MaxPlus II Software Tool Tip: **Installing the 7032 Breakout Board**

Problem: How do you install the 7032 breakout board so that it is recognized by the MaxPlus II software? How do you download a design to the board?

Solution for Getting Maxplus to Recognize the Breakout Board:

1. Plug the parallel port ribbon cable between the breakout board and your PC's parallel port.

2. Plug the board into your proto-typing breadboard. There should be two open rows of pins above and below the breakout board if it is placed exactly in the center of the breadboard.

3. Connect +5v to one of the pins labeled "+V" on the breakout board. Connect a ground to one of the pins labeled "G". Turn the power on... the LED should light.

4. Start the Maxplus software and open a project you have compiled. It is recommended that you use the project found in the "Tips on editing node name" found in our Software/Docs link on our web page.

If you decide to use your own project, you will have to set the target device you want to compile to a 7032 chip before compiling. You do this by:

A. Press the "Assign" button on the top tool bar.
B. Select family "Max7000S", select device "EPM7032SLC44-5", hit "OK"
C. Compile your project... this sets the target device to the 7032 (our chip).

5. Press the "MAX+plus II" button on the top tool bar. Select the "Programmer" option from the pull down menu.

6. A small window should open asking you the "Hardware Type" choose the "ByteBlaster" option. Set the parallel port to the port you have connected to your board (usually LPT1 or LPT2).

7. Now press the "Program" button. The device should be programmed. If it tells you no cable is attached to the parallel port:

A. check the power connections

B. check the parallel port cable connections

C. try assigning another port (choose LPT2 instead of LPT1) this is described in below.

8. At any time you can change the parallel port configured or attached to MaxPlus. i.e. lets say you install a cheap ($25) ISA parallel port card so that your current parallel port can be used by your printer. The new card will most likely be mapped to LPT2. So to change this port in MaxPlus you first open the "Programmer" window as described in steps #5-#7 and then press the "Options" button on the top tool bar and select "Hardware Setup". Now follow the same instructions as given in #6.

Solution for downloading (programming) a circuit to the Breakout Board:

Once the board is recognized by MaxPlus II, as described earlier, you simply open the "Programmer" window and press "Program" to load a program a circuit in the 7032.

The main thing here though is to make sure you have compiled your design with a target device that matches the 7032. In the past we have been using the "Auto device select" option for the compilation. MaxPlus basically just chooses the smallest device it can to implement your design.   However now we want to force the compiler to use the 7032 chip as a target since that is what we have on our board. This is done by performing the following steps before compiling a design:

A. Press the "Assign" button on the top tool bar.

B. Select family "Max7000S", select device "EPM7032SLC44-5" and hit "OK".

C. Compile your project... this sets the target device to the 7032 (our chip).

Once you compile with the 7032 target, you are ready to load this design into your 7032 programmable device.

See the next tool tip for info on 7032 pin functions and how to connect switches & LEDs to your breakout board.