

CADWorx

The most complete plant design suite for the AutoCAD platform!

CADWorx four Modules are supplied with the following capabilities - *out of the box!*

CADWorx PIPE

- * 2D and 3D Piping
- * Structural Steel
- * Equipment
- * Ducting/Cable Trays
- * Automatic Isometrics
- * Piping Specifications
- * Bills of Material Creation
- * Live Database Links
- * Bi-directional Links to Stress Analysis
- * Automatic Stress Isometrics
- * Model Review and Walkthrough
- *

CADWorx PIPE (Additional Modules)

- * **NavisWorks *Presenter***
- * **NavisWorks *Clash Detective***
- * **Isogen**

CADWorx Equipment

- * Parametric Equipment Modeler
- * Vessels, Tanks, Exchangers & Pumps etc.
- * Bi Directional Links to Pressure Vessel Analysis

CADWorx P&ID

- * Intelligent Process Diagrams
- * Industry Standard Symbols
- * User defined Project Databases
- * Bi-directional Database Links
- * Database Reporting
- * Specification checking capabilities
- * Legacy Diagram Conversion

CADWorx LOOPS

- * User Definable Templates
- * LOOP database table generator
- * LOOP database table editor
- * LOOP generator
- * Links to Autodesk's wiring diagram module

CADWorx

By leveraging the latest in AutoCAD, CADWorx maximizes the size of plant models that teams of designers can work on simultaneously, while making it easy to learn and use the program, even for beginners. These performance and functionality capabilities are made possible by minimizing file size, fast load and save times, effective management of external references (XREFs), and highly refined user interface features.

CADWorx fully supports and is adaptable to the following industry sectors: process, power, water treatment and the hygienic industries including the food, pharmaceutical, biotech and semiconductor sectors.

CADWorx – Easy, Open, Scalable and Language Independent.

Easy

The CADWorx suite is quick and easy to set-up and get started. If you know AutoCAD you are on your way to having your projects fast tracked from conception to delivery. CADWorx allows you to deliver on time with ease!

Open

CADWorx tightly conforms to the open standards of the AutoCAD platform. Meaning your deliverables will reach the largest possible market and will allow the greatest interoperability with other leading applications in the AutoCAD market for integrated, error-free designs.

Scalable

CADWorx provides true economies of scale for projects with budgets ranging from the \$1000's to \$100's of million. Workgroup size does not

Language Support

CADWorx is supplied with the worlds most commonly used languages. User modifiable language files enable users to localize the package to their region allowing them to work and create deliverables in their own language.

CADWorx PIPE

2D and 3D Piping

CADWorx PIPE allows you to work in 2D or 3D mode with full intelligence. Quick 2D plans can be converted into 3D solids at anytime. Working in 3D with CADWorx PIPE is a rewarding and pleasurable experience. Intuitive and easy tools like the CADWorx PIPE's point and shoot UCS system means that design in any plane is easy and quick to do. Because CADWorx PIPE uses standard AutoCAD solids it has some of the best performance, smallest models and greatest compatibility in its class. If ease, performance and collaboration are important to you then CADWorx PIPE delivers!

Structural Steel

CADWorx PIPE has steelwork capabilities built-in. A full range of international steel shapes and catalogs are supplied. CADWorx PIPE's steel utility allows straight or curved steel members to be placed on routing lines or at any place in the design. Editing member's sizes, lengths, coping and notching against adjoining members are also easily done.

As with CADWorx PIPE's piping components steel members can be linked to static or live project databases for full and comprehensive bill of materials reports.

Equipment

The equipment capabilities built into CADWorx PIPE allow the creation of any 2D or 3D equipment shape. Vessels, pumps, tanks, and exchanges can be quickly created to complete the design model for review and interference checking.

Ducting/Cable Trays

HVAC Ducting and Cable tray shapes can easily be created with routines built into CADWorx PIPE. Square, rectangular, round and oval shapes with transitions are selected from a single intuitive dialog box. Key dimensional information is retained to allow users to easily and quickly design Duct and Tray runs with the minimum of input.

