

DataCAD Boston Users Group

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A Committee of the Boston Society of Architects

GSD Associates welcomed 15 DBUGers to their annual excellent barbecue/meeting at their scenic location by the waterfall in North Andover. After everyone had their fill at the excellent buffet, the program started with introductions and announcements. Evan Shu said that the June meeting would be down in Norwell and hosted by Lesko-Kelly Associates [date revised to Tuesday, June 21]. Neil Blanchard announced he would host the July meeting [July 27th] at the BSA Building with "Hardware" as the likely theme. As usual, there is no meeting in August. Mike Smith of Signature Architects announced that he has a contractor/developer client who is looking for an architect to work on single family homes. Geoff Langdon said to keep a lookout for his new business, CADD Tutorials Online, which he is beginning as result of winning a special new business fellowship grant.

Groove Networks

Brian Bell of Living Water Imaging started off with a PowerPoint presentation about the major benefits and clientele (major governmental agencies, such as FEMA and Homeland Security) for *Grove*



Networks <www.groove.net>, which is project collaboration software to create virtual meetings and virtual office workspaces to share and work on documents together. You know that Groove must be taking in a big market share, because they have just been bought out by Microsoft.

Things really got interesting when Brian got Groove staffers Peter Duffey and Heidi Carlson on the speaker phone and logged into a special DBUG project group. We were able to see how, in real time, one user could drop a document in the joint workspace for viewing, markup, editing, or discussion. Any change to a document results in a sync command being sent to all workspaces. This system is more of a "peer-to-peer" setup but coordinated by a "sharepoint server" that mirrors the up-to-date desktop for the project group. All the files you see are actually on your hard drive, so you are not working out in cyberspace.

The one exception to the rule of "all real files on your hard drive" is with really big files, such as CAD documents encompassing multiple megabytes. There, you have the option to put up links to the files rather than the real file, so that a CAD file, for example, might only be downloaded when really necessary or when important revisions take place.

May DBUG Meeting

May 12, 2005

Host: Greg Smith, GSD Associates
North Andover, Massachusetts

The Groove Network comes with various standard and add-on "tools" that can increase functionality of the project group. A timeline scheduler is one such tool, where all team members can update their current status as far as progress toward specific goals or project target dates. You can also send voice messages across the network in a kind of "walkie-talkie" fashion to communicate with other project teammates (without a phone line).

Groove looks to be a high-end project collaboration system that is aimed primarily at large, sophisticated "mobile and virtual" teams. Individual licenses (one time cost, no subscription fee, although there are naturally various technical support and upgrade plans) can be purchased for from \$179 to \$229 per user, or businesses can buy 10 license packs for \$2295 to \$2695 (with tools). There is a 60 day free trial period and daily training sessions take place at 1 p.m.

ZiPCAD Pro

Two years ago, at this same meeting site, Richard Coutts presented his first ZiPCAD program aimed at those of you who find doing field surveying work onerous or overly time-consuming and who wanted to draw directly in CAD on a Palm PDA. On this night, he presented his latest upgrade ZiPCAD Pro, which provides a wireless connection (via Bluetooth) to a *Disto Plus* Laser measuring device.

Richard gave us a firsthand demonstration of how both products work together. Key to the whole operation is his excellent ZiPCAD command called "Walls and Gaps." The insight here is that when you are measuring/drawing consecutive measurements in the same direction, it is likely that you are intending to

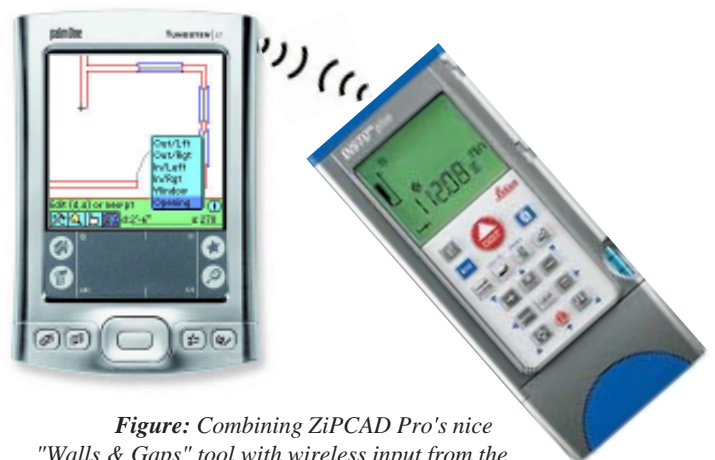
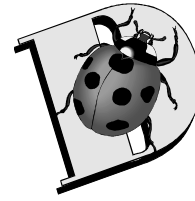


Figure: Combining ZiPCAD Pro's nice "Walls & Gaps" tool with wireless input from the Disto Plus makes for a beautiful partnership.



alternate solid wall with either window, door, or gap opening. In most mainline CAD programs, there is no equivalent command. You must draw a wall, then insert the window/door/gap, or else, you must draw a wall segment, then switch to a window/door command, then switch back to the wall command.

