

SL NEO 5000

Real-Time Graphics Servers



Real-time graphics for Channel Branding & Live Production

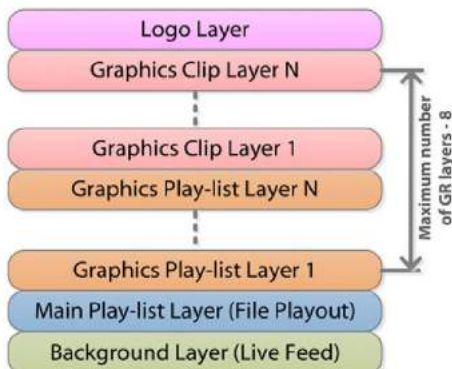
As a part of the broadcasting or live-production studio, the SL NEO server may be used as a multi-functional graphics design & playout station, that associates graphics with the propagating video and format multi-layered compositions consisting of captions, scrolling text, video effects, on-screen graphics, logos, animated banners, live video fragments, Chroma Key, and 2D DVE effects.

Every output program signal (Fill) is accompanied by a key signal (Key). An audio signal may be presented in Fill outputs. The system inputs may be used either for the creation of 2D effects and live video compositions or for material recording, as it can be done with a normal video server.

Dynamic Compositions Technology

SL NEO 5000 server line maintains dynamic compositions technology, designed for Branding, Promo, TV News, Weather Forecasts, Economic information, Music Channels, etc. In addition to text and animation, compositions may contain 2D effects, elements of PIP, video, live sources from server inputs and audio track mixes. Functions for the automatic parameterization of text objects contained in compositions have been implemented.

Each output (program) channel of SL NEO 5000 contains up to eight simultaneously functioning virtual channels for graphics output. Each channel contains its own playlist with graphics events. Each event may contain a multi-layered combination (without limitation on the number of layers) of text/graphic events.



RSS, visualization of sensor indications

SL NEO 5000 servers allow using different options for visualization based on the dynamic reading of information from RSS resources or text files: SMS chats, weather and currency exchange panels etc. Visualization of various sensor indications (temperature, humidity, pressure, background radiation, etc.) is implemented through the technology of periodic reading of measurement results from text files at the required intervals. The limitations on sensor type and model are therefore removed.

Templates

When formatting broadcast channels, real-time programs, and television news broadcasts, formatting templates are used. For this purpose, the general formatting design is generated, and the text data are entered themselves and loaded separately. This permits the text information to be "disconnected" from the graphics, so that the text can be replaced.

Logos, captions, scrolling and crawling text on dynamic backgrounds

You can create unlimited number of these objects, besides, upon generation of the format, they may be created free-form with any other graphic objects. In addition to text, images may be used as moving objects. The content of scrolling text may change dynamically due to the reading of RSS information.

TV Clock allows showing visual current time in the form of digital and analogue clocks (full or partial screen) of any design with sound. Collages may be created from "digital" and "analogue" clocks with animated backgrounds for several time zones, as well as direct and reverse counters.

Live Video

Using live inputs as part of a design is an everyday task. SL NEO 5000 lets you apply live input sources to any object and animate the result in real-time, without the use of external scaler equipment.

The integrated real-time chroma keyer completes a very cost-effective set of tools for creating eye-catching virtual studio productions. Using the color-picker, you can simply select the color to be keyed before fine-tuning its parameters. Multiple chroma keys can be used within a single scene.

Built-in Multi-Functional Graphics Editor

The client software package for 3000/5000 series servers contains a multi-functional graphics editor which permits the creation and editing of captions and graphic compositions.

All initial materials and work results are archived in the server array under the management of a database, which facilitates joint work by several users and instant broadcasting of the compositions created.



