



N A R A

Professional image access for media and entertainment

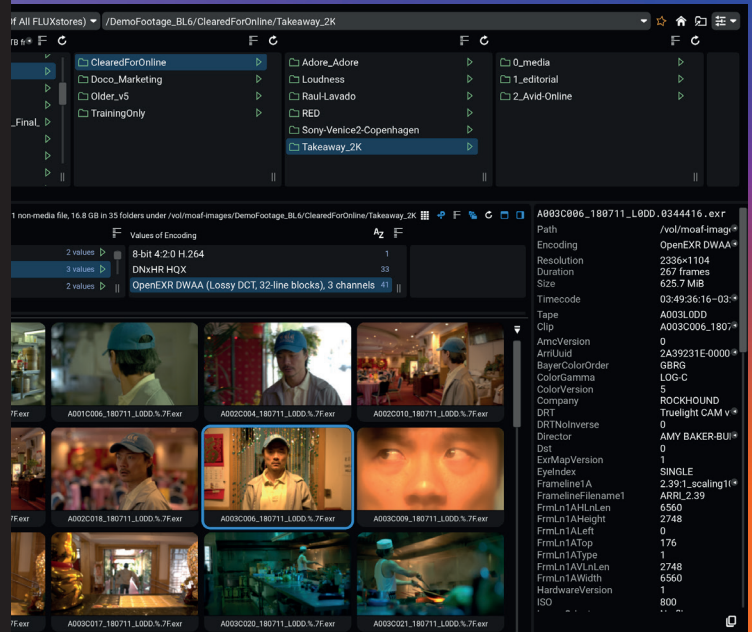
No matter how well equipped a post-production facility is in terms of creative tools, accessing the clients' images is typically disruptive for those who manage the projects, wasting time and effort for all concerned.

For security reasons, the production office may not even have access to the storage on which their images reside. Even if they do, the directory structure can be difficult to navigate across possibly multiple storage pools. And once the material is found, the format often means it can only be viewed using complex software applications.

It is no surprise that people prefer to ask an operator to prepare easily playable versions for them. Typically, expensive resources are used to provide shots for review again and again.

Nara has been developed by FilmLight to address these three issues: to grant secure access to production media, to quickly locate images relating to a particular project, and to review them in a colour accurate player.

All from inside a web browser.



