

**NEW**

Hello from Germany.  
Nice to meet you.

# signum.BlackHive X7

## 4K Media Server



### About Signum Bildtechnik

Signum Bildtechnik is a German company specialised in image processing equipment for TV studios and broadcasters, playlist management and playout solutions. Signum was founded in 1995 and is based in Munich.

Signum has sales in Europe, North America, Latin America and India and a strong relationship for over 15 years with Germany's largest broadcasters ARD and ZDF.

Signum is independently held by private shareholders and most of our engineers have a PhD. Signum has grown a very stable way and we are very proud to have employees that have been working for over 20 years in the company.



Signum Bildtechnik is research partner at Horizon 2020

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**signum.BlackHive X7** is a flexible and reliable multichannel media server for ingest, graphic and playout in 4K / HD / SD.

**signum.BlackHive X7** comes with SigiStudio, a powerful master control software for operators. It can be used as a stand alone production server, as a playout server including automation, as a videowall driver or as a live video camera switcher.

Thanks to its versatility, **signum.BlackHive X7** can be used almost anywhere in the broad-casting environment. As a VTR replacement, in news productions or as a multi-channel 24/7 playout automation in a playout farm.

### New Features 2016

#### 4K Video Output in Addition to HD and SD

Our new BlackHive X7 supports 4K Ultra High-Definition video output. Playlist, image mixing capability and graphic functionality with 4K Video.

#### Futureproof for 4K workflows:

BlackHive X7 is futureproof, allowing you to work in HD and easily switch to 4K resolution on the same hardware at a later point.

#### Streaming over IP

BlackHive X7 captures and sends streams over IP with independent resolutions, frame rates, and bit rates. Playlist, image mixing capability and graphic functionality with IP video.

#### SigiStudio Scheduler

BlackHive systems now can be controlled by a time event triggered SigiStudio Scheduler for automatic broadcasting operations.

# Ingest. Organize. Playout.

All BlackHive servers come with the SigiStudio Master Control software as a standard. This amazing software is the workhorse for ingesting, organizing and editing clips and creation of rundown playlists. It is the perfect solution for broadcasters providing fully automated or manual content playout. All clips in a playlist can be changed, removed, edited, cut or trimmed up to the last moment prior to playout. Multiple playlists are supported for videos with various quality levels and CODECs.

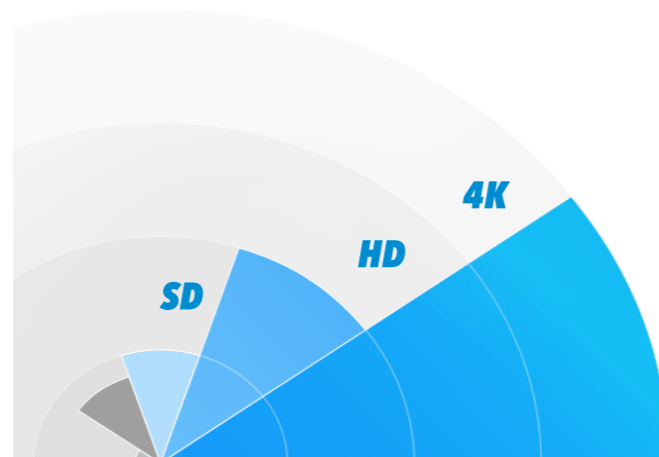


## BlackHive X7 Applications

- » As a creative workstation with build-in graphic engine and character generator
- » As a newsroom and playlist server
- » For playout automation and playout farms
- » For ingest-centers as VTR replacement
- » For cable-head-ends
- » As a presentation server for corporate TV
- » As a playout server for big live shows
- » For sophisticated Web programs
- » For branded content for cross-channel delivery
- » As a multichannel presentation server
- » As a live video switcher
- » As a driver for presenter displays
- » As a presentation server for Universities
- » As a driver for videowalls

## Virtually Unlimited Scalability

Flexible video/key and video/key configurations. Scalable from 2 up to 10+ channels 4K / HD. Expand your inputs through external video routers and output to multiple destinations. For broadcast, live streaming, display, or across the network to another BlackHive X7.



## 4K Crystal Clear Quality

The heart of BlackHive X7 is its blazing fast image processing engine. Completely redesigned to operate up to 60 fps in 4K, the new BlackHive X7 can handle massive speeds.

