

**COREL**<sup>®</sup>

# Corel **DESIGNER**<sup>®</sup> Technical Suite **X4**

Reviewer's Guide



# Corel DESIGNER<sup>®</sup>

Technical Suite **X4**

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## About Corel

Corel is a leading developer of graphics, productivity, and digital media software, with more than 100 million users worldwide. The company's product portfolio includes some of the world's most popular and widely recognized software brands, including CorelDRAW® Graphics Suite, Corel® Paint Shop Pro®, Corel® Painter™, Corel DESIGNER®, Corel® WordPerfect® Office, WinZip®, and iGrafx®. In 2006, Corel acquired InterVideo, makers of WinDVD®, and Ulead, a leading developer of video, imaging, and DVD authoring software. Designed to help people become more productive and express their creative potential, Corel's full-featured software products set a higher standard for value in being easier to learn and use. The industry has responded with hundreds of awards recognizing Corel's leadership in software innovation, design, and value. Corel's products are sold in more than 75 countries through a well-established network of international resellers, retailers, original equipment manufacturers, online providers, and Corel's global Web sites. With its headquarters in Ottawa, Canada, the company has major offices in the United States, the United Kingdom, Germany, China, and Japan. Corel's stock is traded on the NASDAQ under the symbol CREL and on the TSX under the symbol CRE.

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CorelDRAW® Graphics Suite X4 Reviewer's Guide

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# 1

## Introducing Corel DESIGNER® Technical Suite X4

Corel DESIGNER® Technical Suite X4 is an essential software solution for businesses that rely on the creation of technical illustrations to communicate the strengths of their products and services.

Unmatched by any other technical graphics package, Corel DESIGNER Technical Suite X4 provides industry-leading file compatibility, including 3D CAD import, while delivering precision tools for illustrating, diagramming, bitmap-to-vector tracing, and professional photo editing. With its optimized workflow, multi-language support, and easy network deployment, this comprehensive suite is equipped to meet the needs of companies that demand technical design excellence.

Corel DESIGNER Technical Suite X4 is a member of the CorelDRAW® family of products, leveraging the award-winning design power of that graphics suite and extending it with tools and features tailored to the technical illustration workflow. Complete compatibility between the two suites allows CorelDRAW users to work in Corel DESIGNER Technical Suite X4 with almost no learning curve and facilitates a seamless exchange of ideas and information between workflows and departments.

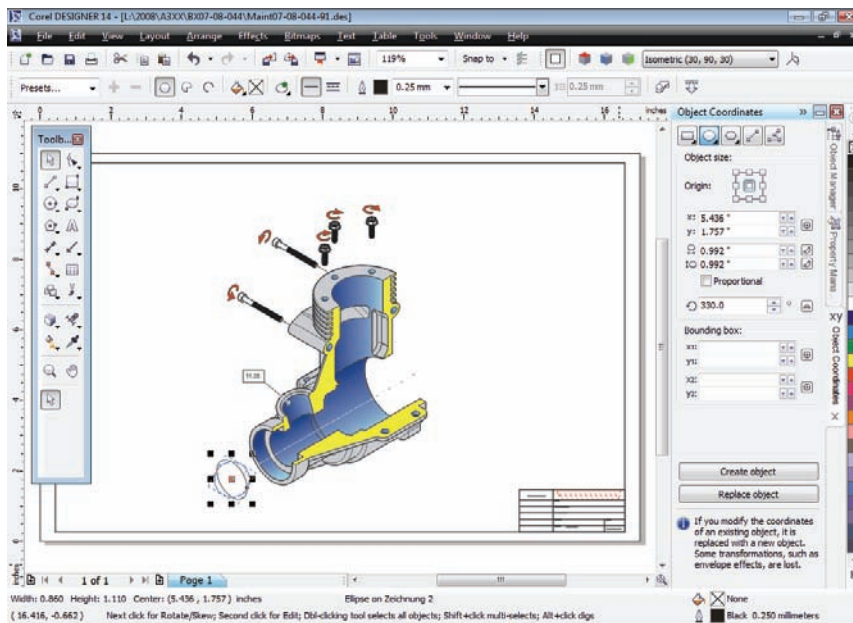
### **What is a technical illustration?**

A technical illustration can be a drawing, diagram, image, or design that visually structures and communicates complex technical information — even to non-technical audiences. Technical illustrations appear in documents that vary widely in scale and complexity — for example, furniture construction manuals, parts catalogs, machine assembly instructions, and interactive electronic technical training manuals (IETM). The media used for output are also diverse, ranging from printed materials to interactive screen illustrations.

## Complete technical graphics solution

Corel DESIGNER Technical Suite X4 provides powerful applications, compelling new features, and unrivaled compatibility for technical graphic files.

Corel DESIGNER X4, the centerpiece of the suite, has been redesigned specifically to support the processes of technical graphics professionals. This latest version provides a streamlined workflow, easier access to intuitive drawing tools, and new features for repurposing legacy data. The introduction of 3D CAD file import, the enhanced support for industry-standard file formats, and a wide array of new and enhanced tools and features dramatically speed the technical illustration process.



*The redesigned Corel DESIGNER X4 user interface*

Right Hemisphere® Deep Exploration™, a 3D-to-2D graphics conversion application, is included with Corel DESIGNER X4, allowing users to work with 3D CAD files.

Other applications in the suite help streamline the creation of technical and business-oriented graphics for professionals who work in a technical environment. Designed for use in a graphics workflow, Corel PHOTO-PAINT® X4 is a professional image-editing application that lets users quickly and easily retouch and enhance photos. To help repurpose legacy drawings, the suite includes Corel PowerTRACE®, a bitmap-to-vector tracing application that converts scanned technical illustrations into editable vector images. Rounding out the suite is Corel CAPTURE™ X4, an advanced screen capture application.

## Streamlined technical-illustration process

Corel DESIGNER Technical Suite X4 simplifies the workflow of technical illustrators, especially during the collaborative stages of a project. By using Deep Exploration, technical illustrators can work with 3D CAD files without having to obtain a 3D CAD license. Enhanced support for the industry-standard AutoCAD® DWG™ and DXF™ formats saves users time by eliminating file-conversion errors. Corel DESIGNER X4 also offers improved compatibility with a wide range of standard file formats for business and engineering environments, including PDF, Microsoft® Visio®, Microsoft® Publisher, and Microsoft® Office files.

An array of dedicated technical-illustration features helps users work quickly without compromising precision. By using the enhanced tools for creating halos and connector lines, users can add an unprecedented level of clarity to their drawings. Improved dimension, arrowhead, and line tools let users easily and intuitively create and fine-tune technical illustrations and diagrams. In addition, the projected drawing modes dramatically increase productivity by letting users actively draw on the projected plane, which eliminates the need to draw the object first and then project it in a second step.

To facilitate collaboration, Corel DESIGNER Technical Suite X4 offers CorelDRAW® ConceptShare™, which lets users share their designs and ideas with colleagues or clients in real time. What's more, enhanced PDF capabilities allow users to add password protection to their designs and to archive files in a format compliant with the International Organization for Standardization (ISO).





# 2

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## Customer profiles

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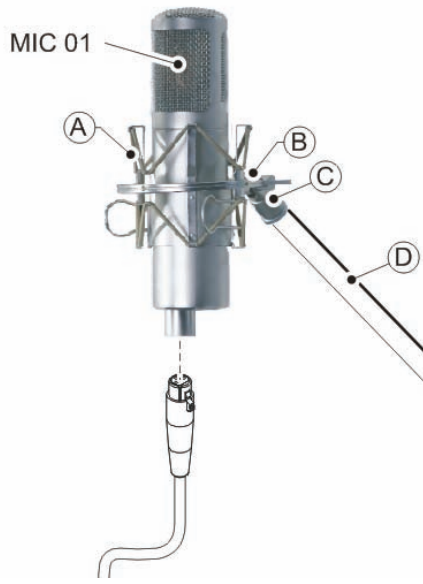
### Technical illustrators

Technical Illustrators have formal training in a technical or graphics field. They work for small to medium-sized technical-illustration service providers and for large companies within technical documentation departments. Some technical illustrators are self-employed.

