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Chapter 4 Seed Files

Seed files

Seed files form the base for most newly created MicroStation design files. Seed files act as a template for a new design file containing information such as, working units, global origin, coordinate readout, etc. With the introduction of DGN libraries in MicroStation V8, the seed files will also have these libraries attached. This will give the user access to the CFL level library, outlined in the CFL level chapter, as well as CFL text styles and dimension styles, outlined in the annotation chapter.

At CFLHD, there are currently 4 seed files in use, each with attributes pertaining to a different design case. These seed files should be used to create all new files for CFLHD work. See **Workflow 1** for help with creating a new MicroStation design file using these seed files.

CFLHD Seed Files	
Name	Description
Seed_2d_US_survey_foot_v8.dgn	English 2D based on US survey foot
Seed_3d_US_survey_foot_v8.dgn	English 3D based on US survey foot
Seed_2dm_v8.dgn	Metric 2D seed file
Seed_3dm_v8.dgn	Metric 3D seed file

Table 4.1: Current seed files in use at CFLHD

These seed files are located on the CFLHD network at:

N:\Standards\MicroStation\v8\English\seed\

N:\Standards\MicroStation\v8\Metric\seed\

or on the CFLHD web site at the following link:

http://www.cflhd.gov/cadd/standard_files/seed_files_v8_cfl.zip

Working units have changed significantly in MicroStation V8. No longer does changing the basic working units affect the size of elements contained in the .dgn file. A conversion is now done within the software to display the correct length of elements when the working units are changed from Metric to English, or from drawings with different master and sub units. The design plane has changed as well, to be virtually unlimited. As such, global origin is no longer a factor either.

1.

MicroStation Manager. From MicroStation Manager, select File>New.

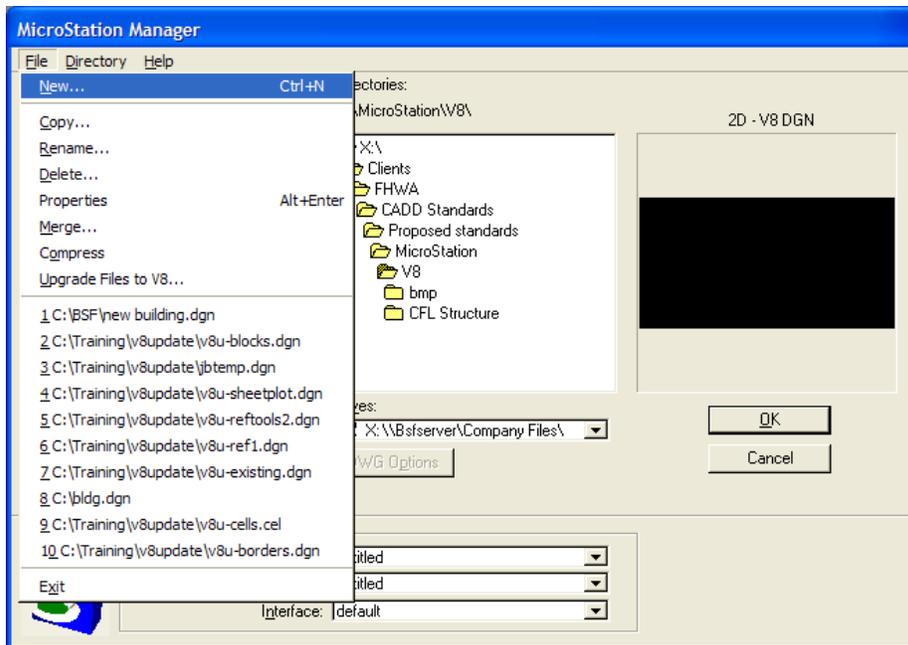


Figure 4-1: New file

2. *The Create Design File dialog will activate. From this dialog the user can give the file a new name, select the directory where the file will reside, and select the appropriate seed file to act as a base for the new design file.*

