

1. General

1.1 What is Autodesk Inventor Series?

Autodesk Inventor® Series is a collection of 2D and 3D design applications that includes Autodesk Inventor® and Autodesk® Mechanical Desktop® software in a single package. It offers you the flexibility of using the functionality of AutoCAD®, Autodesk Mechanical Desktop, or AutoCAD Mechanical, while you discover the power of the latest 3D design technology with Autodesk Inventor. Autodesk Inventor Series offers a risk-free migration path to 3D while protecting your investment in the 2D programs you depend on today.

1.2 What is Autodesk Inventor?

Autodesk Inventor software is the innovative 3D component of the Autodesk Inventor Series, a high-performance mechanical design tool that helps mechanical designers and engineers reduce design time and get better products to market faster. The most advanced 3D mechanical CAD software in the midprice range, Autodesk Inventor is known for its unparalleled ease of use and for providing a smooth transition path from 2D to 3D design.

Autodesk Inventor software delivers unique functionality that

- Accelerates and simplifies the design process
- Makes design creation and changes easier to manage
- Handles complex or large assemblies faster than comparable mechanical design software
- Provides innovative shape description capabilities driven by the ShapeManager kernel
- Ensures the industry's best DWG compatibility
- Integrates all these capabilities in a single powerful application that's easy to learn and use

1.3 How does the Autodesk Inventor Series benefit users of AutoCAD, AutoCAD Mechanical, and Autodesk Mechanical Desktop?

Autodesk Inventor Series software gives you the opportunity to discover the advantages of using the industry's most innovative 3D design technology while protecting your existing technology investment in other products you depend on, such as AutoCAD, AutoCAD Mechanical, and Autodesk Mechanical Desktop. You get the flexibility to use what you need, when you need it, in a single package—a value unmatched by any other vendor.

1.4 What is Autodesk's complete manufacturing solution offering?

Our comprehensive portfolio of products, partners, and services accelerates and simplifies the entire design and manufacturing process, so businesses everywhere can deliver better products to market faster.

Design Creation:

Autodesk Inventor Series offers the most advanced mechanical design software in a single 2D and 3D system—a value unmatched by any other vendor.

www.autodesk.com/inventorseries

Autodesk Inventor Professional combines the proven power of Autodesk Inventor Series with specialized design and validation technology for electromechanical and mechanical design teams in a common platform to increase product quality and decrease cycle time.

www.autodesk.com/inventorpro

AutoCAD Mechanical is the AutoCAD software product for 2D mechanical engineering and design, offering intelligent production drawing with standards-based 2D content for improved design accuracy and accelerated workflow.

www.autodesk.com/autocadmech

AutoCAD Electrical gives you fast control schematics design capabilities, automatic wire numbering, and component tagging, plus an intelligent control panel utility to help you work more efficiently and significantly reduce design errors.

www.autodesk.com/autocadelectrical

Engineering Data Management:

Autodesk® Vault is an engineering data management application for workgroups that is fully integrated with Autodesk Inventor software. Autodesk Vault improves engineering productivity by synchronizing workgroup efforts, accelerates development cycles by reducing search time, and reduces errors and rework by lowering use of email and the c: drive as the primary means of sharing engineering data. Included within Autodesk Inventor Series and Autodesk Inventor Professional software offerings, Vault provides the simplified data management you need at no additional cost. Easy to install, use, and maintain, Autodesk Vault ensures rapid results without complex IT support.

www.autodesk.com/vault

Share and Collaborate:

Autodesk Streamline® is an easy-to-use hosted project environment that helps you share design and project data securely, collaborate more effectively, and improve business processes throughout your product lifecycle.

www.autodesk.com/streamline

Certified Programs:

Autodesk Inventor Certified Applications—Get targeted applications that meet your specific needs from the Autodesk Inventor Certified Application program. This alliance of leading application developers enhances and extends Autodesk Inventor software in specific areas of expertise.

Autodesk Inventor Certified Hardware—Get the best computer hardware and peripheral devices from the Autodesk Inventor Certified Hardware program. An alliance of leading hardware vendors, the program highlights best-in-class devices that help you use the full power of Autodesk Inventor software.

