

# cineddr

## **User Guide**

*version 1.0*

# cineFORM

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# Introduction

This manual is for CineForm CineDDR software from CineForm, Inc. This software can be used for digital video capture, conversion, control and playback. It provides an interface to operate a computer as a video capture/playback device, and to control external devices as would a production VTR. There are also functions for file transcoding and system setup.

## Conventions

This manual assumes the following:

- That the user knows how to operate a mouse and keyboard and perform the basic functions of Microsoft Windows, Apple OS-X or Linux operating systems.
- That the user is familiar with video editing and how to use VTRs
- That the user has access to MIS technicians capable of placing the device on the network and setting up any SAN systems if necessary.
- That the user has access to audio/video technicians capable of installing and timing the device into a facility or video setup.

The name of a control or display present on the interface will be displayed in **bold** text.

Where a portion of the manual is referred to the name of section mentioned will be displayed in *italics*.

Certain images in this document have been grayed out where it is useful or necessary to place indicator marks to show specific controls or displays above a darker background.

To view information regarding the required hardware, please see the *Requirements* section.

To view information on how to install the software, please see the *Installation* section.

To view information on how to generate or update a license, please see the *Licensing* section. A license update may be required to extend a demo, to enable a new configuration, or to convert a duration-limited installation into a permanent license.

For the purposes of this document, the system which this software is installed on will be referred to as the CineDDR.

# Requirements

## Recommended Environment

The software must be installed on a computer at least as powerful as the configurations listed below.

### Minimum Hardware Platform

Quad Core Duo processor, 2.6GHz, 2 GB RAM, 80 GB program drive, CD-ROM/DVD, 1280 x 1024 VGA and monitor, 100 BaseT/Gigabit Ethernet

### Recommended Hardware Platform

Quad Core Xeon processor, 1333 FSB, 2.6 GHz, 2 GB RAM, 80 MB program drive, SCSI, SAS, Enterprise SATA, SSD or Fiber Channel Storage, CD-ROM/DVD, 1280 x 1024 VGA and monitor, Gigabit Ethernet

Faster and more powerful hardware will provide better performance. In some cases, specific hardware will be required in order to enable resource-intensive, advanced or optional features.

## Supported Operating Systems

The software runs on **Windows XP32/Vista 32, Mac OS-X 10.5+** and also on specific **Linux** and **Windows 64 Bit** operating systems.

## Supported Video Hardware

There are versions for the following video boards:

**AJA Video**.....LS(e), LH(e), LHi, HD, Kona/Xena, OEM2K, Corvid capture/playback hardware

## Other Supported Hardware

The following hardware has been tested for use with CineDDR:

**Motherboards**.....Tyan Thunder i7505 (S2665) motherboard  
Supermicro X5DPE-G2 motherboard  
EVGA nForce 680I SLI LGA775  
(Please see Video Hardware Manufacturer Sites)

**RS-422 Adapters**.....RS-422 adapter B&B #422LP9R  
Drastic OEM Quad PCIe RS-422 Board  
Colin Broad USB 422

**SCSI Cards**.....Atto, Adaptec, LSI

**RAID Cards**.....Adaptec 39320R SCSI RAID controller  
3Ware Escalade IDE RAID controller

**Fibre Cards**.....Atto Celerity 4GB 42es/44es  
Q-Logic  
LSI/Apple

**VGA Cards**.....Recent Nvidia or ATI/AMD required

There may be other hardware which can be used with the software. The manufacturer continues to perform compatibility tests according to current development priorities and reserves the right to add new devices to this list from time to time.

# Installation

## Install CineForm CineDDR Software

Installing the software: Regardless of the delivery method, the software will be available at some level as an (executable) installable file. Double-click on the file, or right click and select **Open** from the context menu. The installation may be protected by password. If so, the password will be supplied by CineForm, Inc. Follow the prompts to set where the software should be installed and make other installation-specific decisions. Restart the system after installation.

## Licensing

This software uses a hardware locked copy protection system, and must be licensed to run without watermarking on all video.

**Matched Site Code and Site Key:** The licensing software provides a **Site Code**. This **Site Code** is sent via email, and a reply arrives with a matched **Site Key** specific to the installed machine. CineDDR licensing offices are located in the Eastern Standard Time Zone of North America. Licensing requests will usually only be processed during regular business hours, 9am to 5pm Monday to Friday EST.

This is a dedicated licensing application which can provide varying levels of functionality depending on the product. Here is how to license CineForm CineDDR software:

**Run the licensing dialog:** by default the licensing dialog will be located in same folder of the installation directory: **Start Menu|<Program Installation Dir>|License DDR**.

