



Cisco TelePresence VCR Converter Getting started

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About the Cisco TelePresence VCR Converter

The Cisco TelePresence VCR Converter converts Cisco TelePresence IP VCR recordings from their native '.codian' format into video formats that can be stored and viewed on desktop computers or streamed from a server. Two formats can be produced:

- ▶ MPEG-1 (.mpg). This is the default format
- ▶ Windows Media Video 9 (.wmv)

The '.codian' recording can contain one or two video streams and/or a content channel (all known as 'streams' in this document). The Cisco TelePresence VCR Converter enables you to control how the streams appear in the resulting encoded video file. You can:

- ▶ control the size and resolution of the converted video
- ▶ control the position and size of the streams in the converted video
- ▶ choose to disable a stream
- ▶ set a bitmap as a background image
- ▶ choose to encode only the audio or the video from a stream
- ▶ export the content channel as JPEG slides or as a video file (.mpg or .wmv format)
- ▶ for point-to-point calls, control the position and size of the loudest/quietest stream

In addition, you can:

- ▶ only convert a portion of a recording i.e. crop both from the beginning and from the end of a recording
- ▶ set a bitmap as a background image



The VCR provides an option to download a recording as an MPEG file. However, using that feature, the MPEG file will not include the content channel even if the original recording does, nor can you control the look of the resulting MPEG file. To include a content channel in a converted file and to control the final look, you must download the recording to a PC in the '.codian' format and use the Cisco TelePresence VCR Converter as described in this document.



The only '.codian' files that contain two video streams are recordings of point-to-point calls.

Installing the Cisco TelePresence VCR Converter

The Cisco TelePresence VCR Converter is a Windows™ application and is available for download from the [IP VCR 200 software downloads website](#). To install the converter:

- 1 Download the installation program to your PC and run it. The VCR Converter Setup Wizard displays.
- 2 Follow the instructions to install the program (accept the End-user License Agreement and select a location in which to install the program).

GUI or command line version

The VCR Converter can be run in two ways, producing exactly the same results:

- ▶ using the command line - as described in this document. This interface is intended for use when you want to convert recordings using a script
- ▶ using the Windows GUI interface. If you use this interface, online help is available

Running the Cisco TelePresence VCR Converter

To run the VCR Converter

- ▶ In a Windows command prompt window, type
codian_convert
followed by the command-line options that you require and press Enter



You can use the Cisco TelePresence VCR Converter from any directory at the command prompt. By default, the VCR Converter places any encoded video and JPEGs into the directory which contained the original video file.

Quick start: Converting a .codian recording

You can easily convert a '.codian' file into an encoded '.mpg' or '.wmv' file by using the default settings of the Cisco TelePresence VCR Converter:

- 1 Download a recording from a VCR and save it to your PC. As an example, you save the file as myvideo.codian in the 'Test' directory of your C: drive.
- 2 In a command prompt window, go to the directory where you have saved your '.codian' file. For example:

```
C:\Test>
```

- 3 Type:

```
codian_convert <your_filename>.codian
```

For example to produce a .mpg file:

```
C:\Test>codian_convert myvideo.codian
```

For example to produce a .wmv file:

```
C:\Test>codian_convert /F:W myvideo.codian
```

In these examples, the VCR Converter creates a video file from the 'myvideo.codian' file using the default settings. By default the generated video is called 'myvideo.mpg'. It is in the same directory as the original '.codian' file, and is 352 x 288 pixels in size. The video stream is positioned in the top left corner (if there is a second video stream, it is below the first), and the content channel is on the right.

Figures 1 and 2 show how the streams are arranged in the generated video when using the default settings of the VCR Converter. The default settings allow the content channel two-thirds of the overall size of the generated video and the video stream one-third.

