



# FLEXXITY™ Playout

File & Video Mastering Software



# FLEXXITY Payout

## File and Video Conversion & Mastering

FLEXXITY Payout is a transcoding and mastering application in the new FLEXXITY specialized software suite from DFT Digital Film Technology. FLEXXITY Payout works natively with DPX (Digital Picture Exchange), QuickTime and raw digital cinematography camera clips (ARRIRAW, RED R3D, others) and generates a master for payout of file, video and media formats including QuickTime, MXF, MPEG and many others.

### Create Many File and Video Outputs

DPX and raw digital cinematography camera files store a great amount of color information and allow for a wide variety of metadata to be stored within each file. The files are typically not the preferred delivery file type for many projects. Depending on the production, facility and project, a large variety of content delivery formats may be required; from SD or HD video to Windows Media, QuickTime, MXF, AVI, and MPEG file formats. FLEXXITY Payout provides a unique software toolset that allows users to create an array of different file and video output formats directly from their DPX or raw DC files.

### Functional Toolset

Users can quickly edit or conform a timeline in full resolution online, perform a very fast “on the spot” sound/image synchronization, as well as generate and output digital files and real-time SD/HD video formats.

### Background Rendering

The complete FLEXXITY suite of software applications provides concurrent background rendering of file outputs while the creative work continues. The background rendering architecture for file outputs automatically distributes the rendering to all available nodes in a cluster, which makes optimum use of all available CPU and GPU resources. This helps facilities maximize workflow efficiency across their post production applications.

### Options

Options can be purchased at any time via a software license. Options include image and audio capture and conversion, real-time image processing (color correction, 3D LUT, scaling), secondary color correction and real-time grain reduction or contour enhancement. Dust busting capabilities such as semi-automatic dirt & scratch removal as well as image retouch can also be added via a software license.

### 3D Stereoscopic Support

The FLEXXITY software platform natively supports 2D and 3D stereoscopic productions, including stereo color matching and parallax adjustments.

### Template Driven

FLEXXITY is a Linux-based software platform that has been designed to utilize templates. This template-driven process speeds up the creative and functional operations and helps reduce user errors.

### User Friendly

FLEXXITY Payout features a user-friendly GUI for online editing and EDL online conforming, image and audio synchronization, real-time video payout of up to three parallel output channels and rendering to a variety of file and video outputs.

### Storage and Control Panels

FLEXXITY Payout runs on local storage, NAS (Network Attached Storage) or SAN (Storage Area Network) configurations. It can be controlled via Tangent Devices Element, CP200 or Wave control panels.

### Eliminate External Video to Data Conversion Interfaces

The FLEXXITY Payout feature set eliminates the need for external video to data conversion interfaces saving you time and money.



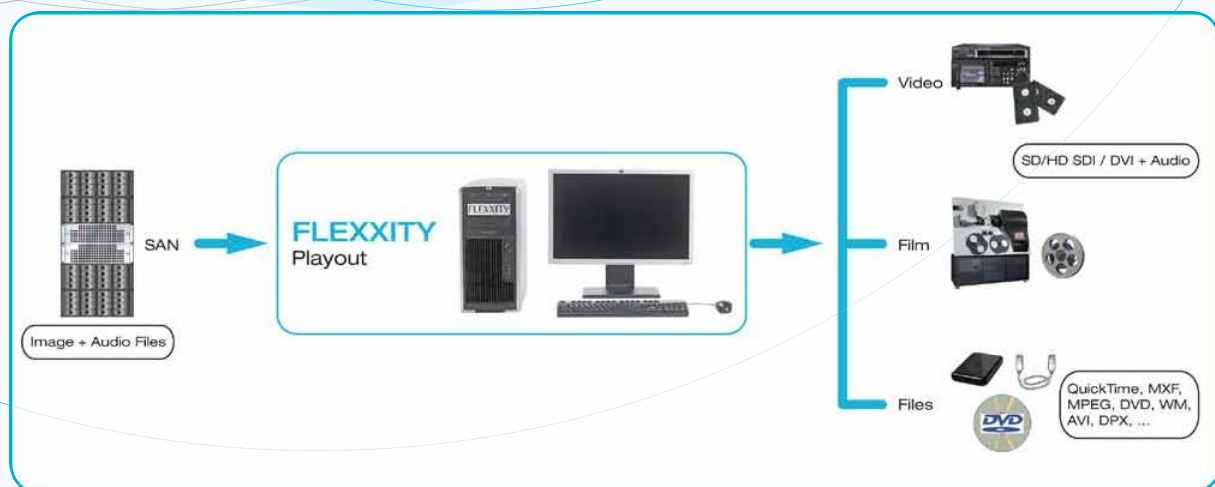
**FLEXiTY Playout – Optional Image Processing includes; color correction, 3D LUTs, image transformation, dissolves, grain reduction, contour enhancement and dust busting**



