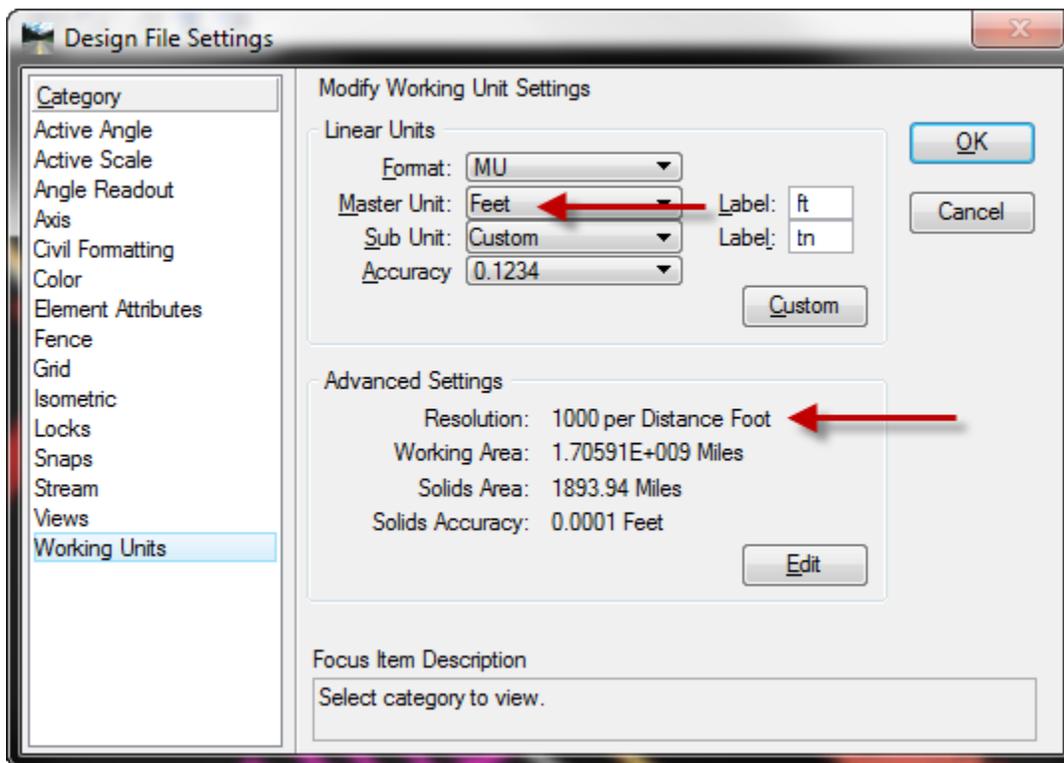


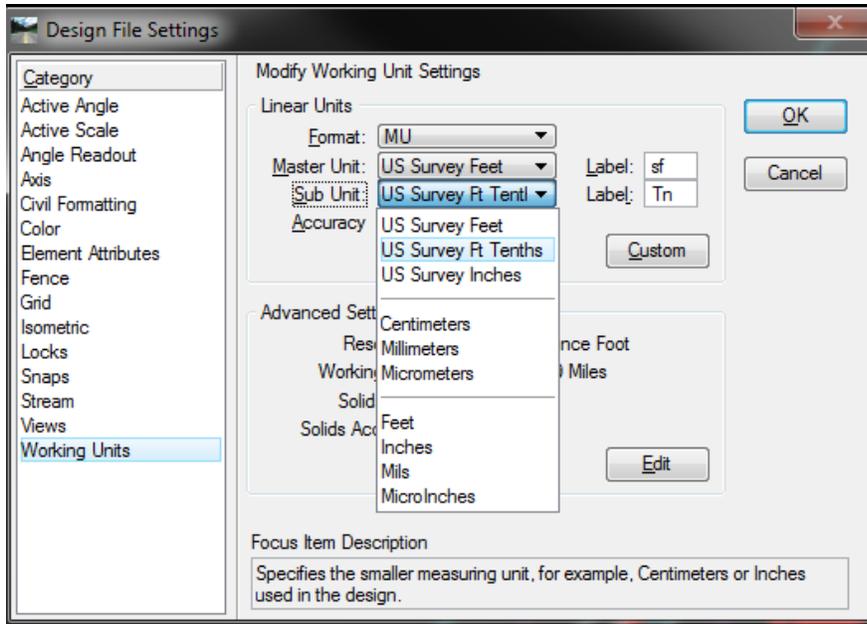
Converting International Feet To US Survey Feet

This document will explain how to convert a MicroStation V8 file from International Feet to US Survey Feet. In order for this process to work, the file containing graphic elements that are at their proper coordinates must stay at the same coordinates after the file is converted to Survey Feet.