The graphics created by technical illustrators are used in assembly instructions, user guides, parts catalogs, maintenance manuals, schematics, or wiring diagrams. These documents are output to various media, such as print, the Web, and interactive electronic technical manuals (IETMs).

The files that a technical illustrator receives from colleagues and clients are created with various industry-standard applications. As a result, a wide range of file formats must be easily integrated into the technical illustrator's workflow. With tight deadlines, technical illustrators also need to streamline their processes, especially within a collaborative environment. Therefore, they greatly value the ability to save time by basing new projects on legacy documents.

Corel DESIGNER X4 addresses these needs by allowing technical illustrators to import 3D CAD files and by providing enhanced support for AutoCAD formats. Technical illustrators can get right to work without having to spend time correcting errors that occur during format conversion. Corel DESIGNER X4 also lets technical illustrators easily access legacy documents, whether in digital format or on hard copy, by providing enhanced support for older Corel DESIGNER files. What's more, technical illustrators can now convert scanned drawings and blueprints to vector graphics by using Corel PowerTRACE, a dedicated bitmap-to-vector conversion application that is integrated into Corel DESIGNER X4.



*Users can leverage data from a variety of sources when creating technical illustrations.*

New drawing tools help technical illustrators quickly improve the clarity of their work. CorelDRAW ConceptShare, a new collaborative tool, lets technical illustrators share and review files within Corel DESIGNER X4. In addition, technical illustrators can customize the workspace to best suit their working style and can save valuable time by automating tasks.

## Technical graphics users

Technical graphics users work in large-enterprise environments. Among their many tasks and responsibilities is the need to create a variety of graphics, including diagrams used in presentation material, floor plans, and schematics. These users may create graphics from scratch or base them on legacy files. They often work collaboratively, and the graphics they create may later be imported for reuse with office-productivity, diagramming, and desktop-publishing software.

Self-taught in graphic design, these users can confidently turn to the enhanced diagramming tools in Corel DESIGNER X4 to modify existing graphics. Corel PHOTO-PAINT X4, a professional-caliber image editor, allows them to work with photos in a wide variety of formats — including raw files from over 300 camera models — to create presentation and marketing collateral.

With its extensive collection of learning tools, Corel DESIGNER Technical Suite X4 makes it easy to create impressive images — even for users without a technical design background. Furthermore, technical graphics users can work seamlessly with clients and colleagues in other departments, thanks to the enhanced compatibility with industry-standard file formats, including Microsoft Visio, Microsoft Office, Microsoft Publisher, and PDF 1.7.

With a collection of learning tools, Corel DESIGNER Technical Suite X4 makes it easy for technical graphics users to create impressive images without training.

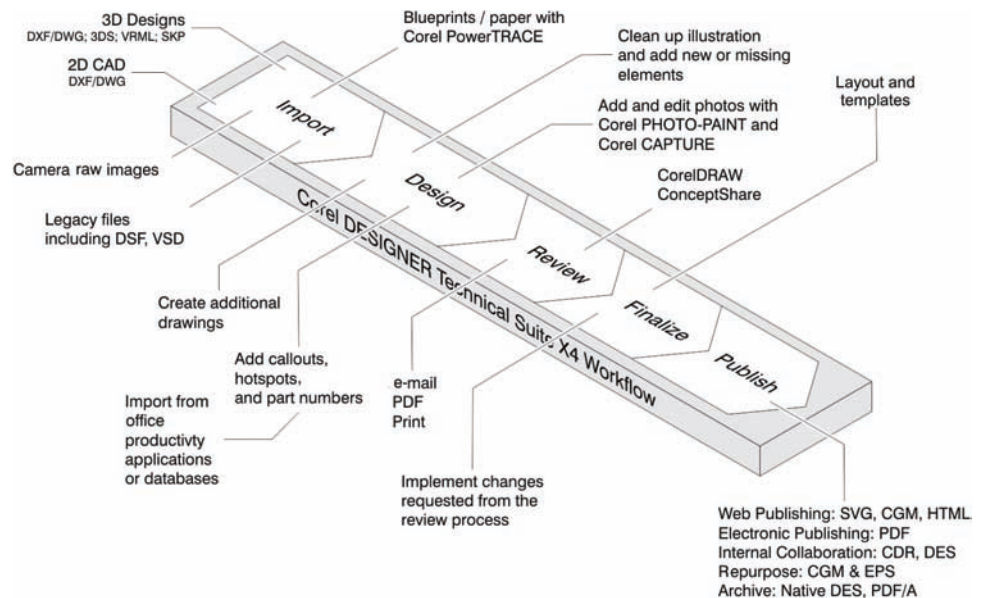
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## A walkthrough of Corel DESIGNER® Technical Suite X4

Corel DESIGNER® Technical Suite X4 was conceived with a specific focus on the technical illustrator's needs — design precision, collaboration efficiency and flexibility, and the ability to repurpose legacy data and drawings.

### Accommodating the technical illustrator's workflow

The creation of technical illustrations can be complex, especially when designs are intended to serve multiple departments within an organization. The diagram for a single part may need to be used in product documentation and later repurposed for use in marketing materials. In such cases, users must be able to collaborate with internal and external department resources and work seamlessly with external data in various file formats.

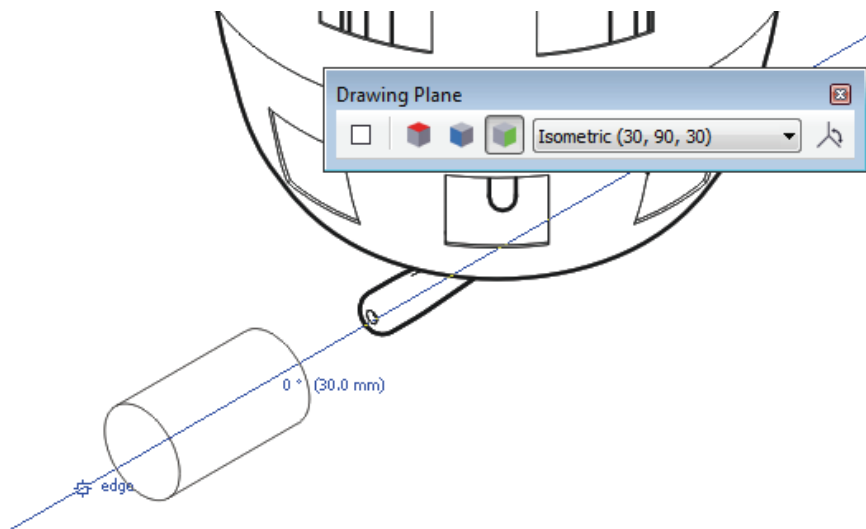


*Corel DESIGNER Technical Suite X4 integrates with the workflow of technical illustrators.*

## Minimizing data loss through AutoCAD® compatibility

Today, most technical illustrations originate from data created by CAD engineers in 2D or 3D files. Often, a technical illustrator uses multiple applications before finishing a design. The ability to exchange this information between applications without losing data is critical to a technical illustrator's workflow.

Corel DESIGNER X4 offers technical illustrators improved support when they work with both 2D and 3D CAD files. Compatibility with AutoCAD 2D files has been upgraded, and enhanced support for a range of 3D design files — including AutoCAD, Google® SketchUp™, and 3ds Max® — helps overcome obstacles in the technical illustration workflow. What's more, users don't need a CAD license to work with 3D CAD files. Deep Exploration, an application that converts 3D files to 2D files, has been added to the suite, so 3D files can be opened and modified with Corel DESIGNER Technical Suite X4.



