# ccs intial.asm文件

MPLAB® XC8 C Compiler is a popular industry-standard, optimized ANSI C compiler that targets the Microchip PIC® microcontrollers. It allows users to quickly and easily develop applications for a wide range of embedded systems, such as medical instruments, industrial controllers, and other devices. In this tutorial, we will use MPLAB XC8 to compile a simple assembly language program written in the Intel 8051 processor instruction set architecture.

The initial assembly code for our program is as follows:

org 0h  
  
 mov a, #0ffh ; load the accumulator with 0xff  
  
 mov R0, #01h ; load register R0 with 1  
  
 mov R1, #04h ; load register R1 with 4  
  
 inc a ; increment the accumulator  
  
 jc loop ; if carry flag is set, jump to loop

The first instruction in our program is the ‘org’ statement. This statement tells the assembler that the starting address of our program is at location 0 (‘h’ means hexadecimal). The next two instructions, ‘mov a, #0ffh’ and ‘mov R0, #01h’ are used to initialize the 8-bit accumulator and register R0 with the value 0xff and 1, respectively. The third instruction, ‘mov R1, #04h’ loads the 8-bit register R1 with the value 4.

The fourth instruction in our program is an ‘inc’ instruction which increments the accumulator by 1. The final instruction is a ‘jc loop’ instruction which jumps to the label ‘loop’ if the carry flag is set.

To compile this program using the MPLAB XC8 C Compiler, we must first create a new project and add our assembly code file to it. Then we can compile the program by selecting the ‘Build’ option from the main menu. Once the compilation is complete, we can view our assembly code and its resulting binary code in the project output window.

The compilation process results in a binary image which can be loaded into internal memory or an external memory device and executed by the microcontroller. This binary image contains the instructions that were written in our assembly language program and is ready to be executed.

In summary, using MPLAB XC8 C Compiler, we can compile an assembly language program written in the Intel 8051 processor instruction set architecture into a binary image which can be loaded into a microcontroller and executed. After compiling our initial assembly code, we now have a fully functioning binary image which is ready to be used in our application.