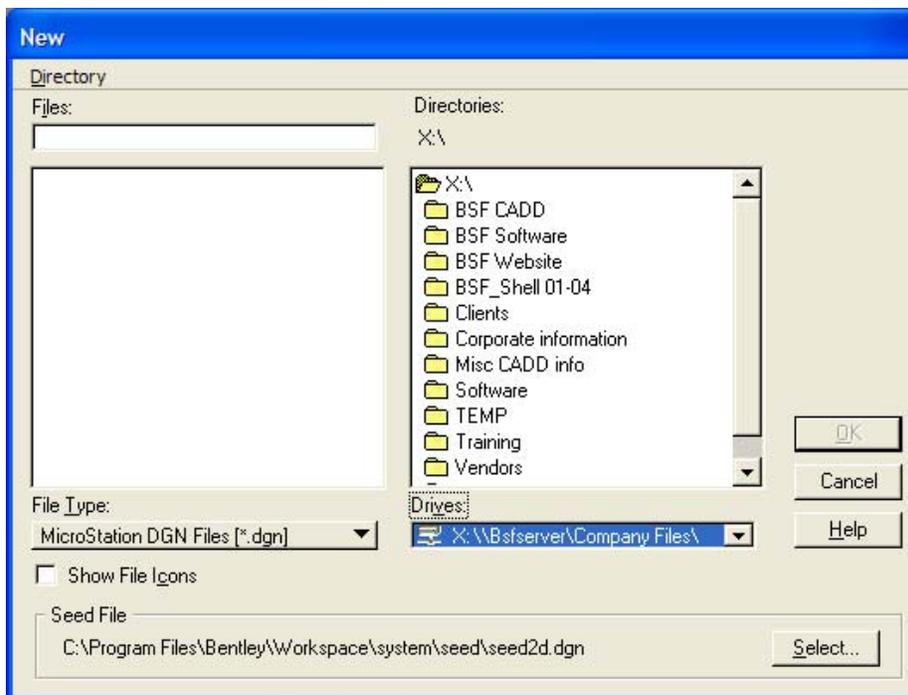


Figure 4-2: New File



3. Under the Seed File heading a file is already selected. This is the default Bentley seed file, which will be changed. Click on the Select button to choose the CFLHD seed file.

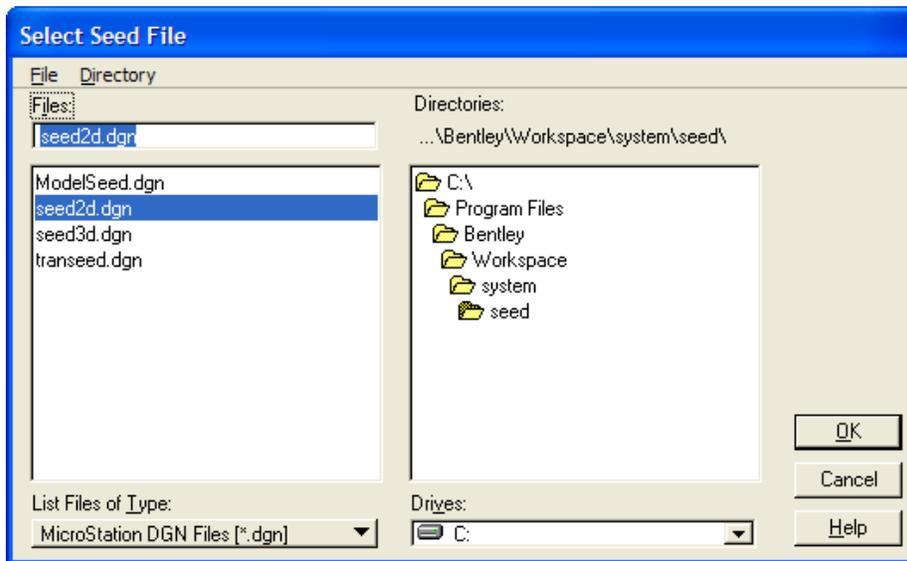


Figure 4-3: Select Seed File

4. Pick a path to the correct seed file, from the locations shown on page 1 of this chapter, using the directories portion of this dialog box.
5. Once the user has reached the correct directory the available seed files will display in the files section of the dialog box.
6. Select the correct seed file and click OK.
7. The correct seed file will now be shown. Give the new design file a name, make sure the path to where the file should be created is correct, then click OK.
8. See the above dialog box. Under the seed file section, the correct CFLHD seed file is now displayed. In the directories box the example shows the path to where the user would like the file to be created, and in the files box, in the example above a new file a name has been typed in.



Coordinate Readout and Working Units

The MicroStation coordinate readout settings and working units settings control how measurements are displayed. However, the working units settings no longer control the precision of measurements and elements within the design file, as MicroStation V8 design files now have 64-bit floating-point accuracy. Care should still be taken when selecting the correct CFLHD seed file. If all new design files are created using the CFLHD seed files as outlined in Workflow 1, the coordinate readout and working units settings will always be correct, giving the user the correct output. This section shows how to check these settings.