Autodesk Inventor Certified Expert—The Autodesk Inventor Certified Expert program is designed to give you an edge by helping you demonstrate and maintain your skills with Autodesk Inventor software. Whether you are looking for work or already have employment, obtaining an official certification from Autodesk can go a long way toward advancing your career opportunities.

www.autodesk.com/inventorcertified

Efficient Execution:

Autodesk Professional Services helps you reduce the time, cost, and risk of transforming your business with technology. We'll guide you as you set up and learn to use your software and support you when problems arise. Whatever your needs, we can help you maximize the return on your investment in Autodesk® technology.

www.autodesk.com/consulting

1.5 How has Autodesk Inventor Series software performed against competitors?

Autodesk Inventor Series has been recognized as the number one best-selling 3D modeling software, outselling SolidWorks for six consecutive quarters and garnering many industry awards, including

CADENCE magazine's Show Stopper and Editor's Choice Awards and CADALYST magazine's All-Star Award for several consecutive years.

2. Autodesk Vault Technology

2.1 What is the Autodesk Vault?

Autodesk Inventor software has significantly improved the process of creating large machines and complex design models with a high number of parts, interrelated data, and many participants. While producing large-assembly designs is now easy, manually tracking them becomes almost impossible. Autodesk Vault provides a central repository for managing your engineering data.

Autodesk Vault manages *all* your engineering files, regardless of file type. You can use it to manage Autodesk Inventor, AutoCAD, FEA, CAM, Microsoft® Word, Microsoft Excel, or any other file used in the design process (including files from other CAD systems). Organize all your files and keep them in one location for easy access. All file versions are retained, so you never misplace or overwrite past versions. Autodesk Vault stores each version of a file, along with all the file dependencies, giving you a living history of the project as you work on it. Autodesk Vault also stores properties such as the user name, date, and comments for rapid searching and retrieving.

2.2 What are the benefits of using Autodesk Vault?

Autodesk Vault helps engineering and manufacturing teams increase their productivity and shorten design cycles by providing a tool for managing, organizing, and accessing accurate, timely data across the company.

- Increase engineering productivity by reducing errors and time spent searching for data.
- Accelerate product development cycles by reducing use of email and local hard drives as your primary means of sharing engineering data.
- Eliminate complex deployments and extensive IT support because it's easy to install and use.

2.3 Do I need a big IT budget to install, use, and maintain Autodesk Vault?

No. Autodesk Vault installs easily, without any complex “deployments” or extensive IT support. Autodesk Vault is integrated into Autodesk Inventor Series and Autodesk Inventor Professional with an intuitive interface that helps design teams quickly become effective. Autodesk Vault is self-supporting because of its simplicity and support tools, such as newsgroups, online help, and best practices documentation in the *Managing Your Data* book.

3. Moving from 2D to 3D Design

3.1 What are the core benefits of moving to 3D design with Autodesk Inventor software?

An intuitive workflow means the program is smart enough to automatically display the appropriate toolbar or menu, depending on where you are in your design process.

A simplified user interface that provides a context-sensitive help and support system makes it easy to become productive with Autodesk Inventor in a single day. Autodesk Inventor is recognized in the industry for its unparalleled ease of use and learning.

Combining 2D capabilities with the power of 3D, Autodesk Inventor Series delivers the 2D tools you rely on and gives you the opportunity to move to 3D at your own pace, risk free and without causing disruption to your business.

The industry's best DWG compatibility, which comes directly from the company that invented it—Autodesk.

With adaptive technology at its core, one of the features that separates Autodesk Inventor from other 3D modelers is its innovative adaptivity and the ability to create adaptive parts. These smart parts maintain a physical relationship so that if you modify the geometry of the base part, the adaptive geometry knows to update as well. This could be as simple as creating a hole that adapts to the size of a

rod; as you change the size of the rod, the hole gets larger or smaller to accommodate the new diameter of the rod.

Exceptional large-assembly performance makes working with large assemblies in Autodesk Inventor easier than with other systems. You can completely model very large machines and validate your design in 3D before ever building a prototype—an enormous value to mechanical engineers interested in moving to 3D design.

In addition, with the Autodesk Inventor platform built to extend the use of design data throughout the design chain, you can improve your business processes and gain efficiencies when working with your extended supply chain.

3.2 How does Autodesk Inventor simplify my transition from 2D to 3D?

Users interested in moving from 2D to 3D will find that the AutoCAD import features of Autodesk Inventor are focused on accurately reproducing AutoCAD (or other DWG file) drawings, while maintaining the intelligence of the data.

