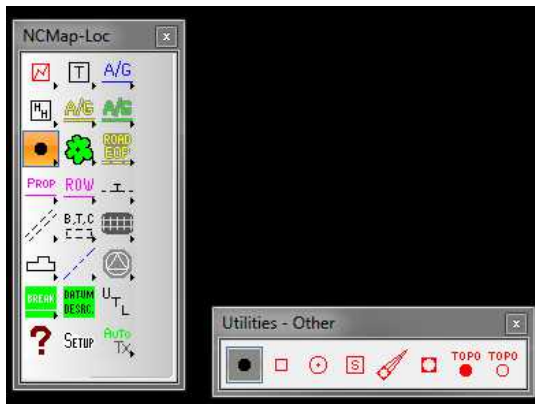


Using the new NCMAP Program, Version 14:2:7:1

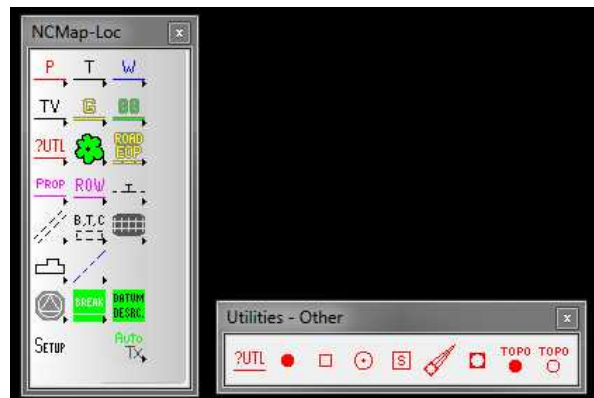
Introduction


NCMap, version 14:2:7:1 was released in Feb. 2014. The principal difference in the new version is the manner in which underground utilities are mapped. The changes were added to accommodate new CADD levels, created to reflect the different levels of SUE location accuracy, A-D. New dialog boxes have been added to facilitate the drawing and labeling of these new features.

Version 14:2:7:1



Older Version



Notice that in the older version of the 'Utilities – Other' menu bar there is an additional button, , that has been removed in version 14:2:7:1. The functionality of this button, 'Utility U/G Unknown Line', and other underground mapped features have been moved into dialog boxes reached from the new 'SUE Utilities' button .



SUE Utilities

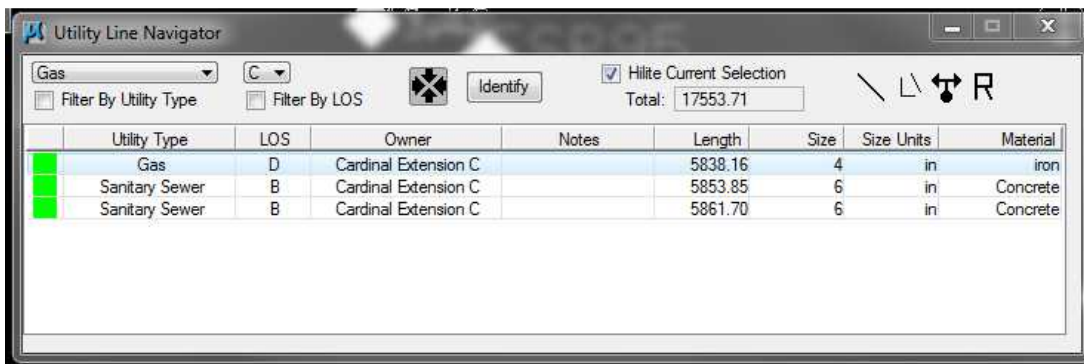
When the 'UTL' button is pressed, the following menu bar is displayed.



This menu bar has three main options, 'Navigate Utility Lines', 'Navigate Utility Test Holes', and 'Set Scale'.


