```
#include <LPC21xx.H>

#define NULL 0

void UIntToHexStr (unsigned int uiValue, char pcStr[])
{
  unsigned char ucNibbleCounter;
  unsigned char ucCurrentNibble;

  pcStr[0] = '0';
  pcStr[1] = 'x';
  for( ucNibbleCounter=0; ucNibbleCounter<4; ucNibbleCounter++ )
  {
    ucCurrentNibble = (uiValue >> (4*ucNibbleCounter)) & 0x000F;
    if ( ucCurrentNibble >= 10 )
    {
      pcStr[5 - ucNibbleCounter] = ucCurrentNibble + 'A' - 10;
    }
    else
    {
      pcStr[5 - ucNibbleCounter] = ucCurrentNibble + '0';
    }
  }
  pcStr[6] = NULL;
}
```

```
enum Result {ERROR, OK} eResult;

enum Result eHexStringToUInt(char pcStr[], unsigned int *puiValue)
{
  unsigned char ucCharCounter;
  unsigned char ucCurrentCharacter;

  if ( (pcStr[0] != '0') || (pcStr[1] != 'x') || (pcStr[2] == NULL) || (pcStr[6] != NULL) )
  {
    return ERROR;
  }

  for ( ucCharCounter = 2; ucCharCounter <= 6 ; ucCharCounter++ )
  {
    ucCurrentCharacter = pcStr[ucCharCounter];

    if ( ucCurrentCharacter == NULL )
    {
      return OK;
    }

    *puiValue = (*puiValue << 4);
    if ( ucCurrentCharacter >= 'A' )
    {
      *puiValue = *puiValue + (ucCurrentCharacter - 'A' + 10);
    }
    else
    {
      *puiValue = *puiValue + (ucCurrentCharacter - '0');
    }
  }
}


void AppendUIntToString (unsigned int uiValue, char pcDestinationStr[])
{
  unsigned char ucEndPointer;

  for ( ucEndPointer=0; pcDestinationStr[ucEndPointer] != NULL; ucEndPointer++ ) {}
  UIntToHexStr(uiValue, pcDestinationStr+ucEndPointer);
}
```