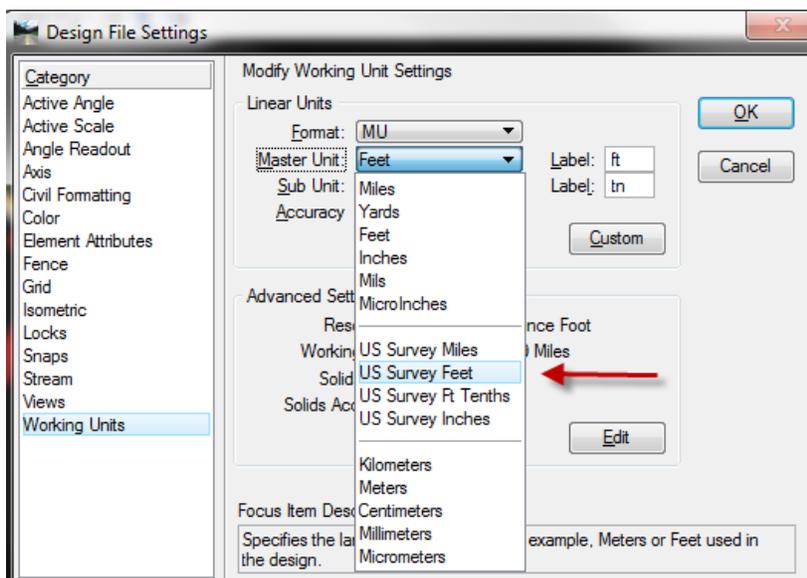
The procedure to convert a MicroStation V8 file from International Feet to Survey Feet depends on how the working units in the MicroStation V8 file are currently defined. The most common situation is when the Master Unit and the Resolution Unit are both defined as Feet (International Feet) as shown below.

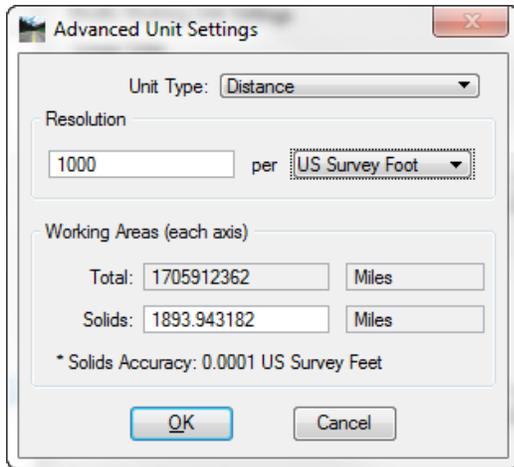


In Roadway Design, we do not use the sub unit inches and instead have been using a custom sub unit called Tenths. We now have a built in sub unit called US Survey Ft Tenths that replaces the need to create a custom one.



When both the Master Unit and the Resolution Unit are defined as Feet (Foot), the file can be updated to Survey Feet by setting both the Master Unit and Resolution Unit definitions to Survey Feet. Using MicroStation v8i SS2 Edition, the Survey Foot unit can be selected from the respective dropdown list.





If you are using an earlier version of MicroStation V8 or need to update a large group of files, a VBA application is available to update the Working Units.

