



AXISCIPHER

MANUAL

VERSION 1.0

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Introduction

Welcome to **AxisCipher**, an easy to use encryption function library utility with two levels of encryption.

If you want to encrypt data in your own systems, AxisCipher provides everything you need to encrypt, decrypt and ensure that any data you want protected is kept safe.

AxisCipher uses a standard multiplication cipher to encode any string. In addition, this encrypted text is stored in a fixed length hexadecimal string, at a random place.

The decrypt function, retrieves the hidden hex, and decrypts it back to your original text.

In order to encrypt and decrypt you need a "key".

AxisCipher can generate a key or you can use your own, however, the key has to be a valid key, not just any key will work properly, so we recommend you let AxisCipher generate your key for you.

AxisCipher is a function library that you can reference in your own .net programs but we have included a sample app to show how to use the library.

In the registered version, there are no limits to what can be encrypted, but the freely available demo version is limited to 10 characters.

Before using this utility you must agree to the license located at the end of this document.



Function Library reference

Maxkeylength

Use this to set the maximum length of the randomly generated key. The length of the key can dictate how patterns may occur in any encrypted text, although with the additional layer of hex embed, this is unlikely to be an issue. We recommend **Maxkeylength** is set to 5.

Generatekey

Use this to generate a random key. You need to use this key in your code to encrypt and decrypt.

Usage:

```
sub getkey  
  
Mykey = generatekey  
  
End sub  
  
'returns 010B0B05
```

Hex Embed

You can use the hex embed function to provide a basic layer of protection to a text value. This does not need a cipher key therefore you can use the hex embed function to “hide” your cipher key in your own code.

Usage:

```
Dim myhex = embedhex("Hello")  
  
'returns  
0021000A69DCCA5FF6DF0EF35D86C40D48656C6C6F97774C9FA54347D4D396FCE93AB1FA3E881BF  
FAD0493191ACC480B4B614DF2FA66472929A56869B653A2352F951475E742C9604AEBA1A06D198F  
B1E9D5058BEA6EAD8083765A67450E3EFA0F635D7D277941A08A28F0A781631BC875C098D504351  
21A54200089A88BD31431AD745B26B4ED8716C166767D355418962BED197145DFC045AC4117075  
2CA4C3C7B41570B7B34DD96C1ED548A14A268F51DEC9E59267A38FE2107588CEC8968D8D3ACB8F  
F567E69B12D6C8BD08A6D823A9E7DAEE25E4D4A268739955DE07A30AFBF9DC829CE33F4100FCB6  
1761E1D2C0CB6888F3777BFC066E7BE16A2B6046E
```

Hex unpack

Unpacks text previously embedded in hex.

Usage:

```
Dim mytext = unpackhex  
("0021000A69DCCA5FF6DF0EF35D86C40D48656C6C6F97774C9FA54347D4D396FCE93AB1FA3E881  
BFFAD0493191ACC480B4B614DF2FA66472929A56869B653A2352F951475E742C9604AEBA1A06D19  
8FB1E9D5058BEA6EAD8083765A67450E3EFA0F635D7D277941A08A28F0A781631BC875C098D5043  
5121A54200089A88BD31431AD745B26B4ED8716C166767D355418962BED197145DFC045AC41170  
752CA4C3C7B41570B7B34DD96C1ED548A14A268F51DEC9E59267A38FE2107588CEC8968D8D3ACB  
8FF567E69B12D6C8BD08A6D823A9E7DAEE25E4D4A268739955DE07A30AFBF9DC829CE33F4100FC  
B61761E1D2C0CB6888F3777BFC066E7BE16A2B6046E")
```

'returns "Hello"

Encrypt

Uses the cipher key to encrypt text and store it in a random hex string.

Usage:

```
Dim myhex = encrypt("010B0B05", "Hello")
```

'returns

```
0021000A69DCCA5FF6DF0EF35D86C40D48656C6C6F97774C9FA54347D4D396FCE93AB1FA3E881BF  
FAD0493191ACC480B4B614DF2FA66472929A56869B653A2352F951475E742C9604AEBA1A06D198F  
B1E9D5058BEA6EAD8083765A67450E3EFA0F635D7D277941A08A28F0A781631BC875C098D504351  
21A54200089A88BD31431AD745B26B4ED8716C166767D355418962BED197145DFC045AC4117075  
2CA4C3C7B41570B7B34DD96C1ED548A14A268F51DEC9E59267A38FE2107588CEC8968D8D3ACB8F  
F567E69B12D6C8BD08A6D823A9E7DAEE25E4D4A268739955DE07A30AFBF9DC829CE33F4100FCB6  
1761E1D2C0CB6888F3777BFC066E7BE16A2B6046E
```