Navigate Utility Lines

Pressing the  button opens the 'Navigate Utility Lines' dialog box:

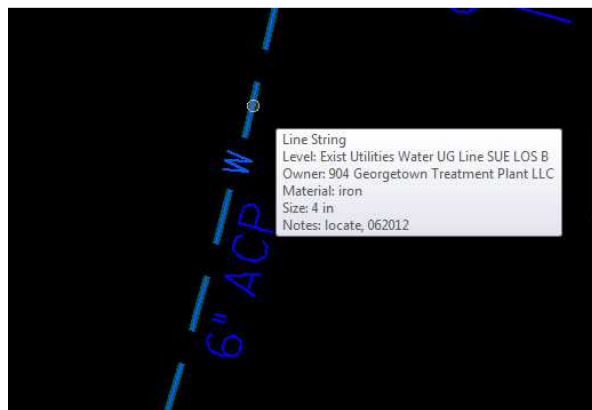


This dialog box allows you to draw and label different underground utility lines using different LOS designations, B-D, It can be used to create a report of the underground features in an Excel spreadsheet.

The combo box in the upper left of the dialog box shows the different types of underground lines that can be drawn. The combo box just to the right gives the user the option to choose the LOS level, B-D. All the existing underground utility lines drawn in the CADD file are displayed in the lower list box. The lower list box items can be filtered using the check boxes, Filter By Utility Type and Filter By LOS. The first column contains either a green or red square. A green square indicates that extended information, Notes, Size, Size Units, and Material has been entered for that utility line. A red square indicates that no extended information has been entered for that utility line.

The  button allows the user to zoom to the utility line selected in the lower list box. After pressing the 'Center Line View' button you will be prompted to 'Select View To Center In'. After picking the appropriate view the view is centered around the selected utility element. The 'Hilite Current Selection' button will graphically highlight the currently selected item in the list box when checked. The 'Total:' field displays the summation of the lengths of all the utilities in the list box. The total reflects the filtered results of the list box.

Notice that if you use your mouse cursor to hover over an existing SUE utility line that has extended information, the extended information is displayed in a pop-up window as shown below.



Place Utility Line



The 'Place Utility Line' button found in the upper right corner of the dialog box is used to draw the utility lines. After pressing the 'Place Utility Line' button the following dialog box is displayed, allowing the user to enter the extended information associated with the utility line.

The 'NCUtility Place Line' dialog box contains the following fields and controls:

- Owner Name: Cardinal Extension Company LLC (dropdown)
- Gas: Gas (dropdown)
- Size: 0 (text input)
- Size Units: (empty text input)
- LOS: B (dropdown)
- Material Type: (empty text input)
- Notes: (empty text input)

Fill out the above dialog box and then begin to draw the utility line. After the final data point has been entered, press the mouse-right button to finalize the placement of the line.

Label Utility Line



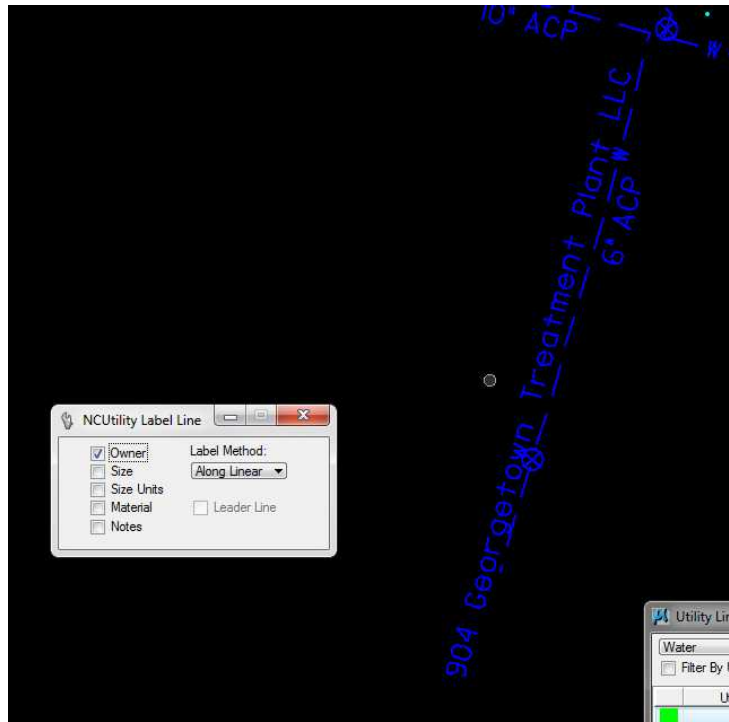
The 'Label Utility Line' button found in the upper right corner of the dialog box is used to label utility lines already drawn with the extended information. After pressing the 'Label Utility Line' button the following dialog box is displayed.