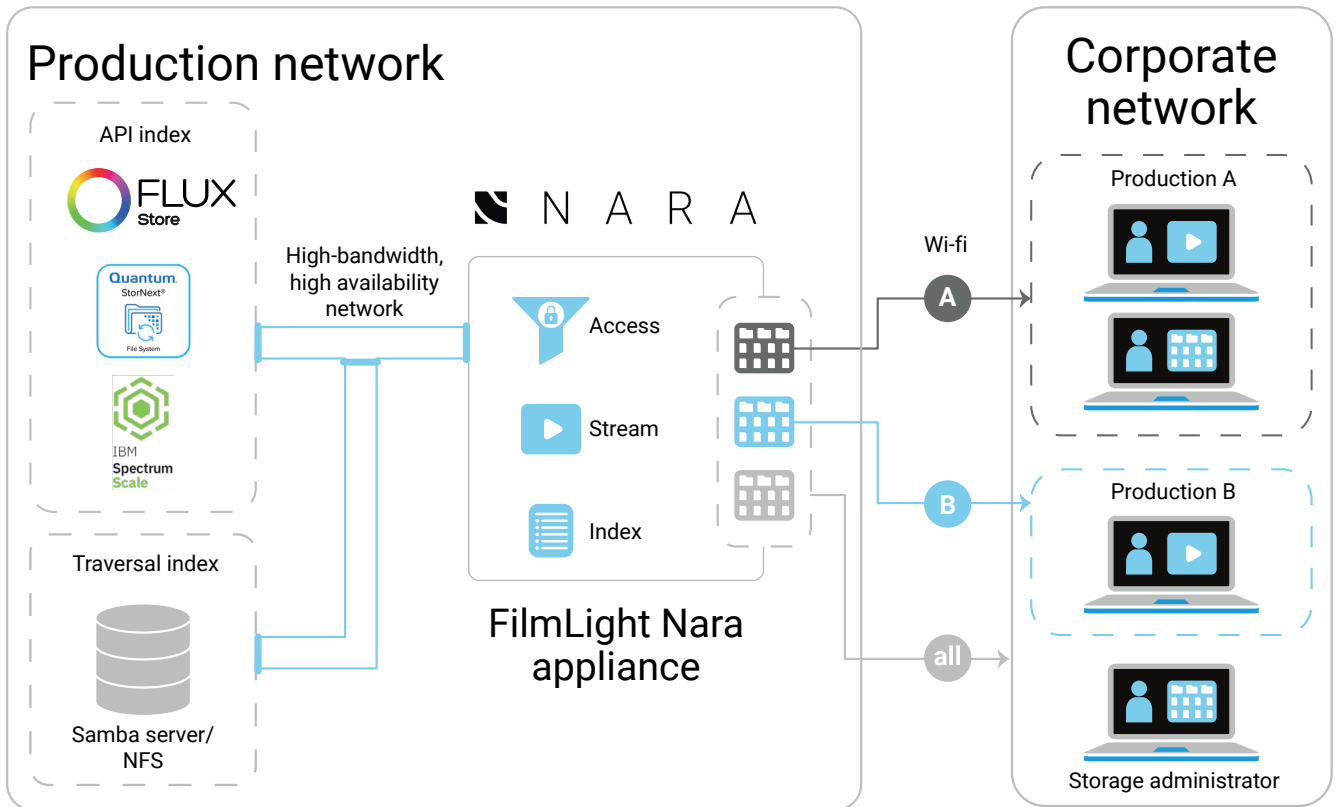
Simple web-based media access

Balancing between the stringent security protocols needed in a facility and team productivity is difficult.

That's why Nara provides a web-based media browser, allowing for streamlined searching of an extensive range of image assets.

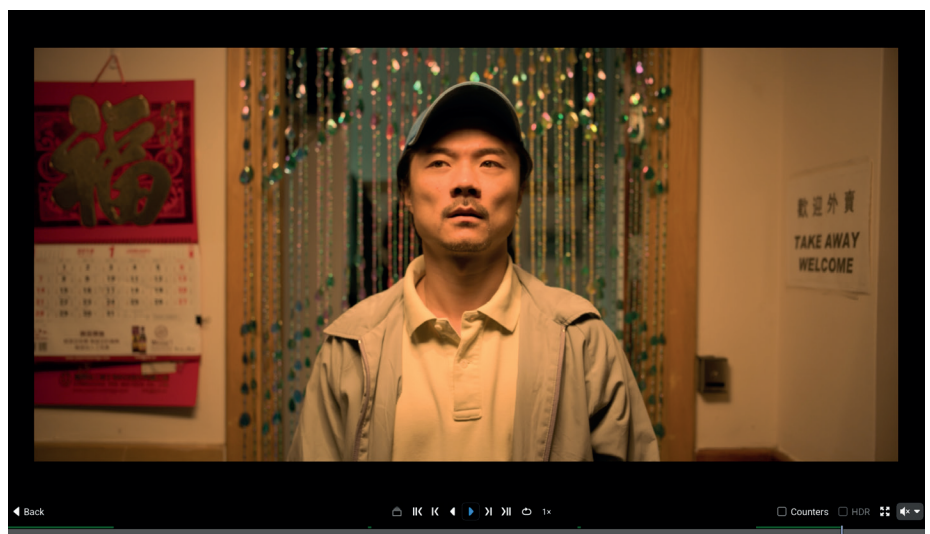
Each file is presented with a thumbnail and associated metadata for quick and informed review. Users can also create projects to facilitate easy access of the folders and storage volumes that they have access to in one place.

User and password-protected web access is provided through the Nara Linux 'appliance' sitting on the secure production network. Using enterprise class identity management services, Nara adheres to and presents media rights management security from within your domain.



