

TECHNICAL GUIDE

CODEX SOFTWARE UI - MAIN TAB

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TABLE OF CONTENTS

1	Introduction	2
2	Glossary of terms	2
з	Overview of the MAIN tab	2
4	The MAIN tab upper half	3
	 4.1 SHOT VIEW AREA	
5	The MAIN tab lower half – EVERYDAY features	4
	5.1 SELECTING SHOTS	4

5.2 I	FILE BROWSER	.4
5.3 I	MANAGE	.4
5.3.1	EDIT SHOTS	.4
5.3.2	2 REPORT	.4
5.3.3	3 FIX TIMECODE	.5
5.3.4		.5
5.3.5		.5
5.4 (COPY – Cloning shots	.5
5.5 I		.5
5.5.1	Tape (LTO) import	.5
5.5.2	2 File Import	.5

ANAGE	.6
TRIM	.6
	.6
MERGE	.6
TRANSFORM	.7
	.7
	.7
A/V SYNC	.7
UPDATE FROM ALE	.7
	.8
	.8
EDIT S3D	.9
SHOW/HIDE OFFLINE	.9
REMOVE ALL OFFLINE	.9
RECOVER FRAMES	.9
OPY – further copy modes	.9
	.9
	TRIMSPLITSPLITSPLITSPLITSPLITSPCSFORM

7	Transport and Shot Summary modes on Codex Lab	9
	7.1 Transport screen	9
	7.1.1 Timecode display	
	7.1.2 Audio meter	
	7.1.3 Play/Stop/Reverse Play/Record	
	7.1.4 Shuttle Mode	
	7.1.5 Monitoring On/Off	
	7.1.6 Play Mode	
	7.1.7 Take Snapshot	
	7.1.8 Dragbar	
	7.1.9 Mark In/Mark Out	
	7.2 Shot summary screen	

1 Introduction

This document covers the full range of features available in the MAIN tab of the Codex User Interface (UI). The Codex UI is common to both the Codex Digital Lab and Transfer Station for Mac OS X products. There are differences in the features available on these products and this guide illustrates these differences.

For ease of use it has been structured to cover everyday features first, followed by those that are either less commonly used or more advanced.

The full range of Codex documents is available from www.codexdigital.com/support

Codex software and installation instructions are available from www.codexdigital.com/software

2 Glossary of terms

While most terms in the manual will be familiar to those working in the motion picture and television industries, here are some terms used in the guide that may be less familiar:

Datapack – Codex data storage. There are several types ranging from the removable Datapack used with a Codex Onboard Recorder, to the Internal Datapack (fixed storage in a Codex Lab system).

Shot – Codex systems store video, audio, and metadata together as a shot. Shots usually represent a single take. Shots can also contain 2 video channels in the case of stereo 3D recording.

Roll – to be used for recording a Datapack must have a Roll on it. The user can call this Roll whatever they like, up to a maximum of 8 characters. When a Shot is recorded it is given this Roll value as an item of metadata, and this value is maintained with the Shot if it is copied to another Datapack or exported as a deliverable file.

Metadata – as well as the video and audio data in a shot Codex systems store a wealth of additional data (e.g. Scene, Take, Roll, timecode, CDL values, Log Notes), which is known as metadata. Metadata is defined as "data about data".

Filecard - this is where shot metadata is viewed and edited in the Codex UI.

Click – this term is applicable when using the Codex UI on a computer, but should be substituted with 'press' if a touchscreen UI is being used, e.g. on a Codex Lab

Codex Virtual File System (VFS) – this feature is central to the workflow when using Codex systems. The VFS can be configured by the user to provide a range of deliverable file types from the shots on the system, in whatever directory structure and file naming structure are required. The files can be copied either from the 'Codex VFS' mounted drive when using a Transfer Station for Mac OS X, or from the /codexvfs network share on a Codex Lab.

UUID – a unique identifying code that is part of the metadata for a shot. Each shot has a UUID, and if a shot is copied from one Datapack to another then the UUID of the copy will be different to that of the original.

