



SL NEO Platform

Instant Replay & Slow Motion



- ▶ **Super Slow Motion (SSM) support**
- ▶ **Multi-Channel & Multi-Camera Operation**
- ▶ **Edit While Recording**
- ▶ **Integrated Multiviewer**

Capture the moment. Replay with precision.

Overview

SL NEO Instant Replay & Slow Motion is a professional live replay solution designed for broadcast studios, sports production, and live event workflows. It enables instant access to live and recorded content, allowing operators to perform smooth slow-motion playback, instant replays, and clip-based review with frame-accurate control.

Fully integrated into the SL NEO Media Platform, the module combines recording, replay, and slow-motion control in a single workflow — without interrupting ongoing capture or live production.

Highlights

Instant Replay

Access and replay live content immediately after capture, without stopping or restarting recording.

Smooth Slow Motion Control

Frame-accurate slow-motion playback with variable speed control using T-bar or software UI.

Edit While Recording

Replay and review growing files while recording continues — supported both by SL NEO modules and third-party tools compatible with growing MXF formats.

Multi-Channel, Multi-Camera & Multi-LSM Operators

Supports simultaneous recording and replay of multiple live sources on a single server. Multiple LSM operators can work in parallel using multiple controllers, all accessing the same set of inputs and recorders.

Studio-Optimized LSM Workflow

Integrates with the SL NEO LSM-style module, offering a rec-list interface, computer-based UI, and simple slow-motion control — ideal for studios needing replay without full OB LSM systems.

Newscut NLE Integration

Highlights created using LSM playlists can be loaded directly into the Newscut NLE for further editing and production.

Super Slow Motion (SSM)

SSM is fully supported as a key capability of the LSM system. It enables input from triple- or quad-link SDI super slow-motion cameras, where multiple phase-shifted signals are captured at 1/3 or 1/4 frame offsets. When combined, these signals deliver effective capture rates of up to 150 fps (300 fields/s) for PAL and 180 fps (360 fields/s) for NTSC, producing exceptionally smooth and detailed slow-motion replay.

Broadcast-Grade Reliability

Designed for continuous 24/7 operation in demanding live production environments.

Key Features

► Multi-Channel Recording & Replay

- Up to 24 HD or 4 UHD channels per server
- Simultaneous Record, Replay, Program, and Preview outputs
- Single-channel, multi-channel, and synchronized multi-camera workflows

► Input Formats & Standards

- SDI, NDI, SMPTE ST 2110
- Supported formats: 1080i50/60, 1080p50/60, UHD 2160p50/60
- High-quality deinterlacing and format handling

► Instant Replay & Edit-While-Record

- Immediate access to any point in the live recording buffer
- Replay and clip creation while recording continues
- Growing file support (MXF OP-1a / OP-Atom / OP-1b)

► Slow Motion Playback

- Variable playback speed from 1–200%
- Frame-accurate jog, shuttle, pause, forward, and reverse
- Optimized for studio and live production replay workflows

► External Control & Integration

- Sony 9-pin (BVW-75) control for external replay controllers, automation, and sports analysis systems, including Ross PIERO
- VITC/ATC timecode on Program, Preview, and camera outputs for accurate replay cueing and telestration

► Integrated Multiviewer

- Live monitoring of all inputs, Program, and Preview outputs
- Local and remote multiviewer access via network

► Export & Format Handling

- Manual or automated export to MXF (D10 / OP-Atom / OP-1A / OP-1B), MOV, MP4, MPG, TS, AVI
- Optional format conversion and audio normalization

► Replay & Playlist Tools

- Instant jump to markers
- Highlight and ad playlists with custom transitions
- Auxiliary audio support and transition effects between clips

