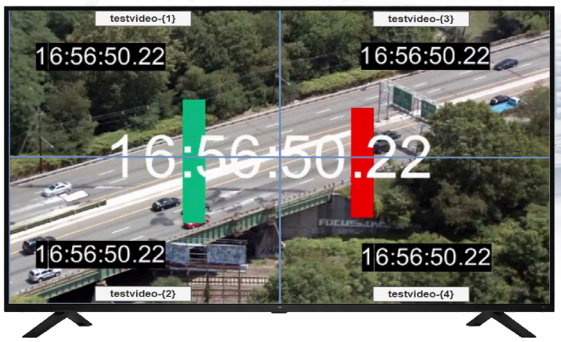
SL NEO Platform
Digital Signage



- **Multi-Output 4K Performance**
- **Advanced Composition Engine**
- **Up to 10 semi-transparent layers per output**
- **Support for HAP, H.264, HEVC, VP9, and AV1 codecs**

Broadcast-grade visuals, signage-grade scale

Overview

SL NEO Digital Signage is a high-performance, multi-output system for managing, scheduling, and delivering stunning visual content across public displays, video walls, and commercial environments.

Built on the same robust engine powering broadcast operations, it handles high-bitrate 4K playback, complex layered compositions, and real-time content updates — all with the reliability you expect from a professional playout server.

From retail spaces to transportation hubs and corporate lobbies, SL NEO brings television-grade performance to digital signage.

As part of the SL NEO Media Platform, Digital Signage integrates seamlessly with graphics, ingest, playlist management, and automation modules — enabling a unified media workflow across one or many hardware platforms.

Optimized for 24/7 unattended operation, SL NEO Digital Signage ensures predictable, synchronized, and visually flawless playback on any scale.

Highlights

Multi-Output 4K Performance

Up to 8× independent 4K@60fps HDMI/DP outputs on a single i9-class server, each fully programmable and synchronized

Advanced Composition Engine

Up to 10 semi-transparent layers per output with real-time alpha blending, transitions, and transformations.

Broadcast-Grade Codec Support

Native playback of HAP, HAP Alpha/Q, H.264, HEVC, VP9, and AV1 — mixed freely in a single composition.

Dynamic Content Integration

Real-time text and data updates from RSS feeds, files, databases, and external systems.

Centralized Playlist Control

Drive all outputs from a single multi-camera playlist or independent playlists per screen.

Remote & Unattended Operation

Client workstation and Web UI for full remote control with true 24/7 operation.

SkyLark

SL NEO Platform
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Key Features

- Output of up to 8× 4K@60fps HDMI/DP video signals on an i9-class CPU
- Synchronized playback of up to 8× 4K@60fps media files
- Support for HAP, H.264, HEVC, VP9, and AV1 codecs
- High-performance playback and composition of mixed resolutions and frame rates
- Up to 10 semi-transparent layers per output
- Native support for HAP Alpha and HAP Q Alpha
- Free-form output window transformations
- Edge blending for multi-screen and video wall layouts
- Output picture processing and port splitting
- Supports multiple GPUs for processing
- Dynamic text overlays
- Real-time data input from RSS feeds, files, and external gateways
- Control of all outputs from a single playlist or multiple independent playlist
- Multi-camera clips for synchronized multi-screen playback
- Clip trimming and instant cueing
- Low-delay playlist operations for immediate operator response
- Scrubbing and live navigation
- Manual and automated media import
- Remote client workstation for media, playlists, and operations
- Web-based monitoring and control
- Unattended 24/7 operation
- API for integration with external applications and workflows