*Users can work with 2D and 3D CAD drawings using projected drawing modes.*

## Converting legacy designs

Technical graphics professionals often base a new illustration on an existing one to save time. Legacy designs can range from bitmaps of scanned hard copies to drawings created with older versions of Corel DESIGNER.

Corel PowerTRACE offers the new Centerline Trace method, which is perfect for tracing line drawings and lets users produce more accurate strokes. In addition, Corel DESIGNER Technical Suite X4 has been enhanced to make working with legacy Micrografx Designer® (DSF) files easier than ever.

## Creating better diagrams

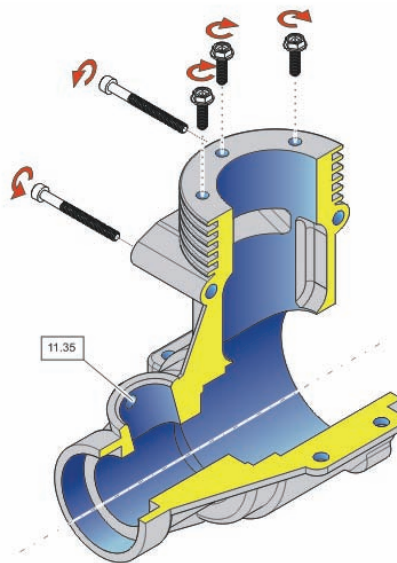
Diagrams are used frequently these days to communicate with clients and to map projects and processes with colleagues. Professionals with diverse backgrounds in graphic design are often tasked with creating diagrams.

To that end, Corel DESIGNER Technical Suite X4 has optimized diagram creation by offering an enhanced Connector tool. Corel DESIGNER X4 can automatically recognize and convert freehand shapes and lines into diagram-ready connector lines. Users also benefit from enhanced support for Microsoft Visio files, so they can easily import and work with files saved in the latest versions of that file format.

## Using the right tool for the job

Technical illustrators require tools designed for very specific tasks. For instance, they need to be able to work quickly and intuitively when adding or fine-tuning dimension lines and text, two-point lines, detailed annotations, callouts, and measurements. The ability to call attention to an element in an illustration by providing a magnified view is also critical.

Dimension tools have been enhanced so that users can create custom dimension styles and offer dynamic dimension text, which can be modified independently. In just a few clicks, users can add clarity to technical illustrations and diagrams by adding halos on overlapping connector lines and callouts, and by highlighting axes in an exploded view of a drawing object.



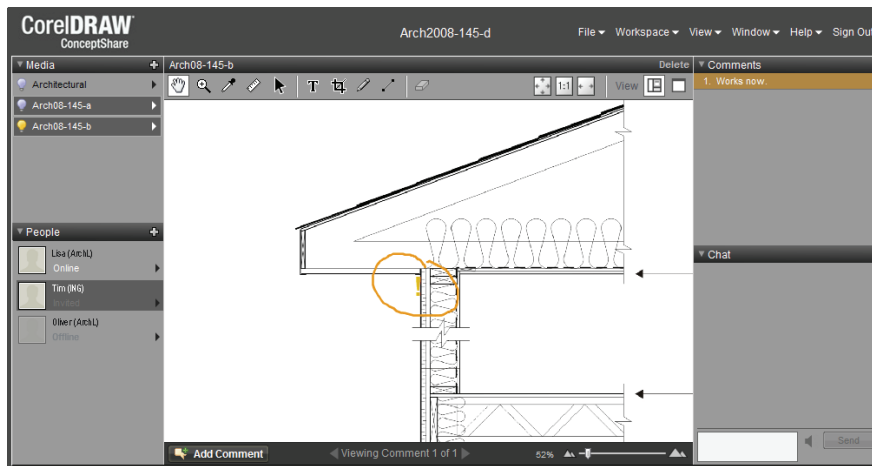
*Corel DESIGNER X4 lets users easily add clarity to their technical illustrations.*

Users also gain more control when they access the new Object Coordinates docker, which lets users create a drawing component by specifying size and position. The docker also provides users with a live preview while they work.

## Collaborating effectively

Technical graphics professionals may create several iterations of an illustration, each one based on feedback from colleagues. With a focus on saving time, they seek to streamline the process of sharing, editing, and finalizing technical graphics.

Corel DESIGNER Technical Suite X4 offers CorelDRAW ConceptShare, a valuable online collaboration tool. In a Web-based environment, CorelDRAW ConceptShare lets users share their technical documents and drafts with colleagues and invite others to provide feedback in real time.



*Users can collaborate in real time.*

## Leveraging single-source publishing

The diagrams, graphics, and illustrations that are created by technical graphics professionals are viewed on a number of platforms — print, the Web, online Help systems, and IETMs. These deliverables are often incorporated into larger documents that contain content created from many different applications.

Corel DESIGNER X4 users need no additional software to save a design as a PDF, which can be secured with a password or stored in an ISO-compliant PDF/A archiving format. In addition, Corel DESIGNER Technical Suite X4 helps ensure perfect printing results through its color management system and advanced preflight capabilities. Users can also export their work to Microsoft Office, as well as to other industry-standard formats used in content management systems (CMS), product data management (PDM) systems, and desktop publishing.

# 4

## What's Included in Corel DESIGNER® Graphics Suite X4?

### Applications

- **Corel DESIGNER® X4:** Created to meet the demands of technical illustrators for precision vector drawing and layout, Corel DESIGNER X4 streamlines the technical graphics workflow. The application offers new and enhanced drawing tools, an intuitively redesigned application interface, and more features for repurposing legacy drawings.
- **Corel PHOTO-PAINT® X4:** With this professional image-editing application, users can quickly and easily retouch and enhance photos. Corel PHOTO-PAINT X4 is specifically designed for use in a graphics workflow.
- **Corel® PowerTRACE™:** Technical illustrators often need to convert scanned copies of legacy diagrams into high-quality vector images for illustrations, schematics, and graphical items. Corel PowerTRACE X4 solves this problem by letting users quickly and accurately convert scanned technical drawings into editable vector graphics.
- **Right Hemisphere® Deep Exploration™:** With this new application, users can quickly transform 3D CAD models into accurate 2D graphics, export directly to Corel DESIGNER X4 or create bitmap renderings for retouch with Corel PHOTO-PAINT X4, and leverage existing CAD assets without expensive CAD software or engineering.
- **Corel CAPTURE™ X4:** This one-click screen-capture utility lets users capture images from their computer screens.

### Supporting applications

- **Microsoft® Visual Basic® for Applications 6.4:** An object-oriented programming language, Microsoft Visual Basic for Applications (VBA) lets users create macros to automate tasks and extend functionality within Corel DESIGNER Technical Suite X4. Users can create custom solutions that integrate with other applications and increase productivity for technical illustrators.
- **Barcode wizard:** This wizard lets users generate bar codes in a wide range of industry-standard formats.
- **Duplexing wizard:** This wizard helps users optimize their work for printing two-sided documents.

## Documentation

- **User Guide:** Corel DESIGNER Technical Suite X4 includes a comprehensive 660-page printed user guide that provides conceptual and procedural information about Corel DESIGNER X4 and Corel PHOTO-PAINT X4. The user guide is also available in PDF format.
- **Online Help:** Users can find answers to common questions, detailed reference information, and step-by-step procedural information about Corel DESIGNER Technical Suite X4 by clicking **Help** menu ► **Help Topics**.
- **VBA Programming Guide:** Available in PDF format, the *Corel DESIGNER® Technical Suite X4 Programming Guide for VBA* helps users automate tasks and create custom solutions with Microsoft® Visual Basic® for Applications (VBA) software.
- **Deployment Guide:** A comprehensive resource in PDF format, the *Corel DESIGNER Technical Suite X4 Deployment Guide* provides detailed installation and deployment information (licensed customers only).

