

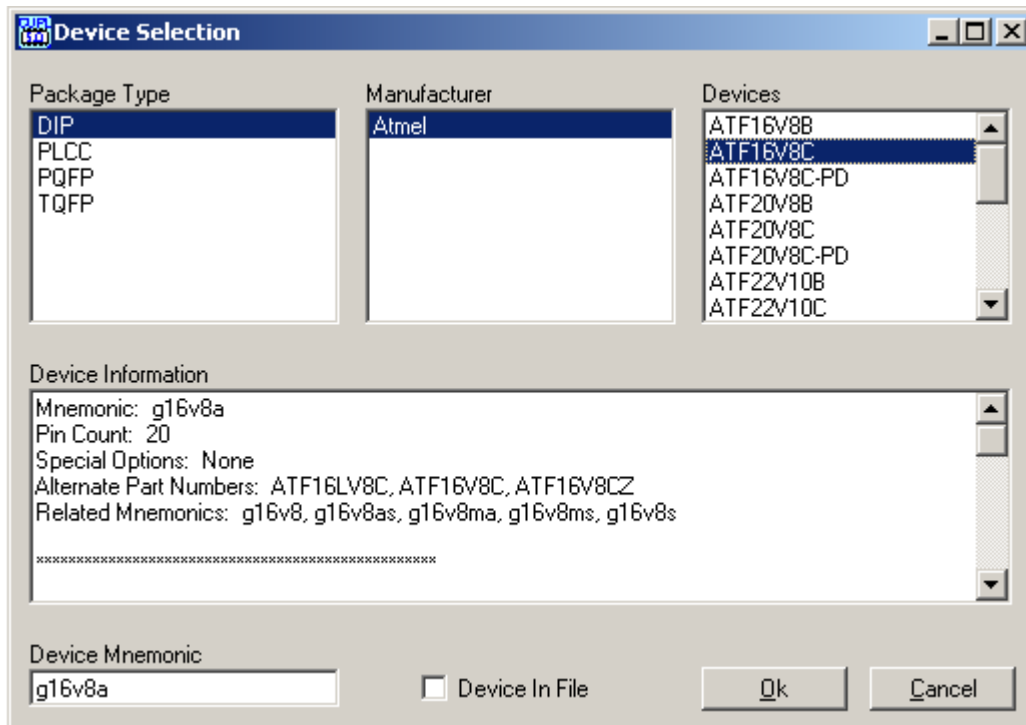
Programming the Atmel ATF16V8C SPLD with the Phyton ChipProg-48 Device Programmer

A) Generating JEDEC file for SPLD

SPLD devices require a JEDEC file in order to program the logic functions. To generate a JEDEC file from WinCUPL, please follow the following steps.

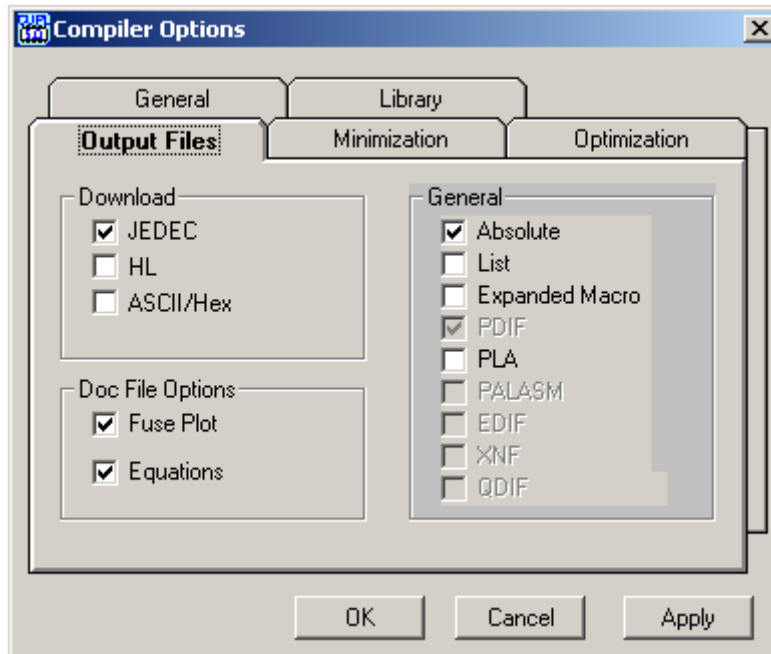
Step 1:

