

UpdateWS

The UpdateWS program has now been updated to use “passive FTP” instead of “active FTP”. This should resolve the problems that some of our external clients may have encountered when attempting to use the program. The updated version is available for download at

<http://www.ncdot.gov/doh/CADD/default.html>

Pin & Roll Tabs

Dockable dialogs have been modernized in SS1 with the addition of pins to fix their docked location. When pinned, the dialog displays as a tab which will roll into the screen when the tab is clicked.



Once the cursor is moved away from the dialog, it will automatically roll up to its pinned location. The pin icon will be horizontal when pinned and upright when not pinned. Using pin and roll dialog can save on valuable screen real estate.



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What have you done with CADD Lately?

So what have you done with CADD today? I'll bet no one has asked you that question in a while. Which is a shame because it is a question that we need to ask and answer continually? CADD (and notice I use the double D's) is an acronym for Computer Aided DESIGN & Drafting. Twenty some years ago CADD was a new and exciting field that held (in my opinion) great promise and adventure. Yes I meant adventure because CADD was going to free engineers and designers to explore new and exciting designs and alternatives. It was going to as I once wrote turn us into Leonardo Di Vinci.

Unfortunately (again my opinion) it didn't quite turn out that way. It seems if you look around CADD became just an electronic pencil. Yes it did give us a quick way to produce cross-sections and it made all of our lettering readable but it didn't create more design alternatives or even less paper (my best guess we use at least 3-5 times more sheets of paper than we did before CADD). This might not be so bad if we were creating 3-5 times more designs and design options but alas we aren't (at least from where I view the CADD world, again my opinion).

The paper issue points out one simple thing that everyone could do with CADD but generally don't. That is review, mark up and distribute information electronically rather than always producing a hard copy then distributing it. Unfortunately old habits die hard.

MicroStation has hundreds of commands how many do you use, 10, 20 maybe even 30? That unfortunately just scratches the surface of the product. With the most recent SS1 version Bentley moved around some commands along with adding new menus and palettes. Rather than complain about the changes (which is our first reaction) think of it as a chance to explore the MicroStation interface and learn some new tricks. Try out some new commands, open up the MicroStation Help file and see what's new and how you might use them to do your work in a different way.

The next time someone asks you what you have done with CADD I hope you can tell them about something new you have discovered.

Hopefully this edition of the CADD News will help pick up a trick or two.—Rande Robinson

Western Division Training Facilities Still up in the Air

As reported in the previous edition of the CADD News IT West (aka The Western Divisions CADD and PC Training and Support Center) lost its lease at CVCC on September 30, 2008. When and where IT West will re-locate and re-open is currently being discussed but as of the publication of this newsletter no decisions have been made. Until such time that we acquire a new facility please feel free to contact

Rande Robinson

at 828.466.5526

about CADD is-

sues or David Dietrich at

919.386.9116 for PC training

or PC software support issues.

V8i Update Video

A recording of [the first V8i update webinar](#) is available on the NCDOT Intranet at

<https://intranet.dot.state.nc.us/portal/Home/Teams/IT/CADD/CADDTraining/TrainingVideos/tabid/139/Default.aspx>

Note this video last approximately 4 hours long.

MicroStation You Tube videos

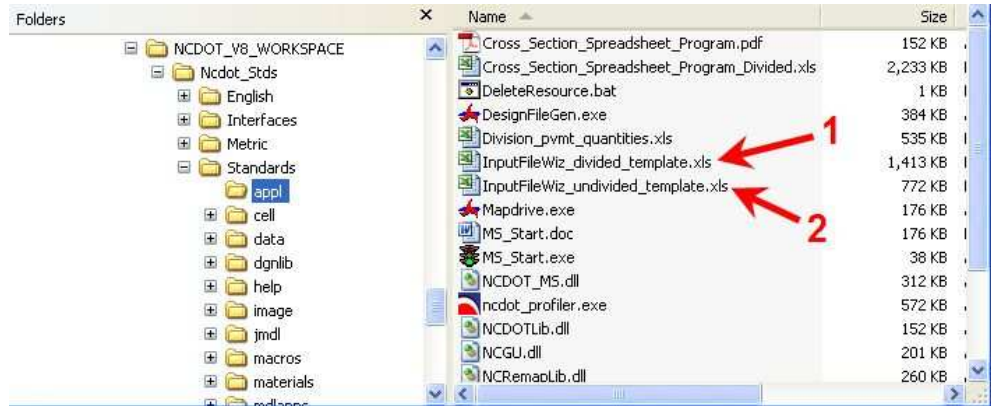
Freeware video demo [View Rotation](#) - <http://bit.ly/aS0CCw>