**Generate a Site Code:** Enter a user name into the **User Name** field. Enter a valid email address into the **Email Address** field - this is where the license reply will be sent. Press the **Generate Code** button.

**Send us the Site Code:** If the system is set up with an email client, press the **Send to Drastic** button. If not, select and **Copy** the **Site Code** (you can use the **Copy** button to the right of the **Site Code** field). **Paste** the **Site Code** into the body of an email. Send this email to the following address:

[authorization@cineform.com](mailto:authorization@cineform.com)

Please do not try to convey **Site Codes** verbally. The **Site Code** is a long string of characters and it is easy to misinterpret characters, which results in the license not being validated properly.

You will receive an email reply from containing a **Site Key**. Open the replay and **Copy** this **Site Key**. **Paste** it into the **Site Key** field.

Press the **Register** button.

**Note:** If the **Site Key** sent fails to update the license, check the **Site Code** displayed in the license reply against your current one to make sure it has not changed since the time of the request for authorization. Specific activities will cause the **Site Code** to update. If the **Site Code** is different, resend the request for authorization with the new **Site Code**.

**Restart** the CineDDR to enable the new license status.

To confirm the status of the license, run the licensing dialog and press the **Status** button.

# The Interface User Guide

This application is designed to replace a traditional VTR in broadcast and production applications.



## Connectivity and Setup

In order to take full advantage of all the features of CineDDR, it must be properly set up.

The *CineDDR Connectivity* section reminds the user to confirm many of the important connections that must be made.

There are also a number of useful setup tools within the interface which are detailed in the *CineDDR Setup* section.

## CineDDR Connectivity

Confirm the physical connections necessary to use CineDDR in its complete range of functionality. Specific connections will be available at the rear of the CineDDR.

## Keyboard, Mouse, Monitor

The system operations are mainly accessed via keyboard and mouse, using a VGA monitor attached to the device to view system state and use the controls. Confirm that these elements are in place and properly connected to the system. The VGA, mouse and keyboard ports are usually located on the rear panel.

- Use a standard VGA cable to attach a monitor to the VGA monitor output of the system. The monitor should also be provided with a dependable source of power.
- Attach a standard mouse to the system mouse port.
- Attach a standard keyboard to the system keyboard port.

## Network

Use a standard network cable to connect your preferred point of network access (say, a router) to the system network port (usually located on the rear panel). A network connection opens up a range of options regarding network file sharing, and is necessary to some extent to complete the licensing procedure.

## External Storage

Where there is external storage the storage unit will need to be connected to the system using the cable recommended by the storage manufacturer. Confirm that the storage unit is connected to the appropriate port of the system (usually located on the rear panel).

To ensure the designated storage is fast enough to record and play back the required files, please run the TruSpeed utility provided in the install.

## Genlock

Where the system will use an external reference (or timing source) to provide genlock such as tri-level sync (HD) or blackburst (SD), connect the appropriate cable between the genlock source and CineDDR. A genlock input connection may be provided on the rear panel, or within a dedicated breakout box.

## VTR Emulation

Where the system will operate under control the user will need to confirm that a serial control cable of the appropriate rating and pin configuration is connected between the serial control input port of CineDDR and the external serial controller or automation system's serial control output. The serial control input port may be located on the rear panel, as a port offered via a riser card.

## Serial Control Output

Where CineDDR will control an external VTR, the user will need to confirm that a serial control cable of the appropriate rating and pin configuration is connected between CineDDR and any external VTR. The VTR may require setup to operate under control. The serial control output port may be located on the rear panel, as a port offered via a riser card.

## Video Input

Where CineDDR will perform capture operations, confirm that the output of the video source (the signal you need to record) is attached to the appropriate video input of CineDDR. The CineDDR video input port may be on the rear panel or possibly within a dedicated breakout box.

Once the actual cables have been connected the user may still need to set the video input type within the application as described in the *System Setup* section.

## Video Output

Where CineDDR will perform playback operations, confirm that the video output is attached to the appropriate input of the target. The target might ideally be a switcher, to both route the output of CineDDR to any receiving modules and also to route the video stream to a monitor to properly view video output. The CineDDR video output may be on the rear panel or possibly within a dedicated breakout box.

Once the actual cables have been connected the user may still need to set the video output type within the application as described in the *System Setup* section.

## CineDDR Setup

In order to use the built in setup tools, run the application. Open it at: **Start|Programs|<install directory>|CineDDR.**

The setup tools within the interface are revealed by pressing the **Setup** button. Some of the features described below are dependent on the hardware and system configuration.

