

DataCAD Boston Users Group

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<http://world.std.com/~eshu/dbug.htm>

A Committee of the Boston Society of Architects

DBUG Meeting Notes

September 27, 2006

Host: Eileen Kelly, AIA

Lesko-Kelly Associates, Norwell, MA

About a dozen DBUGers gathered for the great banquet buffet that host Eileen Kelly provided at her beautiful home/office. A few early arrivals took a tour of the extensive Meadowcroft campground that she and her husband run for some 400 children daily during the summer with a staff of over 60 (the grounds include 3 swimming pools!) They have run this operation for well over 20 years. In addition to her architectural practice, she also has been a long time member of the Norwell Planning Board.

After introductions, Marc Hershman noted that he was looking for drafting or architectural help at his firm. Others noted that they were busy as well.

Title Blocks and Production Methods

Evan gave a "Basic Lesson" presentation on different methods of producing sets of drawings, which he said affects the way you might go about creating title blocks for sheets. He outlined four basic methods, which he described as follows. *I) Individual Sheet Files:* Each sheet is its own independent file at its own unique scale. *II) Multi-Sheets/One Scale or Group:* each file contains multiple sheets but with output is all at the same scale (e.g. 1/4" plans with 1/4" elevation and 1/4" sections) or alternatively, like data groupings, e.g. Elevations or 3D modeling. *III) Multi-Sheets/Multi-Scale:* each file may contain multiple sheets, with some sheets employing multiple scales. A variant to this approach is One File/All Sheets — a tough discipline sometimes but it can be done and *IV) Multi-File, Sheet Independent XREFs:* data files are worked on in convenient groupings but sheet layout is done independently via using XREFs & MSP into a master layout file, which may only contain the Title Block and Border.

He then asked what people in the room used in their own practice. Some said that it depended on the size of the project they were doing and it sometimes varied from project to project. It turns out some used Method I for smaller projects or all projects. Method I is a bit tedious obviously to maintain with a larger more repetitive project.

The WYSIWYG (What you see is what you get) approach of Method I seems to be the popular choice for many. Method II is helpful for many to just go ahead and make title blocks to scale and have multiple scale drawings in one drawing file. Method III Multi-Sheets/Multi-Scale: While many use varieties of this technique, not many take it to the extreme of putting all their sheets in a single file.

The Method IV, Multi-File – Sheet Independent XREF was the approach that most people seem to favor now. XREFing the title block can help with changes in design and dates for issue. One concern perhaps would be to make sure you have a good grasp of when an issue or revision date should be updated globally (all sheets) or locally (sheet by sheet). You can update your XREF by saving the master file then either go to the XREF manager and refresh or you could erase the XREF and then *undo* and it will also update.

Eric Gjerde likes to XREF his title block without the date or drawing title info and then input this information in each particular drawing when plotting. The master drawing is usually 1:1 but then enlarged to a factor of 48 for 1/4 scale and 96 for 1/8 scale. Sometimes the XREF file includes not only the title block but also perhaps the base building walls and windows that might be repetitive in, say, a multi-story office building where the windows may align in multiple layers. This method makes sure your plans are positioned on the sheet consistently. Setting elements in a drawing using absolute zero is another good tip for consistent positioning.

Evan then went on to show how Title Blocks could be saved and reused given the production method that you employ. He demonstrated how a standard title block could be reused via 1) a default drawing, 2) a layer, 3) a symbol, and finally, 4) an XREF. He explained that if you wanted to make global changes to your title block (changing issue date, revision dates, etc.) that the XREF method was your best bet. *Cheap Tricks Ware* item R205 (NCS Title Blocks) was referenced. It has standard Arch title blocks in both ANSI and ISO sizes for you to add some customization.



Figure: DataCAD 12's smart door dialog.

DataCAD 12 Preview

DataCAD President and CEO Mark Madura gave us a look at the latest build for DataCAD 12 (Alpha version 75 or 75b — or 74, when things got buggy.) Below are some of the things we saw. The presentation was videotaped and clips can be seen at (*see topic listing on page 3*):

<http://forum.datacad.com/viewtopic.php?t=3692>

Smart Walls Behavior (*3d for Free* is the tag line)

The Architect menu is used to access the dialog for smart walls, windows & doors. Dialog boxes have consistent look and feel and seem to be of the same family making it more intuitive by design. An o2c viewer is placed in the lower right corner to give you a preview of the walls, doors, and windows. Several tabs are located at the top of the dialog box that allow you further customization of each smart object. Just be sure to click the *Set Active* button or you will not see the object you had selected or modified.