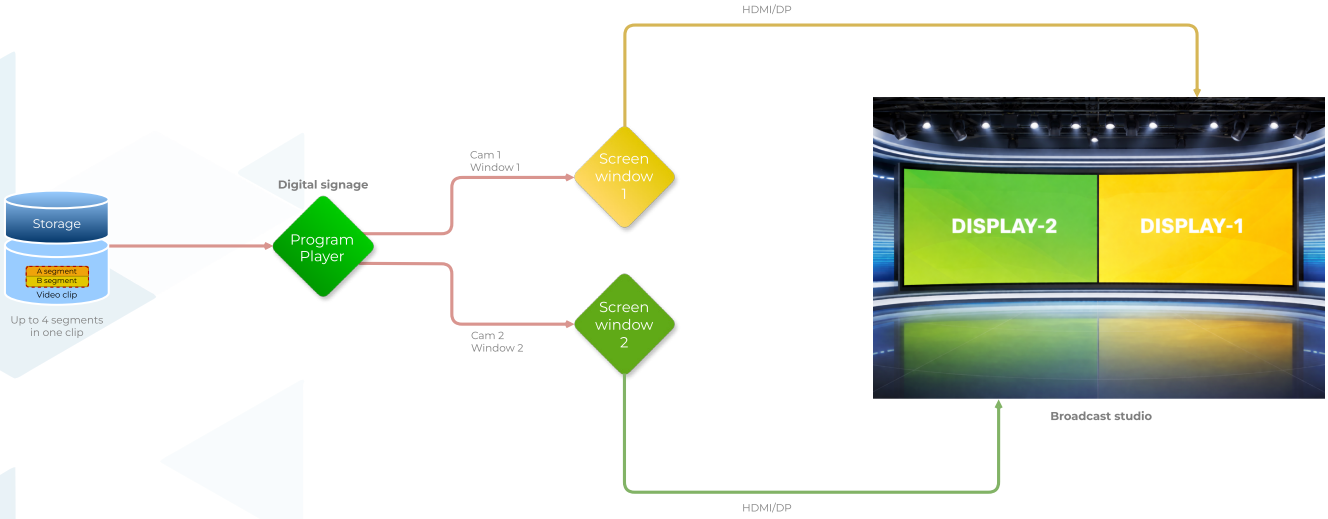
Workflow

▸ Composite Clip mode

In this mode, the Program module plays a single clip that internally contains images intended for output to multiple displays. The image is played back as a whole and then arbitrarily split before output.

A common use case is a setup where content for four HD screens is pre-composed into a single UHD file. During playback, this UHD image is split and processed as four independent HD signals.

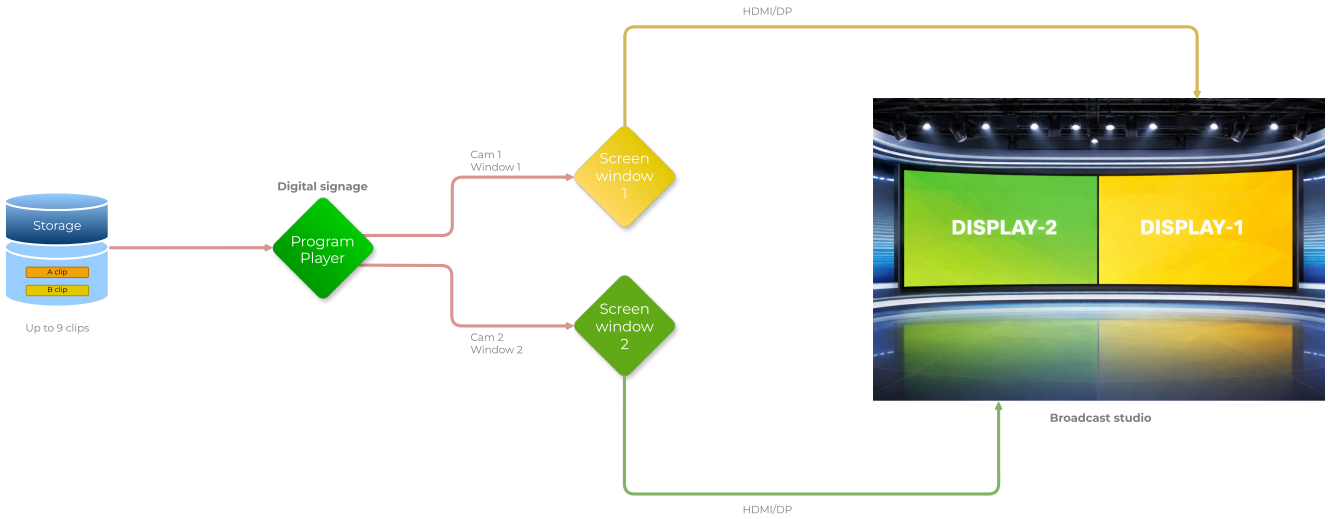
The illustration shows an example of cutting two regions from one playing file and outputting them to two studio screens.



