JBUG11 v.5.1
Instruction Manual

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This manual is written for JBUG11 version 5.1(should have been in the same zip folder as this manual). It does not work for older versions as there are slight differences between them. This manual should be a decent guide for newer ones but that is yet to be confirmed. This manual assumes that the reader has competent knowledge on how to operate a computer. This manual also leaves it up to the reader to find the appropriate version of JBUG11 on the internet, if the reader got the manual without the install.

Zip Contents:
Manual
JBUG11 v5.1 installer
ASMHC11 folder

JBUG11 Installation:

1) Double-click on the JBUG11 install icon
2) Follow the instructions to install it
3) The default path is C:/Program Files/JBUG11
4) Note: the installer does not put a shortcut on the desktop or the start menu so in order to start JBUG11 you must go to where it is installed and double-click on the executable. If this is to annoying you can always create a shortcut from the executable and place it where it is most convenient for you.

ASMHC11 Installation:

1) Move the contents of the ASMHC11 folder into your C:/directory
2) Note: In order to run the Motorola assembler you must be in the command prompt to do so

This section goes over how to use the ASMHC11 assembler. This requires a knowledge of how to use **Notepad** and how to access and use the command prompt.

Using ASMHC11:
1) Enter your program in **Notepad** with the correct format and save it as a ***.asc** file. Important: This file must be saved in the **C:/** directory in order for the assembler to work as that is the only directory the assembler accesses regardless of where the ASMHC11 executable is located.
2) Access the command prompt and make your way to the directory that contains the ASMHC11 executable. See **Fig.1**.

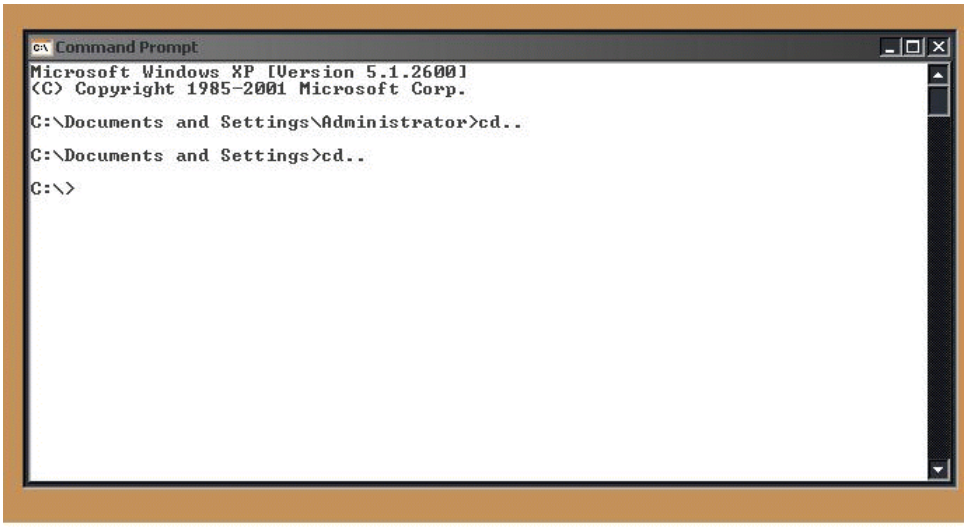


Fig. 1

3) Run the assembler by entering the command: asmhc11 C:/"filename" .asc

4) Once you enter the command the prompt will change to the following screen (**Fig. 2.)**