Fonts

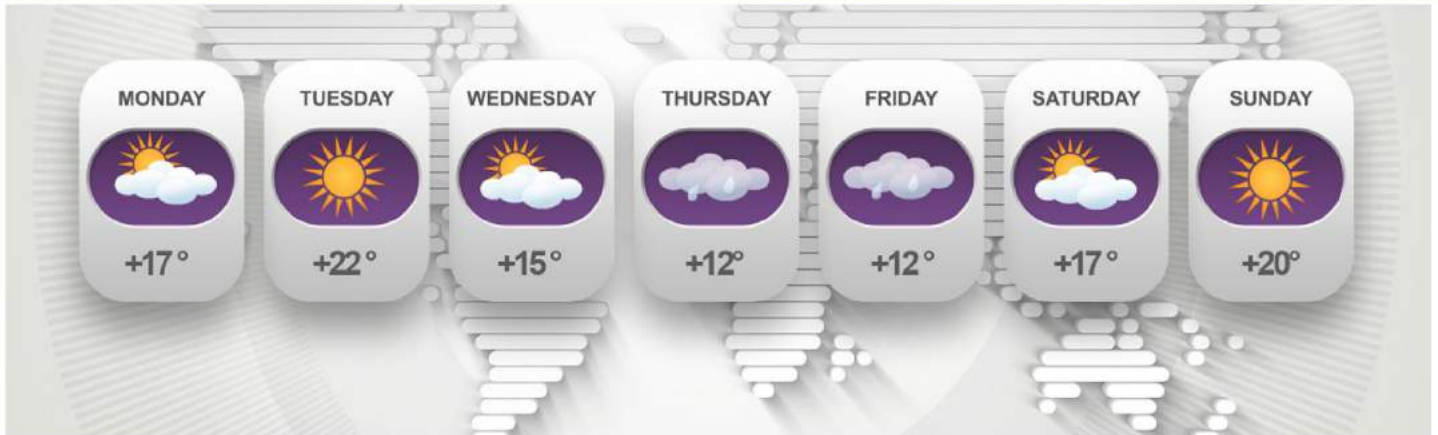
SL NEO servers support work with any fonts and encoding accessible to Microsoft Windows, including Arabic fonts and movement of text from left to right.

Formats

The servers support all widespread compression formats and file containers for graphics and audio/video files.

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Technical Specifications

- Video Formats (depends on model): SD: 625i, 25 f/s, or 525i, 29.97 f/s, HD: 1080i, 25 or 29.97 f/s, 720p, 50 or 59.94 f/s;
- Inputs/Outputs (depends on model): SD/HD SDI FILL+KEY, CVBS/YUV, Analog/AES/SDI Embedded Audio;
- Audio: 4 AES/EBU pairs per video I/O channel, 8 pairs embedded per video I/O channel 16-, 20- or 24-bit PCM, 48 kHz;
- SD/HD File Decoding: AVID DNxHD (120, 145, 185, 220 Mbit/s), Panasonic (DVCPRO25, DVCPRO50, DVCProHD), Sony XDCAM IMX (30, 40, 50), XDCAM HD 422, HDV, AVCHD, DV25, MPEG-2 IBP GOP, H.264, X.264, Decoding only: Apple Pro Res, Uncompressed 32-bit video;
- File Containers: AVI, MOV, MP4, MXF D-10/OP1A, RAW DV/DIF, MPEG PS/TS, MPG, BMP, TGA, PNG, PSD, FLV, SWF;
- Genlock Reference (depends on model): SD: Bi-level sync input, HD: Tri-level sync input, Timecode/NTP Support: NTP client, LTC in (option);
- GPI I/O: Inputs 4...16 (option), Outputs 4...16 (option);
- Dimensions (depends on model): 1...3RU, Weight (5...35 kg); Power Supply: Dual hot-swappable; Voltage: AC 115 to 120 V, 200 to 240 V, auto select.

Tools for Live Production

SL NEO 5000 servers move to a brand new level of functionality for venue production with the Air Manager - a software control tool designed to control all of the server channels.

