



Carbon Coder

The Essential High-Speed Transcoding Tool

Rhozet Carbon Coder

Supported Formats

Video Codecs

- MPEG-1, MPEG-2, MPEG-4
- H.263, H.264, VC-1, Flash
- DV25, DV50, DVCPro
- DPS, DivX, JPEG 2000
- Image Sequences
- Windows Media, RealVideo

Audio Codecs

- PCM, MP3, DTS
- AAC, AMC, AMR-NB
- WM Audio, RealAudio

Media Containers

- HDV
- MXF (including D-10/IMX)
- MPEG-2 PS, MPEG-2 TS
- GXF, LXF, QuickTime
- WMV, ASF, AVI, VOB
- 3GPP, 3G2
- WMA, WAV, Broadcast WAV

Systems

- Leitch VR, Nexio
- Grass Valley Profile, K2
- Omneon Spectrum
- Quantel sQ
- Avid Editing Systems
- Apple Final Cut Pro
- Adobe Premiere Pro
- Grass Valley Edius

Universal Media Transcoding

Carbon Coder is a universal transcoding application that facilitates the transfer of media between acquisition, editing, playout, archive, Web, mobile and more. Supporting all major formats, Carbon Coder is continually updated to accommodate new formats. Carbon Coder can run as a stand-alone application or as part of a multi-node, fully-automated rendering farm. As part of the transcode process, Carbon Coder handles a wide array of critical operations including SD/HD conversion, PAL/NTSC conversion, logo insertion, color space conversion, color correction, Close Captioning extraction and more. Carbon Coder provides high-performance, scalable and cost-effective transcoding for a broad range of business environments, from specialized studios to enterprise-scale installations.

From Any Format...



Live



Tape



DVD



File



Server



Edit



Archive

To Any Format...



VOD



DVD



Edit



Server



Web



Mobile



File

Additional Functions

Basic Operations

- Frame size conversion
- Frame rate conversion
- Color space conversion
- Aspect ratio conversion
- Interlace/de-interlace
- Telecine/inverse telecine
- PAL/NTSC conversion
- SD/HD conversion
- Cropping
- Key-frame extraction
- Multiple target outputs
- Batch processing

Advanced Operations

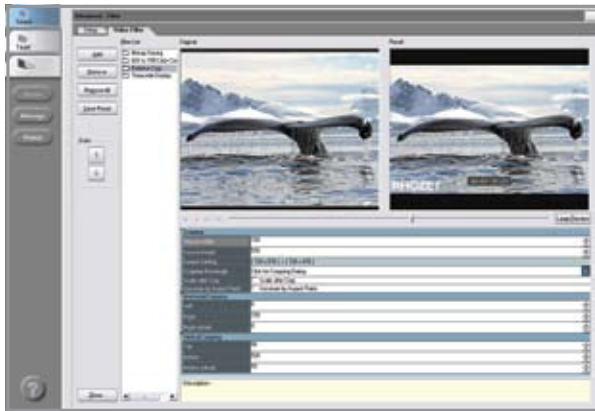
- Timecode imprint
- Subtitle/CC imprint
- XML controllable titler
- Metadata transport/conversion
- Line 21/CC conversion
- Watermarking
- Logo insertion
- 601/709 color space support
- Video capture board support
- Remote job submission
- Watch folder automation
- Segment extraction/insertion

Video Filtering

- Fade in/out
- Median
- Blur
- Sharpen
- NTSC-safe
- Rotate
- Black/white correction
- Color correction
- Gamma correction
- Temporal noise reduction

Audio Filtering

- Normalize
- Low-pass
- Fade In/Out
- Volume
- Dynamic range compressor



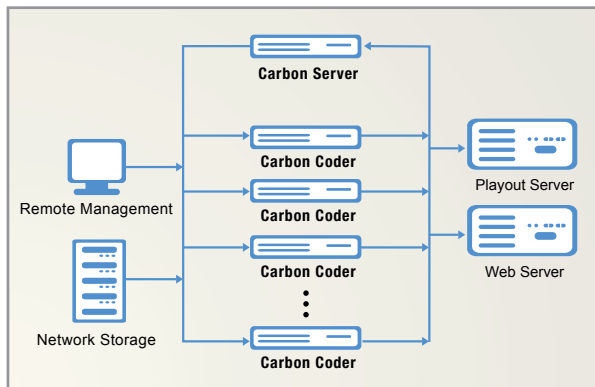
Intuitive User Interface

Carbon Coder's intuitive interface gives you complete control over every aspect of the transcoding process. Simultaneously convert a single file into any number of target formats, each with a unique set of operations and filters applied. For example, you can burn in a logo and timecode on a review format, while applying special cropping to a mobile format. Save settings as profiles to re-use on future transcoding projects.