In MicroStation J, working units settings control the resolution within a design file, and the resolution controls the precision with which elements are drawn and the size of the working area of the limited design plane. In MicroStation V8, we now have total accuracy and a virtually unlimited design plane. Units within MicroStation are still broken into Master Units (MU) and Sub Units (SU), however Positional Units (PU) have been done away with.

The Seed files detailed below include roadway seed files for both US Survey Foot, and International Foot.



The workflow below explains how to determine what the MicroStation working units settings are for the active design file. The dialog box that displays the working units settings also allows the user to change those settings. Changing these settings will no longer affect the size of elements within the design file. However, if the user selects the correct seed file, these settings should not need to be changed. This workflow also shows how to change the MicroStation coordinate readout for the active design file. Changing the coordinate readout settings will simply change the number of decimal points shown when measuring an element.



Workflow 2: Accessing the working units and Coordinate Readout dialog

1. From MicroStation select *Settings>Design File*.

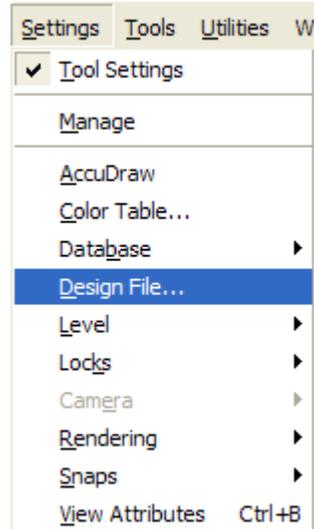


Figure 4-4: Design File Settings

2. From the design file dialog box select *Coordinate Readout* or *Working Units*. Selecting these will display the dialog boxes at the end of this chapter.

Coordinate Readout

The coordinate readout section of the Design File Settings contains several settings including, format and accuracy for both coordinate readout and angles, and mode for coordinate readout. Format, for coordinates, lets the user select to display coordinate readout in terms of master units, sub units or working units. The generally accepted format, and the selection for FHWA are master units. For angles, format allows the user to display angles in decimal degrees or degrees-minutes-seconds. Accuracy, as used on the coordinate readout dialog, does not refer to the accuracy of the design file, but rather the number of decimal places to be displayed. The mode selection allows the user to select how angles are displayed: conventional, azimuth, or bearing.

The figures below show the different working units and coordinate readout settings contained within the CFLHD seed files. To access these dialog boxes use the preceding workflow.

