

Forum: [Hack Forums](#)

Thread: [VB 2010 Encryptr XTEA](#)

trefl - January 12, 2015, 1:28 pm

hello. I have a problem. I'm trying to do Encryptr XTEA. Borrowed code from the user d3c0mpil3r. I can not understand it. code:

```
Code Private Shared Sub code(ByVal v As UInteger(), ByVal k As UInteger())
```

```
    Dim y As UInteger = v(0)
```

```
    Dim z As UInteger = v(1)
```

```
    Dim sum As UInteger = 0
```

```
    Dim delta As UInteger = &H9E3779B9UI
```

```
    For i = 0 To 31
```

```
        y += (z << 4 Xor z >> 5) + z Xor sum + k(sum And 3)
```

```
        sum += delta
```

```
        z += (y << 4 Xor y >> 5) + y Xor sum + k(sum >> 11 And 3)
```

```
    Next
```

```
    v(0) = y
```

```
    v(1) = z
```

```
End Sub
```

I can not call the function. The value of v is the text that is to be encrypted? The value of k is the key? How do these data call?

Aristocles - January 12, 2015, 1:36 pm

Since the function doesn't Return anything, you will have to do something like this :

```
Dim Myvalue as UInteger
```

```
Myvalue = code(123,456)
```

Also please do refer to former replies :

<https://hackforums.net/showthread.php?tid=815420&pid=8555658#pid8555658>

<https://hackforums.net/showthread.php?tid=815420&pid=8566970#pid8566970>

Only3 - January 12, 2015, 1:43 pm

its not the main function

```
Public Function Encrypt(ByVal input As String) As String
```

```
...
```

```
Public Function Decrypt(ByVal Data As String) As String
```

```
...
```

trefl - January 13, 2015, 7:44 am

thanks. And can someone explain to me how to make it work? How substitute data, how to call a function, where the sets own key, where he sets the text to encrypt? I am a beginner. I became interested in data encryption. I would like to know the code of the user d3c0mpil3r. Full code:

```
Code Public Class XTea
```

'Leave a thanks....

'- decompiler

```
Private Shared f_key As UInteger()
```

```
Public Sub New(ByVal password As String)
    f_key = FormatKey(password)
End Sub
```

```
Public Function Encrypt(ByVal input As String) As String
    If input.Length = 0 Then
        Throw New ArgumentException("Invalid input length!")
    End If
```

```
    If input.Length Mod 2 <> 0 Then
        input += ControlChars.NullChar
    End If
```

```
    Dim dataBytes As Byte() = System.Text.ASCIIEncoding.ASCII.GetBytes(input)
```

```
    Dim cipher As String = String.Empty
    Dim tempData As UInteger() = New UInteger(1) {}
    For i As Integer = 0 To dataBytes.Length - 1 Step 2
        tempData(0) = dataBytes(i)
        tempData(1) = dataBytes(i + 1)
        code(tempData, f_key)
        cipher += ConvertUIntToString(tempData(0)) + ConvertUIntToString(tempData(1))
    Next
```

```
    Return cipher
End Function
```

```
Public Function Decrypt(ByVal Data As String) As String
    Dim x As Integer = 0
    Dim tempData As UInteger() = New UInteger(1) {}
    Dim dataBytes As Byte() = New Byte((Data.Length \ 8) * 2 - 1) {}
    For i As Integer = 0 To Data.Length - 1 Step 8
        tempData(0) = ConvertStringToUInt(Data.Substring(i, 4))
        tempData(1) = ConvertStringToUInt(Data.Substring(i + 4, 4))
        decode(tempData, f_key)
        dataBytes(x) = CByte(tempData(0))
        x += 1
        dataBytes(x) = CByte(tempData(1))
        x += 1
    Next
    Dim decipheredString As String = System.Text.ASCIIEncoding.ASCII.GetString(dataBytes, 0, dataBytes.Length)
    If decipheredString(decipheredString.Length - 1) = ControlChars.NullChar Then
        decipheredString = decipheredString.Substring(0, decipheredString.Length - 1)
    End If
    Return decipheredString
End Function
```

```
Private Shared Function FormatKey(ByVal Key As String) As UInteger()  
If Key.Length <= 5 Then  
    Throw New ArgumentException("Key must be between 6 and 16 characters in length")  
End If
```

```
Key = Key.PadRight(16, "c").Substring(0, 16)
```

```
Dim formattedKey As UInteger() = New UInteger(4) {}
```

```
Dim j As Integer = 0  
For i As Integer = 0 To Key.Length - 1 Step 4  
    formattedKey(j) = ConvertStringToUInt(Key.Substring(i, 4))  
    j += 1  
Next  
Return formattedKey  
End Function
```

```
Private Shared Sub code(ByVal v As UInteger(), ByVal k As UInteger())  
Dim y As UInteger = v(0)  
Dim z As UInteger = v(1)  
Dim sum As UInteger = 0  
Dim delta As UInteger = &H9E3779B9UI
```

```
For i = 0 To 31  
    y += (z << 4 Xor z >> 5) + z Xor sum + k(sum And 3)  
    sum += delta  
    z += (y << 4 Xor y >> 5) + y Xor sum + k(sum >> 11 And 3)  
Next
```

```
v(0) = y  
v(1) = z  
End Sub
```

```
Private Shared Sub decode(ByVal v As UInteger(), ByVal k As UInteger())  
Dim y As UInteger = v(0)  
Dim z As UInteger = v(1)  
Dim sum As UInteger = &HC6EF3720UI  
Dim delta As UInteger = &H9E3779B9UI
```

```
For i = 0 To 31  
    z -= (y << 4 Xor y >> 5) + y Xor sum + k(sum >> 11 And 3)  
    sum -= delta  
    y -= (z << 4 Xor z >> 5) + z Xor sum + k(sum And 3)  
Next
```

```
v(0) = y  
v(1) = z  
End Sub
```

```
Private Shared Function ConvertStringToUInt(ByVal Input As String) As System.UInt32  
Dim output As UInt32  
output = Convert.ToUInt32(Input(0))
```

```

output += (Convert.ToUInt32(Input(1)) << 8)
output += (Convert.ToUInt32(Input(2)) << 16)
output += (Convert.ToUInt32(Input(3)) << 24)
Return output
End Function
Private Shared Function ConvertUIntToString(ByVal Input As System.UInt32) As String
Dim output As New System.Text.StringBuilder()
output.Append(Convert.ToChar(Input And &HFF))
output.Append(Convert.ToChar((Input >> 8) And &HFF))
output.Append(Convert.ToChar((Input >> 16) And &HFF))
output.Append(Convert.ToChar((Input >> 24) And &HFF))
Return output.ToString()
End Function

End Class