## IP Streaming

BlackHive X7 supports SMPTE 2022-6, offering uncompressed video and audio, with future support for other IP standards. Multi-channel input and/or output to read or send multiple IP-based encapsulated 3G-SDI, HD-SDI and SD-SDI video streams to and from software applications

## Instant Play

Playing video files in a fraction of a second, the system starts delay free playing a video file.

## Full Features:

- » Video-format according to SMPTE 259 M / SMPTE 292 M / 4:2:2:4 or 2 times 4:2:2 per channel
- » Multiple video formats
- » Configuration as playout-/video-server with integrated real-time 3D graphics
- » Multiple graphics channels / server (depending on the system configuration)
- » Uncompressed and compressed video playout
- » Fast data transfer rate
- » Redundancy in power supply and data pool
- » Digital video-in for channel 1 and 2 SD and HD-SDI
- » Digital video-out channel 3 to 10 SD and HD-SDI
- » Channel 2,4,6,8,10 can be configured as alpha-channel
- » Integrated audio for embedded AES/EBU digital audio signals (16 audio channels per video channel/ 44.1, 48 and 96 Khz, 20/24bit)
- » Clip server for real time display of images and sequences
- » Integrated video server for video and clips
- » Control and monitor function via signum.SigiStudio user interface
- » GB ethernet interface for local network for the connection to media asset management and newsroom systems
- » Optional extension to FC based network for fastest transfer
- » Control and administration via standard PC with graphical user interface, user panel, remote control or MOS-Server
- » Digital mix-/wipe module
- » Editing and cutting of videos and clips
- » Multichannel synchronous playout of videos (videowalls etc.)

## Internal Graphics Engine (optional):

- » Build-in graphics engine for 2D and 3D real-time graphics
- » Real-time rendering
- » Switchable graphics playout channel
- » Multiple 3D effects per object
- » Built-in particle effects
- » Fully configurable effects
- » Advanced 3D text effects
- » StormLogic and SmartTemplates

## Fader Panel (optional):

- » Optional fader and service panel available

## Industry Leading On-Air-Reliability

At Signum we develop hardware and software precisely together and present individual solutions to every customer. The result is a perfect interplay between software and hardware for an industry-leading reliability and stability across all formats. No single point of failure; redundant power, networks and media paths.

## Specifications (e. g. 10 Channel System)

### Dimensions:

W: 48,26 cm (19")  
H: 6RU/ 26,70 cm (15,75")  
D: 68,50 cm (26,59")

### Operating Temperature:

+10 C° to + 35C°

### Operating System:

- » Operating System Win 7 Professional 64bit
- » 32 GB RAM / per channel set
- » 4 Xeon Quad-Core CPUs / per channel set
- » GigEth networking
- » 2 x synchronous RAID5 storages with max. 16 SAS
- » 920W power supply redundancy
- » DVD Drive, Mouse, Keyboard

### Hard Drives:

- » e.g. 10x 600 or 16x600 GB

### SSD Drive (optional):

- » Up to 16x SSD drives per channel set
- » 10 video interfaces: (number of video interfaces scalable)

### Configurations:

- » 2 INs (Fill/Fill or Fill/Key)
- » 8 OUTs (8 Fill or 4 Fill/4 Key, multiple programmable)

### IP Streaming:

- » SMPTE 2022-6 support, offering uncompressed video and audio, with future support for other IP standards
- » Multi-channel input and/or output to read or send multiple IP-based encapsulated 3G-SDI, HD-SDI and SD-SDI video streams to and from software applications
- » 10GigE networks
- » Support for major third-party NLE, compositing and streaming applications

### 4K Playout:

4K / UHD 10-bit 4:2:2 and 4:4:4 up to 50/60 fps

### Video Formats:

4K	4096 x 2160p	24/ 25/ 29.97/ 30
UHD	3840 x 2160p	24/ 25/ 29.97/ 30
HD	1920 x 1080i	24/25/29,97/30
HD	1920 x 1080p	24/25/29,97/30/50/59,94/60
HD	1280 x 720p	23,98/24/25/29,97/30/50/59,94
SD	525i/29,97	720 x 486
SD	625i25	720 x 576
SD	625i24	720 x 576