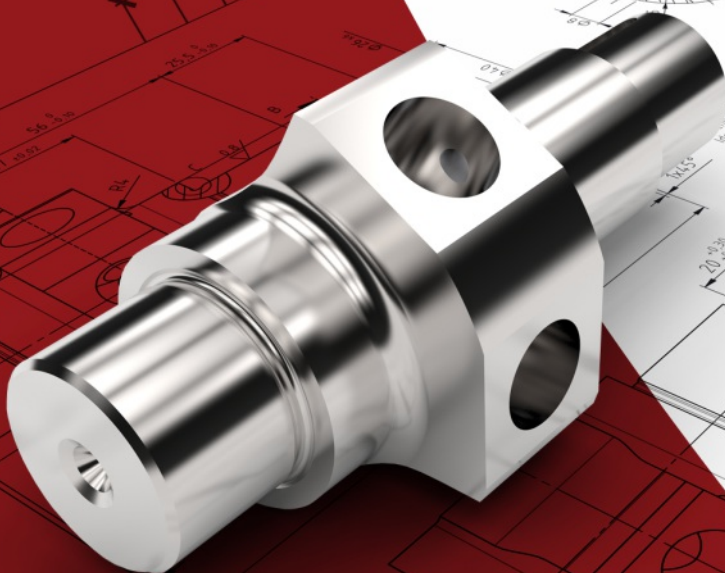


# CorelCAD™

powered by ARES®

## 2016



Reviewer's Guide

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## 2016

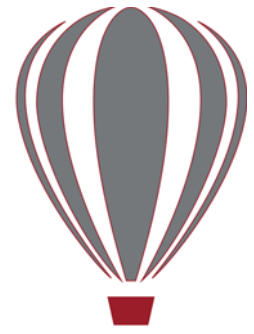
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# 1



## Introducing CorelCAD™ 2016

CorelCAD™ 2016 is the smart solution for day-to-day design work requiring precision and detail, providing high-level CAD performance without the high cost typical of CAD solutions.

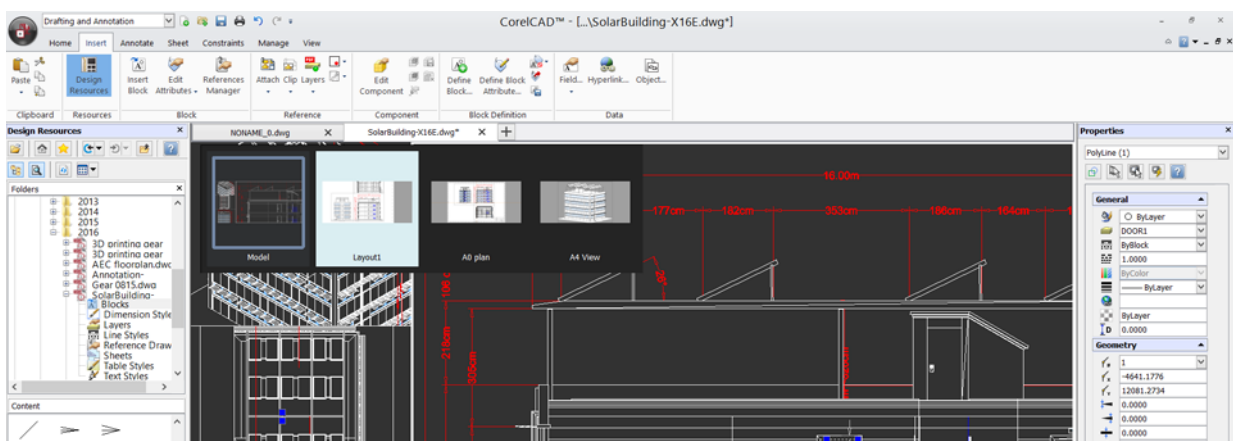
Enterprises that rely on CAD have always had tough choices to make about software. While there are several budget-priced alternatives, many lack critical tools or use a format that impedes collaboration and sharing. CorelCAD 2016 simplifies things by offering an inexpensive, full-featured 2D CAD application with 3D solid modeling tools.

The use of CAD files is becoming more commonplace for a wide range of graphics professionals, from technical illustrators to designers in marketing departments — even among 3D printing enthusiasts. As such, businesses need a CAD solution that is versatile enough to be used effectively by a wide range of skillsets. What's more, the ability to open and repurpose CAD content, such as .DWG files, has become a requirement that saves organizations both time and money.

The native CorelCAD file format (.DWG) supports the latest AutoCAD .DWG file format (R2013 .DWG), as generated by most recent AutoCAD application versions up to AutoCAD 2016, ensuring total fidelity with the industry standard. CorelCAD 2016 shows off its versatility in the handling of file attributes of non-supported AutoCAD features and preserving functionality in .DWG files, eliminating conversion and sharing issues.

If you've worked with other popular CAD tools, making the transition to CorelCAD 2016 is straightforward. CorelCAD incorporates a range of intuitive tools, commands, and familiar UI elements found in other CAD software so any CAD designer can quickly get to work with no learning curve.

Windows has traditionally been the operating system of the CAD world, but there are pockets of dedicated Mac users. With that in mind, CorelCAD is optimized for both platforms — and at a fraction of the price of other CAD software available for the Mac. And as mobile devices are revolutionizing how we work, CorelCAD 2016 extends the desktop to Android tablets with the new CorelCAD Mobile.





# 2



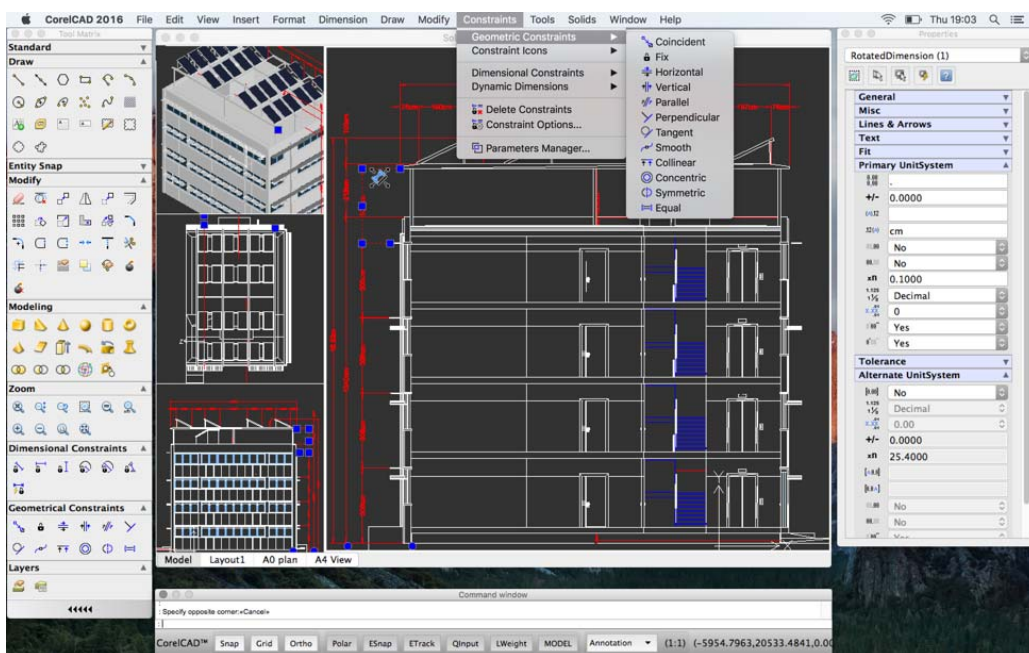
## Customer profiles

### Architects, Engineers, and Construction (AEC) service providers

In the AEC sector, CAD designers work primarily in 2D, but with an increasing emphasis on 3D design. They work for small to medium-sized firms and create a variety of drawings, including 2D designs for drafting and construction plans, elevations, floor plans, and construction details. Their projects are just as likely to be created from scratch as to be based on legacy design components. The ability to collaborate and exchange files with colleagues and clients is critical to their workflow. And, many architects prefer the Macintosh operating system or work in a hybrid Windows PC and Macintosh environment. And as mobile devices become more powerful, the ability to work anywhere opens up a world of possibilities for this sector.

CorelCAD 2016 offers a lightweight, standards-compliant 2D application that supports 3D solid modeling. The ability to work in the .DWG format, including AutoCAD 2016 .DWG files, eliminates any conversion issues when exchanging files with colleagues or reusing legacy files. Collaboration is simplified and accelerated through support for voice notations and commenting in editable drawings. Plus, files can be exported to CorelDRAW (CDR)\*, Corel DESIGNER (DES)\*, and PDF, simplifying information sharing with other departments in their company, such as documentation or marketing. What's more, CorelCAD 2016 is optimized for both Windows and Mac OS, so users can work on the platform they prefer. And the new CorelCAD Mobile lets users work anywhere, anytime on their Android tablet.

