

DoubleCAD™

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DOUBLECAD XT KEY FEATURES

A Complete Set of 2D Drafting and Detailing Tools

DoubleCAD™ employs a large selection of line, arc, curve, spline tools, and other expected tools, so that no matter the situation you've got access to the right tool for the job. When used with DoubleCAD snaps, modification tools, and drawing aids you will be able to quickly draft and document your designs. Below is only a small sample of the drawing, modifying, and dimensioning tools. Click on any of the drawing tools in the left column to see a quick video of the feature to get a feel for the simplicity of DoubleCAD. The videos are in no way comprehensive, but intended to demonstrate the familiarity of the user interface. For more, give the product a try!

Drawing Tools

[Arc](#), [Bezier Curve](#), [Circles](#),
[Command Line](#), [Construction Lines](#),
[Double Line](#), [Ellipse](#), [Line](#),
[Multiline](#), [Parallel Line](#),
[Perpendicular Line](#), [Points](#),
[Polygon](#), [Polyline](#), [Trim](#), [Wall](#)

Editing/Modification Tools

Align, Array, Boolean operations,
 Chamfer, Distribute, Erase, Fillet, Join
 Polyline, Meet two lines, Mirror, Multi
 shrink/extend line, Offset, Rotate, Scale,
 Split, Stretch, Shrink/extend line, Trim

Dimension Types

Angular, Baseline, Continuous,
 Datum, Diameter, Incremental,
 Leader, Orthogonal, Parallel, Quick,
 Radius, Rotated, Smart

Familiar CAD Environment

If you have used the AutoCAD® classic interface, you will find DoubleCAD familiar and comfortable from day one. DoubleCAD toolbars, menus, and even most command line functions are like those in AutoCAD or AutoCAD LT®. There are some differences -- what we think of as advantages -- where we believe usability is improved. A DoubleCAD Advantage is highlighted with a training tip the first time you use one.

With a fully customizable user interface, change hot-key settings; add, subtract, or move menu items; set toolbars just the way you want them. With DoubleCAD, be productive working your way.

Intelligent Cursor

Data entry points and feedback are visible next to the DoubleCAD cursor. Drawing aids are automatic, with temporary guidelines and feedback visible as the cursor is moved. There is no need to look down at the command line breaking visual contact when entering data or looking for coordinates. DoubleCAD increases productivity and accuracy through an improved user experience.

Snap and Geometric Aid Prioritization

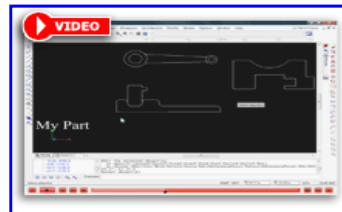
Customize the relative prioritization of snaps and geometric aids in order to configure your DoubleCAD workspace to the way you like to draft. Prioritization helps minimize tedious snap changes to turn on and off individual snaps when not needed. This can have a quick and powerful impact on drawing, as more snaps can be turned on, with less conflicting, mistaken snaps, speeding drawing itself.



Advanced Handle-Based Editing

Save time and draw more accurately, more quickly. DoubleCAD provides handles for scaling, but also for rotating and moving objects. Separate tools do not need to be invoked. The DoubleCAD context menu (right-click) provides access to recently used tools, recently entered values, and a quick way to change or reset reference points. If a DoubleCAD tool is active, the context menu provides a contextual toolbar as well, with additional similar tools and functions.

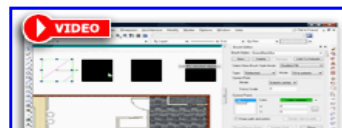
The video at right shows an overview of these handle-based editing features in use.



DETAILING HIGHLIGHTS

Custom Brush Styles, Bitmap Fills, Transparency, Layering

DoubleCAD™ allows for hatch patterns and gradients to be layered with transparency. Custom bitmaps, such as your company logo, may be used as well. This empowers you to much more clearly and precisely communicate construction or assembly details. The interface is very simple. Watch the video at right to see how easy it is to apply a transparency and layer a fill over a hatch in DoubleCAD™.



Hatch Pattern Editor

Using the DoubleCAD™ Brush Style Editor shown above, custom or industry standard hatch patterns can be created or imported from a number of common image file format (.jpg, .png, etc). Typical Hatch Pattern Creator software may cost \$129 to \$249. Why purchase a separate application when you can make or import your own with ease.