3 Overview of the MAIN tab

The MAIN tab of the Codex UI provides the following broad features for shots loaded on the system:

- Metadata viewing and editing
- Copying between Codex storage locations
- · Export and import of different file types
- Playback on Codex Lab systems with I/O hardware
- A range of data management tools such as conforming based on EDL, and ALE export

The layout of the MAIN tab should be considered in two halves. The upper half can be set to one of three modes:

Shot View – shows the shots on the system, and can be toggled between thumbnail view or list view **Shot Filter** – can be used to filter which shots are shown to make management of material easier **LUT** – can be used to load and edit LUTs which are applied to the video outputs of the system

The lower half can also be set to one of three modes*:

Tools (spanner/wrench icon) – gives access to MANAGE, COPY, IMPORT, and EXPORT features **Transport** – used for control of playback/recording features **Shot Summary** – provides a metadata summary and enlarged thumbnail view

*The LUT, Transport, and Shot Summary modes are available only on Codex Lab systems that have video I/O hardware.

Below is a labelled view of the MAIN tab that will be explained in the following sections:



4 The MAIN tab upper half

4.1 SHOT VIEW AREA

4.1.1 Shot View Mode

This button activates Shot View mode and also toggles between a thumbnail view and a list view of the shots. The thumbnail view allows for visual shot identification. The list view shows shot name, start timecode and duration.

4.1.2 Thumbnails

These show you the first frame of a shot, or the Mark In frame if this has been set. To choose a shot to work with simply click the thumbnail (or the shot name if in list view) and the shot will become highlighted with white around the edges.

4.1.3 Scrollbar

This allows you to easily move up and down through the shots.

4.1.4 Filecard (for viewing and editing shot metadata)

The Filecard is an important part of the Codex software. It is where you can view and edit metadata.

Clicking this button opens the Filecard for the highlighted shot. You can edit data in the white fields, while the grey fields are completed by the system automatically for every shot at the time of recording.

There is a Template option at the bottom left of the Filecard that allows you to select a different template for viewing metadata. You can have multiple templates, meaning a large range of metadata can be viewed and edited.

The layout and content of the Filecard templates is user-editable; for more information on configuring the Filecard for your specific requirements please refer to the Codex Technical Manual.

To save time you can fill out a Filecard and save the content by clicking SET DEFAULTS. For subsequent shots you can then recall these defaults by clicking USE DEFAULTS.

4.2 SHOT FILTER – to aid shot management in the Codex UI

This feature can be used to filter which shots are shown either based on their storage location and/or any metadata properties of the shots. For example, if you have several Rolls loaded on the system, you may wish to see only the shots from a particular Roll in order to edit metadata.

Depending on the type of Codex system being used you can filter first on the 'Datapack' location, and then filter based on a string of metadata values. First select the metadata property you want to filter on from the Metadata: drop down list and enter a value in the adjacent blank field, then press ADD and this will be added to the filter string. To remove any part of the filter string press the 'X' next to it. When the **Tools** mode is selected, at the bottom of the Shot View screen you can see how many shots are

When the **Tools** mode is selected, at the bottom of the Shot View screen you can see how many shots are loaded on the system (TOTAL:) and how many are selected from those being shown at that instant based on the active filter (SELECTED:).

4.3 LUT

Click this button to access the LUT screen where you can:

SETUP and SAVE 1D LUTs LOAD 1D and 3D LUTs

These can be applied to viewing outputs on a Codex Lab system (in the case of 3D LUTs an additional licence is required). LUTs can also be applied when creating deliverables through the Virtual File System – the Codex VFS Guide contains further details on using LUTs and how to import LUTs into a Codex system.

5 The MAIN tab lower half – EVERYDAY features

Select the Tools button on the MAIN tab (this is the only mode available on the Transfer Station for Mac OS X and therefore the Tools button is not shown). The Tools screen is where the managing, copying, importing and exporting of shots is controlled. These different sub-menus are selected with the buttons on the lower left of the screen.

5.1 SELECTING SHOTS

When using Tools mode the buttons ALL, NONE, SELECT, and DESELECT will appear at the bottom of the Shot View screen. A shot must be selected in order to perform most Tools functions.

To select a shot, make sure it is highlighted and click SELECT. Alternatively click the top right corner of the thumbnail, or if in list mode click the grey square on the left of the shot name. When a shot is selected it will be marked by a green square. To select all the shots click ALL and to deselect all the shots click NONE.