\* Windows version only



## 3D Enthusiasts and DIY designers for 3D printing

3D enthusiasts and Do-It-Yourself (DIY) designers for 3D printing are playing a critical role as this technological revolution becomes more mainstream. They're at the forefront of realizing the unlimited potential and output possibilities of 3D printing.

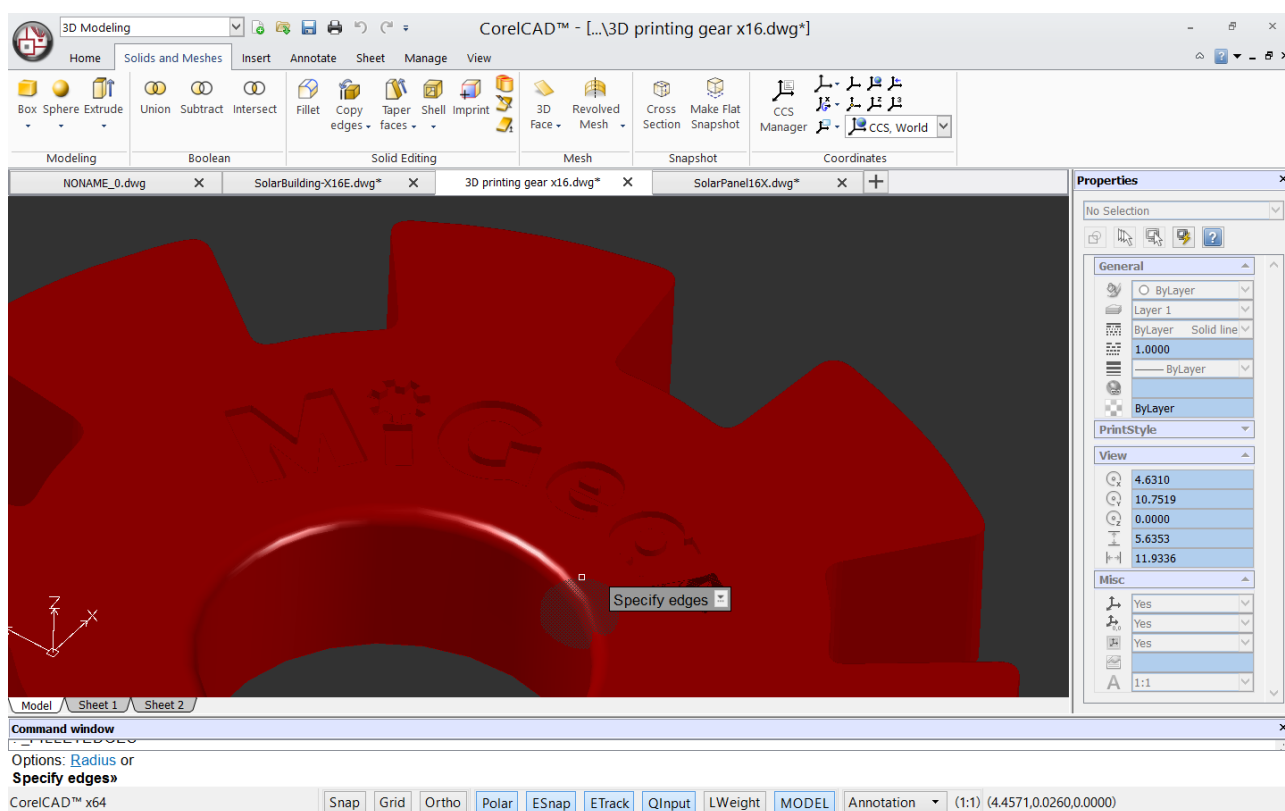
The foundation of their 3D printing projects is built using 2D vector graphics. The first step in their workflow is a 2D sketch because it's easier, faster and more intuitive than attempting to draw a 3D design from scratch.

After exporting the 2D design to .DWG, they use a 3D design application to complete the

transformation from 2D to 3D. They then export it to print on a 3D printer or send it to a 3D printing output service.

CorelCAD is part of a powerful range of Corel products that provide all the specific tools needed for a 3D printing project. The ability to directly import CorelDRAW (CDR)\* sketches means users can move from the initial sketching to the 3D design phase without any disruption. Then, DIY designers turn to CorelCAD 2016 for a simplified 2D-to-3D conversion process and precise design tools to complete the project. They also seek the file compatibility CorelCAD 2016 offers with a range of common formats integral to 3D printing projects.

*\* Windows version only*



## Occasional 2D CAD users

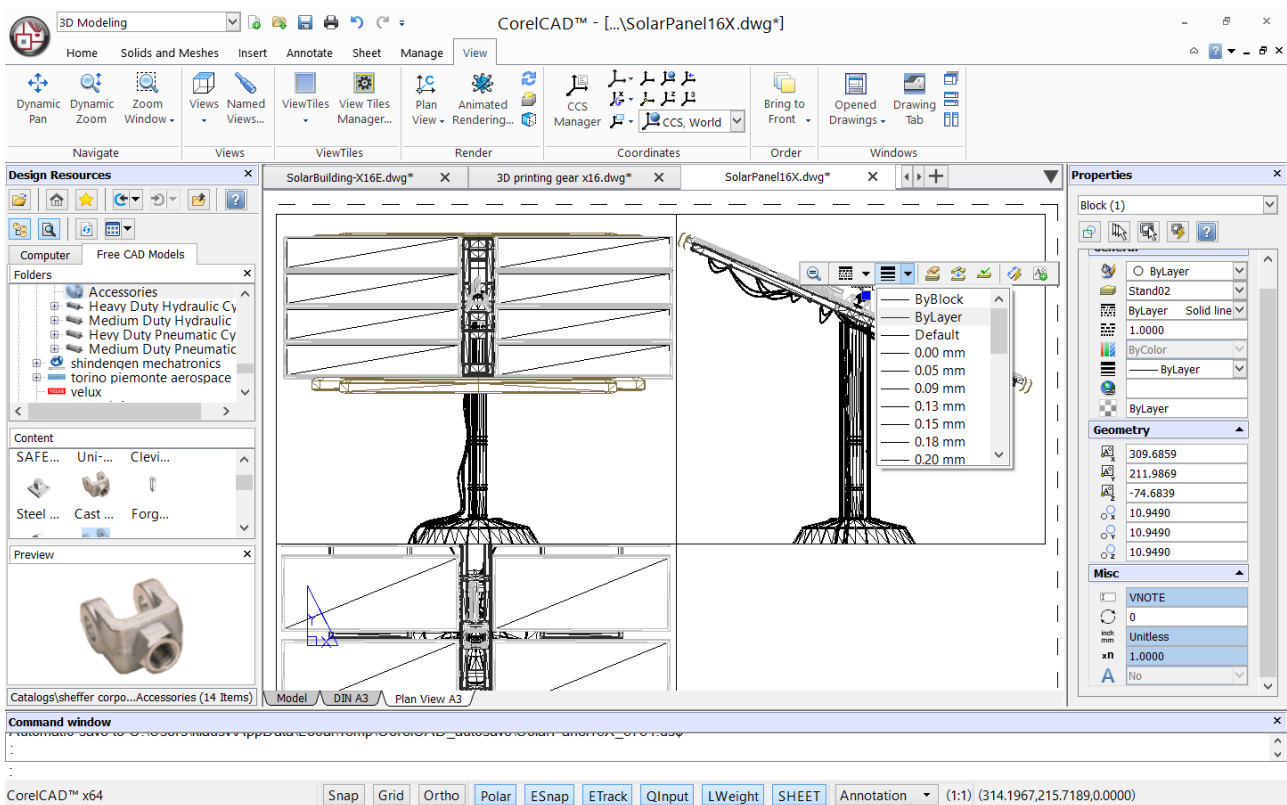
There are two groups of occasional 2D CAD users, each with distinct needs and workflows.

Firstly, CAD designers working for large enterprises in the manufacturing sector design primarily in 3D, however, they still need 2D support. The types of drawings they design include assembly schematics and parts details, and many of their legacy files are 2D CAD (.DWG), which have to be maintained. A 2D draft will often serve as the basis for a 3D design, and they need to be able to repurpose 3D files to add detail to 2D drawings. To share their work with other departments, they publish CAD drawings to a range of formats.

