Align DGN Data for OpenSite Designer Editing

Background Information

OpenSite Designer and OpenRoads Designer use different civil schemas in DGN files. A DGN file that has been edited with OpenRoads Designer cannot be opened for editing with OpenSite Designer without first being aligned to OpenSite Designer. **Files edited with one product may be attached as references to another product and the civil data contained within the DGN is accessible through the reference.**

To edit a civil DGN file, the civil software schema must match the civil DGN schema in the file.

When OpenRoads Designer is used to open DGNs for editing, it will automatically and without prompting add the OpenRoads schema to the DGN file. *Roadway Designers using OpenRoads Designer should be aware that when they use OpenRoads Designer to edit a DGN file that was created with OpenSite Designer for Survey, Geotechnical, or Traffic uses, they are making the DGN file not editable by the person who created it* (until the DGN file is aligned to OSD)*.*

When editing a DGN file with OpenSite Designer, using the MicroStation Copy commands on civil graphics will immediately cause the OpenRoads schema to be written to the file. *Surveyors, Traffic Designers, and Geotechnical Engineers using OpenSite Designer should be aware that when they use the MicroStation Copy or Copy Parallel commands on civil graphics, they will be required to align the DGN file to OpenSite Designer before they can edit the file again.*

Editing the data (opening the DGN file to edit) must be done using the product whose schema matches the schema of the DGN file. The Bentley civil products have a tool that allows the user to align the DGN file schema to each civil product.

Both OpenRoads Designer and OpenSite Designer are delivered with a Civil File Manager tool that is used to align civil data to each product. A shortcut named "Civil File Manager OpenSite Designer" may be found on each engineering computer with OpenSite Designer installed, in the Engineering\Tools desktop folder.

Table of Contents Links

Instructions for Aligning ProjectWise DGN Data to OpenSite Designer

The following instructions will explain the process with the fewest steps to align DGN data stored in several different folders in ProjectWise. Use these steps when aligning a single file or when aligning multiple files. Aligning DGNs creates backups of the original data. At the end of this process are instructions for creating a ZIP file for retaining a backup of the ORD files in a server share archive.

1. Prepare the Export Folder: Create a project folder on your computer's desktop to store the exported files. Name the folder **K#####_ORD_Files**.
2. Export the files:
   a. Open the ProjectWise Explorer and navigate to your active project.
   b. Use **Export…>Export – Locks File** on DGN files in any ProjectWise folder.
   c. Choose the folder **K#####_ORD_Files** as the Export Folder.
   d. Choose [**Yes to All**] if prompted to Overwrite. *(This will lock a file that was previously copied out as a reference so that you can import the changes.)*
3. Align the DGNs to OpenSite Designer:
   a. Open File Explorer and navigate to your desktop Engineering\Tools folder.
   b. Double-click on the **Civil File Manager OpenSite Designer 2023.00** shortcut.
   c. Select **File>Open>Folder** on the Civil File Manager dialog.

d. [**Cancel**] the ProjectWise Log in dialog and [**Cancel**] the "Select Project" dialog (these are both ProjectWise and the data is on your computer).

e. In the "Browse For Folder" dialog (which should default to your Desktop), select the **K#####_ORD_Files** folder and click [OK].
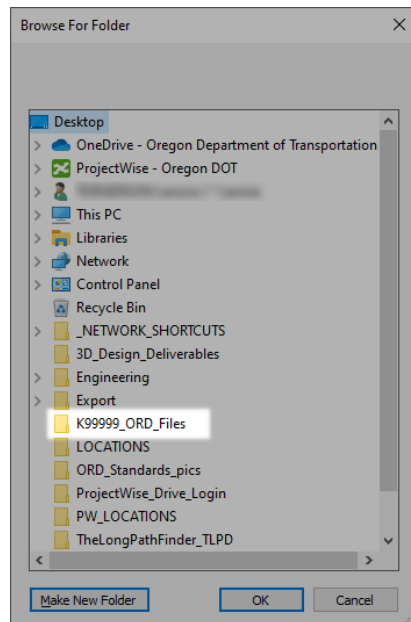
f. Wait for the Civil File Manager to display the Export Folder on the left side list, then select **Action>Align All**.

g. After the Output tab displays "Product Alignment Complete", exit the Civil File Manager.

4. Import the aligned files into ProjectWise using the Local Document Organizer:

a. Open the ProjectWise Explorer and expand the PW_ODOT_PROD datasource.

b. Open the **Local Document Organizer** from the **Tools** menu.

c. On the Local Document Organizer dialog, select **View>Exports** to see a list of all the files that you have exported.

d. Select one document and type **<Ctrl> + A** to select all the documents in the dialog.

e. Select **Action>Import**.

f. Enter a Comment, such as, Aligned to OSD – this comment will be placed in the audit trail of every file that is imported in this action.

The DGNs are now aligned to OpenSite Designer which can now be used to open and edit them.

Option - Retain the backup ORD files: All that is left in the K#####_ORD_Files folder after the ProjectWise import, are the *.bak files which are backups of the original ORD-aligned civil data.

1. Using File Explorer navigate to the Desktop.

2. Right-click on K#####_ORD_Files and choose **Send To> Compressed (zipped) folder**.

3. Copy K#####_ORD_Files.zip to your crew server share for archiving and delete the Export Folder and ZIP file still on your desktop.

Instructions for Aligning Crew Share DGN Data to OpenSite Designer

The following instructions will explain the process with the fewest steps to align DGN data stored in folders in a crew server share. A mapped drive to your crew share is necessary for this process. The example steps below use the Z: drive.

