

MicroStation two letter Key-Ins

While you can use a dialog box or a pull down menu for most things in MicroStation, it can be quicker and easier in most cases to use the old fashion key-in method. In the key-in window simple key-in the correct 2 letter command and hit the enter key. For example to create a cell key in *cc=cellname, description* and hit Enter. See which of the following key-ins you can take advantage of.

Set the active angle
AA=<angle>

Activate and place a cell absolute
AC=<cell name>

Attach a menu
AM=<menu name, type>

Set active pattern cell
AP=<pattern cell>

Activate and place a cell relative
AR=<cell name>

Set Active scale
AS=<scale>

Set active depth relative to the view
AZ=<depth>

Create cell in current Lib.
CC=<cell name, desc.>

Delete cell from current Lib.
CD=<cell name>

Setup cell matrix for placement



this issue

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Great Expectations

On the first day of school, a teacher was glancing over the roll when she noticed a number after each students name, such as 154, 136 or 142.

“Wow! Look at these IQs,” she said to herself. “What a terrific class.” The teacher promptly determined to work harder with this class than with any other she ever had.

Throughout the year, she came up with innovative lessons that she thought would challenge the students, because she didn't want them to get bored with work that was too easy.

Her plan worked! The class outperformed all the other classes that she taught in the usual way.

Then, during the last quarter of the year, she discovered what those numbers after the stu-

dents' name really were: their Locker numbers.

MicroStation and GEOPAK are powerful tools and the sad fact is most users probably use less than ten percent of their capabilities. Why not challenge yourself like the teacher did with her students to explore and learn more about MicroStation and GEOPAK over the rest of this year.

Learn a new command or a new way to use an old command. Look at your workflow and daily activities and see where MicroStation and GEOPAK might help you do a better or quicker job.

It is only by exploring and getting out of your comfort zone that you will realize the true power of a CADD Program like MicroStation.

CM=<rows,columns,row space, column space>

Set active color
CO=<color number>

Rename cell in Lib.
CR=<old name, new name>

Attach a color table
CT=<color table name>

Display depth / relative to clipping plane
DD=<front,back>

Precision input /distance and direction
Di=<distance, direction>

Precision input/ delta distance & direction
DL=<Dx,Dy,Dz>

Display depth relative to Z axis
DP=<front,back>

Display text file
Dr=<filename>

Delete a saved View
DV=<view name>

Precision Input / delta on view axis
DX=<Dx,Dy,Dz>

Set Active depth /relative to Z axis
DZ=<distance>

Save Fence contents to a file
FF=<file name>

Set Active font
FT=

Set Global origin/ 0,0 set it to lower-left
Go=<x,y,z>

Set active Grid Reference
GR=<distance>

Trouble remembering where the upf is located?

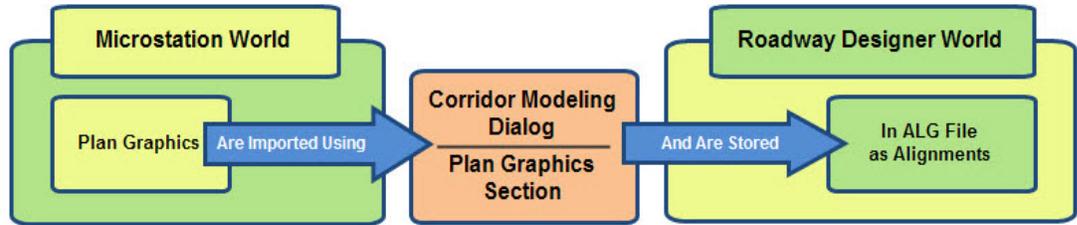
You can open the MicroStation menu item Workspace -> About Workspace. In the middle of the dialog it will show the path to the file (hover over it to see the full path).



Targeting Plan graphics

Corridor Modeling Dialog - Plan Graphics

At the moment Roadway Designer does not read plan graphics. Because of this, the Plan Graphics Section (under Corridor Modeling) will be used to import "Plan View Graphical Elements" into Roadway Designer. Templates used in Roadway Designer have been designed to "Target" these plan graphics. Simply put, if a Roadway Designer Template seeks and finds a Plan Graphic it will adjust according (if not it will be drawn at a default setting).