Figure 1: Default stream settings for one video stream and a content channel

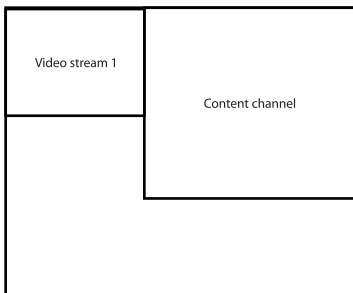
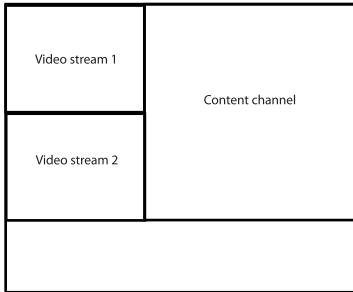


Figure 2: Default stream settings for two video streams and a content channel



Advanced options

The VCR Converter enables you to control the content and look of the resulting video. You can use further command-line options to achieve different layouts. You can also use a number of template files to achieve some standard layouts and resolutions. For more information about template files, refer to [Using template files](#). For more information about advanced command-line options, read the following sections.

About audio

The VCR Converter mixes the audio stream into the encoded video file. You can adjust the quality (see [Setting the audio quality](#)). You can also choose to disable the audio.

For '.codian' files that contain two audio streams (those created from point-to-point calls), the VCR Converter mixes the two audio streams together, unless you disable one of the audio streams (see [Enabling or disabling a stream](#)). For point-to-point calls, you can also set the size and position of the loudest and quietest streams (refer to [Setting the position and size of a video stream](#)).

About streams

The VCR Converter recognizes five streams:

- ▶ Stream 1 is the first video stream
- ▶ Stream 2 is the second video stream
- ▶ Stream 3 is the content channel
- ▶ Stream 4 is the loudest video stream in a point-to-point call

- ▶ Stream 5 is the quietest video stream in a point-to-point call

When you use advanced options on the command line incorrectly, you might see error messages referring to Streams 1, 2, 3, 4, or 5. Usually, these error messages are as a result of setting the size of one of the streams without specifying the size of the other stream(s).

Command-line options

The following is a summary of the command line options (more detail is provided after the table):

```
codian_convert.exe [/T:templatefile.cct] [/F:outputformat]
[/S:videosize] [W:videowidth] [/H:videoheight]
[/C:contentlocation] [/V:<s>[<p>]:streamconfig]
[/X:<t>:timeseconds] [/R:videobitrate] [/A:audioquality]
[/B:filename] [/p:pixeldifference] [/a:areathreshold]
[/q:jpegquality] [/L:[loglevel] infilename.codian
[outfilename.mpg]
```

You do not have to be in a particular directory location to use the VCR Converter. Unless you specify otherwise, the VCR Converter places encoded videos into the same directory as the original '.codian' files.

You do not need to specify a name for the output encoded video file. If you do not specify a name, the VCR Converter gives the encoded video the same name as the original '.codian' file.

Table 1: Command-line options

Command	Description	Options
/T:	Define template filename to use	
/F:	Set output format	M [peg] W [indows Media Video 9]
/S:	Set overall video size of resulting video. Default is CIF	Q [cif] (176 x 144) C [if] (352 x 288) 4 [Cif] (704 x 576) V [ga] (640 x 480) D [vd] (720 x 576) X [ga] (1024 x 768) S [xga] (1280 x 1024) H [d] (1280x720)

Table 1: Command-line options (continued)

Command	Description	Options
/W:	Set overall width of resulting video. Default is 352 pixels	Value in pixels for width
/H:	Set overall height of resulting video. Default is 288 pixels	Value in pixels for height
/C:	Set inclusion, position, and output type (video or JPEG) of the content channel	L[eft] R[ight] T[op] B[ottom] P[icture-in-Picture] D[isable] V[ideo] J[peg]
/V:<s>[<p>]:	Set size and position of streams. Position options are values in pixels. That is, for Left provide the distance in pixels from the left of the video screen and for Top , provide the distance in pixels from the top of the video. For Width and Height , provide the width and height in pixels for each video stream and the content channel	Stream: 1 2 C[ontent] L[oudest] Q[uietest] Position: L[eft] T[op] W[idth] H[eight]

Table 1: Command-line options (continued)

