This is an All-In-One Code Framework ([http://1code.codeplex.com](http://1code.codeplex.com/)) sample to be published as KB. The sample package and the KB draft are attached. The samples in the project are featured by:  
   
1) Sample Source: The samples are refined out of CSS developer supports for customers. You can think of the samples as a collection of most frequently asked coding scenarios in contrast with FAQs.  
2) Three Languages: Almost all samples are provided in three popular programming languages: VC# and VB.NET when applicable.  
3) All-In-One: All sample for all Microsoft development techniques are in one solution.   
4) Simple build and run experience.

How to extract and convert audio file formats

This article describes an All-In-One Code Framework sample that is available for download. The sample demonstrates how to extract and convert audio file formats, which include wav, mp3 and mp4 files.

The sample is used to extract music file formats. We usually play music with Windows Media Player or other music-playing software. If we find our favorite music clip, we can use the function of this sample to extract it and convert it into another file format. All technology mentioned above is based on Expression Encoder SDK 4.0. When you install Expression Encoder 4.0, you can use Visual Studio 2010 to add a reference to it. In this way, you don't have to install the SDK installation kits individually.

The sample uses Expression Encoder SDK 4 to output \*.mp4 or \*.wma file. The .mp3 audio format is currently not supported as output format in Expression Encoder 4.

Difficulty Level

Medium

## Technical overview

1. Use following helper function to cut the audio file from startpoint to endpoint, and output the clip as the selected audio format.

public static string ExtractAudio(string sourceAudioFile, string outputDirectory,

        OutputAudioType outputAudioType, double startpoint, double endpoint)

    {

        using (Job job = new Job())

        {

            MediaItem src = new MediaItem(sourceAudioFile);

            switch (outputAudioType)

            {

                case OutputAudioType.MP4:

                    src.OutputFormat = new MP4OutputFormat();

                    src.OutputFormat.AudioProfile = new AacAudioProfile();

                    src.OutputFormat.AudioProfile.Codec = AudioCodec.AAC;

                    src.OutputFormat.AudioProfile.BitsPerSample = 24;

                    break;

                case OutputAudioType.WMA:

                    src.OutputFormat = new WindowsMediaOutputFormat();

                    src.OutputFormat.AudioProfile = new WmaAudioProfile();

                    src.OutputFormat.AudioProfile.Bitrate = new VariableConstrainedBitrate(128, 192);

                    src.OutputFormat.AudioProfile.Codec = AudioCodec.WmaProfessional;

                    src.OutputFormat.AudioProfile.BitsPerSample = 24;

                    break;

            }

            TimeSpan spanStart = TimeSpan.FromMilliseconds(startpoint);

            src.Sources[0].Clips[0].StartTime = spanStart;

            TimeSpan spanEnd = TimeSpan.FromMilliseconds(endpoint);

            src.Sources[0].Clips[0].EndTime = spanEnd;

            job.MediaItems.Add(src);

            job.OutputDirectory = outputDirectory;

            job.Encode();

            return job.MediaItems[0].ActualOutputFileFullPath;

        }

    }

1. Use the Windows Media Player control to play the source audio file. The following MSDN article introduces how to embed the Windows Media Player ActiveX control in a Windows Form. <http://msdn.microsoft.com/en-us/library/dd562851.aspx>

For more information about how to create and deploy the sample application, see the Readme.txt file that is included in the download package.

## Technology category

Network

## Languages

|  |  |
| --- | --- |
| Language | Project Name |
| Visual C# | CSExtractAudioFile |
| Visual Basic.NET | VBExtractAudioFile |

## Prerequisites

This sample application was created by using **Visual Studio 2010**, **.NET Framework 4** and Microsoft Expression Encoder 4.

## References

Expression Encoder SDK Programming Reference

<http://msdn.microsoft.com/en-us/library/ff396833(v=Expression.40).aspx>

Microsoft Expression Encoder 4 FAQ

<http://social.expression.microsoft.com/Forums/en/encoder/thread/3eabf903-b49f-4f92-b508-f28a795d6c90>