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## Chapter 6 Linestyles

### Overview

MicroStation comes with 8 standard linestyles, which is usually enough for only the most basic MicroStation drawing. Custom Linestyles are MicroStation’s way of creating other linestyle for specific purposes. Linestyles for utilities that have text imbedded in the line, fence linestyle with X’s along it are examples of linestyles that can be created. Custom Linestyles, much like the fonts discussed in chapter 5, are contained in resource files with the extension .rsc. This chapter contains information about these resource files including:

- Names
- Locations
- Descriptions
- Workflow for attaching resource file
- Workflow for creating basic custom linestyles

### Linestyles

There are many custom linestyles in use at CFLHD. The standard linestyle resource files, shown below, are automatically read by MicroStation and will be shown as available linestyles, provided your machine is properly configured. The files shown below should be attached when entering MicroStation through your user configuration file and the use of these should be seamless. For our consultants, follow the workflow at the end of this chapter for information about downloading and attaching linestyle resource files.

Linestyle Resource Files	
File	Description
draftmet.rsc	Road linestyles for roadway types such as gravel, paved, etc.
mapmet.rsc	Mapping linestyles for existing planimetric features
roadmet.rsc	Roadway linestyles for proposed planimetric features
rwlsty.rsc	Right-of-Way linestyles
utilmet.rsc	Utility linestyles such as gas lines, power lines, etc.
utilmet2.rsc	Additional Utility linestyles
bridge-ls.rsc	Bridge linestyles

**Table 6-1: Current linestyle resource files in use at CFLHD**

These custom linestyle resource files are located on the CFLHD network at **N:\Standards\MicroStation\v7\Metric\line\_styles**, or on the CFLHD website at <http://www.cflhd.gov/cadd/standardfiles.cfm>

## Workflow 1: Selecting Custom Linestyle

1. From the MicroStation primary tool palette, click the linestyle drop down button.

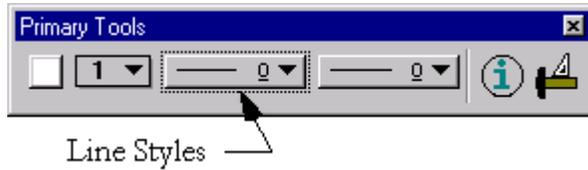


Figure 6-1: Linestyle Menu

2. Clicking on this button will expand the linestyles drop down menu. Select Custom from the bottom of this drop down menu.

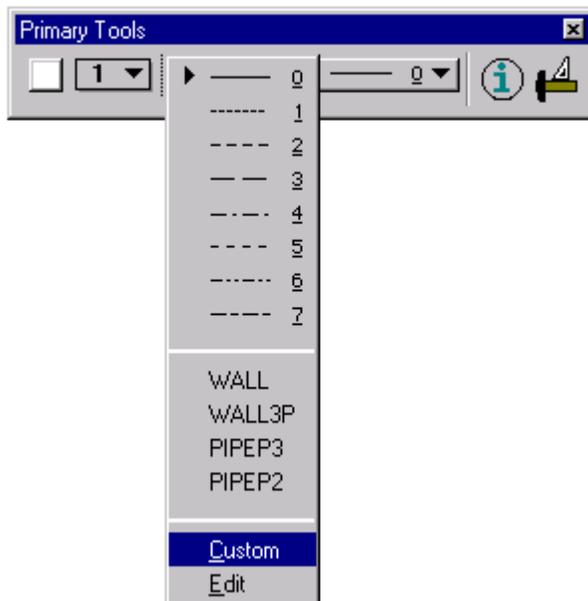


Figure 6-2: Custom Linestyle Menu

3. Once selected, the custom linestyle dialog box will activate allowing the user to select the correct linestyle.
4. If there is no scaling to be done and the name of the Linestyle is known or needs to be used, simply select from the initial dialog box, shown on the left below. To scale the linestyle or see more detail about each line style click the show details check box, shown on the right below.