### Video Input

Press the **Setup** button. The **Video Input** pulldown menu displays the current video input setting and allows the user to set a new type. The types offered may include **SDI, Composite, Component, S-Video.**

### Video Standard

Press the **Setup** button. The **Video Standard** pulldown menu displays the current video standard setting and allows the user to set a new video standard. The types offered may include standard definition (**NTSC, PAL**), high definition (**720, 1080**), and **2K** standards.

### File Type

Press the **Setup** button. The **File Type** pulldown menu displays the current file type setting and allows the user to set a new file format. The types offered include **MOV**, and **AVI.**

### Compression

Press the **Setup** button. The **Compression** pulldown menu displays the current compression setting - CineForm.

### Bit Depth

Press the **Setup** button. The **Bit Depth** pulldown menu displays the current bit depth setting and allows the user to set a new bit depth. The types offered may include **8, 10, 30, 32** depending on the compression and file format.

### Audio Input

Press the **Setup** button. The **Audio Input** pulldown menu displays the current audio input setting and allows the user to set a new audio input type. The types offered may include **embedded, unbalanced, balanced** and **AES/EBU.**

### LTC Enable

It is possible to use a LTC signal as the video time code source. Here is how to set this up:

- Press the **Setup** button.
- Use the **Enable** button to activate the **LTC Setup** section. This activates the pulldown menu and allows you to choose which audio channel will be dedicated to receive an incoming LTC signal.
- Select an audio channel to use for LTC. The selected channel will be unavailable for audio recording and playback.
- Connect the LTC signal to the selected audio input.
- Press the **LTC** button in the **Transport Display** section.

CineDDR should then display LTC time code in the transport display section of the GUI.

## Audio File Type

Press the **Setup** button. The **Audio File Type** pulldown menu displays the current audio file type setting and allows the user to set a new audio file type and container strategy. The types offered include **Wave** and **Aiff** audio file types in a range of container types.

## Number of Audio Channels

Press the **Setup** button. The **Number of Audio Channels** pulldown menu displays the current number of audio channels set up and allows the user to set a new number of audio channels. Choices may include **Audio 1-2**, **Audio 1-4**, **Audio 1-6**, and **Audio 1-8**.

## Audio Bit Depth

Press the **Setup** button. The **Audio Bit Depth** pulldown menu displays the current bit depth setting - 16.

## Genlock

Press the **Setup** button. The **Reference Source** pulldown menu displays the current reference input source setting and allows the user to set a new reference, or genlock source. Choices are: **None**, **Ref. In**, and **Input**.

If you select **None**, CineDDR will not use a timing reference source of any kind and edits may not be frame accurate.

If you select **Input**, the timing source will be the video input.

If you select **Ref. In**, CineDDR will use an external timing source. Confirm that you have connected the reference source to the reference input on CineDDR.

## Conversion

Press the **Setup** button. The **Conversion** pulldown menu displays the current conversion setting and allows the user to set a new conversion for output. Choices may include **Direct**, **to SD**, **to HD 720**, **to HD 1080**, **x<>720**, **x<>1080**.

## SD Analog

Press the **Setup** button. The **SD Analog** pulldown menu displays the current SD analog setting and allows the user to set a new analog output setting for standard definition. Choices may include **Composite**, **Component**, **RGB**.

## Down Mode

Press the **Setup** button. The **Down Mode** pulldown menu displays the current downconversion setting and allows the user to set a new downconversion mode for output. Choices may include **Letterbox**, **Crop** and **Anamorphic**.

## HD Analog

Press the **Setup** button. The **HD Analog** pulldown menu displays the current HD analog output setting and allows the user to set a new analog output setting for high definition. Choices may include **Component**, **RGB** and **XVGA**.

## Up Mode

Press the **Setup** button. The **Up Mode** pulldown menu displays the current upconversion setting and allows the user to set a new upconversion mode for output. Choices may include **Anamorphic**, **Pillarbox**, **Zoom 14x9**, **Letterbox** and **Zoom Wide**.

## Limit SDI Out

Press the **Setup** button. The **Limit SDI Out** pulldown menu displays any current limit set on the SDI output and allows the user to choose a new setting to limit the SDI output.

# Capture/Playback Operations

This section describes how to capture video files from an incoming signal, and how to play, or output existing or captured video files.

## Video Capture

For video capture, confirm that all settings detailed in the *System Setup* section have been addressed.

### Capture from Input

Once CineDDR has been set up and properly configured, it is possible to capture an incoming video signal and create video files.

#### Open ended capture

Confirm the video signal is being properly passed through by viewing the output of the video hardware on a monitor.