```

Only3 - January 13, 2015, 7:52 am

```

Dim X As New XTea("Pass")
Dim Enc = X.Encrypt("String")
MsgBox(X.Dcrypt(Enc))

```

treffl - January 13, 2015, 8:29 am

WOW, thanks. I just have a problem. What do I do?

Quote:'Public Sub New(password As String)' in designer-generated type 'XTEA_Encryption.Form1' should call InitializeComponent method.

Quote:'Form1' is a type in 'XTEA_Encryption' and cannot be used as an expression.

Only3 - January 13, 2015, 9:03 am

<https://hackforums.net/showthread.php?tid=815420>

```

Public Class Form1

```

```

Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
Dim X As New XTea("Pass")
Dim Enc = X.Encrypt("String")
MsgBox(X.Dcrypt(Enc))
...

```

```

Public Class XTea

```

```

...
End Class
End Class

```

treffl - January 13, 2015, 9:58 am

awesome, aww :3 why I have Overflow error ?

Only3 - January 13, 2015, 10:07 am

cant guess read the replys in his thread

treffl - January 13, 2015, 10:39 am

I read and I cant find. The question no answer. I know that the key has a length of 6 - 16 characters.

my code:

```
Code Private Sub xtea_button_Click(sender As System.Object, e As System.EventArgs) Handles  
xtea_button.Click
```

```
    Dim X As New XTea("1234567890") 'key
```

```
    Dim Enc = X.Encrypt("qwertyuiop")
```

```
    output.Text = X.Encrypt(Enc)
```

```
End Sub
```

Overflow is:

```
Code y += (z << 4 Xor z >> 5) + z Xor sum + k(sum And 3)or
```

```
Code sum += delta
```

I cant fix it...?

Sc?rf?c3_ - January 13, 2015, 1:26 pm

project properties...advanced compiling options...check on remove integer overflow control.

treffl - January 14, 2015, 1:10 pm

thanks thanks thanks :D you are pro :D

Only3 - January 14, 2015, 1:31 pm

if u just read the replys

<https://hackforums.net/showthread.php?tid=815420&pid=8566970#pid8566970>

treffl - January 14, 2015, 1:40 pm

oh, I noticed just now ... sorry for the problem. I thought this signature . a big thank you gentlemen for a very good help. I bet you a beer :D . I have one question . the entire script returns the encrypted text in strange characters. is the ability to do that drew in numbers ? :D eg introduce the key, as the text I have " 1234567890 " . text goes through the script and returns the encrypted me in numbers . is it possible?

Only3 - January 14, 2015, 1:47 pm

thats all the idea of encrypt text > strange characters

treffl - January 14, 2015, 1:55 pm

OK , I understand. but I'm interested in why , for example, including encryption: (type in google " xtea encryption" and the second result (page: tools4noobs) . I can not insert a link) the script returns the encrypted text in characters 'normal'. key: ex. 1234567890, text ex. test, result ex. RsKhO84H2D4=.

Only3 - January 14, 2015, 2:00 pm

```
Convert.ToBase64String(System.Text.Encoding.Default.GetBytes("Encrypt String"))
```

treffl - January 14, 2015, 2:06 pm

thanks ! :D You are good at programming :D

treffl - February 5, 2015, 1:34 pm

Is there a function that returns the text in numbers?