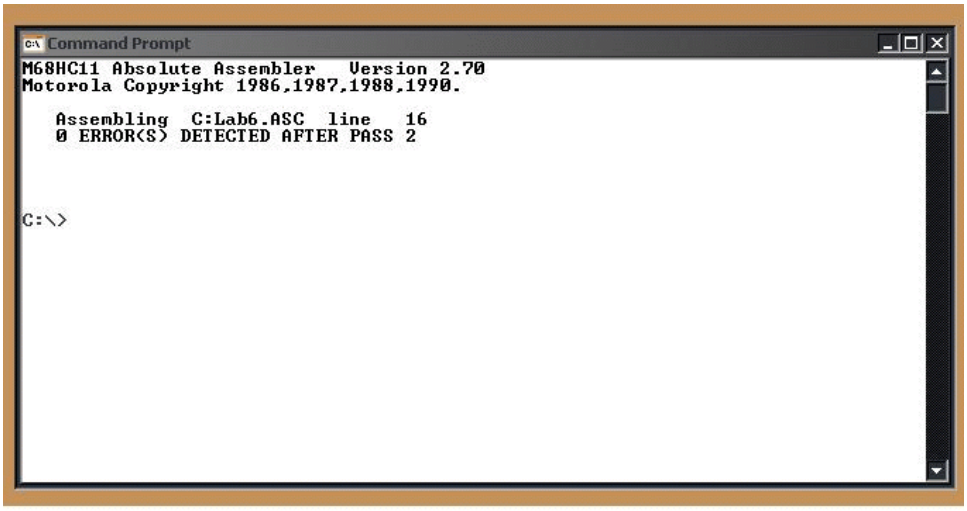


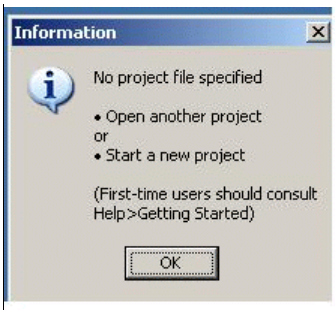
Fig. 2

5) Once run, the assembler (regardless of whether you have errors in your program or not) will create two files in the C:/ directory. One is a ***.LST** file and the other is a ***.S19** file. It is the ***.S19** file that **JBUG11** requires as it is the file that the Motorola microprocessor will use to run the program.

Only go onto the next portion if you understand everything that has already been covered and your program assembled with no errors. If your program does assemble but with errors, then open the *.LST file with **Notepad** and see where your errors are and correct them.

Using JBUG11:

1) Open JBUG11, you will initially get a screen as in **Fig. 3**:



Click OK.

Fig. 3

2) Once you click ok you will be taken to the man screen **Fig. 4.** Once there go up to the menus and click on File-> New Project and you will get a screen like **Fig. 5.**

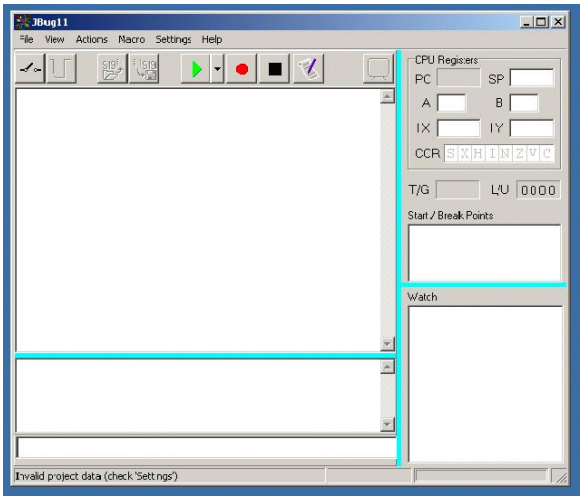


Fig. 4

3) From the drop down "MCU Type:" menu select 711E9. When you do this the rest of the info in the General Tab will automatically fill in.