5.2 FILE BROWSER

For a variety of reasons when using the Tools screen you may need to use the file browser (e.g. to select files for import, or a location for export of an ALE). If the file browser can be used it will be shown with the icon:



The file browser will either show the LOCAL file system (on the computer where the Codex UI is running) or – in the case where a Codex Lab is being used – can be toggled by clicking LOCAL/SERVER to show either the LOCAL file system or the SERVER file system (Codex Lab).

In the case where the Codex UI is being used (for example on the Transfer Station for Mac OS X) you may initially be shown the directory where the Codex UI is located, and will need to click the PARENT button several times to move up some directory levels to somewhere familiar, such as the Desktop.

5.3 MANAGE

5.3.1 EDIT SHOTS

This feature allows you to edit the metadata of multiple shots simultaneously. This could be used, for example, to add a Lens: value to all takes from a particular camera angle.

With multiple shots selected when you press EDIT SHOTS a Filecard will be shown, with details of the number of selected shots at the top. Metadata fields that have a value common to all selected shots will be shown as usual. If the metadata for a field varies between the selected shots then this will be shown as <mixed>.

EDIT SHOTS can be used to clear the contents of a field for multiple shots. If EDIT SHOTS is used to clear the Shot Name for multiple shots, this field will be re-populated based on the individual shots metadata and the Shot Naming Rule within the SETUP tab > SLATE menu.

5.3.2 REPORT

This feature can be used to create a PDF report of shots including a range of important data such as Roll, Shotname, duration, number of frames, equivalent feet in film stock, etc. This can be done either for All Shots, a Specified Roll, or Selected Shots. Use the File Browser to choose the output directory and file name for the PDF report.

5.3.3 FIX TIMECODE

This feature can be used to re-stripe the timecode for one or several shots. Timecode can be re-striped from the first frame timecode of each shot, a user defined start point, the shot creation time, or current time of day. **5.3.4 DELETE**

Press or click this button to delete any number of selected shots. This is an irreversible operation. The DELETE button can be disabled by setting Enable DELETE to No on the SETUP tab, CONTROL screen.

As a general rule it is not advisable to delete shots during shooting as mistakes can happen when under pressure: instead, it is recommended to enter 'ng' (for 'no good') or something equally appropriate in the Circle Take field of the shot Filecard. You can then set a filter on the VFS to exclude all shots with a Circle Take value of 'ng'.

5.3.5 CREATE ALE

This feature can be used to create an ALE either for all shots, selected shots, or shots on a specified Roll. The ALE will contain a column for each metadata item associated with the shot(s). This ALE can be taken into another system, or edited and then imported back into the Codex system to apply metadata changes to shots.

5.4 COPY – Cloning shots

Select the COPY button and for Copy Mode select Clone. Using Clone mode makes an exact copy of the selected shot(s) to whichever Target is specified. This is the most commonly used copy mode.

To perform the Clone operation click DO IT.

5.5 IMPORT

5.5.1 Tape (LTO) import

Files archived to LTO tape using the Codex tape offload process with the recommended file naming structure (default Tape Offloading VFS Configuration) can be imported back into a Codex Lab using this feature.

This can either be used to import files from tape based on an EDL, or to import a sample from a tape as a visual check after an archive is complete. The system will use the first connected tape drive for import, which has the device name nst0.

The Import Selection can either be Manual or Via EDL. Press DO IT to begin the process.

Using the **Manual** option a list of shots on the tape is presented to the user and they can individually select the ones to import and then press **Unarchive Selected**. Alternatively there is an **Unarchive All** button.

The **Num Frames** value can be set if the purpose of the import is a confidence check after a tape archive has completed – for example, you may wish to import 10 frames from the first and last shots archived to tape.

Using Via EDL the user is presented with an EDL Filepath box and can use the File Browser to select an EDL file. In this case the system will import all the shots that are specified in the EDL from the tape.

Within the OPTIONS for importing it is advised to set Conversion to Keep Existing Format.

5.5.2 File Import

The IMPORT function uses the settings on the SETUP tab, FORMAT screen so the Recording Target for the import should be set from here.