Secondly, graphic designers need an intuitive tool to edit CAD files that supports all elements of .DWG drawings, such as model spaces and layout sheets. They work in marketing and technical documentation departments, and the ability to work with 2D CAD files allows them to reuse design content in user guides, marketing materials, and presentations.

CorelCAD addresses these needs by offering an affordable, standards-compliant 2D CAD application that complements 3D CAD solutions. The ability to import drafts from CorelDRAW (CDR), and export CAD drawings to CorelDRAW and Corel DESIGNER file formats\* simplifies repurposing content, ensuring that users can maintain and reuse legacy content.

*\* Windows version only*







# 3



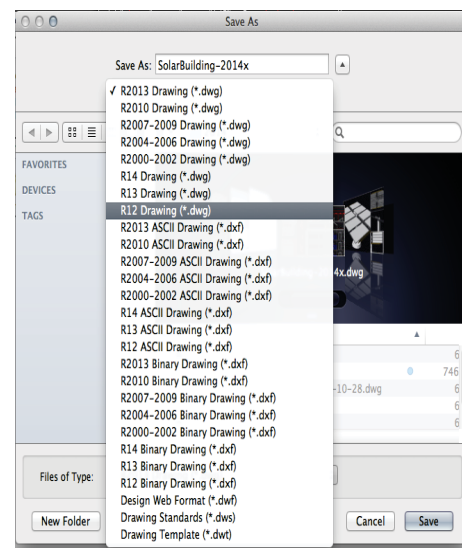
## Key features

With native .DWG support and industry-standard CAD features, CorelCAD 2016 helps users be more productive with intuitive 2D- and 3D-design tools and versatile file-format compatibility. Optimized for Windows, Mac OS and Android tablets, CorelCAD delivers impressive speed and powerful performance on your preferred platform.

CorelCAD 2016 offers new and enhanced 2D drafting and 3D modeling tools that seamlessly bring precision to any computer-aided design project. What's more, new responsive tools and powerful features make it easier than ever to maintain pinpoint accuracy — for a fraction of the cost of most CAD software options.

**Advanced .DWG file support:** While most CAD tools let you work with AutoCAD .DWG files, many employ their own native file formats. Often, converting these file formats to and from .DWG, causes critical loss or misrepresentation of parts of the drawing. And some CAD tools are unable to open these third-party proprietary file formats. CorelCAD 2016 uses .DWG as its primary drawing format, so you're assured of worry-free collaboration.

Many CAD tools and their proprietary file formats contain elements that aren't supported in .DWG. And conversely, AutoCAD has features that aren't supported by some applications, which can cause untimely and unwanted surprises during file conversion. With CorelCAD 2016 and its ability to process the file attributes of non-supported AutoCAD features, you'll enjoy full compatibility when collaborating with partners and customers who work with the .DWG file format.

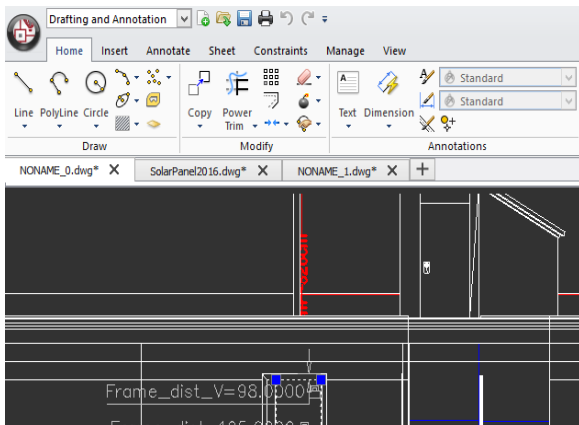


**Familiar CAD user interface:** If you've worked in other popular CAD applications, there's no learning curve with CorelCAD, so you can be productive immediately. Offering a familiar CAD user interface — including the command line — you can quickly get to work by using the same commands and keyboard shortcuts you already know.



**Ribbon user interface (UI):** Familiar UI and efficient tool access help to ease the transition for new users migrating from other Windows-based CAD applications, such as AutoCAD. CorelCAD 2016 is compatible with all major CAD programs so users will feel at home

working with a classic UI and traditional menu items or modern ribbon UI workspaces. In addition to offering workflow-oriented Ribbon workspaces\*, such as 2D Drafting or 3D Modeling, CorelCAD 2016 lets you tailor a workspace to specific needs with Ribbon UI customization. Plus, you can easily import customized AutoCAD workspace files (CUIX) and map those tools and functions directly to the CorelCAD ribbon.



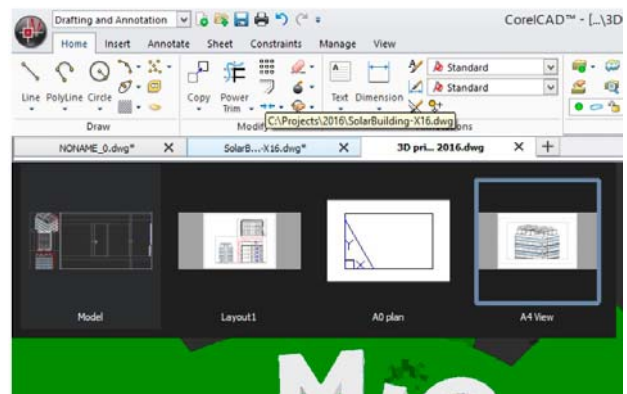
## Give it a try

### Choosing and creating a Ribbon workspace

- 1 Click the drop-down menu **Classic Default** in the upper left corner of the workspace, and choose an option:
  - **3D Modeling**
  - **Drafting and Annotation**
- 2 Click the **Manage** tab, and click **Interface** in the **Customization** group.
- 3 On the Interface page of the Customize dialog box, expand **Ribbon**, then **Tabs**.
- 4 In the **Tabs** tree view, right-click and click **New Tab**.
- 5 Click **Show ribbon explorer** to expand the Ribbon Explorer.
- 6 In the **Appearance** area, edit the tab name in the **Display text** field.
- 7 Add panels to the tab.

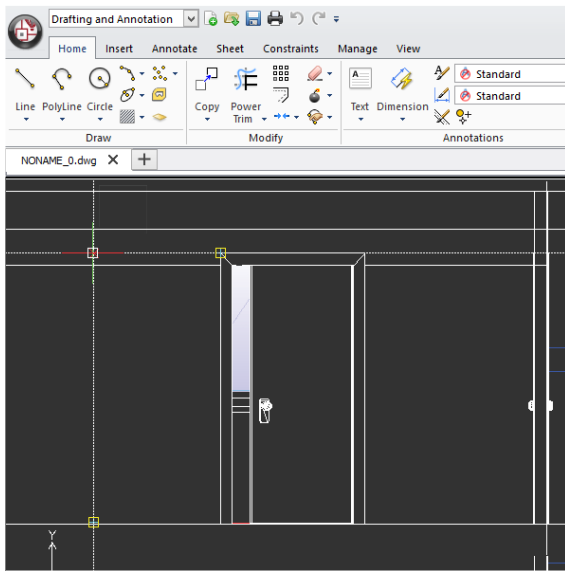
**Organized layouts:** CorelCAD lets you organize drawings into multiple tiled layouts using tabbed sheets. Each sheet can determine a different style of printing or plotting. The drawing window can be divided into multiple views, each displaying the drawing from a unique perspective. You can place drawing borders, title blocks, equipment lists, or other information on the sheets. You can also switch between model and paper space with just a double-click to adjust the representation of the model or edit it.

**New! Drawing tabs:** CorelCAD 2016 simplifies controlling multiple open drawings. When working on Windows, you can switch between several documents that are open and active at the same time using the DrawingTabs command. The tab for the active drawing is white, and all other drawing tabs are gray. Thumbnails of each workspace (model or layout sheet) in a drawing are displayed when you hover over a tab. In addition, right-clicking a tab opens a shortcut menu allowing you to open, edit, close and save multiple drawing windows.



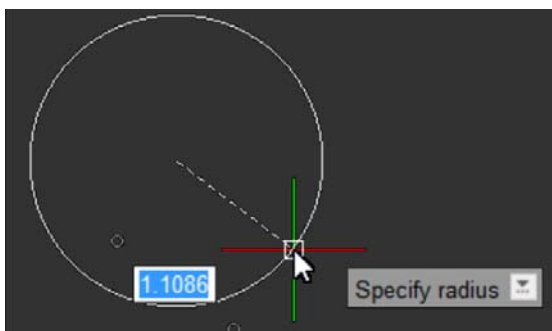
**Smart drafting tools:** CorelCAD 2016 has all the smart drafting tools you expect in CAD software, offering the same functionality that professional designers have grown accustomed to in graphics software. You can speed up drafting with a variety of entity snap modes, entity tracking, and polar guides. Custom coordinate systems can be created to align the construction plane with drawing objects. You

can also save time by using EntityGrips to quickly reposition, align, copy, or resize entities.