Smart Dimension Tool and Quick Dimension Tool

The DoubleCAD™ Smart Dimension tool applies the appropriate dimension for an object type by clicking and dragging. For example, with a diagonal line if you drag parallel to the line it will dimension the length; if you drag in the direction of the X-axis it will dimension the Y-axis height of the line. Click and drag on a circle and DoubleCAD™ will dimension the radius.

The DoubleCAD™ Quick Dimension tool is separate from the Smart Dimension Tool. It allows multiple dimensions to be drawn simultaneously, but all of the same type. For example, select the radius dimension, then select two circles and an arc, and all three will be dimensioned in one step. With a linear dimension, select two objects and both will be dimensioned along with the gap between them.



In the video at right the DoubleCAD™ Smart Dimension tool is used on different object types.

3D Perspective and Ortho Views

This may be 2D CAD, but DoubleCAD™ works with 3D models. View an object in 3D perspective or use Orthogonal Views for objects with dimension, in order to create paper spaces with enhanced visualizations, or for presentations.

ARCHITECTURAL HIGHLIGHTS

ADT Compatible Architectural Walls (Self-Healing Walls)

DoubleCAD™ XT walls are compatible with Autodesk's AutoCAD® Architectural Desktop (ADT), or AutoCAD® Architecture walls. Rather than using double lines with the multiline tool, the DoubleCAD™ wall tool allows for straight or curved walls that are self-healing (clean up intersections and corners). Any DoubleCAD™ block can be inserted into a wall and will self-align, but that alignment can be modified easily with DoubleCAD™ scale and rotation handles so that a left-opening door can be a right-opening door by simply dragging its handles.



In DoubleCAD™ any object can be converted to a block, and when importing SketchUp™ models, all components are automatically made DoubleCAD™ blocks. This way doors and windows from the Google™ 3D Warehouse, or any other item you create in SketchUp™ or DoubleCAD™ can simply be dropped into any wall. Think of the time savings.

DoubleCAD™ files with these ADT compatible walls can be saved in .DWG format and brought into AutoCAD®, including AutoCAD LT®, where they retain their self-healing properties with all DoubleCAD™ blocks, such as doors and windows. Even in AutoCAD®, the door insertion points may be moved and the walls continue to heal themselves.

See a few of the features in the short video at right.

GENERAL CAD TOOLS IN ARCHITECTURAL CONTEXT

Blocks and Block Editor

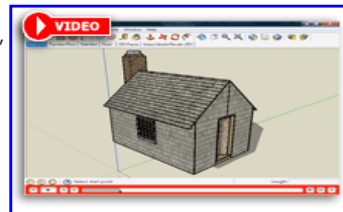
Any geometry can be made into a DoubleCAD™ block, easily. And all blocks can be fully customized and edited in the Block Editor. Blocks, when inserted into DoubleCAD™ walls, are self-aligning. When importing a .DWG drawing, DoubleCAD™ reads all Block attributes and information contained in the drawing. When importing a .SKP file, all components are converted into DoubleCAD™ blocks automatically. All DoubleCAD™ blocks saved with DoubleCAD™ walls in .DWG remain self-aligning and self-healing when opened in AutoCAD® or AutoCAD LT®.

FEATURED FILE SUPPORT

Google™ Sketchup™ File Import (.SKP)

DoubleCAD™ saves a tremendous amount of time whether you are looking to create detailed construction drawings from SketchUp™ models, or looking for a better way to go from .SKP to .DWG.

When DoubleCAD™ opens a .SKP file (versions 5, 6, and 7 are supported), all visible geometry is loaded in model space. All layers are maintained. Scenes are automatically converted to paperspace views for detailing. All components are converted to DoubleCAD™ blocks (and will self-align when placed in DoubleCAD™ walls).



A DoubleCAD™ drawing will also support using a SketchUp™ file as an XREF (using XREFs applies to XT, but requires DoubleCAD™ XT Pro to create the XREF). And yes, DoubleCAD™ imports Google™ 3D Warehouse parts, like an Anderson® Windows .SKP component as DoubleCAD™ blocks automatically.

.DWF File Support

Import, edit, read and write .DWF files. Convert DWF files to be editable. Even use DoubleCAD™ to convert .DWF files to .DWG.

.DWG and .DXF Support

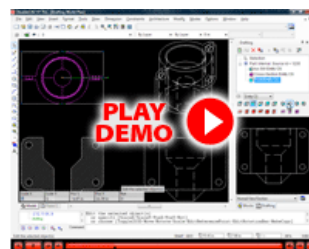
Highly compatible file filters allow DoubleCAD™ to be a companion seat in any AutoCAD® office – read and write from R14 to 2009.