The IMPORT feature supports import of the following file types:

dpx ari bmp jpg ProRes R3D avi (uncompressed or Motion JPEG Open DML) H264 mov (no audio or timecode imported) bwf (Audio Broadcast Wave file, 48kHz from 1 to 8 channels) wav (Audio Wave file from 48kHz from 1 to 8 channels)

First specify the Filepath of the files you are importing. The feature supports multi-file/multi-directory importing so that a single directory containing multiple files can be specified, or the top-level of a directory tree can be specified.

If necessary you can specify the location of the associated audio in Audio Filepath.

The Num Frames field can be filled in to specify how many frames from each shot should be imported (this is only relevant for per frame files such as dpx). If the Num Frames field is empty then all frames will be

imported.

To apply a LUT during the import click in the LUT: field and select from any of the LUTs loaded on the system.

Within the OPTIONS for importing you can specify:

Conversion – this is relevant for wavelet-compressed material captured on a Codex recorder. The wavelet compression level will be maintained if 'Keep Existing Format' is selected. If 'Convert to current format settings' is selected then the wavelet compression quality after import will be determined by the SETUP tab, FORMAT screen.

Scaling – 'None' will maintain the resolution of the imported file. 'Best fit' will scale the imported file to match the settings on the SETUP tab, FORMAT screen.

Post Process – this can be used to 'Auto-Sync audio only files' when both video and audio files are imported at the same time. The audio files must be in BWF format and will be sync'd to imported image files based on matching Roll and timecode information in the file headers. See the section on A/V SYNC for more details.

6 The MAIN tab lower half – ADVANCED features

Depending upon the type of workflow that is being used these features can either be considered as less commonly used, or more advanced.

6.1 MANAGE

6.1.1 TRIM

This feature can be used to trim material from the beginning and end of a shot. Once Mark In and Mark Out flags have been set click this button to trim the shot outside the marks. This is a destructive process, so only do this if you are sure you do not require the material outside of the marks. Only one shot can be trimmed at a time.

6.1.2 SPLIT

This feature can be used to split a shot in a range of ways. After a split process the original shot will not be available. If the original might be needed for any reason then it is recommended to clone it first using the COPY tool and then split the clone.

The Split criteria options are:

In/Out mark point – used for simple splitting of a shot at the Mark In or Mark Out point (In point will be used if a shot has both the In and Out points set).

Timecode break(s) – an example use for this mode is if a tape containing multiple shots has been captured in as a single shot. By splitting this at any timecode breaks the shots will then be available individually (assuming timecode discontinuities between shots).

Number of Frames – used to divide a shot into sections of a defined duration. An example use would be when providing deliverables of a long shot that would exceed the capabilities of an edit system. In this case the shot could be split into shorter sections that could be recombined in the edit system. If the shot were 35000 frames duration and a Num value of 10000 was specified, the result would be four shots of 10000, 10000, 10000, 10000, and 5000 frames respectively.

6.1.3 MERGE

Click this button to merge any number of selected shots. When this is done a new shot will be created called 'Merge Select' – this shot will not take up any more space on the Datapack as it is referencing material already there.

You can only merge shots that are in the same video format. The original timecodes will be preserved within the resulting shot, but all other metadata transferred to the new shot will be that of the earliest recorded shot involved in the merge.

The target Datapack for all merge operations is set by the Recording Target on the SETUP tab, FORMAT screen.

There are several options available in the Merge Shots pop-up box:

Source Shots:

All Shots – merge all loaded shots Selected Shots – merge only selected shots Specified Roll – merge shots that match a given Roll value

Merge shot timecode source:

Source shots timecode - by default the original timecode will be used.

Source shot start/end pad frames – the specified number of black frames will be added to the beginning and end of each shot involved in the merge operation. This can be used to add handles to a single shot.

Ignore matching previous merge shots – useful when using the All Shots setting. If set to Yes then any 'Merge Select' shots created by previous merge operations will not be used in subsequent merges to prevent duplication of frames.