Freeware video demo [View Model](#) - <http://bit.ly/a2L56L>

Freeware video demo [View Levels](#) - <http://bit.ly/cXtHOM>

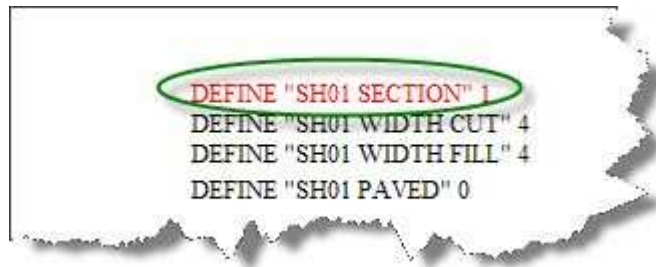
Workspace update

The following 2 updates have been made in the NCDOT Workspace:



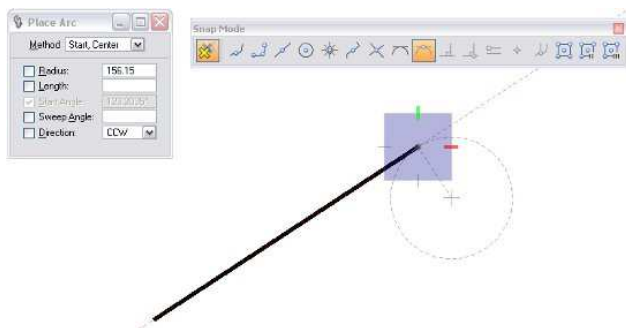
1) InputfileWiz_divided_template - Spreadsheet method for basic Divided section has been added

2) InputfileWiz_undivided_template - Spreadsheet has been modified (for shoulder sections) to automatically incorporate shoulder trenching when pavement depth is 10" or less.



NOTE: It is important to realize that the method of using criteria (spreadsheets) will be phasing out over the next year or so as the Corridor Modeling templates are developed and made ready. I realize that not every DDC has yet received the training for Corridor Modeling, but it is coming soon!!

Place an Arc Tangent from the End of a Line



To Place an Arc Tangent off the end of a line

Select Place Arc -

a. Method - Start, Center

1. Select Tangent Point lock and snap to end of line.
2. Then pull away to define the radius with AccuDraw.

By EnvisionCAD



Display Sets

Display sets let you select a group of elements to display in selected views, with all other elements hidden. You can create display sets from selection sets or named groups. Display sets display is controlled from the View Attributes dialog, where the Display set control lets you turn their display on and off.

With Display sets active, you can use the Named Groups dialog to select a named group and then display only the elements in the group, in the chosen view(s), by clicking the Put Elements into the Display set icon. This lets you quickly switch between different named groups.

Using the view control pop-up menu, you can set selected elements as the display set, or you can clear the display set, so that all elements display. You can also add or remove elements from the display set.

Spell Check a Model

Introduced in XM, the *Spell Checker* can be used to review text, text nodes, tags, dimensions, notes and symbols for spelling errors. Spell Checker searches the selected text elements and flags any words that do not have a match in its dictionary. You can review individually selected text elements and/or selection sets within the fence contents.

The Workspace Preferences dialog contains a section with options and toggles specific to the Spell Checker. In addition, there are three configuration variables that allow you to define the dictionary, language and location of core dictionaries.

To check the spelling in the active model, use the Spell checker from the Text task. To check spelling before you place text, use the spell checker in the word processor.

Ctrl + Tentative

Use this combination of keys to quickly move the AccuDraw compass to the point snapped to. Same as doing Tentative + O

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. The introduction of MicroStation V8 and its associated programs are no exception.

