



## CAiCE - Exporting Base Plan Data to MicroStation

Elements in CAiCE can be easily translated to a MicroStation design file. The majority of elements in CAiCE can be brought across with the correct element attributes (level, color, weight, style and size), which are controlled by the feature code and current display settings in CAiCE.

### *Preparing for the Translation:*

There are several steps that you can take for significantly improving the CAiCE to MicroStation translation process. In addition to all elements going to the correct level with the correct weight, color and linestyle, an optimal translation will take all elements in CAiCE that have a standard feature code and convert them to the correct cell or linestyle at the correct size in MicroStation. Make sure that these steps have been done prior to translating any data:

1. Attach the correct feature table. The feature table contains the translation parameters for all feature codes. (When you start a CAiCE project you should have created a project level feature table.)
2. Set the desired scale for cells and text. This is accomplished with the **Settings => Sheet Format => Plans Production** command. In the Plans Production Settings dialog box, set the "Drawing Type" to PLAN and the "Sheet Scale" to the scale being used in the MicroStation basemap. When you click OK, the cell and text size settings will be adjusted appropriately for your scale.
3. Turn off all patterning in CAiCE. Patterning must be turned off in order for chains to be translated properly to MicroStation. This will ensure that the translated chains will be single elements with the correct linestyle. Unpatterning the Geometry chains ensures that they will translate as individual lines and curves that can be easily connected with the AutoChain command in MicroStation. Centerline patterning should also be turned off. Unpatterning the centerlines in CAiCE and applying station ticks to alignments with MicroStation Tools creates alignments in MicroStation that are much easier to manipulate. Use the information below to disable patterning in CAiCE.
4. Use the **Settings => Object Display => Survey Chain** command to disable patterning on survey chains.
5. By default there is no patterning set on geometry chains, so unless you have modified the geometry chains settings to pattern geometry chains, you can skip this step. Use the **Settings => Object Display => Geometry Chain** command to disable patterning on geometry chains. Click on the "Geometry Chain" tab and clear the "Pattern" check box for each code with special object display settings.



6. Use the **Settings => Object Display => Geometry Chain** command to disable patterning on geometry chains. Click on the "Alignment" tab and clear the "Pattern Stations" check box for each centerline code that will be translated.

### ***Specifying what to translate:***

What you see on the CAiCE graphics screen is what will be translated to MicroStation, so view only the information that you wish to send to the MicroStation file. It is usually easier to translate discreet chunks of information rather than an entire basemap. This makes it much easier to check, compile and revise on the MicroStation side. For instance you might translate your project's centerlines in one file, and your project's ROW limits in another.

### ***Performing the translation:***

1. Clear the view and then display all of the elements you wish to translate to MicroStation.
2. Select the **File => Export Translators => To Intergraph/MicroStation => Screen Graphics To V7 DGN File** command.
3. In the Seed File field, select the appropriate MicroStation seed file for the type of design file that you want to create. Use either MSEED.DGN or ESEED.DGN, depending on whether your data is metric or English. The seed files can be found in the C:\CAE\_RSC\CAICE\_V10\SEED folder.
4. In the **Cell Library** field, select the appropriate MicroStation cell library to use during the translation. This will be either WAMSTATE.CEL or WAESTATE.CEL depending on whether you are working with a metric or English design file. The cell libraries files can be found in the C:\CAE\_RSC\CAICE\_V10\CELL\To CADD Cell Libraries folder.
5. In the **DGN File:** field, type in the name of a file or click the **Files...** button next to the field to select an existing file. If an existing file is specified, you will be prompted if you want to append, replace or cancel.
6. Make sure that the **Use User Defined Linestyle Table** option is checked.
7. Press **SAVE DGN** to create or overwrite your MicroStation design file.
8. Open the MicroStation design file and execute a Fit View command to see your data. Zoom in and check to make sure that everything you were hoping to translate was brought across correctly.



Hints:

Do not try to send text. Although text will translate, most MicroStation operators would just as soon place the text themselves rather than move and rotate text received from CAiCE. One method that can speed things up is to send one set of data without text for incorporation into the master base plan, and another file including the text that can be referenced to facilitate placing the text in MicroStation.

Establish a transfer directory. It is a good idea to have an agreed upon location for DGN files containing CAiCE data to be stored. The CAiCE user creates the transfer files and copies them to the transfer directory. The MicroStation user reviews the files in the transfer directory and incorporates the data into the master MicroStation files.

Reference new CAiCE data to good basemap, review and then copy it in.

Send small amounts of discreet data.

Limitations:

Geometry chains do not come across as complex elements. Edge of pavement chains, for example, do not translate into "connected" or complex chains in MicroStation. The pieces can be connected quite easily in MicroStation by using the Create Complex Chain command with the Autochain feature enabled.

All cells are placed at a 0° orientation. This means that any cells that require correct orientation will need to be manually rotated in the MicroStation file.

For questions or comments on this tech note, contact your regional CAE Support Coordinator.