Procedures to Merge MicroStation DGN Files

Keep Low Pressure Natural Gas Pipelines and Customer Symbols

- 1. Before starting the merge process, a blank dgn file (projected in NAD83 10TM) is needed. It will be used as the "Merge Into" file. For simplicity, a blank dgn file can be provided by Rural Utilities. Users can copy this seed file and rename it for every merge.
- 2. Start MicroStation Merge Tool (Run MicroStation: File Merge, see Figure 1).
 - MicroStation V8i (SELECTseries 3)

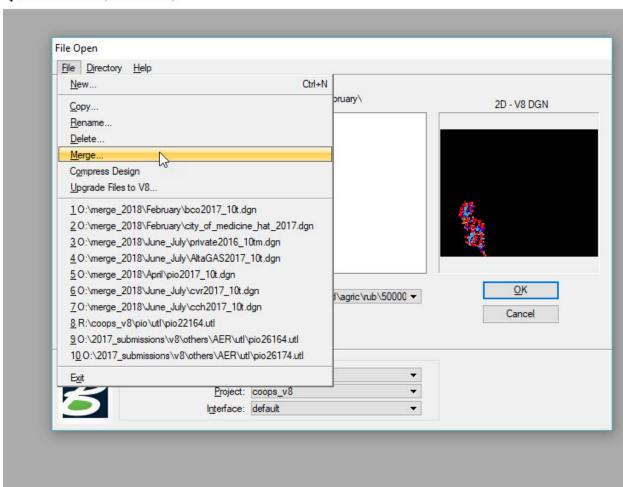


Figure 1. Start MicroStation Merge Tool

Select and add the township and subdivision utility files in the "Files to Merge" and select the empty "Merge Into" file. Then press "Merge" (see Figure 2).

Merge

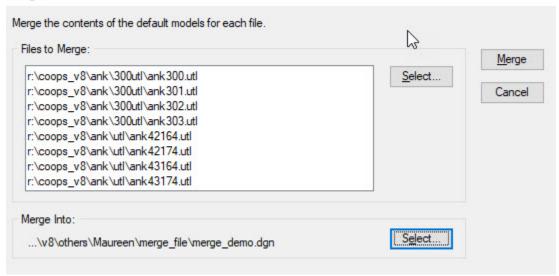


Figure 2. Select utility files and the "Merge Into" file

3. Open the merged file, fit view, turn on all levels, and set the view attributes: Clip Volume, Constructions, Dimensions, Data Fields, Tags, Text and Text Nodes. (Short Cut to open View Attributes: press Ctrl + B, or Menu Settings – View Attributes. See Figure 3).

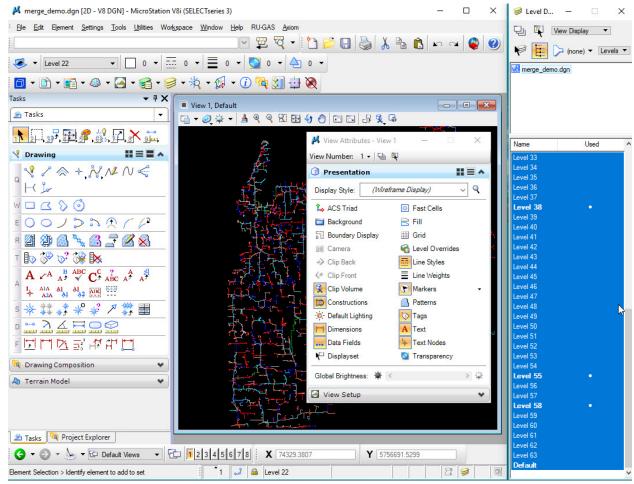


Figure 3. Open the merged dgn file, turn on all levels and view attributes

- 4. Select all other levels but turn off the following levels to keep (Edit Select By Attributes, Inclusive. See Figure 4):
 - ➤ Level 26, PE pipe
 - ➤ Level 29, PVC pipe
 - > Level 38, Abandoned pipe
 - ➤ Level 55, Service symbols
 - ➤ Level 58, Secondary irrigation symbols

NOTE:

*These Co-ops have low-pressure steel that should be added to the levels above to keep:

- ANK level 19
- TLL level 20
- DIN level 20

These Co-ops have low-pressure steel, but only in certain drawings (It is easier to reference these drawings at the end of the process and copy the low pressure steel into the merged file.):

- TIL Level 19/20 (dwg300)
- DVA level 20 (dwg308)
- FMI level 20 (dwg311)
- CTW level 20 (dwg305 & 306)
- CTH level 19 (dwg307, 308, 309)
- CTH level 20 (dwg309)
- YHD level 20 (dwg301)
- TWN level 20 (dwg301)

