CARBONITE**CODE**

Unlock your NDI Production

Carbonite Code is a groundbreaking software-based production switcher, purpose-built for NDI workflows.

Designed to meet the evolving demands of a growing community of live production professionals, Carbonite Code combines the production power of Ross Video's Carbonite range with the efficiency and low latency of NDI video transport technology.

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Why choose Carbonite Code?

Production Power

Backed by over a decade's worth of development and the trusted Carbonite name, Carbonite Code combines unparalleled functionality, control, and reliability, with NDI technology.

Software Flexibility

Using CPU and GPU processing power in a software-based system, Carbonite Code offers unmatched flexibility by enabling operators to keep up with future production demands through software upgrades.

Unmatched Connectivity

Leveraging NDI's low-latency video technology, Carbonite Code provides advanced connectivity while seamlessly integrating into an expanding NDI ecosystem.

NDI Inputs and Outputs

Carbonite Code harnesses cutting-edge, low-latency network-based video technology for high-quality results.
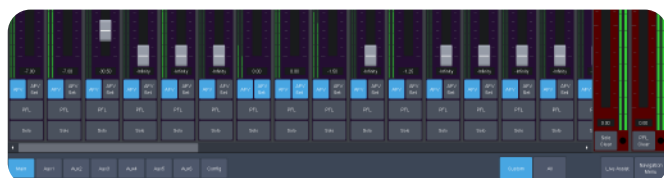

Mix Effects (MEs)

Carbonite Code features three powerful Carbonite MEs, each with 6 full keyers. Apply Chroma Key, Luma Keys and DVEs as required.

MultiViewers (MVs)

Monitor all essential video signals using the three standard MultiViewers within Carbonite Code, each capable of displaying up to 16 PiPs.

Audio Mixer

The RAVE Audio mixer included in Carbonite Code offers a 48-channel mixer with 6 Aux Mixes, serving as the main audio mixer for smaller events or as a reliable backup.

Getting started

Choose the solution that suits your needs best—Carbonite Code is available as a complete 1RU turnkey system or as a software-based solution for installation on your own hardware.

Technical Specifications

Software Specifications	
NDI Inputs	30
NDI Outputs	6
Production Multiviewer	3, 16 PiPs per layout
ME	3
Independent Key Layer per ME	6
Transition/Media Keyer per ME	1
DVEs	6 per ME, 18 total
MediaStore Channels 4 (video + key)	4
RAVE Audio Engine	48 assignable stereo faders with 1 main and 6 aux mixes
Additional Audio	WDM audio only inputs and outputs
Memories	✓
Custom Controls	✓
Sequencer	✓
ViewControl	✓
Video Mode	720p; 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 1080i; 50, 59.94, 60 1080p; 23.98, 24, 25, 29.97, 30, 50, 59.94, 60

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Hardware Specifications

Form Factor	1U Server
Height x Width x Depth	43.7mm x 430mm x 438.5mm
Weight	35.2lbs / 16kg
GPU	NVIDIA RTX 4000 Ada
Processor	Intel Xeon Silver 4410T – 10 cores
Memory	64GB DDR5
Network Ports	2 x RJ-45 10G 1 x RG-45 Mgmt.
Storage	M.2 NVMe 1TB SSD
Power	Redundant 1300w PSU's
Operating System	Windows 11 Pro

User Supplied Hardware Requirements

Component	Server	Desktop
Processor	Intel Xeon Silver 4410T, 10 Cores	Intel i9-12900, 16 Cores
	Note: Carbonite Code is optimized for use with Intel® CPUs.	
GPU	NVIDIA RTX 4000 ADA	NVIDIA GeForce RTX 3080
	Note: Carbonite Code is optimized for use with NVIDIA GPU's.	
Memory	32GB DDR5	
Storage	100GB SSD	
USB	3 (1x USB License Dongle, 1x Keyboard, 1x Mouse)	
Network	10G Ethernet Port	
Power Supply	Select a PSU based on the power and connection requirements of the system components. It is recommended to operate PSU's at 40-80% of their total capacity for optimal efficiency and overhead. For reference, the hardware supplied by Ross Video makes use of redundant ASUS 1300W 50.5MM SLIM Platinum power supplies.	
OS	Microsoft Windows 11 Pro for Workstation	Microsoft Windows 11 Pro
	Note: Earlier versions of Windows may function correctly but some Carbonite Code features and functionality are not supported.	

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