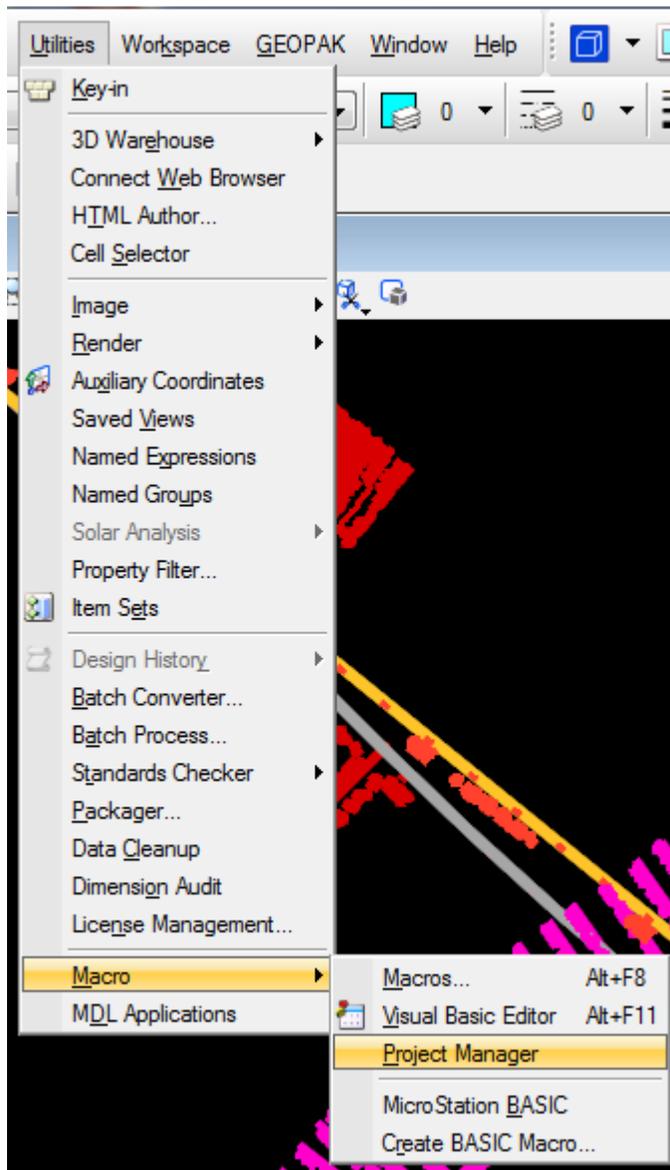
The files needed to complete this process have been added to the R:\RWDDATA\group\VBA folder on both SS2 and SS3 servers.

- *RescaleWorkingUnits.mvba*
- *RescaleWorkingUnits.txt*

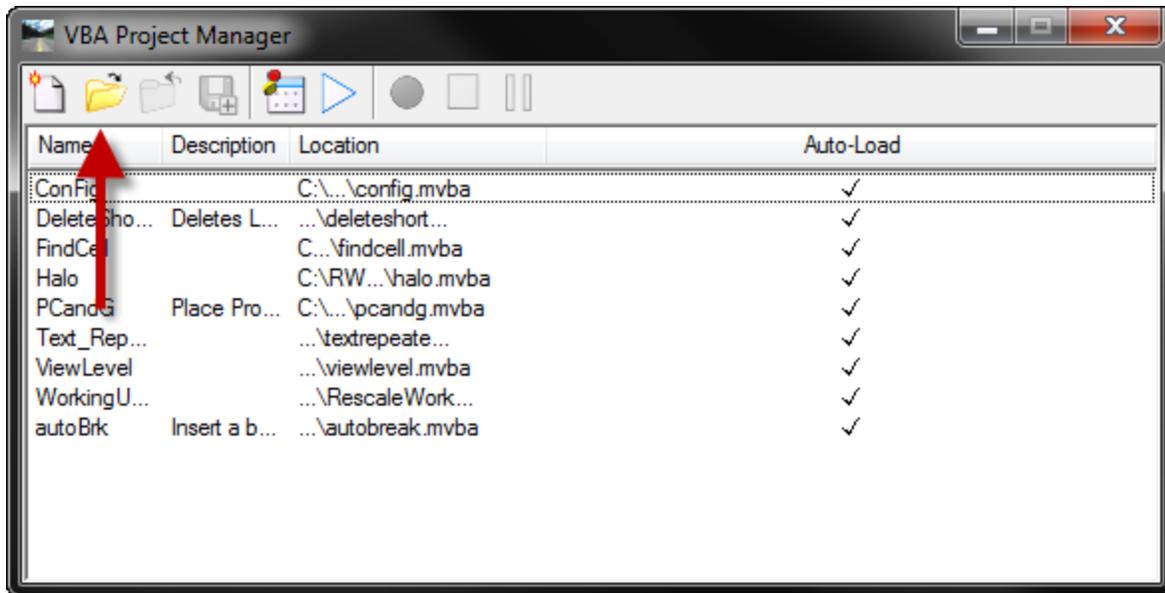
Running the Macro

To run the VBA macro, follow the instructions below.

