For using the Philips 80C51MX, you need to have an PK51 package.

Details about the Philips 80C51MX are discussed in the Application

Note 160 available at www.keil.com.

C Program Example for the Philips 80C51MX Architecture

The program contains two configuration files:

START\_MX.A51: C start-up for the Philips 80C51MX devices.

MX51BANK.A51: Banking support for large programs on Philips 80C51MX devices.

This program shows how to handle the expanded program memory via the code banking

mechanism known from the classic 8051 architecture. This technique can be also

used for existing assembler code and C51 source code to grow into the MX code

address space. Code banking has the following benefits:

\* User (programmer) needs not to take care of near and far function call attributes.

The stack overhead is minimal since long return addresses (ECALL) are used only

when crossing banks.

\* Existing assembler programs can be re-linked and can grow beyond the 64KB limit.

No or only minimal assembler source code modifications are required.

\* The common space is used for frequently used C51 run-time library functions.

Since the instruction encoding for LCALL is 3 bytes (vs. ECALL 5 bytes), code

space for the library CALLs is reduced. Typical size for the common code is

1 .. 4 KB. This common code overhead is compensated by the reduced instruction

length for library calls and function calls to different modules.