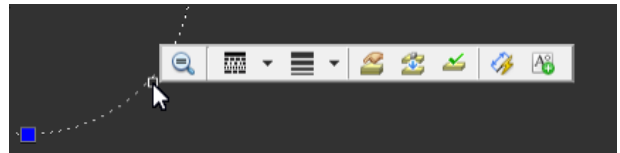


**New! Quick Input:** This time-saving feature brings a command-entry interface directly to the cursor, so you can focus on your drawing, not locating tools and commands. Tooltips display context-sensitive prompts near the pointer, simplifying the input of coordinate positions, lengths, angles, lines, and more. When you reposition the pointer, the tooltips track data that's been entered so you can quickly access and reuse it.

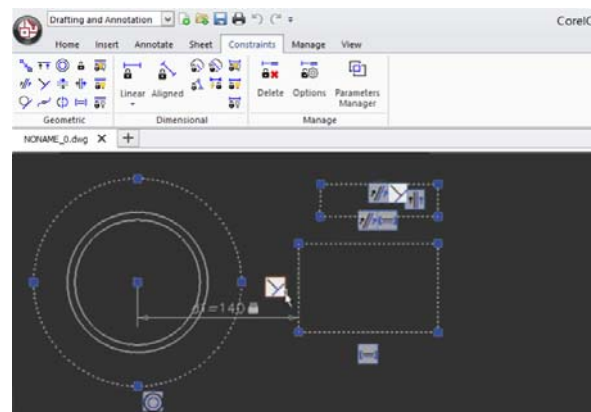
There are a variety of Quick Input methods depending on what you're doing. When there's no active command, the Quick Prompts input box appears. As a command is invoked, a tooltip appears with a list of options relevant to that command. Pointer Input lets you specify coordinates of points as you are creating lines, polylines, circles, Splines, and more. Dimension Input displays a distance and an angle as you move the pointer and serves as input boxes for the corresponding values when you are prompted for a second point or a distance.



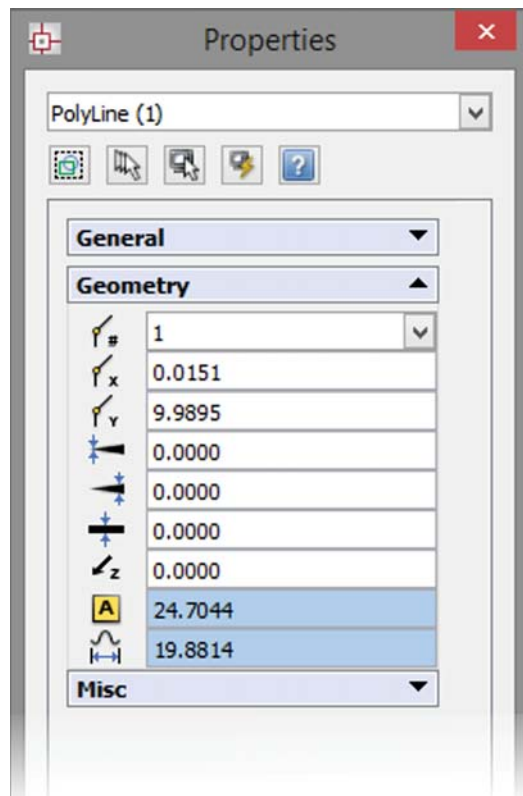
**New! Head-up toolbar:** You can streamline your workflow and save time using the Head-up toolbar. You can choose to display it whenever you select an entity, giving you quick access to frequently used tools and settings. With the Head-up toolbar, you can quickly change the zoom level, or access settings for an entity's layer, line and dimension properties. And when you don't need the Head-up toolbar, it gets out of your way after a few seconds.



**Drawing constraints:** The drawing constraints feature helps you work more efficiently and precisely. The dimensional constraints let you force object dimensions to adhere to fixed sizes and angles. The geometric constraints let you control dependencies and relationships between shapes in your 2D designs. For example, when you're working with designs that contain a variety of window types, you can vary the size of windows while maintaining the distance between the frame and the glass. Drawing rules can be defined on an object level so that variants can be quickly created without having to stick to the constraint.



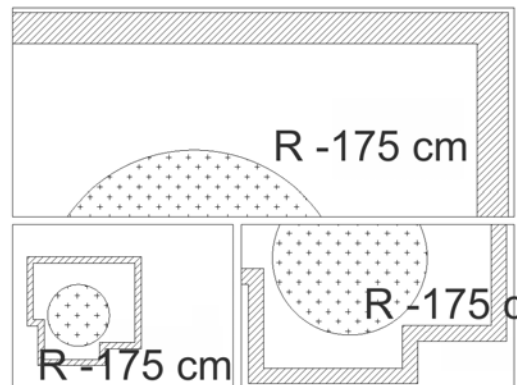
**Enhanced! Properties palette:** Whether your background is graphic design or CAD, the Properties docker is a familiar feature. It gives you the ability to manipulate the geometry and properties of entities, including layers, colors, line styles, and line weights. It also lets you easily copy attributes from one object to another. And in CorelCAD 2016, the Properties palette has been enhanced to be even more versatile. Drawing entity properties are divided into groups, and you can now work faster and more efficiently by collapsing property groups you don't require.



**In-place text editing:** Instead of using a separate dialog box, CorelCAD offers direct onscreen text editing. And in CorelCAD 2016, you can quickly stack text and paste formatted text from Microsoft Word within your project. With in-place text editing, it's easy to modify the definitions of components (block definitions) or elements (referenced drawings). Plus, for greater efficiency, Component instances in your drawings show changes in real time.


**New! Annotative scaling:** CorelCAD 2016 gives you the ability to view legible text at all times regardless of how small or large your design elements become. Annotative Scaling

lets you achieve consistent and uniform sizes and scales of text, dimensions, hatches, and blocks when viewed in different viewports or printed.



## Give it a try

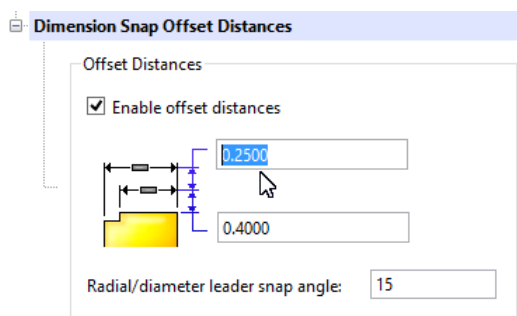
### Applying annotative scaling

- 1 In the graphics area, select an entity that supports annotative scaling.
- 2 In the **Properties** palette, set the **Annotative** property to **Yes**.  
Additional options are shown. In **Annotative Scale**, the current annotative scale is set.
- 3 Click **Edit annotation scales**  to add annotation scales to the entity.
- 4 In the **Annotation Entity Scale List** dialog box:
  - Click **Add** to add annotation scales to the entity's scale list from the drawing scale list.
  - Click **Delete** to remove annotation scales from the entity's scale list.
- 5 Click **OK**.
- 6 If you selected a Note, SimpleNote, or BlockAttributeDefinition, set options in the **Properties** palette:
  - **Sheet text height** — If the TextStyle is defined for annotative scaling: A numeric value sets the font at a fixed height that you cannot change when inserting a Text entity that uses the selected **Font**. Set **Height** to 0.0 if you need to change the TextStyle height.

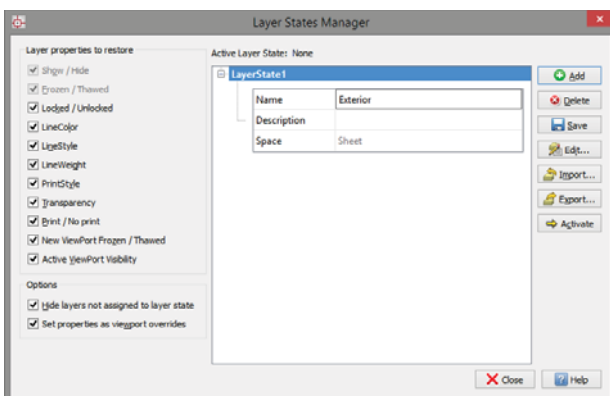
## Give it a try

- **Match orientation to Sheet** — Specifies whether the orientation of Notes and SimpleNotes in Viewports of layout Sheets follows the orientation of the Sheet.