Smart walls can be manipulated so the inside line and outside line can be different colors or linetypes. The notion of priorities in wall types was discussed in earlier DBUG meetings about DataCAD 12 but has been discarded as it seems to be more about the code writers defining and dealing with flexible behaviors of parametric walls rather than a notion of the end user. Mark mentioned that if you do not want one set of walls to interact with one another, just put them on separate layers and you're done. No confusion.

Smart walls can have control points either outside or center.

If the *Current Setting* box is checked – the wall will go on with the layer and color of the active setting.

You will notice in the smart wall dialog box a little icon left of the wall type name. This icon represents that this particular smart wall is not embedded in the drawing file at the moment but is available outside the drawing ready to be inserted if needed.

Link on and off for smart walls. With *Link* on, multiple wall segments can be edited as one entity. If smart walls are unlinked (*link off*) every time you start and stop a wall, it creates a separate wall entity.

Clean on/off – *Cap on/off*. These two wall features can now be set independently of each other. *Cap on* with *clean off* will take a (formerly) clean intersection of two walls and make it look like one wall is “mashing” through another.

Hard Node – You can add nodes to the wall to allow it to have more segments or allow it to be stretch with another



wall. Virtual Nodes are created by DataCAD during the drawing process to allow for cleanup and intersection editing but don't become “hard” until the wall is finished.

Smart Doors

The Smart Door dialog box has a similar look and feel to the walls menu with an o2c viewer incorporated. Many tabs are provided for custom control. Tabs include *General/Casing/Trim/Header/Jambs/Sill/Stop/Door*

Many quick views were displayed after adding smart walls, then adding doors and windows via the o2c viewer — resulting in a good looking 3D model, even rendered with material finishes via texture mapping. Mark even showed some awning windows in the open position.

Smart doors can be updated with picking a different door slab using the symbol import in the smart door dialog box.

Smart Windows

Windows could be modified by a stretch command if the check box for fixed dimension is not checked. Many Andersen windows were added to the base smart window library. It seemed to be very easy to manipulate and you could even play around with the mutin divisions to see in real time the proportion of the mutins given the accurate glass size given by the window manufacturer and carefully model in DataCAD.



Figure: DataCAD 12's smart window dialog.

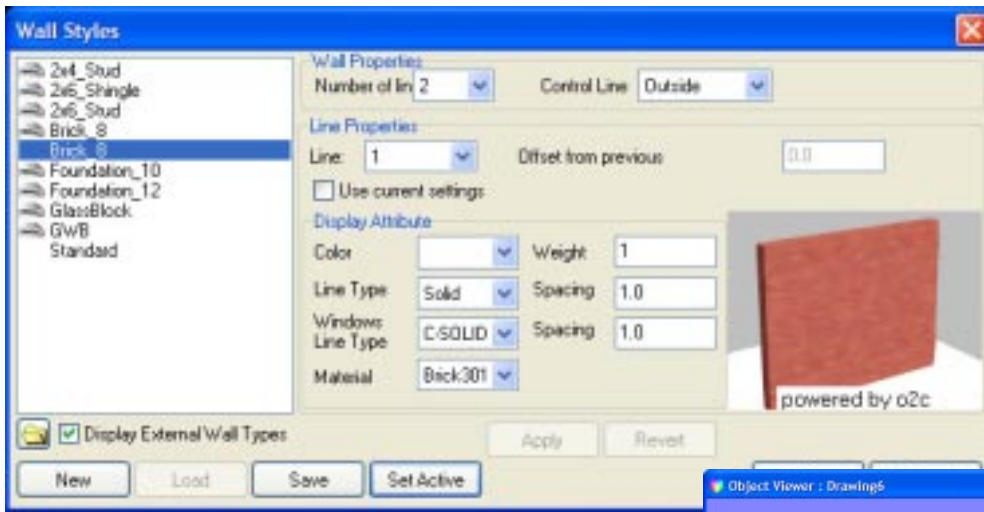
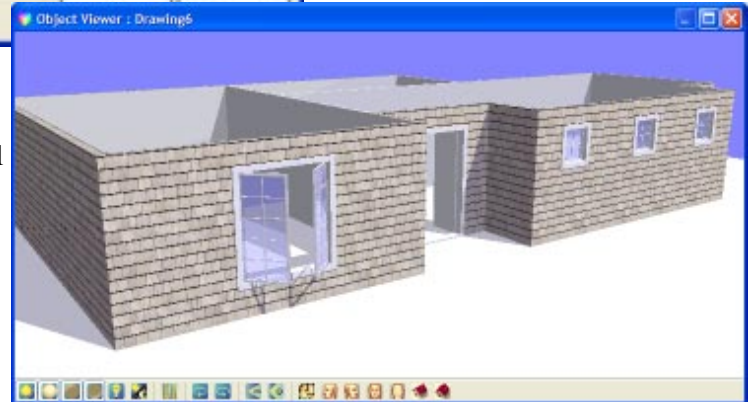