## Training

- **CorelTUTOR™:** From within Corel Designer X4 and Corel PHOTO-PAINT X4, users can access online, project-based tutorials that help them learn to use each application. In addition to providing tours of both workspaces, CorelTUTOR helps users learn to work with dimension lines and callouts, create projected drawings, draw a wiring diagram, and much more.

## Minimum system requirements

- Windows Vista® Home Basic, Home Premium, Ultimate, or Business (32-bit or 64-bit), with latest Service Pack and Critical Updates; or Windows® XP Home, Media, or Professional Edition, with latest Service Pack and Critical Updates
- 512 MB of RAM
- 800-MHz processor (Pentium® III, or equivalent)
- 600 MB of hard-disk space for full installation of all included applications
- 1,024 × 768 or better monitor resolution (768 × 1,024 on a tablet PC)
- CD-ROM drive
- Mouse or tablet
- Microsoft® Internet Explorer® 7 or higher



# 5

## Top new and enhanced features

Corel DESIGNER Technical Suite X4 helps technical graphics professionals quickly and effectively communicate the strengths of their products and services. With industry-leading file compatibility and design features, technical illustrators can quickly retrieve design assets and repurpose legacy documents. Corel DESIGNER Technical Suite X4 also offers an array of new and enhanced tools and features that streamline the creation of technical illustrations, intuitive diagramming tools, and professional photo-editing features unmatched by those in any other technical graphics package.

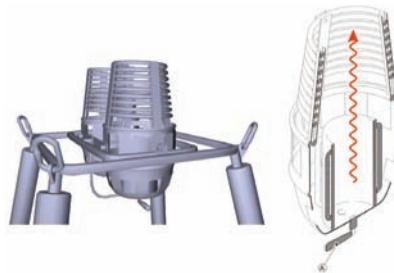
### Access technical design assets

With market-leading compatibility features and convenient file searching, Corel DESIGNER Technical Suite X4 makes it easy for users to exchange files and find the right technical design asset for the job. In addition, Corel PowerTRACE allows users to convert scanned blueprints and illustrations from bitmaps to vector graphics, unlocking and repurposing the data in legacy files.

## Feature Spotlight

### **New! 3D CAD import**

Corel DESIGNER X4 users do not need a CAD license to work with 3D CAD files. With Right Hemisphere® Deep Exploration™, an integrated 3D-to-2D conversion application, users can open 3D CAD files — such as 3D DXF/DWG, SketchUp, or 3ds Max — and choose the 2D view that the file will have when opened in Corel DESIGNER X4. Users can also specify the projected view, line thickness, and fill of the converted 2D drawing. With an add-on license, technical graphics professionals can choose additional support for native 3D CAD file formats, including CATIA®, Pro/ENGINEER®, UG, SolidWorks®, Autodesk® Inventor®, and more.



*Users can import 3D CAD files.*

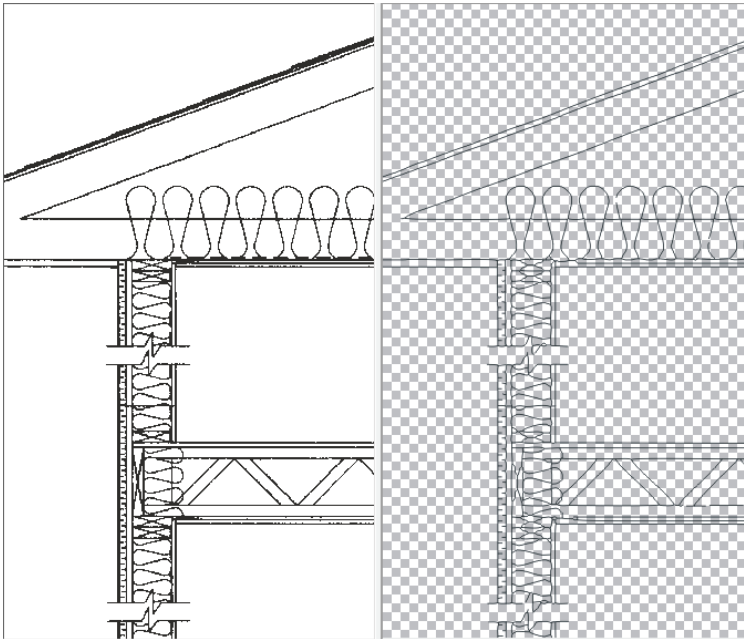
**Enhanced! AutoCAD® DWG™/DXF™ support:** Users never have to worry about file format compatibility when working with customers or project partners. Improved support for AutoCAD DXF and AutoCAD DWG (R2.5 to 2008) ensures easy, error-free data conversion when these files are imported into Corel DESIGNER X4.

**Enhanced! Support for legacy Micrografx Designer® (DSF) files:** Technical graphics professionals can open legacy Corel DESIGNER files and use the latest technology while working with these older graphics. Corel DESIGNER X4 offers enhanced support for DSF files that contain filled text and multiple layers per drawing page.

## Feature Spotlight

### **New! Corel® PowerTRACE™**

With Corel PowerTRACE, technical graphics professionals can unlock legacy technical illustrations. Users can quickly and easily trace scanned data, converting it into an editable and scalable vector image. The new Centerline Trace method produces more accurate strokes and is perfect for tracing line drawings. To control which colors appear in the traced results, users can easily edit, merge, or delete colors on the ColorTRACE color palette. In addition, improved smoothing and corner control help users optimize their traced results.



*Corel PowerTRACE lets users convert scanned technical drawings into editable vector graphics.*

**New & Enhanced! File format support:** By adding support for more file formats, and for new versions of previously supported file formats, Corel DESIGNER Technical Suite X4 maintains its position as market leader in file format compatibility.

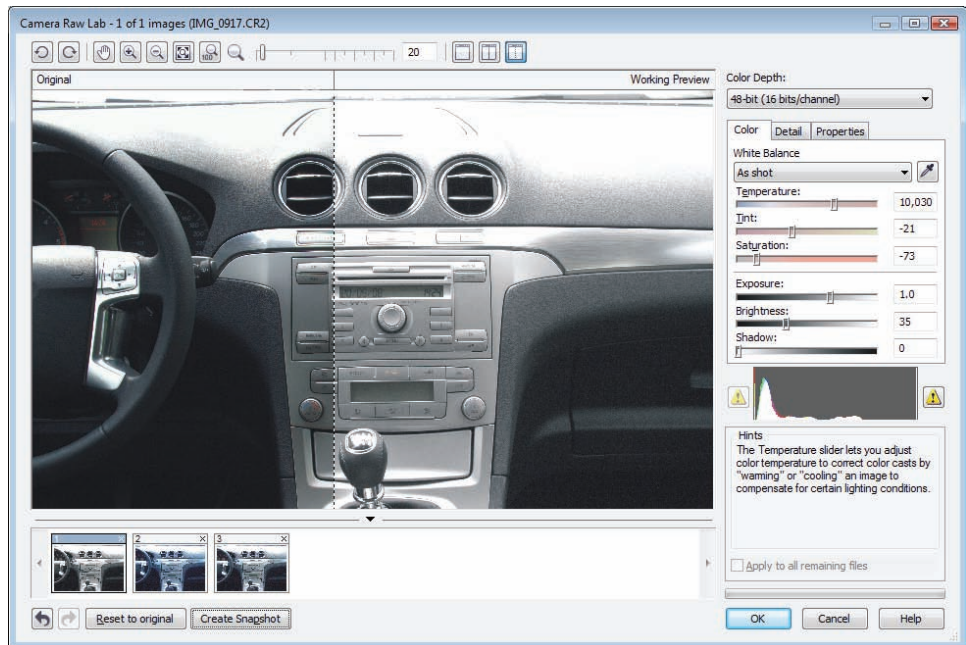
Users can expect seamless compatibility with Microsoft Visio 2007, Microsoft® Word 2007, and JPEG 2000, making it easier than ever to exchange files with colleagues and clients. New support for Microsoft Publisher files also allows users to work with the latest versions of the PUB format (2002, 2003, and 2007).