**New! Dimension Location Snap:** This time-saving tool helps you achieve perfectly aligned technical drawings. Dimension Location Snap lets you place dimension lines at specified distances from surrounding shapes and between successive dimension lines or at specified angles for radius and diameter dimensions.



**New! Layer States Manager:** CorelCAD 2016 helps you easily keep layers in perfect order and control the appearance of design components in your drawings. The new Layer States Manager is a hub for saving, restoring, and managing configurations of layer properties and layer states, which are snapshots of current settings. You can also edit Layer properties, or save them to a LAS file so they can be shared across projects.

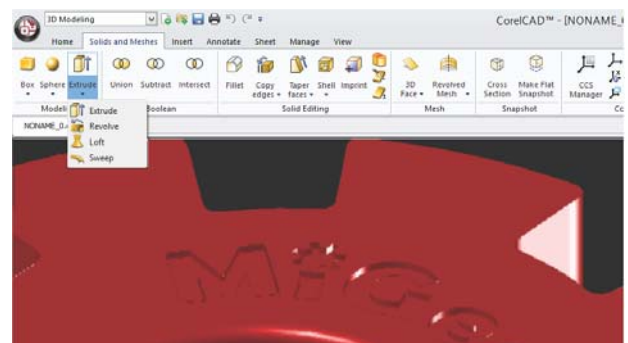


**Layer Transparency:** With support for AutoCAD R2013 .DWG file format, CorelCAD 2016 ensures full visual integrity with existing CAD

files. For advanced designs, you can apply layer transparency to highlight specific content, or to make content below the current layer visible.

**Layer Preview:** With CorelCAD 2016, you can quickly and easily preview the content of layers in complex CAD files. This helps you to understand a drawing's layer structure and find specific content.

**Solid modeling tools:** With its 3D solid modeling tools, CorelCAD 2016 ensures that you can work with increasingly common 3D designs. Just like 3D CAD applications, you can add 3D solid primitives to your design and use Boolean operations to unite, intersect and subtract bodies. 2D entities can be extruded, revolved, or swept along a path. You can also loft between 2D entities to create solid objects. CorelCAD 2016 also gives you the ability to slice and intersect solids, and edit edges, faces and bodies of 3D solids.



## Give it a try

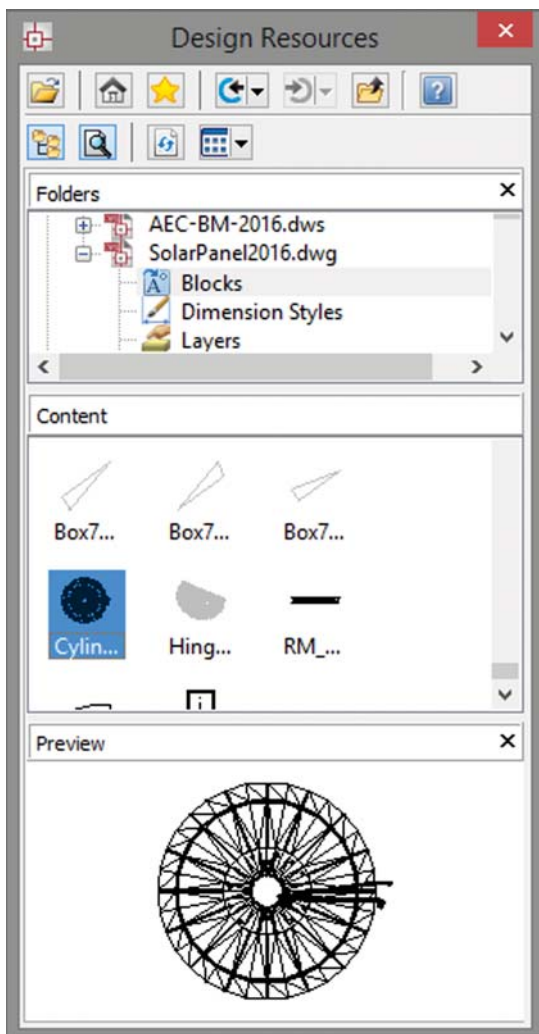
### Designing in 3D

- 1 Click **File** menu ► **New**, choose the standard template, and click **Open**.
- 2 Click the drop-down menu **Classic Default** in the upper left corner of the workspace, and choose **3D Modeling**.
- 3 Click the **Solids and Meshes** tab.
- 4 Click the **Sphere** group, and choose **Sphere**.
- 5 Click in the graphics area to set the center point, and drag to set the radius.
- 6 Click the **View** tab, and click **View Tiles Manager**.

## Give it a try

- 7 In the View Tiles dialog box, click **New**, and then choose **3D** from the **Orientation** drop-down menu.
- 8 Choose **Four:Left** from the **Default configurations** list, and click **OK**.
- 9 In the command window, type **rectangle**.
- 10 Click the **Solids and Meshes** tab, and click **Extrude** in the 3d Modelling area.
- 11 In the command window, type **shade**.

**Design Resources docker:** With the handy Design Resources docker, you can quickly access and repurpose existing design assets, such as blocks, dimension styles, layers, line styles, reference drawings, sheets, table styles, and text styles. The Design Resources docker makes it easy to find and access both local and network design assets.



## Give it a try

### Using the Design Resources docker

- 1 In the classic CoreCAD 2016 workspace, click the **Design Resources** button on the property bar. In any CoreCAD 2016 workspace, you can open or close the Design Resources docker by pressing **Ctrl+2**.

You can also right-click the property bar and choose **Design Resources** from the drop-menu.

- 2 In the **Folders** section, navigate to a folder containing .DWG files and select a file.
- 3 In the **Contents** section, choose one of the following options to see the reusable assets:

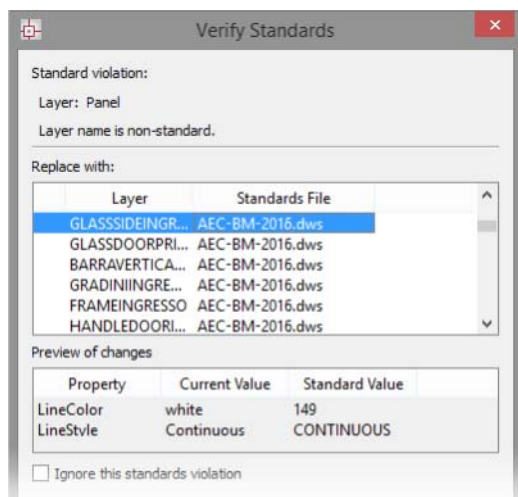
- **Blocks**
- **Dimension Styles**
- **Layers**
- **Line Styles**
- **Reference Drawings**
- **Sheets**
- **Table Styles**
- **Text Styles**

When you choose an asset from the **Contents** area, the content is displayed in the **Preview** area.

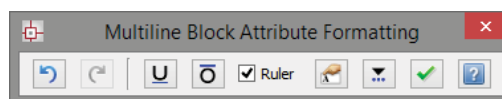
- 4 Click to insert the asset in the current drawing.

**PDF Underlay:** You can reference PDF files in a drawing as a PDF Underlay. You can specify the layer visibility of PDF Underlays, clip the PDF Underlay to display only a portion of the PDF, and detach underlayers from current drawings. CoreCAD 2016 also supports Microstation DGN files as underlays.

**CAD standards verification:** CorelCAD 2016 makes it easy to verify a drawing to ensure compliance with industry, corporate, or project standards. The VerifyStandards command checks the current drawing to match naming conventions, such as layer properties, line styles, dimension styles, and text styles, with an associated Drawing Standards file (DWS). You can then quickly replace any nonstandard items.



**New! Multiline Block Attributes:** The new Multiline Block Attribute Formatting pop-up toolbar simplifies editing. When typing a multiline BlockAttribute definition or a multiline BlockAttribute, you can display the toolbar by right-clicking and clicking **Editor Settings ▶ Show Toolbar**. It lets you specify maximum width of text lines, insert attribute fields, underline and overline text, and revise annotations. You can also display a ruler and choose colors for the background and highlighted text.



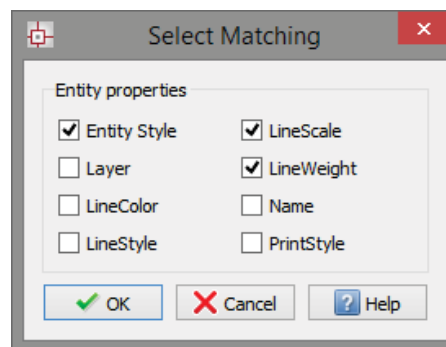
**New! SelectMatching:** CorelCAD 2016 offers the SelectMatching command, which lets you select drawing entities of the same type — for example, lines, arcs, or circles— and with any of the following shared properties: Entity style, Layer, LineColor, LineStyle, LineScale, LineWeight, PrintStyle. Then, you can use subsequent commands on a group of entities.