The additions of unlimited named levels, models and a slew of user interface enhancements can make one's first attempt to use V8 a bit over whelming. 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 Intranet Portal at:

<https://intranet.dot.state.nc.us/portal/Home/Teams/IT/CADD/CADDSupport/tabid/142/Default.aspx>

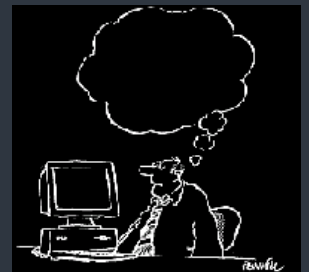
Then select Training from the Document Library CADD Menu. From the Training page download and fill out the CADD request Training form and mail the form to:

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



BACK FROM THE INTENSIVE TRAINING COURSE, STEVE RAN THROUGH IN HIS MIND HIS NEW FOUND KNOWLEDGE OF CATS.

Quick "FIT"

To quickly and easily fit the view in V8i SS1, simply double click the middle mouse button.

Match Selection Overlap mode is right to left

To select elements in overlap mode, drag the selection box right to left. If you go left to right it's the inside mode.

AccuDraw & AccuSnap

When using AccuSnap in conjunction with AccuDraw, one can use the following AccuDraw shortcut keys:

HA—which suspends AccuDraw for the current tool operation. Selecting a new tool or issuing a Reset re-enables AccuDraw.

HU—suspends the AccuSnap for the complete command. Once another command is selected, AccuSnap will be enabled.

HS—toggles AccuSnap off/on.

AccuDraw also lets you change the snap mode for the *next snap* the following keys.

I—to use the Intersect Snap

N—changes to the Nearest Snap

C—Center Snap

CRI 0040 Non-Standard Berm Ditch (STD 240.01)

—Oak Thammavong

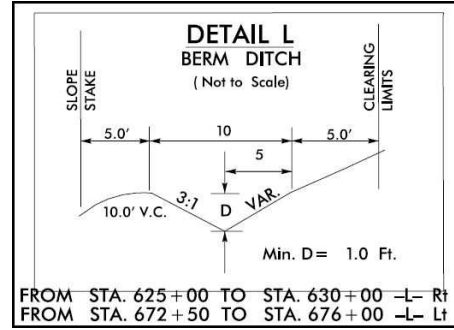
Question:

Hydro has recommended a non-standard berm ditch that is 10' wide with a 3:1 front slope. There are no define statements in the Criteria Library to specify this criteria. How can I use criteria to draw these non-standard berm ditches?

Answer:

[Drawing Standards 240.01](#) calls for a 2:1

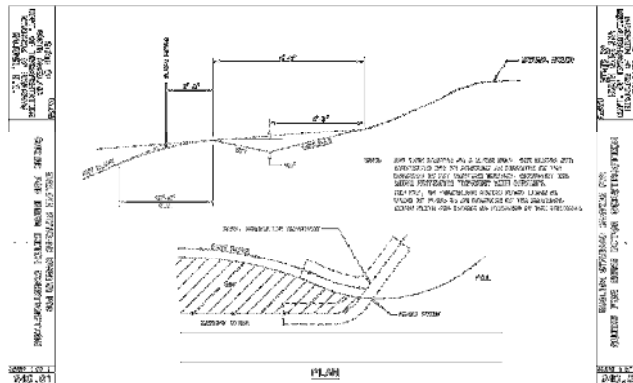
front slope for a 6' wide ditch. You can override the standard default values with the inclusion of these three variables in your criteria input file.



DEFINE "BRM01 FRONT SLOPE" 3

DEFINE "BRM01 DITCH WIDTH" 5

DEFINE "BRM01 BACKSLOPE WIDTH" 5



(As a side note, we will look at incorporating berm ditches (STD 240.01) in the Corridor Modeling templates)

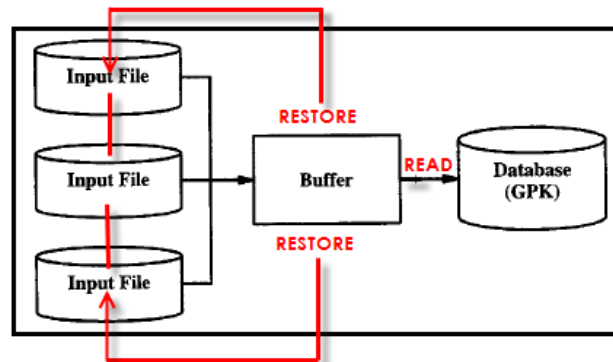
COGO Input Restore/Read Problem

Question:

We are having issues with COGO and UltraEdit. We have to edit the alignment inputs in UltraEdit and then read/restore instead of being able to use the editor in COGO. Is there a fix for this "bug"?