The 'NCUtility Label Line' dialog box contains the following controls:

- Owner:
- Size:
- Size Units:
- Material:
- Notes:
- Label Method: Along Linear (dropdown)
- Leader Line:

Choose what information needs to be labeled and choose the Label Method, either 'Along Linear' or 'Free Floating'. Graphically choose the utility line to be labeled and the lines will be labeled based on the chosen scale and level settings.

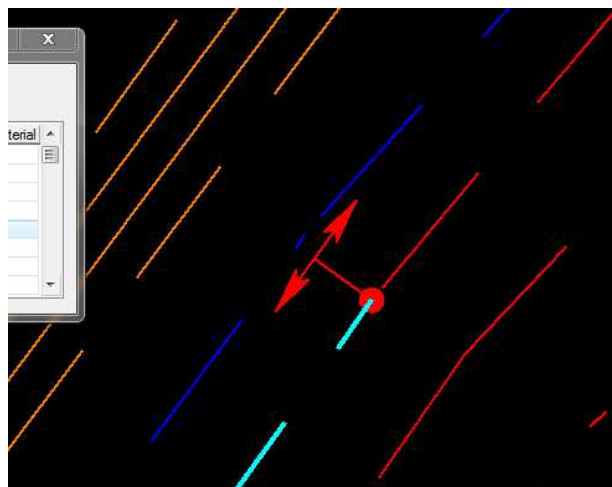
Following is a view of an Owner label after insertion.



Pick Level of Service Change



The 'Pick Level of Service Change' button found in the upper right corner of the dialog box is used to place the level of service change symbol where level of service changes on a utility line. After pressing this button you will be asked to choose the utility line to label. After confirming the choice of utility line you will be asked to pick the desired end of the line to be labeled. Following is an example of a 'level of service change' symbol placed at the end of a utility line.




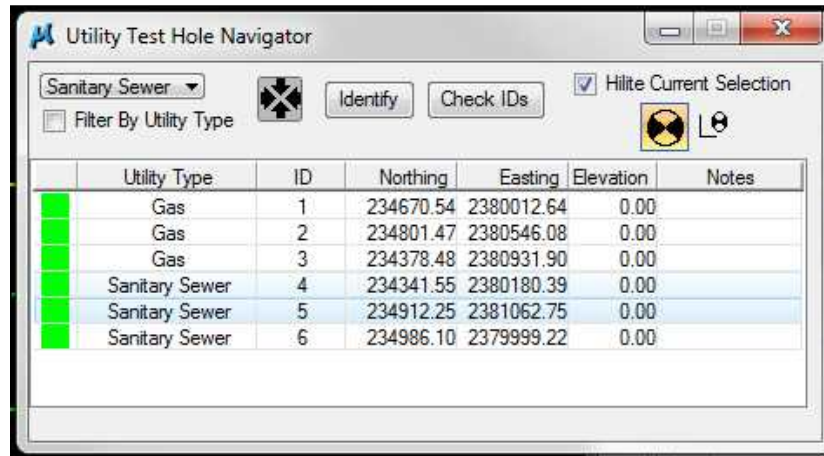
Create Excel Report



The 'Create Excel Report' button found in the upper right corner of the dialog box is used to create an Excel spreadsheet report based on the items displayed in the list box. After the button is pressed the user is asked to designate a file and the report file is created.


Navigate Utility Test Holes

Pressing the  button from the 'SUE Utilities' menu bar opens the 'Navigate Utility Test Holes' dialog box:



This dialog box allows you to draw and label test hole cells for different underground utility types.

The combo box in the upper left of the dialog box shows the different types of underground utility line types that can be drawn. All the existing underground utility test holes drawn in the CADD file are displayed in the lower list box. The lower list box items can be filtered using the check box, Filter By Utility Type.

