

Generative Components 101

Lesson 5: References and GC

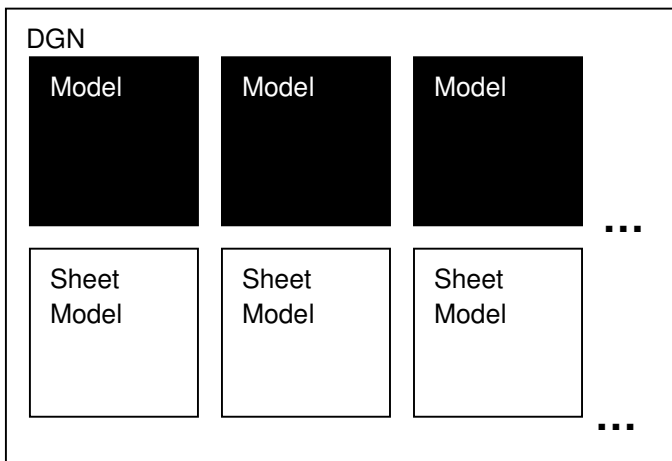
(Note: To be read with the downloadable seedGC.dgn. CAD managers – use your own default seeds as a basis for creating your own GC seed file. The downloadable one is an example only and will not contain your correct units etc.)

I've been trying to insert a reference file but I can't see it.

Ok, we need to look at the structure of a file to understand what's happening.

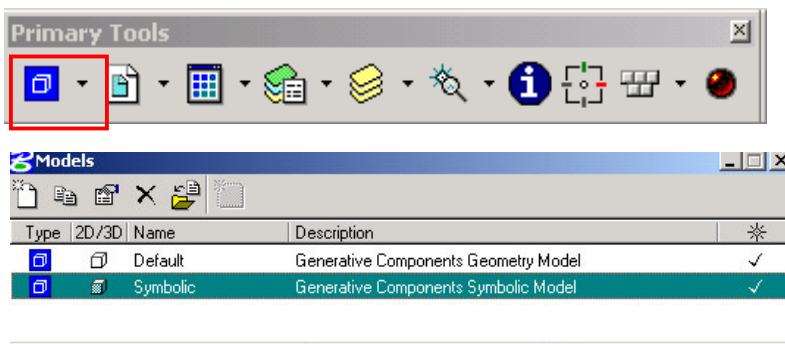
A DGN consists of at least one model – the Default Model, but can also consist of multiple spaces or “models” as Bentley terms them. The file may contain any number of additional models and they may be either Design Models or Sheet Models.

Some companies don't use Sheet Models yet and generally only draw in the Default model, as multiple users cannot access different models within one Dgn file. You may have noticed multiple models in a cell library though as each cell is a different model within the same library file. Ask your CAD department to show you an example if you are confused.



So if we typically only use one model... do we need to use other models then?

If we go to the Models Tool in the Primary Tools dialog box we can see two models. Normally you would have to create any new models here. In the seedGC.dgn, the Symbolic model has been created for you. Double clicking on either of the models will take you into that space.



Ok, I double clicked on them and I could see my screen switching models. But now I can only see them one at a time when I used to see both models at once!

Ok, lets create a new script and look at the names of our views.



View one is a model called Symbolic. View two is the model called Default. We are viewing 2 models at once! In normal MicroStation you can only view one model at a time. **Generative Components is special in that it can actually view two models at once!**

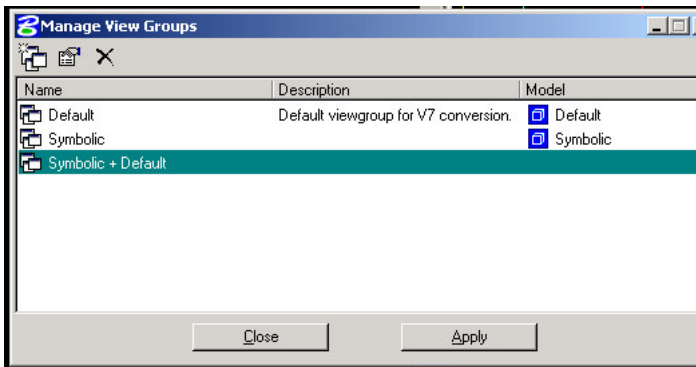
We are actually looking at what is called a **View Group**.