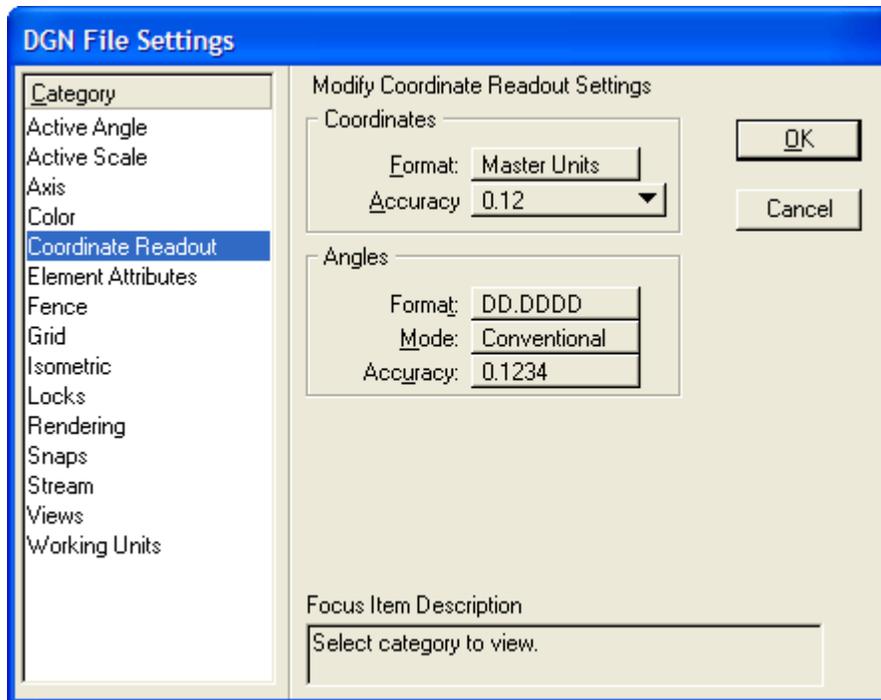


Figure 4-5: Coordinate Readout for English Roadway Seed Files

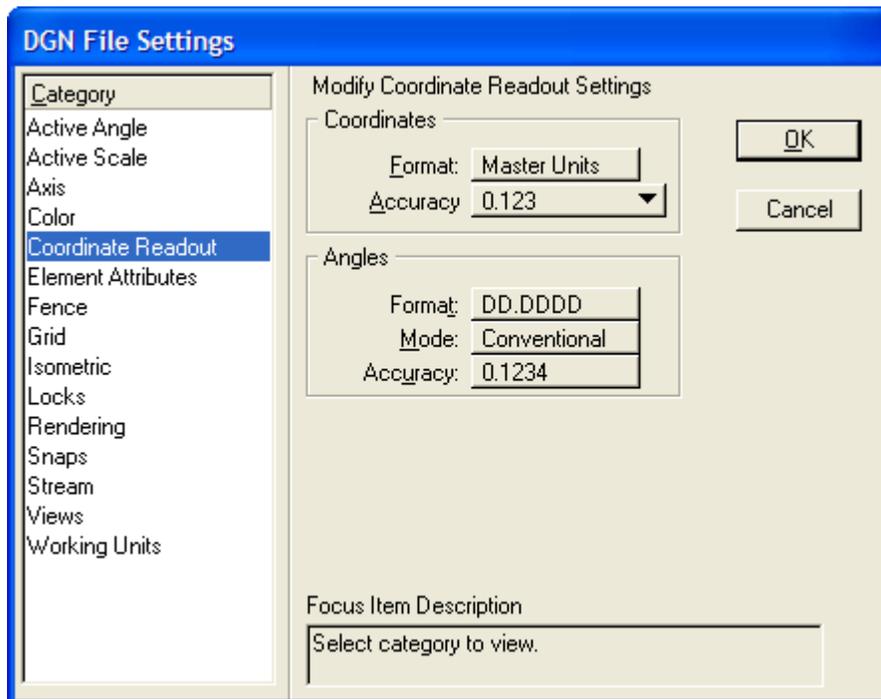


Figure 4-6: Coordinate Readout for Metric Roadway Seed Files

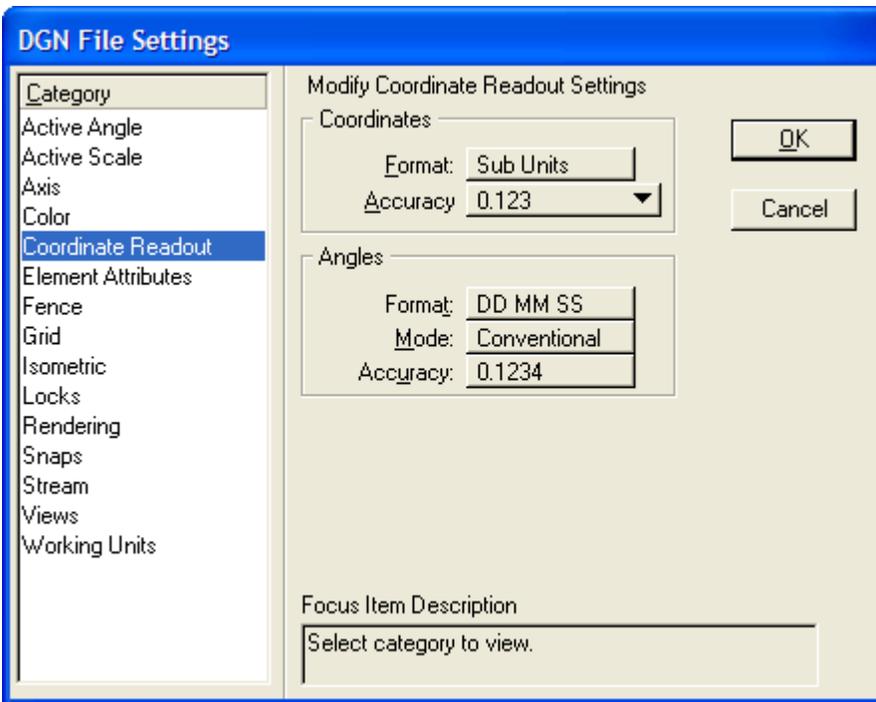