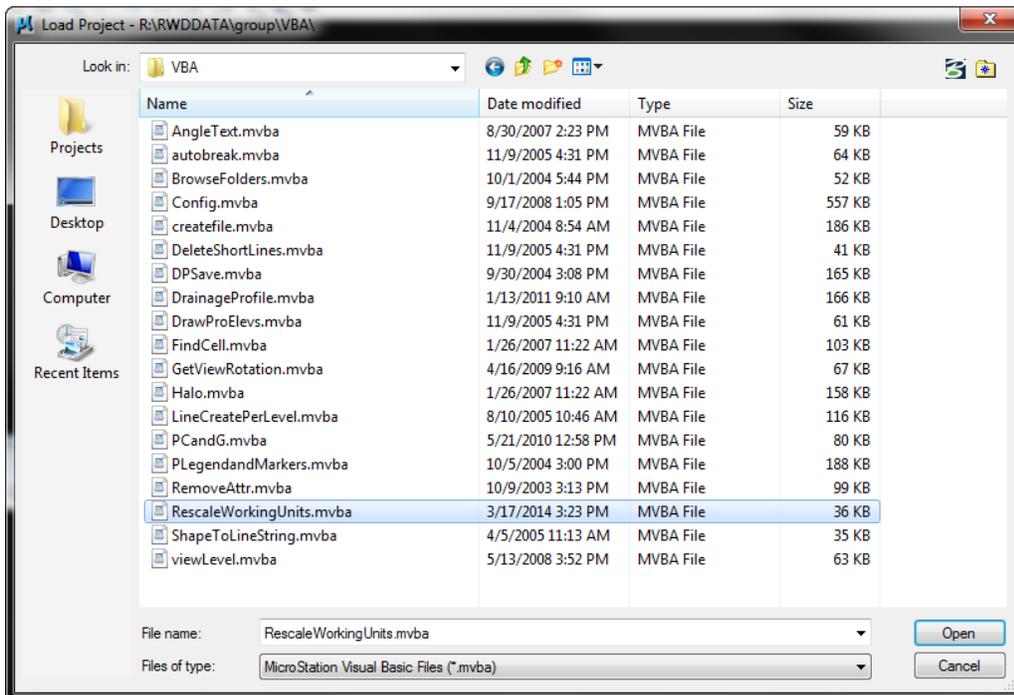
1. Start MicroStation with the file that needs to be upgraded to Survey Feet.
2. Select Utilities > Macro > Project Manager.



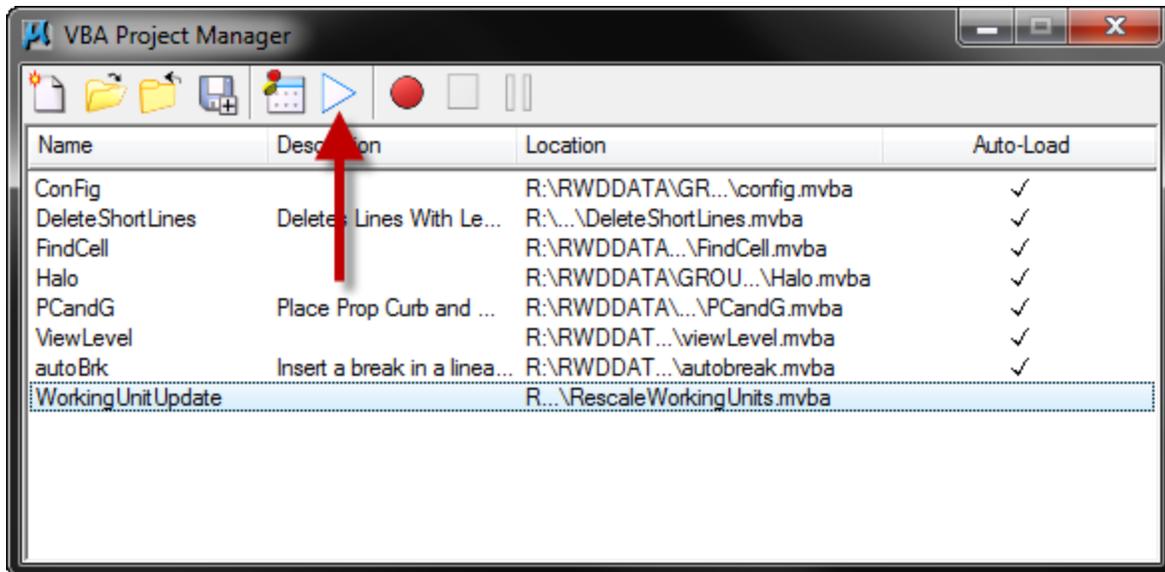
3. Click the Load Project icon.