Name	Description	Priority	Progress	Progress Bar	Status
Job (05-26-06,10:23:05)	Job submitted Frida...	1	74%	<div style="width: 74%;"></div>	STARTED
Job (05-26-06,10:23:05)	Job submitted Frida...	1	48%	<div style="width: 48%;"></div>	STARTED
Job (05-26-06,10:23:05)	Job submitted Frida...	1	23%	<div style="width: 23%;"></div>	STARTED
Job (05-26-06,10:23:05)	Job submitted Frida...	1	56%	<div style="width: 56%;"></div>	STARTED
Job (05-26-06,10:23:05)	Job submitted Frida...	1	0%	<div style="width: 0%;"></div>	STARTING
Job (05-26-06,10:23:05)	Job submitted Frida...	1	0%	<div style="width: 0%;"></div>	QUEUE
Job (05-26-06,10:23:05)	Job submitted Frida...	1	0%	<div style="width: 0%;"></div>	QUEUE
Job (05-26-06,10:23:05)	Job submitted Frida...	1	0%	<div style="width: 0%;"></div>	QUEUE
Job (05-26-06,10:23:05)	Job submitted Frida...	1	0%	<div style="width: 0%;"></div>	QUEUE
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Job (05-26-06,10:23:05)	Job submitted Frida...	1	0%	<div style="width: 0%;"></div>	QUEUE
Job (05-26-06,10:23:05)	Job submitted Frida...	1	0%	<div style="width: 0%;"></div>	QUEUE
Job (05-26-06,10:22:54)	Job submitted Frida...	5	0%	<div style="width: 0%;"></div>	QUEUE
Job (05-26-06,10:22:54)	Job submitted Frida...	5	0%	<div style="width: 0%;"></div>	QUEUE

Automated Operation

Carbon Coder can be run in a fully automated mode. Watch folders and FTP transfers can be configured to automatically transcode any files that are moved to specified locations, and then the results can be placed into designated locations. For example, a single Carbon Coder workstation can service a group of editors, taking their completed projects and converting them into the appropriate format for a playout server.



Scalable Transcoding

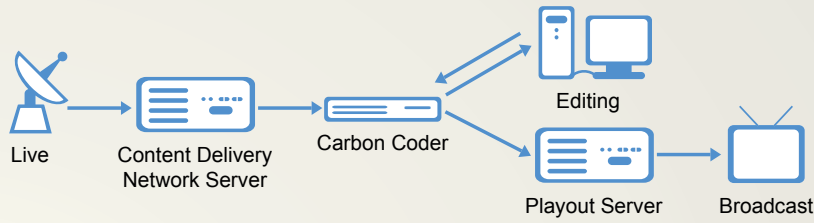
For large transcoding tasks, multiple Carbon Coders can be configured as a transcoding farm, under the control of Carbon Server software. Carbon Server manages job distribution, prioritization, load balancing, FTP transfers, status monitoring and job notification. All interaction with the server software is through an administrative Web interface that can be accessed remotely, from across the office or around the world.