The  button allows the user to zoom to the utility test hole selected in the lower list box. The 'Hilite Current Selection' button graphically highlights the currently selected item in the list box when checked. The 'Check ID' button can be used to check whether there are any duplicate ID's.

Place Utility Test Hole

The 'Place Utility Test Hole' button found in the upper right corner of the dialog box is used to draw the utility test holes. After pressing the 'Place Utility Test Hole' button the following dialog box is displayed, allowing the user to enter the extended information associated with the utility test hole.

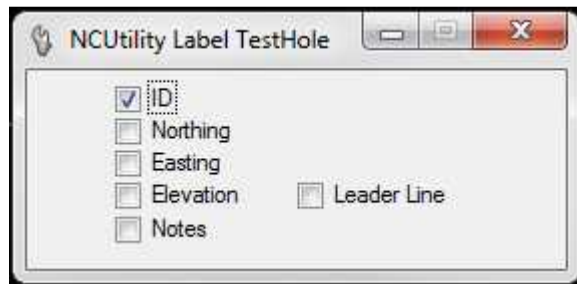


Fill out the above dialog box and then data point to draw the utility line test hole.

Label Utility Test Hole

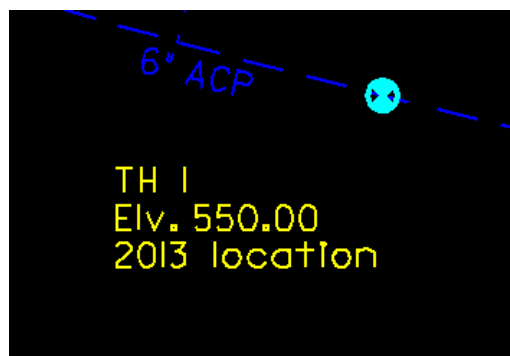


The 'Label Utility Test Hole' button found in the upper right corner of the dialog box is used to label the utility test holes. After pressing the 'Label Utility Test Hole' button the following dialog box is displayed.



Choose the information to be included in the label from the above dialog box and then data point to insert the utility line test hole labeling.

Following is an example of the labeling of a test hole.



Set Scale

Pressing the  button from the 'SUE Utilities; menu bar opens the 'Set Scale' dialog box:

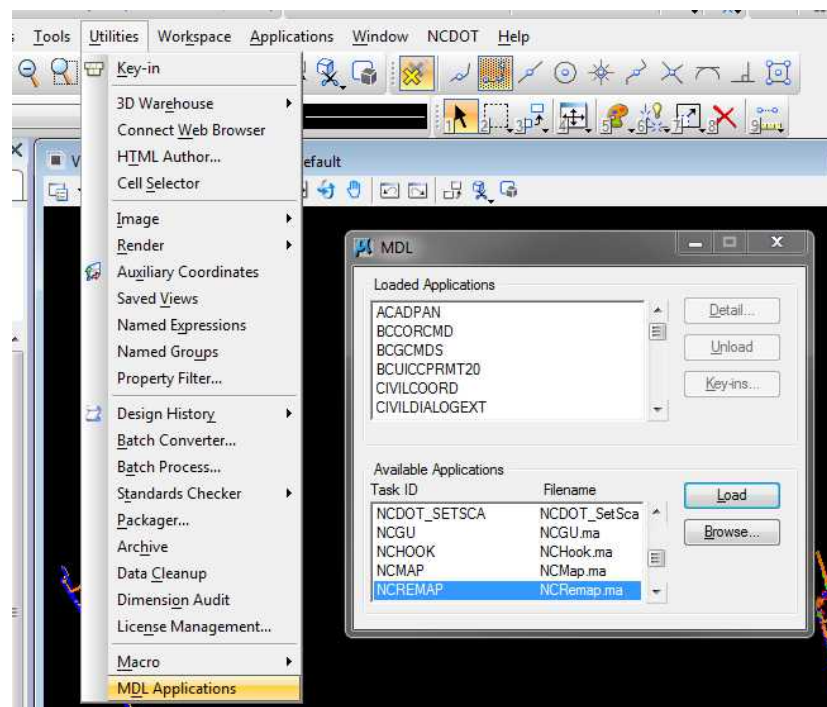


Choose the correct model scale from the above dialog box and press the 'OK' button accept the displayed scale and exit the dialog box. Press the 'Version' button to display the current version the NCDOT Set Scale tool. Press 'Cancel' button to exit the dialog box without accepting any changes.