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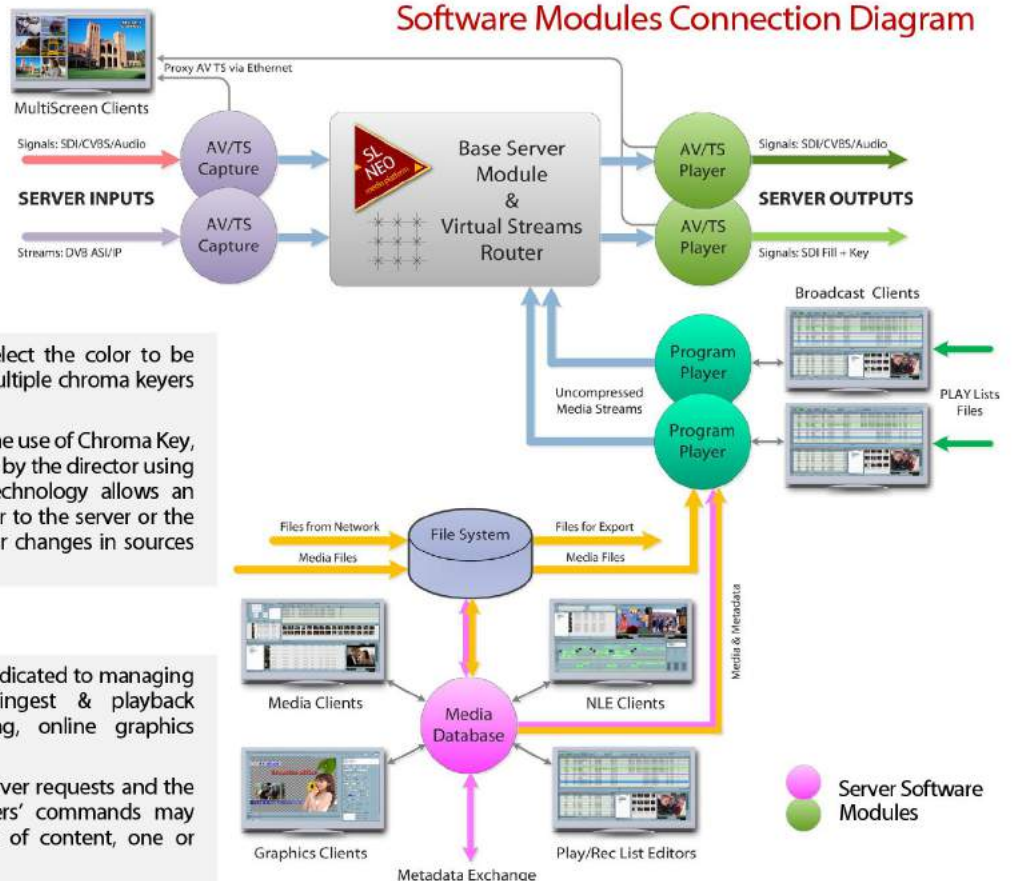
Preliminary creation of compositions with the use of Chroma Key, Live Sources, and Captions can be switched by the director using Hot Keys. The incorporated Hot Keys technology allows an additional keyboard to be connected either to the server or the client station, which may be convenient for changes in sources and compositions.

Server-Client architecture

Servers SL NEO are powerful computers dedicated to managing media-storages, media & meta-data, ingest & playback operations, file encoding and decoding, online graphics rendering.

Client software facilitates the transfer of server requests and the receipt of its replies, due to which users' commands may successfully implement the management of content, one or several broadcast channels.

Software Modules Connection Diagram



SL NEO 5000 Models

Ordering Information



What's included: fully configured and ready for work server platform with pre-installed video IO boards, pre-installed SL NEO Server and Client software bundle, software codecs, 1 client software license for an additional client workstation.

1-year standard warranty, 1-year telephone/e-mail technical support.

5100/5300 Models. Broadcast graphics Media-Servers

HD/SD and SD-only configurations, Fill+Key output or "pass-through" mode. Up to 8 independent play-list based graphics layers for each program output. Built-in integration with broadcast automation system based on SkyLark SL NEO 2000-3000 series Media-Servers.

Output designation: one program output SDI with embedded audio, pass-through mode; 1F+1K - pair Fill with embedded audio +Key; 1PGM/1F+1K - one program output with embedded audio, pass-through mode or one pair Fill with embedded audio + Key.