And when you need to edit complex geometry, two new commands can help you focus on the task at hand without any distraction. The HideEntities command hides selected entities, and IsolateEntities displays only the ones you've selected.

## Give it a try

### Verifying a drawing

- 1 To associate a Drawing Standards (DWS) file, in the 3D Modeling or Drafting and Annotation workspace, click the **Manage** tab.
- 2 In the **Standards** group, click **Drawing Standards**.
- 3 In the Options - Drawing Standards dialog box, click the **New** button.
- 4 In the Select File dialog box, navigate to the folder containing your drawing standards files, select one, and then click **Open**.
- 5 In the **Standards** group, click **Verify Standards**.
- 6 In the Verify Standards dialog box, select any item that violates drawing standards.
- 7 In the **Replace with** area, select a drawing standard that matches the intended appearance, and then click **Fix**.

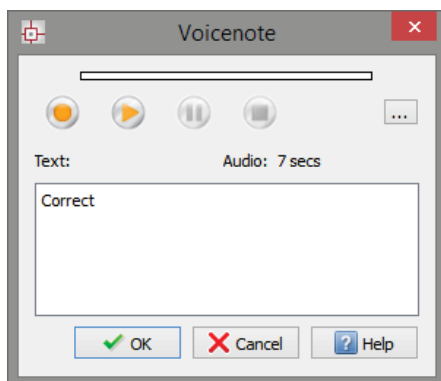


**ExplodeX command:** You can use this command to convert ellipses and splines into polylines, which is particularly beneficial for preparing drawings for export to other software applications or devices that do not

support ellipses or splines (for example, legacy engraving devices). In addition, you can use the Explode command for other complex entities, such as Blocks.

**Unique collaboration tools:** Most CAD projects demand the input and feedback of an entire team, so effective collaboration and annotation tools are critical. With the VoiceNotes feature, CorelCAD 2016 lets you add recorded messages, reminders, or instructions directly in your drawing. Great for a quick onsite or in-meeting review, VoiceNotes allow you to quickly document your ideas so they can be incorporated later.

You can also easily mark up drawing items with freehand sketches or attach other drawings and images as references, which can be clipped to show only the relevant portions. To accelerate and simplify reviews, you can mask portions of a drawing to exempt them from annotations.



**Revision Cloud tool:** With CorelCAD 2016, you can create Revision Clouds to highlight areas that require or contain revisions, making the review and revision processes simpler and more efficient. Drawing areas can be accentuated with specific shapes, such as rectangular, elliptical, and freehand clouds. In addition, you can set the specific layer for a cloud, line color, style, and weight, as well as adjust the radius of the cloud's sequential arc.

**AutoCAD R2013 .DWG support:** CorelCAD 2016 saves to R2013 .DWG natively, which ensures full compatibility, support, features, and CorelCAD file attributes in .DWG format. This level of support is paramount for users who receive and manipulate files created with

AutoCAD 2016, AutoCAD 2015, AutoCAD 2014 or AutoCAD 2013, and ensures that you can seamlessly work with customers and partners who use AutoCAD.

**Hassle-free file sharing:** CorelCAD 2016 facilitates collaboration with colleagues and clients by providing support for a variety of leading industry-standard formats, including SVG, ACIS SAT, and DWF. Plus, the ability to save to PDF ensures that non-CAD users can always view your drawings.

**Access drafts and sketches from CorelDRAW®\*:** Many designers prefer to use a creative graphics application for making first sketches, prior to getting down to the precise CAD drafting and 2D/3D modeling work. With CorelCAD 2016 for Windows, you can import CorelDRAW (CDR) and Corel DESIGNER (DES) files as model space objects with a representation in a layout sheet. You can also work seamlessly with multi-page CDR files (from version 8 to X7) and DES files (from version 10 to X7).

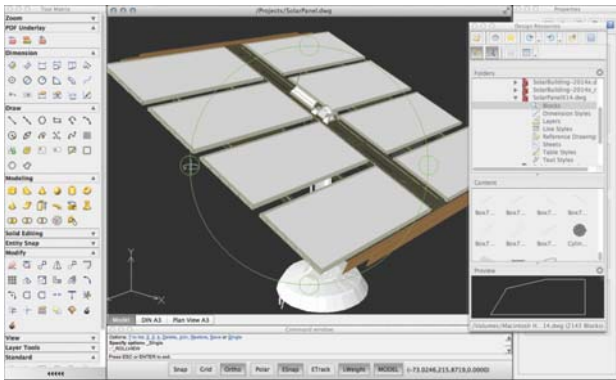
**Publish to CorelDRAW® and Corel DESIGNER®\*:** CAD files aren't used only in Engineering departments; however, integrating CAD files into other corporate workflows has always been a challenge. Graphics professionals working in other areas of a company regularly have to deal with CAD files because they often contain content ideal for presentations, technical documentation, or marketing materials. CorelCAD 2016 for Windows simplifies the repurposing of CAD files by offering export to CorelDRAW and Corel DESIGNER formats\*, so you can quickly access and easily reuse that information.

*(\* Import and export of CorelDRAW (.CDR) and Corel DESIGNER (.DES) file formats is only available in CorelCAD 2016 for Windows.)*

**Work with GIS files:** CorelCAD 2016 provides support for GIS files in ESRI Shape (.SHP) file format. This lets you visualize maps and geospatial models that were created by geographic information systems (GIS) applications.



**Repurpose 3D CAD files:** With support for the popular 3D exchange file format ACIS SAT, CorelCAD 2016 ensures that you can open and work with 3D models.



**Flexible licensing options:** You can match your working environment to your design needs with the flexibility of CorelCAD. As a hybrid product (Windows PC and Mac), this application can be used in a variety of ways and one license can be used on both your desktop and laptop.

**Operating system freedom:** CAD programs have traditionally been designed to run almost exclusively on Windows operating systems, but CorelCAD changes that. Whichever OS you prefer, Mac or Windows, CorelCAD lets you work quickly and efficiently on your platform of choice. And while some Mac OS CAD tools aren't nearly as feature-rich as their Windows equivalent, CorelCAD is designed to give Windows and Mac users almost the same level of functionality (*all features apply to both operating systems unless noted*). And with the introduction of CorelCAD Mobile, you can work anywhere, anytime on your Android tablet.

**Windows 10 and Mac OS support:** CorelCAD 2016 is fully accessible for Windows 10 users through the desktop. Mac users can take full advantage of new Mac OS X 10.11 (El Capitan) features. Plus, CorelCAD 2016 is optimized for high DPI resolutions, ensuring that UI elements appear crisp and legible when displayed on high resolution monitors.

For both Windows and Mac OS workflows, CorelCAD 2016 provides 64-bit CAD environments that can seamlessly process large

CAD files. Plus, a 32-bit version is included for Windows users who may need to work with less powerful hardware configurations.

With its native 64-bit architecture, CorelCAD 2016 offers remarkable application speed for both Windows and Mac OS. The application also provides fast display regeneration, which results in smoother zooming and panning operations in large and complex CAD drawings.

**Automation support:** You can extend your productivity by taking advantage of the LISP and Microsoft Visual Studio Tools for Applications (VSTA)\* programming interfaces to automate repetitive tasks and create your own functions, routines, and plug-ins. You can also access the plug-in store for CorelCAD Add-Ons and third-party enhancements that can help you add new functionality to the application (*\*Windows version only*).

**Microsoft Visual Studio Tools for Applications (VSTA) support:** For Windows users with a Microsoft Visual Studio licence, CorelCAD 2016 offers built-in VSTA features, which make it easy for anyone to automate repetitive tasks and command sequences. With the VSTA Manager toolbar, you can easily record, edit, and run VSTA macros. In addition, integration with the VSTA development environment offers extended functionality to help users create advanced macros. Users without a Microsoft Visual Studio licence can run VSTA macros.

**LISP support:** If you're migrating from AutoCAD, there's no need to rewrite time-saving macros that automate common tasks and extend the feature set. CorelCAD 2016 fully supports LISP routines created for AutoCAD. There's also support for Visual Lisp and ARX. CorelCAD 2016 also provides Icon menu support when working with LISP routines. This means that you can build custom dialog boxes that display preview thumbnails (SLD) of CAD components, which is especially useful for building custom libraries. In addition, CorelCAD 2016 adheres to a common structure for LISP programming, making it easy to reuse any existing automations without need to recompile.

**New! CorelCAD Mobile:** You can now extend the power of CorelCAD 2016 beyond your PC or Mac to your Android device. CorelCAD

Mobile lets you design and annotate on the go without compromising on speed or performance.