Automatic Isometrics

CADWorx PIPE provides the industry's best automatic isometrics and does so with ease. Isometrics can be generated from within individual piping layouts or from project databases. Intelligent stop marks lets users specify sensible break points for consistent drawings from revision to revision and reissue. Whether using line numbers from the database or selecting items from the drawing, the software makes isometric generation a breeze.

A single dialog configuration utility lets you precisely define how your isometrics will look. Settings for user borders, automatic dimensioning, tagging and bill of materials are easily set.

Piping Specifications

CADWorx PIPE includes over 65 detailed, ready-to-use specifications accessing 3500 component datafiles carrying parametric information on over 40,000 components and more are continually being added!. In keeping with the global capabilities of CADWorx PIPE, specifications and datafile are available in imperial, metric and mixed metric formats in various materials and to major US, European and Asian regional standards.

The powerful specification editor included within CADWorx PIPE allows you to create and modify specifications on-the-fly or outside of a drawing session. Ease and flexibility allows ease of specification creation and modification to ensure consistency and accuracy in your designs.

Bills of Material Creation

Because CADWorx components placed in the design are intelligent, accurate user configurable bill of materials in the most popular database formats can be created at any point in the design process.

Live Database Links

CADWorx PIPE lets any number of users connect to a common external database during the design process. Model additions and subtractions from any workstation are constantly monitored, and ODBC links within CADWorx PIPE ensure that the model and external databases are always fully synchronized.

Bi-directional Links to Stress Analysis

You can output any part of a CADWorx PIPE piping system to stress analysis in native CAESAR II file format. Similarly routing, support and system modifications made in CAESAR II can be read by CADWorx PIPE directly into the design. This link between CAD and analysis still remains a unique feature that no other CAD/Analysis offerings have been able to offer – at any price!

Automatic Stress Isometrics

CADWorx PIPE can also use CAESAR II output results data to easily create stress isometrics. Once a stress isometric is drawn a custom dialog helps you select analysis results to be added to the isometric. Therefore you get automatically generated stress isometrics that are fully dimensioned and annotated with accurate input and analysis data that your clients require.

Model Review and Walkthrough

NavisWorks for CADWorx provides real-time design review capabilities of even the largest 3D models and is supplied with every each seat of CADWorx PIPE. Intuitive tools allow the navigation, collaboration, presentation and coordination of your 3D models. Movies (AVI's) and review comments are easily created for general distribution.

CADWorx PIPE (Additional Modules)

NavisWorks Presenter - enables users to attach materials to items in the review model for near photo realistic representations.

NavisWorks Clash Detective – performs world-class interference checking, saving significant time and money in the construction phases of the project and reducing design liabilities.

Isogen – from Alias, UK gives the option of creating automatic isometrics in the world's most popular isometric format. Isogen for CADWorx is supplied with all the configuration switches that Isogen users need for full isometric configuration.

CADWorx P&ID

CADWorx P&ID enables users the flexibility to create process diagrams with varying levels of information and with the minimum of effort.

Intelligent Process Diagrams

CADWorx P&ID works in two modes. Firstly – users can draw intelligent process diagrams without additional information – adding information as it becomes known. These P&ID's can later be linked to external project databases. Secondly – users can draw their diagrams with additional information linked to external project wide databases.

Industry Standard Symbols

CADWorx P&ID is supplied with an extensive symbols library to major US, European and Asian regional standards. Additional symbols or assemblies are easily added and are automatically made intelligent. If you wish to use your existing symbols it is easily done plus they will enjoy all of the benefits of CADWorx P&ID's built in symbology. CADWorx P&ID's built-in tools automatically add additional symbols to menus without then need to maintain slide libraries or learn AutoLISP.

