



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

January 24, 2007

Host: *Mike Smith, Signature Architects*
Berlin, Massachusetts

About 15 DBUGers attended our 2007 kickoff meeting at Signature Architects in Berlin, MA. Host Mike Smith welcomed everyone, while showing a loop of video he took while flying up the Hudson River for a close-up view of Manhattan (amazingly no F-16s swooping down to escort him out!)

Announcements. In terms of announcements, job openings were announced for Charles Battle Associates (Boston) and for Steven Hayes on the Cape (Brewster). Geoff Langdon will be hosting the February meeting, date to be determined.

Mike invited people to come check out his detail exchange site: <www.aeccadexchange.net/> which has 45 details now posted. Mike also revealed that their development team's proposal for the Revere/Wonderland Transit Oriented Development (previewed at previous DBUG meetings, see below) had been selected as the winning entry by the City of Revere! Signature Architects will act as the Owner's representative on the team, and Arrowstreet Architects have been retained as the lead architects for the project.



Text Styles in DataCAD. Mike showed how to save and reload any configuration of "text style," which includes things like font name, size, aspect, etc. for use in standardizing text in notes, title blocks, and details. (Note his full handouts are posted online at

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

Edit > Text > Text Style > Load or Save Current or Delete or Show Values

Notes on use:

- * Color and layer are not saved; just basic settings like font name, size, aspect, etc.;
- * Limited to 8 characters;
- * Information is saved in the TEXT.STL file in the \Support Files directory. There is no option to save as a different name.

Edit Styles in DataCAD. He also covered how to change your standard distance options that are presented on the menu (1/2", 1", 4" etc.) so that you can add a typical architectural distance such as 3 5/8" or when you work in both English and metric units or wood vs. metal stud projects, as well as just to have your favorite values available and loadable in other setups.

MENU: *Utility > Settings > Edit Defs. > Distances > List or Add or Change or Delete*

Notes on use:

- * Enter distances as you would normally in DataCAD;
- * Limited to 18 total definitions;
- * You can then **Save File** and **Load File** to save and reuse settings;
- * Information is saved in a .DIS file in the \Support Files directory;
- * So you can save with a name like MTLSTUD.DIS or WoodSTUD.DIS, etc.;
- * once you use a new Distance definition in a drawing file, it sticks with that drawing file;
- * Using **Save File** and **Load File** anyone working on a drawing can quickly change to their own favorite settings.

Figure 1: Early SketchUp Rendering of winning entry of Revere/Wonderland Development by Signature Architects <www.signaturearchitects.com>



Working With Forms and Documents

A big theme of the night was how to work with various document formats for use in and out of DataCAD. Mike covered a number of different scenarios.

Getting Documents Into DataCAD

To get documents into DataCAD you want to get them into a bitmap format, like JPG, TIF, etc. for items such as UL Assemblies, Code Reviews, Product details, Spec pages, Handicap Codes.

Method in DataCAD:

* *Insert > Bitmap;*

* Pick **outline** or **No outline**;

* Usually want to turn on **Fixed Ratio**;

* Click and drag.

PDF files cannot be directly inserted into DataCAD, but you can make them into bitmaps with either the free Acrobat Reader or the full version of Acrobat.

* Free Version: pick the **Snapshot** tool (looks like a camera) and drag a box around the area to be copied. The area is copied to the Windows clipboard. open any graphics program and Past the image into a new document.

* Full Version: use either the **Graphics Select** tool, or the **Crop** tool. Use the **Graphics Select** tool just like the Snapshot option. If using Crop, once cropped, use *File > Save As > TIFF*. If you have more than one page in the PDF document, should first use *Document > Extract Pages* to isolate the one page you want. *User tip:* The full version of Acrobat lets you actually EDIT the text in a PDF document (one line at a time) using the *Touchup Text Tool* (“outline” letter).

* Note that many forms (like tax forms) now come in PDF file format and *can be filled out* using Adobe Reader or Acrobat then printed as normal.

Scans. You can get hard copy into DataCAD by either scanning and saving directly as a bitmap file, or scan and save as a PDF, then follow the steps above to create a bitmap.

Word Processing and Spreadsheet Documents. Some programs let you save a document as a PDF. Once a PDF, you can use the above methods to convert to bitmaps. Also, if you have the full version of Acrobat (highly recommended), when you install it, you can install a PDF printer driver. It looks and acts like any other printer driver, but lets you “print” documents directly to PDF format. You just select that “printer” in your normal printing process.