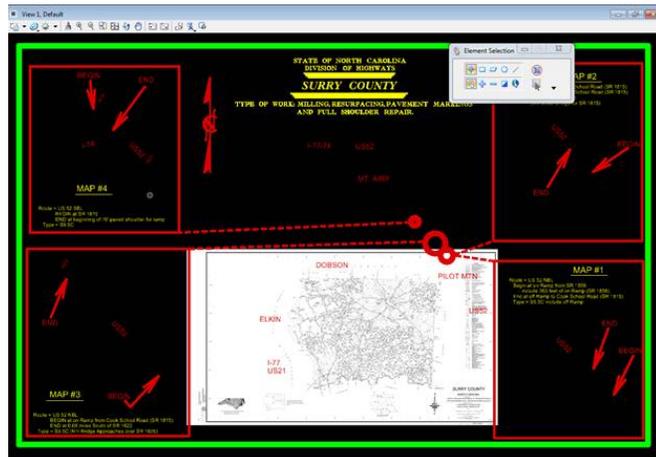
Which Plan Graphics Are Templates Designed To Target ?

Target Type	Microstation Level Name	Roadway Designer "Target" Alignments
Bridge	Prop Roadway Bridge	T_DSN Bridge
Driveway	Prop Conc Driveway	T_DSN DRWY
Driveway Sawcut	User Defined	T_DSN DRWY Sawcut
Edge of Travel	Prop EOT	T_DSN EOT
Guardrail	Prop Guardrail	T_DSN Guardrail
Paved Shoulder	Prop Paved Shoulder	T_DSN Paved Shld
Right of Way	Prop ROW RW Lines	T_DSN ROW
Shoulder Berm Gutter	Prop SBG	T_DSN SBG
Shoulder Point	User Defined (Scratch Level)	T_DSN Shld Pnt
Sidewalk	Prop Conc 4in Sidewalk	T_DSN Sidewalk
Wall	Prop Noise Wall	T_DSN Wall
Exist (Inside) Edge of Pavement	Exist Roads EOP	T_PLN IEEOP
Exist (Outside) Edge of Pavement	Exist Roads EOP	T_PLN OEEOP

Attaching PDFs in MicroStation

When attaching PDFs to a MicroStation file one should use the Raster Manager tool. Bentley says allowing the use of the Reference tool (in SS1/2) to attach raster files was a mistake and it is no longer allowed in SS3.

There have been display problems when PDF files are attached though the reference tool. If you have previously attached PDFs to your MicroStation files as reference files, it is recommended that you detach them and reattach them via Raster Manager.





How to get CADD Training



With each new version of software comes the never ending activity of learning how the program's great new features work and which old ones don't .

If you need training for a new employee or feel you need a refresher course in any of our CADD products, all you need to do is go to the CADD Support section of the NCDOT Intra-net Portal at:

<https://inside.ncdot.gov/Business/technology/Pages/Tech-CADDServices.aspx>

Then select Training from the Document Library CADD Menu. From the Training page download and fill out the CADD request Training form and mail the form to:

Steve Brown
Engineering Application Services



1597 Mail Service Center
Raleigh, NC 27699-1597

CADD Services will get you into the next available class provided there is no waiting list.

Remember that it is not necessary to continue to fill out requests if a request is on record. If in doubt email Steve at sbrown@ncdot.gov

Also, when making a request, **check off all the classes that you wish to take.** (i.e. It's not necessary to complete MicroStation before you can request GEOPAK). Once we receive and enter a request our database keeps up with them.

CADD Images and Supported Computers

Client Build released the 13Q2 images on May 22, 2013. Images are available for the following CADD machines.

Desktops

Lenovo b97
HP 6005 Pro MT
HP 6305 Pro MT

Laptops

HP 6440b
Lenovo r400 b41
Lenovo r400 WZL
Lenovo L412
HP 6460b
HP 6560b
HP 6470b

As with the previous two rounds of CADD images, these new images are 64 bit with the Windows 7 operating system and MicroStationV8i-SS2. Trimble Business Center has been upgraded to v2.81.