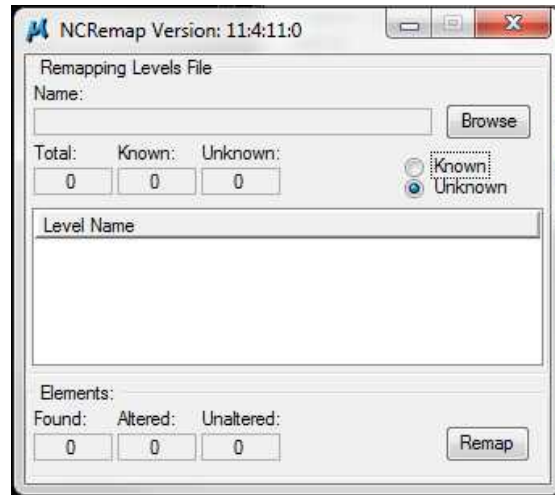
Converting Drawings Containing Old Levels

There may be times when older .dgn CADD files need to be converted or merged into a dgn files with the new level schemes. This conversion is performed using the MicroStation MDL program ncremap.ma.

To run the program, open the drawing that needs to be converted with MicroStation. From the 'Utilities' menu, choose the 'MDL Applications...' menu option. The following is displayed.



Use the 'Load' button to execute the NCREMAP program. The following dialog box is displayed.



The new NCMMap program draws utility features using new levels that accommodate different SUE location accuracies levels A, B, C and D. The older level scheme did not distinguish between SUE levels C and D. The older drawing files will contain features that may represent either level C or level D accuracy. For example the following features could represent either level C or D

Exist Utilities Gas UG Line
Exist Utilities Gas UG Line Cogo Comment
Exist Utilities Gas UG Line Cogo Elevation
Exist Utilities Gas UG Line Cogo Number
Exist Utilities Gas UG Line Cogo Point CELL
Exist Utilities Gas UG Line Leader
Exist Utilities Gas UG Line Text

It may be desired to convert these levels to:

Exist Utilities Gas UG Line SUE LOS D
Exist Utilities Gas UG Line SUE LOS D Cogo Comment
Exist Utilities Gas UG Line SUE LOS D Cogo Elevation
Exist Utilities Gas UG Line SUE LOS D Cogo Number
Exist Utilities Gas UG Line SUE LOS D Cogo Point CELL
Exist Utilities Gas UG Line SUE LOS D Leader
Exist Utilities Gas UG Line SUE LOS D Text

Or either:

Exist Utilities Gas UG Line SUE LOS C
Exist Utilities Gas UG Line SUE LOS C Cogo Comment

Exist Utilities Gas UG Line SUE LOS C Cogo Elevation
Exist Utilities Gas UG Line SUE LOS C Cogo Number
Exist Utilities Gas UG Line SUE LOS C Cogo Point CELL
Exist Utilities Gas UG Line SUE LOS C Leader
Exist Utilities Gas UG Line SUE LOS C Text

