## **Index of Chilkat Blog Posts**

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## **Zip CRC Calculation**

The Chilkat.ZipCrc (.NET), CkZipCrc (C++, Perl, Java, Ruby, Python), and ChilkatZipCrc (ActiveX) class may be used to calculate Zip CRC's from in-memory data or files. The ZipCrc class may also be used to calculate CRC's independent of zips altogether. Effectively, it's just another type of hash algorithm — the output happens to be 4 bytes (as opposed to SHA-1 which is 20 bytes, or MD5 which is 16 bytes).

This Visual Basic example demonstrates how to compare the CRC stored within a .zip with the CRC calculated from the file itself:

```
.....
Private Sub Command15 Click()
     Dim zip As New ChilkatZip2
     Dim success As Long
     success = zip.UnlockComponent("Anything for 30-day trial")
     If (success <> 1) Then
    MsgBox zip.LastErrorText
         Exit Sub
    success = zip.NewZip("test.zip")
If (success <> 1) Then
         MsgBox zip.LastErrorText
         Exit Sub
     success = zip.AppendOneFileOrDir("hamlet.xml", 0)
     If (success <> 1) Then
         MsgBox zip.LastErrorText
         Exit Sub
     ^{\prime} Write the .zip, but don't close it because we're still going to use it...
     success = zip.WriteZip()
If (success <> 1) Then
         MsgBox zip.LastErrorText
         Exit Sub
     ' Now we'll compare the CRC stored within the .zip for hamlet.xml against ' a CRC computed by reading hamlet.xml directly. First, get the zip entry object ' for hamlet.xml and access the Crc property:
     Dim crcFromZip As Long
     Dim entry As ChilkatZipEntry2
     Set entry = zip.GetEntryByName("hamlet.xml")
     crcFromZip = entry.Crc
     ' The ChilkatZipCrc is used for calculating CRC's from data or files
    The FileCrc method calculates the CRC by reading a file.
Dim crcCalculator As New ChilkatZipCrc
     crcFromFile = crcCalculator.FileCrc("hamlet.xml")
     ' Compare the CRC's, they should be equal:
     If (crcFromFile <> crcFromZip) Then
         MsgBox "CRC's are not equal!"
         MsgBox "CRC's are equal: " & Str(crcFromFile)
     End If
End Sub
```

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