

## How to use video quality profiles for screen recording in VB.NET and ByteScout Screen Capturing SDK

This tutorial will show how to use video quality profiles for screen recording in VB.NET

The sample shows steps and algorithm of how to use video quality profiles for screen recording and how to make it work in your VB.NET application. ByteScout Screen Capturing SDK can use video quality profiles for screen recording. It can be used from VB.NET. ByteScout Screen Capturing SDK is the screen video recording SDK helps in quick implementation of screen video recording. WMV, AVI, WebM output options are available with adjustable quality, video size, framerate and video and audio codec. Includes special features like live multiple blacking out of selected areas, recording from web cam as main source and as overlay, optional watermarks for output video.

Fast application programming interfaces of ByteScout Screen Capturing SDK for VB.NET plus the instruction and the code below will help you quickly learn how to use video quality profiles for screen recording. Follow the instructions from the scratch to work and copy the VB.NET code. Further enhancement of the code will make it more vigorous.

Free trial version of ByteScout Screen Capturing SDK is available on our website. Documentation and source code samples are included.

FOR MORE INFORMATION AND FREE TRIAL:

[Download Free Trial SDK \(on-premise version\)](#)

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[Explore API Documentation](#)

[Get Free Training for ByteScout Screen Capturing SDK](#)

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Source Code Files:

## Form1.Designer.vb

```
<Global.Microsoft.VisualBasic.CompilerServices.DesignerGenerated()> _
Partial Class Form1
    Inherits System.Windows.Forms.Form

    'Form overrides dispose to clean up the component list.
    <System.Diagnostics.DebuggerNonUserCode()> _
    Protected Overrides Sub Dispose(ByVal disposing As Boolean)
        Try
            If disposing AndAlso components IsNot Nothing Then
                components.Dispose()
            End If
        Finally
            MyBase.Dispose(disposing)
        End Try
    End Sub

    'Required by the Windows Form Designer
    Private components As System.ComponentModel.IContainer

    'NOTE: The following procedure is required by the Windows Form Designer
    'It can be modified using the Windows Form Designer.
    'Do not modify it using the code editor.
    <System.Diagnostics.DebuggerStepThrough()> _
    Private Sub InitializeComponent()
        Me._btnPauseScreenCapture = New System.Windows.Forms.Button()
        Me._btnScreenCapture = New System.Windows.Forms.Button()
        Me.label6 = New System.Windows.Forms.Label()
        Me._numEncodingThreads = New System.Windows.Forms.NumericUpDown()
        Me._lblBitrate = New System.Windows.Forms.Label()
        Me.label5 = New System.Windows.Forms.Label()
        Me._cmbQuality = New System.Windows.Forms.ComboBox()
        Me.label4 = New System.Windows.Forms.Label()
        Me._numFramerate = New System.Windows.Forms.NumericUpDown()
        Me.label3 = New System.Windows.Forms.Label()
        Me._numHeight = New System.Windows.Forms.NumericUpDown()
        Me.label2 = New System.Windows.Forms.Label()
        Me._numWidth = New System.Windows.Forms.NumericUpDown()
        Me.label1 = New System.Windows.Forms.Label()
        Me._txtOutputFile = New System.Windows.Forms.TextBox()
        CType(Me._numEncodingThreads, System.ComponentModel.ISupportInitialize).BeginInit()
        CType(Me._numFramerate, System.ComponentModel.ISupportInitialize).BeginInit()
        CType(Me._numHeight, System.ComponentModel.ISupportInitialize).BeginInit()
        CType(Me._numWidth, System.ComponentModel.ISupportInitialize).BeginInit()
        Me.SuspendLayout()
        '
        ' _btnPauseScreenCapture
        '
        Me._btnPauseScreenCapture.Location = New System.Drawing.Point(201, 202)
        Me._btnPauseScreenCapture.Margin = New System.Windows.Forms.Padding(4)
        Me._btnPauseScreenCapture.Name = "_btnPauseScreenCapture"
        Me._btnPauseScreenCapture.Size = New System.Drawing.Size(163, 28)
        Me._btnPauseScreenCapture.TabIndex = 34
        Me._btnPauseScreenCapture.Text = "Pause Screen Capture"
```

```

Me._btnPauseScreenCapture.UseVisualStyleBackColor = True
Me._btnPauseScreenCapture.Visible = False
,
'_btnScreenCapture
,
Me._btnScreenCapture.Location = New System.Drawing.Point(15, 202)
Me._btnScreenCapture.Margin = New System.Windows.Forms.Padding(4)
Me._btnScreenCapture.Name = "_btnScreenCapture"
Me._btnScreenCapture.Size = New System.Drawing.Size(163, 28)
Me._btnScreenCapture.TabIndex = 33
Me._btnScreenCapture.Text = "Screen capture video"
Me._btnScreenCapture.UseVisualStyleBackColor = True
,
'label6
,
Me.label6.AutoSize = True
Me.label6.Location = New System.Drawing.Point(13, 147)
Me.label6.Margin = New System.Windows.Forms.Padding(4, 0, 4, 0)
Me.label6.Name = "label6"
Me.label6.Size = New System.Drawing.Size(192, 17)
Me.label6.TabIndex = 32
Me.label6.Text = "Number of encoding threads:"
,
'_numEncodingThreads
,
Me._numEncodingThreads.Increment = New Decimal(New Integer() {2, 0, 0, 0})
Me._numEncodingThreads.Location = New System.Drawing.Point(213, 144)
Me._numEncodingThreads.Margin = New System.Windows.Forms.Padding(4)
Me._numEncodingThreads.Maximum = New Decimal(New Integer() {16, 0, 0, 0})
Me._numEncodingThreads.Name = "_numEncodingThreads"
Me._numEncodingThreads.Size = New System.Drawing.Size(127, 22)
Me._numEncodingThreads.TabIndex = 31
Me._numEncodingThreads.Value = New Decimal(New Integer() {3, 0, 0, 0})
,
'_lblBitrate
,
Me._lblBitrate.Location = New System.Drawing.Point(348, 147)
Me._lblBitrate.Margin = New System.Windows.Forms.Padding(4, 0, 4, 0)
Me._lblBitrate.Name = "_lblBitrate"
Me._lblBitrate.Size = New System.Drawing.Size(408, 51)
Me._lblBitrate.TabIndex = 30
,
'label5
,
Me.label5.AutoSize = True
Me.label5.Location = New System.Drawing.Point(512, 78)
Me.label5.Margin = New System.Windows.Forms.Padding(4, 0, 4, 0)
Me.label5.Name = "label5"
Me.label5.Size = New System.Drawing.Size(52, 17)
Me.label5.TabIndex = 29
Me.label5.Text = "Quality"
,
'_cmbQuality
,
Me._cmbQuality.DropDownStyle = System.Windows.Forms.ComboBoxStyle.DropDownList
Me._cmbQuality.FormattingEnabled = True
Me._cmbQuality.Location = New System.Drawing.Point(516, 98)
Me._cmbQuality.Margin = New System.Windows.Forms.Padding(4)
Me._cmbQuality.Name = "_cmbQuality"
Me._cmbQuality.Size = New System.Drawing.Size(240, 24)

