

2x speed by parallel generation in VB.NET and ByteScout Image To Video SDK

How to code 2x speed by parallel generation in VB.NET: How-To tutorial

Source code documentation samples provide quick and easy way to add a required functionality into your application. ByteScout Image To Video SDK helps with 2x speed by parallel generation in VB.NET. ByteScout Image To Video SDK is the library for conversion of images into video slideshow. Provides built-in support for more than hundred of 2D and 3D transition effects. Output formats supported are AVI, WMV and WEBM video files. You may adjust output video size, quality, framerate and add audio.

The SDK samples like this one below explain how to quickly make your application do 2x speed by parallel generation in VB.NET with the help of ByteScout Image To Video SDK. In order to implement this functionality, you should copy and paste code below into your app using code editor. Then compile and run your application. Enjoy writing a code with ready-to-use sample VB.NET codes to add 2x speed by parallel generation functions using ByteScout Image To Video SDK in VB.NET.

Trial version can be downloaded from our website. Source code samples for VB.NET and documentation are included.

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Source Code Files:

```
' You can speed up the conversion using the following technique:
' 1) Generate video parts in parallel threads;
' 2) Combine these parts into final video.
' Let us say you have 20 slides.
' Then you can run a thread to convert 1-10 slides and another one to convert 11-20 slides.
' Finally combine these parts into a single one using .JoinWMVFiles(part1, part2, outputFile)
' or .JoinAVIFiles(part1, part2, outputFile) functions.
```

```
Imports System.Diagnostics
Imports System.Runtime.InteropServices
Imports System.Threading
Imports BytescoutImageToVideo
```

```
Class ThreadData
    Public InputFiles As String()
    Public OutputFile As String

    Public Sub New(ByVal inputFiles As String(), ByVal outputFile As String)
        Me.InputFiles = inputFiles
        Me.OutputFile = outputFile
    End Sub
End Class
```

```
Class Program
    Private Shared NumBusy As Integer
    Private Shared DoneEvent As ManualResetEvent

    Friend Shared Sub Main(ByVal args As String())
        DoneEvent = New ManualResetEvent(False)
        NumBusy = 2

        ' variable to store video file extension
        Dim videoFileExt As String

        ' are we using WMV or AVI video format for output
        Dim isWMV As Boolean = False

        ' if is WMV then use .wmv extension
        If isWMV Then
            videoFileExt = ".wmv"
        Else
            ' else use AVI
            videoFileExt = ".avi"
        End If

        ' Start two conversion threads
        Console.WriteLine("Start first thread...")
        Dim threadData1 As New ThreadData(New String() {"slide1.jpg", "slide2.jpg", "slide3.jpg", "slide4.jpg", "slide5.jpg", "slide6.jpg", "slide7.jpg", "slide8.jpg", "slide9.jpg", "slide10.jpg", "slide11.jpg", "slide12.jpg", "slide13.jpg", "slide14.jpg", "slide15.jpg", "slide16.jpg", "slide17.jpg", "slide18.jpg", "slide19.jpg", "slide20.jpg"})
        ThreadPool.QueueUserWorkItem(AddressOf DoWork, threadData1)

        Console.WriteLine("Start second thread...")
        Dim threadData2 As New ThreadData(New String() {"slide4.jpg", "slide5.jpg", "slide6.jpg", "slide7.jpg", "slide8.jpg", "slide9.jpg", "slide10.jpg", "slide11.jpg", "slide12.jpg", "slide13.jpg", "slide14.jpg", "slide15.jpg", "slide16.jpg", "slide17.jpg", "slide18.jpg", "slide19.jpg", "slide20.jpg"})
        ThreadPool.QueueUserWorkItem(AddressOf DoWork, threadData2)

        ' Wait for both threads finished
```

```

DoneEvent.WaitOne()

' Join generates parts
Console.WriteLine("Join parts into the final video file...")
Dim converter As New ImageToVideo()

If isWMV Then
    converter.JoinWMVFiles("Part1" & videoFileExt, "Part2" & videoFileExt, "Res
Else
    converter.JoinAVIFiles("Part1" & videoFileExt, "Part2" & videoFileExt, "Res
End If

' Open the output video file in default media player
Process.Start("Result" & videoFileExt)

Console.WriteLine("Done. Press any key to continue...")
Console.ReadKey()
End Sub

Private Shared Sub DoWork(ByVal data As Object)

    Dim threadData As ThreadData = DirectCast(data, ThreadData)

    Try
        ' Create BytescoutImageToVideoLib.ImageToVideo object instance
        Dim converter As New ImageToVideo()

        ' Activate the component
        converter.RegistrationName = "demo"
        converter.RegistrationKey = "demo"

        ' Add slides
        For Each file As String In threadData.InputFiles
            Dim slide As Slide = converter.AddImageFromFileName(file)
            slide.Duration = 3000 ' 3000ms = 3s
            slide.Effect = SlideEffectType.seEaseIn
        Next

        ' Set output video size
        converter.OutputWidth = 640
        converter.OutputHeight = 480

        ' Set output video file name
        converter.OutputVideoFileName = threadData.OutputFile

        ' Run the conversion
        converter.RunAndWait()

        ' Release resources
        Marshal.ReleaseComObject(converter)

        Console.WriteLine("Thread finished.")

    Catch ex As Exception
        Console.WriteLine(ex.Message)
    End Try

    If Interlocked.Decrement(NumBusy) = 0 Then
        DoneEvent.Set()
    End If

```

```
End Sub
End Class
```

VIDEO

<https://www.youtube.com/watch?v=FzPgeGFL8YA>

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