Command	Description	Options
/V:<s>:	Enable or disable a stream	Stream: 1 2 C[ontent] Options: E[nable] D[isable] A[udio-only] V[ideo-only] J[peg]
/X:<t>: <timeseconds>	Crops the recording from the start and/or after a number of seconds	For <t><timeseconds> use either or both of: <ul style="list-style-type: none"> ▶ S[tart]:n where n is the number of seconds to crop off the beginning of the recording before converting ▶ E[nd]:n where n is the number of seconds from the beginning after which to stop the conversion. Also see Creating a preview
/R:	Set bit rate for video output in bits per second Default is 1000000	Value in bits per second
/A:	Set the audio quality Default is low	H[igh] (128kbps) L[ow] (64kbps)

Table 1: Command-line options (continued)

Command	Description	Options
/B:	Set background (24-bit bitmap file)	Filename of bitmap
/p:	Set slide-detection pixel-difference threshold Default is 16	Value for pixel difference
/a:	Set slide-detection area-threshold percentage Default is 10	Value for area-threshold percentage
/q:	Set JPEG slide-quality percentage Default is 75	Value for slide quality
/L:	Set the logging level	E[rror] W[arning] I[nfo] T[race] D[ebug]

Further details of advanced settings

Setting the overall size of the video output

The default size for the video output is CIF size (352 x 288 pixels). To alter this, you can use either:

/S:

or a combination of:

/W: and **/H:**

You cannot use **/S:** together with **/W:** and **/H:**.



If you set the size and positions of the streams (that is, using **/V:<s><p>:**) you must set the overall size of the video output to accommodate the layout you have specified.

If you want a standard size (QCIF, CIF, 4CIF, VGA, DVD, XGA, SXGA, or HD), use **/S:**. Otherwise, explicitly set the width and height using **/W:** and **/H:**.

Example:

```
codian_convert /S:X mystream.codian myfile.mpg
```

This example converts the '.codian' file to MPEG video with XGA resolution (1024 x 768).

Using **/W:** and **/H:**

Note that the width and height must be multiples of 8.

To set the overall width of the video output, use:

/W:

The default width is 352 pixels.

To set the overall height of the video output, use:

/H:

The default height is 288 pixels.

Example:

```
codian_convert /F:W /W:480 /H:176 mystream.codian  
myfile.wmv
```

The example converts 'mystream.codian' to a Windows Media Video 9 file called 'myfile.wmv' with size 480 x 176 pixels.

Setting the content channel location and output type

The default location for the content channel in the video output is on the right. To set the content channel location, use:

/C:

Location options are:

[L]eft, [R]ight, [T]op, [B]ottom, [P]icture-in-Picture,

Output type options are:

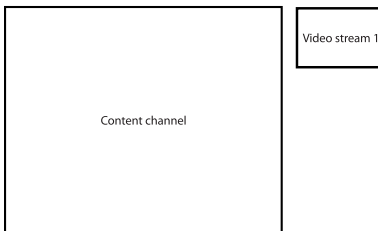
[J]peg, [V]ideo

Location options

Use the location options if you are including both the content channel and the video stream(s) in the generated video and you want to specify the location of the content channel within the generated video.

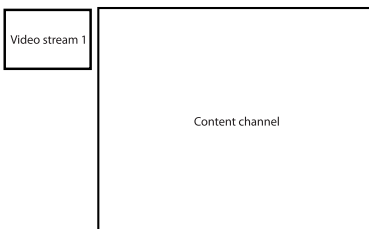
The 'Left' location option places the content channel in the top left of the video output. The video stream appears next to the content channel on the right. If there are two video streams, the second video stream appears beneath the first.

Figure 3: 'Left' content channel location option with one video stream



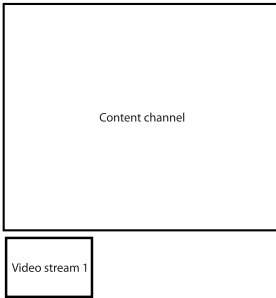
The 'Right' location option places the content channel in the top right of the video output. The video stream appears next to the content channel on the left. If there are two video streams, the second video stream appears beneath the first.

Figure 4: 'Right' content channel location option with one video stream



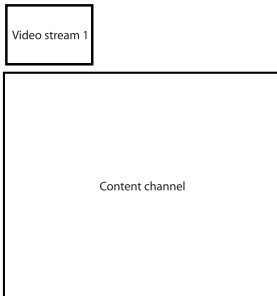
The 'Top' location option places the content channel in the top left of the video output. The video stream appears beneath the content channel on the left. If there are two video streams, the second video stream appears next to the first.