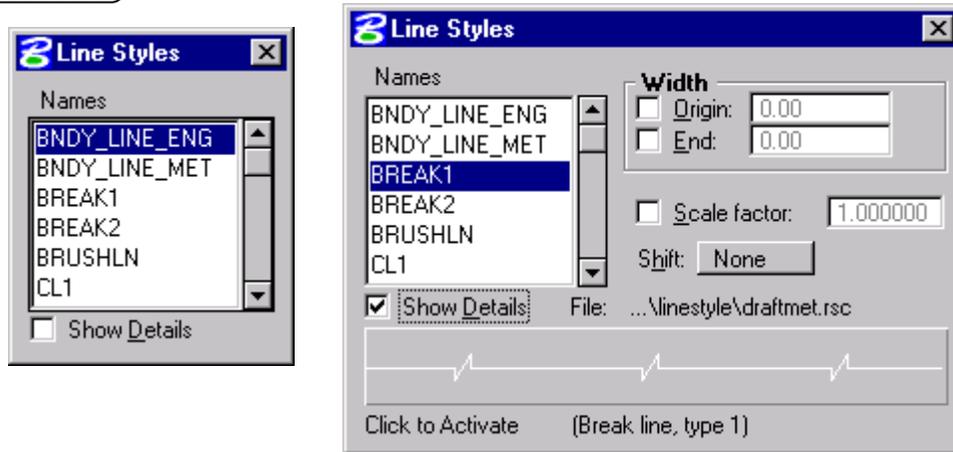


Figure 6-3: Linestyle...

- To place a linestyle, select the desired linestyle, set the scale factor, if needed, then, click the diagram of the linestyle to activate. Once active, use the place line or place linestring commands to place the line.



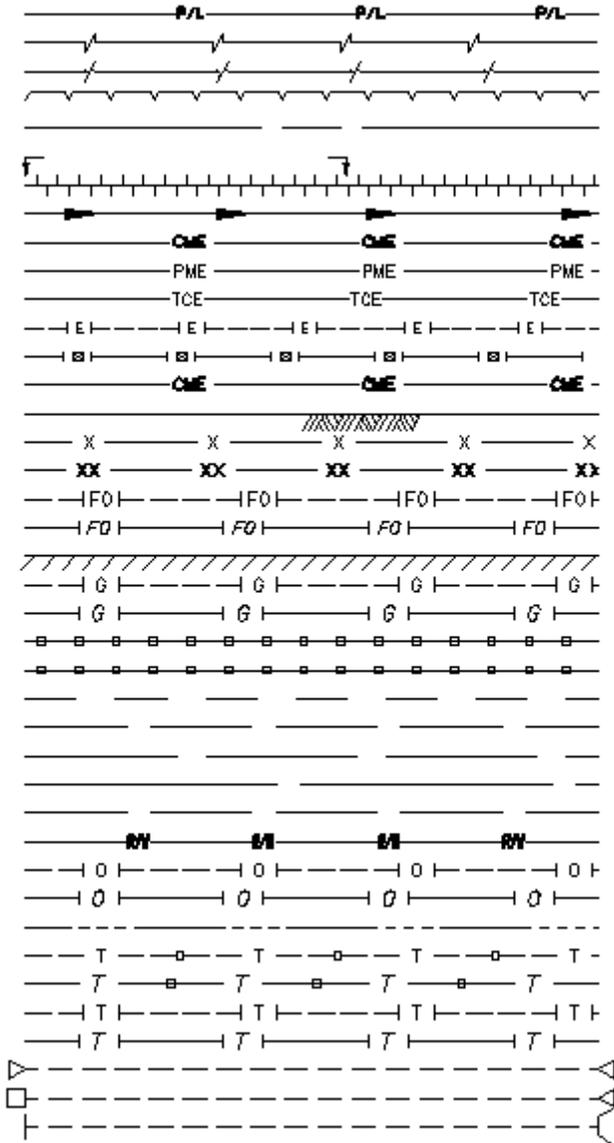
If the custom linestyles are not visible from the primary tool palette, contact CADD support to properly configure MicroStation to read the linestyle resource file, or follow the workflow at the end of this chapter.



The linestyles have been created at a correct scale for Metric projects. When working on an English project, set the scale factor to 3.2808.

