Adobe Acrobat solution for 3D-based CAD design collaboration

Communicate and collaborate more securely with the complete PDF solution for 3D design



"By distributing 3D designs in Adobe PDF, we've accelerated review cycles by as much as 200%."

Doug Dominick President Atrus

Efficient design collaboration increases productivity and speeds design cycle time

Today's manufacturers must persistently push the limits of effective product design—constantly driving innovation, shrinking design cycles, reducing costs, improving quality, and bringing their products to market faster than ever. Yet, in the face of these never-ending pressures, these same manufacturers face significant, time-consuming challenges that include a growing list of strict compliance mandates, rising customer expectations, and a global economy that results in teams of engineers, suppliers, and partners that are required to collaborate from locations dispersed around the world.

Recognizing the very real need for manufacturing teams to be able to make fully informed decisions—quickly—in response to customers' evolving demands, Adobe has created a software solution that streamlines collaboration, helping CAD users increase individual productivity and make the best possible decisions at every point in the design process. Ultimately, these streamlined collaboration capabilities help reduce design errors, minimize last-minute changes, accelerate design cycle times, and strengthen competitive advantage.

The Adobe solution for CAD design collaboration can help you eliminate many of these frustrating workarounds and delays—even when you work with complex 3D designs. This Adobe solution is comprised of:

- 1. Acrobat® 3D Version 8
- 2. Adobe® Reader®
- 3. Acrobat Connect™
- 4. LiveCycle® Policy Server

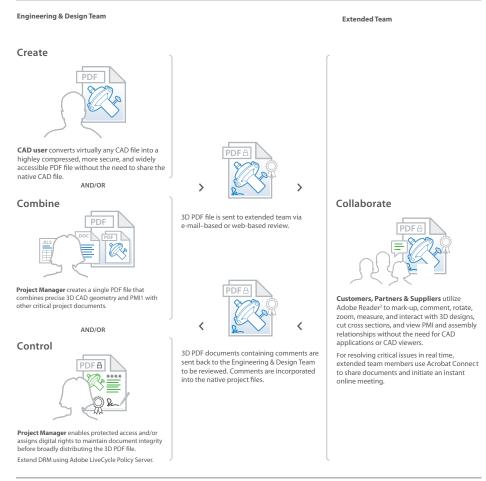
Save time using 3D-based CAD design collaboration

Using Adobe Acrobat 3D Version 8 software, you can convert virtually any CAD file, as well as all of your project data, into Adobe 3D PDF files. This widely used format helps drive collaborative product development across your extended team by enabling you to share critical project data more quickly, securely, and cost-effectively. Proven, time-tested Adobe PDF files are highly compressed, yet they can contain precise 3D CAD geometry, product structure data, and product manufacturing information¹ (PMI) such as dimensioning, tolerancing, and annotations. Because these PDF files can be accessed using the free, ubiquitous Adobe Reader software², any authorized individual can view, cross section, measure 3D designs, or mark up the product design—no dedicated, proprietary CAD application required.



- Convert virtually any CAD file into an easy-to-share, Adobe 3D PDF file, without losing critical product design and manufacturing information—eliminating the need for expensive CAD applications and specialty viewers.
- Streamline processes, such as sharing work-in-progress designs, by combining multiple documents and different file formats into a single, searchable Adobe PDF package.
- 3. Protect proprietary design documents with passwords, encryption, and advanced security policies, which enable you to add document expiration dates, revoke access rights, and limit modifications—even after distribution outside the firewall.
- Drive innovation and faster cycle time by easily including customers, colleagues, and suppliers in the collaboration process.

Acrobat 3D helps accelerate document-based design collaboration processes across extended teams.

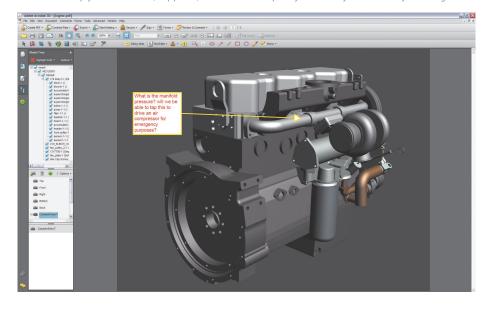


Bradrock Industries accelerated design cycles by 50%,reduced time to market by up to 20%, and greatly increased the odds of manufacturing their products right the first time.