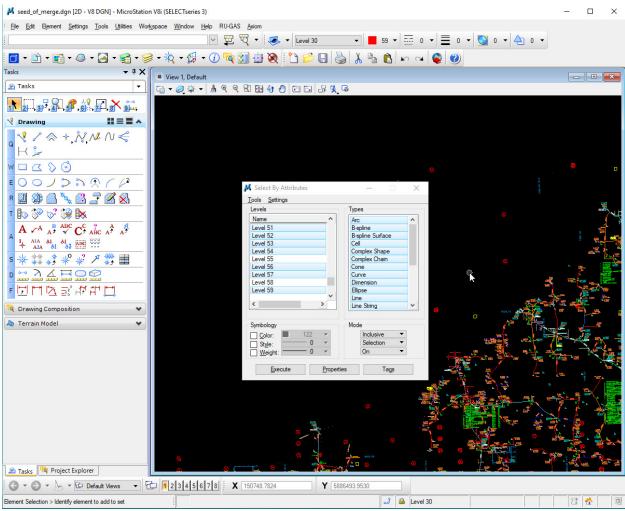


Figure 4. Select By Attributes, turn off levels 26, 29, 38, 55, 58 (also 19 and 20 for those Co-ops mentioned), turn on all Types of elements, Inclusive Mode

Press "Execute" in the above "Select By Attributes" window.

5. All elements inclusive of what is defined should be highlighted. Click on Delete Element to delete highlighted elements (See Figure 5.):

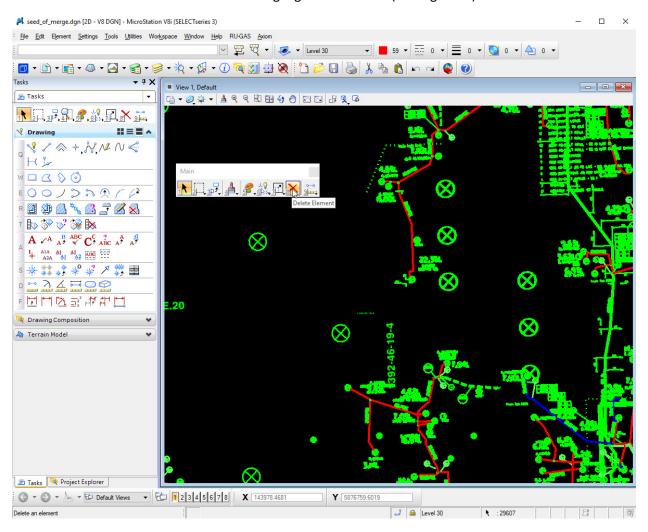


Figure 5. Highlighted all elements (in green) inclusive of what is defined in 4.

Delete highlighted elements.

merge_demo.dgn [2D - V8 DGN] - MicroStation V8i (SELECTseries 3) × File Edit Element Settings Tools Utilities Workspace Window Help RU-GAS Axiom Undo Other 0 + 0 + 4 0 + Ctrl+R ⊸ <u>R</u>edo Set Mark 👔 🕶 🕶 🖎 🕶 😭 🕶 🕡 🛅 🛂 📎 Ctrl+X Tasks 7 X Ctrl+C <u>С</u>ору - - X View 1, Default Paste Ctrl+V <u>≗</u> Ta Paste Special.. Ctrl+G 9 Select By Attributes Group Ctrl+U Ungroup Tools Settings Ctrl+L Lock_ Levels Types Unlock Ctrl+M Name Bring to Front Level 49 B-spline Level 50 B-spline Surface Find/Replace Text Level 51 Cell Level 52 Complex Shape Select All Ctrl+A Level 53 Complex Chain Select None Level 54 Cone Select By Attributes Level 55 Curve Level 56 Dimension DDE Links... Ellipse Level 57 Line Insert Object... Line String Update Links Links Symbology ✓ Color: 86 Inclusive 0 Selection Style: Weight: 0 On **Properties** Tags 1 12 <u>3</u>2 #7 #7 #7 Drawing Composition * A Terrain Model *

6. Delete all cells on level 55 with color 86 – Subdivision Customer #s (See Figure 6).

Figure 6. Select cells on level 55 with color 86, Inclusive Mode

1 🚨 Level 22

▼ 1 2 3 4 5 6 7 8 **X** 95463.1282

Y 5720956.4983

Press "Execute" in the above "Select By Attributes" window.

All elements inclusive of what is defined should be highlighted.

Click on Delete Element to delete highlighted elements.