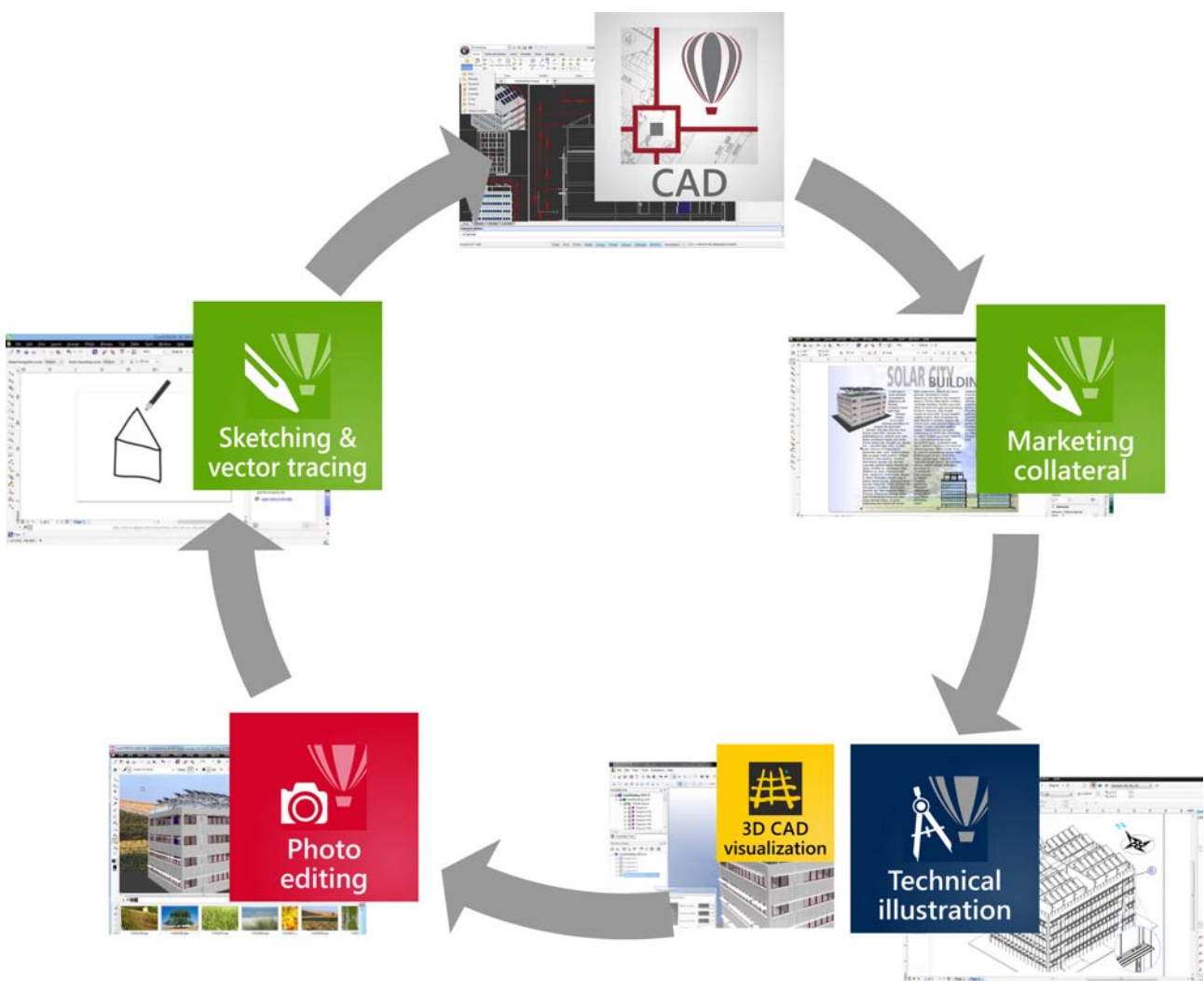
*You can annotate and design on the go with the new CorelCAD Mobile for Android mobile devices.*

# 4



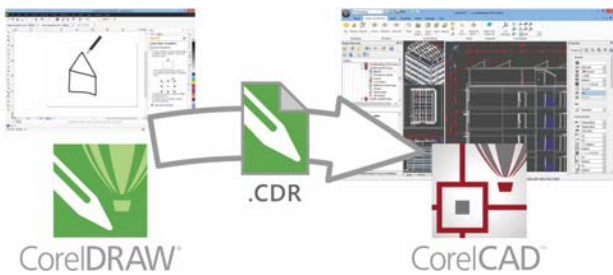
## Integrating CorelCAD™ 2016 into other graphics workflows

CorelCAD 2016 bridges the gap between CAD and other graphics workflows by offering import from and export to CDR and DES formats.

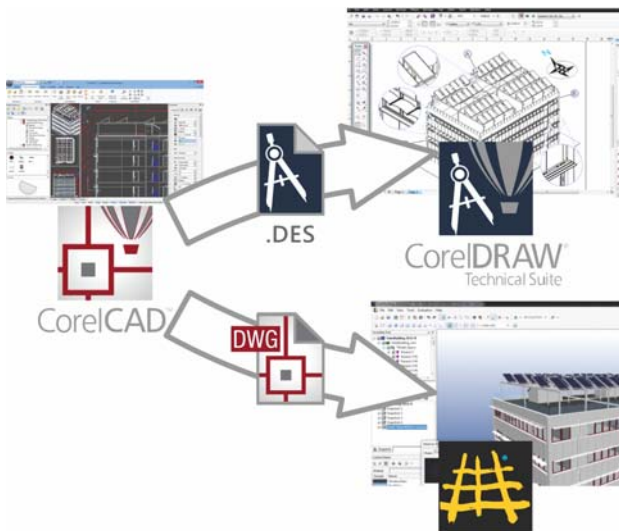


CAD applications usually provide very little file support for exporting drawings, creating a disconnect when you're trying to repurpose CAD for technical illustration or marketing design.

Unique to CorelCAD, this level of file support creates a complete, compatible graphics workflow from Corel, covering everything from concept design (CorelDRAW or Corel Painter), to CAD (CorelCAD), technical illustration (Corel DESIGNER) and marketing deliverables (CorelDRAW and Corel PHOTO-PAINT).



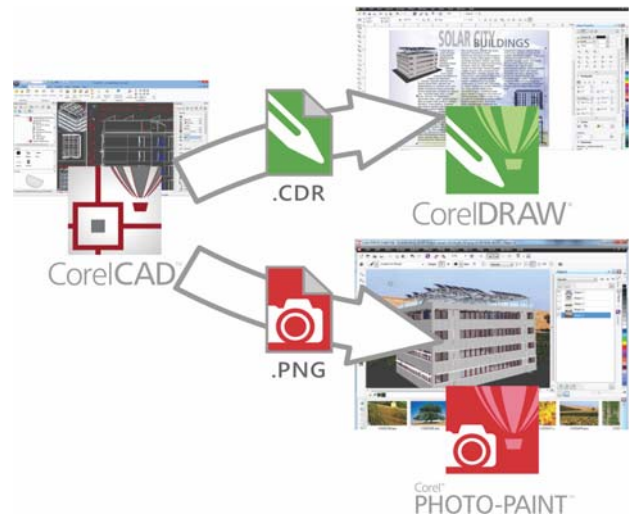
This simplifies the process of getting CAD models into downstream graphics workflows. CAD drawings are unreadable to most people. Exporting 3D CAD to a vector-based format, such as CorelDRAW or Corel DESIGNER, allows you to repurpose that content.



The vector files can be used in Corel DESIGNER to create technical illustrations destined for a wide variety of documentation, such as

assembly instructions, parts catalogs, and training materials.

You can then leverage those technical illustrations in a creative way using CorelDRAW and Corel PHOTO-PAINT to create a range of marketing materials, such as flyers, web pages, presentations, and more



*\* Please note, import and export of CorelDRAW (.CDR) and Corel DESIGNER (.DES) file formats is only available in CorelCAD 2016 for Windows.*

# 5



## Comparing CorelCAD™ 2016 for Windows and Mac OS to Light CAD applications

This table compares the features included in CorelCAD 2016 to features offered in other Light CAD applications.