Figure: DataCAD 12's ability to assign unique wall materials iva the new smart walls dialog (left) to each side of the wall and get instant visualization via the Object Viewer (below).



Multi-scale Plotting Enhancements

Highlights and attributes will be available to manipulate as well as picking different pen tables for each individual detail if you are of the mind to do so. You could potentially have multiple details on a sheet and one would plot in color the other black and white and, perhaps, the third could use a scale-specific pen table. The multi-scale plotting sheets can also have individual pen tables assigned to them.

XREF Enhancements

Clip cubes will now have new toggle feature called *Obey Clip Cube*. If Obey Clip Cube is on, then anything outside clip cube will be cut. If Obey Clip Cube is off, then after you define your clip cube you can place text outside the clip cube to annotate the element you are clipping.

XREF will soon be able to be clipped by a fence. This makes very good sense for irregular shape tenant spaces as well as many other uses.

Multi-Text Editor

Rich Paragraph text – You can have all your True Type fonts (TTF) available and be able to manipulate the boundary (i.e. margins and text wrapping on the fly!) This particular dialog box did not have a plotscale variable but probably will in the final release. *Plain Text* – This dialog box allows you to do the same multi-text editing as with the Rich paragraph text editor but with using vector-based DataCAD and or AutoCAD font types (CHR,SHX). This particular dialog box did have a plotscale variable.

Boolean Features

DataCAD has incorporated some nice Boolean geometry features that allow you to add and subtract complex geometry and either add or subtract forms from each other. If you don't have a project that needs this feature, you should just explore the process and you will find it quite interesting. Perhaps it will inspire your next design.

Mark stated that he hoped that the first beta release would be issued in the coming month. The price for upgrading from DataCAD 11 to 12 would probably be in the \$395 range with some incentive discounts for early orders. DATACAD will do a formal presentation of DataCAD 12 at Build Boston on November 16th. The meeting lasted to 9:30 pm.

— Meeting Notes by Eric Gjerde AIA & Evan H. Shu FAIA

Listing of available video previews of DataCAD 12 at:

<http://forum.datacad.com/viewtopic.php?t=3692>

Wall Type Dialog (47.8MB)

ftp://ftp.datacad.com/DBUG_092706/WallTypeDialog-01.wmv

Clean, Cap, and Edit (24.9MB)

ftp://ftp.datacad.com/DBUG_092706/CleanCapEdit.wmv

Wall Types (21.1MB)

ftp://ftp.datacad.com/DBUG_092706/WallTypes-02.wmv

Doors and Windows (63.7MB)

ftp://ftp.datacad.com/DBUG_092706/DoorsWindows-01.wmv

Adding A Story (33.6MB)

ftp://ftp.datacad.com/DBUG_092706/AddingAStory.wmv

Ignor Clip Cube (20.3MB)

ftp://ftp.datacad.com/DBUG_092706/IgnoreClip.wmv

3D Booleans (37.9MB)

ftp://ftp.datacad.com/DBUG_092706/3D_Booleans.wmv

Multi-line Walls (20.7MB)

ftp://ftp.datacad.com/DBUG_092706/Multi-lineWalls.wmv