- Open Atmel WinCUPL.
- Create a new project
- Develop logic in the *.PLD file (refer to tutorials on course website to write .PLD files)
- Go to Options->Devices to select device.
 - Select Atmel ATF16v8C device and uncheck the box “Device In File” at the bottom of the window as shown in following figure.
- Click Ok

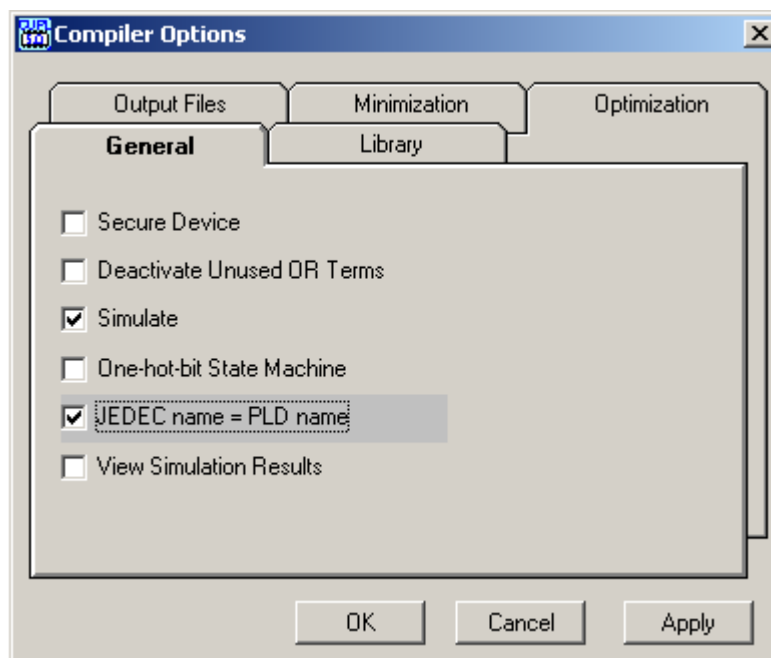


Step 2:

- Go to Options->Compiler to select compiler options.
- Under “Output Files” tab, check the JEDEC box and also check the “Fuse Plot” and “Equations” options as shown in following figure.



- Under the General tab, select “JEDEC Name = PLD Name” as shown below.