	CorelCAD 2016	Light CAD applications
<b>File support</b>		
AutoCAD R2013 .DWG native file format	✓	✓
Legacy CAD file (AutoCAD R12 .DWG) support	✓	–
DXF (Drawing Exchange File) support	✓	✓
Template Drawings (DWT) support	✓	✓
Drawing web format (DWF) support	✓	–
Recovery of corrupted drawings	✓	✓
Raster image support (BMP, GIF, JPG, PNG, TIFF)	✓	✓
OLE support	✓*	✓*
Import CorelDRAW® (CDR) and Corel DESIGNER® (DES)	✓*	–
Number of supported file formats - Import	12*/10	~5
<b>User interface</b>		
Drawing tabs	<b>New!</b>	✓
Quick Input	<b>New!</b>	✓
Head-up toolbar	<b>New!</b>	✓
Ribbon user interface (UI)	✓*	✓*
Classic menu and toolbars	✓	✓
Edit multiple drawings (MDI)	✓	✓
Dockable Properties palette	<b>Enhanced!</b>	✓
Tool matrix	✓	–
Design Resources docker	✓	✓
References Manager palette	✓	✓
Right-click context menus	✓	✓*
Command prompt area	✓	✓

[\* — Windows version only; (✓) — limited availability/support]

	CorelCAD 2016	Light CAD applications
Industry-standard command sequences	✓	✓
Options Settings Manager	✓	✓
Search in Options dialog box	✓	–
<b>Viewing and Selection tools</b>		
Real-time Pan and Zoom	✓	✓
3D Mouse navigation	✓*	✓*
Object Snap (ESnap)	✓	✓
Object Tracking (ETTrack) / dynamic guides	✓	✓
QuickGroup tool and Group Selection mode setting	✓	✓
Select matching entities command	<b>New!</b>	–
<b>Drafting and Editing</b>		
Layers Toolbar	✓	✓
Layer states (Save and Restore)	✓	✓
Layer States Manager	<b>New!</b>	✓
Layer Tools	✓	✓
Layer Transparency	✓	✓
Layer Preview tool	✓	–
Rectangle creation with support for area and dimension	✓	✓
Line weights (display and print)	✓	✓
Exploding Splines and Ellipses (to polylines)	✓	–
Exploding blocks instances while maintaining attributes (ExplodeBlockX)	✓	–
Multiline	✓	✓
Multiline block attribute formatting	<b>New!</b>	✓
Drawing constraints (Parametric drawing tools)	✓	✓
QuickModify command (move, rotate, copy in one tool)	✓	–
PowerTrim	✓	–
Simplify drawings by removing overlapping objects (DiscardDuplicates)	✓	✓
Hatch editing	✓	✓
Gradient hatch	✓	✓
True Colors support	✓	✓
Multi-language character set	✓	✓
TrueType Fonts support	✓	✓
Spell checking	✓	✓
In-Place multiline text editing	✓	–
In-Place editing of stacked text	✓	✓
In-Place editing of block definitions and external references	✓	✓
Dynamic blocks support (inserting and manipulating)	✓	✓
CAD drawing standards verification	✓	–

[\* — Windows version only; (✓) — limited availability/support]

	CorelCAD 2016	Light CAD applications
<b>Annotation</b>		
Annotative scaling	<i>New!</i>	✓
Associative dimensions	✓	✓
Arc length dimensions	✓	✓
Jogged radius dimensions	✓	✓
Smart Dimensioning tool	✓	(✓)
Dimension palette (dynamic onscreen properties bar)	✓	–
Dimension location snapping	<i>New!</i>	–
Redline and markup	✓	✓
PDF Underlay	✓	✓
DGN (Microstation CAD file format) Underlay	✓	✓*
VoiceNotes	✓	–
Revision clouds	✓	✓
<b>3D viewing and design</b>		
3D model viewing	✓	✓
Projected (Isometric) views	✓	–
Shaded / Rendered display modes	✓	–
Materials Optional (w/ Render plug-in)	(✓)*	–
3D surface commands	✓	–
3D solid modeling	✓	–
<b>Layout tools</b>		
Tables	✓	✓
Images / References / Underlay rectangular and polygonal clipping	✓	✓
Masking Entities (Wipe out)	✓	✓
Non-rectangular viewports	✓	✓
<b>Printing, plotting, layout sheets</b>		
Multiple Layout Sheet Tabs (Multiple Paper Spaces)	✓	✓
Lock Layout Viewports	✓	✓
CTB Color table support	✓	✓
STB Style table support	✓	✓
Print Configuration Manager	✓	✓
Batch Print	✓	✓
<b>Publishing/Output</b>		
Export to CorelDRAW (.CDR) and Corel DESIGNER (.DES)	✓*	–
Export to PDF	✓	✓
PDF Creation using Print Table Styles	✓	✓
Export to SVG (Scalable Vector Graphics)	✓	–
STL Export for 3D printing	✓	–

[\* — Windows version only; (✓) — limited availability/support]

	CorelCAD 2016	Light CAD applications
JPEG / PNG output using Print Table Styles	✓	✓
Number of support file formats - Export	17*/15	5-10
<b>Collaboration</b>		
GIS file format support (ESRI Shape *.shp files)	✓	–
3D Solid geometry exchange file format (*.sat) support	✓	–
Pack and Go command	✓	✓
<b>Customization</b>		
Visual Menu and Toolbar Customization	✓	✓
Ribbon UI customization	✓*	✓*
User profiles management	✓	–
CUI Menu files support	✓	✓
CUIX (AutoCAD Ribbon UI workspaces) import	✓*	✓*
Upgrade user settings from previous version	✓	✓
<b>Programming</b>		
LISP (including support for LISP commands from other CAD applications)	✓	–
COM API	✓*	–
Microsoft Visual Studio Tools for Applications (VSTA) support	✓*	–
Plug-in Store (corelcadmarket.com)	✓	–
<b>Licensing</b>		
Single license	✓	✓
Network licenses	✓	–
Maintenance (upgrade protection)	✓	✓
Educational licenses	✓	✓
<b>OS support</b>		
Windows 10	✓	✓
Windows 8/8.1	✓	✓
Windows 7	✓	✓
Native 64-bit application	✓	✓
32-bit OS support	✓*	✓*
Mac OS X El Capitan (10.11)	<b>New!</b>	–
Mac OS X (10.7-10.10)	✓	✓
2D drafting on mobile devices (Android)	<b>New!</b>	–
MSI-based network deployment	✓*	✓*

[\* — Windows version only; (✓) — limited availability/support]



## Minimum system requirements

### Windows

- Microsoft Windows 10, Windows 8, or Windows 7 (32-bit or 64-bit versions)
- Intel Pentium 4 (2 GHz or faster)
- 2 GB RAM (4 GB or more recommended)
- 500 MB free hard disk space
- High-color (16-bit) graphics card (3D graphics accelerator card recommended)
- 1024 × 768 screen resolution (1280 × 800 recommended)
- Mouse or tablet
- DVD-ROM drive for installation from DVD
- Internet connection for product activation and access to the plug-in store

### Mac OS

- Mac OS X v10.7 (Lion) or higher (including v10.11 (El Capitan))
- Intel processor
- 1 GB RAM (2GB recommended)
- 500 MB hard-disk space
- 1024 × 768 display (1280 × 800 recommended) with 16-bit video card
- Mouse or tablet
- DVD-ROM drive for installation from DVD
- Internet connection for product activation and access to the plug-in store

## About Corel

Corel is one of the world's top software companies providing some of the industry's best-known graphics, productivity and digital media products. Boasting the most comprehensive portfolio of innovative software, we've built a reputation for delivering solutions that are easy to learn and use, helping people achieve new levels of creativity and productivity. The industry has responded with hundreds of awards for innovation, design, and value.

Used by millions of people around the world, our product lines include CorelDRAW® Graphics Suite, CorelDRAW® Technical Suite, CorelCAD™, Corel® Painter®, Corel® PaintShop® Pro, Corel® VideoStudio®, and Corel® WordPerfect® Office. For more information on Corel, please visit [www.corel.com](http://www.corel.com).

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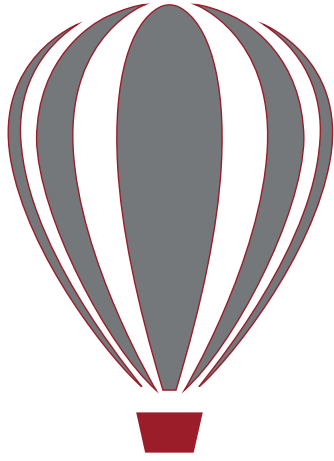
CorelCAD™ 2016 Reviewer's Guide

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# Corel|CAD™

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Media Contact  
[media@corel.com](mailto:media@corel.com)



Corel Corporation  
1600 Carling Ave.  
Ottawa, ON  
Canada K1Z 8R7

Corel UK Limited  
400 Capability Green  
Luton  
Bedfordshire  
LU1 3AE  
United Kingdom