Create Adobe 3D PDF files containing 3D CAD designs

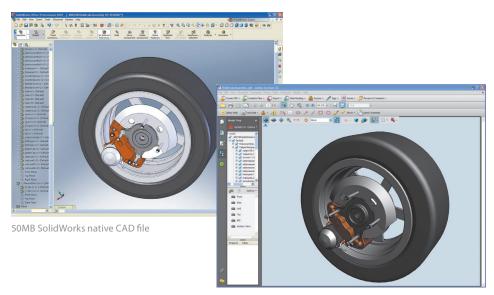
Replace static 2D screenshots with interactive 3D-based design collaboration

Convert complex 3D designs from virtually any CAD application—including CATIA V4 and V5, UGS NX, JT, I-DEAS, SolidWorks, Pro/ENGINEER, Autodesk Inventor, and more—into rich, interactive Adobe 3D PDF documents that help your customers, suppliers, and co-workers quickly and clearly understand your design intent.



Create highly compressed, easy-to-share 3D PDF files

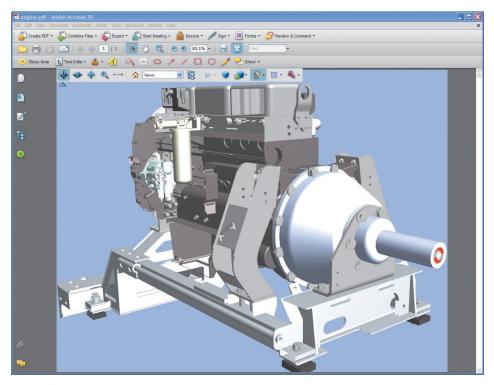
Produce 3D PDF files that are up to 150 times smaller than the native CAD file by leveraging Adobe's industry-leading compression technology. Now you can easily distribute 3D PDF files containing complex 3D CAD models via email or the web.



Resulting 3D PDF is 330K

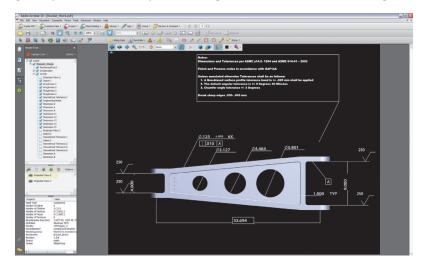
Easily create Adobe PDF documents from OpenGL applications

Instantly capture your CAD designs in Adobe PDF with one-button ease from OpenGL-based applications on Microsoft® Windows® and UNIX® systems.



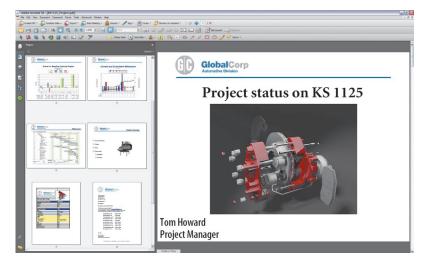
Reduce the need to create 2D drawings by sharing PMI

With Acrobat 3D, you can easily distribute 3D designs that contain PMI (including dimensions, tolerances and annotations), as well as metadata attributes that communicate key product details, to your extended manufacturing teams. This allows them to access critical manufacturing information in the 3D PDF file, directly on the geometry and from the assembly tree—reducing the need to create or share 2D drawings.



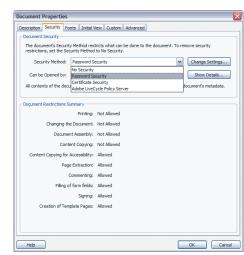
Combine multiple documents into a single Adobe 3D PDF file

As vital as 3D designs are, many complex projects also employ vast amounts of supporting information contained in a huge variety of file formats from many different source applications. Using Acrobat 3D, you can combine all additional files—spreadsheets, Microsoft Office documents, e-mails, 2D CAD drawings, bill of materials information, 3D designs, and more—into a single, 3D PDF.



Control access rights to protect your 3D designs

Acrobat 3D Version 8 provides advanced document controls and security features that enable you to protect your 3D design data and other proprietary information. You can apply passwords to restrict access to documents, assign permissions to help control who can print, save, copy, or modify documents, and even delete any unwanted document metadata. You can require digital signatures to certify document authenticity and help prevent unauthorized changes. For even greater security, you can use Adobe LiveCycle Policy Server (sold separately) to add expiration dates to your Adobe PDF files, revoke user access rights, and update policies—even after you've distributed the files outside the corporate firewall.



