Retargeting Designs in Mentor Graphics Design Architect

A new utility in Design Architect (DA) from Mentor Graphics can be used to retarget schematic-based designs between Xilinx FPGA families. Although the *Mentor Graphics Interface/Tutorial Guide* recommends using the Change References utility in Mentor's Design Manager to accomplish this, the latest version of the Mentor interface (5.2) includes **Convert Design**, a more thorough and robust utility for retargeting a Xilinx schematic.

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Invoke PLD_DA (it is not necessary to open the schematic). On DA's desktop background (that is, outside of any schematic or symbol windows), call up the session pop-up menu with the mouse button on the right and select Convert Design. Of the fields in the resulting dialog box these are the most relevant:

Select a group of designs from a list file? Whether you answer "yes" or "no" to this question affects the following field.

Enter Design name (List file = no). The name of the design to retarget. Convert Design does *not* traverse the hierarchy of a schematic.

Enter list file name (List file = yes). A file which lists designs, one per line, to retarget. This is useful if your design has many lower-level schematics.

> **TIP:** You can easily create a list file with the following command:
> ```
> ls *.mgc_component.attr | sed s/.mgc_component.attr//g > listfile
> ```
> The **ls** command lists all MGC components within a single directory; the **sed** command strips off the .mgc_component.attr trailer. The result is redirected to **listfile**.

Schematic name. The name of the schematic model (the default is "schematic").

Check & Save switch. Because all schematic sheets in Convert Design are literally redrawn in Design Architect, you must apply Check & Save to each sheet. This switch controls whether to do this automatically. By default, this switch is set for manual checking because it allows you to spot Xilinx components that did not convert properly. Use the manual setting until you are comfortable with how Convert Design works and you are certain that all Xilinx components will convert properly.

From Technology. The device family from which you are converting (e.g., XC3000, XC4000, XC4000E, XC5200, etc.). This and the next field are case insensitive.

To Technology. The device family to which you are converting.

After filling out the fields in the dialog box and selecting "OK," you will see Convert Design doing its job directly in Design Architect. ◆

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