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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. Creating a new design file with the seed file and opening the new design file using with project configuration file (*.pcf) will give the user access to the CFL level library, outlined in the CFL levels and symbology chapter, as well as CFL text styles and dimension styles, outlined in the annotation chapter.

At CFLHD, there are currently 6 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.

Seed Files	
Name	Description
Sur_ft2D.dgn	US Customary 2D based on US Survey foot
Sur_ft3D.dgn	US Customary 3D based on US Survey foot
Int_ft2D.dgn	US Customary 2D based on International foot
Int_ft3D.dgn	US Customary 3D based on International foot
Metric_2D.dgn	Metric 2D seed file
Metric_3D.dgn	Metric 3D seed file

Table 4.1: Seed files for X30 Criteria

These seed files are located on the CFLHD network at:

N:\Standards\V8_Resource\X_30\Standards\Seed\English

N:\Standards\ V8_Resource\X_30\Standards\Seed\Metric



US survey foot seed files are widely used on CFL projects. International foot seed files (*Int_ft2D.dgn* and *Int_ft3D.dgn*) shall only be used on CFL projects that have state requirement for these working units. Consultants should contact your COTR if unsure of which seed files to use. Note: The above seed files have a resolution of 10,000.



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.



Workflow 1: Creating a New MicroStation Design File

To access this workflow, follow this link:

http://www.cflhd.gov/resources/CADD/documents/Workflow_4.1_SeedFiles_CreatingNewMicroStationFile_x30.pdf

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.

Workflow 2: Accessing the working units and Coordinate Readout dialog

To access this workflow, follow this link:

http://www.cflhd.gov/resources/CADD/documents/Workflow_4.2_SeedFiles_WorkingUnitsCoordinateReadoutSettings_x30.pdf

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.