Corel DESIGNER Technical Suite X4 gives users enhanced PDF capabilities with support for PDF 1.7, which allows users to protect their PDFs with a security password. In addition, users can save files to the PDF/A format — the file format approved by the International Organization for Standardization (ISO) for long-term archiving of electronic documents.

## Feature Spotlight

### **New! Raw camera file support**

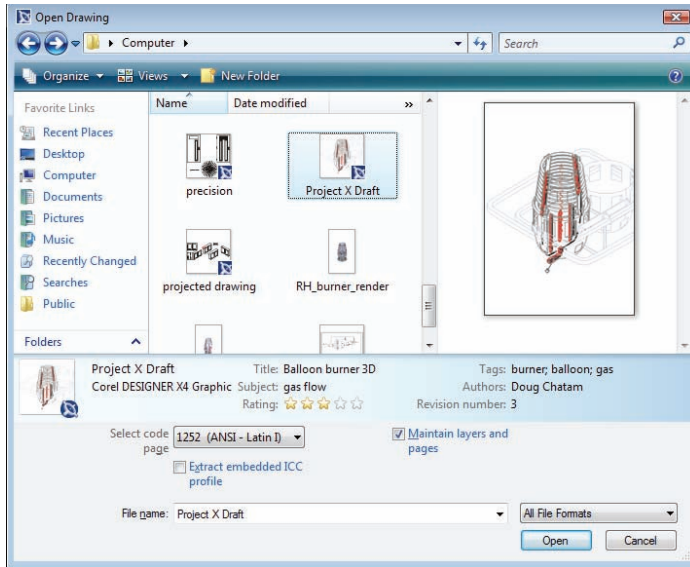
Corel DESIGNER Technical Suite X4 now supports raw camera file formats for more than 300 different types of cameras. This lets users import raw camera files directly from their digital camera for use in technical documentation projects without the need for additional software. With interactive controls that provide real-time previews, users can view file properties and camera settings, adjust image color and tone, and improve image quality.



*Users can work with raw files from more than 300 camera models.*

**New! Windows Vista® integration:** Designed to take advantage of the latest innovations from the Windows Vista operating system, Corel DESIGNER Technical Suite X4 lets users search for their technical graphics assets from within Corel DESIGNER Technical Suite X4. From the operating system dialog boxes,

users can search for files by author, subject, file type, date, keyword, or other file property. To better organize their projects, users can easily add keywords or other notes when saving files in order to better organize their projects. In addition, users can edit file properties from within the suite's applications or from Windows Explorer or Windows Vista Search. Users of Windows XP can use Windows Desktop Search or any other desktop search application that supports the iFilter specification.



*Users can search for their technical design assets from within Corel DESIGNER X4 Technical Suite.*

**New! Thumbnail previews:** New, high-quality thumbnail previews make it easy to find and organize Corel DESIGNER and Corel PHOTO-PAINT files.

**New! Welcome screen:** With a new Welcome screen, Corel DESIGNER Technical Suite X4 provides users with a centralized location from which to access recently used documents, templates, and learning tools, including tips and tutorials. What's more, the Welcome screen also informs users about Corel DESIGNER updates and news.

**New! Template search and preview:** In Corel DESIGNER X4, the New From Template dialog box has been completely redesigned to provide users with more information so that they can easily choose the right template for the job. Users can now preview templates by type or industry. Users can also search for custom or industry-standard templates by keyword, category, or other search criteria.

**New! CorelDRAW® community site:** Accessible from within the application, the CorelDRAW.com community site gives users a place to get together to share information and learn from other Corel DESIGNER users. Combining forums, blogs, samples, and other resources, CorelDRAW.com is a valuable information resource for technical illustrators and technical graphics users alike. Visit the site today to discover the work and ideas of this growing community.

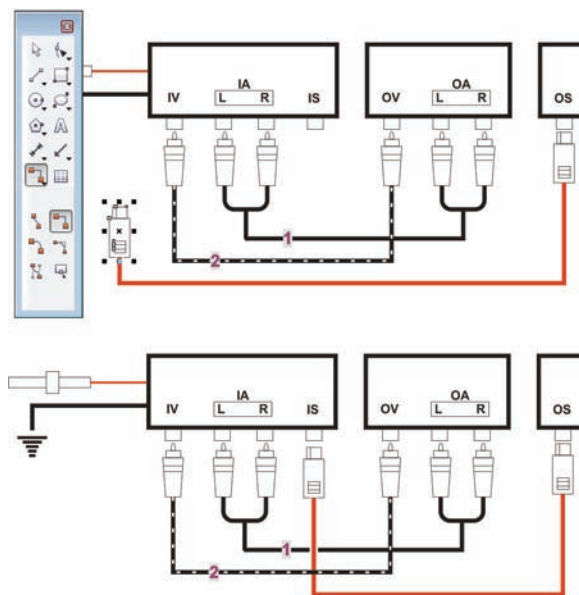
## Create better technical diagrams

Corel DESIGNER X4 helps users create enterprise-class diagrams by providing new and enhanced diagramming tools plus support for Microsoft Visio 2003 and 2007 files.

### Feature Spotlight

#### **Enhanced! Connector lines**

Corel DESIGNER X4 offers new and enhanced connector lines, so users can create flowcharts and business diagrams quickly and easily. With Smart Drawing technology, the paths of connector lines are automatically adjusted to circumvent other objects and freehand strokes are converted to basic shapes and smoothed curves.



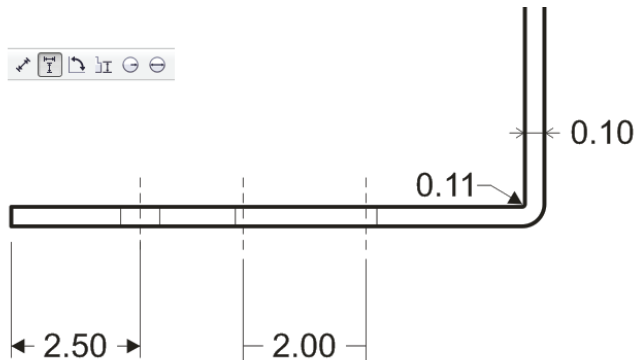
*Advanced connector lines let users draw detailed, multi-point flow lines in wiring diagrams and flow charts.*

**Enhanced! Support for Microsoft Visio files:** Users can easily bring Microsoft Visio 2003 and 2007 files into their workflow. Updated handling of shapes and connector lines provides a seamless workflow between Microsoft Visio and Corel DESIGNER X4. Files in older versions of the Microsoft Visio format are also supported.

## Streamline the technical illustration workflow

With tools designed specifically for technical illustration, independent page layers, and live text formatting previews, Corel DESIGNER Technical Suite X4 can help users accelerate technical design.

**Enhanced! Dimension tools:** Corel DESIGNER X4 lets users reverse arrowheads for small dimension lines, customize the extension lines on which dimension lines rest, and work with both dynamic and static dimension text. In addition, users can choose new standard-compliant dimension styles.

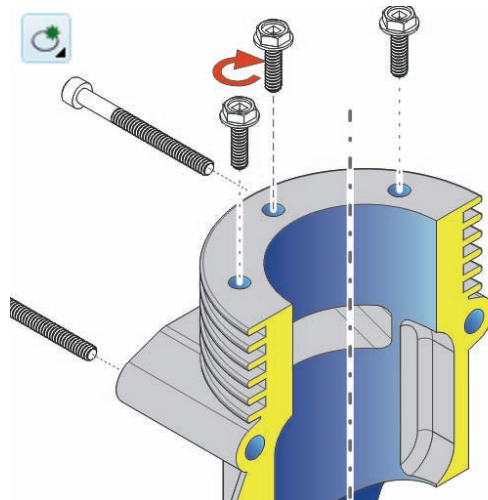


*Corel DESIGNER X4 offers flexible dimension-line options.*

## Feature Spotlight

### **New! Halos on curves**

To make wiring diagrams and flow charts easier to read and edit, users can now apply halos to connector lines that cross over one another. In addition, users can use halos to highlight the axes of an exploded view in a technical illustration. Halos can also be saved as part of a preset line style.