Tasks Project Explorer

← Default Views

Element Selection > Identify element to add to set

merge_demo.dgn [2D - V8 DGN] - MicroStation V8i (SELECTseries 3) × File Edit Element Settings Tools Utilities Workspace Window Help RU-GAS Axiom Undo Other ■ 0 ▼ 💿 0 ▼ 🔄 0 ▼ Redo Ctrl+R === 0 ▼ Set Mark Ctrl+X & Cut Tasks PΧ Сору Ctrl+C ■ View 1, Default - - X Paste Ctrl+V 💁 Ta G - Ø ☆ - A 9 9 M + 4 0 □ □ 品 9 G Paste Special.. Select By Attributes Ctrl+G Group Ctrl+U Ungroup Tools Settings = ^ Lock Ctrl+L Levels Types Unlock Ctrl+M Name B-spline Bring to Front Level 49 B-spline Surface Level 50 Cell Find/Replace Text Level 51 Complex Shape Level 52 Complex Chain Select All Ctrl+A Level 53 Cone Select None Level 54 Curve Select By Attributes Level 55 Dimension Level 56 Ellipse DDE Links... Level 57 Line String Insert Object... Mesh Update Links Links.. Symbology Color: 81 Inclusive 0 Selection Style: On Weight: 0 四日本學院內日日 Execute **Properties** Tags Drawing Composition * A Terrain Model Tasks Project Explorer ▼ 1 2 3 4 5 6 7 8 X 87290.2277 ← → Default Views Y 5720956.4983 1 🎿 🖴 Level 22 Element Selection > Identify element to add to set

7. Delete all cells on level 55 with color 81 – Non-Burner Symbols (See Figure 7.).

Figure 7. Select cells on level 55 with color 81, Inclusive Mode

Press "Execute" in the above "Select By Attributes" window.

All elements inclusive of what is defined should be highlighted.

Click on Delete Element to delete highlighted elements.



8. Delete all cells, lines and line strings on level 38 with color 65 – Abandoned Symbols and Leader Lines (See Figure 8).

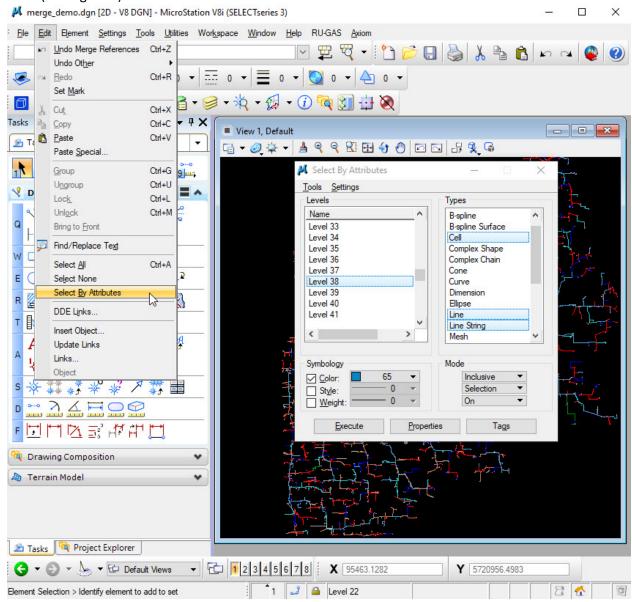


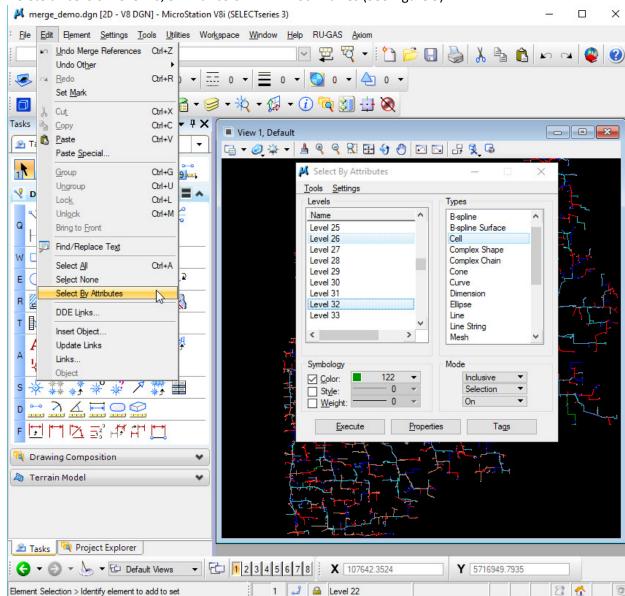
Figure 8. Select cells, lines and line strings on level 38 with color 65, Inclusive Mode

Press "Execute" in the above "Select By Attributes" window.

All elements inclusive of what is defined should be highlighted.

Click on Delete Element to delete highlighted elements.





9. Delete all cells on level 26, 32 with color 122 – Block Valves (See Figure 9).

Figure 9. Select cells on level 26 & 32 with color 122, Inclusive Mode

Press "Execute" in the above "Select By Attributes" window.