Filling in Paper Forms With MS Word. Another common office task, now that we have gotten rid of most of the typewriters, is how do you fill out forms. Here is one method that Mike demonstrated:

1. Scan the document into a bitmap format (JPG, BMP, TIF, etc.);
2. Be careful about how big you make the bitmap (size in MB) if you are going to need to e-mail the document, or to make PDFs that will be e-mailed;
3. Insert the bitmap into Word:
 - a. *Insert > Picture > From File;*
 - b. Drag the image to fill the page;
 - c. Right-click on the picture and pick **Format Picture**;
 - d. Select *Layout > Behind Text;*
 - e. Go to *Insert > Text Box*. Drag a text box where you want it on the page;
 - f. Right-click on the border of the text box and pick the menu option that says **Format Text Box**.
 - g. Pick *Fill > Color > No Fill;*
 - h. Suggest you leave **Line > Color** as Black so it a) remains visible, and b) when required, it shows where changes were made or data added (we like this for AIA contracts). If you want, after all data is input you can go back and change the box line color to **None**;
 - i. Rather than do this all over again for each new box, just Copy the first box, and paste it everywhere you need it. Then just modify the size of each box as required;
4. Place the cursor in the text box. You can now use all the usual font options (font, color, bold, size, etc.) for your text;
5. If your text goes beyond the end of the box, it wraps to the next line. If your box is too narrow vertically, you won't see the text unless you drag the box to make it larger.

Legalities

* Documents like AIA documents are copyrighted. It is illegal to scan or copy the files and use them more than once.

* our take is that as long as we buy one original for each document we fill in, and maintain the original with the filled-in copy, if the copyright police come to our door they will be satisfied.

* The legality of copying model Building Codes has been recently litigated with differing results. Some argue that if a Code is a requirement, and is publicly available, then it cannot be copyrighted. The sellers of the Codes disagree. Codes like Massachusetts', which are put together by the State and are not for profit, generally are not a problem. Same with ADA.



DataCAD 12 Productivity Enhancements. Mike then reviewed some of the enhancements coming in DataCAD 12 that may not get the big hype but still will mean great productivity boosts to your practice.

Multi-Scale Plotting (MSP)

* Each detail highlights its boundary when the cursor is over the detail:

- With a flyout tag give the detail name and scale;
- once highlighted, clicking on the detail “picks” it (attaches it to your cursor), just as it would if you had picked the detail from the menu;

- **[Ctrl]+Right Click** to select options for that detail, like Rename, Update, etc.;

* A **Rotate** button has been added to MSP Layout menu when you are placing/moving a detail.

* .PEN table assigned to *each* MSP detail **[Ctrl]+Right Click** on a detail in MSP, then pick **Pen Table**.

* **Bind** option added to create a DWG exportable version of your MSP sheet (does it by making each detail a symbol):

- Saves it as a new layer with the same name as the MSP sheet (name on the menu button);
- Turn on ONLY that new layer, then export to DWG;

* MSP Detail **Make Current** now sets the current **Plot Scale** to what the detail was saved at.

* MSP Detail names may now contain up to 80 characters.

Reference File Manager

* An option added to **Program Preferences > Misc** tab so that double clicking an XREF opens the Reference File Manager **[Ctrl]+Right-Click** also works to invoke it.

* XREF Highlight settings can now be assigned on a per-XREF and/or XREF Layer basis.

* The Reference File Manager dialog has been updated to allow drag-n-drop between the Loaded, Refresh, Reload, Bind, and Delete lists.

* You can also assign custom names to XREFs.

* The Inherit Current Highlight Setting option for Nested XREFs is now remembered on a per drawing versus global basis.

Symbols

* An option added to *Program Preferences > Misc* tab so that double clicking a symbol opens the symbol for editing **[Ctrl]+Right-Click** also works to invoke it.

Miscellaneous

* Enabled 3D Stretch for Cylinders !!

* GoTo View detail names may now contain up to 80 characters.

* **[Ctrl]+Right-Click** opens new **Properties** dialog box.

* An option added to **Program Preferences > Misc** tab so that double clicking any entity opens the new **Properties** dialog box, as well. **[Ctrl]+Right-Click** also works to invoke it.

* Reference markers and flyout tags for snapping;

* An option has been added in the .INI file to allow selection by *Area > Crossing* as in AutoCAD:

- Picking area box from upper left corner = no crossing
- Picking area box from lower right corner = crossing ON

* An option has been added to the .INI file to allow for Double Precision accuracy in the display list (in v11 only the database was DP; the display list was not). If set to TRUE then display accuracy will increase, but file size doubles.

* Clip Fence (“Power Clip”) around XREFs

Plotting and Quick Layout

* Your current plotter and Quick Layout settings can now be saved to a file and loaded into other drawings

- Useful to coordinate sheet layouts in the office (rotate to save paper, oversize paper selection, etc.) – might be especially nice for new employees who would not have to learn much about plotting at first.

- And to have a setting for full size sheets, and 50% Check Plots, etc.

- *Utility > Print/Plot > Save Settings and Load Settings*

* You can also assign unique pen tables to specific **Scales**. So large-scale drawings and details can have thicker pens and small-scale drawings can have thinner pens.

- *Utility > Print/Plot > Scale To Pen*

As usual, a lot of good information was presented on this evening overflowing our time constraints. The meeting lasted until 9:30 pm. -- *Meeting Notes by Evan H. Shu, FAIA*



*Figure 2: Current Rendering of “Waterfront Square”
by Arrowstreet Architects, courtesy of Signature Architects*