

# PowerCADD™



## Two Thoroughbreds

The 1938 match race of Seabiscuit vs War Admiral has been called the greatest sporting event in American history, the greatest match race of the century. Two legendary horses running side by side at the Pimlico Special, just the two of them. The 'Biscuit and the Admiral raced into history.



That's where PowerCADD and WildTools are today. So completely in a class of their own that all others are irrelevant. Both all alone and away up yonder, ahead of them all. But in this case, the only winners are the riders. And if you've enjoyed the trip so far, cinch up your saddle. It's going to be a wild ride.

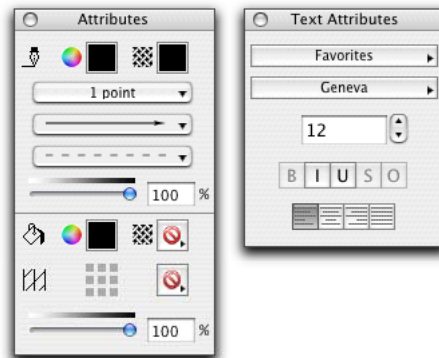
There are literally hundreds of new features and refinements. Many are important, much-requested enhancements. Many are subtle, fine-tuning improvements. And some are things that beyond the scope of any reasonable expectations and will come as a complete surprise to experienced users.

If you want to win at the races, bet on a race horse.

**Climb into the Saddle** Have you ever wanted to set things up the way you like them and have them stay that way? Your own pen sizes, colors, arrows, dimension styles, custom hatching and other office standards. And when someone sends you a drawing from another office, you still want things to be set up your own way. Don't mess with my drawing board.

Welcome happy morning, Global Attributes is here. Your Attributes menus are always the same, from drawing to drawing or all around your office. And it doesn't change a thing in your current drawing. It's an elegant way to implement office standards with the same set of attributes on every machine, and by using one file it is portable from system to system.

**Into the Starting Gate** Immediately at hand is the new Attributes Window, a rich and full-featured floating window with a complete set of choices for pen color, pen pattern, pen transparency, line weight, arrows, dash, fill color, fill pattern, fill transparency, hatch and hatch origin.



ATTRIBUTES & TEXT ATTRIBUTES. All of the object and text attributes can be set in these two floating windows. Use the sliders for pen and fill opacity.

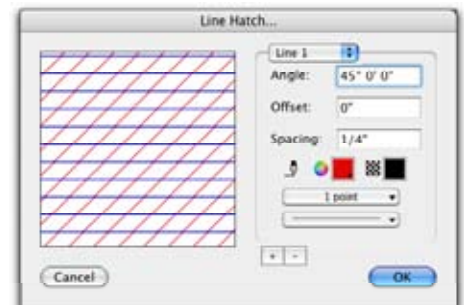
The Attributes Window is great for large screens where the choices can be spread out. And if you want to mix your own colors, the System Color Picker is right there for you.

**Whoa Nelly! Transparency!** Did somebody say *transparency*? That's right. With PowerCADD 7, you can now control the transparency/opacity of every object, group or even whole layers to create exactly the look you desire in your drawings. Select the object and adjust the opacity sliders in the Attributes Window to get the transparency just right. Or double-click the layer in the Layer Window and play

with the opacity slider for the entire layer. Transparencies work with text as well. Yes, the opacity of a gradient fill can be adjusted. And, of course, an object's opacity is blended by the Blend Objects tool.

You can use opacity for more than see-through transparencies. Suppress part of a drawing to tone them down. Desaturate a photo to put it in the 'background'. Wash a graduated tone across your drawing with a transparent gradient fill.

**Richer Hatches** You can now set the line thickness, color, origin and even the scale of individual dynamic hatches in your drawing. Even better, this capability can be conveniently accessed from the contextual menu when clicking on an object. And now it is easier to create your own line hatches.



LINE HATCH. Set up hatching with single or multiple lines, each at their own angle, offset, spacing, pen color, pattern, line size and dashes.

If you've avoided hatches in the past, think again. There is a huge increase in hatch drawing speed—up to twenty times faster. And hatches combine with transparencies in ways you might not have considered. For example you can indicate the forested areas of an aerial photo with a green transparent overlay, and then additionally indicate conifers with hatching on top of it all.

**Attribute Styles** provides the ability to save an entire set of any attributes that you would like, to be applied later with a single command. Fine blue lines. A



GHOST RIDERS IN THE SKY. Overlay multiple transparent images. In this case, the horse and Manhattan skyline are photographs with the opacity set to 25% to desaturate the images.

green transparent fill. Bold black border lines. You have complete control on what applies or doesn't. Your choice.



ATTRIBUTE STYLES. Set up your favorite attribute combinations that you can apply in a single command. In this case, the pen color and line size are specified, but all others do not apply.