Ignore shots not on target diskpack – the merge function will only work for shots that are all on the same Datapack. When set to Yes this option prevents an error if shots on multiple Datapacks are selected, but of course only shots on the target Datapack will be used. Assemble order:

Selection – shots will be merged in the order they have been selected Timecode – shots will be merged in order of their start timecodes

6.1.4 TRANSFORM

This feature can be used to change the Orientation and/or Anamorphic Aspect of shots. This could be used for stereoscopic material where one eye needs to be flipped or flopped before exporting as deliverable files. Or material may have been captured with an anamorphic lens and the deliverable files will therefore need to be de-squeezed for editing.

Select one or multiple shots and then choose the appropriate Orientation and Anamorphic aspect transform settings from the drop down lists.

For multi-channel shots, to allow an Orientation change for an individual channel a file called 'sysconfig' needs to be in the following location:

Digital Lab - /etc/codex/sysconfig

Transfer Station for Mac OS X - /Library/Application Support/Codex/sysconfig

This sysconfig file needs to contain the following line:

EnableMultiChanOrientation

Once this file has been edited the system will need to be restarted for changes to take effect.

Please contact Codex if you need assistance with this.

6.1.5 UPDATE CDL

This feature can be used to update the CDL values for selected shots based on the current settings from a connected Truelight system, made by Filmlight. See the 'Using Truelight with Codex Guide' available from www.codexdigital.com/support for more information.

6.1.6 UNDO CDL

Use this feature to remove the CDL values from any number of selected shots.

6.1.7 A/V SYNC

This feature allows imported image and audio files to be paired together. Imported audio must be in WAV or BWF (Broadcast WAV) format at 48kHz. Audio files can be from 1 to 8 channels. Audio and video to be matched must be on the same Datapack.

Once imported, Audio Only shots will be shown with a black thumbnail. The timecode and Roll metadata is used to match the Audio Only shots to Video shots. BWF files will already have timecode and Roll metadata, while WAV files will need to have timecode added using the FIX TIMECODE feature, and Roll metadata added into the Filecard. The same value should be entered into the Sound Roll field of the Video shots Filecard.

After the metadata has been set, select both the Audio Only and Video shots which are to be matched up and click A/V SYNC.

A/V SYNC will overwrite any existing audio on a Video shot.

6.1.8 UPDATE FROM ALE

This feature can be used in conjunction with an Avid Log Exchange (ALE) file for two purposes:

Dividing a single shot into multiple shots using an ALE

An example usage for dividing a shot might be if a tape is captured into a Digital Lab system as a continuous shot. An ALE can be generated from an edit and then applied to the shot which will be divided up into multiple shots determined by the timecode sections in the ALE. This can facilitate access to these required shots through the VFS. In the shot metadata the frame rate, Roll name (tape), and timecodes must match those specified in the ALE – all other metadata (shot name, camera ID, etc) in the resulting shots is determined by the ALE.

There is certain information required in the ALE that is vital in order for the system to create shots with it:



Shot names Timecode In Timecode Out

To use an ALE, select the shot you wish to apply the ALE to. Click the UPDATE FROM ALE button and use the file browser to select the ALE or enter the Filepath. Click the \checkmark button and the new shots will be created.

Updating shot metadata from an ALE

When editing shot metadata it may be useful to create an ALE for selected shots using the CREATE ALE feature, edit the contents of this file, and then apply these metadata changes by importing the ALE using the UPDATE FROM ALE feature. The software gives you the option to rematch the contents of the ALE to shots based either on the unique shot ID (UUID) or on Roll and Timecode metadata.

6.1.9 BATCH CAPTURE

This feature can be used on Codex Digital Lab systems with an RS422 port, and uses RS422 Sony Protocol to capture material automatically from an auxiliary device such as a tape deck according to an ALE. The Codex system must be in RS422 Master mode, which is set on the SETUP tab, CONTROL screen. Also, TC Source must be set to HD VANC Timecode on the SETUP tab, T/CODE screen. The RS422 cable used must be wired 'straight-through'.

Ensure the FORMAT settings on the SETUP tab are correct. Select **BATCH CAPTURE** and use the file browser to select the ALE file. Once the process begins, the slave device will be shuttled according to the ALE and the Codex system will capture the sections specified in the ALE as individual shots. The ALE dictates the order in which the sections are captured so it is preferable to have the sections organised in the order they exist on the tape to minimize unnecessary shuttling.