4. Browse to and select the RescaleWorkingUnits.mvba file located in:
R:\RWDDATA\group\VBA\

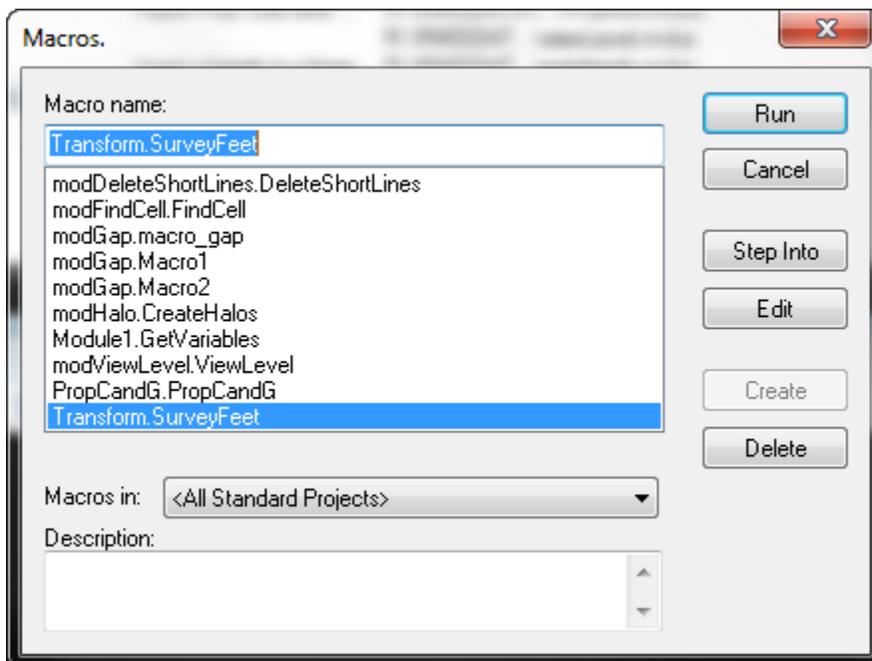


5. Click Open after selecting the file
6. Select WorkingUnitUpdate from the list of projects



7. Click the play icon.

8. Select Transform SurveyFeet from the list



9. Click Run

The current files working units are updated to Survey. The results of the process are logged in a text file named Working Unit Update.txt on your C:\ drive.

The name and location of the output file is fixed in the program. The output is written to a text file so that this utility can be batch processed on multiple files. If the WorkingUnitUpdate.txt

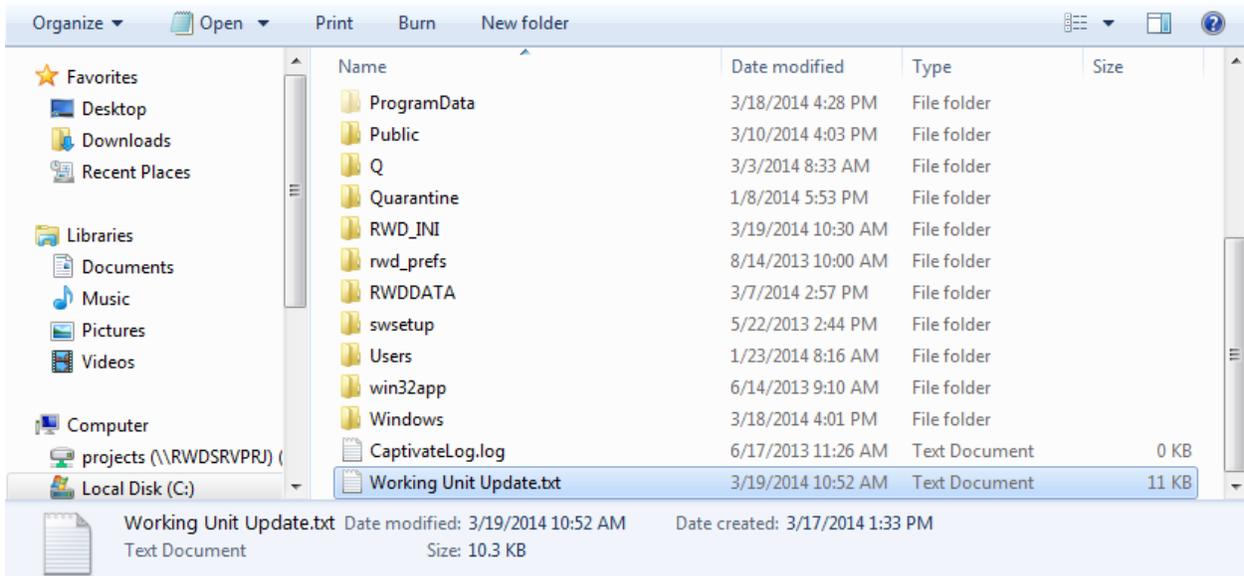
file already exists, the results are appended to the end of the file. If the file does not exist, it is created. The WorkingUnitUpdate.txt file has five columns of information separated by spaces. The first column lists the results of the working unit update (as shown below). The second column shows the design file path and name. The third column shows the model. This utility will process all models in each design file. The fourth column and fifth column show the date and time the action was completed.