**They're Off!** Out of the gate you will immediately notice a major gain in performance. The quick, snappy performance of PowerCADD is back. Big time. The biggest gain in drawing speed is with hatches, and overall the average drawing speed is up to 200% faster. Selecting objects, snapping, scrolling are all much faster. There are four reasons.

First, PowerCADD now only runs on OS X, and this eliminates the penalty of trying to run on two operating systems. No horse can run fast straddling a fence, and neither can a program.

Second, PowerCADD 7 uses Quartz only for screen drawing and printing.

Again, this eliminates the two-method penalty. And with each new version of the operating system, Quartz is getting faster.

Third, PowerCADD drawings have a new internal structure optimized for speed, particularly with enormous drawings.

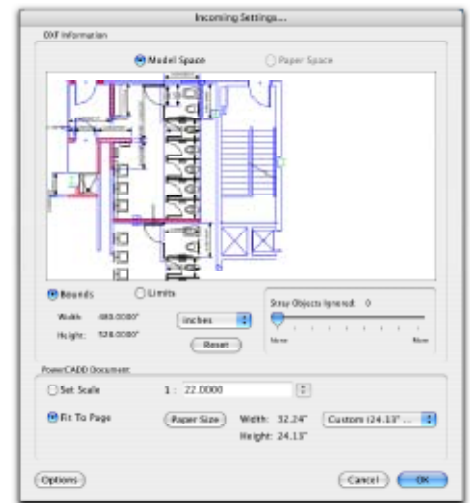
And finally, PowerCADD uses a more efficient and compact way to store attributes. That results in smaller files, faster look-up and smaller objects to handle in a list.

**Text Enhancements** Text is now anchored by its baseline for editing operations such as font and style changes, as well as for new text entry. Additionally, the Text Edit Window will now allow setting a preferred size for easier display and editing of text blocks, and you can scroll with the scroll wheel on a mouse.

There's a new floating Text Attributes Window for font, font size, style and alignment, and you can define your own favorites. Dimensions can now have styles (bold, italics, underline, etc.) and you have a choice of standard or hand fractions—with the numerator over the denominator instead of on the same line.

You can now double-click text with the Selection Arrow tool to edit the text, instead of switching to the Text tool. You can drag to resize the text of a leader text object, and use the Edit Window to directly input and resize a text object.

**DWG/DXF Translator** Of course, even race jockeys have to occasionally communicate with a cad on a nag, so you'll be happy to know that the DWG/DXF translator is now part of PowerCADD and no longer an extra-cost option. There's a vastly improved interactive interface so you can take the blinders off and see what will be imported, for much more accurate and efficient translations. Best of all, the translator now supports file formats through AutoCAD 2006.



SEE IT ALL when you import DXF/DWG.

**Scrolling Menus.** When you import a DWG drawing, sometimes you have way too many attributes. In PowerCADD 7, the arrow, dash and line weight menus scroll so you can get to all of them, and you can easily delete them from the menus.

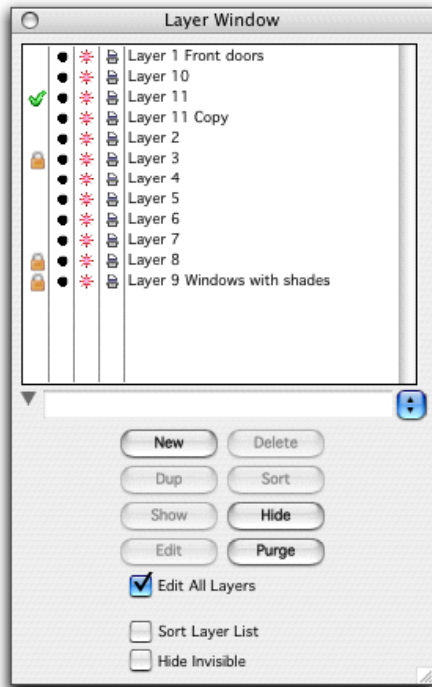
**Topographic Z Height Support** You can't see it directly in PowerCADD at this time, but your favorite 2D drawing program now has an internal mechanism to support assigning a Z height to any PowerCADD object, and there is a topo point object for survey data. Civil engineering capabilities are now within your reach with an embarrassment of riches in two extra-cost externals: Topography Tools and WildTool's TopoTools. Wait till you see what you can do in PowerCADD.

**Layer Window** There are major improvements to the Layer Window with new, optional snap and print layer status columns. You have new Sort, Duplicate, Sort Visible List and Hide Invisible options, as well as opacity layer attributes. You can select multiple layers and then set the opacity, color, etc. for all of them in one operation.