Press the **Record** button. CineDDR will go into record mode and continue recording until interrupted (for example by pressing the **Stop** button) or until all the drives are filled up.

Once the record has ended a new clip will appear in the clip bin and will be available for selection and playback.

#### Set Length capture

Enter an Out point by time code location into the **Out Point** field and press the **Entry** button. Press the **Edit** button. CineDDR will go into record mode for the duration specified and stop at the specified Out Point. Once the record has ended a new clip will appear in the clip bin and will be available for selection and playback.

### Capture from external VTR

Set CineDDR up to control an external device. This requires that the serial control output of CineDDR is attached to the serial control input of the external VTR, and the VTR is set up to operate under control.

Confirm that the VTR you want to control is connected to the serial control output of the CineDDR.

Confirm that the video output of the VTR is connected to the video input of the CineDDR.

Confirm that the audio output of the VTR is connected to the audio input of the CineDDR.

Press the **Player** button to address the In/Out points for the media on the VTR. A valid serial control connection will cause time code from the external VTR to display in CineDDR's time code display. It will then be possible to enter in and out points for the media that will be captured from the VTR.

Enter an In Point by (A) entering the time code location of the In point by keyboard and pressing the **Entry** button or (B) using the transport controls to cue to a good In Point location and pressing the **Entry** button.

Enter an Out Point by (A) entering the time code location of the Out point by keyboard and pressing the **Entry** button or (B) using the transport controls to cue to a good Out Point location and pressing the **Entry** button.

Press the **Recorder** button to address any In/Out points for the system.

Enter an In Point by (A) entering the time code location of the In point by keyboard and pressing the **Entry** button or (B) using the transport controls to cue to a good In Point location and pressing the **Entry** button.

Enter an Out Point by (A) entering the time code location of the Out point by keyboard and pressing the **Entry** button or (B) using the transport controls to cue to a good Out Point location and pressing the **Entry** button.

Pressing the **Preroll** button will test that there is enough space before the start of the edit to perform a pull-in and that the preroll duration will not run out of space at the beginning of the tape.

Press the **Edit** button to perform the pull-in. CineDDR and the VTR should both perform a seek, then a preroll, then CineDDR will go into record while the VTR will be in playback for the duration of the pull-in. Upon reaching the Out point, CineDDR and the VTR will post-roll and stop, and the new clip that has been recorded during the pull-in will be added to the clip bin.

## Import to File Type

### Import Media To Record Drive

Import functionality allows the user to select a file existing on the same network and add it to the clip bin, and during the add process to convert the file and change the file type to the current file type. Once the file is imported it shows up in the clip bin and may be played back in real time.

Here is how to import media from a networked location to the record drive:

- Press the **Import Media to Record Drive** button.
- This opens a browser which lets the user locate and select a clip to be imported.
- Select a clip and press the **Import Clip** button. This loads the clip into the **Import Clip Options** dialog box.
- In the **Import Clip Options** dialog box the user may change the clip name if desired. Select the name, backspace and type in a new name. Press the **Set Name** button.
- Press the **Import** button to begin the clip import. Or press the **Cancel** button to exit the clip import dialog without importing a clip.

This operation requires a network connection if the clips being imported are not located on a local drive.

## Video Playback

For video playback CineDDR must be properly connected as detailed in the *System Connectivity* section and set up as detailed in the *System Setup* section.

### Playback from Existing Files

Existing files may be selected and played as clips from the record drive of CineDDR.

#### Clip Bin Media Access

Clip playback is made possible via the clip bin. The contents of the clip bin are displayed in the **Clip View** area. A clip may be selected from the **Clip View** area by clicking on it. This loads the clip, and using the transport controls the user can play the clip.

#### Transport Controls

Once media has been captured into or added to the clip bin, it can be selected for playback. Click on a clip to select it.

- Pressing the **Play** button will play the clip from any location to the end of the clip. Typically selecting a clip will cue it to 00:00:00:00.
- Pressing the **Standby** button will pause playback and display the current frame, or black if no media is cued.
- Pressing the **Preview** button will play a selected clip, or if a portion of the clip has been entered into the In and Out point fields, will play this portion of a selected clip. Where a pull-in has been set up, pressing the **Preview** button will run the edit without recording a file.