Figure 5: 'Top' content channel location option with one video stream



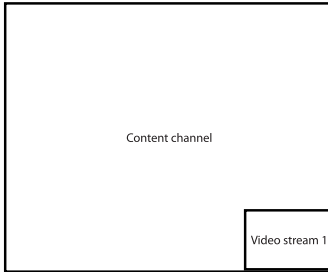
The 'Bottom' location option places the content channel in the bottom left of the video output. The video stream appears above the content channel on the left. If there are two video streams, the second video stream appears next to the first.

Figure 6: 'Bottom' content channel location option with one video stream



The 'Picture-in-picture' option sizes the content channel to fit the overall size of the video output, and the video stream appears as a small picture in the bottom right of the resulting video. If there are two video streams, the second video stream appears above the first.

Figure 7: Picture-in-picture content channel location option with one video stream



Output options

Use the output options if you do not want the content channel to appear with the video stream(s), but instead want the content channel to be separately encoded as an MPEG, Windows Media Video, or as a series of JPEG files. When the output options are used the VCR Converter produces a video of the video stream(s) as well as the specified content channel output.

The 'Jpeg' option means that the content channel is output as a series of JPEG files. For more information, refer to [Creating JPEG slides from the content channel](#).

The 'Video' option means that the content channel is output as either an MPEG or a Windows Media Video file (depending on the output format you use). For more information, refer to [Creating a video from the content channel](#).

Setting the position and size of a video stream

You can set the size and position of the video stream(s) and the content channel within the video output. To do this, use:

`/V:<s><p>`:

Stream options are:

`[1]`, `[2]`, `[C]ontent`, `[L]oudest`, `[Q]uietest`

Position and size options are:

`[L]eft`, `[T]op`, `[W]idth`, `[H]eight`



If you use the `/V:<s><p>` option, set the size for each stream, otherwise you will see an error message; also, set a position for each stream, otherwise all streams will overlay each other in the top left corner of the video output.



`/v:` options override any `/C:` options. Do not use both `/v:` and `/C:` together.



The stream options `[L]oudest` and `[Q]uietest` can only be used for point-to-point calls. These options allow you to set the position of the loudest and quietest streams in the video of a point-to-point call.

You set the position of a stream by specifying the distance in pixels from the upper left corner of the video output. These values must be multiples of 8. If you do not specify a position for the stream, it is placed in the top left corner.

You set the size of a stream by specifying the height and width that you want. These values must be multiples of 8.

If you use this feature, you will find it useful to know the resolutions of the streams inside the '.codian' file. To find these out:

- 1 On the IP VCR, go to **Recordings**.
- 2 Click on the name of the recording that you have downloaded as a '.codian' file.
- 3 Write down the resolutions from the **Recorded media** section.

When you are considering altering the size of a stream, be aware of the following:

- ▶ The positions and sizes you specify must fit within the overall dimensions of the resulting video file, that is, the size you have specified using **/S:**, or with **/W:** and **/H:**
- ▶ If you specify a size or position for any stream, you must specify a size and position for each stream in the '.codian' file or disable those streams that you do not specify (see the next section)
- ▶ When you specify a size for a stream, you will get the best results if you keep the original resolution (especially for the content channel)
- ▶ If you reduce the resolution of a video stream, keep the ratio of the original resolution, otherwise the stream appears distorted. For example, if the original resolution was 1280 x 1024 pixels, you could reduce the resolution to 640 x 512 pixels
- ▶ Increasing the resolution to higher than the original resolution does not improve the quality
- ▶ You might find it worthwhile to make a drawing of what you are trying to achieve, with pixel measurements, before entering the command

Examples:

The following two examples are for a '.codian' file containing only one stream. Remember, where there is more than one stream, you must specify sizes for each stream or disable the streams you do not require.