**FLEXiTY Playout – Output GUI for template based file and video media generation**

# Key Features

- Fast and user-friendly transcoding software tool that natively converts DPX, QuickTime and digital cinematography raw formats ARRIRAW, Red R3D and others to various video and file output formats
- On-line timeline editing
- On-line EDL conforming
- Rapid audio / video synchronization
- Real-time GPU accelerated 2K to HD down conversion or HD to SD down conversion including 2:3 pull-down generation
- Up to 3 parallel video output channels for playout of different versions (graded, raw, HD, SD, burn-ins, clean etc.); a maximum of 2 video outputs can be achieved with one video I/O card
- Direct, parallel and fast render output for QuickTime (incl. Avid DNxHD codecs), MXF, MPEG1, 2, 4, chaptered DVD, WM, AVI and many others
- Real-time character generator for burned in metadata such as TC, KC, logos and bitmaps
- Resolution independent
- Template-driven file and video capture and output generation - speeds up operation and reduces errors
- Integrated background rendering for file output generation, transcoding and scene detection tasks
- Built-in native support for 3D stereoscopic productions
- Automatic scene change detection
- Optional real-time primary color correction, 3D LUTs and image transformation
  - Real-time, non-committed, non-linear primary color correction
  - Supports ASC-CDL for interchange with digital intermediate grading and mastering solutions
  - Supports dissolves and dynamics between keyframes
  - Integrated still-store
  - Real-time pan & scan
- Optional real-time secondary color correction with unlimited number of layers and windows including dissolves and dynamics between keyframes
- Optional real-time grain reduction and contour enhancement
- Optional image dust busting, including semi-automatic dirt and scratch removal and image retouching
- Optional image and audio ingest
  - Ingest from SCANITY, Spirit DataCines / Telecines, other DataCines / Telecines, VTRs
  - Ingest from digital cinematography camera files including; ARRIRAW, RedRaw R3D, and others
- Linux-based software application or turnkey system with optional local RAID storage or SAN/NAS configurations



# Software Specifications

FLEXXITY Playout: Transcoding and mastering software for converting DPX, Quicktime and raw digital cinematography formats. Timeline assembly of image and audio files, EDL conforming and parallel output processing of file, video and media formats (GUI pages: Process and Output)

## Supported file output formats:

File Format	Video Codec	Audio Codec
AVI	AVI_MPEG4 part2	AC3, MPEG2, PCM
Quicktime (.mov)	UNCOMPRESSED	AAC, AC3, MPEG2, MP3, PCM
	MPEG1	AAC, AC3, MPEG2, MP3, PCM
	MPEG2	AAC, AC3, MPEG2, MP3, PCM
	MPEG4 part2	AAC, AC3, MPEG2, MP3, PCM
	DNxHD / VC3	AAC, AC3, MPEG2, MP3, PCM
	H261	AAC, AC3, MPEG2, MP3, PCM
	H263	AAC, AC3, MPEG2, MP3, PCM
	H264/MPEG4 part 10 / AVC	AAC, AC3, MPEG2, MP3, PCM
	Motion/Photo JPEG	AAC, AC3, MPEG2, MP3, PCM
Avid MXF	DNxHD 36, 115, 120, 175, 185 Mbit	PCM
BWF (WAV)	n/a	Broadcast Wave Format extension for Microsoft WAVE, 16 or 24bit
Kodak Cineon	8, 10, 16bit	n/a
MXF XDCAM HD 422	MPEG2	PCM
MXF XDCAM HD	MPEG2	PCM
MXF XDCAM IMX 50	MPEG2	PCM
MXF MPEG 2	MPEG2	PCM
MPEG 1	MPEG1	MPEG1
MPEG 2	MPEG2	MPEG2
MPEG 4	MPEG4	AAC, AC3, MPEG2, MP3, PCM
MPEG 4	H264	AAC, AC3, MPEG2, MP3, PCM
MP3	n/a	MP3
OGG Theora	Theora Video	Vorbis
FLV	H263	MP3
F4V	H264/MPEG4 part10 / AVC	AAC
TIFF	8, 16 bit	n/a
DPX	8, 10, 16bit	n/a
DVD.ISO	MPEG2 NTSC/PAL	MPEG2
DVD VOB	MPEG2 NTSC/PAL	MPEG2
BMP	Windows Bitmap	n/a
J2K	JPEG 2000	n/a
J2P	JPEG 2000	n/a
PNG	Portable Network Graphics	n/a
PGM ASCII	Portable Graymap	n/a
PGM binary	Portable Graymap	n/a
PPM ASCII	Portable PixMap	n/a
PPM binary	Portable PixMap	n/a
WINDOWS MEDIA	VC-1 (WMV3, WVC1)	Windows Media Audio 2