```

```

Me._cmbQuality.TabIndex = 28
'
'label4
'
Me.label4.AutoSize = True
Me.label4.Location = New System.Drawing.Point(348, 78)
Me.label4.Margin = New System.Windows.Forms.Padding(4, 0, 4, 0)
Me.label4.Name = "label4"
Me.label4.Size = New System.Drawing.Size(73, 17)
Me.label4.TabIndex = 27
Me.label4.Text = "Framerate"
'
'_numFramerate
'
Me._numFramerate.DecimalPlaces = 2
Me._numFramerate.Increment = New Decimal(New Integer() {2, 0, 0, 0})
Me._numFramerate.Location = New System.Drawing.Point(348, 98)
Me._numFramerate.Margin = New System.Windows.Forms.Padding(4)
Me._numFramerate.Maximum = New Decimal(New Integer() {10000, 0, 0, 0})
Me._numFramerate.Name = "_numFramerate"
Me._numFramerate.Size = New System.Drawing.Size(160, 22)
Me._numFramerate.TabIndex = 26
Me._numFramerate.ThousandsSeparator = True
Me._numFramerate.Value = New Decimal(New Integer() {20, 0, 0, 0})
'
'label3
'
Me.label3.AutoSize = True
Me.label3.Location = New System.Drawing.Point(180, 78)
Me.label3.Margin = New System.Windows.Forms.Padding(4, 0, 4, 0)
Me.label3.Name = "label3"
Me.label3.Size = New System.Drawing.Size(49, 17)
Me.label3.TabIndex = 25
Me.label3.Text = "Height"
'
'_numHeight
'
Me._numHeight.Increment = New Decimal(New Integer() {2, 0, 0, 0})
Me._numHeight.Location = New System.Drawing.Point(180, 98)
Me._numHeight.Margin = New System.Windows.Forms.Padding(4)
Me._numHeight.Maximum = New Decimal(New Integer() {10000, 0, 0, 0})
Me._numHeight.Name = "_numHeight"
Me._numHeight.Size = New System.Drawing.Size(160, 22)
Me._numHeight.TabIndex = 24
Me._numHeight.Value = New Decimal(New Integer() {768, 0, 0, 0})
'
'label2
'
Me.label2.AutoSize = True
Me.label2.Location = New System.Drawing.Point(12, 78)
Me.label2.Margin = New System.Windows.Forms.Padding(4, 0, 4, 0)
Me.label2.Name = "label2"
Me.label2.Size = New System.Drawing.Size(44, 17)
Me.label2.TabIndex = 23
Me.label2.Text = "Width"
'
'_numWidth
'
Me._numWidth.Increment = New Decimal(New Integer() {2, 0, 0, 0})
Me._numWidth.Location = New System.Drawing.Point(12, 98)