Robust, colour-accurate streaming

Granting team members access to secure storage is only part of the equation. They frequently encounter challenges in decoding and previewing the assets. Many times, these assets are encoded in proprietary or high-bitrate codecs that aren't readily supported by conventional media players or file browsers. Some of these files, particularly those in raw or uncompressed formats, demand high-performance computing resources for smooth playback.



Nara media player

Nara's streaming engine allows for native decode and playback of a wide selection of media without the need to transcode to proxy files. Nara

leverages FilmLight's decades of experience in colour to provide a robust, colour-accurate streamer with full control of the colour pipeline.



Media-specific index

Without a proper indexing system, accessing and streaming media becomes a challenging task. Navigating through the storage can be time-consuming, hampering the speed and effectiveness of locating specific files. Furthermore, you can miss out on valuable analytics about your storage usage and patterns.

Nara's index is tailored for media content, ensuring that the data presented is relevant and informative, including metadata information which is specific to complex proprietary formats. Nara's broad codec support ensures that no information is left out.

Index synchronisation

The advantages of holding a database of valuable image metadata is well known, but keeping that database hard-synchronised with the assets is key. Nara offers two methods to achieve this: one for enterprise level filesystems that offer software call-backs on changes to assets, and the other for basic storage that can be traversed on a periodic basis.

Although traversal is a less sophisticated approach in post-production, where a good portion of the online storage is largely static for the duration of a project, this small indexing overhead typically occurs quite infrequently.

Enterprise filesystems that support call-back



IBM Spectrum Scale: IBM Spectrum Scale Advanced Edition or IBM Spectrum Scale Data Management Edition running Scale 5.0.2 or later with a file system version on 20.01

Quantum

StorNext Quantum:
Web Services for Metadata Archive (MD Archive)

FilmLight

Baselight or FLUX Store: FilmLight XFS call-backs

The screenshot shows the Nara metadata display interface. On the left, there's a 'Metadata Keys' list with expandable values for 'LdsLagType', 'LdsLagValue', 'LensType', 'LookCdlMode', and 'LookFileName'. The 'LensType' key is expanded to show a list of values: 'Leica THALIA T2.2_100mm' (13), 'Leica THALIA T2.6_70mm' (4), 'Leica THALIA T2.9_30mm' (3), 'Leica THALIA T2.9_45mm' (21), and '-None-' (34). Below this is a grid of 12 image thumbnails, each with a filename like 'A003C026_180711_L0DD.%.7F.exr'. On the right, a detailed metadata panel lists various technical specifications such as Path, Encoding, Resolution, Duration, Size, Timecode, Tape, Clip, AmcVersion, ArrrUjId, BayerColorOrder, ColorGamma, ColorVersion, Company, DRT, DRTnolnverse, Director, Dst, ExrMapVersion, EyeIndex, Frameline1A, FramelineFilename1, FrmLn1AHLnLen, FrmLn1AHeight, FrmLn1ALeft, FrmLn1ATop, FrmLn1AType, and FrmLn1AVLnLen.

Nara metadata display



Codec support

Nara supports the industry's largest selection of media formats with 160+ supported codecs, using the same FilmLight software for decoding images as Baselight. For the full list of supported codecs and movie formats see the Baselight Codec Support datasheet. This decoder is also used in Daylight for dailies, which is typically the first application required to work with any new camera format and is updated with the latest manufacturer SDKs.

You can rest assured that by the time a new format arrives in post-production there will be a Nara update utilising this same decoder software that will handle it and any associated updates to the colour pipeline.

For a full list of supported codecs, check out the *Baselight Codec Support datasheet* on the FilmLight web site – Nara handles all of the same codecs as Baselight.

Nara handles these codecs and more...

