```
//*****************************************************************************
//*****************************************************************************
//                                                                            **
//                        Łańcuchy znakowe - konwersje                        **
//      funkcjonalności:                                                      **
//                  - Zmiana liczby na format hexadecymalny                   **
//                  - Zmiana ciągu znaków w fromacie hexadecymalny na liczbę   **
//                  - Dołączanie jednego liczby hexadecymalnej do łańcucha znakowego**
//                                                                            **
//                                                                            **
//*****************************************************************************

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

  pcStr[0] = '0';
  pcStr[1] = 'x';
  pcStr[6] = '\0';

  for(ucNibbleCounter = 0; 4 > ucNibbleCounter ; ucNibbleCounter++)
  {
    ucCurrentNibble = ((uiValue >> ((ucNibbleCounter) * 4)) & 0xF);

    if(10 > ucCurrentNibble)
    {
       pcStr[5 - ucNibbleCounter] = ucCurrentNibble + '0';
    }
    else
    {
      pcStr[5 - ucNibbleCounter] = ucCurrentNibble - 10 + 'A';
    }
  }
}
```

```
enum Result { OK, ERROR };

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

  *puiValue = 0;

  if(('0' == pcStr[0]) && ('x' == pcStr[1]) && ('\0' != pcStr[2]))
  {
    for(ucCharacterCounter = 2; 6 >= ucCharacterCounter; ucCharacterCounter++)
    {
      cCurrentCharacter =  pcStr[ucCharacterCounter];
      if(('A' <= cCurrentCharacter) && ('F' >= cCurrentCharacter))
      {
        *puiValue = (*puiValue << 4) + (cCurrentCharacter - 'A' + 10);
      }
      else if(('0' <= cCurrentCharacter) && ('9' >= cCurrentCharacter))
      {
        *puiValue = (*puiValue << 4) + (cCurrentCharacter - '0');
      }
      else if('\0' == cCurrentCharacter)
      {
        return OK;
      }
      else
        return ERROR;
    }
    return ERROR;
  }
  else
  {
    return ERROR;
  }
}

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

  for(ucCharacterCounter = 0; '\0' != pcDestinationStr[ucCharacterCounter]; ucCharacterCounter++) {}
  UIntToHexStr(uiValue, pcDestinationStr + ucCharacterCounter);
}
```