



P&P Sheet Layout File Builder

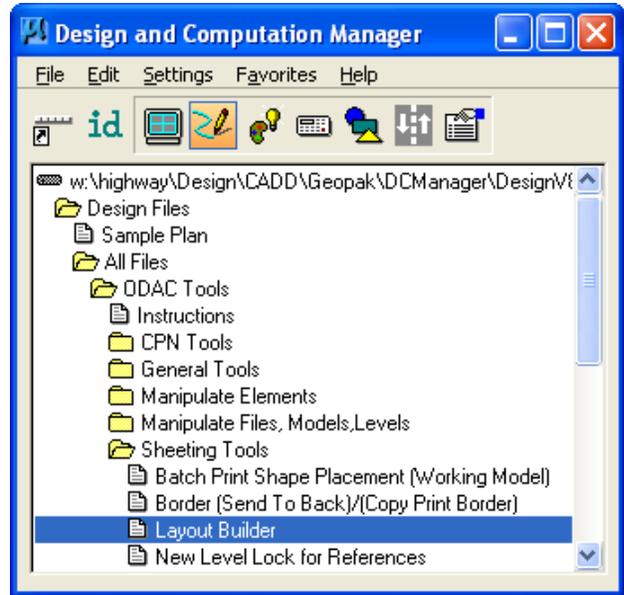
Design Manual
Chapter 21
Automation Tools
Instructions

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This tool can be accessed from the Geopak: D&C Manager, as shown at the right.

If the item is not found as shown, use the *D&C > Edit > Find* tool to locate it.

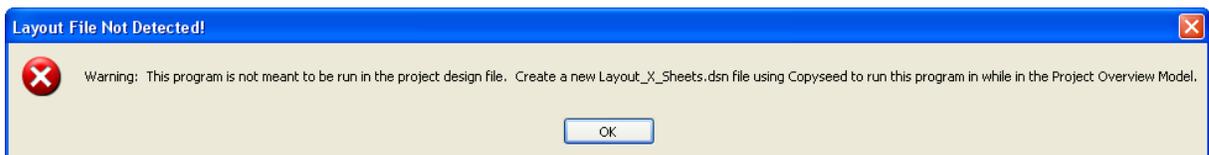
The purpose of the **Layout Builder** program is to develop a file to be used for the Plan & Profile (P&P) sheet, “port shape” placement **Layout** and to be used as the source file for the creation of the “Motif” files for Geopak P&P sheeting. For additional information on Motif files and Port Shapes, see the links below.



NOTE: To fully understand the purpose and use of the **Layout Builder** program, it is first necessary to understand the Geopak “P&P sheeting” process, Port Shapes, the “Motif” file concept, and the “Motif Builder” program. For additional information on these subjects, see [21B-04](#) and [21B-02](#).

The **Layout** file concept and the **Layout Builder** program are optional “sheeting” steps, sometimes used to simplify sheeting when the “design” file contains multiple “alignment models” that use the exact same sheet type, (such as Eng 3000-10-1-2).

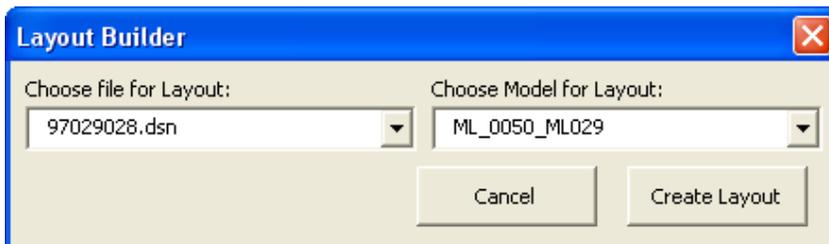
The **Layout Builder** program is to be run from within an empty **Layout** file. The file name must begin with “**Layout_**”. (Example file name: “Layout_D_Sheet_ML029NB.dsn”). A warning, (error), message will display if an attempt is made to run the **Layout Builder** program from a file with a name that does not begin with “**Layout_**”. The “Warning message”, shown below, will state that “a new **Layout** file should be created through the **CopySeed** program”. For more information on the **CopySeed** program, see [21C-54](#).