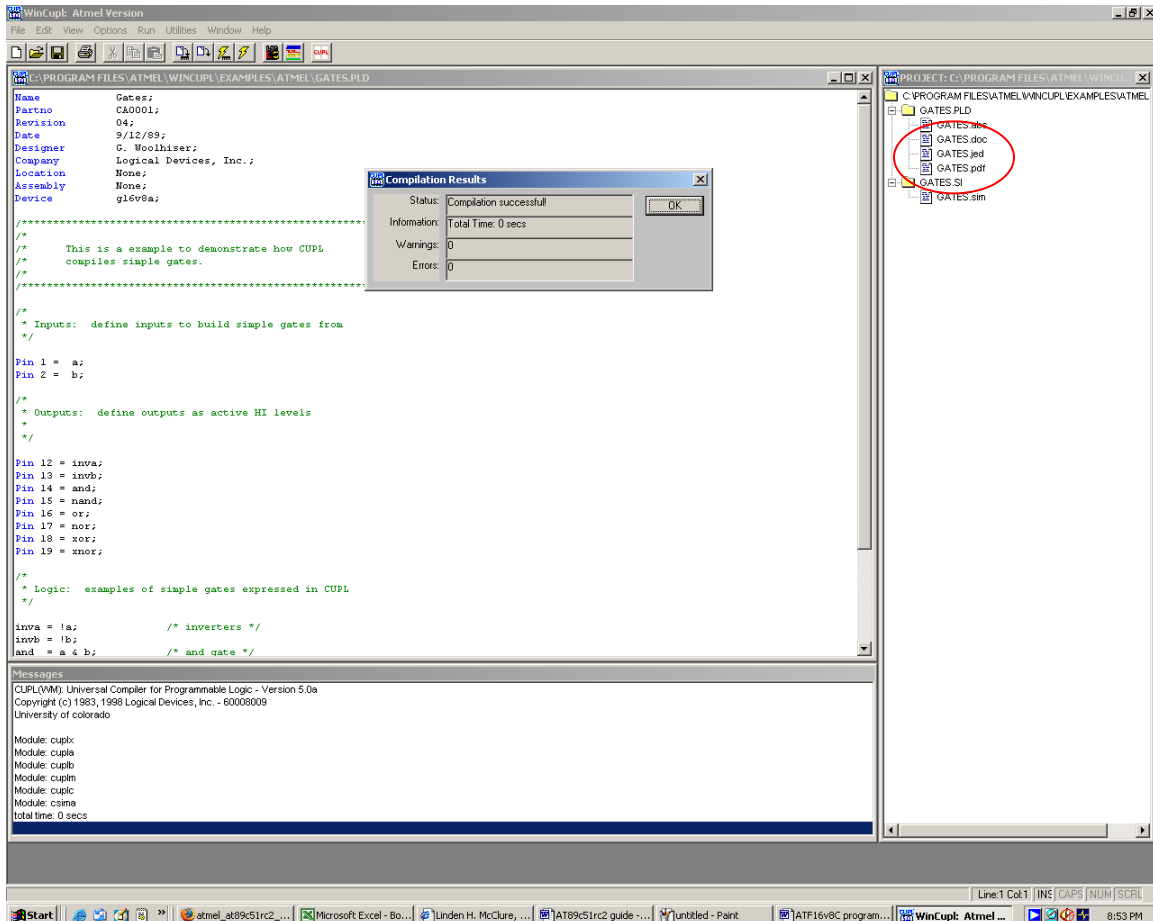


- Click Apply and then OK.

Step 3: Compile PLD file

Go to Run -> Device Dependent Compile Or Press F9

Now if the PLD file is error free, then the compilation process will generate a *.jed file. The *.jed file can be seen in the Project window (shown in the circle below).