Sequence-based:

EXR TIFF PNG JPEG DPX ARI CINE

Movie-based:

ProRes MP4 MXF R3D XOCN CR3 BRAW

Deliverables:

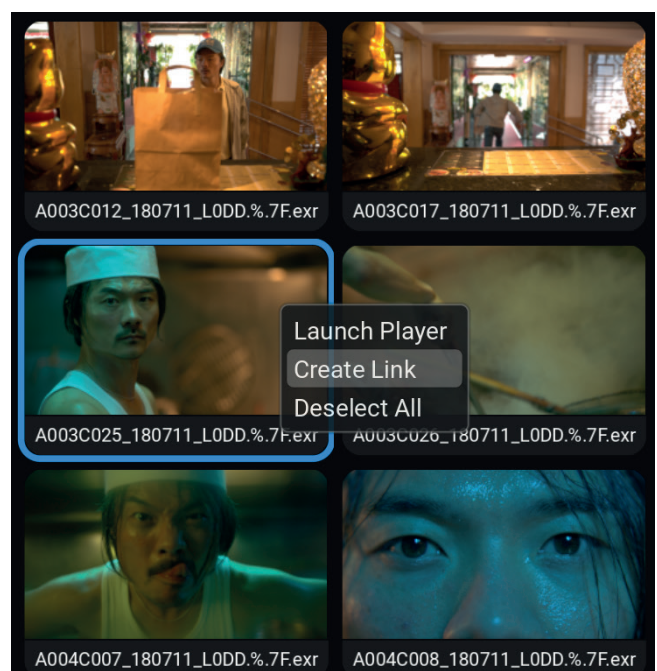
IMF DCP Dolby Vision J2C/J2K XML



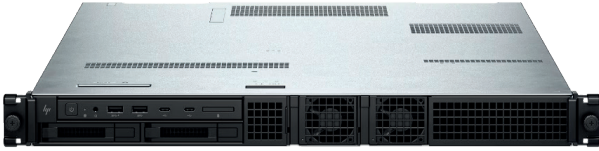
[Baselight Codec Support datasheet](#) →

Easy, secure asset sharing

Nara features a URL scheme allowing users to effortlessly communicate with their team. Each URL can represent folders, multiple files or individual files, meaning sharing information about your media has never been easier. Each URL is a secure link and is only accessible to users with login credentials. This mechanism can provide a simple way to extend in-house production tracking systems that may currently just retain shot names and perhaps a thumbnail. Custom solutions such as a FileMaker database or even an Excel spreadsheet can easily hold a Nara URL in one column that when clicked springs colour accurate replay of the shot in the local web browser.



Nara URL sharing



HP Z4 Rack G5 Workstation Desktop PC

Cache

Nara's approach – with direct streaming from the source – has the advantage that there are no proxy image sequences to manage and keep up to date. However, without a sophisticated caching mechanism Nara would simply act like an additional creative workstation and use up valuable bandwidth on the high-speed storage network.

Nara prevents this issue with a huge NVMe SSD cache capable of holding the last 20 hours of requested media and streaming at many gigabytes a second. The only calls on storage bandwidth are made on first playthrough or after cache eviction when the material has probably not been viewed for weeks.

Key features

- Lower bit rate HEVC and H.264:
 - HEVC 4:4:4 10-bit or 4:2:0 10-bit
 - H.264 4:2:0 8-bit
- Direct NVIDIA GPU encoding at a lower latency compared to hardware solutions that require frames to be clocked out before encoding
- Web-based UI means no need for any installers on the client end
- Scalable subscription

Physical specifications

- 1U rackmount
- 2 x 2.5" external drive bays for front-accessible NVMe storage
- 1 x 3.5" drive bay
- Contains two (2) 675W PSUs operating in aggregate mode for a total system power of 1350W (2x675W)

Connectivity

- Rear I/O 2x USB 3.1 G1 Type-A 1x 1GbE LAN port (supporting Intel AMT)
- Optional I/O Flex I/O Module (Serial Port v3, 10GbE single port, 2.5GbE LAN single port, 1 GbE Fibre LC NIC) Z Desktop Power and Signal Interface for supporting the HP Anyware Remote System Controller
- Dual slot riser (1 PCIe Gen5 x16 mechanical (used for GPU)); 1 PCIe 5 x16 mechanical (spare slot for an optional network/SAN interface card)
- Single slot riser (1 PCIe Gen5 x16)