1. Align the DGNs to OpenSite Designer:

a. Open File Explorer and navigate to your desktop Engineering\Tools folder.

b. Double-click on the **Civil File Manager OpenSite Designer 2023.00** shortcut.

c. Select **File>Open>Folder** on the Civil File Manager dialog.

d. [**Cancel**] the ProjectWise Log in dialog and [**Cancel**] the "Select Project" dialog (both dialogs are from ProjectWise and the data is in a crew server share).

e. In the "Browse For Folder" dialog (which should default to your Desktop), navigate through "This PC" to the mapped drive to your crew share, select a project folder and click [**OK**].
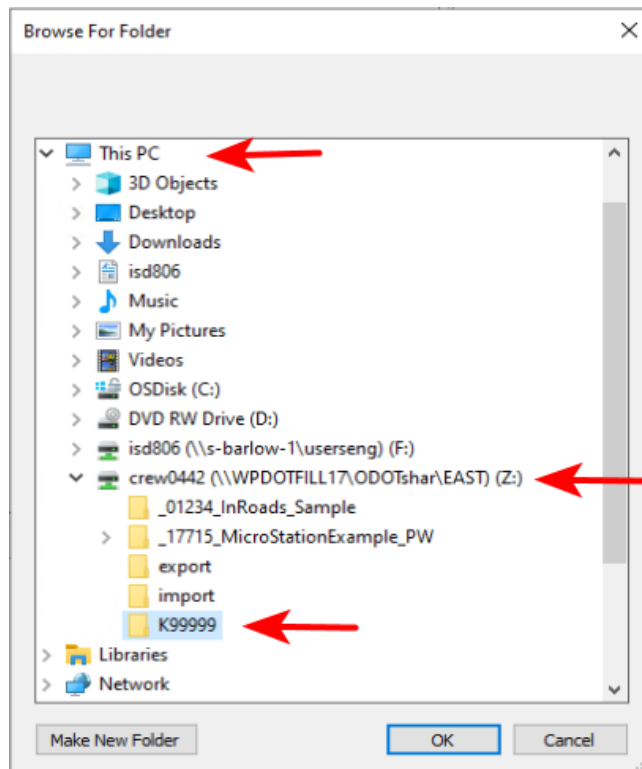
f. Wait for the Civil File Manager to display the Folder on the left side list, then select **Action>Align All**.

g. After the Output tab displays "Product Alignment Complete", exit the Civil File Manager.

The DGNs in the folder are now aligned to OpenSite Designer which can now be used to open and edit them.

Option - Retain the backup ORD files: The *.bak files in the folder are backups of the original ORD-aligned civil data. You may move the *.bak files to a different folder to keep them separate from your OSD aligned DGN data.

Important Facts

- An attempt to open an ORD-aligned DGN in ProjectWise with OSD, will check out the DGN. **The DGN will be left checked out** after canceling the "Incompatible Civil Data" message. The DGN file should be freed using the ProjectWise Explorer.
- When a folder has been opened in the Civil File Manager - selecting an individual file from the left-side list on the Civil File Manager does **not** limit the action to the one selected file!
- The Civil File Manager ignores DGNs that don't contain civil schema data. You don't need to cherry-pick files when exporting from ProjectWise; export all the files from the Survey folder, for example, you will import an unchanged file if it contained no civil data.
- View>Contents in the Civil File Manager persistently produces a Problem Notification and an abrupt exit - don't use it.
- When files are exported managed *(Export – Locks file)* from ProjectWise, then aligned locally, and finally imported - the *.bak files are retained in the local folder and are not written to the ProjectWise datasource. This allows you to zip the .bak files up and retain the DGNs with their original ORD schema in a crew server share. The *.bak files don't belong in ProjectWise.

Troubleshooting "Incompatible Civil Data" Message

Sometimes things just don't work out the way you expect them to. Below you will find some scenarios that that may happen and see some suggestions.

Scenario 1

I'm using OpenSite Designer and when I try to open a Survey terrain file to edit it, a dialog opens that states, "Incompatible Civil Data". My choices are to click [OK] to open it Read-Only or to press [Cancel] to close.
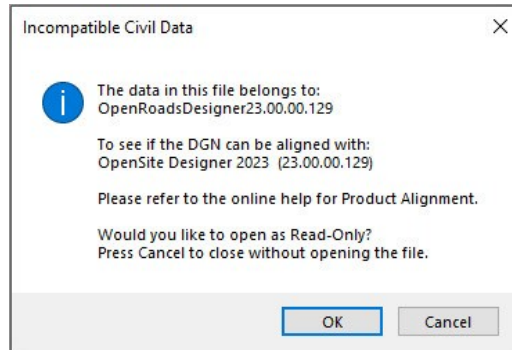
Suggestion for file owner: Click [**Cancel**]. The owner of the file should follow the Instructions for Aligning ProjectWise DGN Data to OpenSite Designer above. After the file has been aligned to OpenSite Designer, you may edit the file.

Suggestion for person who does not own the file: Click [**OK**] to open the file Read-Only, or click [**Cancel**] and attach the file as a reference to a file that you own.

Scenario 2

I'm using OpenSite Designer and when I try to open my Traffic geometry file to edit it, a dialog opens that states, "Incompatible Civil Data". My choices are to click [OK] to open it Read-Only or to press [Cancel] to close.

Suggestion for file owner: Click [**Cancel**]. If your file has been aligned to a product different than what you use to edit the file, you have likely caused the file to become aligned with ORD yourself by using MicroStation Copy or Copy parallel. Align the civil data in the file to OpenSite Designer. To prevent causing more civil schema changes, use OpenX commands Copy Element and Geometry>Offsets and Taper.

Contact the Engineering Applications Support Team (odot.east@odot.oregon.gov) for assistance in running the Civil File Manager.