The above machines are the only CADD machines currently supported by CADD Services. (Note the absence of the op755, xw4600, and e5400. All of these unsupported machines should have been replaced with newer models. If you are still using an unsupported machine, ask your support person where your replacement is.)

The next future round of images is tentatively scheduled to be released near year's end. With that release, it is anticipated that images will not be made for the Lenovo r400 laptops, and possibly the Lenovo L412 laptops. CADD Services will cease support for any model not in the year end image release. Start considering your replacement plans now if you have one of these laptops.

Technical Services is supposed to be upgrading all DOT machines to Windows 7. If you are still running XP, ask your support person to upgrade your machine ASAP with the new 13Q2 CADD image. At some as yet undetermined time, CADD Services will cease support for XP machines.

Key-ins con't

Set grid point distance horizontal
GU=<distance>

Set Keypoint divisor
KY=<number>

Set active linestyle
LC=<level number>

Set active dimension level
LD=<level number>

Maximum text line length
LL=<number of char.>

Text Line Spacing
LS=<distance>

Set active line terminator
LT=<cell name>

Set Active level
LV=<level>

Turn off level(s)
OF=<level(s)>,data pt. view

Turn on level(s)
ON=<level(s)>,data pt. view

Set point cell element
PT=<cell name>

Attach a cell library
RC=<library name>

Open another design file
RD=<file name>

Attach reference file
RF=<design file,model name,logical name,desc.,view name,scale,nesting, on|off>

Rotate view by angle
RV=<angle>data pt. view

Separate fence constants to new file
SF=<design file>

Set spaces in tab
TB=<number of spaces>

Set Text Height
TH=<text height distance>

Set text height and width
TX=<text size>

User commands
UC=<uc name>

MicroStation Tips—ALT+Data to match Attributes

To match the symbology from an element as you work, use the **ALT-DATA Button** key combination. Be aware that it doesn't match other properties (only color, level and line style). It won't set Text Style from an element or other attributes.

What good is that Windows key

Ever wonder about the windows key that you find on most keyboards between the Ctrl and Alts Keys? It was added to make window a bit more keyboard friendly. Try the following combos to see what it does.



Windows Key + D

This combination minimizes your screen and takes you to your desktop. Repeating the sequence gets you back to where you were. If you're like me and have tons of stuff on your desktop, this key saves on clicks.

Windows Key + E

Opens up "My Computer" with the folder view on the side. This is awesome when surfing for your files.

Windows Key + F

Similar to Control + F, which brings up the Find and Replace tool, this is your Windows search tool.

Windows Key + L

Handy when walking away from your computer—this shortcut locks your PC.

Windows Key + R

If you are a techie and love command line syntax, then getting to the Run command

What are Windows & Libraries (from Microsoft website)

Libraries—new in Windows 7—make it easier to find, work with, and organize files scattered across your PC or network. A library brings your stuff together in one place—no matter where it's actually stored. The result? You get more done.

Say you're assembling a family album from snapshots stashed on an external hard drive, your spouse's PC, and your work laptop. In the past, hunting down specific shots would've been a chore. In Windows 7, you simply create a library, name it something (perhaps, "Family Photos"), and then tell Windows which far-flung folders your new library should include. Your photos are still physically located in three different spots—but now they show up in a single window.

