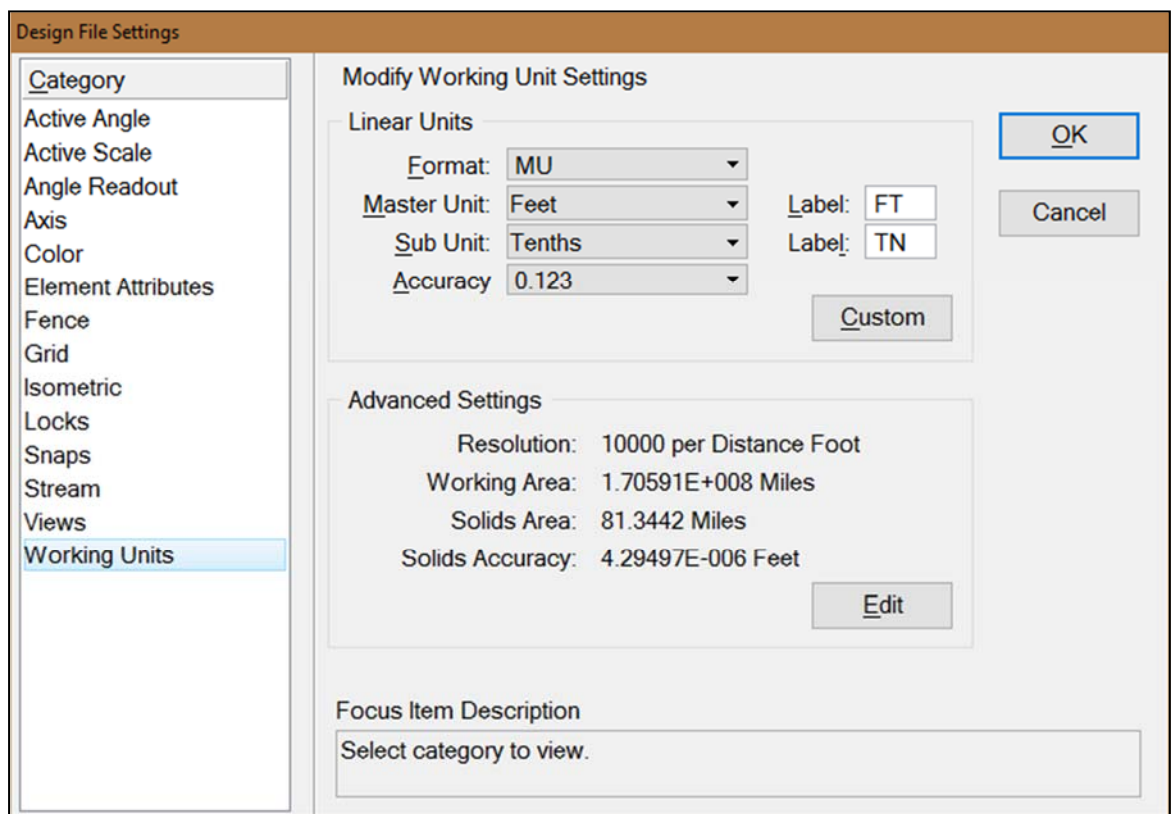


2.3 Working Units

A. Roadway Design Files

The Caltrans standard design presentation software (MicroStation) defines a design file by U.S. Survey Foot with Master Unit set to “Feet” and Sub Unit set to “Tenths.” The resolution for roadway design files is “10,000 per Distance Foot.” These standard values define the size of the working area of the design file. Caltrans roadway seed files have the settings shown below.



To maintain the California coordinate system in design files for all roadway projects, the resolution must remain at 10,000. Changing this value will change the coordinates and the linear measurement of elements.

B. Structure Design Files

Design files for Structures bridge design are based on 1'-0" = 1'-0" with the Master Unit set to "Feet" and the Sub Unit set to "Inches." The resolution and working area are shown below:

Modify Working Unit Settings

Linear Units

Format: MU

Master Unit: Feet Label: '

Sub Unit: Inches Label: ''

Accuracy: 0.1234

Custom

Advanced Settings

Resolution: 1728000 per Distance Foot

Working Area: 987218 Miles

Solids Area: 0.470742 Miles

Solids Accuracy: 2.48551E-008 Feet

Some of the older Structures seed files use a different resolution and working area. Those settings are shown below:

Resolution: 1152000 per Distance Foot

Working Area: 1.48083E+006 Miles

Solids Area: 0.706113 Miles

Solids Accuracy: 3.72827E-008 Feet

It is not necessary to update files that have been created with the settings above. The project should be completed using these settings.

The resolution and working area for a Structures design file differs from a roadway design file.