How to use Maxplus2 efficiently.

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-- How many clicks you need to compile a VHD file in Maxplus2?

This document will introduce some useful methods to make efficiently use of Maxplus2. With these methods, you will find the usage of Maxplus2 is really concise.

It include four parts as below:

1. About using tool bar to accelerate your work.
2. About using Templates to accelerate the coding speed and use it as a reference.
3. About a script file used to clean up your work directory.
4. Some really good web sites about VHDL studying and reference

If you are a "totally fresh" user of Maxplus2, you may need to get some fundamental concepts about Maxplus2 from the application note of "Altera Max+plus II Introduction" (1998_winter_term). If you want to become a sophisticated user of Maxplus2, a thoroughly reading to the help file of Maxplus2 is recommended.

Make a good use of Tool bar

1) Why using tool bar?

Actually, with menu, you can do all the things you can do in Maxplus2. But file menu is always the last choice for a sophisticated user.

If you want to compile a new modified .vhd file with menu, you need first click in the file window to make sure you chose the right file. Then you need to click three times to set the project to the current file. Then you need click twice to launch the compiler or you may need to click many times to find the small compiler window below a pile of windows. Then you need click once to start the compiler. If you are not lucky, you may need another click to save your .vhd file firstly.

So you need at least 7 clicks to compile a new file with menu. Using hotkeys, one click, three flexible fingers and a good memory (to remember all the hotkeys) are needed at least.

But with rapid buttons in tool bar, three simple clicks are enough. One click to select right file, one click to set project to current file, and one click to compile. Is it a good reason to use tool bar?

2) Where is the tool bar?

The tool bar is just below the menu. It looks like the figure below:

It will be slightly different with the upper figure when you choose different kinds of windows.

3) What is the function of the buttons in tool bar?

If you move your mouse on a button but not to click, you may find the description to the function of this button from the status bar at the bottom of the Maxplus2 window.

Below are the descriptions for some very useful buttons.

Set the project name to the name of current file.

Saves all open compiler input files and checks current project for syntax or any other basic errors.

Saves all open design files in the project then starts the compiler.

Saves all open simulator files in the project then starts the simulator.

By using the first button with the next three buttons in-group, you can easily switch between several projects.

Opens the compiler window and brings it to the foreground.

Opens the simulator window and brings it to the foreground.

Opens the timing analyzer window and brings it to the foreground.

Opens the programmer window and brings it to the foreground.

It's always not so easily to find a specific window from a pile of windows, especially for those small windows such as compiler, simulator, timing analyzer, programmer etc. The four rapid buttons up here are extremely useful in such a situation.

The rest rapid buttons are similar to other software or are not used frequently, but you may find the useful usage from your own practice.

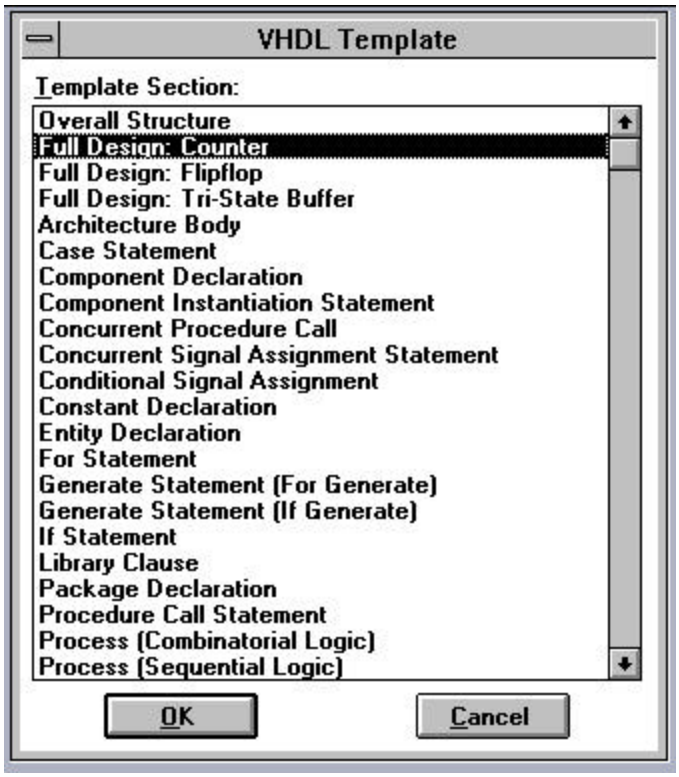
Make a good use of Templates

1) Why is it useful?

For a new user, it’s not so easy to remember all the VHDL syntax clearly. By using VHDL Templates, user can increase the speed and accuracy of coding work. Even when you don’t use the Templates, it can still be used as a brief VHDL reference book.

2) How to use it?

After you open a text editor, you can find VHDL Templates in the menu “Templates -> VHDL template... ”. By choosing it in the menu, you will find a dialog looks like the figure below:



From the dialog you can find what you need easily. After you select it and press “ok” button, the template of what you select will insert to you file in the current place of your cursor. And the codes inserted by the Maxplus2 will be highlighted at the beginning; so that you can delete them easily if you find it ‘s not you want or it’s not inserted in the right place. We can also utilize this characteristic to use Templates as a reference book in any time. After we read it, we delete it easily.

A useful scripts in file management.

Not like Mentor graphic, Maxplus2 manage all its files in a flat directory. No subdirectory will be created automatically. All files in a project will have the same name. And different types of files are differentiated by the extent file name, such as .vhd, .acf, etc.

Because Maxplus2 create lots of ancillary files when you are compiling, simulating, etc. it will consume your disk space very quickly. So user may need to clean up those ancillary files frequently.

You can delete those files with UNIX command (it’s not a happy job), or using by the student of 2000 Fall term, or, you can write a script file like below.

```
#

mkdir vhdl_temp
mv *.vhd vhdl_temp
mv *.acf vhdl_temp
mv *.scf vhdl_temp
```

```
mv *.hif vhdl_temp
mv *.ps vhdl_temp
mv *.com vhdl_temp

# Add the file type you want to keep like the upper command

rm *
mv vhdl_temp/* ./
rmdir vhdl_temp
```

You can save the code to a file (for example, give it a name of “clnvhd”), and change the file to be executable by using command “chmod”, and put it into the root of your home directory. When you need clean up you work directory, make sure you are in your work directory by using command “pwd”, then type

One advantage of using script file is it’s easy to modify it.

Several useful web sites for your reference.

A resource page for VHDL
http://www.eda.ei.tum.de/forschung/vhdl/#VHDL_tutorials

A very good VHDL online reference book
http://www.vhdl-online.de/~vhdl/

There are some source-codes about microprocessor.
http://www.eej.ulst.ac.uk/tutor.html