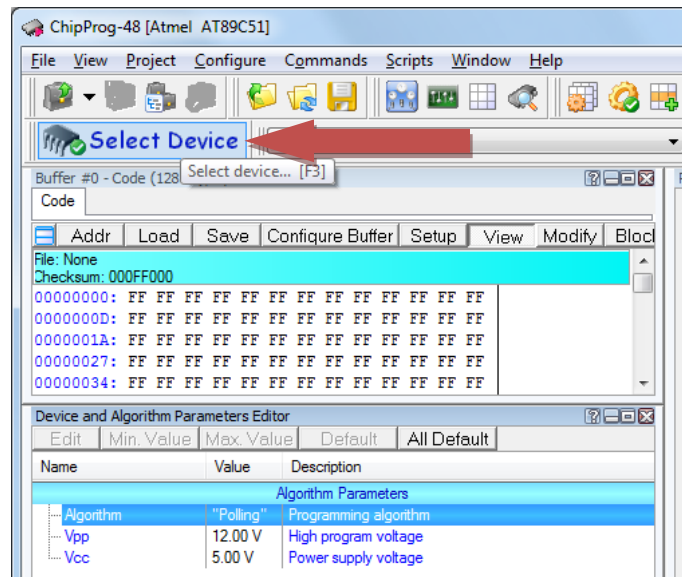


B) Programming SPLD using *.jed file

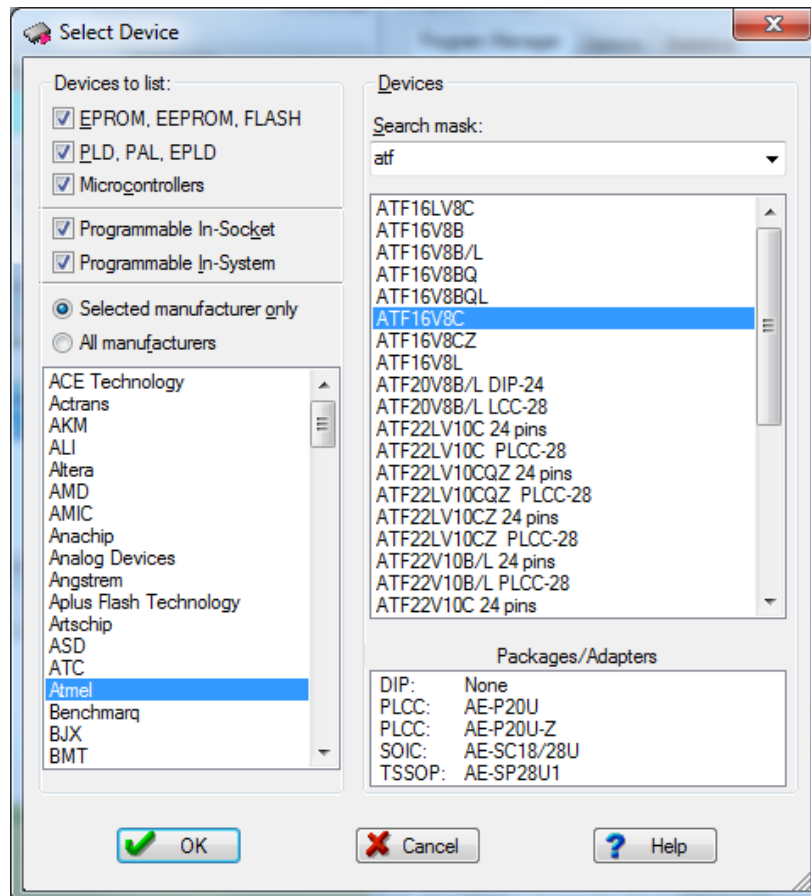
Step 0 : Make sure you know how to use the device programmer without causing damage to either the programmer or your device. Insert your device into the programmer, making sure to insert it carefully, with the pins in the correct orientation and position.

Step 1 : Make sure the programmer is connected to the workstation. Open "Phyton ChipProg USB Programmer" -> "Phyton ChipProg USB"