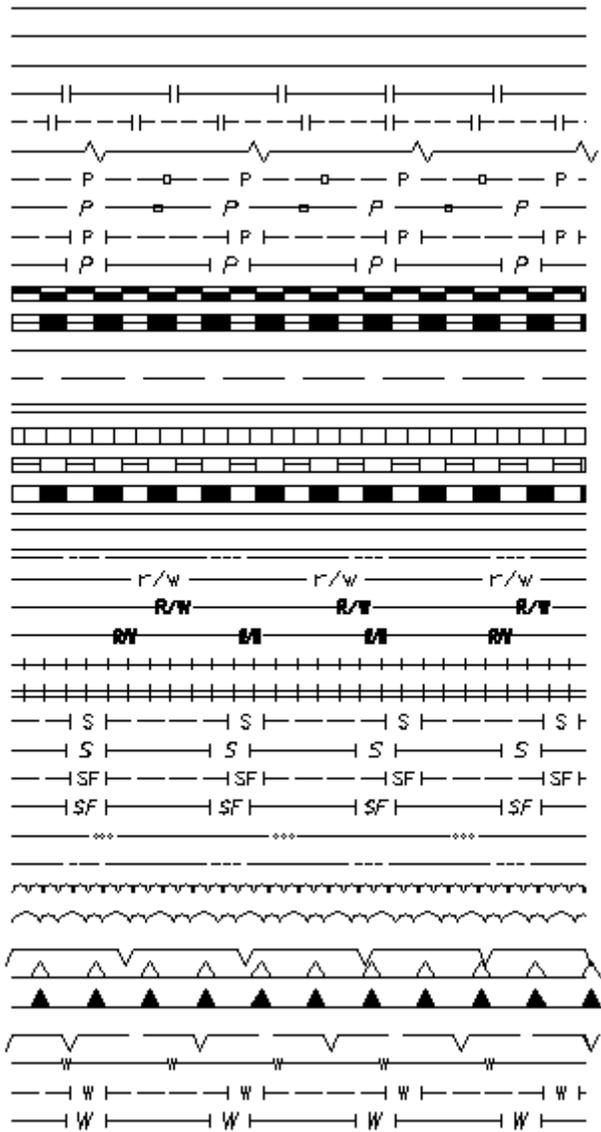
## Linestyle Diagrams

See figures below for view of each linestyle in use at CFLHD.



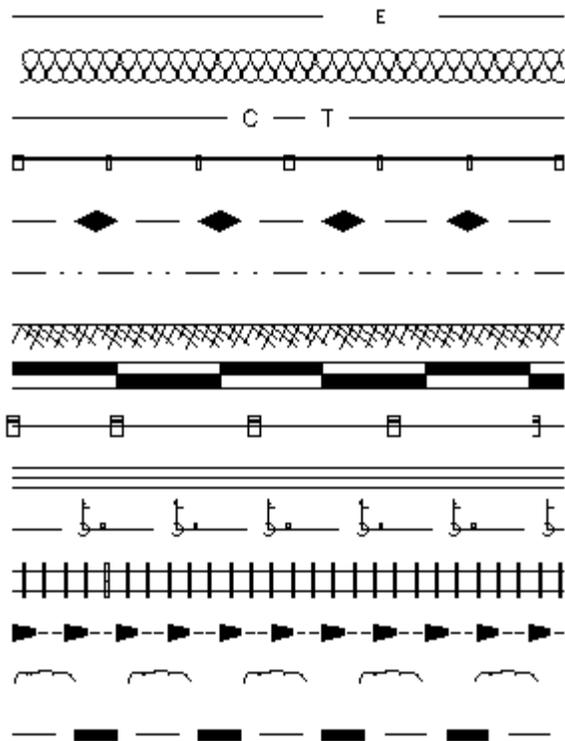
Line Style	Resource file
bdny_line_eng (met)	Rwlsty.rsc
break1	Draftmet.rsc
break2	Draftmet.rsc
brushlin	Mapmet.rsc
cl1	Draftmet.rsc
cut1	Draftmet.rsc
dike	Mapmet.rsc
ditch	Draftmet.rsc
ease_const_eng	Rwlsty.rsc
ease_perm_eng	Rwlsty.rsc
ease_temp_eng	Rwlsty.rsc
elec_ex	Utilmet2.rsc
elec_pr	Utilmet2.rsc
engpropline	Rwlsty.rsc
exgrnd	Draftmet.rsc
fence	Mapmet.rsc
fencep	Roadmet.rsc
fiber_ex	Utilmet2.rsc
fiber_pr	Utilmet2.rsc
forest	Draftmet.rsc
gasue	Utilmet.rsc
gasup	Utilmet.rsc
gre	Mapmet.rsc
grp	Roadmet.rsc
mcmestr	Rwlsty.rsc
met prop rw shrt	Rwlsty.rsc
mprline	Rwlsty.rsc
mproprow	Rwlsty.rsc
mpropshrt	Rwlsty.rsc
oilue	Utilmet.rsc
oilup	Utilmet.rsc
perdra	Mapmet.rsc
phonepe	Utilmet.rsc
phonepp	Utilmet.rsc
phoneue	Utilmet.rsc
phoneup	Utilmet.rsc
pipee1	Mapmet.rsc
pipee2	Mapmet.rsc
pipee3	Mapmet.rsc