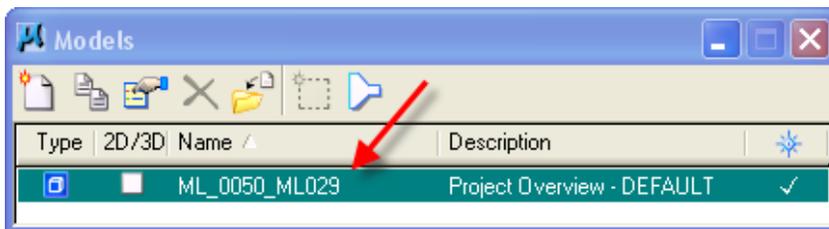
There is not a specific seed-file for creating a **Layout** file, so when using the **CopySeed** program to create one, choose the file type “**Highway Design File (.DSN)**”. Provide a name for the file as desired, (such as “Layout_D_Sheet_ML029NB.dsn”). The name of the new file must begin with “**Layout_**”, (as shown in the example). This will also cause all “layout” files sort together.

If the Layout file is being created for the purpose of sheeting a “.geo” or “.sol” file, make sure the new Layout file extension is “.geo” or “.sol” to match the design file. The **Layout Builder** program will list only files with extensions that are the same as the **Layout** file extension.

Again, the **Layout Builder** program is to be run from within an empty **Layout** file. To run the **Layout Builder** program, *double-click* the **Layout Builder** item in the **Geopak: D&C Manager**, as located above. This will produce the **Layout Builder** dialog shown below. (A Layout File is a modified copy of a selected design file.) From the drop-down selection lists, choose the design file and model that are to be used to create the new “layout” file, then *click* the **Create Layout** button.



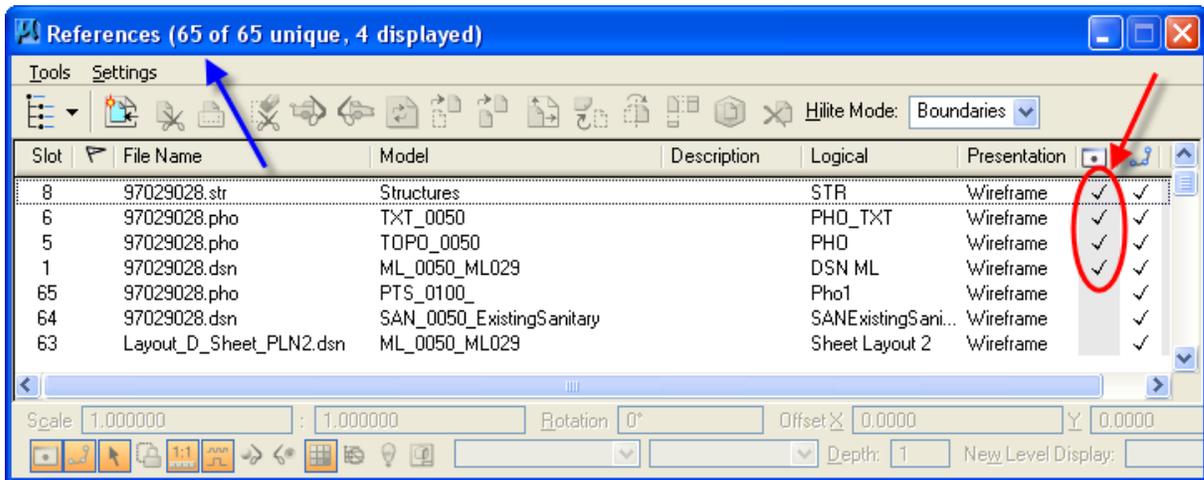
The **Default** model in the **Layout** file will be renamed to match the name of the copied model, as shown below.



The new model in the **Layout** file will be identical to the copied model, except that all live elements in the original model will be converted to one additional reference in the new “layout” model instead of remaining as active elements. When the **Layout** file is first created, it contains no active elements.

The entire list of references present in the original model will be present in the **Layout** file, (shown by the blue arrow, below). The only reference attachments originally displayed, (turned on), in the new **Layout** file, (shown by the red arrow), will be the same references that were being displayed in the copied model at the time the layout file was created. Even though it is not required to detach the unused and non-displayed references, it is suggested to detach unnecessary references to merely clean up the file and eliminate unnecessary “baggage”.

NOTE: Some procedures check every element in every reference and model, even if they are not displayed, (turned on). Therefore, eliminating unused references should speed up processing.



The next step in the **Layout** file development is the placement of the Geopak plan sheet “port shapes”, through the **Plan Sheet Layout** dialog. The procedure for “**Port Shape Placement**” is the same whether in the project “design” file or in the newly created alignment specific **Layout** file. Therefore, the same instructions for the **Geopak Plan Sheet Layout** procedure will work for both files. For information on **Port Sheet Placement** in the **Plan Sheet Layout** procedure, see the P&P Sheeting Instructions, file [21B-4](#).