The three possible results of the Working Unit Update include:

Working Units updated – Working units have been set to Survey Feet

ERROR BAD MASTER UNIT – Existing Master unit is not set to Feet

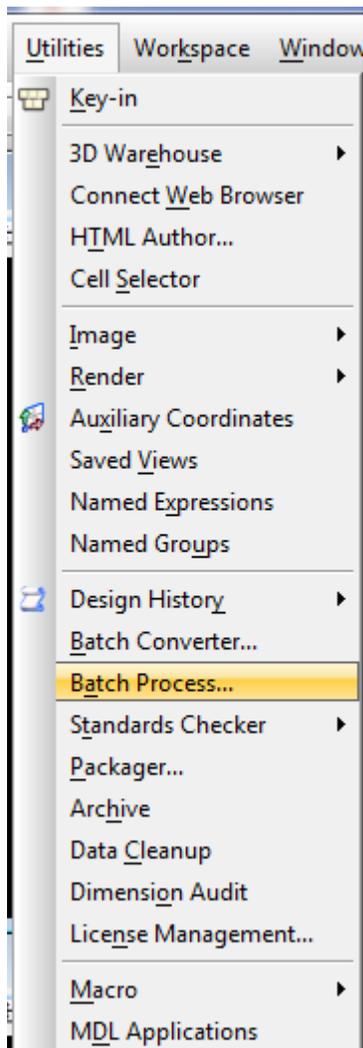
ERROR BAD STORAGE UNIT – Existing Resolution unit is not set to Feet