DOUBLECAD™ XT PRO (KEY FEATURES)**ADT-Compatible Architectural Objects**

DoubleCAD™ XT Pro goes far beyond DoubleCAD™ XT in support for ADT-compatible walls (see below in DoubleCAD XT Key Features for more on them). Also included are ADT-compatible Doors, Windows, Stairs, Slabs, Roofs, and Rails. This collection of powerful architectural objects are endowed with a rich set of attributes for defining their properties and styles.

These ADT-compatible objects allow for great collaboration with users of AutoCAD Architecture, and several object types are recognized in AutoCAD® and AutoCAD LT® as AEC objects, so that their intelligence isn't broken, and some attributes may be modified.

See a quick sample with the video at right.

**FILE MANAGEMENT IN DETAILING CONTEXT****Create and Edit XREFs from Many Formats**

DoubleCAD™ XT Pro supports creating XREFs that link back to a file in any format supported for opening or importing. This could be .DWG, .SKP, or even a .JPG or .PNG file. These XREF files may be used when the .ZCD (DoubleCAD native format) is opened in DoubleCAD™ XT as well.

For example, using a .SKP file as an XREF for part of the project allows editing to continue in SketchUp™ while changes may be updated by refreshing the XREF in DoubleCAD™ or the drawing is re-opened.

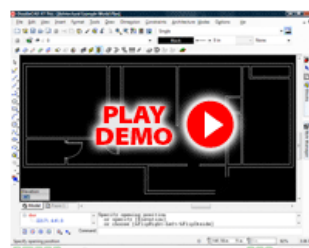
Perhaps better still is using the XREF in combination with the Drafting Palette. If, for example, the CAD Designer or Architect is using SolidWorks®, AutoCAD®, or SketchUp™ and saving changes to the file and format used in the XREF, those changes will be made to all the associated elevations, sections, and fragmental views previously created and inserted in the Layout (paper space) – simply by refreshing XREF in DoubleCAD!

ARCHITECTURAL HIGHLIGHTS**ADT-Compatible Architectural Objects**

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**PARAMETRIC HIGHLIGHTS****2D Geometric and Dimensional Constraints**

This powerful DoubleCAD™ XT Pro-only feature allows you to apply geometric or dimensional constraints that control relationships between drawn objects. Those relationships are parametrically-driven and include values, variables, or mathematical formulas. For example, relationships can dictate that two lines remain connected at their vertices; that a line is tangent to a circle; that an object remains at a fixed angle to another object; or that circle A remains three times the size of circle B.

The key benefit from variational sketching is the rapid modification of a design. For example, if a mechanical arm is drawn and is fully constrained around a joint, changing the angular dimension can automatically redraw the arm in the new position. Another example using that same arm is if all the dimensions are constrained in relationship to the arm length, then the entire arm is redrawn proportionally by simply changing the parameter for the arm length. Because the associativity is bi-directional, the same effect is achieved either by changing parameters or by dragging the geometry.

This DoubleCAD™ XT Pro feature incorporates the D Cubed™ 2D Dimensional Constraint Manager technology from Siemens PLM Software. This is the same underlying technology licensed by Autodesk® for use in Autodesk Inventor®, AutoCAD Mechanical®, AutoCAD Civil3D, and AutoCAD® Architectural Desktop; and is used by, among others, Siemens for Solid Edge; Dassault for CATIA and SolidWorks®; and think3® for thinkdesign.

Click on the video at right for a quick look.

**Variable Palette**

The DoubleCAD® XT Pro Variable Palette is primarily used in conjunction with constraints, creating driving dimensions. When Auto Add Constraints is turned on, the Smart Dimension tool, or other standard dimension tools, create variables that are inserted into the Variable Palette and which are associated with the objects' dimensions inside DoubleCAD®. These variables become driving dimensions. The palette is a bit like a standard spreadsheet, and formulas may be used to define relationships between different variables. A number of mathematical functions are also available to calculate dimensions.

Parametric Part Manager (2D/3D)

Create, edit, and re-use 2D and 3D parametric parts that retain their parametric nature even after insertion into the DoubleCAD™ model. Parametric parts may be edited through their properties. Parts are created with a very simple scripting language. Libraries of parts may be shared with colleagues. Even though they display as 2D parts or symbols in DoubleCAD™ XT Pro the parts retain all 3D information built into their representation.

Click on the video at right for an introduction to the PPM.