Layer Sheets now support layer attribute settings and there's an improved interface for renaming sheets. Sheets now remember the locked status, color,

A section study by Julia Miner and Phil Lohene who can't be blamed for the horse.

opacity, printable and snapable settings of layers. This means that you can use Layer Sheets for opacity changes only, that is to change the emphasis of the drawing with transparencies.



BIG CHANGES in the Layer Window with new, optional snap and print layer status columns. Use the scroll wheel on a mouse to scroll the layers list.

**Windows and Tool Palettes** You now have a choice of large or small tool palettes. Floating windows and tool palettes are optionally magnetic, and you also have an auto-fade option that is handy if you work on a small screen. When you turn this on, floating windows and tool palettes fade to transparent when they are not used so you can see the entire drawing.

**Margin Support** PowerCADD now offers margin support for the precise location of the drawing on paper. Print Selection is now a distinct menu item, and there are additional print settings to print to the center of the printable area or the paper.

**The Blossom Tool Palette** brings up the PowerCADD tool palette by the mouse cursor. Or it can be a custom tool palette of your favorite tools, right at your mouse and easily available. And you can now assign your own custom key commands for Blossom.

**New Drawing Tools** include a Notation Tools palette of bubble note objects in many optional shapes and a Revision Cloud tool. The Trim/Extend tool now handles arcs, provides a swipe selection for multiple objects and will trim to objects within groups. The Reference Point tool now supports multiple styles and sizes. There's a

new Offset Line tool and an improved Parallel Offset tool, both of which will perform parallel offsets within a group.

Move Points is now enhanced, as are the Paint Bucket and Fence Cut tools.

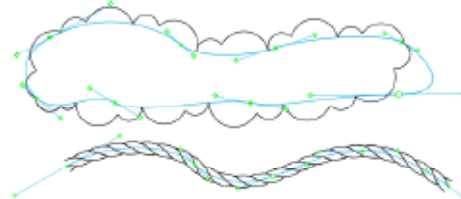


BEYOND A SHADOW. Use the Shadow Attributes Window to set the shadow color, opacity, offset, angle and blur for any object, including text. While a shadow is typically black, it may be any color—and a different color than the object itself.

## WildTools

And what about WildTools, the untamed mustang of the PowerCADD world? As all experienced WildTools users know, every new version has offered consistent, across-the-board improvements in new tools, refinements and capabilities. It continues. WildTools 8 is another major advance in the most powerful drawing tools ever created.

The most important news is that the WildTools wild-man has finally figured out how to apply modern programming and object-oriented techniques to drawing tools in PowerCADD. The most powerful capabilities of WildTools are now key components that are used in many ways. For example, the Polygon tool has long offered a draw-reshape capability so you can reshape as you draw. That's now available in many multi-click tools such as the Chain Dimension, Running Dimension, Measure and Cloud tools. Hmmm. Maybe there's a polygon tool hiding in all of them.



THE POWER OF THE PEN. Drawing with the pen mode of the Cloud and Linear Patterning tools.

And you'll see the Pen tool as pen modes for the Cloud and Linear Patterning tools, to draw clouds around large areas, or to draw curves with a pattern of objects. Linear patterning is used in the on-screen rulers of the Measure tool and

for studs in the Composite Wall Tools. Little parts of this and that, put together in many different ways. The result is a dramatic improvement in drawing capabilities throughout WildTools. But then, if you've been using WildTools for the past decade, you already knew that was going to happen.

You can now nudge with the Move Points tool, and all of the Move Points tools, the Distort Points tool and their cousins now offer non-contiguous selections to add and delete vertices before you move anything.

The Needle tool now handles text styles for dimensions, pen and fill opacity, and hatch. Magic Wand tool and Match handle opacity and hatch, Blend and Blend Line handle opacity. There's a new Squiggle tool that allows you to squiggle objects with a single click, even inside groups.

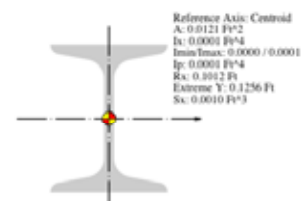
The Offset Line tool now has a dual offset option that lets you draw the room and the next wall in a single operation, and a multi-click option for creating a series of offsets. Similarly, the Join tool and Elliptical Arc tools have a multi-click option. The Line Break tool will now trim lines to circles, ellipses and arcs.

All dimensioning tools now draw a full dimension object so you can see the dimension text. Hand fractions are an option, and the Running Dimension tool has the option of drawing a chain of dimensions. The Measure and Protractor tools have a completely new on-screen ruler display, including dual dimensioning if you like. New dimensioning tools include the Dimension Point, Datum Dimension and Area tools.