- Pressing the **Stop** button will cause any playback to stop, and passthrough video and audio to be sent to the outputs.
- Press the **Shuttle** button to use the **Jog/Shuttle** knob in shuttle mode. With a clip selected, pulling the knob in this mode allows the user to quickly shuttle in forward or reverse through a clip at faster than playback speeds.
- Press the **Jog** button to use the **Jog/Shuttle** knob in jog mode. With a clip selected, pulling the knob in this mode allows the user to move forward or reverse through a clip at up to playback speeds.
- Press the **VAR** button to use the **Jog/Shuttle** knob in variable mode. With a clip selected, pulling the knob in this mode allows the user to move forward or reverse through a clip at variable speeds. In variable mode, the knob stays where it is placed, and playback is commenced in forward or reverse at a speed relative to how far the knob has been pulled.

## Add Media From Record Drive

To add media that is available on the record drive to the clip bin, press the **Add Media From Record Drive** button. This opens a browser which allows the user to search the record drive for a file to add. Once the correct file has been selected and added using the dialog box, it will appear in the clip bin available for selection and playback.

## Remove Clip

To remove a clip from the clip bin, click on it to select it and press the **Remove Clip** button. This action does not delete the actual file from the hard drive, but simply removes it from the clip bin. It can be added to the clip bin later if needed.

# Interface Reference

The controls and displays of the interface are detailed in this section.

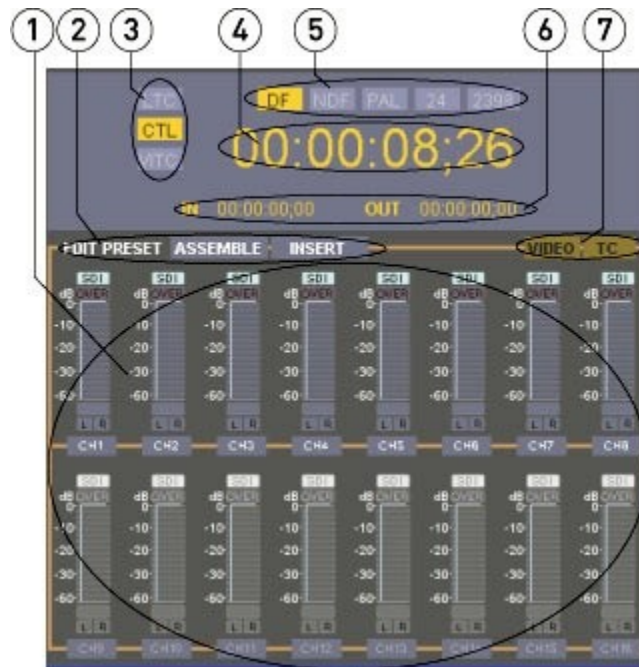
## Main Interface Overview



|   |                                     |   |
|---|-------------------------------------|---|
| 1 | Clip Picon field                    | Each clip loaded in the bin will show a picon (a scaled down image of a frame of video from the clip) in this section, if it has a picon. Where a media item such as an audio-only file has been added that would have no associated picon, a branded place marker will be substituted for the missing picon. |
| 2 | Transport Display section           | Displays time code source, video standard, current time code location, in and out points, edit presets and audio meters.  |
| 3 | Clip Access field                   | Displays the views selected in the <b>View</b> buttons: <b>Clip View</b> , <b>Meta Data</b> , <b>Setup</b> , and <b>Info/Status</b> .   |
| 4 | Edit Entry section                  | Offers controls to enter in and out points for edits and to enter user bits information.  |
| 5 | Add Media From Record Drive button  | Press to open a browser which allows the user to select existing media from the record drive and add it to the clip bin.  |
| 6 | Status Display section              | Displays the system settings, the selected clip's settings, secondary time code source if present and warning indicators  |
| 7 | Import Media To Record Drive button | Press to open a browser which allows the user to select existing media on the network and convert it to the format of the current system settings available for real time playback.   |

|           |                                       |   |
|-----------|---------------------------------------|---|
| <b>8</b>  | <b>Transport Functions</b><br>section | Offers controls for playback and record operations and indicators for record inhibit and servo conditions.  |
| <b>9</b>  | <b>Remove Clip</b><br>button          | Click on a clip to select it and then press the <b>Remove Clip</b> button to remove the selected clip from the clip bin.  |
| <b>10</b> | <b>Jog/Shuttle</b><br>section         | Offers jog, shuttle, and variable speed controls for previewing.  |
| <b>11</b> | <b>Clip Access</b><br>section         | Provides buttons to select the view displayed in the <b>Clip Access</b> field. Available choices are: <b>Clip View</b> , <b>Meta Data</b> , <b>Setup</b> , and <b>Info/Status</b> . |