Figure 4-7: Coordinate Readout for English Bridge Seed Files

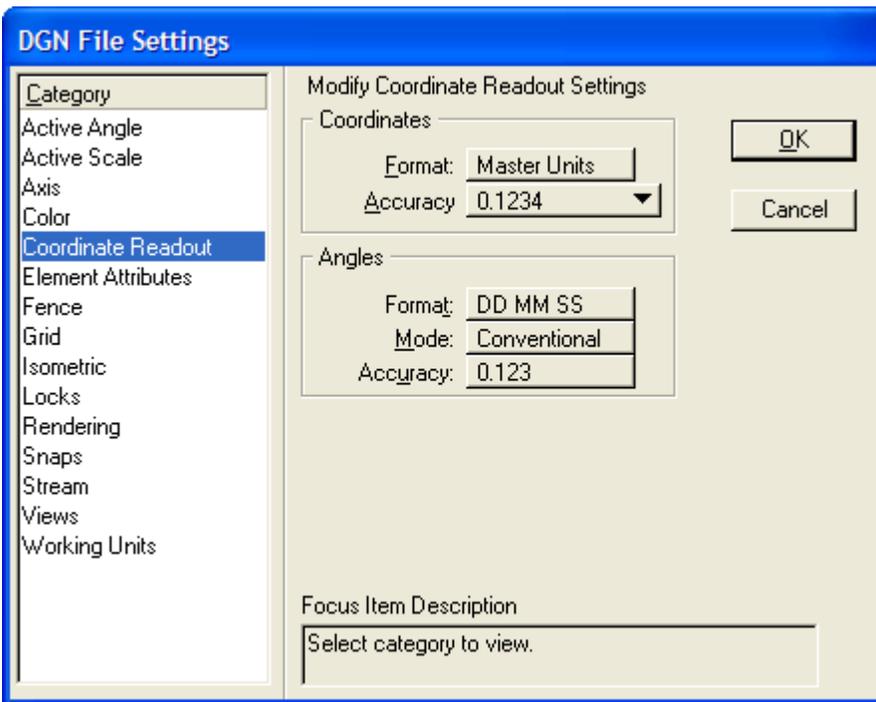


Figure 4-8: Coordinate readout for Metric Bridge Seed Files



Working Units

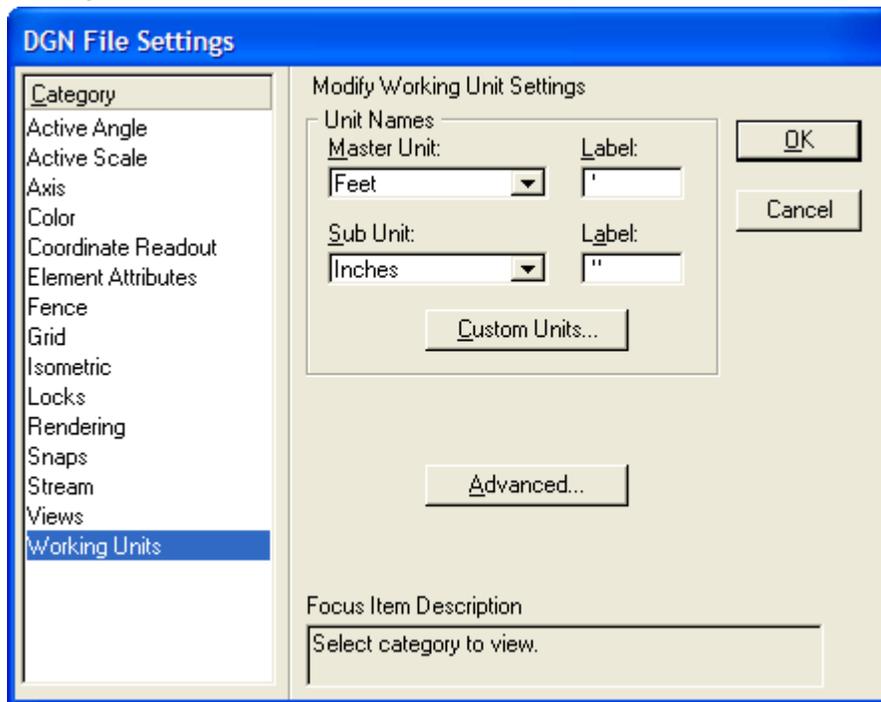