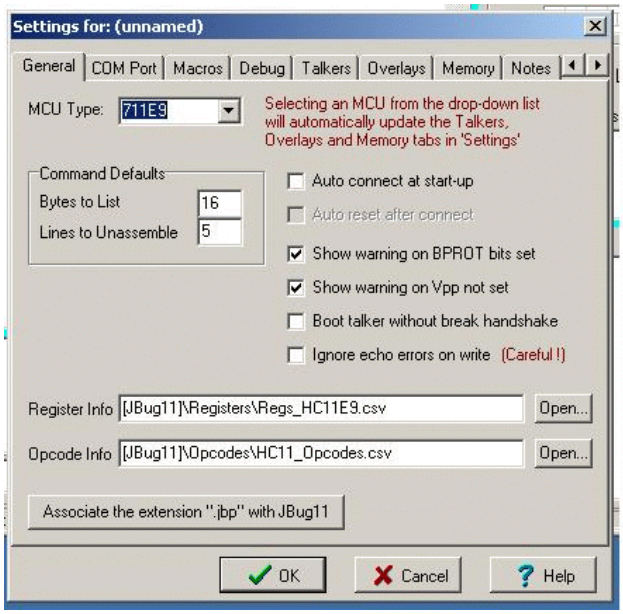


Fig. 5

4) Now select the COM Port Tab and you will get a screen such as **Fig. 6.**

5) Select COM1 as the port you are using (if that is the port you are using to connect to the microprocessor)
6) Select the MCU Crystal Freq. which is 8MHz
7) Once you select the appropriate frequency the Baud rates will automatically fill and a message will come up saying that there is a faster rate that you can use (or something along those lines). **Click No.**

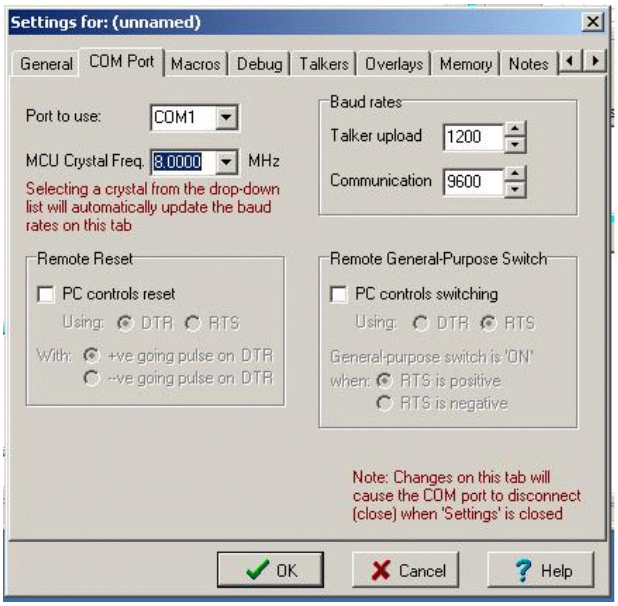


Fig. 6

8) Now you can click OK at the bottom and your project is created.
9) You are now back at the main screen in **Fig. 7**. You may now plug in the processor and power it up if you haven't done so already. Once your processor has power click on the connect icon in the upper left hand side:

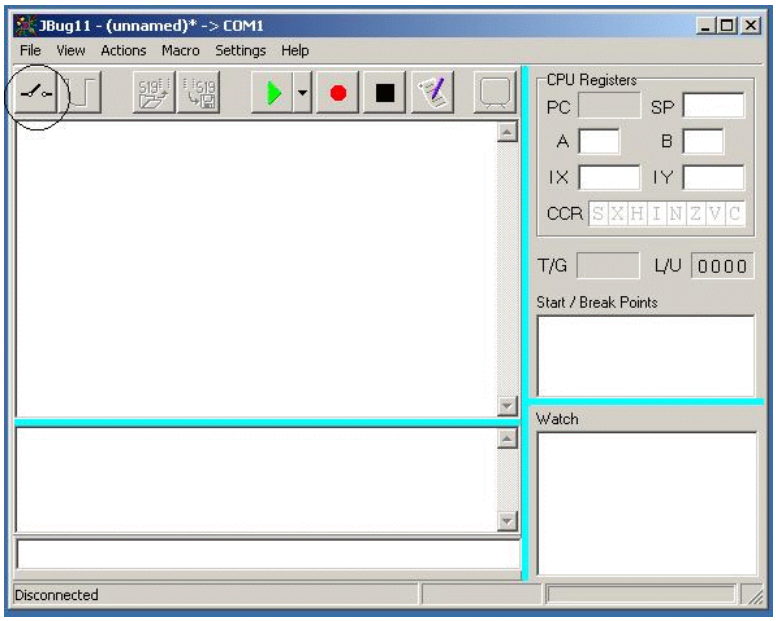


Fig. 7

10) When you click on the connect button you should see a message on the screen that says you are connected. If this is so then restart your microprocessor using the **Red** restart button so that the talker on your software can boot and communicate with the processor.
Once you hit the reset button you should see the screen in **Fig. 8.**