In addition, the Autodesk Inventor integrated Design Support System contains numerous built-in features developed to help users of Autodesk mechanical design products become immediately productive. User-friendly tools include animations that demonstrate how to use Autodesk Inventor, help topics that explain how to import and export files easily, a list of frequently asked questions that detail the differences between AutoCAD and Autodesk Inventor, plus a command map that compares AutoCAD commands to the corresponding Autodesk Inventor tools.

3.3 Can I maintain and reuse my AutoCAD and AutoCAD Mechanical data in Autodesk Inventor?

Yes. With Autodesk Inventor you can easily reuse AutoCAD data intelligently and also get the best migration tools and DWG compatibility in the industry.

The AutoCAD import features of Autodesk Inventor software reproduce an AutoCAD drawing as accurately as possible while maintaining the intelligence of your design data. Wizard-based workflows help you open existing AutoCAD and Autodesk Mechanical Desktop files within the Autodesk Inventor application. The software provides an interactive preview of the drawing file selected for translation, allows custom import and export of AutoCAD layers, and furnishes special tools to help convert this data to title blocks, borders, symbols, or new 3D designs. You can also add intelligence such as 2D parametrics to DWG data, use existing 2D data in the context of a 3D assembly for conceptual design (adaptive layout), and use 2D data to create new 3D models.

3.4 Can I reuse my data from Autodesk Mechanical Desktop in Autodesk Inventor software?

Absolutely. Autodesk Mechanical Desktop users benefit from all the same advantages as AutoCAD users. Autodesk Inventor software offers the best migration tools and DWG compatibility in the industry. You can easily migrate 3D feature-based designs into Autodesk Inventor software and keep your 2D drawings, as well as retain the intelligent assembly association inside Autodesk Inventor, a capability unique to the Autodesk Inventor program.

With more than 300,000 Autodesk Mechanical Desktop licenses sold worldwide, many users are moving to Autodesk Inventor to gain the advantage of the technology advances it offers and also because of the safe, simple, and reliable migration path it offers.

3.5 Can I create AutoCAD drawings in Autodesk Inventor?

Yes. DWG files created in Autodesk Inventor are visually complete, geometrically accurate, and organized in a manner consistent with AutoCAD conventions. This means that you can go from 2D to 3D or vice versa—and easily move design data back and forth.

4. Technology Details and Support

4.1 What is the Autodesk ShapeManager and how does it affect the Autodesk Inventor Series?

The Autodesk ShapeManager is the company's 3D modeling kernel that has been incorporated into Autodesk Inventor software. Based on an ACIS 7.0 kernel, the technology is being maintained and

enhanced by Autodesk. Because it is based on ACIS, you will experience no file migration problems and will need no geometry migration utilities to transition your data.

All Autodesk products based on the ShapeManager will benefit from increased application stability and performance and will support your ability to design more complex parts.

The addition of the Autodesk ShapeManager team allows Autodesk to maintain the type of rapid solution development and delivery that has become the trademark of its Autodesk Inventor development team. It's important to note that no other developer in this marketplace has been able to match the velocity of Autodesk Inventor development. Our team has delivered seven major releases in less than four years, and we have every intention of continuing at this pace for as long as our customers demand it. Having more control over the development of our kernel only helps us maintain this strategy.

4.2 What support does Autodesk Inventor offer to help me get started?

Autodesk Inventor technology offers the easiest to use and most intuitive user interface for production-level 3D design. One of the benefits of Autodesk Inventor software is that it makes it possible for nonexperts as well as occasional users to become productive in a 3D design environment in a single day. You can take advantage of an innovative help system known as the Design Support System with built-in migration for AutoCAD users. It is instrumental in helping you move from 2D to 3D. Unique in the industry, this system helps you significantly reduce the time and cost of learning or relearning the software.

The Design Support System (DSS) integrates software tools, knowledge, and learning experiences that directly impact user success and reduce both time and cost of learning. Your productivity is increased through visual design aids and an electronic infrastructure that provides just-in-time assistance through help topics, animated examples, tutorials, and error detection and recovery. Additionally, the DSS provides you with embedded feedback mechanisms to communicate directly with the content development team, additional help and information through extended learning modules called Skill Builders, and an updated and simplified navigation system.

4.3 How can I get started using Autodesk Inventor software?

Autodesk Inventor Series includes a Learning Resources CD that provides a series of online tutorials and "show-me" tips that help you understand Autodesk Inventor software. It also provides extensive information on the basics of 3D modeling and how to reuse existing AutoCAD data, as well as information on moving to 3D design.