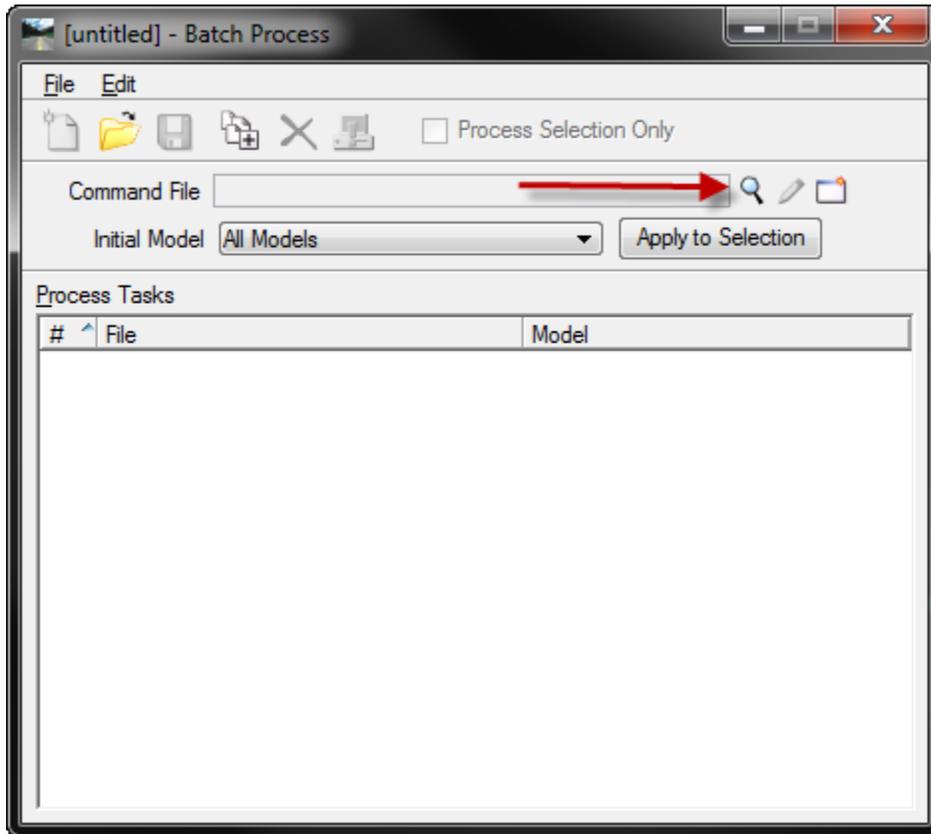
Batch Processing the Macro

This macro can also be used to process multiple DGN files in multiple folders using the MicroStation Batch Process Utility. The instructions for batch processing are listed below.

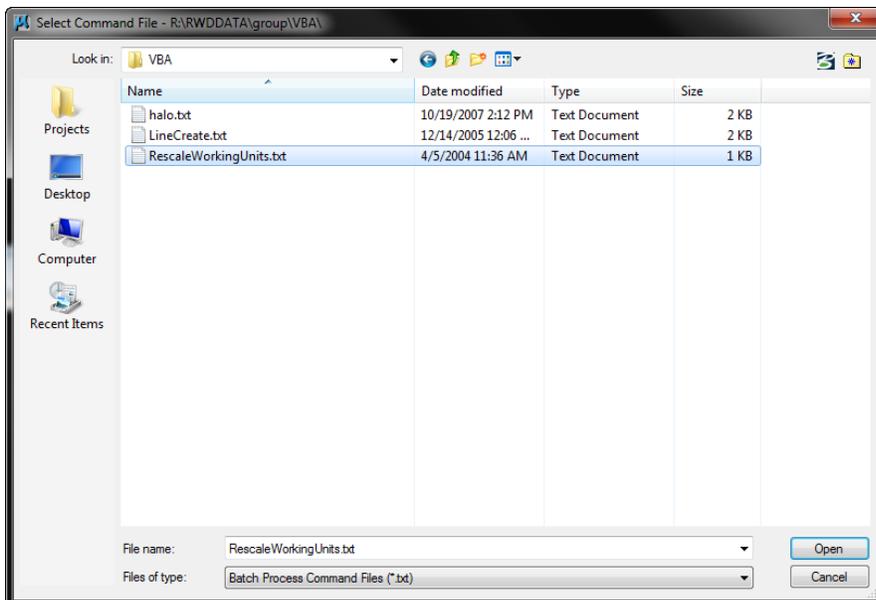
1. Start MicroStation V8 using any DGN file
2. Select Utilities > Batch Process



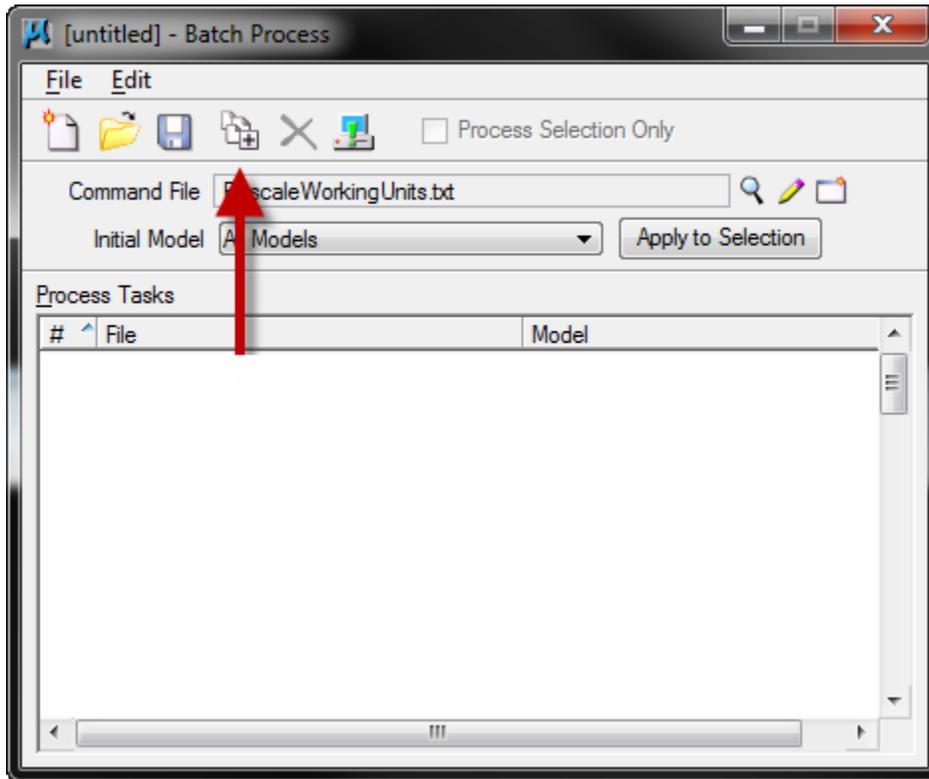
3. Select the magnifying glass icon to the right of the Command File field.