- ▶ To place the first stream in the upper-left corner at CIF resolution, use
/V:1L:0 /V1T:0 /V1W:352 /V1H:288
- ▶ To place the content channel in the lower-right corner at VGA resolution in an XGA video, use
/V:CL:384 /V:CT:288 /V:CW:640 /V:CH:480

The following example is for a point-to-point call; point-to-point calls contain two streams:

- ▶ To create an MPEG with the loudest stream on the left and the quietest stream on the right (side-by-side), both at CIF resolution in a 4CIF video, use
codian_convert /S:4 /V:LL:0 /V:LT:0 /V:LW:352 /V:LH:288 /V:QL:352 /V:QT:0 /V:QW:352 /V:QH:288 sarah.codian sarah.mpg

Enabling or disabling a stream

You can disable a stream so that it does not appear in the video output. To do this, use:

/V:<s>:

Stream options are:

[1], [2], [C]ontent

Disabling options are:

[E]nable, [D]isable, [A]udio-only, [V]ideo-only, [J]peg

Examples:

To disable the second video stream, use **/V:2:D**

To encode only the audio from the first stream, use **/V:1:A**

To encode the content channel as JPEG slides, use **/V:C:J**

When you use these options, be aware of the following:

- ▶ If the second video stream or content channel is not present, it is implicitly disabled and this option has no affect
- ▶ The Audio-only option cannot be used with the content channel
- ▶ The Jpeg option can only be used with the content channel
- ▶ If you use the Video-only option for a video stream, only the video is encoded; that is, there is no audio in the video output
- ▶ If you use the Video-only option for the content channel, two videos are produced, one for the video stream (with audio included) and one for the content channel

Creating a preview

If you have lengthy streams, you might find it useful to create a short preview before converting the whole recording. Using the `/X:` parameter you can specify the start and end of the preview and quickly check that other settings are correct, for example that the streams are in the correct places. To create a preview, use:

```
/X:<start>:<end>
```

Example:

```
codian_convert /F:M /W:480 /H:176 /X:S:20 /X:E:30  
mystream.codian myfile.mpg
```

This example creates a 10 second preview of the encoded MPEG with the configured width and height settings that starts 20 seconds in to the recording.

Setting the bit rate

You can set the bit rate for the video output in bits per second. The default is 1000000. Usually, you will not alter the bit rate from its default value. However, in some circumstances, raising the bit rate can improve the resolution of the resulting video file (it does not affect the audio quality). For example, if you are trying to produce a high-resolution video and your material has lots of color and motion, you could experiment with raising the bit rate value. To set the bit rate, use:

```
/R:
```

Example:

```
codian_convert /R:2000000 mystream.codian myfile.mpg
```

Setting the audio quality

If necessary, you can improve the quality of the audio by setting audio quality to high. This increases the size of the video file and might not be necessary. The default audio quality is low (64kbps). To set the audio quality, use:

```
/A:
```

Audio quality options are:

```
H[igh] (128kbps), L[ow] (64kbps)
```



Note that you can also disable the audio of individual streams. For more information, refer to [Enabling or disabling a stream](#).

Creating JPEG slides from the content channel

You can use the VCR Converter to produce a series of JPEGs from the content channel in a '.codian' file. When you choose to create JPEGs from the content channel, that channel does not appear in the resulting video file. To encode the content channel as JPEG slides, use:

/C:J or **/V:C:J**

Example:

```
codian_convert /V:C:J mystream.codian myfile.wmv
```

This creates a file of the video stream(s) using the default settings. It also creates a series of numbered JPEG files in the same directory. A JPEG file is created every time the converter considers the content channel to have changed. The VCR Converter uses a pixel-difference threshold which judges whether the content channel has changed and makes a new JPEG file every time the pixel difference threshold is reached.

The default slide-quality percentage is 75. To set the JPEG slide-quality percentage, use:

/q:

You can alter the threshold for the detection of differences in the content channel which controls how often a new slide is created. The two settings listed below are used together to establish whether the content channel is considered to have changed sufficiently to merit creating a new JPEG file:

- ▶ Slide-detection area threshold: the percentage of pixels that need to have changed before a new slide is created. To set the slide-detection area-threshold percentage (default 10), use:

/a:

- ▶ Slide-detection pixel difference: the amount by which the pixels need to have changed before a new slide is created. Pixel difference is measured in units (range 0 to 255). To set the slide-detection pixel-difference threshold (default 16), use:

/p:

The converter measures the difference in pixels. A new slide is created when: **area threshold** % of pixels have changed by **pixel difference**. For example, using the defaults, when 10% of pixels have changed by 16 units, a new JPEG file is created.