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<cnpsXML CarbonAPIVer="1.2" TaskType="WatchCreate">
  <Notify />
  <WatchSource
    WatchPath="G:\example"
    WatchSubFolder.DWD="0"
    AppendSubFolder.DWD="0"
    OverWrite.DWD="0"
    Priority.DWD="5"
    WatchDeleteProcessedSource.DWD="0" />
  </WatchSource>
  <Destinations>
    <Module_n DestinationName="my destination">
      <Filter_n>
        <Module_n />
      </Filter_n>
      <Notify />
      <PostconversionTasks>
        <FTPUpload_n> <Notify /> </FTPUpload_n>
        <FileCopy_n/> <Notify /> </FileCopy_n>
      </PostconversionTasks>
    </Module_n>
  </Destinations>
</cnpsXML>
```

XML-based Interface

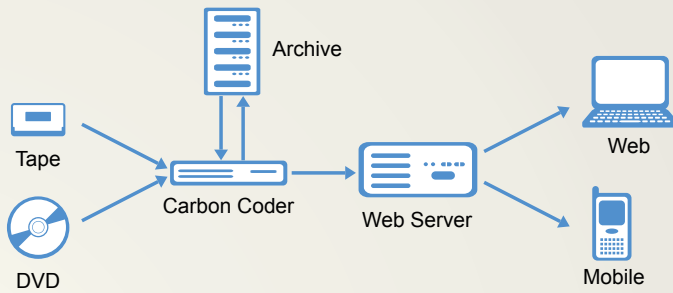
Carbon Coder can be controlled directly via an XML-based SDK provided with the software. Every aspect of the transcoding process can be controlled by the SDK, including source/target destinations, transcoding parameters, filtering, compositing, ad insertion, titling, notifications, etc. The same SDK controls both Carbon Coder and Carbon Server, so your work will scale from a single machine to an entire farm.

Example Configuration: Broadcasting



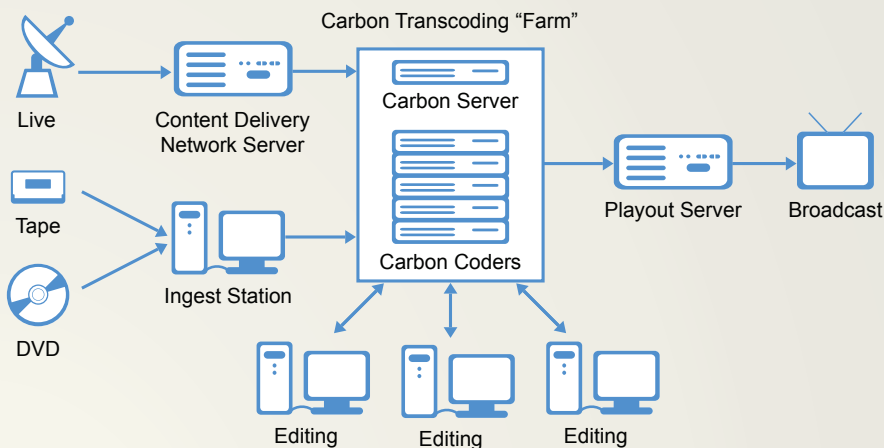
Carbon Coder is used to convert from the format provided by the Content Delivery Network to formats needed within the broadcast facility. Content from the server can be converted directly to a playout format, or first be converted into an editing format. After editing, the finished program is converted for broadcast playout.

Example Configuration: Webcasting



Carbon Coder is used to capture content directly from tape or DVD and then to convert it into a master digital format for storage in the archive. This provides maximum quality and flexibility for conversion to Web formats. Content is pulled from the archive, as needed, and transcoded into multiple final delivery formats, then pushed to the Web server.

Example Configuration: Workgroup



Transcoding among a workgroup can be centralized into a transcoding farm of multiple Carbon Coder engines, under the control of Carbon Server software. Carbon Server allows for automated processing of high-volume transcoding tasks, as well as preemptive special case jobs, managing job distribution, job prioritization, load balancing, FTP transfer, status monitoring, and job notification. All interaction with the server software is through an administrative Web interface that can be accessed from remote machines.

“Our technical team found Rhozet's Carbon Coder to be the most versatile transcoding engine on the market... It is also well structured for deep integration into automated workflows. Carbon Coder has proved to be a great tool for handling our workload, transcoding thousands of hours of video every year.”

Goetz Schmidt-Bossert, COO
Framepool

Rhozet Corporation is focused on one goal: to provide universal video transcoding. The boom in video consumption (Web, VOD, DVD, mobile, etc.) has resulted in an explosion in the number of formats that content creators and distributors must manage. Video may be captured in one format, edited in another, served live in a third, delivered on-demand via the Web in half a dozen more and then finally archived in yet another. The ability to rapidly and cleanly convert between these formats is critical to any enterprise that is producing or distributing video.

RHOZET
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