Answer:

Having spoken with Bryan Edwards, this is not a Geopak bug per se. Geopak COGO will generate (continued next page)



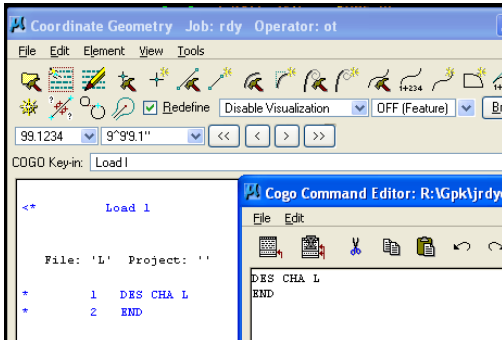
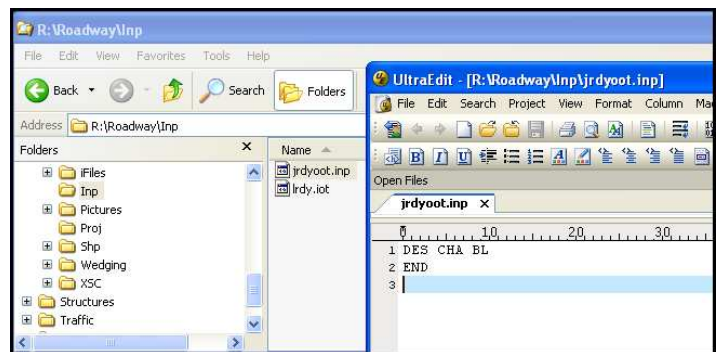


automatically a temporary inputfile "j(jn)o(oc).inp", e.g. jrdyoot.inp, in the defined GPK directory. The input data is then stored in the "buffer" awaiting to be processed.

When a COGO input file is loaded by the user, the j(jn)o(oc).inp file is overwritten by the user's COGO input file. In addition, any editing to the buffer will also overwrite the temporary j(jn)o(oc).inp file. The moment the Restore or Restore/Read command button is first pushed in the COGO editor, the buffer is "restored" from the temporary j(jn)o(oc).inp file. Make sense?

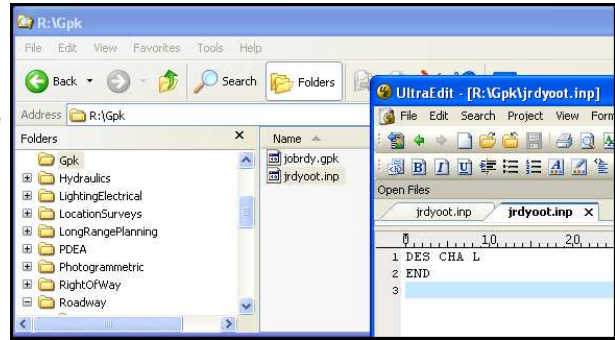
The problem is when the temporary j(jn)o(oc).inp file has been accidentally moved or copied to the defined INP directory. Now every time Restore or Restore/Read command is issued, the j(jn)o(oc).inp file is being updated in the defined **GPK directory**, while buffer itself is being restored by the j(jn)o(oc).inp file in the defined **INP directory**.

For example, I've moved the file "jrdyoot.inp" (containing "des cha -BL-") to my INP folder. Also containing in the INP folder is my COGO input to describe chain -L-.



I load the input file.

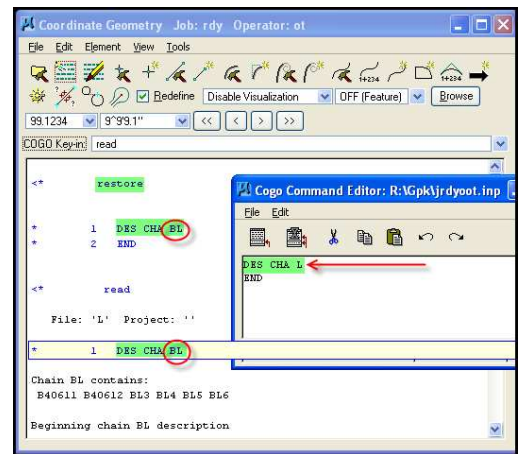
Note the jrdyoot.inp file in the GPK directory is in sync with the COGO editor but not with the one in the INP directory



Restore/Read will first restore the input that is in the INP folder (not what's on the COGO editor and not what's in the GPK directory).