If your content channel is a slide presentation, the VCR Converter uses the pixel-difference threshold to detect each time a new slide occurs, thereby making a JPEG image of each slide in the presentation.

Example:

```
codian_convert /V:C:J /a:50 /p:200 mystream.codian  
myfile.mpg
```

This example raises the threshold for detection of difference such that slides will be created less frequently than when using the defaults.

When you create JPEG slides from the content channel a 'timings' text file is also created. In the above example, the file is called 'mystream_timing.txt'. The timings file lists the following for each JPEG:

- ▶ the file name
- ▶ the number of elapsed seconds since the start of the recording at which the JPEG was created

Creating a video from the content channel

You can use the VCR Converter to produce a video from the content channel in a '.codian' file. When the VCR Converter encodes a content channel as a video file (either .wmv or .mpg format), it appends the filename with '_content'.

To output the content channel as a video, use:

```
/C:V or /V:C:V
```

Example:

```
codian_convert /C:V mystream.codian
```

This creates an MPEG file of the content stream called mystream_content.mpg.

Using a background bitmap

You can specify a bitmap to appear as a background behind your streams in the generated video. The bitmap must be a 24-bit bitmap file. The VCR Converter places the bitmap in the center of the screen. The width and height of the bitmap must be multiples of 8 otherwise the file will be cropped. Also, the bitmap must fit within the dimensions of the encoded video file.

The easiest way to control how a bitmap appears in the video output is to ensure that the bitmap is the same size as the resulting video. For example, if you are creating a video with VGA resolution, then ensure your bitmap is 640 x 480 pixels.

An example of the use of this feature is the placing of a company logo alongside a video stream and content channel. You can arrange the streams using the size and position command (`/V:<s><p>`). For more information about sizing and positioning the streams, refer to [Setting the position and size of a video stream](#).

Using the logging feature

The VCR Converter provides a logging feature. This is only useful for debugging purposes. To set the logging level, use:

`/L:`

Logging level options are:

E[rror], W[arning], I[nfo], T[race], D[ebug]

Example:

```
codian_convert /L:I mystream.codian myfile.wmv
```

This example takes the `mystream.codian` file and turns it into an encoded file called 'myfile.wmv' using the default settings. While the conversion is taking place, information about the conversion is displayed in the command prompt window. You can also output logging details to a file by using '>' and a file name as in the following example:

```
codian_convert /L:I mystream.codian myfile.mpg >mytext.txt
```


Using template files

The VCR Converter provides template files for some common layouts and resolutions. You can also use any templates created with the GUI interface. Finally, you can convert any existing .bat files that you created with the previous converters to template files that you can use with this application - as explained in this section.



Command line options always override template options in `codian_convert`, no matter what order they are specified in.

Using the default template files

By default the pre-installed templates are in the same directory as the application. You can also use any templates created using the GUI version of the application and these can be stored in any directory. All templates have the file extension `.cct`. To use a template file, type the name of the template file in the `/T` parameter as described earlier followed by the name of your `.codian` file. For example:

- ▶ `codian_convert /T:codian_to_dvd.cct mystreams.codian`
creates a DVD resolution encoded Window Media Video called `mystreams.wmv`



Running a conversion using `codian_to_dvd.cct` will provide the output file in the default mpeg format unless you use the `/F` parameter to set the output format. For example to produce a Windows Media Video 9 file use the `/F:W` parameter:

```
codian_convert /F:W /T:Codian_to_vga.cct  
myinputfile.codian
```

The template files are:

- ▶ To convert streams at DVD resolution using a side-by-side layout, use:
`codian_to_dvd.cct`
- ▶ To convert streams at VGA resolution using a side-by-side layout, use:
`codian_to_vga.cct`
- ▶ To convert content channel at VGA resolution and audio from first video stream, use:
`codian_to_vga_audio_content.cct`
- ▶ To convert content channel at VGA resolution and video streams at CIF resolution using a side-by-side layout, use:
`codian_to_vga_cif.cct`