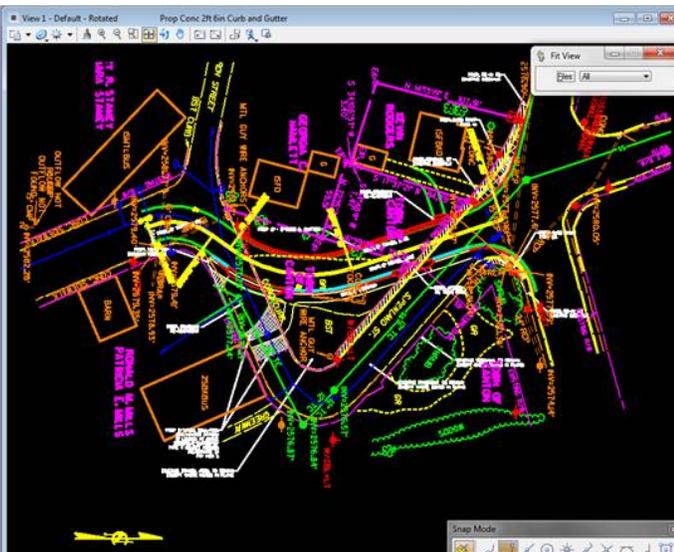
Windows 7 comes with libraries for documents, music, pictures, and videos. But you can personalize these, or create your own, with just a few clicks. There's more. You can also quickly sort and shuffle your libraries—for example, documents by type, pictures by date taken, or music by genre. And easily share libraries with people on a network. For more information and example of how to use them check the Microsoft website at

<http://windows.microsoft.com/en-us/windows7/products/features/libraries>

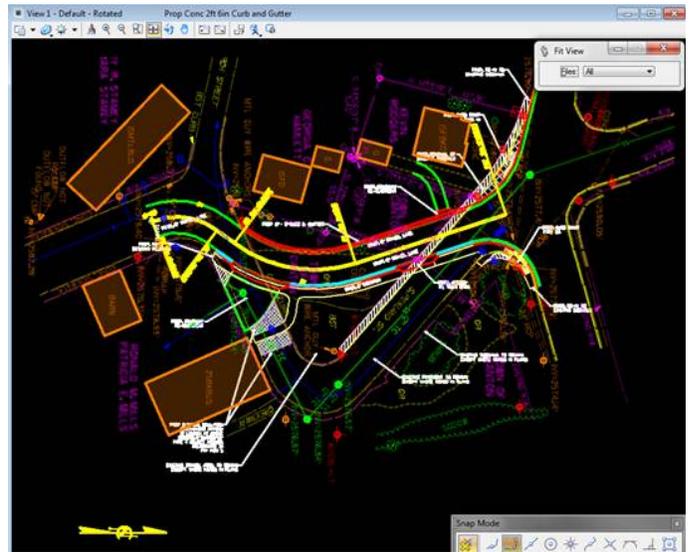


From the Field—Greying out Reference files

Want to “grey out “ your reference files so that you can more easily see you final design. Jeffery Alspaugh of Division 14 sent in the following tip.



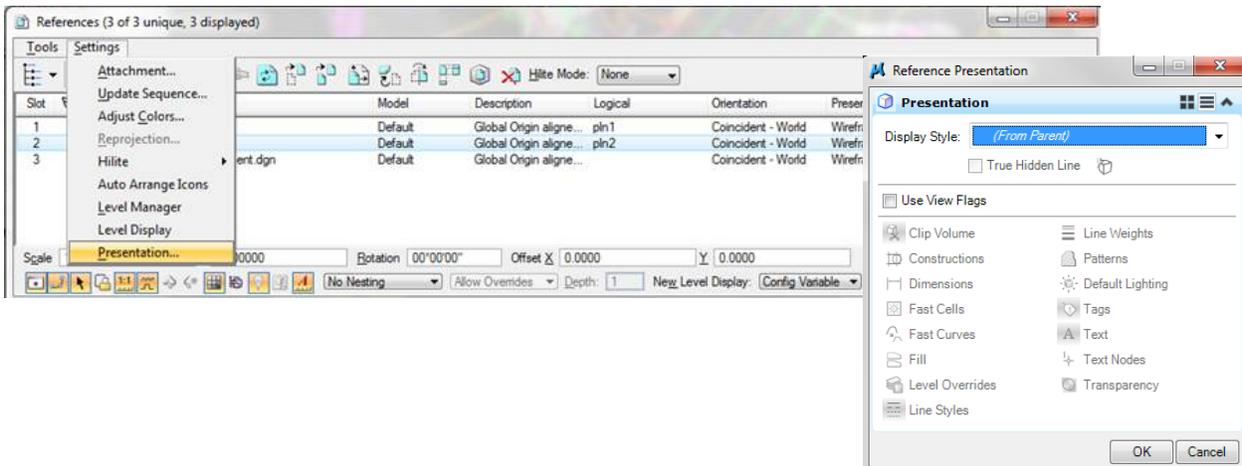
BEFORE



AFTER

Step 1. - Open the reference file dialog, select the file you wish to “grey out” . Then select the **Settings > Presentation** pull down.