Figure 4-9: Working Units for English International Foot Roadway Seed File

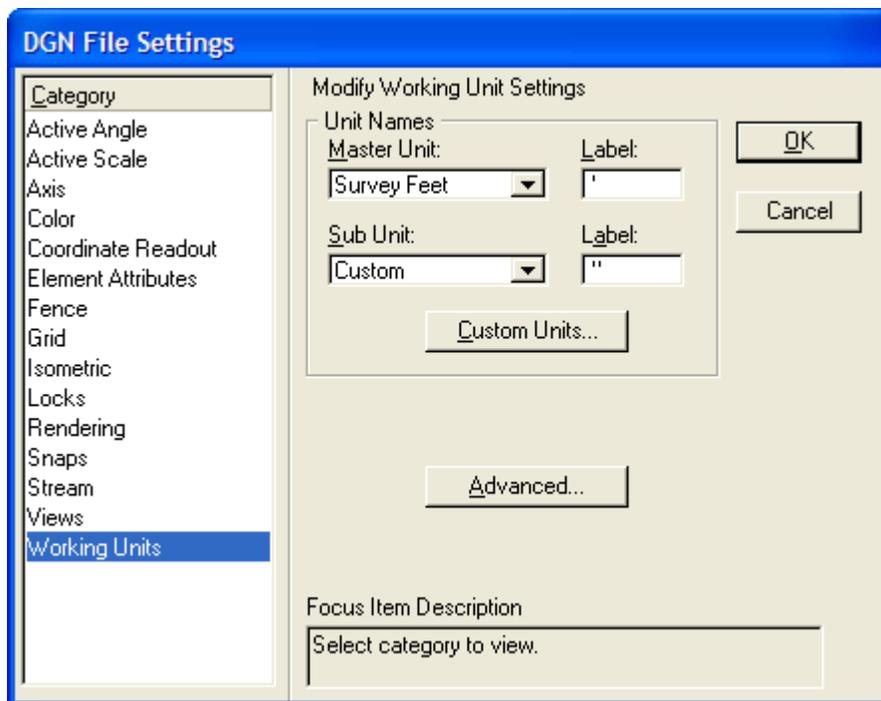


Figure 4-10: Working Units for English US Survey Foot Roadway Seed File

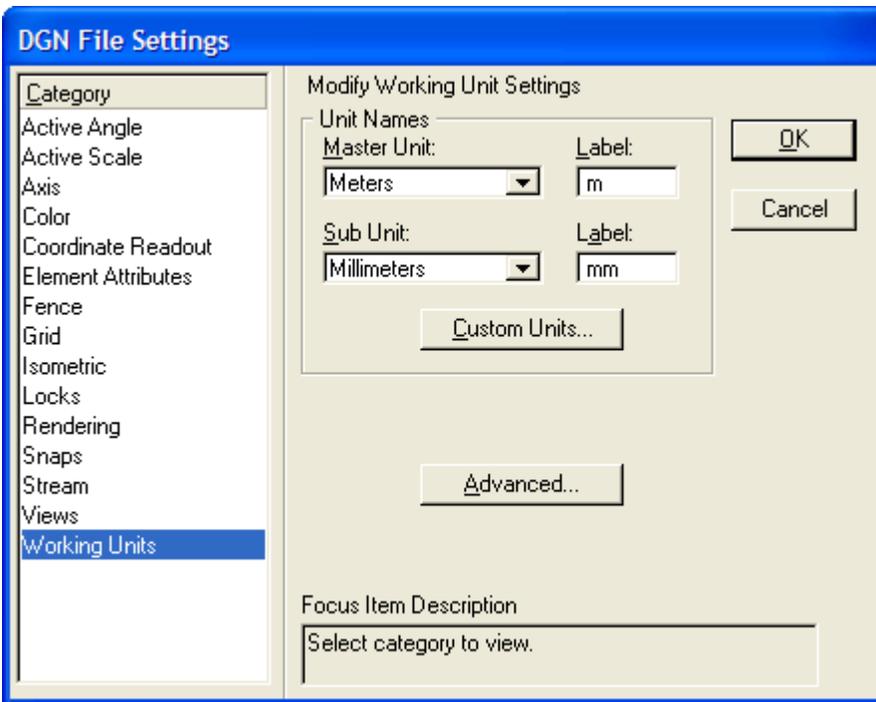