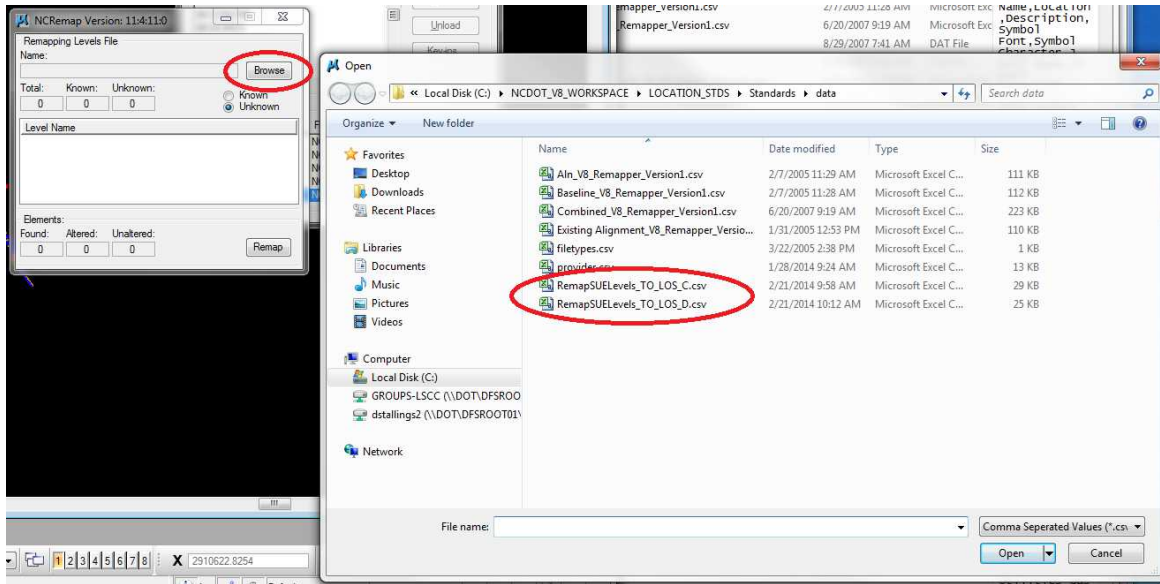
The operator should know whether the old .dgn file represents C or D level accuracy. If the operator is unsure he should convert the file to D level, the lesser accuracy. To convert the file press the 'Browse' button. Choose the appropriate .csv file. If the file is to be converted to C level, choose the file 'RemapSUELevels_TO_LOS_C.csv'. If the file is to be converted to D level, choose the file 'RemapSUELevels_TO_LOS_D.csv'.

Be aware that in the old level scheme features that were collected by an SUE contractor were collected into levels such as:

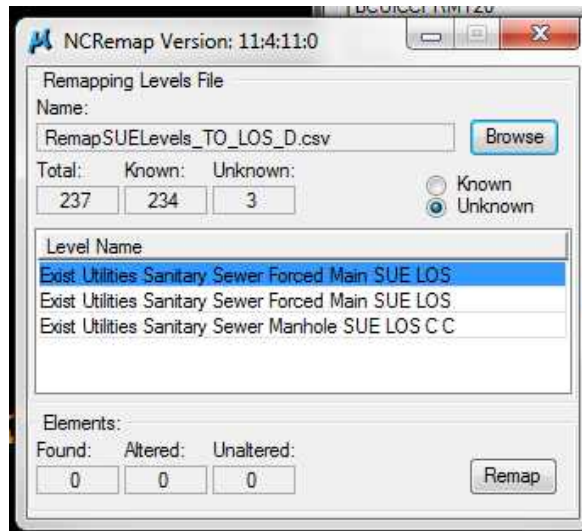
Exist Utilities Gas UG Line SUE
Exist Utilities Gas UG Line SUE Cogo Comment
Exist Utilities Gas UG Line SUE Cogo Elevation
Exist Utilities Gas UG Line SUE Cogo Number
Exist Utilities Gas UG Line SUE Cogo Point CELL
Exist Utilities Gas UG Line SUE Leader
Exist Utilities Gas UG Line SUE Text
Exist Utilities Gas UG Line

The NCRemap program will always convert these levels into LOS B level levels.

Exist Utilities Gas UG Line SUE LOS B
Exist Utilities Gas UG Line SUE LOS B Cogo Comment
Exist Utilities Gas UG Line SUE LOS B Cogo Elevation
Exist Utilities Gas UG Line SUE LOS B Cogo Number
Exist Utilities Gas UG Line SUE LOS B Cogo Point CELL
Exist Utilities Gas UG Line SUE LOS B Leader
Exist Utilities Gas UG Line SUE LOS B Text
Exist Utilities Gas UG Line SUE LOS C



After the appropriate .csv file has been chosen the dialog box will look as follows.



To complete the conversion press the 'Remap' button. The opened MicroStation design file is converted and an unconverted backup file with a file extension of .bak is created.