

Appendix E Assembly Language Mnemonics used by Advan BASIC Compiler

In order to understand the mnemonics used by Advan BASIC, consider the ADC command. This command causes a number and the carry bit to be added to the accumulator. The question is, where is the number? Advan BASIC uses extensions to the command to specify the location of the number.

ADC The two bytes following ADC specify the location of the number. For example, ADC,FF,9F adds the number at 9FFF to the accumulator.

ADCZ The single byte following ADCZ specifies the zero page location of the number. For example, ADCZ,E0 adds the number in 00E0 to the accumulator.

ADCIM The single byte following ADCIM will itself be added to the accumulator. For example, ADCIM,2 adds 2 to the accumulator.

ADCX The X register is added to the two bytes following the ADCX command. This gives the location of the number to be added to the accumulator. For example, ADCX,3,2 (with x=2) adds the number stored in 205 (i.e., 203+2) to the accumulator.

ADCY Same as ADCX, except the Y register is used instead of the X register.

ADCIY The single byte following ADCIY specifies the zero page location of the two byte address. The Y register is added to the two byte number in page zero to get the address of the number to be added to the accumulator. For example, consider ADCIY,E0. The two byte address is at 00E0 and 00E1. The number stored in 00E0 and 00E1 is added to the Y register to form the address.

ADCIX The single byte following ADCIX is added to the X register. The sum (must be in zero page) is the location of the first byte of the two byte address. For example, consider ADCIX,E0. If the X register=4, the address of the number to be added to the accumulator is 00E4 and 00E5.

ADCZX The single byte following ADCZX is added to the X register. This is the address (in zero page) of the number to be added to the accumulator. For example, consider ADCZX,E0. If the X register=4, the number to be added to the accumulator is in memory location 00E4.

In addition, the following two commands show the last two possible extensions.

ASLA Takes the number in the accumulator and shifts it left.

LDXZY The single byte following LDXZY is added to the Y register. The sum is the zero page location of a number which is loaded to the X register.

The following table lists the possible 6502 commands by mnemonic.

ADC, ADCIM, ADCIX, ADCIY, ADCX, ADCY, ADCZ, ADCZX get the number from the specified location and add with carry to the accumulator

AND, ANDIM, ANDIX, ANDIY, ANDX, ANDY, ANDZ, ANDZX get the number from the