13 Configuration (fuses)

At the beginning of this course we told you to make specific configuration settings in an empty program, and to always use that program for the projects in this book. That way you would always have the correct configuration settings.

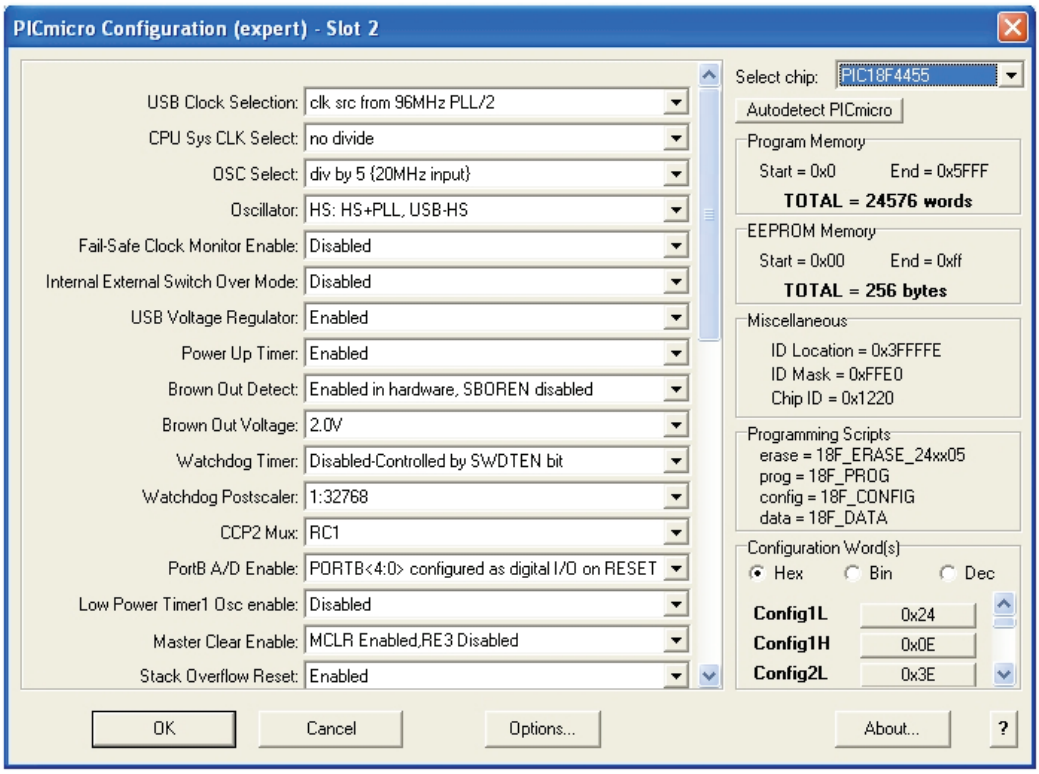

Figure 445. Configuration settings.

The previous Figure shows the settings that you used throughout the course. These settings are stored in configuration words in the memory of the microcontroller. In the lower right hand corner you can see these configuration words[113]. These numbers are generated when you change the settings, but you can also change them directly. What you prefer depends on what you are used to. In this section we will use the datasheet of the 18F4455 to evaluate why certain settings were chosen.

Configuration bits, configuration words and fuses all refer to the same thing: control registers that can only be set during programming.

The configuration words are often called configuration bits, or fuses. We know that registers can be used to control the behavior of the microcontroller. The configuration bits control the behavior too but on a higher level, because configuration bits can only be set during programming. A running program cannot change any of these bits.

[113] If you use the ECIO40 to do this course you can read this chapter but you cannot do any of the assignments The ECIO configuration registers are not accessible in Flowcode.