Collaborate more effectively and efficiently

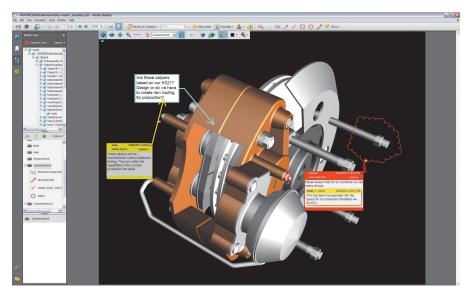
Share 3D designs with anyone

When you're ready, distribute your 3D designs to everyone on your team. Using the free Adobe Reader? your co-workers, customers, and suppliers can mark up complex 3D designs, save 3D views, and add comments and callouts. They can also interact with your designs in three dimensions: rotating, zooming, measuring, cross sectioning, and navigating through internal structures and assemblies, all to improve understanding and streamline productivity.



Conduct e-mail or web-based design reviews with PDF documents

Using Acrobat 3D Version 8, the initiator of the review can easily track who has contributed feedback, send reminders to those who haven't, add new participants, then compile all reviewers' comments into a single Adobe 3D PDF document. When Adobe customer Designbrand integrated Acrobat 3D into its design review process, the review initiator not only received more reliable and timely feedback, but was also able to complete design review cycles in half the expected time.



Leverage all the features of Adobe Acrobat 8 Professional

Since Acrobat 3D is a superset of Adobe Acrobat 8 Professional software, you can use all the features and benefits of Acrobat Professional to reliably create, combine, and control PDF documents for easy, more secure distribution, collaboration, and data collection.

Host live meetings online with Adobe Acrobat Connect

There may be times when you'd prefer to collaborate with your team members face-to-face. Now, with Adobe Acrobat Connect (sold separately) you can communicate and collaborate instantly and cost-effectively through online personal meeting rooms. Simply click the 'Start Meeting' button within Acrobat 3D or Adobe Reader 8 to perform a real-time design review. All of your participants can access a variety of tools—including whiteboard, chat room, VoIP, and video—anytime, anywhere, through any web browser enabled with Flash® software. You can even record the meetings for future playback.

The Power of 3D PDF

Discover design flaws faster to save time and money

Using Acrobat 3D, you can share interactive 3D designs earlier and more frequently. Use Adobe PDF to help your extended team identify and communicate design flaws earlier in the process, helping to reduce late-stage design changes and production delays.

Did you know that Adobe Reader is found on 89% of all Internet-connected desktops? Download the latest version

for free at www.adobe.com.

The Adobe Portable Document Format (PDF) is a highly flexible, open standard that enables more secure visualization, collaboration, CAD data interoperability, and data publishing across the entire product lifecycle. With support for industry-leading compression technology, highly compressed 3D PDF files can contain precise geometry from large, complex CAD assemblies in an archive-quality format. When you need to share products structures and metadata, or you want to distribute PMI directly on a 3D model, you can use PDF files for fast, efficient collaboration.

Cross-Platform Support

Because Adobe PDF has wide cross-platform support, your partners, customers, and suppliers can view, print, and interact with Adobe PDF documents on virtually any platform—including Macintosh OS X,* Microsoft* Windows,* UNIX,* LINUX,* and many mobile systems.

A Format You Can Trust

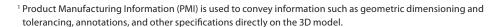
Over the past decade PDF has become one of the world's most trusted technologies, currently used by more than half a billion people and accepted by IT departments, industries, and governments worldwide.

Efficient design collaboration increases productivity and speeds design cycle time

By helping manufacturing customers communicate and collaborate more efficiently, effectively, and securely on 3D designs, Acrobat 3D helps increase productivity, bring products to market faster, and gain a sustainable competitive advantage. Efficiencies like these helped Atrus strengthen customer relationships, building a powerful foundation for future projects and profits. At Adobe, we believe that the Acrobat solution for 3D-based design collaboration can help your company achieve similar results. Integrate it into your existing processes today, and join the impressive roster of manufacturers that use the Acrobat solution to communicate and collaborate with confidence.

For more information

To learn more about Adobe solutions for 3D-based design collaboration, visit www.adobe.com/go/A3D_design_collaboration.



² Requires Adobe Reader 8.1 or later

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