## Transport Display



|  |  |
|--|--|
| <p><b>1</b> Audio rails section</p>      | <p>This section provides an audio "rail" for each channel of audio in CineDDR. Each rail provides a <b>channel</b> toggle button which can be clicked to turn the channel on or off for insert edits. Each rail provides level meters to display relative signal strength, as well as an "over" indicator at the top of the rail which lights up to indicate audio levels that are "peaking" and likely to be over-modulated. Each rail indicates the audio input source at the top of the rail (SDI for embedded, ANA for analog, etc.)</p> <p>The interface has a capability of up to 16 channels. Channels not supported by the system hardware will be displayed as inactive (as are channels 9 to 16 in the above diagram).</p>   |
| <p><b>2</b> Edit Preset section</p>      | <p>The <b>Edit Preset</b> section offers the <b>Assemble Edit</b> or <b>Insert Edit</b> buttons.</p> <p><b>Assemble Edit:</b> Press the <b>Assemble</b> button to deactivate the <b>Insert</b> button and set CineDDR to record all video and audio tracks as well as replacing any control track that may exist. This activates the <b>TC</b> button and leaves all video and audio channels active.</p> <p><b>Insert Edit:</b> Press the <b>Insert</b> button to deactivate the <b>Assemble</b> button and set CineDDR to record only the selected tracks and leave any existing control track or video and audio tracks not recorded onto intact. Click on the channel button at the bottom of each rail to toggle the audio channel on or off for on insert record. This deactivates the <b>TC</b> button and allows the user to deselect video or audio channels that will not be inserted.</p> |
| <p><b>3</b> Time Code Source buttons</p> | <p>Each button represents a time code source, either <b>LTC</b>, <b>CTL</b>, or <b>VITC</b>. Press a button to select it as the time code source - the selected time code source will be displayed in yellow when active. Selecting <b>LTC</b> requires that the LTC be set up as detailed in the <i>System Setup</i> section. Selecting <b>CTL</b> returns accurate time code values for clip-based media handling. Selecting <b>VITC</b> requires that there be VITC time in the media to read in order to display accurate VITC time code values.</p>   |
| <p><b>4</b> Time Code Location</p>       | <p>Displays the current time code location, whether in pause or play etc.</p>  |

|          |                                 |   |
|----------|---------------------------------|---|
|          | display                         |   |
| <b>5</b> | <b>Video Standard</b> buttons   | Each button represents a video standard, either <b>NDF, DF, PAL, 24</b> or <b>23.98</b> . Press a button to select the correct video standard - it will be displayed in yellow when active.   |
| <b>6</b> | <b>In and Out Points</b> fields | Use these fields to set the in and out points for edits. A value may be set by typing in the time code location and pressing the <b>Entry</b> button or by cueing to the correct location and pressing the <b>Entry</b> button  |
| <b>7</b> | <b>Insert</b> buttons           | Where CineDDR has been set to perform an insert edit, the <b>TC</b> (time code) button will be inactive. the <b>Video</b> button may be pressed to deselect the video track from being recorded. Where CineDDR has been set to perform an Assemble Edit, the <b>TC</b> button will be active, and so displayed in yellow. |

## Clip Access



|          |                              |   |
|----------|------------------------------|---|
| <b>1</b> | <b>Clip Access</b><br>field  | Displays the view selected using the <b>View</b> buttons to the right. The choices are: <b>Clip View</b> , <b>Meta Data</b> , <b>Setup</b> , and <b>Info/Status</b> . |
| <b>2</b> | <b>Meta Data</b><br>button   | Press the <b>Meta Data</b> button to display metadata information in the <b>Clip Access</b> field.  |
| <b>3</b> | <b>Clip View</b><br>button   | Press the <b>Clip View</b> button to display the contents of the clip bin in the <b>Clip Access</b> field.  |
| <b>4</b> | <b>Setup</b> button          | Press the <b>Setup</b> button to provide the setup controls in the <b>Clip Access</b> field.  |
| <b>5</b> | <b>Info/Status</b><br>button | Press the <b>Info/Status</b> button to display setup and status information in the <b>Clip Access</b> field.  |