Which should bring up the **Reference Presentation dialog box** shown below over top of the Reference file display dialog. (continued on page 7)

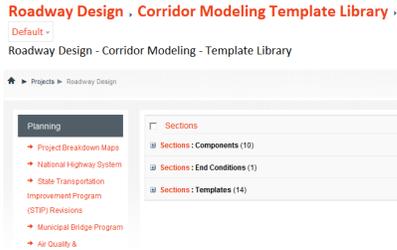


Need Template Information

Ever wondered

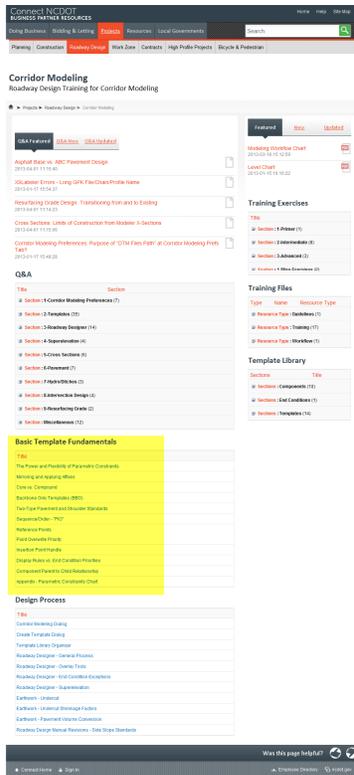
“Is there a good place to go to find out more information about the templates?”

Here are a few you can check out.



1. The Roadway Design, Corridor Modeling Template Library page on the Connect NCDOT website (<https://connect.ncdot.gov/projects/Roadway/Lists/Template%20Library/Default.aspx>).

2. There is a Template Documentation Link that is active when you right click on a template. However, it may only take you to the roadway website where you will still have to look around for any documentation.



3. There are specific template documentation links that you can browse to by going to the Roadway Corridor Modeling site (<https://connect.ncdot.gov/projects/Roadway/Pages/Corridor-Modeling.aspx>) and looking near the lower right portion of the screen under Templates.

Key-ins con't

Unit lock distance
UR=<distance>

Attach a saved view or standard view
VI=<name> or <top, back, iso, etc.>

Set window origin
Wo=<x,y,z><id the window>

Set active line weight-level
WT=<weight number>

Precision Input / absolute point
XY=<x,y,z>

Keyboard “Shell” Characters

MicroStation allows a user to “shell” out to the windows operating system via Key-ins. There are 4 basics commands to do this.

! - exclamation point better known as the “BANG” key. Is used to open a command prompt and optionally execute a system command or batch file.

% - Percent is used to enter a key-in in which usn configuration variable is embedded as a parameter. Used to temporarily run another window app after you enter the key-in

%% - allow you to return to the usn application window only by exiting the other application.