*Technical specifications are subject to change without notice*

## Supported file input formats:

File Format	Video Codec	Native	Ingest
ARRi	RAW (D20, D21, Alexa)	+	+
AVI	MPEG4 part2	-	+
AVID_MXF	HD Standards,8bit/10bit	+	+
AVID MXF Audio	16/24bit PCM	-	+
BMP	Windows Bitmap	+	+
BWF	n/a	+	+
DPX	8, 10, 16bit	+	+
Flash Video FLV	H263	+	+
Flash Video F4V (H264)	H264 / MPEG4 part10 / AVC	+	+
JPEG	JPEG - Joint Photographic Experts Group	+	+
JPEG2000 J2K	JPEG 2000	-	+
JPEG2000 J2P	JPEG 2000	-	+
Kodak Cineon	8, 10, 16bit	+	+
MPEG 1	MPEG1	-	+
MPEG 2	MPEG2	-	+
MPEG 4	MPEG4 part2	+	+
	H264 / MPEG4 part10 / AVC	+	+
MXF	MPEG 2	+	+
MXF XDCAM HD 422	MPEG 2	+	+
MXF XDCAM HD	MPEG 2	+	+
MXF XDCAM IMX 50	MPEG 2	+	+
MP3	n/a	+	+
OGG Theora	Theora	-	+
PGM ASCII	Portable Graymap	+	+
PGM binary	Portable Graymap	+	+
PNG	Portable Network Graphics	+	+
PPM ASCII	Portable PixMap	+	+
PPM binary	Portable PixMap	+	+
Quicktime (.mov)	UNCOMPRESSED	+	+
	MPEG1	+	+
	MPEG2	+	+
	MPEG4 part2	+	+
	DNxHD	+	+
	H264 / MPEG4 part10 / AVC	+	+
RED R3D	Red One, Red Epic	+	+
TIFF	8, 16bit	+	+
WM	VC-1 (WMV3, WVC1)	-	+

## SOFTWARE OPTIONS

These options are available with additional software licenses

- Optional image/audio ingest
- Optional real-time image processing:
  - primary color correction
  - 3D LUTs
  - Image scaling
- Optional real-time secondary color correction
- Optional real-time grain reduction and contour enhancement
- Optional non-real-time dust busting - dirt, scratch and retouching
- Optional background render software license for additional render clients

# Hardware Specifications

## Workstation (Turnkey System)

- HP Workstation Z800
- Dual Intel Xeon (6 core) CPU
- 12 GB RAM
- NVIDIA Quadro FX 6000 graphics card
- 24" HP L2465 LCD monitor
- 2x 450 GB internal SAS disks
- 4x 10/100/1000 Base-T Ethernet ports
- QLOGIC QLE2562 dual Fibre Channel8 adapter including cable
- SUSE Linux Enterprise Server (SLES) workstation installed



## SDTV+HDTV output (DVS Atomix PCIe card + software license)\*

- TV standards (selectable): supports most common HDTV standards, including 2K DCI standards
- Video outputs: SD+HD SDI outputs for RGB 4:4:4/ YUV 4:2:2, 8/10 bit (BNC)
- Dual DVI 2K output for image resolutions of 2048x1744 or 2048x1556
- Up to 16 channels of embedded audio
- Hardware implemented color-space converter for storage in RGB/A format
- VITC and VANC reader and generator
- 3D LUT usable for the output
- Atomix breakout box for balanced AES/EBU audio and RS422 remote control

## Hardware Options

- Second 24" LCD monitor for dual GUI configurations
- Second SDTV+HDTV output card for up to 3 parallel video outputs
- Control Panels: Tangent Element series, CP-200 series or Wave
- Local RAID or JBOD storage configurations
- 3rd party SAN storage configurations are supported

\* max. 2 parallel video outputs per card



**FLEXXITY Playout Element Control Panels**

## Headquarters



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