While a “Wall and Gap” command does not seem such an obvious omission when you are doing normal CAD drafting, it definitely is when you are doing field surveying — since the typical procedure is to start at one corner and work your way around the room.

When the Wall and Gap command is combined with automatic Bluetooth input from the Disto Plus, this procedure works like a dream. Use the Disto to grab a measurement, send it, and ZiPCAD draws the wall segment. Disto the window jamb, send it, ZiPCAD draws the window. Disto the next jamb, send it, and ZiPCAD draws the next wall segment, etc. ZiPCAD also allows you to toggle between window, door, and opening for each gap segment, so it is very easy to go around the perimeter of the room while hardly a missing a beat.

One important note about the standard measuring procedure using these tools is that by default ZiPCAD assumes that you will be measuring each linear wall and gap back to the originating surface. So, instead of scratching your head to figure out how to use the Listo to measure from the jamb of one slider to the opposite jamb, you are simply measuring each jamb all the way back to the starting wall. This procedure, in addition to being a very logical use of the Disto Plus, helps greatly in the elimination of cumulative errors. Rather than being 6" off in total wall length, because you made little errors in each sub-measurement, you will have the correct wall length in ZiPCAD because you are asking the Listo to provide the total wall length with its last measurement, not just the last segment.

ZiPCAD Pro incorporates nice little options you to change your measuring datum, such as when you need to reverse a measurement path due to an obstructing object (e.g. a furnace that won't allow you to reach the corner), or when you need to make the transition to an adjoining room. A recent update now allows you to change your gap type directly from the buttons on the Disto Plus. If you would like to see for yourself, how this operation works, there are some nice demo videos posted on the ZiPCAD website at <www.zipcad.com/Videos.html>.

One thing you won't see in the video is the custom “Predator-like” armband that Richard custom-made for himself to do field surveying. It holds his Palm PDA securely velcroed to his arm, so that while he is shooting his Disto measurement, he can simply twist his arm to check on the transfer of the data to ZiPCAD or else click in an option change. He is considering packaging such custom add-ons like this armband as well as a custom briefcase and stylus into his offerings — so, hopefully, we may able to play Predator at work yet.

The good news and bad news here is that these new tools are not cheap. A *Disto Plus* will run you \$700 retail and maybe a couple hundred less if you are a savvy bidder on eBay. ZiPCAD Pro now lists at \$500, although if you were smart enough to get an earlier version after that first DBUG presentation two years ago, then an upgrade can be as low as \$49. (Note: ZiPCAD is not compatible with Pocket PC or other PDA operating systems). Still, these costs can be considered very justifiable when compared to the number of manhours that can be saved to complete just one such field surveying job, e.g. one person instead of two, half the time saved, complete CAD drawings when done, plus much less chance of needing to go back to the site for that missing measurement. Could be a good deal!

Using ArchiCAD

Due to the advancing hour, Greg Smith and Manny Jasad agreed to move their o2c and Bitmap presentation to the June DBUG agenda, although they gave us a taste by showing us a DataCAD drawing file with an imported GSA topo map under DataCAD fill entities resulting in a very impressive presentation drawing combining graphically-filled elements (pond, roads, etc.) with real topo and contour information.

Anthony Nganga, new to the GSD staff and formerly from Kenya, next demonstrated to us his familiarity and use of the ArchiCAD software, which is a high end, parametric CAD program in the \$5,000 price range. He showed us plan drawings with section/elevation/3D views linked, so that a change in view affects the other views. They can be “unlinked” for some uses, then “re-built” to re-establish the 3D modeling capability. One nice complement to the “eye-dropper” tool that we see in many paint programs is ArchiCAD’s “hypodermic needle” icon for the tool that does the opposite, namely “inject” an existing entity with the new hatch or material attributes.

He demonstrated how ArchiCAD does operations such as auto-dimensioning, trimming and creating voids in 3D, using the “magic wand” (like Contour Search), creating profiles, doing area calculations, tabulating material lists for estimating, and making roofs.

Finally, he showed us some real-life architectural projects from Kenya demonstrating an avant-garde exuberant architectural style that made everyone want to take, at the very least, a virtual journey to Kenya to see if the that style is typical of modern Kenyan architecture.

As usual, the DBUG meeting went long, but few seemed to care as the program, as usual, packed in a lot of great stuff.