\*\*\* IMPORTANT NOTE \*\*\*

Far Memory Support is only available in the PK51 package.

If you have an CA51, DK51, or Evaluation Package the far memory

support is not available and this example will not work.

The T89C51RD2 EEPROM DEMO program shows you how to use the new

features of C51 Version 7 and LX51 Linker/Locater to access the

data in the EEPROM area.

This files can be used as template for own projects.

XBANKING.A51 configures the expanded 'far' memory space as EEPROM space.

EEPROM.H contains the data definitions that are stored in the EEPROM space.

EEPROM.C defines the user class HDATA\_EEPROM. This user class is located

with the LX51 CLASSES directive into the address space X:0x020000 - X:0x0207FF.

This address space reflects the EEPROM memory of the 89C51RD2 device.

In uVision the address range for the memory class is enter under Options for

Target - LX51 Locate - User's Classes.

For save interrupt behaviour of the application it is required to invoke

the C51 Compiler with the directive VARBANKING (1). Therefore the uVision

project enables under Project - Options for Target: 'far' memory type support

and Save address extension SFR in interrupts. During an interrupt, the register

EECON that is defined as ?C?XPAGE1SFR will be saved and set to 0.

This EEPROM space is simulated under uVision with the V: memory type prefix.

This memory space can be manipulated using standard uVision debugging commands.

For example:

D V:0 // displays the EEPROM memory space

SAVE EEPROM.HEX V:0, V:0x7FF // saves the EEPROM memory space

LOAD EEPROM.HEX // loads the EEPROM contents

It is also possible to display variables in the EEPROM space using standard

uVision features, i.e. the Watch Window. The mapping for the uVision debugger

is configured via the ?B?xMEM symbols in the XBANKING.A51 config file.