## Clip View

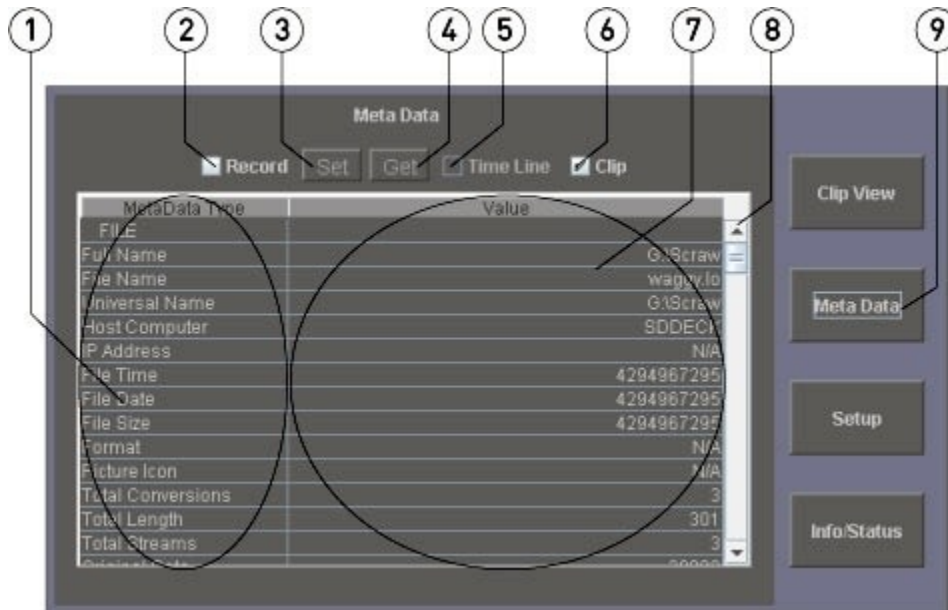
Select **Clip View** by pressing the **Clip View** button to the right of the **Clip Access** section.



|   |                             |   |
|---|-----------------------------|---|
| 1 | <b>Picon</b> display        | For each clip in the clip bin a picon will be displayed if available (however an audio-only file will not have an associated picon for example). A picon is generated upon clip capture as a scaled down image of a default frame of video in the clip. |
| 2 | <b>Clip Details</b> display | To the right of each clip's picon, basic information about the clip is displayed. This information may include the file name, reel, size and video standard, duration, audio channels and file path.  |
| 3 | <b>Clip View</b> slider     | Use the slider to reveal any clips which are present in the clip bin but not shown.   |
| 4 | <b>Clip View</b> button     | The <b>Clip View</b> button is selected.  |

## MetaData View

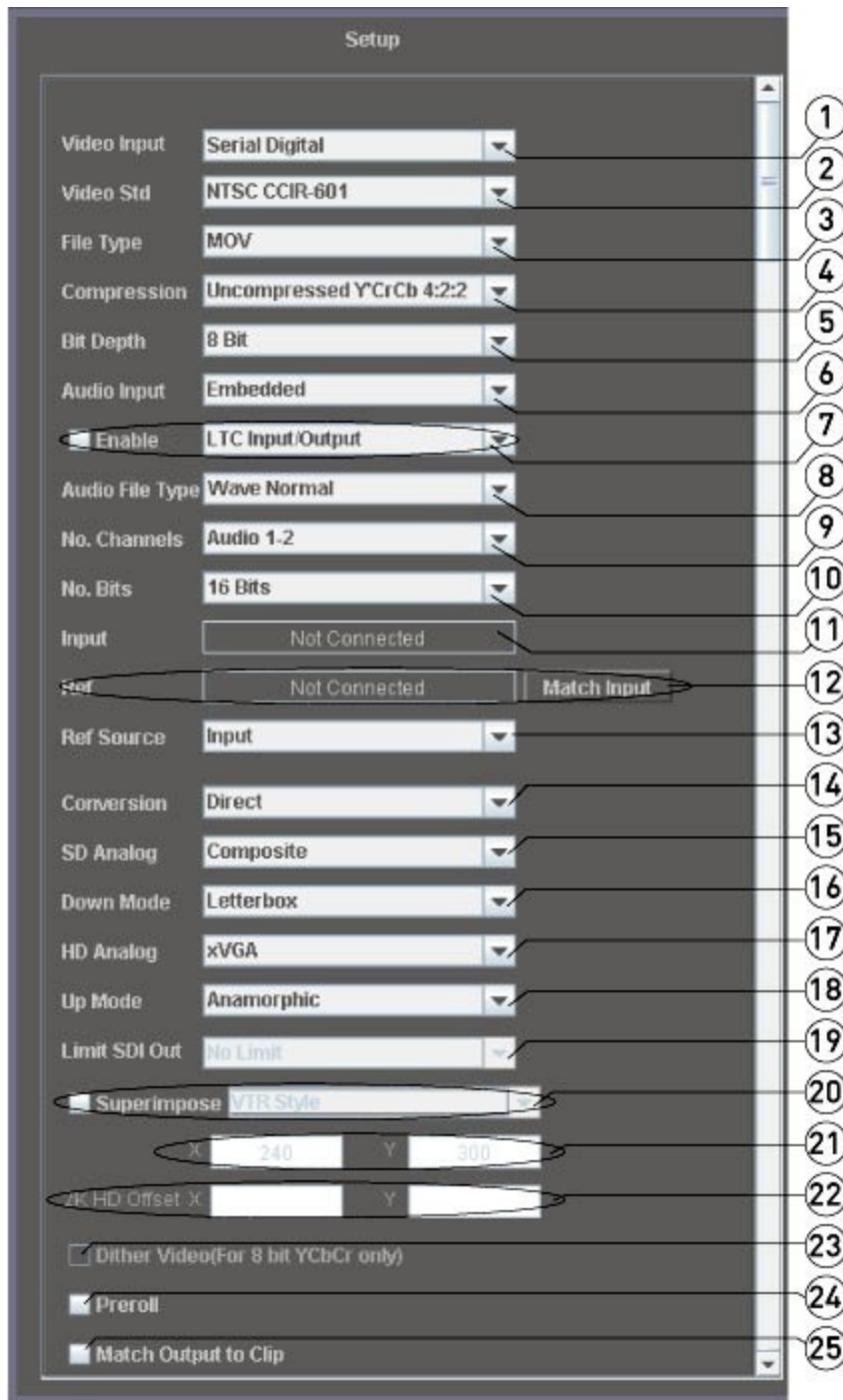
Select **MetaData View** by pressing the **MetaData** button to the right of the **Clip Access** section.