You can also get support through your local Autodesk channel partner or an Autodesk Authorized Training Center (ATC®). The expanded Design Support System in Autodesk Inventor also offers built-in support.

4.4 Does Autodesk Inventor support industry-standard file exchange formats?

Yes. Autodesk Inventor software can import and export DWG, DXF™, SAT, STEP (.stp, .ste, .step), and IGES (.igs, .ige, .iges) file formats as core functionality. It also supports BMP, STL (stereolithography), XGL, ZGL, Autodesk Streamline (.amp, .ptp, .pnp, .dwp), DWF™ and Autodesk® VIZ, and 3ds max® (with free plug-in) for output only. In addition, Autodesk Inventor can import Pro/ENGINEER® (.prt, .asm) up to version 20.

5. Autodesk Inventor Versus the Competition

5.1 How does Autodesk Inventor software beat the competition in ease of use?

Autodesk Inventor software creates a design environment with significantly fewer and appreciably smarter commands that follow the way people want to work. The integrated Design Support System dramatically surpasses anything ever attempted in this market. For example, the sketching function is gesture based, easing and speeding use of the tool and making it more efficient. Autodesk Inventor software also addresses classic areas of struggle such as a model's failing to regenerate. The Design Doctor™ feature provides direct feedback (for example, a fillet is too big or a shell isn't thick enough) to help diagnose design problems.

5.2 What are the advantages of Autodesk Inventor software over other 3D modeling programs?

Unlike other 3D CAD systems, Autodesk Inventor offers the power of innovative adaptive technology, as well as the flexibility of parametric modeling. Adaptive technology solves the inherent flaws of purely parametric design systems by eliminating the need to write complex equations associated with creating assembly relationships—a task that actually limits productivity rather than improving it.

Adaptive technology provides greater flexibility to capture design intent as well as manage and edit small to large assemblies. The benefit of adaptive technology is the ease with which you can create part relationships without depending solely on complex mathematics, equations, or dimensions to establish these relationships. With Autodesk Inventor, you simply specify how parts fit together, then the assembly-based “fit” definition automatically determines their size and position.

In addition to profiting from Autodesk Inventor software’s superior technology, you can also benefit from the comprehensive manufacturing solutions offered by Autodesk and its partners, which provide an unparalleled depth of expertise in design, engineering data management, and collaboration technology.

6. Availability

6.1 How can I purchase Autodesk Inventor?

Autodesk Inventor software is offered only as part of the Autodesk Inventor Series, a unique combination of the best 2D and 3D technologies that provides the easiest transition path to 3D at the best possible value. You can protect your software investment and stay up to date on the latest Autodesk product releases through the convenience of Autodesk Subscription. For products like Autodesk Inventor that are on a rapid release cycle, the program provides you with the real value of content-rich releases as soon as they become available, as well as flexible e-Learning lessons and personalized web support. For more information on Autodesk Subscription, visit www.autodesk.com/subscription.

6.2 Since both Autodesk Inventor and Autodesk Mechanical Desktop programs are provided in the Autodesk Inventor Series, can I use one program while a colleague evaluates the other?

No. The Autodesk Inventor Series is considered one package and therefore must be installed on the same machine; both its software programs (Autodesk Inventor and Autodesk Mechanical Desktop) can then be used concurrently or separately on that same machine only. Network users can install both products but must limit the number of simultaneous users based on the number of licenses purchased. Autodesk Inventor software takes advantage of powerful new functionality offered by FLEXlm® 8.3 license managing software so you can maximize your use of licenses through license borrowing and management.

6.3 Do Autodesk education customers in the United States and Canada receive Autodesk Inventor Series?

No, Autodesk Inventor Series 8 will not be available for purchase by educational institutions or students. Autodesk Inventor Professional 8 software will, however, be available. Autodesk Comprehensive Education Solution (ACES) customers will receive current versions of Autodesk Inventor Professional software.

6.4 How can education customers outside the United States and Canada learn about Autodesk Inventor Professional availability, pricing, and additional resources?

They can contact their local Autodesk Education Reseller or local Autodesk office for more information. To find an Autodesk Education Reseller in your area, visit www.autodesk.com/reseller. Customers may also visit the Autodesk Education website at www.autodesk.com/education.

6.5 How can I learn more about Autodesk Inventor?

To find out more about Autodesk Inventor (available in the Autodesk Inventor Series), visit www.autodesk.com/inventorseries or contact your local reseller. You can locate a reseller in your area by visiting www.autodesk.com/reseller or by calling 800-964-6432.



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