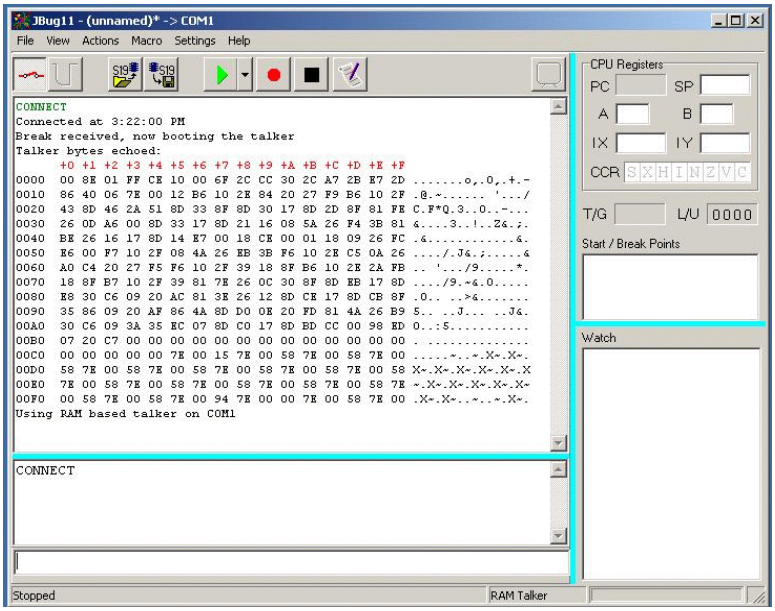


Fig. 8

11) Now click in the **S19**-< microchip icon as shown: Find the *.S19 file and load this file. See **Fig. 9.**

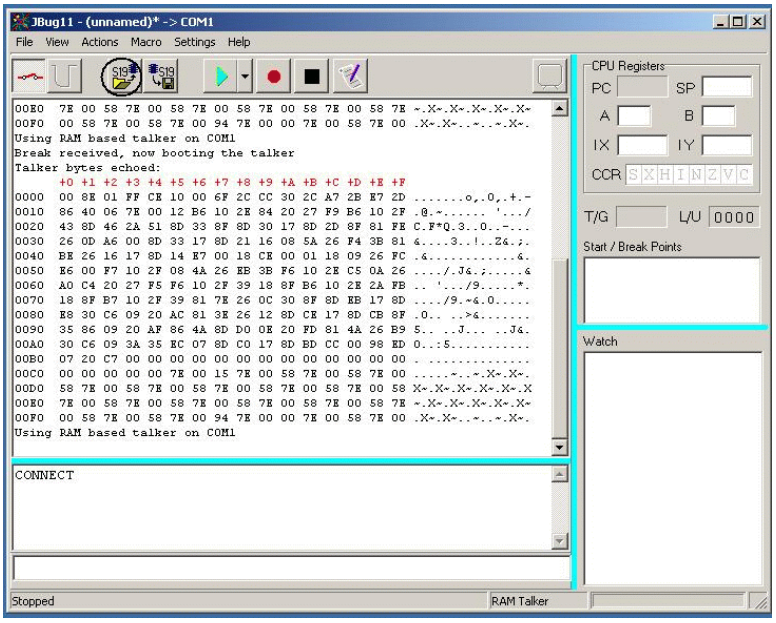


Fig. 9

12) Now you are most likely to need to do this again since the first time always fails for some reason. Once you go through the last step a second time the program should load successfully. Now that you have loaded the program you can now run the program. The best way to do this, I have found, is to use the trace command. Enter **T** "starting address", where starting address is the address where your main program starts. When you enter this the trace command will display the first instruction it executed and the next that will be executed. Keep hitting enter until you run through the program. If you want to stop tracing at anytime you must enter the stop command, which is **S.**

13) If you want to view the program with addresses and symbols enter the command **L** "*starting address*" where starting address is the address your main program starts at.

This is pretty much the basics to running **JBUG11** and **ASMHC11** in Windows XP. I leave figuring out the finer points to the user.