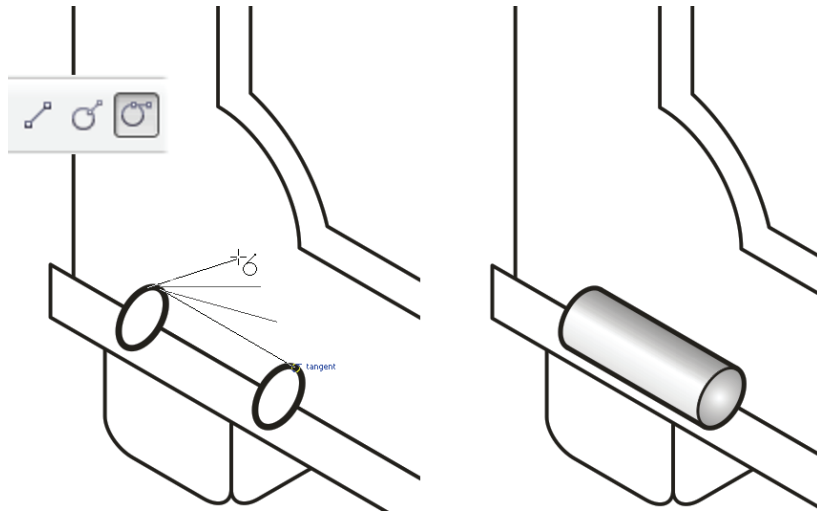


*Corel DESIGNER X4 lets users do more with halos.*

## Feature Spotlight

### **Enhanced! 2-Point Line tool**

Users can now draw lines that are tangent or perpendicular to two objects, making it much easier to draw objects such as cylinders. Technical illustrators can easily add missing detail to drawings by using the 2-Point Line tool in the projected mode.

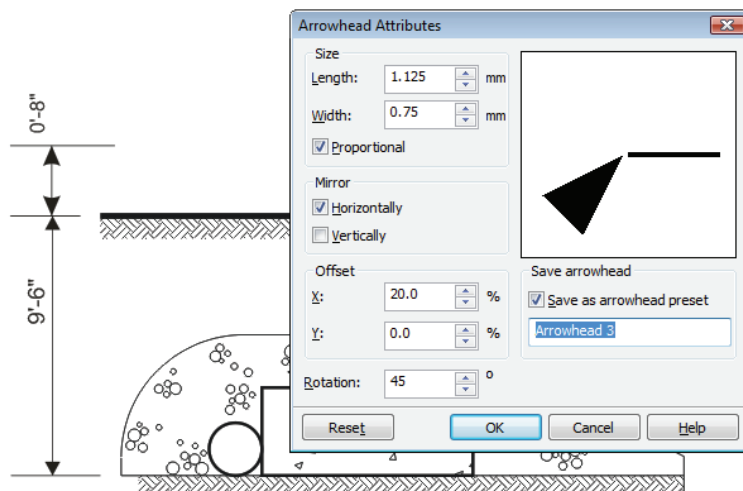


*Users can easily draw cylinders by using the 2-Point Line tool.*

## Feature Spotlight

### **Enhanced! Arrowheads**

Advanced arrowhead tools let users enhance dimension, callout, and connector lines. Users can specify arrowhead attributes such as size, offset, and rotation angle. In addition, custom arrowhead attributes can be saved as arrowhead presets.

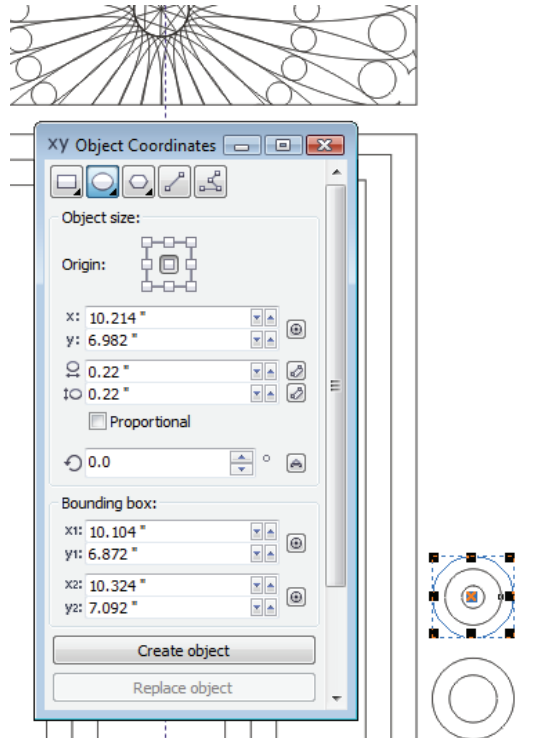


*Users can save custom arrowheads as presets.*

## Feature Spotlight

### **New! Object Coordinates docker**

The Object Coordinates docker lets you draw, size, and rotate shapes and lines with precision. A live preview facilitates the drawing and editing of objects.



*The live preview associated with the Object Coordinates docker helps users draw with precision.*

**New! Independent page layers:** Corel DESIGNER X4 gives technical illustrators complete control when importing multilayered CAD files. Users can control every layer during the creation of multipage documents that combine complex imported CAD files and new components. Users can also set multiple layers to a single page. Users can also add independent guidelines for individual pages and master guidelines for an entire document, giving them the ability to create different layers on a page-specific basis, unconfined by a single document structure. In addition, the new Duplicate Page command gives users the flexibility to copy a page with all objects or just the layer structure included, making it easier to repurpose existing designs.

**New! CorelDRAW® ConceptShare™:** The new CorelDRAW ConceptShare docker is a valuable online collaboration tool. In a Web-based environment, CorelDRAW ConceptShare lets users collaborate on technical illustrations and diagrams with colleagues or clients in real time. Users can easily create multiple workspaces, upload their designs, and invite others to provide feedback or submit their own ideas.



**New! Interactive tables:** The new, interactive Table tool included in Corel DESIGNER X4 lets users create tables to provide a structured layout for text and graphics. Users can easily align, resize, or edit tables and cells to tailor them to their designs. What's more, technical illustrators can import information — such as parts lists — from spreadsheets or from tables that were created in a word processor.

**New! Modernized user interface (UI):** New high-contrast icons, menus, and controls on a redesigned user interface give each application in the suite a fresh, more modern appearance and provide a more intuitive working environment.

**New! Smart Fill tool:** The unique, new Smart Fill tool lets Corel DESIGNER X4 users apply a fill to any enclosed area by creating a new object from an enclosed area, including line drawings in imported CAD files. Unlike conventional fill tools that fill only objects, the Smart Fill tool detects the edges of an area and creates a closed path so that the area can be filled. For example, the Smart Fill tool can fill holes, overlapping areas, or cut objects created when users are working in a projected drawing mode. The Smart Fill tool creates a path around the area, so the filled object can be moved, copied, or edited.