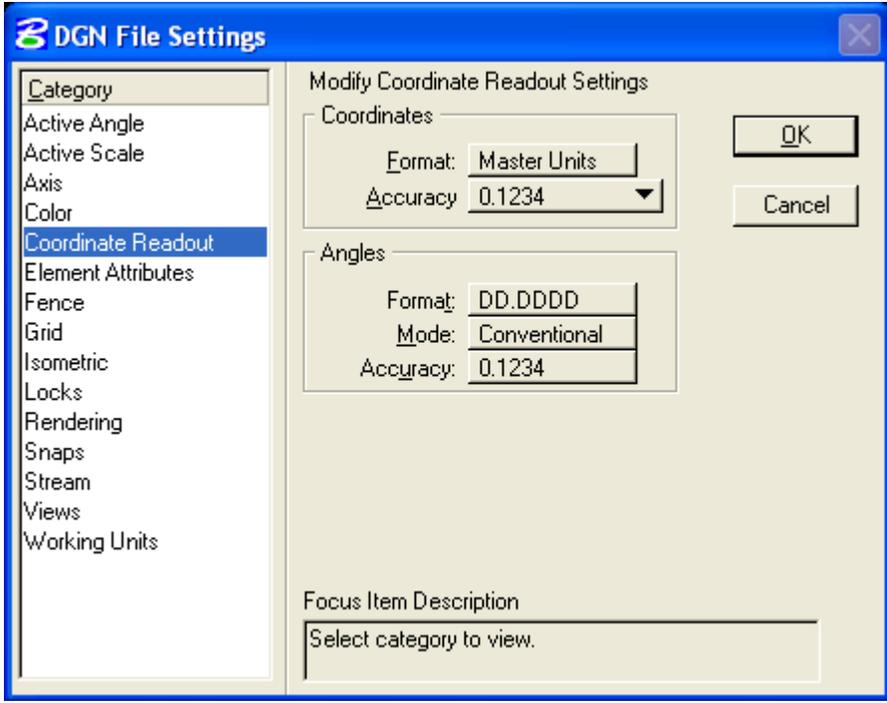


Figure 4-6: Coordinate Readout for English Roadway Seed Files

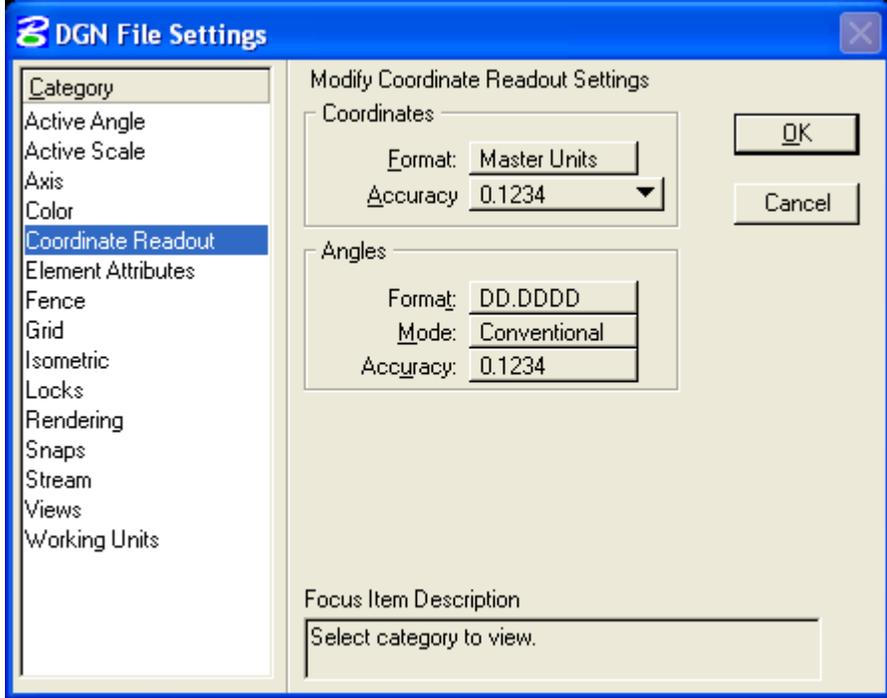


Figure 4-7: Coordinate Readout for Metric Roadway Seed Files

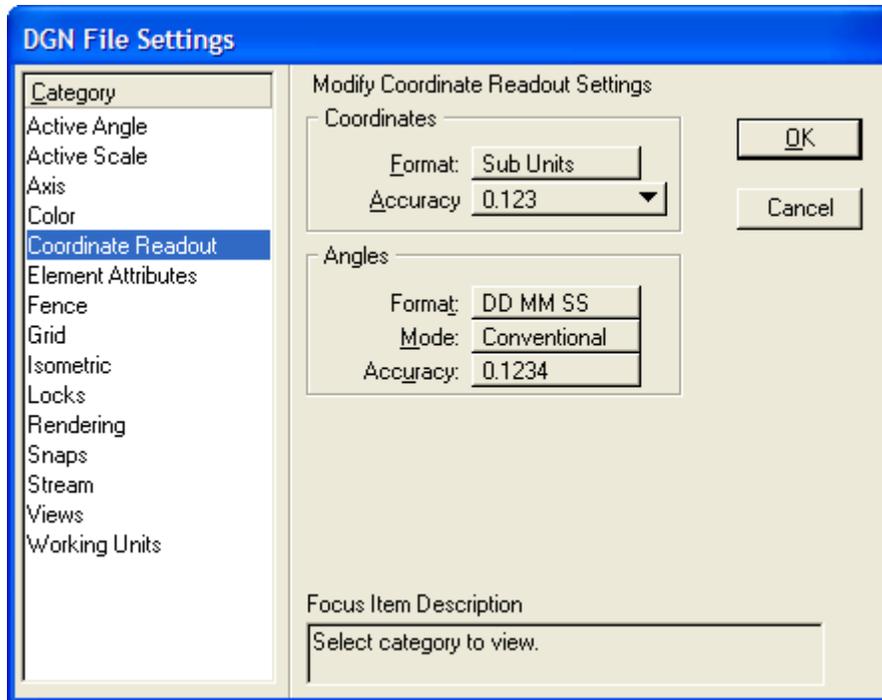