Figure 4-11: Working Units for Metric 2D seed file

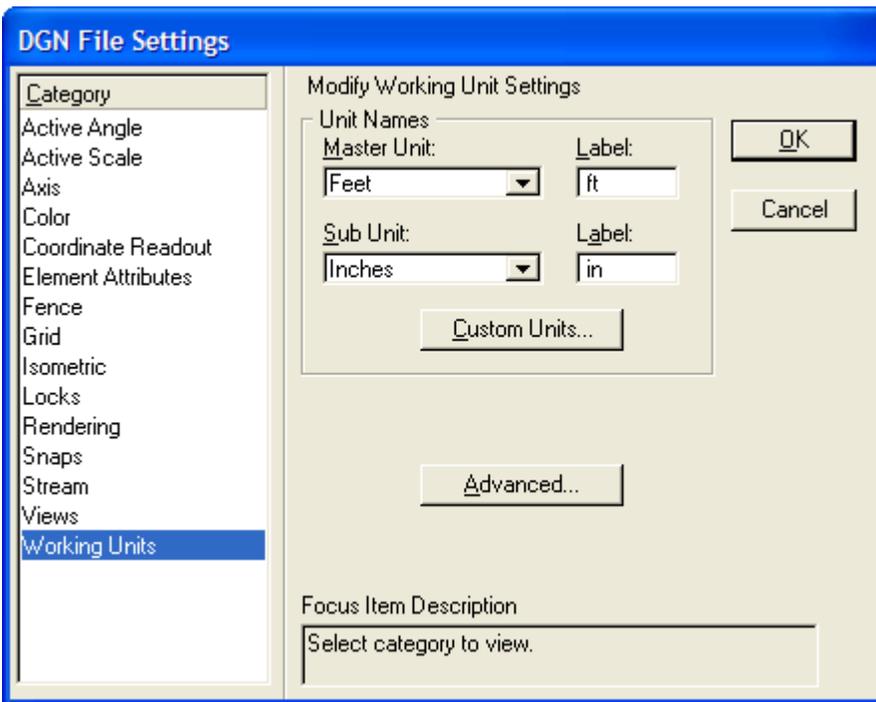


Figure 4-12: Coordinate readout for English bridge seed files

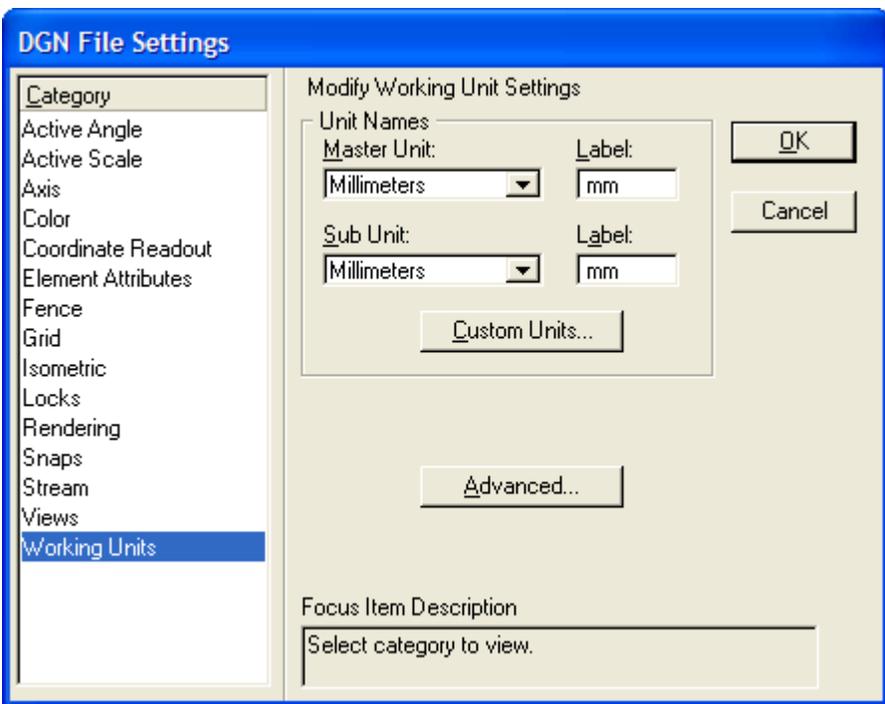


Figure 4-13: Coordinate readout for Metric bridge seed files