- ▶ To convert content channel at iPod resolution and small resolution video streams using picture-in-picture layout, use:
codian_to_ipod_pip.cct
- ▶ To convert the loudest stream (audio switching) in one video file (picture-in-picture layout) and content channel in a second video file at VGA resolution, use
codian_to_vga_loudest_pip_content.cct
- ▶ To convert content channel as JPEG (1024x768) slides and first video stream at 4CIF (704 x 576) resolution, use:
codian_to_jpg_4cif.cct
- ▶ To convert streams at XGA resolution using side-by-side layout, use:
codian_to_xga.cct
- ▶ To convert content channel at XGA resolution and audio from first video stream, use:
codian_to_xga_audio_content.cct
- ▶ To convert content channel at XGA resolution and video streams at CIF resolution using side-by-side layout, use:
codian_to_xga_cif.cct
- ▶ To convert content channel at SXGA resolution and small resolution video streams using picture-in-picture layout, use:
codian_to_sxga_pip.cct

Using command line arguments, templates and .bat files

If you use batch files or the same command line arguments regularly, then it is possible to convert these into a template. These templates can then be used at the command line, in batch files or in the Windows GUI interface, as required.

However, if you want to carry on using the command line or batch files, you simply need to change the command you use. To do this replace **codian_to_mpg** with **codian_convert** or **codian_to_wmv** with **codian_convert /F:W**

To create a template from the command line option

A command-line program called **codian_create_template** is used to convert arguments into a template. This takes the same arguments as **codian_convert** but creates a template instead of carrying out a conversion. This template can then be used as required. Note that if you want the template to always create .wmv output you need to include the **/F:W** option when creating the template.

To create a template from the command line option, do one of the following.

If you normally type the following at the command line:

```
codian_to_mpg /W:1280 /H:1024 /V:1A /V:CL:128 /V:CT:144  
/V:CW:1024 /V:CH:768 myfile.codian
```

then run:

```
codian_create_template /W:1280 /H:1024 /V:1A /V:CL:128  
/V:CT:144 /V:CW:1024 /V:CH:768 mytemplate.cct
```

This provides a template called **mytemplate.cct** which then can be used as:

```
codian_convert /T:mytemplate.cct myfile.codian
```

If you use a batch file, do the following:

- 1 Open the batch file in a text editor and find the line that calls **codian_to_mpg** or **codian_to_wmv** e.g.

```
for %%f in ("C:\*.codian") do @codian_to_wmv /W:1280  
/H:1024 /V:1A /V:CL:128 /V:CT:144 /V:CW:1024 /V:CH:768 %%f
```
- 2 Run **codian_create_template** on the arguments to **codian_to_mpg** or **codian_to_wmv** (remembering to include **/F:W** at this stage if required e.g.

```
codian_create_template /W:1280 /H:1024 /V:1A /V:CL:128  
/V:CT:144 /V:CW:1024 /V:CH:768 mybatchtemplate.cct
```
- 3 Update the line in the batch file to use **codian_convert** e.g.

```
for %%f in ("C:\*.codian") do @codian_convert /F:W  
/T:mybatchtemplate.cct %%
```

Then you can run the batch file in the same way as before. Note that you may need to specify the path of the template file in the batch file depending on its location and the settings of your computer.

Advanced examples

Creating a bitmap background

To set a bitmap as the background to your streams in the video output:

- 1 Decide the overall size your video output.
- 2 Make a bitmap the same size as the dimensions of the video output.
- 3 Decide the part of the bitmap that you want to be visible in the video output.
- 4 Work out where the streams will fit around that part of the bitmap that you want to remain visible.



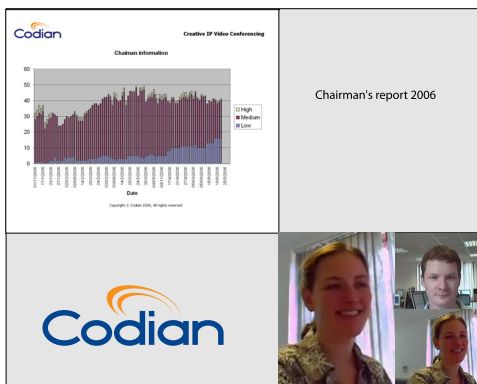
Remember to use resolution information on the VCR to help you decide on appropriate resolutions for each stream in the '.codian' file and to work out suitable positions for each stream within the dimensions of the video output.