Figure 4-8: Coordinate Readout for English Bridge Seed Files

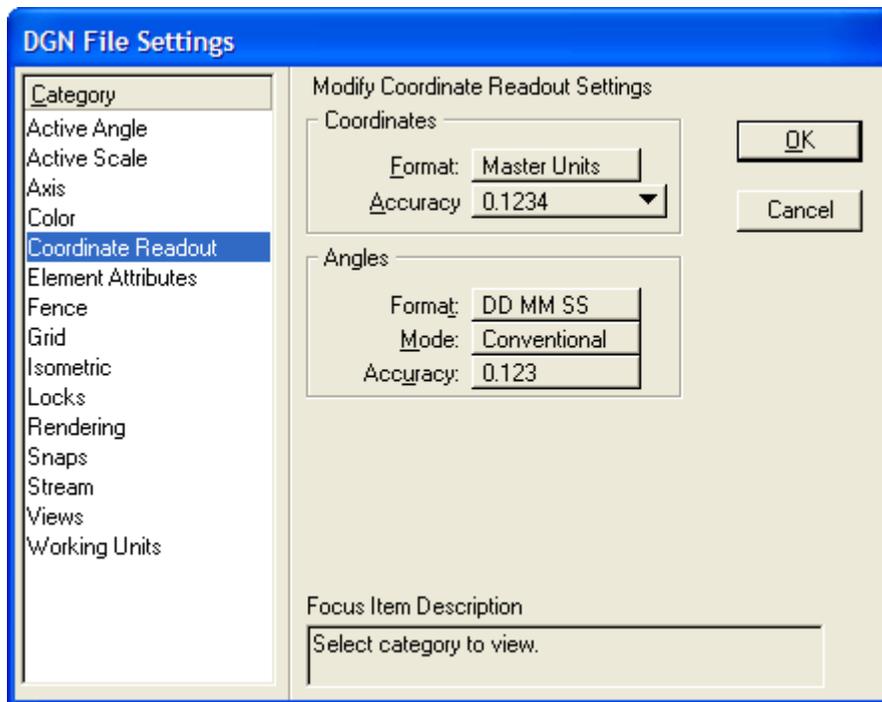


Figure 4-9: Coordinate readout for Metric Bridge Seed Files



Working Units

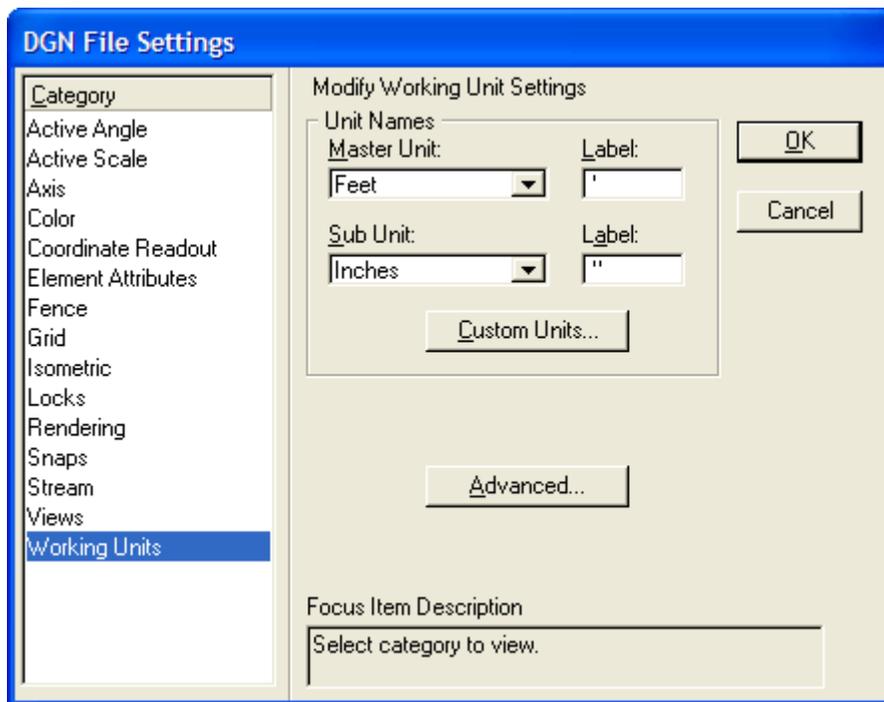


