

## C - "C WHAT HAPPENS" REFINEMENTS

There are a few areas in **C What Happens** that could use a bit of clarification or expansion.

int vs. int8 - CWH Page 43

After the Data Types table, add the sentence "int and int8 are the same thing".

CCS C Compiler Reference Manual Page 224

RTCC\_DIV\_1 used in timer 0 setup causes the prescaler to be bypassed (no division).  
This is omitted from the compiler manual.

Label

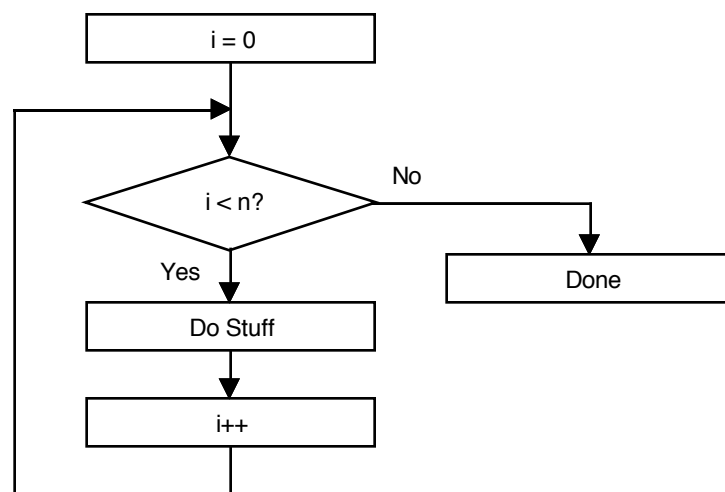
It may be useful to identify using labels as a separate topic in CWH.

A "label" may be used to identify an instruction in a program. See CWH pages 68, 110 and 112. A label is followed by a semicolon.

For loop - CWH page 66

The flow chart on page 66 shows a method for constructing a loop with a counter.

It's nice, but the method shown is not the one CCS uses. They use the following method:



The result visible to you will be the same. I would not have discovered the difference if I had not looked at the assembly source code generated by the compiler while troubleshooting.

My assembly code tests the zero (Z) flag. CCS code tests the carry (C) flag.

It is not likely that you will encounter this, but here it is just in case.

#### Arrays - CWH page 127

The `const` modifier or qualifier is included in the array definition as presented. Most arrays I have encountered in other people's code are not made up of constants. They are made up of variables, so no modifier is needed and they look simpler.

```
byte    vals[1];           //declare a single element byte array
```

This looks simple, and it is.

#### Rules regarding the order of functions in a program - CWH page 69 at the bottom

Any functions called by the first one must be after the first one.

Any functions called by the second one must be after the second one.

Variables used in a function must be defined ahead of the function.