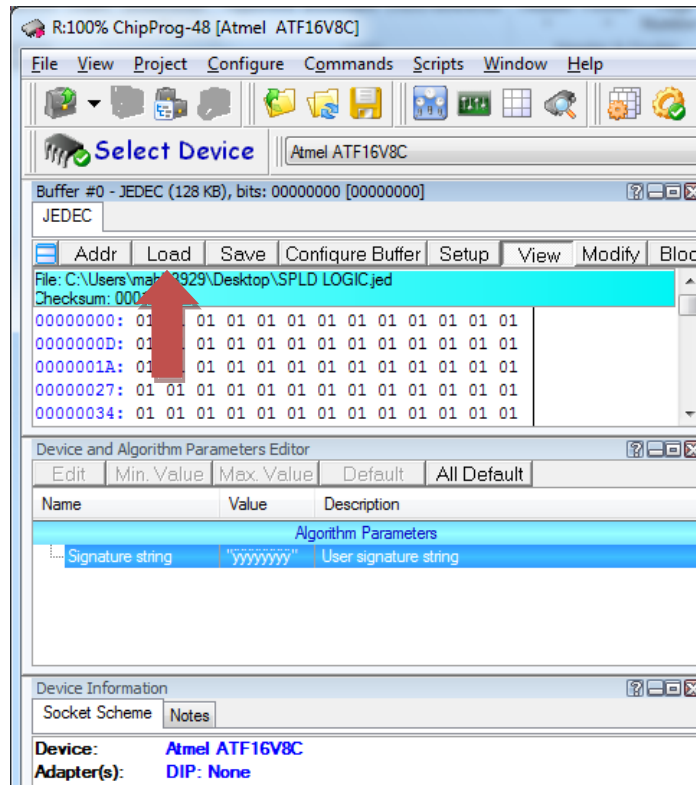
Step 2 : Select Device



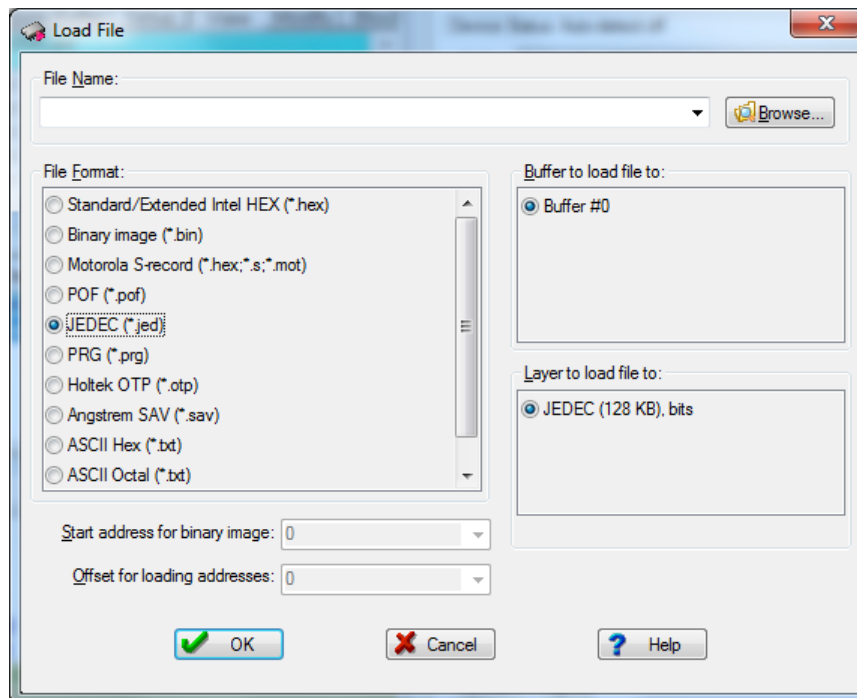
Step 3: Choose the Atmel SPLD device from the device menu. After selecting device, press Edit buffer to load the *.jed file into the buffer



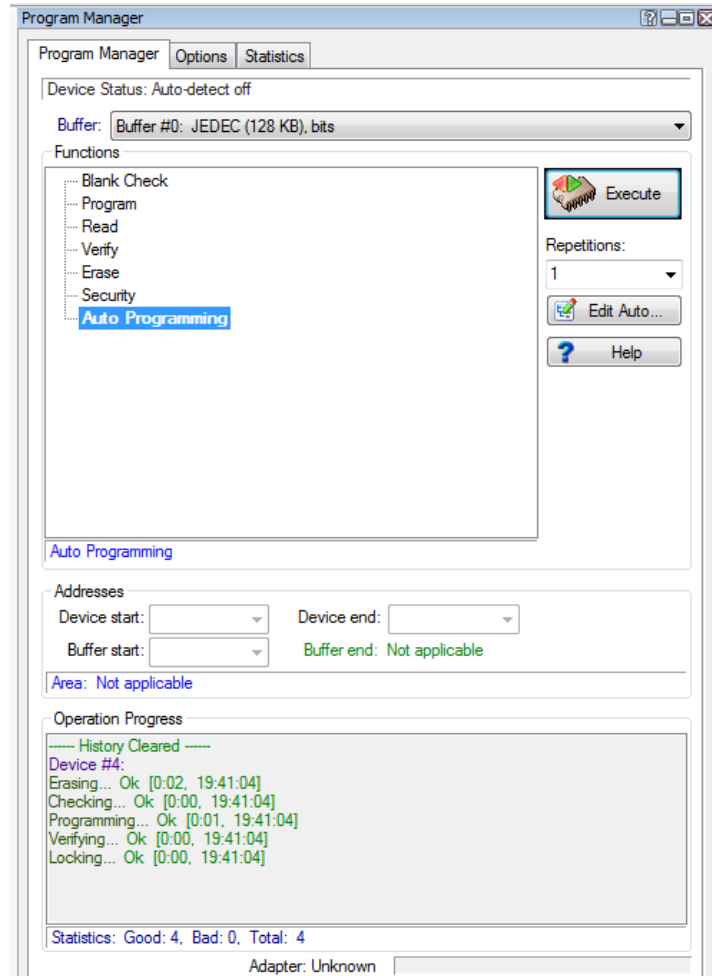
Step 4: In Buffer Dump window, select the “Load” option to load a file into the buffer.



Step 5: Select the *.jed file to be loaded into the buffer.



Step 6: The device can now be programmed using “Auto Programming” option (by default, this configuration erases the device before programming). Alternatively, each option can be individually selected, but make sure the device is erased and blank checked before each program sequence.



Step 7: Click Execute to initiate the selected sequence.

Note: The minimum buffer size in the programmer is 128 KB. For a device with “X” KB memory (“X” is less than 128 KB), only the first “X” KB of data from the buffer will be written on the device.