Figure 6-4: Linestyle...



Line Style	Resource file
pipep1	Roadmet.rsc
pipep2	Roadmet.rsc
pipep3	Roadmet.rsc
pline	Mapmet.rsc
plineb	Mapmet.rsc
poweroh	Mapmet.rsc
powerpe	Utilmet.rsc
powerpp	Utilmet.rsc
powerue	Utilmet.rsc
powerup	Utilmet.rsc
Rdbase	Draftmet.rsc
rdbitum	Draftmet.rsc
rdconc	Draftmet.rsc
Rdedge	Mapmet.rsc
rdexist	Draftmet.rsc
Rdgraded	Draftmet.rsc
rdreinf	Draftmet.rsc
rdsurf	Draftmet.rsc
rdunimpr	Draftmet.rsc
river	Mapmet.rsc
row_exist_eng	Rwlsty.rsc
row_prop_eng	Rwlsty.rsc
row_prop_met20	Rwlsty.rsc
rr1	Mapmet.rsc
rr2	Mapmet.rsc
sewere	Utilmet.rsc
sewerp	Utilmet.rsc
silt_ex	Utilmet2.rsc
silt)pr	Utilmet2.rsc
stream1	Mapmet.rsc
stream2	Mapmet.rsc
treeIn1	Mapmet.rsc
treeIn2	Mapmet.rsc
wall	Roadmet.rsc
wall3e	Mapmet.rsc
wall3p	Roadmet.rsc
walle	Mapmet.rsc
wallm	Mapmet.rsc
Watere	Utilmet.rsc
waterp	Utilmet.rsc

Figure 6-5: Linestyle...



Line Style	Resource file
E	Bridge-ls.rsc
Batten	Bridge-ls.rsc
Cable / Tele	Bridge-ls.rsc
Curtain	Bridge-ls.rsc
Diamond	Bridge-ls.rsc
Gas Line	Bridge-ls.rsc
Ground Line	Bridge-ls.rsc
Half Dash	Bridge-ls.rsc
Leader Line	Bridge-ls.rsc
Offset Line	Bridge-ls.rsc
Origin Line	Bridge-ls.rsc
Rail Road	Bridge-ls.rsc
Tapered Dash	Bridge-ls.rsc
Tree Line	Bridge-ls.rsc
Wide Dash	Bridge-ls.rsc

Figure 6-6: Linestyle...



For information on when and where to use specific line styles, see chapter 9, Levels and Symbology.

## Workflow 2: Resource file setup

1. Save the line style resource file from the CFLHD web site. The link below should begin the download immediately. You will need to select “Save this file to disk” from the download prompt, then click OK. If clicking on the link below does not start the download process, type the path into your web browser as it appears below.