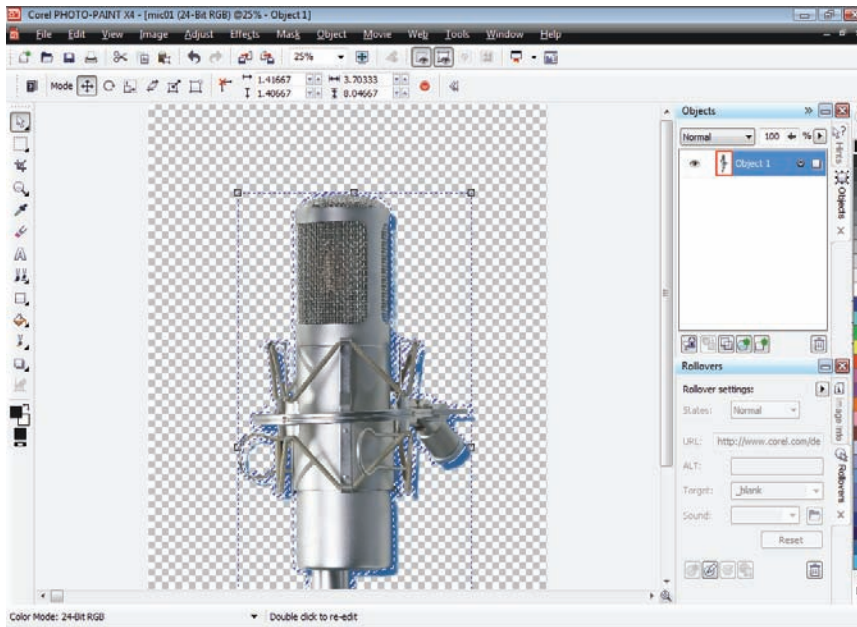
**New & Enhanced! Text formatting:** The new Paragraph Formatting docker simplifies the process of adjusting the paragraph text formatting by offering quick access to common settings such as alignment, word and paragraph spacing, and indents. Users can also now add a color background to paragraph text frames, the bounding box of artistic text, or selected text characters.

In addition, Corel DESIGNER X4 introduces live text formatting, which lets users see how a text formatting change will look before applying it to a document. This handy and time-saving formatting aid reduces the need to undo and redo unsatisfactory changes. Users can now scroll through and preview many different formatting options, including fonts, font size, and alignment.

**New! Crop tool:** A significant time-saver, the new Crop tool lets users quickly remove unwanted areas in objects and imported graphics — both bitmap and vector. This handy addition to the Corel DESIGNER X4 toolbox eliminates the need to ungroup objects, break linked groups apart, or convert objects to curves.

## Discover advanced image-editing features

Corel DESIGNER Technical Suite X4 provides advanced image-editing features that help users get expected results the first time.



*The Corel PHOTO-PAINT X4 workspace has been redesigned for the technical illustration workflow.*

**New! Image Adjustment Lab:** The new, integrated Image Adjustment Lab saves users valuable time and is accessible from both Corel DESIGNER X4 and Corel PHOTO-PAINT X4. Technical graphics professionals have to optimize images destined for technical illustrations and documentation. These images often have poor color balance and contrast, and adjustments require the use of multiple tools. The Image Adjustment Lab addresses this problem by uniting a number of manual and automatic controls for common color and tone corrections, providing an intuitive and fast way to achieve professional image adjustments. The Image Adjustment Lab also lets users create snapshots of their adjustments with just one click. The snapshots appear below the working preview, which lets users easily compare each snapshot against the original and choose the best result.

## Feature Spotlight

### **Enhanced! Corel PHOTO-PAINT® Cutout Lab**

The enhanced Cutout Lab includes new controls to simplify the process of cutting out image areas and to improve accuracy. The new Add Detail and Remove Detail tools make it easy to refine the cutout area. For easy reference when defining the cutout area, users can preview their cutout against the original image, or transparent, white, gray, or black backgrounds. For maximum flexibility, users can choose to save the cutout object and discard the original image, save the cutout object and keep the original image, or save the cutout object as a clip mask added to the original image. In addition, the Cutout Lab includes Undo and Redo buttons for the quick correction of any mistakes.

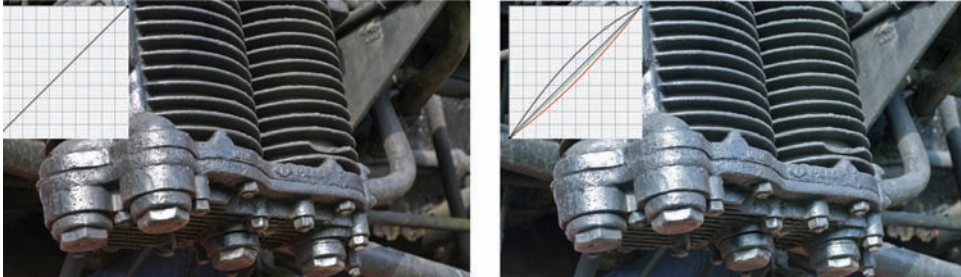


*The Cutout Lab includes new controls to simplify the process of cutting out image areas and to improve accuracy.*

## Feature Spotlight

### **Enhanced! Tone Curve adjustments**

In Corel PHOTO-PAINT X4, the Tone Curve dialog box has been enhanced to help users precisely adjust their technical documentation images. With an integrated histogram, users now receive real-time feedback as they optimize the quality of their images. In addition, the new Eyedropper lets users pinpoint specific color locations on the tone curve of their image.



*Users now receive real-time feedback when adjusting the tone curve of an image.*

## Feature Spotlight

### **New! Straighten image**

Images used in technical documentation often combine vector and bitmap graphics, so precise horizontal or vertical alignment is critical. With Corel DESIGNER Technical Suite X4, users can quickly and precisely straighten images that were scanned or photographed at an angle. Interactive controls, a grid with vertical and horizontal guidelines, and an integrated histogram for providing results in real time make it easier than ever to fine-tune alignment in crooked images. In addition, users can choose to have their images automatically cropped.



*Users can quickly and precisely straighten crooked images.*

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## Summary of new and enhanced features

The following is a list of the new and enhanced features offered by Corel DESIGNER Graphics Suite X4.

### Access technical design assets

- Access 3D CAD data directly with the **new 3D CAD import** application.
- Collaborate more easily with colleagues and clients thanks to **enhanced AutoCAD® DWG™/DXF™ support**.
- **Enhanced dimension tools** let users create custom dimensions and styles.
- Enhanced support for the DSF format lets users **easily work with legacy Micrografx Designer® files**.
- Quickly unlock data in legacy blueprints by using centerline tracing in the **enhanced Corel® PowerTRACE™**.
- Experience **new support for raw camera files more than 300 camera models** with interactive controls that let users preview adjustments in real time.
- Enjoy **seamless compatibility with commonly used file formats**, including new support for Microsoft® Publisher, as well as AutoCAD DXF, AutoCAD DWG, PDF 1.7, PDF/A, and JPEG 2000.
- Take advantage of the **enhanced Windows Vista® integration** to easily organize projects and search for files.
- Easily find files with **new, high-quality thumbnail previews**.
- Quickly access recently used documents, templates, learning tools, and inspiring designs from the **new Welcome screen**.
- Use the **new, redesigned New From Template dialog box** to find the right template for any job.

### Create better technical diagrams

- Communicate more effectively with clearer visual pieces created with **new and enhanced diagramming tools**.
- Import the **latest Microsoft® Visio® formats** to ease collaboration with colleagues and clients.

## Streamline the technical illustration workflow

- **New technical drawing tools** make it easier to identify curves and connector lines and add precision and clarity to illustrations.
- **Easily add precise arrowheads** to connector, callout, and dimension lines.
- **Draw, size, and rotate shapes and lines with precision** using the Object Coordinates docker.
- Use the **new CorelDRAW® ConceptShare™** feature to collaborate with colleagues or clients in real time.
- Save time and steps when removing unwanted object areas with the **new Crop tool**.
- Use the unique, **new Smart Fill tool** to apply fills to any enclosed object area, such as the loops of a freehand line that crosses over itself.
- Use the **new, interactive Table tool** to provide structured layouts for text and graphics.
- Experience greater layout control with **new independent page layers**.
- Enjoy the convenience of **new, live text formatting** to preview formatting changes before they are applied.
- Quickly access common settings for formatting paragraph text, such as alignment, word and paragraph spacing, and indents, with the **new Paragraph Formatting docker**.