▸ Multi-Camera Clip mode

In this mode, all media files are prepared separately as multi-camera clips and are then played back synchronously by the Program module. The key advantage of this approach is that no pre-compositing into a higher-resolution format is required during preproduction.

The illustration shows an example of synchronized playback of two multi-camera clips and their output to two studio screens.



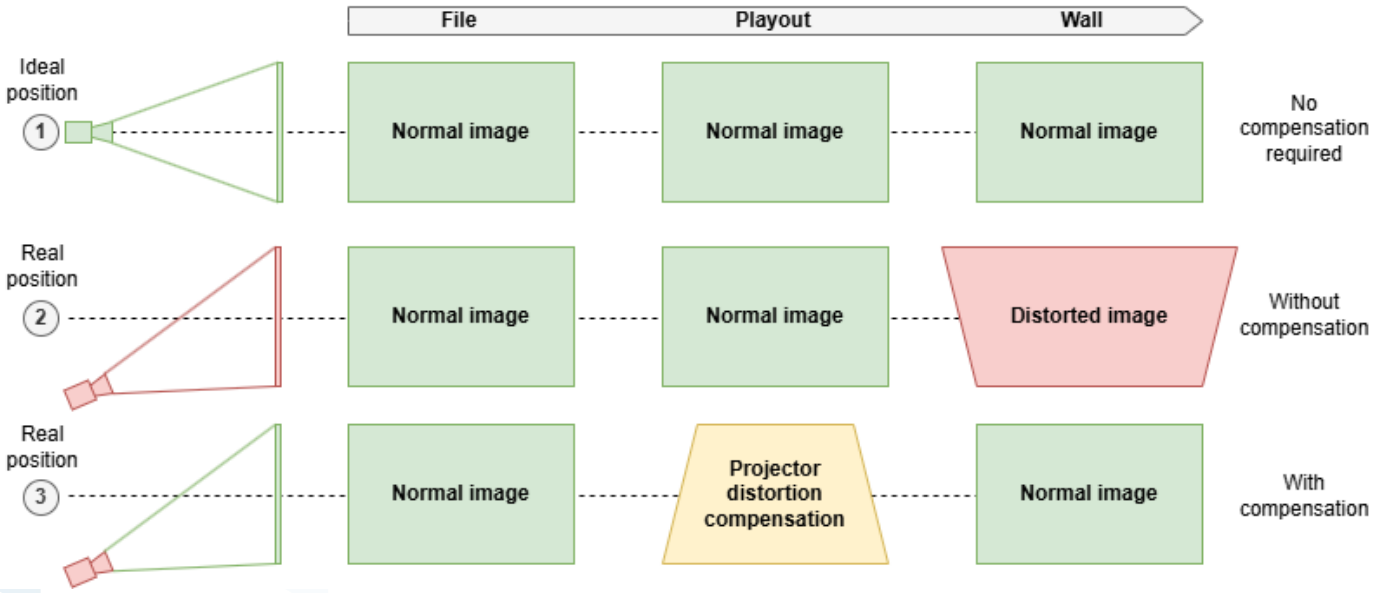
Workflow

▸ Edge Blending

In this mode enables output image adjustments for seamless projector stitching. Supported capabilities include:

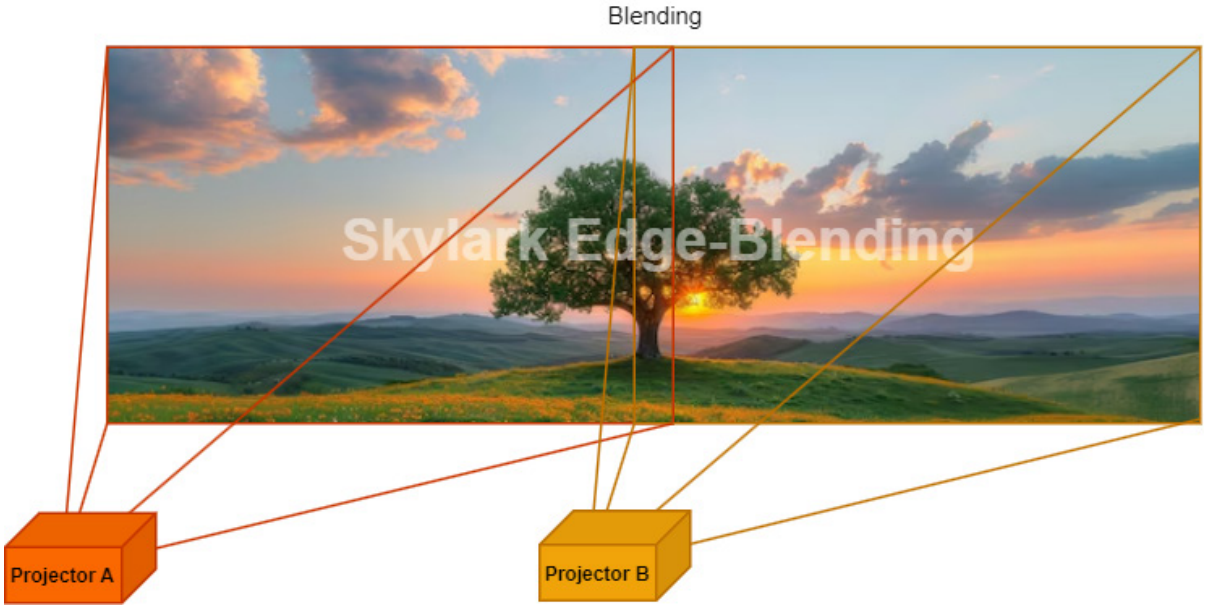
- Distortion compensation – geometric correction of the output image

  It enables distortion compensation when a projector cannot be aligned with the screen's center. The image illustrates an ideal centered setup, a misaligned projector



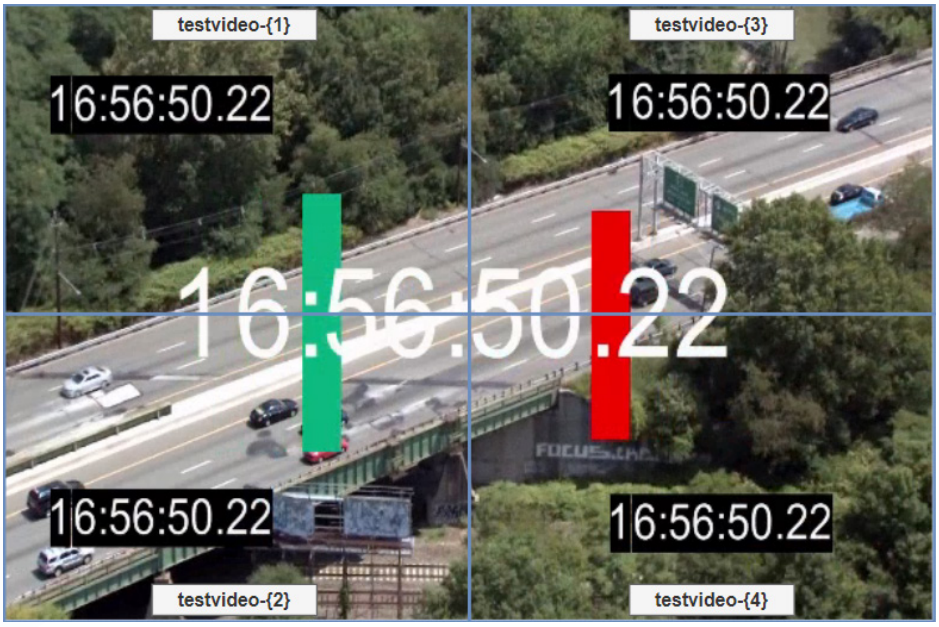
- Brightness compensation in overlapping areas (edge blending)