User defined Project Databases

CADWorx P&ID provides a dynamic solution for defining the structure of project databases that requires no database knowledge and ensures that project database and drawing information is always linked. Unlike may packages CADWorx P&ID uses industry standard ODBC links to ensure that access and performance with project database are kept at the highest levels and are always compatible with the latest innovations in computer operating systems.

Bi-directional Database Links

Data integrity is never compromised however many drawings are linked to your project databases. All parties can share and modify data from within a CADWorx P&ID session or within the Project database. CADWorx P&ID makes sure that drawings and database are always in sync!

Database Reporting

Using your favorite ODBC compliant database means that it is easy to create exactly the reports that you require in the form that you need. Valve, equipment and process line reports are included and can be easily adapted to specific user needs.

Specification checking capabilities

CADWorx P&ID has piping specification checking capabilities built in. If you wish to add specification capabilities to your process diagrams that match those of CADWorx PIPE you can do so. Now your process diagrams and piping designs can use the same checks that ensure that the correct design criteria are always used.

Legacy Diagram Conversion

Your old drawings and the information they contain can still be useful! CADWorx P&ID includes powerful routines that make linking valves, vessels, mechanical, instruments and process lines easy. Once linked criteria is setup all subsequent instances of that item are recognized and their information automatically linked to the correct database table. If you want to document your existing plant, CADWorx P&ID is your tool!

CADWorx LOOPS

When hundreds or thousands of instrument loop diagrams are required, CADWorx LOOPS makes it easy.

User Definable Templates

Users can quickly define their LOOP template drawings to their precise specifications.

LOOP database table generator

CADWorx LOOPS reads text or attribute data from user templates and automatically creates instrument loop tables in the project database. An intuitive dialog box lets you rearrange table column orders or widths. No database knowledge is required!

LOOP database table editor

CADWorx LOOPS is supplied with a powerful loop database table editor that allows engineers to input engineering information into the instrument loop tables.

LOOP diagram generator

CADWorx LOOPS will automatically extract loop numbers from the instrument tables in the project database to allow the user to select the loops from which individual loop diagrams are to be created.

Links to 3rd party packages

CADWorx LOOPS open architecture allows users to create templates that let users include any attributed data they require. This means that templates can be created with information that other packages such as 3rd party instrument or electrical modules need for intelligent processing of CADWorx LOOPS diagram information.

CADWorx Equipment

CADWorx EQUIPMENT is a parametric equipment modeler that is easy to use and full featured. It enables users to quickly and easily create 3D equipment for plant design.

Parametric Equipment Modeler

COADWorx EQUIPMENT works on a hierarchal basis in which once a piece of equipment is defined its component parts such as nozzles, vessel head, shells, supports etc. can be selected and their parameters parametrically defined. Once defined equipment component information can be modified or redefined via the equipment modeler dialog or by double clicking on the item in the drawing.

Vessels, Tanks, Exchangers & Pumps etc.

(More information needed here)

Bi Directional Links to Pressure Vessel Analysis

You can output your equipment created using CADWorx EQUIPMENT to COADE's PVElite Vessel design analysis package in native PVElite format. Similarly any piece of equipment created or modified using PVElite can be imported into the CAD design using CADWorx EQUIPMENT.

Hardware/Software Requirements:

- Intel Pentium processor (or equivalent)
- Microsoft Windows (95, 98, NT 4.0 or later)
Operating System
- 32 Mbytes RAM (recommended)
- 60 Mbytes of disk space
- CD ROM Drive
- Microsoft Internet Explorer (4.0 or later)
- AutoCAD 2000 or later

CADWorx Licenses:

All CADWorx software licenses provide the following as standard:

- Complete program (each CADWorx program is licensed separately)
- One complete set of program manuals
- Technical newsletter subscription
- Phone, fax, web site and e-mail access for technical support

Full License Provides:

- Perpetual single license with no limit on the amount or duration of use
- One full year of automatic upgrades from date of purchase
- Eligibility for annual extensions of automatic upgrades
- Eligibility for discounts on additional CADWorx Full License purchases

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