[http://www.cflhd.gov/cadd/standard\\_files/linestyle\\_libraries.zip](http://www.cflhd.gov/cadd/standard_files/linestyle_libraries.zip)

2. The downloaded file is a .zip file containing the files listed in table 6-1 above, as well as readme.txt. You will need to use pkunzip, winzip, or a similar program to unzip these files and place them on your computer. As these files are specific to CFLHD projects the user may want to save them to a project directory, rather than the MicroStation directory. (Note where these files have been placed as they will need to be accessed in the next steps)
3. In MicroStation select *Workspace>Configuration*.

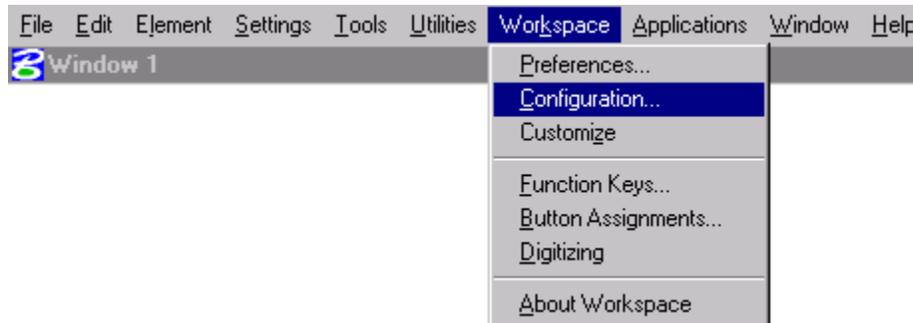
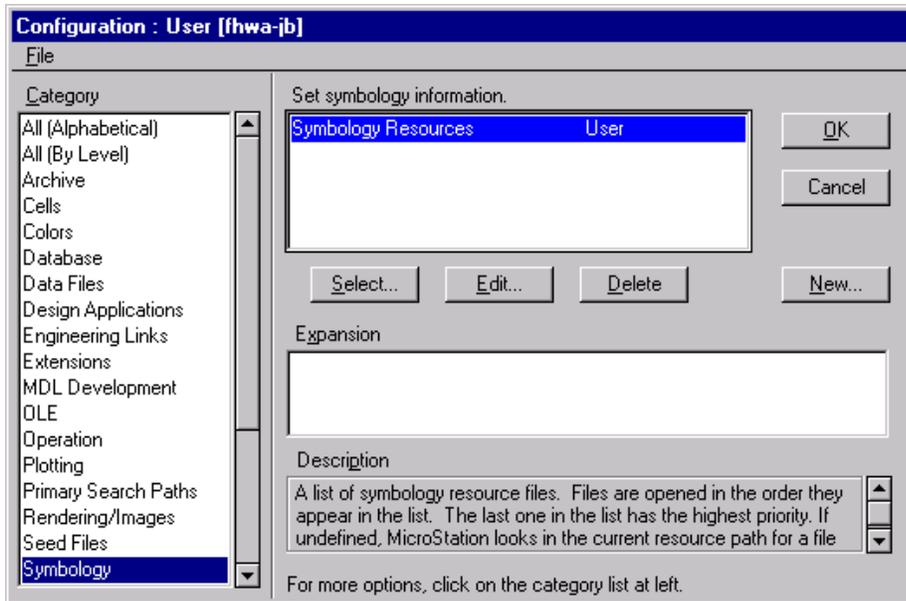


