

# NCDOT AutoText



## Commands:

NCTools Text Auto

NCTools Text Leader

5/30/08

## General Comments

- The tools (commands) are intended to let a user add a text label easily to NCDOT features in an automated form to insure that the standards are met.
- The NCTools Text programs consist of two tools (commands), NCTools Text Auto and NCTools Text Leader. The programs are part of the NCTools.ma . The keyins for the commands are "nctools text auto" and "nctools text leader" or they can be activated by icons located on the Auto Text pallet.
- The level that the text is put on will be the level name of the feature identified with "Label" or "Text" added to it depending on how the levels are named. If the identified feature's level name ended with " CELL", then the text is put on the level name of the feature identified minus " CELL" and with "Label" or "Text" added to it depending on how the levels are named.
- The "ATI:..." influence string is not required. If no "ATI:..." influence string is present the default settings will be used. The default ATI influence string is "ATI:tx=.125,.125,.0625,1".
- The text size and font are set based on the "tx=...;" influence. If no "tx=...;" influence is present, then default settings will be used, which are .125" height, .125" width, .0625 line spacing, font #1
- No logical errors are checked for in the "ATI:tx=..." influence string.

## Influence Rules

- The influence string is located in the "Description Field" of the "... Label" or "... Text" level in the master level dgnlib.
- The influence string that is used by AutoText is always read from the master dgnlib(s), not the active file or active model.
- The influence string must begin with "ATI:". "ATI" stands for "Auto Text Influences".
- The last character in each influence string must be a ";". This is also true for the last influence in the "ATI:" string.
- Each individual influence must end with a ";".
- If an individual influence has multiple parameters, each parameter must be separated by a ",".

## Individual Influences

- **"tx=(height), (width), (linespacing), (font)"** -- Text Parameters
  - The (height), (width), (linespacing) size parameters are decimal inches that you would like to see plot on paper. In the drawing file the (height), (width), (linespacing) size parameters are multiplied by the drawing project scale to establish the text size to write to the file.
  - If no "tx=..." influence exist, a default internal "tx=.125,.125,.0625,1;" will be used.
  - If no (width) is specified, the (width) is set equal to the (height).
  - If no (linespacing) is specified, the (linespacing) is set equal to (height \* .5).
  - The (font) can be a font number or a font name string enclosed by quotation marks ("). Note: Only a font name string needs to be enclosed in quotation marks ("). The font name string should be the same as it appears in the MicroStation Text Editor dialog font list (Ex. "Courier New" is correct, "courier new" is not).
  - Structure -- tx=(height),(width),(linespacing),(font);
  - Examples -- tx=.1,.07,.035,8;  
tx=.16,.12,"Courier New";
  - Allowed variations
    - tx=(height),(width),(font);. (linespacing) will set to the (height \* .5).
    - tx=(height),(font);. (width) will be set equal to (height) & (linespacing) will set to the (height \* .5).
- **"nl"** -- No Label
  - AutoText will not let the user add a text label to the feature. If the user attempts to add a text label to the feature AutoText will popup a dialog to inform the user that this feature should not be labeled.
  - Example -- nl;
- **"nr"** -- No Rotation
  - Text label on point (cell) feature will not have the option to rotate the text label. Normally on a point (cell) feature the user will enter 3 points, one to anchor the feature. second point to establish rotation and third point to adjust the location or reset to leave where it is. With this influence the AutoText will accept one point which will be the placement point. There would be no reason to add this influence to a linear feature unless you also include the **"dt"** (don't track) influence.
  - Example -- nr;

- **"dt"** -- Don't Track
  - AutoText normally on linear features will dynamically have the text label to track along the feature. With this influence text labels on linear feature will not track, but will act like a text label on a point (cell) feature.
  - Example -- dt;
  - Example -- AT1:**dt**;tx=.15,23
  
- **"el=..."** -- Explicit Label
  - The operator will not have the ability to key in a text label. The string in the "el=" influence would be automatically placed by the user.
  - Structure -- el="(character string)";
  - Example -- el="Kingsport Ave.";
  
- Special provisions for GeoPak Adhocs
  - AutoText has a special provision to handle GeoPak Adhoc information that is attached to a feature. This special provision is setup the same as standard "el=..." with the exception that the string can have from 1 to 3 "\*" (s) in it. The "\*" (s) can be anywhere in the character string. This document does not cover attaching GeoPak Ahoc data to features, see your coordinator for this information.
  - Structure -- el="(char. string) \* (char. string);  
el="(char. string) \* (char. string) \* (char. string)";  
el="(char. string) \* (char. string) \* (char. string) \* (char. string)";
  - Example -- el="\* High Fence";  
el="\* x \* x \* Tee";
  
- **"sp=..."** -- Special Program
  - This influence requires special programming. If a user has need for special text labeling capabilities, a program can be written that handle just that feature(s).
  - Structure -- sp=(program name);.
  - Example -- sp=pipeLabel;.

## Some ATI: Influence String Examples

- **ATI:tx=.09,.07,.03,3;nr;el="Unknown Depth";**
  - tx=.09,.07,.03,3 -- Text on the cursor would be (.09\*project scale) high, (.07\*project scale) wide, (.03\*project scale) linespacing, font number would be 3.
  - nr -- Would mean that the user would not be give the option to rotate the text.
  - el="Unknown Depth" -- The text string "Unknown Depth" would automatically come up on the cursor for placement and the user would not have the option to key in anything.
- **ATI:sp=dropBoxLabeler;**
  - sp=dropBoxLabeler -- When a user identified a feature using this influence, AutoText would call a special program "dropBoxLabeler". This program would add text label to the feature just the way(s) that the department standards required.
- **ATI:dt;nr;**
  - dt -- One would assume that the feature associated with this influence was a linear feature, but the coordinator did not want the text label to track along the feature, but instead wanted the user to place the text label freestyle.
  - nr -- The user would not get the option to rotate the text after anchoring it.
- **ATI:nl;**
  - nl -- AutoText will not let the user add a text label to the feature. If the user attempts to add a text label to the feature AutoText will popup a dialog to inform the user that this feature should not be labeled.
- **ATI:dt;tx=.15,23;**
  - dt -- One would assume that the feature associated with this influence was a linear feature, but the coordinator did not want the text label to track along the feature, but instead wanted the user to place the text label freestyle.
  - tx=.15,23 -- Text on the cursor would be (.15\*project scale) high, (.15\*project scale) wide, (.5\*project scale) linespacing, font number would be 23.
- **ATI:tx=.0633,.3765,1.25,10;**
  - tx=.0633,.3765,1.25,10 -- Text on the cursor would be (.0633\*project scale) high, (.3765\*project scale) wide, (1.25\*project scale) linespacing, font number would be 10.
- **ATI:tx=.075,.05,2;nr;**
  - tx=.075,.05,2 -- Text on the cursor would be (.0633\*project scale) high, (.3765\*project scale) wide, (1.25\*project scale) linespacing, font number would be (default) number 1.
  - nr -- The user would not get the option to rotate the text after anchoring it.