Codex systems are configured to automatically give a 5 second pre-roll when batch capturing using an ALE to allow for the slaved device (VTR) to achieve speed. The pre-roll time can be changed if necessary – please contact Codex Support for details.

6.1.10 DATA CONFORM

This function can be used to conform loaded material to create either a single shot or multiple shots that correspond to events in an EDL or ALE. These shots can then be accessed through the VFS to provide all the files necessary for the online stage of post-production.

To use this feature select ALL shots (assuming that all the required shots are loaded) and then select DATA CONFORM. Select the EDL/ALE using the file browser and click the tick icon.

The options available for DATA CONFORM are:

Create conformed shot with destination timecode – set to Yes if you need the result of the conform to be a single shot with the destination timecode from an EDL. This option is not available when using an ALE.

Allow matching to offspeed shots – set to Yes if you have shots at a framerate different to the project framerate (specified in the ALE or EDL) that need to be conformed.

Conform mode – select either 'single shot', which means all shots involved must be on the same Datapack, or select 'shot per event' which can be used for material on a single Datapack but also allows for the source shots to be spread over multiple Datapacks.

Inter-source shot pad frames – this setting will add the specified number of black frames to the beginning and end of each shot section used in the conform.

Assemble order – when conforming from an ALE to create a single shot you have the option to assemble events in either Timecode order or Order Listed in File. If an EDL is being used there is an additional option to assemble in order of Event Number.

An EDL provides more control over the resulting shots than an ALE – video and audio can be controlled independently and the destination timecode can be specified. Using an ALE to create a shot allows for the

addition of certain metadata. The system does not currently support dissolves, crossfades, or varispeed entries in EDLs – the recommended EDL format is pull list style CMX3600.

6.1.11 EDIT S3D

When shots are part of a stereo pair they will share the same stereo UUID metadata (in addition to their individual unique UUID metadata). This feature can be used to link two selected shots as a stereo pair or to remove an existing stereo link if necessary. When a link has been created the two shots will be moved to the bottom of the shot list in L R order so that they can be accessed together easily.

6.1.12 SHOW/HIDE OFFLINE

The system stores metadata for all of the shots that have been loaded. If **SHOW** mode is enabled the archive of shots is included on the **MAIN tab**, and all shots that are not currently present on a loaded **Datapack** will have an **(offline)** prefix to the shot name. When these shots are shown they will be taken into consideration by the system when determining if shot names are duplicated.

6.1.13 REMOVE ALL OFFLINE

Click this button to delete the archived list of shots. Deleting this information is a non-reversible operation so be sure that you do not need any shot names or other metadata for reference before deletion.

This should be done periodically otherwise the database of offline shots will get very large and slow down the connection of the remote Codex UI.

6.1.14 RECOVER FRAMES

This utility should only be used in communication with Codex support. The purpose of this utility is to potentially recover frames from shots, which have been accidentally deleted. This function is normally only effective for uncompressed material, and if nothing else has been recorded on the Datapack after the deletion has occurred. Using this utility will use up free disk space.

6.2 COPY – further copy modes

The Transcode mode allows you to change the wavelet compression quality of material. (There are certain conversions which are not possible, e.g. from 10-bit HD 4:4:4 material to 16-bit Bayer material – if this is attempted you will see a **Copy failed** error message in the status bar.)

The Copy/Convert mode allows you to change the format settings of a shot and uses the settings on the SETUP tab, FORMAT screen including the Recording Target. The only thing that will be unaffected when using the Copy/Convert mode is the frame rate of material.

In the **Source** field you can choose either **Whole shot**, or **Between marks**, which are set using the Mark In/Mark Out buttons. **Conversion Quality** and **Scaling** are relevant if you are copying material with different format settings to that with which the shot was originally recorded.

6.3 EXPORT

Typically the VFS is preferable to EXPORT for creating files from a Codex Datapack because it is faster than the EXPORT feature, and also allows the filenames and directory structure to be customised.

The EXPORT feature can be used to export the following file types: dpx, bmp, ari, avi, mov, CodexShot xml, FinalCut xml, ASC CDL xml, Metadata txt.