For this reason and to avoid a major error in COGO, in the past we have recommended that all COGO editing be done in UltraEdit and immediately processed with the Read command in the initial COGO display screen, no Restore command was ever issued. Users now have the option to edit the input files with the COGO editor, but must be aware of problem that a copied j(jn)o(oc).inp file may caused.

Note that the command button was once widely known as "Read/Restore", meaning read the input into the GPK first, then restore the buffer from what's in the GPK. But the command button now will follow the restore command first, then the read command. Please be aware of this sequence also.





Billion Dollar Home

Want to see what a Billion dollar house looks like. Check out the story at the following link:

<http://bit.ly/cUoDjQ>

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).

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NCDOT
Information Technology
Engineering Technology Systems
Engineering Applications Service
CADD Services

<http://www.ncdot.org/doh/CADD/>

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1597 Mail Service Center
Raleigh, NC 27699-1597

Phone: 919.250.4249
Fax: 919.212.3072

IT West / co: Bridge Maintenance
1296 Prison Camp Road
Newton, NC 28658

Phone: 828.466.5526
Fax: 828.466.5579

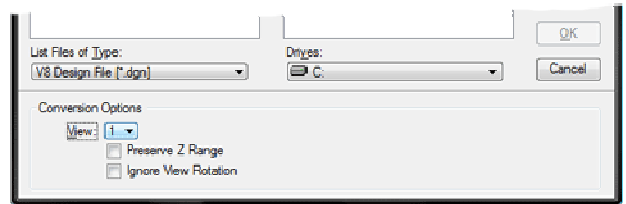
On the Intranet at

<https://intranet.dot.state.nc.us/portal/Home/Teams/IT/CADD/tabid/63/Default.aspx>

Easiest way to flatten a 3D file to 2D

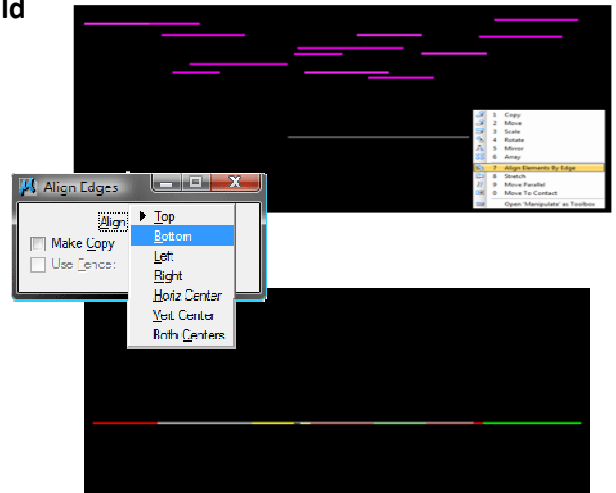
Exporting to a 2D file is easiest:

1. Set your view rotation to Top. (Note the number of the View you are working in)
2. Go to File > Export > 2D
Check the correct view is selected in Conversion Options
4. Enter a file name and click OK



If the file needs to stay as 3D you could use Align Elements by Edge instead:

1. Go to Front View.
2. If there isn't an element at 0 depth, draw a line.
3. Select all the elements
Pick Align Elements by Edge
Set the tool settings to "Bottom"
4. Click on the line at 0
Click to accept.



Corridor Modeling Web Page

<https://intranet.dot.state.nc.us/portal/Home/Teams/IT/CADD/CADDTraining/CorridorModeling/tabid/275/Default.aspx>

Last Word—Brain Teaser

I am a three digit number.
My tens digit is five more than my ones digit.
My hundreds digit is eight less than my tens digit.
What number am I?

—Special Numbers

- 1 is the multiplicative identity.
- 2 is the only even prime.
- 3 is the number of spatial dimensions we live in.
- 4 is the smallest number of colors sufficient to color all planar maps.
- 5 is the number of Platonic solids.
- 6 is the smallest perfect number.