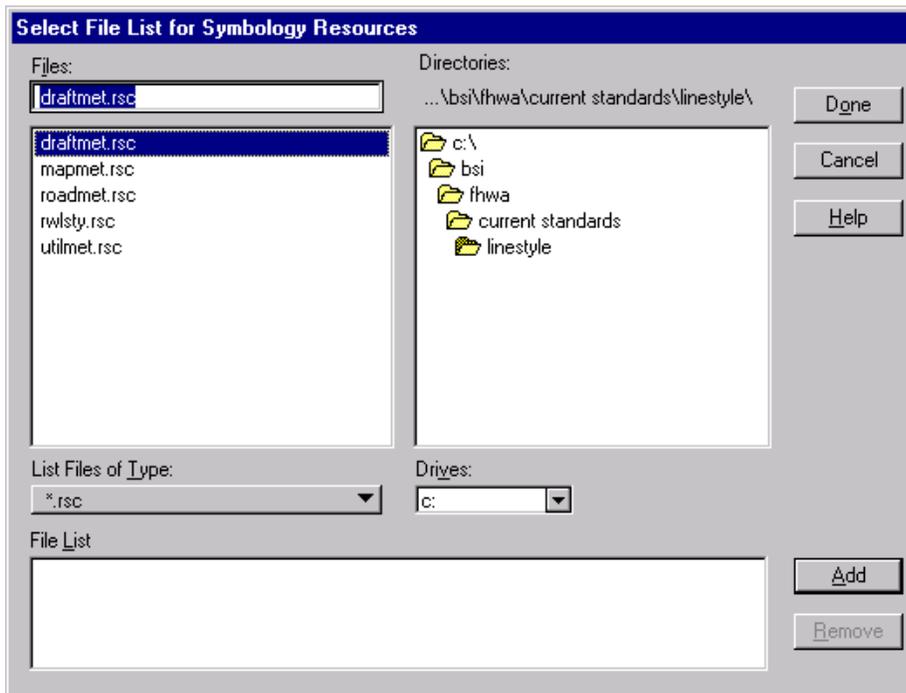
Figure 6-7: Workspace Configuration Menu

4. From the workspace configuration dialog box, select *Symbology* from the list on the left.



**Figure 6-8: Configuration Symbology**

5. Click on the Select button. This will allow the user to select the CFLHD line style resource files downloaded above (step 4).



**Figure 6-9: Symbology Resources**

6. Pick a path to the directory where the .rsc files are stored from the upper right directory box. Highlight the appropriate file from the upper left box, then click the Add button to add the desired file to the file list. Repeat this procedure for each file to be added.

7. Click the Done button.
8. The files will now be shown in the Expansion window of the user configuration box.

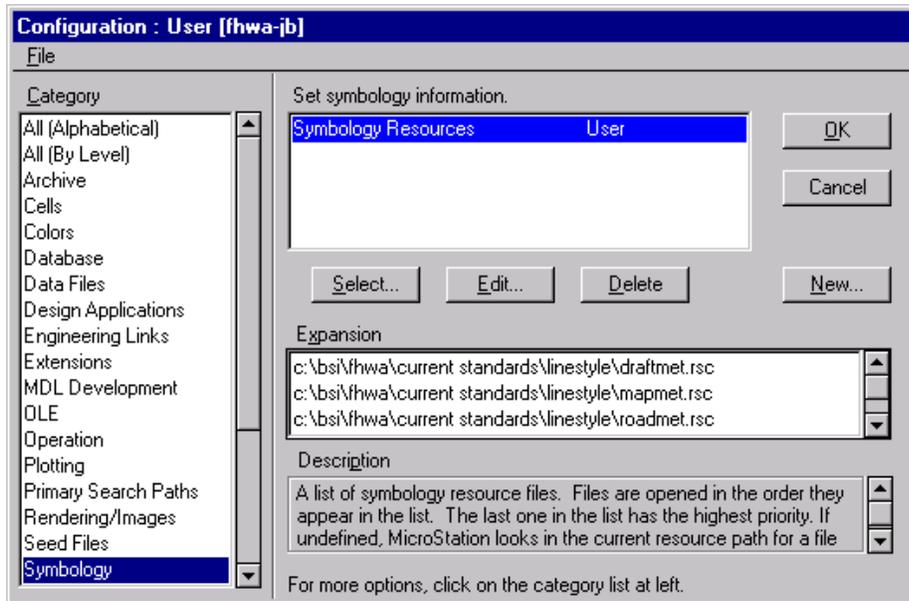


Figure 6-10: User Configuration Symbology

9. Click the OK button. The user will see a MicroStation alert dialog box asking if changes to the configuration file should be saved, Answer by selecting the Yes button. The correct custom line styles will now be available.



The symbology configuration variable that is set in the Workflow also controls where MicroStation looks for font library resource files. So in addition to showing a list of the custom line style resource files, the Expansion box will also list font library resource file. Don't remove these font resource files from the list in the Expansion box.



If using IPlot as the plotting solution, the user will also need to copy the custom line style resource files to the IPlot server in order for custom line styles to show up correctly on plots.