Figure 4-10: Working Units for English International Foot Roadway Seed File

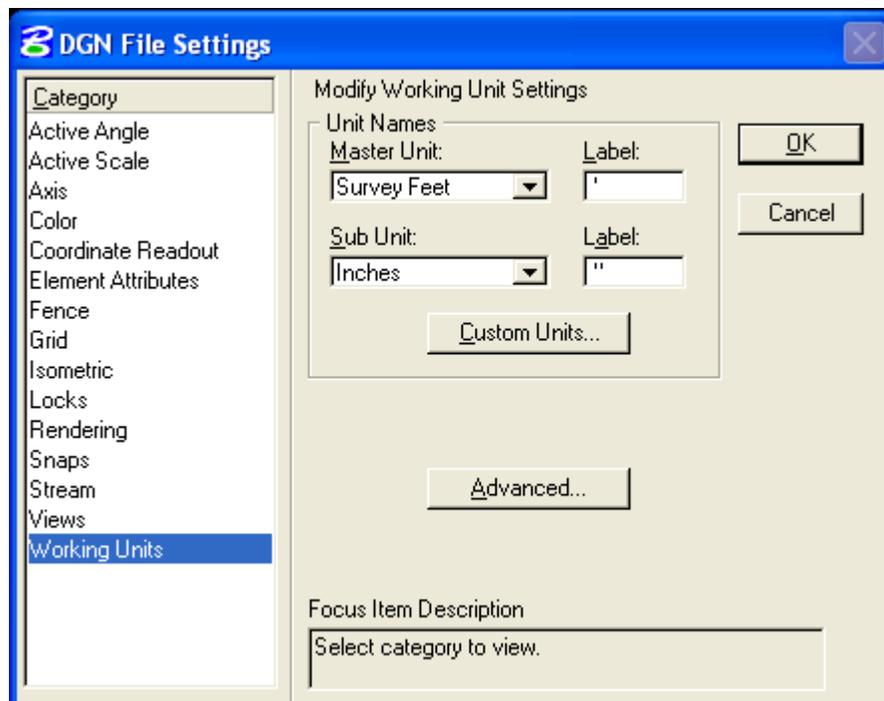


Figure 4-11: Working Units for English US Survey Foot Roadway Seed File

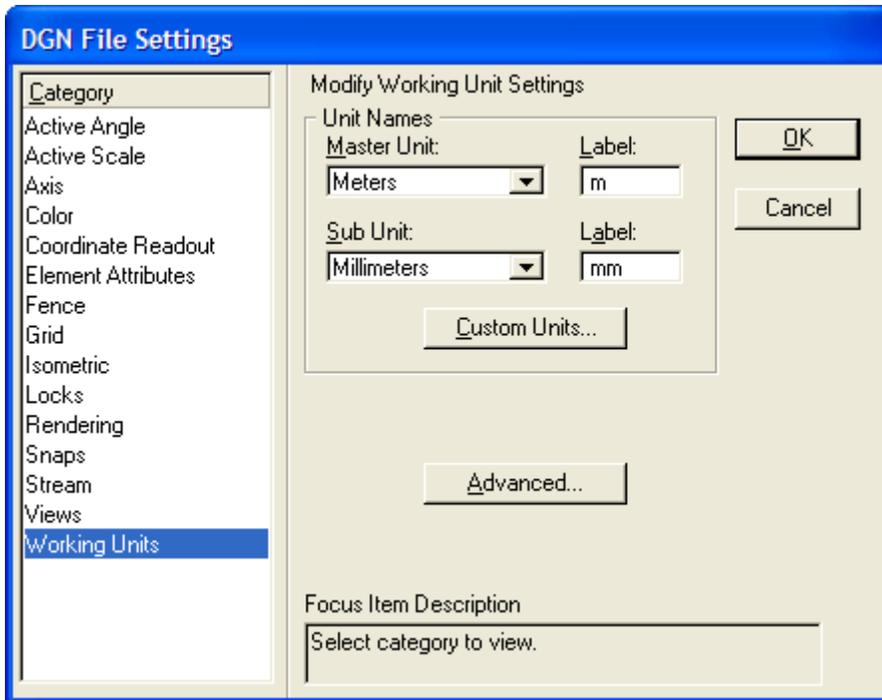