For example, you have a stream containing:

- ▶ video stream 1 at resolution 640 x 480 pixels
- ▶ content channel at resolution 704 x 576 pixels

You want to create a video that displays a company logo and some text alongside the two streams as shown in Figure 8.

Figure 8: Example layout of content stream, video stream, and bitmap background



To do this:

- 1 Decide on the overall size of the video output:
 - i Maintain the resolution of the content channel (704 x 576 pixels).
 - ii Decide on a resolution for the video stream that maintains the aspect ratio (4:3 in the example). An appropriate resolution is 576 x 432 pixels.
 - iii With the two streams side-by-side as in Figure 8, the overall width of the video output must be 1280 pixels. The combined heights of the streams means the overall height of the video output must be at least 1008 pixels. Therefore, a suitable size for the video output is 1280 x 1024 pixels.
- 2 Create the 24-bit bitmap with the same dimensions as the video output (1280 x 1024, placing the logo and text where required).
- 3 Run the VCR Converter, using options to set the overall size of the video output, the sizes and positions of the streams, and the bitmap as follows:


```
/W:1280 /H:1024 /V:1L:704 /V:1T:576 /V:1W:576 /V:1H:432 /  
V:CL:0 /V:CT:0 /V:CW:704 /V:CH:576 /B:logo.bmp  
mystreams.codian
```

Creating a content channel with voice-over and bitmap background

In this example, you create a video that displays the content channel only, at its original resolution with a bitmap banner above the stream, a border around the content channel, and with the audio from the video stream.

Your '.codian' file contains:

- ▶ video stream 1 at resolution 640 x 480 pixels
- ▶ content channel at resolution 1024 x 768 pixels

To create your encoded video:

- 1 Decide on the overall size of the video output, maintaining the resolution of the content channel (1024 x 768 pixels) and leaving space for a bitmap border and banner. An appropriate resolution is 1280 x 1024 pixels.
- 2 Create the 24-bit bitmap with the same dimensions as the video output (1280 x 1024, placing the logo and text where required).

3 Run the VCR Converter, using options to:

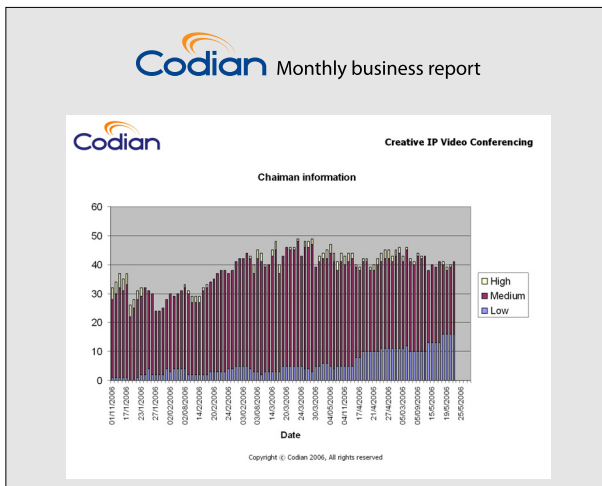
- set the overall size of the video output (1280 x 1024 pixels)
- center the content channel horizontally (it is 1024 pixels wide, therefore to center it within a 1280 pixel wide screen it must be 128 pixels from the left)
- position it vertically, leaving room for banner above the content channel and a border below, choosing values divisible by 8 (144 pixels above leaves 112 pixels below the content channel)
- set audio-only for the video stream
- set the bitmap

as follows:

```
/W:1280 /H:1024 /V:1:A /V:CL:128 /V:CT:144  
/V:CW:1024 /V:CH:768 /B:logo.bmp mystreams.codian
```

The video output uses the layout as shown in Figure 9.

Figure 9: Example content-channel-only layout with voice-over



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