4. Browse to and select the RescaleWorkingUnits.txt file that was previously placed in the RWDDATA\group\VBA\ folder. This file has the command definitions to run the VBA macro.



5. Click the Add Files and Directories icon



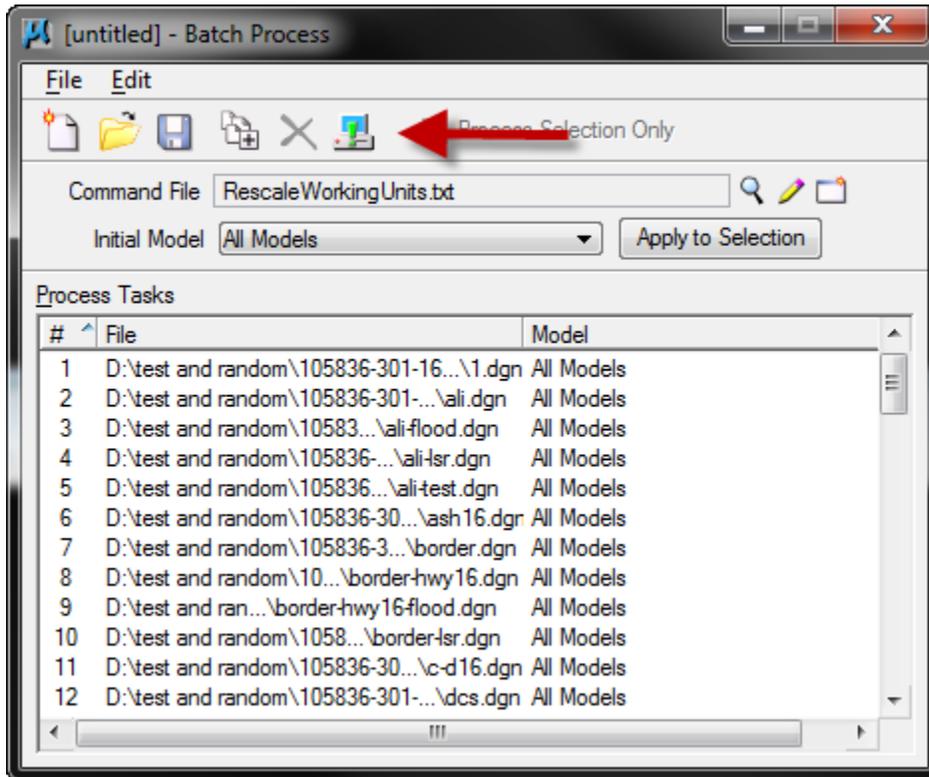
6. Browse to and select the files to be processed. You can select individual files or entire folders.

7. Highlight the desired file(s) or folder(s) in the upper portion of the dialog box, and click Add to include them in the process list.

8. Click Done when all of the files and folders have been selected.

9. If additional files or folders need to be selected, repeat steps 5 and 6.

10. Click the Process Batch Process Job icon to update the selected files to Survey Feet.



All of the selected files working units have now been updated to Survey Feet, as long as the existing Master Unit and Resolution Unit are both defined as Feet in each file. The results of the process are written to the same text file C:\Working Unit Update.txt.