Creating a View Group is saving groups of view windows together. View 1 might be of the whole plan and view 2 might be a small part of the plan. If we create a View Group of both models, then we can recall it at any time. GC has used View Groups to let you see two models at once.

The View Groups toolbar is normally at the bottom left of the MicroStation window.



If you click on the Manage View Groups Tool you will see the groups in the seedGC.dgn.



In the dialog you can see three groups have been created.

The first is called Default. Bentley has called the description “Default viewgroup for V7 conversion.” It is present in every MicroStation file.

The second View Group is called “Symbolic”. This is where your symbolic drawing is created.

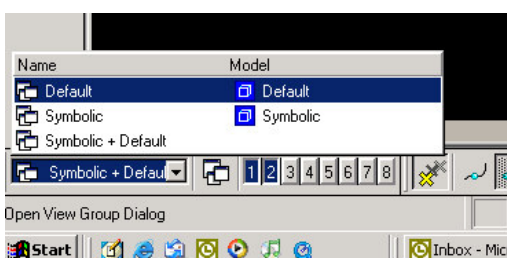
The third View Group I have called “Default + Symbolic” and it is a combination of the two Models. In view one we have the Symbolic model and in view 2 we have the Default model. This is what we are used to looking at in GC.

This is a special view and cannot be recreated – Do not delete it!

Don't forget to read the top of your view windows to see what model your view is from:



Double clicking on the views in the Manage View Groups dialog will change the view on your screen – give it a go. You can also do this by using the pull down button in the View Groups dialog. If you lost your view of both the models before then you can now restore the Default + Symbolic view.



So how about the Reference files bit?

The important thing to know when attaching a reference file is which model you are in.

You need to be in the **DEFAULT** model.

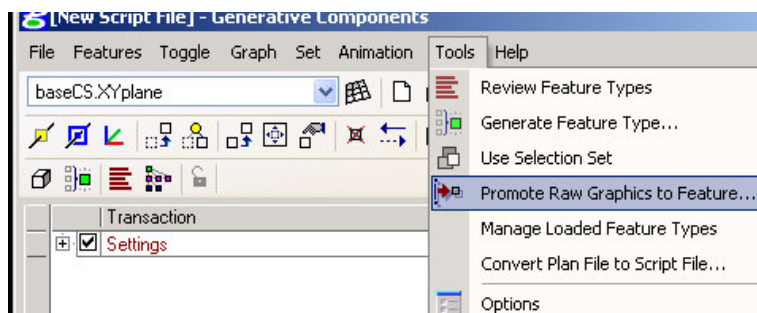
In a new script you are normally in the special “Symbolic + Default” view group so you need to change it. Either change the View Group to “Default” or use the Models dialog box to change to the Default model.

Now reference in your MicroStation file. Once in place you can switch your view group back to the Symbolic + Default and carry on working.

How do I turn parts of my Reference file into a Feature?

Lets say you have a curve in your reference file that you want to use in GC. First copy the curve into your drawing as you usually would.

Then in the GC dialog box go to **Tools>Promote raw Graphics to Feature**



Your arc immediately becomes a Feature that you can edit.

Warning: GC is temperamental about copying! Get close to what you want to copy and select it without hovering over other lines. You may find your cursor just refuses to select anything in your file once it has hovered over the first element it finds. In this case choose another tool and then select copy again to kick start it! Hopefully this will be sorted out soon!

Note: Level display displays the Used levels from the last Model you entered. Check this is Default if you are using references.

Bug: It's possible to alter the view groups to look at two models (take on the properties of the Symbolic + Default view group) without intention. Is there a way to restore the model? No idea!