## Discover advanced image-editing features

- Achieve professional-quality color and tone correction with the **new Image Adjustment Lab**.
- Gain control, improve accuracy, and simplify the process when cutting out image areas with the **enhanced Cutout Lab**.
- Use new, interactive controls to quickly and easily **straighten images**.
- Preview image-editing changes in real time by using **histogram feedback**, available with more features than ever before.
- Adjust images with more precision by using the **enhanced Tone Curve dialog box**.

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## Upgrading to Corel DESIGNER® Technical Suite X4

### Upgrading from Corel DESIGNER® Technical Suite 12

The following table lists the new and enhanced features of Corel DESIGNER Technical Suite X4 if you are upgrading from Corel DESIGNER Technical Suite 12.

Technical Feature	Corel DESIGNER® Technical Suite X4	Corel DESIGNER® Technical Suite 12
<b>Importing</b>		
3D CAD import	New	
AutoCAD® and DWG™/DXF™ support	Enhanced	✓
Raw camera support	New	
DSF support	Enhanced	✓
<b>Illustrating</b>		
Custom arrowheads	New	
Live-preview precision illustration	New	
Smart Fill tool	New	
Interactive Table tool	New	
Independent page layers	New	
Live text formatting	New	
Paragraph Formatting and Character Formatting dockers	New	
Connector line tool	Enhanced	✓
Crop tool	Enhanced	✓

Technical Feature	Corel DESIGNER® Technical Suite X4	Corel DESIGNER® Technical Suite 12
Review and collaboration tools	New	
<b>Diagramming</b>		
Microsoft® Visio® support	2007 and 2003	2003
Dimension tools	Enhanced	✓
<b>Accessing assets</b>		
Windows Vista® integration	New	
Thumbnail previews	New	
Streamlined template management	New	
<b>Photo editing</b>		
Precise image straightening	New	
Histogram feedback	New	
Flexible tone curve adjustment	New	
Automatic image adjustment	New	
Simplified image cutting	New	



## Migrating from CorelDRAW® Graphics Suite X4

The following table lists the unique technical illustration features of Corel DESIGNER Technical Suite X4 if you are working with CorelDRAW Graphics Suite X4.

Technical Feature	Corel DESIGNER® Technical Suite X4	CorelDRAW® Graphics Suite X4
<b>Importing</b>		
3D CAD import	✓	
AutoCAD® and DWG™/DXF™ support	Enhanced	✓
Raw camera support	✓	✓
DSF support	Enhanced	✓
Bitmap-to-vector tracing	✓	✓
<b>Illustrating</b>		
Reverse dimension line arrowheads	✓	
Projected drawing modes	✓	
Hatch fills	✓	
Enhanced line tools	✓	
Hotspotting	✓	
Callout tools	✓	
CGM v4 (WebCGM, ATA Grexchange, ActiveCGM)	✓	
Curve-to-ellipse conversion	✓	
Gravity snapping keyboard shortcuts	Enhanced	✓
Connector line tool	Enhanced	✓
Crop tool	Enhanced	✓
Review and collaboration tools	✓	✓
Custom arrowheads	Enhanced	✓
Live-preview precision illustration	✓	

Technical Feature	Corel DESIGNER® Technical Suite X4	CorelDRAW® Graphics Suite X4
Technical symbol library	✓	
Clipart library		✓
<b>Diagramming</b>		
Diagramming tools	Enhanced	✓
Microsoft® Visio® support	Enhanced	✓
<b>Accessing assets</b>		
Windows Vista® integration	✓	✓
Thumbnail previews	✓	✓
Streamlined template management	✓ (ISO, ANSI)	✓ (layout, design)
<b>Photo editing</b>		
Precise image straightening	✓	✓
Flexible tone curve adjustment	✓	✓
Automatic image adjustment	✓	✓
Simplified image cutting	✓	✓

# 8

## Glossary

- **Bounding box:** The invisible box indicated by the eight selection handles surrounding a selected object.
- **Color palette:** A collection of solid colors from which users can choose colors for fills and outlines.
- **Control points:** The points that extend from a node along a curve that is being edited with the Shape tool. Control points determine the angle at which the curve passes through the node.
- **Curve object:** An object that has nodes and control points, which users can manipulate to change the object's shape. A curve object can be any shape, including a straight or curved line.
- **Dimension line:** A line that displays the size of objects or the distance or angle between objects.
- **Drawing:** A document created in Corel DESIGNER.
- **Drawing page:** The portion of a drawing window enclosed by a rectangle with a shadow effect.
- **Drawing plane:** The area bounded by two axes in the drawing profile. The top drawing plane is bounded by the x and z axes. The front drawing plane is bounded by the x and y axes. The right drawing plane is bounded by the y and z axes.
- **Drawing profile:** A group of settings that determines how three-dimensional objects are represented in two dimensions.
- **Duotone:** An 8-bit color mode that displays images using 256 shades of up to four tones. An image in the duotone color mode is simply a grayscale image that has been enhanced with one to four additional colors.
- **Dynamic guides:** Temporary guidelines that appear from the following snap points in objects — center, node, quadrant, and text baseline.
- **Encoding:** Determines the character set of text, letting users correctly display text in the appropriate language.
- **Fill:** A color, bitmap, fountain, hatch, or pattern applied to an area of an image.
- **Filter:** An application that translates digital information from one form to another.

- **Guideline:** A horizontal, vertical, or slanted line that can be placed anywhere in the drawing window to aid in object placement.
- **Halo:** A mask behind a line that makes it easier to see when the line is on top of another object. Halos are usually the same color as the page.
- **Hotspot:** The area of an object that users can click to jump to the address specified by a URL.
- **Hotspotting:** The process of adding data to objects or groups of objects, so that they respond to events, such as pointing or clicking. For example, users can assign a URL to an object, making it a hyperlink to an external Web site.
- **Nodes:** The square points at each end of a line or curve segment. Users can change the shape of a line or curve by dragging one or more of its nodes.
- **Object:** A generic term for any item users create or place in a drawing. Objects include lines, shapes, graphics, and text.
- **Outline:** The line that defines the shape of an object.
- **PANOSE font matching:** A feature that lets users choose a substitute font if a file contains a font not installed on their computer. Users can make a substitution for the current working session only, or can permanently make a substitution so that when the file is saved and reopened, the new font automatically displays.
- **Rotate:** To reposition and reorient an object by turning it around its center of rotation.
- **Segment:** The line or curve between nodes in a curve object.
- **Skew:** To slant an object vertically, horizontally, or both.
- **Snap:** To force an object that is being drawn or moved to align automatically to a point on the grid, a guideline, or another object.
- **Symbol:** A reusable object or group of objects. A symbol is defined once and can be referenced many times in a drawing.
- **Tangent:** A straight line that touches a curve or an ellipse at a point, but does not cross the curve or ellipse at that point.
- **Text baseline:** The imaginary horizontal line that text characters appear to be placed on.
- **Transparency:** The quality of an object that makes it easy to see through. Setting lower levels of transparency causes higher levels of opacity and less visibility of the underlying items or image.
- **Unicode®:** A character encoding standard that defines character sets for all written languages in the world by using a 16-bit code set and more than 65,000 characters. Unicode lets users handle text effectively regardless of the language of the text, operating system, or the application.
- **Vector graphic:** An image generated from mathematical descriptions that determine the position, length, and direction in which lines are drawn. Vector graphics are created as collections of lines rather than as patterns of individual dots or pixels.
- **Workspace:** A configuration of settings that specifies how the various command bars, commands, and buttons are arranged when users open the application.



# Corel **DESIGNER**<sup>®</sup>

Technical Suite **X4**

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