  When images from multiple projectors overlap, a zone of increased brightness appears. The Edge Blending option applies a smooth brightness gradient along the image edges, resulting in a seamless stitched picture with no visible joins.

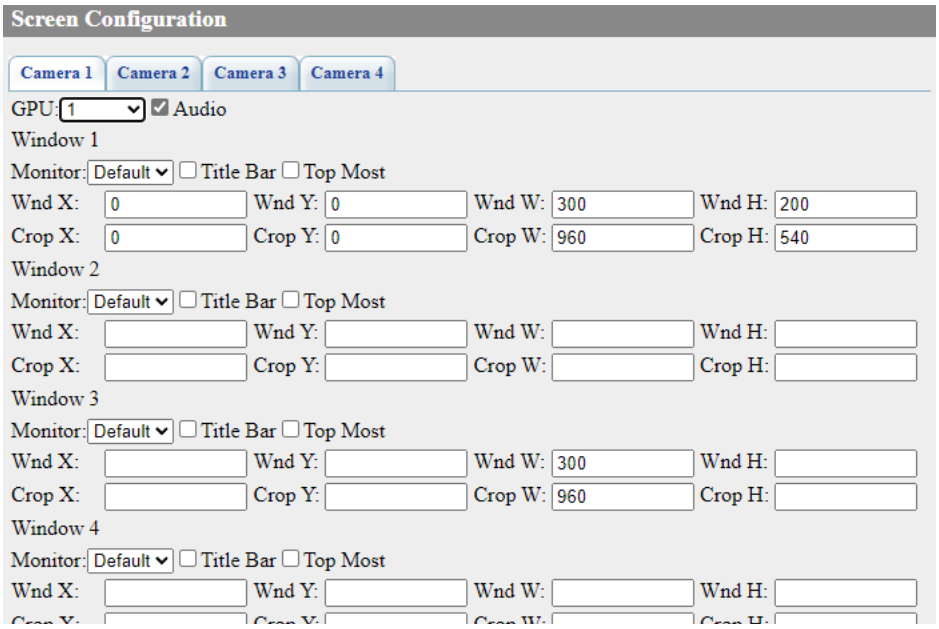


Examples

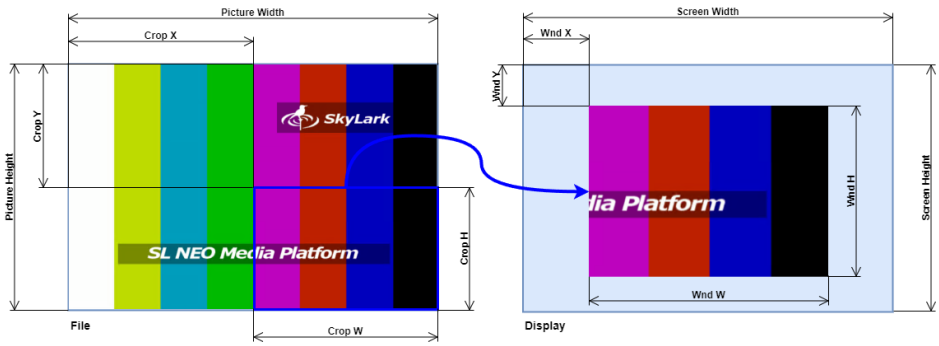
▸ Synchronized multi-screen output from four separate files