Figure 4-12: Working Units for Metric 2D seed file

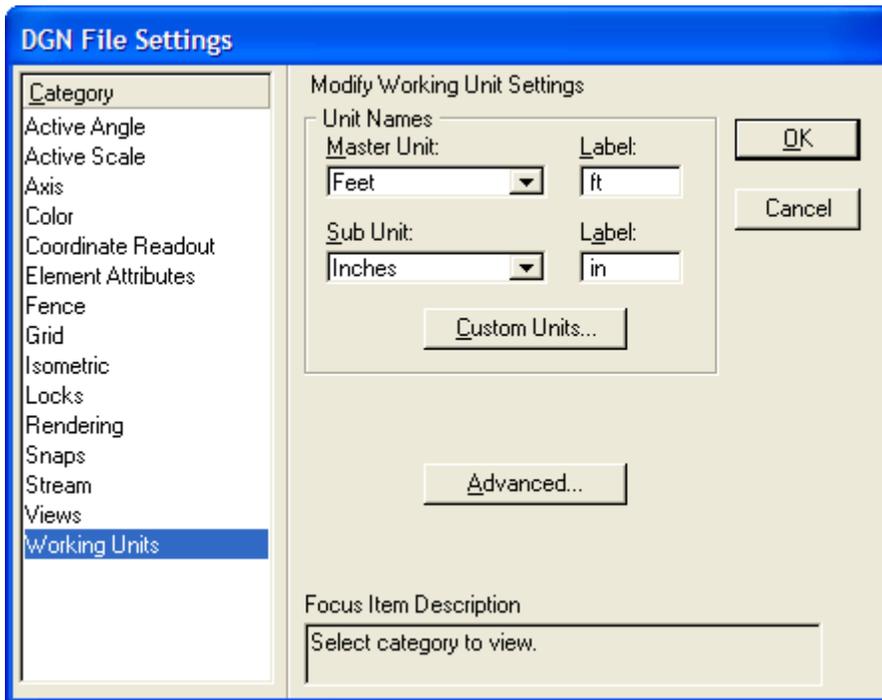


Figure 4-13: Coordinate readout for English bridge seed files

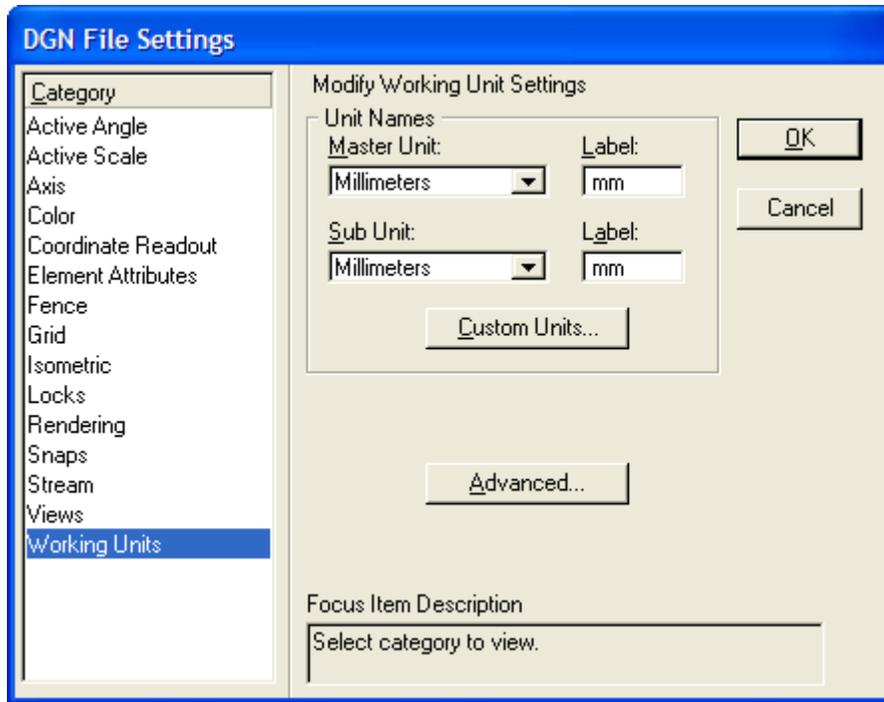


Figure 4-14: Coordinate readout for Metric bridge seed files