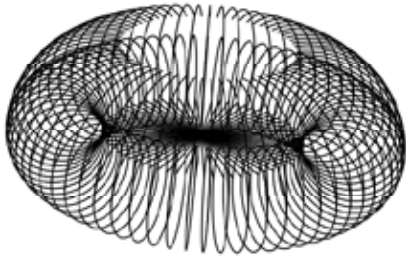


DATUM DIMENSION OBJECTS update the height as you move them in the drawing.

In the Nuts & Bolts palette, the Anchor Bolt tool replaces the Bent Bolt tool and offers additional bolt styles. There's a new Headed Weld Stud tool and a Threaded Rod tool as well. Engineers will appreciate the new Centroid tool.



CENTER OF MASS. The Centroid tool calculates mass properties of shapes.



AXIAL ROTATIONS. This is a perspective axial radial duplication.

In PerspectiveTools, the Move, Duplicate, Distribute and Move Points tools now have cross-plane moves, while the Radial Duplicate and Radial Distribute tools have cross-plane rotations. WildTools 3D and PerspectiveTools now offer a complete set of axial rotation and duplication tools.

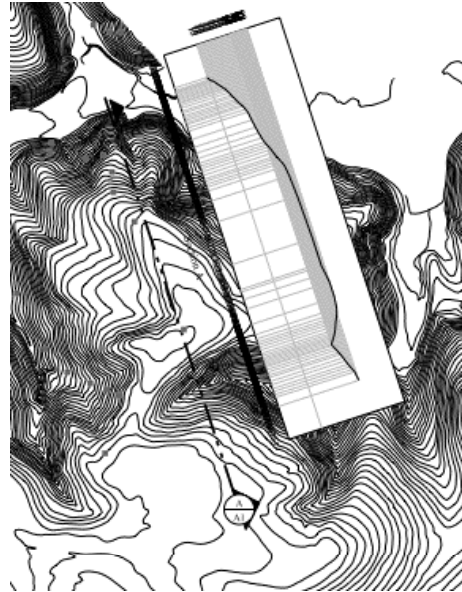
The new ShadowTools palette has seven tools for working with transparencies and shadows. Composite Wall Tools is a new palette for drawing highly detailed composite wall depictions commonly used in Europe.



COMPOSITE WALLS are popular in Europe.

And the new TopoTools palette offers ten tools to help in the construction and analysis of topographical drawings. Even though PowerCADD is a 2D program, it now has the capability of storing a Z height in any PowerCADD object. Begin with the Z Needle tool to assign a Z height to a contour lines on a topo drawing, then use the Section Profile

Tool to produce a section profile chart. How complicated is that? Not very.



You draw a section line across the contour lines, the tool sees the contour lines and their heights, and draws the section profile chart beside the section line. Click and drag. Then you can use the Contour Text tool to place height-text objects along the contours.

Or if you want to calculate slopes and grades, place topo point objects in the drawing with the Topo Point tool, and then use the Grading tool for slope, two- or three-point interpolation. It's easy to locate even-interval contour lines—say two-foot contours—from odd heights and locations, and then you can connect these with the Spline tool to create a topo map.

There's more, but this means that PowerCADD now has many of the capabilities that have been the exclusive domain of those pee-cee CAD programs out there.

## Italian Stallions

Watch the Engineered Software website for new externals from Paolo Rossi in Italy. Architectural Extensions includes Photo Survey, Sections & Views and Power Dimensions. Photo Survey is for creating orthogonal photos and drawings from perspective photographs of building facades. Sections & Views helps to produce elevation drawings from plan views. Topography Tools will import and export topo survey data and offers a number of tools for the analysis of topographic drawings.

## Saddle Up

So there you have it. PowerCADD 7 and WildTools 8 continue their winning streak, offering the most full-featured set of tools for engineering, architecture, machine design and graphics available anywhere, on any computer.

But for all of the speed and features, let's remember that the best thing about PowerCADD and WildTools is Engineered Software's commitment to its users. Pick up the telephone and ask to speak to the president of any of the major CAD programs out there. Then try it with Engineered Software or contact the author of WildTools. Therein lies all the difference.



So. Is PowerCADD 'Seabiscuit'? Is WildTools 'War Admiral'? Or the other way around? We don't know. Actually it's not a race at all. Just two speeding thoroughbreds who have left all their rivals in the dust. A-prancin' and a-dancin'. Way out front. And at the finish it ends in a draw. The fastest draw in history.

Enough of this horse pucky. Kick off your boots. Throw off the bridle. And pick up your whip. Turn your genius loose. Order the new PowerCADD 7 and WildTools 8 today and put some fun back in your life.

To order, call (336) 299-4843 or order online at [www.engsw.com](http://www.engsw.com).



IT LOOKS LIKE FADED PAPER but it's actually a transparent gradient fill that produces the subtle color change.