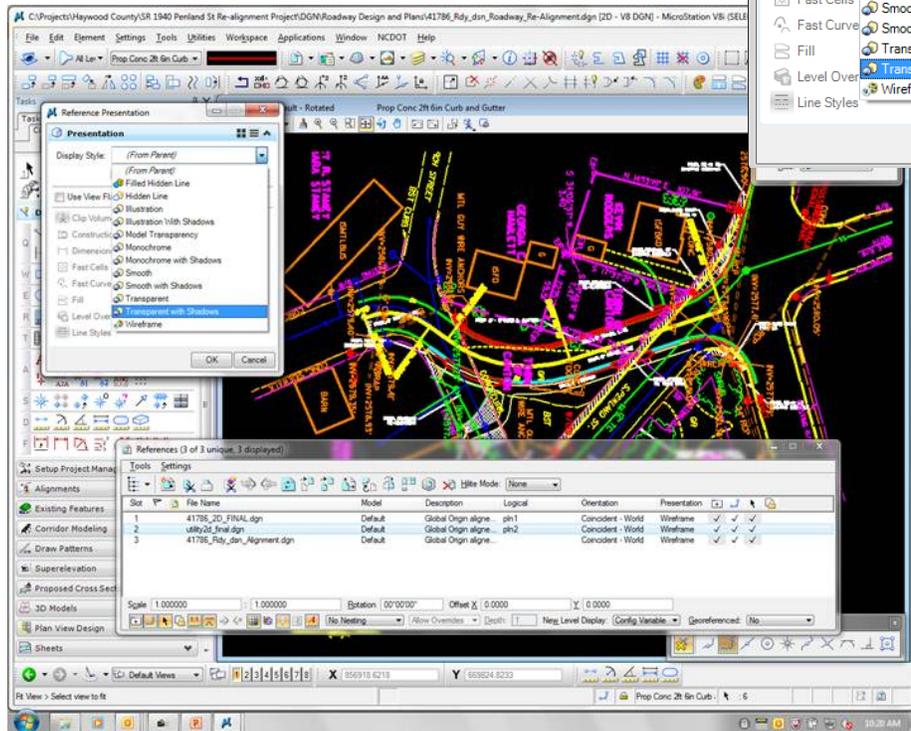
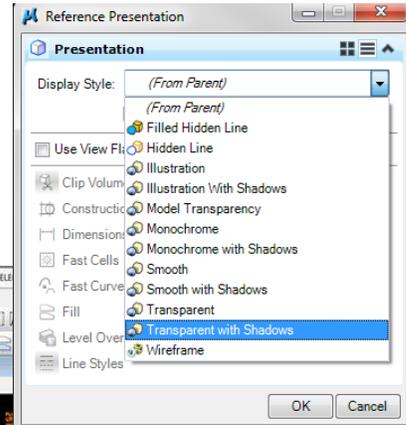
S—Used to enter a key-in which a configuration variable is embedded as a parameter



(continued from Page 5)

Step 2. Click on drop-down arrow next to “Display Style”, select the style of your preference such as “Transparent with Shadows”

Step 3. Repeat for each reference file that you want subdued.



One final note you can achieve the same results when you print the file via Iplot by making sure that the reference files that you want grey out have been assigned a logical name (the name must either be “PLN*” or “PS* “). Then select the **Gray Reference V8_ncdot_e.pen** design script and submit to the Iplot queue of your choice.



Amazing Construction Projects



The Longest Time Spent in Building a Project

The Great Wall of China—Time spent in construction—2000 years, 31,070 miles of wall and is considered the longest man-made structure in the world.



Most Expensive Projects

- In the US the Interstate System cost \$424 billion for 47,182 miles of Highway.
- In the World the South Valley Development in Egypt cost \$90 billion.



Longest Standing Construction Project

The Great Pyramid of Giza, it has lasted for 4,570 years and labor cost for the estimated 13,200 labors was approximately 126 million loaves of bread and 111 million jugs of beer.

Most Expensive State Highway Project

Boston's Big Dig at approximately \$22 billion. The project excavated 16 million CYDs of dirt.



Last Word

Truths Children Have Learn

- No matter how hard you try you can't baptize cats.
- When your mom is mad at your dad , don't let her brush your hair.
- You can't trust dogs to watch your food.
- You can't hid a piece of broccoli in a glass of milk.
- Puppies still have bad breath even after eating a Tic-Tac.

Truths Adults Have Learned

- Raising teenagers is like trying to nail Jell-O to a tree.
- Middle age is when you choose cereal for the fiber, not the toy.
- If you remain calm, you don't have all the facts.
- You're getting old when you stoop down to tie your shoes and you wonder what else you can do while you're down there.
- You appreciate the fact that wrinkles don't hurt.