that may appear in this document.

© 2015 Autodesk, Inc. All rights reserved.