```

```

Me._numWidth.Margin = New System.Windows.Forms.Padding(4)
Me._numWidth.Maximum = New Decimal(New Integer() {10000, 0, 0, 0})
Me._numWidth.Name = "_numWidth"
Me._numWidth.Size = New System.Drawing.Size(160, 22)
Me._numWidth.TabIndex = 22
Me._numWidth.Value = New Decimal(New Integer() {1024, 0, 0, 0})
'
'label1
'
Me.label1.AutoSize = True
Me.label1.Location = New System.Drawing.Point(13, 9)
Me.label1.Margin = New System.Windows.Forms.Padding(4, 0, 4, 0)
Me.label1.Name = "label1"
Me.label1.Size = New System.Drawing.Size(73, 17)
Me.label1.TabIndex = 21
Me.label1.Text = "Output file"
'
'_txtOutputFile
'
Me._txtOutputFile.Location = New System.Drawing.Point(12, 33)
Me._txtOutputFile.Margin = New System.Windows.Forms.Padding(4)
Me._txtOutputFile.Name = "_txtOutputFile"
Me._txtOutputFile.Size = New System.Drawing.Size(300, 22)
Me._txtOutputFile.TabIndex = 20
Me._txtOutputFile.Text = "output.wmv"
'
'Form1
'
Me.AutoScaleDimensions = New System.Drawing.SizeF(8.0!, 16.0!)
Me.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font
Me.ClientSize = New System.Drawing.Size(767, 251)
Me.Controls.Add(Me._btnPauseScreenCapture)
Me.Controls.Add(Me._btnScreenCapture)
Me.Controls.Add(Me.label6)
Me.Controls.Add(Me._numEncodingThreads)
Me.Controls.Add(Me._lblBitrate)
Me.Controls.Add(Me.label5)
Me.Controls.Add(Me._cmbQuality)
Me.Controls.Add(Me.label4)
Me.Controls.Add(Me._numFramerate)
Me.Controls.Add(Me.label3)
Me.Controls.Add(Me._numHeight)
Me.Controls.Add(Me.label2)
Me.Controls.Add(Me._numWidth)
Me.Controls.Add(Me.label1)
Me.Controls.Add(Me._txtOutputFile)
Me.Name = "Form1"
Me.Text = "Screen Capture Video"
CType(Me._numEncodingThreads, System.ComponentModel.ISupportInitialize).EndInit()
CType(Me._numFramerate, System.ComponentModel.ISupportInitialize).EndInit()
CType(Me._numHeight, System.ComponentModel.ISupportInitialize).EndInit()
CType(Me._numWidth, System.ComponentModel.ISupportInitialize).EndInit()
Me.ResumeLayout(False)
Me.PerformLayout()

```

End Sub

```

Private WithEvents _btnPauseScreenCapture As Button
Private WithEvents _btnScreenCapture As Button
Private WithEvents label6 As Label

```

```

Private WithEvents _numEncodingThreads As NumericUpDown
Private WithEvents _lblBitrate As Label
Private WithEvents label5 As Label
Private WithEvents _cmbQuality As ComboBox
Private WithEvents label4 As Label
Private WithEvents _numFramerate As NumericUpDown
Private WithEvents label3 As Label
Private WithEvents _numHeight As NumericUpDown
Private WithEvents label2 As Label
Private WithEvents _numWidth As NumericUpDown
Private WithEvents label1 As Label
Private WithEvents _txtOutputFile As TextBox
End Class