JLCooper SloMo Elite Sports/SloMo Control Surface

► Features

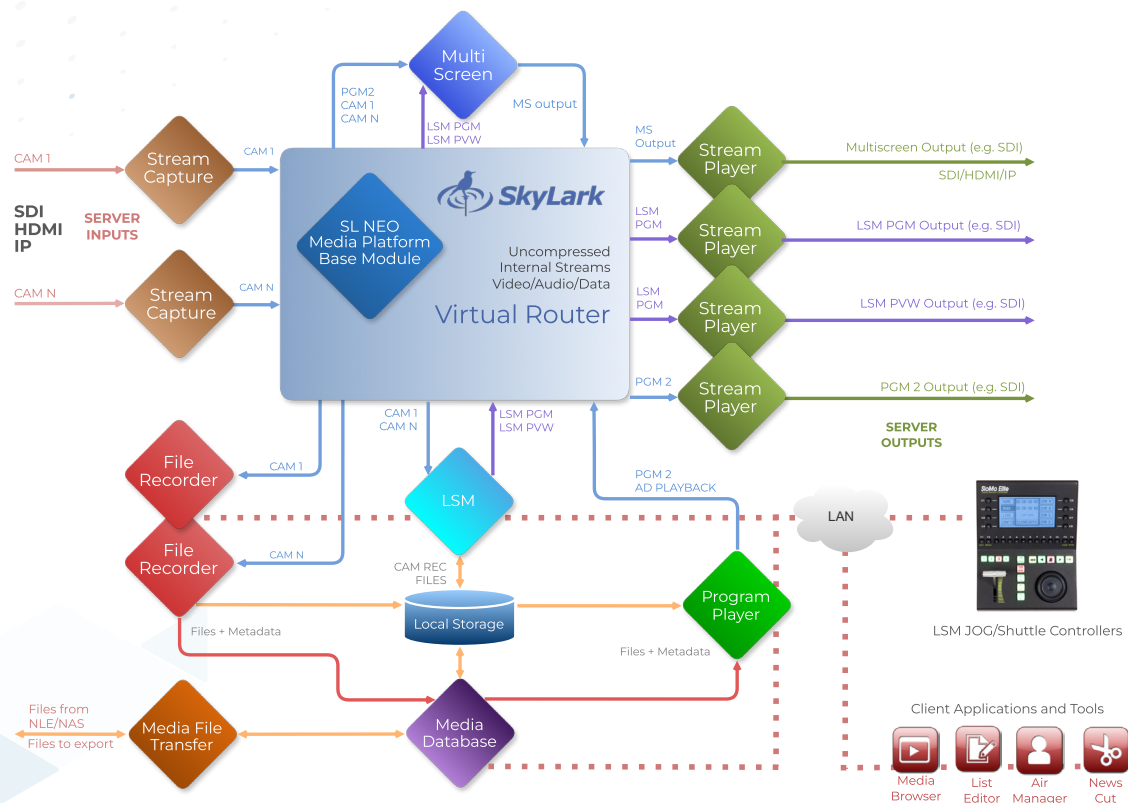
- Multiple controllers can simultaneously operate the same LSM system
- Controllers connect via Ethernet or USB
- Available with jog-only or jog/shuttle wheels with brake for precise playback control
- Rugged, professional-grade construction designed to withstand the demanding conditions of live events
- 4.5" x 2.5" white LED backlit graphic display (240 x 128 pixels)
- Tri-color LED key switches for clear on-air status indication
- High-resolution 10-bit Hall-effect T-Bar mechanism (1024 steps)
- Smooth, precise slow-motion speed control
- USB 2.0 Full Speed with drivers for Windows and macOS
- USB serial port emulation
- Dual interface: USB and 10/100 Ethernet (standard)
- Supports TCP (client/server) and UDP
- Static IP or DHCP configuration

► Physical Specifications

- Size 10.6 in (26.92 cm) x 8.2 in (20.828 cm) x 4.75 in (12.065 cm)
- Weight 4.6 lb (2.09 kg)



Ecosystem



The SL NEO Instant Replay & Slow Motion fully integrated into the SL NEO media services platform — a modular, software-defined environment where specialized modules operate together in real time across one or more hardware platforms.

Additional modules — including Program Player, Stream Capture, and other workflow components — can be integrated to create a fully tailored broadcast solution:

- ▶ **Program player**
For playout content with graphic elements in real-time
- ▶ **Stream capture**
For capture fill+key graphic sources
- ▶ **Broadcast Graphics**
For overlays and branding
- ▶ **SL NEO Base Module**
For coordination, management and control for all the system

Use Cases

- ▶ **Sports Production**
Instant replays, slow-motion analysis, and highlight creation during live matches.
- ▶ **News & Studio Shows**
Replay key moments, interviews, or breaking news segments on demand.
- ▶ **Live Events**
Concerts, talk shows, and entertainment productions requiring fast clip recall.
- ▶ **Studio LSM Workflows**
Compact slow-motion playback for studios needing occasional replay without full OB-style LSM systems.

Specifications

SYSTEM

Chassis	2U - 4U, dual hot-swap power supplies
CPU	1 or 2 × Intel Xeon or AMD Epyc Series
Memory	48 / 96 GB DDR4
System Drive	SSD for OS
Network	2 × onboard 1GbE
Storage	4 to 12 × 3.5" Enterprise HDD 4 to 24 × 2.5" Datacenter SSD
OS	Windows Server

Channels

Mode	HD/SD	Ultra HD
Channels	1 - 24	1 - 4

Video Formats & Color Spaces

Formats	625i/525i, 720p, 1080i/1080p, 2K 2048×1080p, 2160p
Frame Rates	50 / 59.94 / 60 fps
Color Spaces	BT.601 / BT.709 / BT.2020, HDR: SMPTE ST 2084, ARIB STD-B67

I/O Streams: Interfaces, Protocols, Codecs

SDI	SDI 1.5G to 12G, embedded audio
IP (Broadcast)	SMPTE ST 2110
AES/EBU	Up to 8 channels per video channel
Analog Audio	Up to 4 channels per video channel
IP (Streaming)	NDI
Super Slow Motion	up to x2, x3 and x4

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Export formats

Category	Supported
MXF	OP-1A, OP-1B, D10, Avid OP-Atom
Sony	XDCAM, XAVC (Intra & Long GOP)
Panasonic	AVC-Intra, DVCProHD
Avid	DNxHD / DNxHR
Apple	ProRes
General	Containers: AVI, TS, MOV, MP4, MPG Codecs: H.265 (HEVC), H.264 (AVC), MPEG-2

Environments

Playback Speed Range	1% to 200%
Playlist Support	Highlights, Ads, Transitions
Control Interfaces	Desktop client, Web UI, API
Multicam Output	Synchronous camera feeds + PGM/PVW
Transitions	VMix and XMix
Synchronization	LTC, NTP, Black-Burst, Tri-Level
Import clips	Auto format conversion Audio normalization

Protocols & Device Support

Monitoring	SNMP (SL NEO Software), built-in multiviewer
Hardware Controller	JL Cooper Slomo Elite-C
External Control	Sony 9-pin (BVW-75), including Ross PIERO integration
Automation	REST API, Router & GPI control, Schedule
Timecode	VITC/ATC on Program, Preview and individual camera outputs
NLE software	Integrated

Contacts



www.skylark.tv



info@skylark.tv