▸ Screen configuration settings



▸ Window positioning and cropping of the output image



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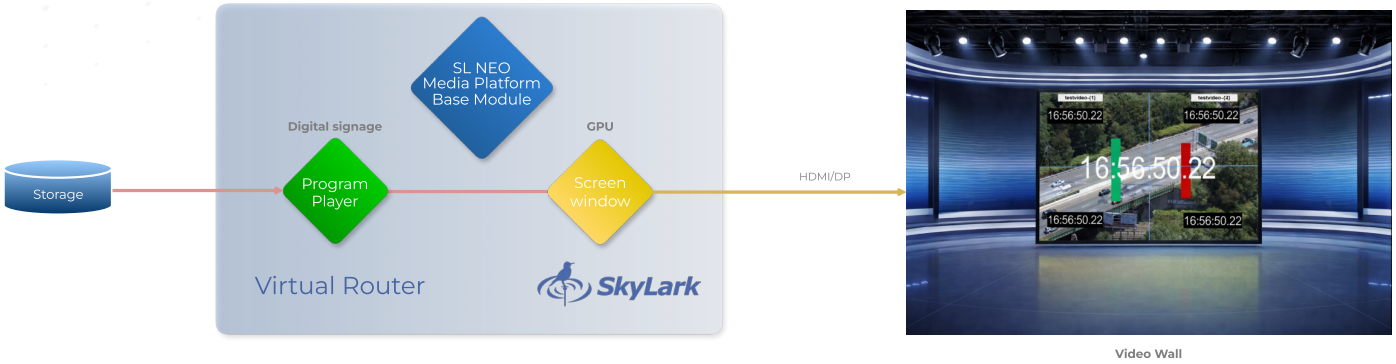
Ecosystem



Video Wall

SL NEO Digital Signage is fully integrated into the SL NEO Media Platform — a modular, software-defined environment where specialized modules operate together in real time across one or more hardware platforms.

Additional modules — including Graphics, Program Player, and Base Module — can be combined to create a fully tailored solution:

- **Program player**
  For video playback and output to displays
- **Media Database**
  For content storage and playback management
- **Broadcast Graphics**
  For overlays and branding and animated elements
- **SL NEO Base Module**
  For coordination, management and control for all the system

Use Cases

- **Broadcast Studios**
  Displaying dynamic background scenes on video walls for news, talk shows, and live productions — with synchronized playback, real-time updates, and seamless integration into the studio workflow.
- **Corporate Lobbies & Conference Spaces**
  Synchronized branding loops, dashboards, and event information across high-resolution displays.
- **Airports & Transit Hubs**
  Timetables, announcements, wayfinding, and emergency messaging on large video walls.
- **Retail & Shopping Centers**
  Dynamic promotions, advertising loops, and multilingual messaging across store networks.
- **Event Venues & Theaters**
  Trailers, schedules, sponsor segments, and directional signage updated in real time.

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	Built-in RAID-10, 4 or 8 × SAS 3.5” RE drives (4 or 8 TB), useful capaciwty
OS	Windows Server

Channels

Mode	HD/SD	Ultra HD
Channels	1 - 8	1 - 8

I/O Streams: Interfaces, Codecs

Outputs	HDMI Display Port
Video Codecs	HAP HAP Alpha/Q H.264 HEVC VP9 AV1

Environments

Composition Tools	Free-form windows Transforms Edge blending
Layers per Output	Up to 10 (semi-transparent)
Content Control	Single or multi-playlist Multi-camera clips
Control Interfaces	Desktop client Web UI API
Data Integration	RSS Files Databases External gateways

Video Formats & Color Spaces

Formats	625i/525i 720p 1080i/1080p 2K 2048×1080p 2160p
Frame Rates	25 / 29.97 / 50 / 59.94 / 60 fps

Contacts

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