```

Form1.vb

```

Imports BytescoutScreenCapturingLib

Public Class Form1

    #Region "Fields"

        Private _capturer As BytescoutScreenCapturingLib.Capturer
        Private _converting As Boolean = False
        Private _paused As Boolean = False

    #End Region

    ''' <summary>
    ''' Form load event handler
    ''' </summary>
    Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
        Try
            _cmbQuality.DataSource = [Enum].GetValues(GetType(VideoQualityProfileType))
            _cmbQuality.SelectedIndex = 0

            _capturer = New BytescoutScreenCapturingLib.Capturer()
            _capturer.RegistrationName = "demo"
            _capturer.RegistrationKey = "demo"
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub

    ''' <summary>
    ''' Handle screen capture button click
    ''' </summary>
    Private Sub _btnScreenCapture_Click(sender As Object, e As EventArgs) Handles _btnS
        Try

```

```

    If _converting Then

        If _capturer.IsRunning Then
            _capturer.[Stop]()
        End If

        StopCapturer()

        _btnPauseScreenCapture.Visible = False

    Else

        _capturer.OutputWidth = CInt(_numWidth.Value)
        _capturer.OutputHeight = CInt(_numHeight.Value)
        _capturer.FPS = CSng(_numFramerate.Value)

        _capturer.SetVideoQualityProfile(CType(_cmbQuality.SelectedItem, BytescoutScreenCapturingLib.VideoQualityProfile))

        _lblBitrate.Text = String.Format("Bitrate: {0}[kbps], Wmv Quality: {1}", _capturer.Bitrate, _cmbQuality.SelectedItem)

        _capturer.AnimateMouseClicks = True
        _capturer.AnimateMouseButtons = True
        _capturer.CapturingType = BytescoutScreenCapturingLib.CaptureAreaType.All

        _capturer.OutputFileName = _txtOutputFile.Text

        _capturer.EncoderThreadsCount = CInt(_numEncodingThreads.Value)

        _capturer.AudioEnabled = False

        _capturer.Run()

        _converting = True
        _btnScreenCapture.Text = "Stop screen capture"

        _btnPauseScreenCapture.Visible = True
        _paused = False

    End If

Catch ex As Exception
    MessageBox.Show(ex.Message)
End Try
End Sub

Private Sub _btnPauseScreenCapture_Click(sender As Object, e As EventArgs) Handles _btnPauseScreenCapture.Click
    If _paused Then
        _capturer.Run()
        _btnPauseScreenCapture.Text = "Pause Screen Capture"
        _paused = False
    Else
        _capturer.Pause()
        _btnPauseScreenCapture.Text = "Resume Screen Capture"
        _paused = True
    End If
End Sub

Private Sub StopCapturer()
    _converting = False
    _btnScreenCapture.Text = "Screen capture video"

```

```
        Process.Start(_txtOutputFile.Text)
    End Sub

End Class
```

ScreenCapture.sln

```
Microsoft Visual Studio Solution File, Format Version 12.00
# Visual Studio 15
VisualStudioVersion = 15.0.27703.2026
MinimumVisualStudioVersion = 10.0.40219.1
Project("{F184B08F-C81C-45F6-A57F-5ABD9991F28F}") = "ScreenCapture", "ScreenCapture.vbproj"
EndProject
Global
    GlobalSection(SolutionConfigurationPlatforms) = preSolution
        Debug|Any CPU = Debug|Any CPU
        Release|Any CPU = Release|Any CPU
    EndGlobalSection
    GlobalSection(ProjectConfigurationPlatforms) = postSolution
        {9B1BAFE7-3C07-4273-9C07-CF74236B7CD8}.Debug|Any CPU.ActiveCfg = Debug|Any CPU
        {9B1BAFE7-3C07-4273-9C07-CF74236B7CD8}.Debug|Any CPU.Build.0 = Debug|Any CPU
        {9B1BAFE7-3C07-4273-9C07-CF74236B7CD8}.Release|Any CPU.ActiveCfg = Release|Any CPU
        {9B1BAFE7-3C07-4273-9C07-CF74236B7CD8}.Release|Any CPU.Build.0 = Release|Any CPU
    EndGlobalSection
    GlobalSection(SolutionProperties) = preSolution
        HideSolutionNode = FALSE
    EndGlobalSection
    GlobalSection(ExtensibilityGlobals) = postSolution
        SolutionGuid = {9FD4245F-8A26-446D-A1EE-6D0D909F4A99}
    EndGlobalSection
EndGlobal
```

---

VIDEO

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



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