AttoBASIC Version 2.22

What's New (and fixed!)

New (or improved) features:

1. Added support for the DHTxx series of low-cost temperature and humidity sensors. Reference the Command List for version 2.22 for details in using the new commands and any idiosyncrasies therein. Note that if the PWM feature is enabled and the PWM output is currently emitting a signal then using the DHT or DHH commands will cause a 7mS interruption in the PWM output.
2. Added support for the use of the AVR's System Clock Prescaler. AttoBASIC calculates the proper run frequency based on the original FCLK setting divided by the FCLK_PS setting. Note that the pre-assembled versions use a 1x prescaler value but one can assemble a specific version using any other prescaler value. This feature was added mostly as an aid in testing at different run frequencies without having to change crystals to do so.
3. Added assembly time support to select the proper serial baud rate with the lowest bit error when AttoBASIC is assembled to run at 1MHz and 2MHz. The normal baud rate of AttoBASIC is 19.2K baud but changes to 9600 baud at 2MHz and 4800 baud at 1MHz.
4. Improved TWI support by adding conditional statements to correctly calculate the maximum available TWI bit clock value based on the system clock frequency. Also added conditional assembly to the "TWIcommand" routine to support 400K and 100K selection if the system clock allows it, otherwise, only the maximum rate detected is allowed for both the "TWI 0" and "TWI 1" commands. In other words, at bit rates of 100K or less, the "TWI 0" and "TWI 1" select the same bit rate.

Bug Fixes:

1. HELP command formatting has been corrected when using AttoBASIC on a Mega32U4 with USB serial enabled. All other build flavors are unaffected.