Decrypt

Decrypts a hex string using a cipher key into a text value

```
Dim mytext = decrypt("010B0B05",
```

```
"0021000A69DCCA5FF6DF0EF35D86C40D48656C6C6F97774C9FA54347D4D396FCE93AB1FA3E881B  
FFAD0493191ACC480B4B614DF2FA66472929A56869B653A2352F951475E742C9604AEBA1A06D198  
FB1E9D5058BEA6EAD8083765A67450E3EFA0F635D7D277941A08A28F0A781631BC875C098D50435  
121A54200089A88BD31431AD745B26B4ED8716C166767D355418962BED197145DFC045AC411707  
52CA4C3C7B41570B7B34DD96C1ED548A14A268F51DEC9E59267A38FE2107588CEC8968D8D3ACB8  
FF567E69B12D6C8BD08A6D823A9E7DAEE25E4D4A268739955DE07A30AFBF9DC829CE33F4100FCB  
61761E1D2C0CB6888F3777BFC066E7BE16A2B6046E")
```

'returns "Hello"

Notice that repeated pressing of the encrypt / hex embed buttons produces a different hex sequence, as the hex sequence and location of any hidden text within is generated randomly each time.



Tips on encryption:

Any encryption can be cracked so here are a few tips to help safeguard your data.

- Use obscure variable names in your code: Don't use names like: licencekey; encryptedvalue etc.
- Put false code in your code to confuse any hacker. Any hacker will look for obvious signs of encryption and protection in your code, so don't call your functions obvious names like "registration_routine", call it something obscure and put in half a dozen dummy routines.
- Do not disclose your cipher key!



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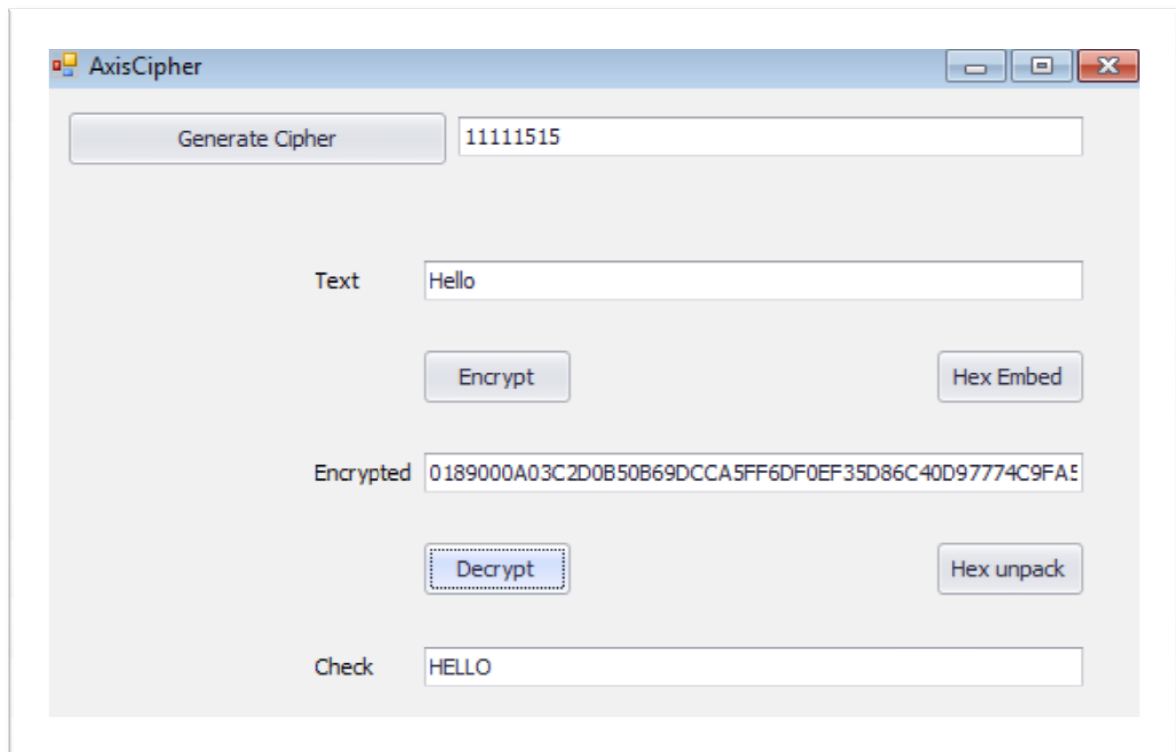
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Appendix A: Example utility



Buttons:

Generate Cipher: generates a random cipher key

Enter your chosen text to encrypt in text box

Press **Encrypt** to populate the Encrypted Text box with your encrypted text.

Press **Hex Embed** to populate the Encrypted Text box with your hex embedded text.

Decrypt and **Hex Unpack** reverse the above two actions and populate the Check text box with the decrypted / unpacked text.