All elements inclusive of what is defined should be highlighted.

Click on Delete Element to delete highlighted elements.



10. Ensure the merged file is in NAD83-10TM (See Figure 10).

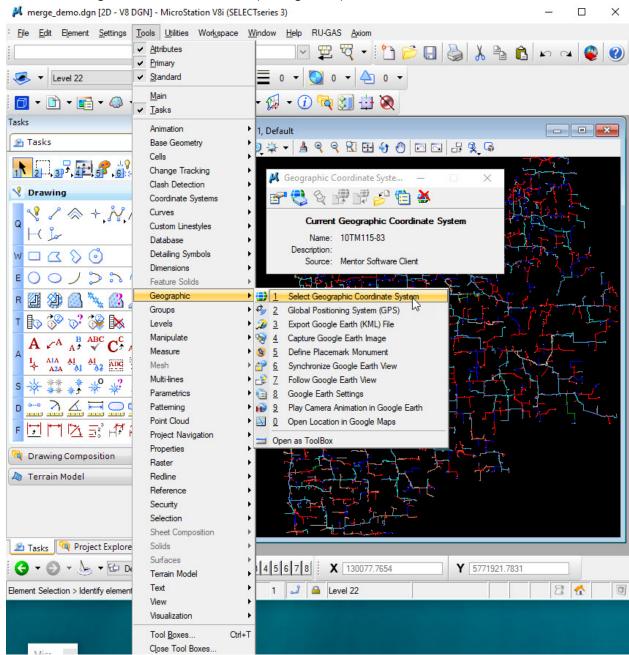


Figure 10. The coordinate system: 10TM115-83

11. Compress the merged file (See Figure 11).

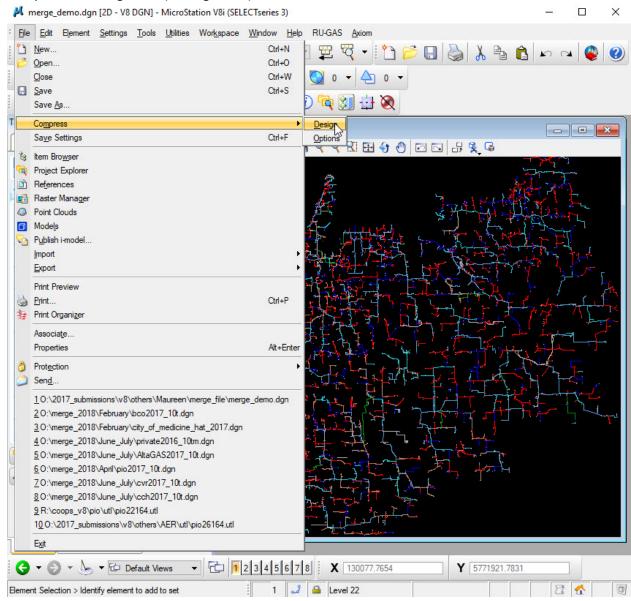


Figure 11. Compress the dgn file

- 12. Scan the merge file to make sure ALL UNWANTED text/text nodes/leader lines/cells are deleted.
- 13. a) If you are missing lines, reference the original utl file common scenario is the missing line is a cell on LV=2 (brought in to utl from GPS).
 - b) Some cells may have been "dropped" in the original utl file and would be missed in this process.

14. Save settings (See Figure 12).

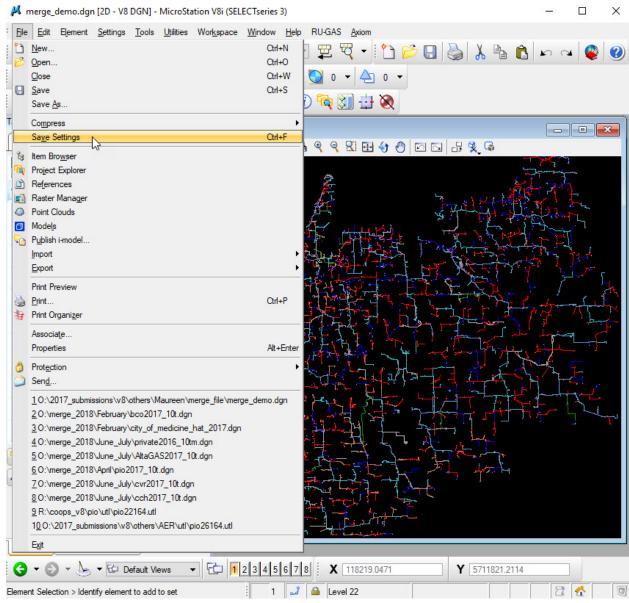


Figure 12. Save settings