There is a range of export settings available in OPTIONS that are dependent on the file type being exported. Broadly speaking these include options to determine the scaling, compression, timecode rate and Roll name of exported files.

7 Transport and Shot Summary modes on Codex Lab

7.1 Transport screen

The Transport screen is available on systems with hardware I/O, such as the Codex Lab. It is from this screen that you control the playback/recording channel.

When set to use the Transport screen the MAIN tab looks like this:



The buttons and icons on the **Transport** screen perform the following functions:

Timecode display 7.1.1

By clicking the timecode display you can cycle through the different timecode views:

- TC in 01:02:03:04 format standard timecode
- TC in 01234567 format frames since midnight
- AUX userbits/timecode POS standard timecode, beginning at the start of the shot
- POS frames, beginning at the start of the shot

When you are recording/playing at frame rates higher than 30FPS, each frame number of the timecode will appear once as normal (01:02:03:04) and once with an asterisk

(01:02:03:04*).

7.1.2 Audio meter

If a shot has audio then an Audio Meter will be shown for each individual channel. The meter range is from OdBFS to -60dBFS. If no bars are visible then the level is below -60dBFS. One bar indicates a level of -48dBFS. If the bars are 10% from the bottom the level is -20dBFS; at 50% the level is -6dBFS.

Play/Stop/Reverse Play/Record 7.1.3

The Play button starts playback of whichever shot is selected in the upper half of the screen, while Reverse Play does the same except playback happens in reverse. During playback the Stop button pauses playback, and the point at which playback is stopped is stored by the system.

The Stop button is used to complete a recording, and can also be set to toggle E-to-E, which may be useful to provide an uninterrupted monitoring output during multiple Record and Stop operations. The Record button can start a recording either from E-to-E mode or from playback mode.

When the system is put into E-to-E monitoring or record mode, it will automatically increment the take number from the last shot recorded to create the new shot name. In most cases this will save you time, but if you want to change the shot name simply select the Filecard button and edit the metadata. This can be done before (when E-to-E monitoring), during, or after recording. When the scene number is changed the take number will automatically reset to 1.

7.1.4 Shuttle Mode

Toggles the shuttle controls between progressive mode (when the buttons contain arrows) and frame-byframe mode (when they contain + and - symbols). In progressive mode, each press or click of the button increases or decreases the play speed by 25% of the original play speed. To return to normal play speed select the **Play** button.

7.1.5 Monitoring On/Off

When selected this activates **E-to-E monitoring**, a running timecode (provided you have the correct video and timecode streams connected to the system, or have it configured to generate timecode internally) and a preview thumbnail for a new shot. It also activates the Take Snapshot button.

7.1.6 Play Mode

Toggles between three different play modes, indicated by the changing arrows of the button:



• Play shot from beginning to end



- Bounce back and forth between the beginning and end of a shot
- Loop shot

7.1.7 Take Snapshot

Takes a snapshot during recording or monitoring. The number of frames taken as a snapshot is set in the **Snapshot frames** field of the **CONTROL** screen. A 5-frame snapshot can be useful when shooting charts at the beginning of the day to check for noise in the picture. Any snapshots taken will appear in the **Shot View** screen just like any other shot and can be accessed via the VFS.

7.1.8 Dragbar

Allows you to scrub either forwards or backwards through the shot by moving the dark grey square. The green line indicates your current position in the shot.

7.1.9 Mark In/Mark Out

Allows you to mark frames in a shot for several purposes. Firstly, you may mark either the slate frame or the point(s) at which you wish to split or trim the shot. Alternatively you may play only between **In/Out Points**, whilst retaining the whole shot. When you click on the **Mark** button a yellow marker flag will appear above the current position of the green line on the **Dragbar**. Once frames have been marked then you can jump between the marks (and the beginning and end of a shot) by using the **Jump Forward** and **Jump Backward** buttons either side of the **Dragbar**. To remove a **Mark**, jump to it and select either the **Mark In** or **Mark Out** button.

7.2 Shot summary screen

Selecting the **Shot summary** button allows you to view a condensed filecard and a larger shot thumbnail, which updates when playback is stopped. This thumbnail may be useful if you do not have a larger monitor available when searching through a shot to set markers for editing.

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