

# Hex Translator

```
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using System;

namespace Org.BouncyCastle.Utilities.Encoders
{
    ///

    /// A hex translator.
    ///

    public class HexTranslator
    {
        private static readonly byte[] hexTable =
        {
            (byte)'0', (byte)'1', (byte)'2', (byte)'3', (byte)'4',
            (byte)'5', (byte)'6', (byte)'7',
            (byte)'8', (byte)'9', (byte)'a', (byte)'b', (byte)'c',
            (byte)'d', (byte)'e', (byte)'f'
        };

        ///

        /// Return encoded block size.
        ///

        /// 2
        public int GetEncodedBlockSize()
        {
            return 2;
        }

        ///

        /// Encode some data.
        ///

        /// Input data array. /// Start position within input data
```

```
array. /// The amount of data to process. /// The output data
array. /// The offset within the output data array to start
writing from. /// Amount of data encoded.
public int Encode(
byte[] input,
int inOff,
int length,
byte[] outBytes,
int outOff)
{
for (int i = 0, j = 0; i < length; i++, j += 2) {
outBytes[outOff + j] = hexTable[(input[inOff] >> 4) & 0x0f];
outBytes[outOff + j + 1] = hexTable[input[inOff] & 0x0f];

inOff++;
}

return length * 2;
}

///

/// Returns the decoded block size.
///
/// 1
public int GetDecodedBlockSize()
{
return 1;
}

///

/// Decode data from a byte array.
///
/// The input data array. /// Start position within input data
array. /// The amount of data to process. /// The output data
array. /// The position within the output data array to start
writing from. /// The amount of data written.
public int Decode(
```

```
byte[] input,
int inOff,
int length,
byte[] outBytes,
int outOff)
{
int halfLength = length / 2;
byte left, right;
for (int i = 0; i < halfLength; i++) { left = input[inOff + i
* 2]; right = input[inOff + i * 2 + 1]; if (left < (byte)'a')
{ outBytes[outOff] = (byte)((left - '0') <
```