HD/SD models with SDI inputs-outputs

Base Model	Inputs	Outputs	Video IO Platform	Signal Types
Matrox DSX LE3 based models				
SL NEO 5301 M4	0	1F+1K	Matrox DSX LE3	HD/SD SDI+AE
SL NEO 5311 M4	1	1PGM/1F+1K	Matrox DSX LE3	HD/SD SDI+AE
SL NEO 5302 M4	0	2F+2K	Matrox DSX LE3	HD/SD SDI+AE
SL NEO 5322 M4	2	2PGM/2F+2K	Matrox DSX LE3	HD/SD SDI+AE
SL NEO 5304 M4	0	4F+4K	Matrox DSX LE3	HD/SD SDI+AE
SL NEO 5344 M4	4	4PGM/4F+4K	Matrox DSX LE3	HD/SD SDI+AE

SD-only models with SDI inputs-outputs

Base Model	Inputs	Outputs	Video IO Platform	Signal Types
Matrox DSX.SD and DSX.LE3 based models				
SL NEO 5101 M4	0	1F+1K	Matrox DSX.SD	CVBS/YUV/SDI+AE/AA
SL NEO 5111 M4	1	1PGM/1F+1K	Matrox DSX LE3	CVBS/YUV/SDI+AE/AA
SL NEO 5102 M4	0	2F+2K	Matrox DSX LE3	CVBS/YUV/SDI+AE/AA
SL NEO 5122 M4	2	2PGM/2F+2K	Matrox DSX LE3	CVBS/YUV/SDI+AE/AA
SL NEO 5104 M4	0	4F+4K	Matrox DSX LE3	SD SDI+AE
SL NEO 5144 M4	4	4PGM/4F+4K	Matrox DSX LE3	SD SDI+AE
DekTec DTA based models (pass-through mode only, relay bypass)				
SL NEO 5111 D4	1	1PGM	Dektec DTA	SD SDI+AE
SL NEO 5122 D4	2	2PGM	Dektec DTA	SD SDI+AE

Software and hardware options for SL NEO 5000 series

Name	Description
HP/Dell Chassis	HP/Dell Hardware Platform
AES IN/OUT	AES I/O Hardware Option
Internal RAID-array expansion	
Up to 8/12/16/24/36/48TB Storage	
Device control, Device server	
GPI I/O Device Server	GPI Device Control (1...8 ports, ext. USB GPI module included)
External CP	External USB Control Panel (10...80 keys)
Automated file transfer, backup and redundancy for playout automation	
Media File Transfer Software	Automatic File/SL NEO Clips Transfer use Transfer Rules
Main-Backup Playout Sync	Main and Backup Playlist Sync Option (for 1 Output Program)

Client workstation software for SL NEO Media-Servers

Name	Description
Air Manager Client Software	Ingest/Playout Ch. Control, Graphics/Playlist Editors, MAM Client
News Cut Client Software	Networked fast NLE with Proxy Support
Multiscreen Client Software	Networked Client for Live I/O ch. Monitoring on Client PC
Routing Client Software	AV Router Multiuser Control Software from Client PC
Full Client Software Kit	All Clients Software Modules Included

Model Designation: SL NEO ABCDEF

A	Server Series 1...7
B	1...2 - SD models, 3...4 - HD/SD models
C	Number of Inputs (Live & Rec Channels)
D	Number of Outputs (Playout Channels)
E	I/O Board Type/Brand Name or TS Interface Type: <ul style="list-style-type: none"> M Matrox DSX Series D DekTec DTA Series B BlackMagic DeckLink Series E Ethernet, Onboard Ethernet Port
F	Internal Storage Capacity (Tb): <ul style="list-style-type: none"> 4 4 Tb, Hardware RAID-10, 4xHDD RE 2Tb 8 8 Tb, Hardware RAID-10, 8xHDD RE 2Tb

I/O Signals & Streams Designations:

CVBS	Composite Video	ASI
AA	Audio Analogue	IP
SDI	Digital Video SDI	
AE	Embedded Audio in SDI	
AES	AES I/O available in some models with Matrox DSX Boards	

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