|   |                              |  |
|---|------------------------------|--|
| 1 | <b>Meta Data Type</b> field  | The types of available metadata are displayed in this column.  |
| 2 | <b>Record</b> checkbox       | Select the <b>Record</b> checkbox to set new metadata values, view the current metadata value settings and to return metadata values to their default settings.  |
| 3 | <b>Set</b> button            | Enter a new value and press the <b>Set</b> button to set a new metadata value. The <b>Record</b> checkbox must be selected to change metadata values.  |
| 4 | <b>Get</b> button            | Select a metadata type and press the <b>Get</b> checkbox to retrieve the default metadata value for the selected metadata type. The <b>Record</b> checkbox must be selected to change metadata values. |
| 5 | <b>Time Line</b> checkbox    | Select the <b>Time Line</b> checkbox to view metadata information about the media on the time line.  |
| 6 | <b>Clip</b> checkbox         | Select the <b>Clip</b> checkbox to view metadata information about selected media in the clip bin.   |
| 7 | <b>Meta Data Value</b> field | The current metadata value is displayed for each metadata type.  |
| 8 | <b>Meta Data View</b> slider | Use the slider to move the metadata table up and down to view any metadata information not displayed.  |
| 9 | <b>Meta Data</b> button      | The <b>Meta Data</b> button is selected.   |

## Setup View

Select **Setup View** by pressing the **Setup** button to the right of the **Clip Access** section.



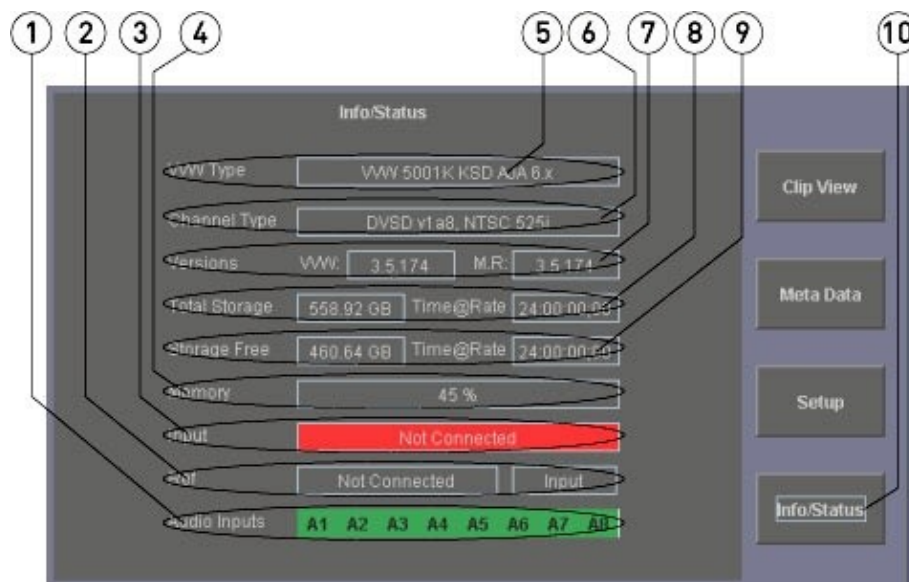
There are more controls available in the **Setup** section than can be displayed within the GUI, so it is offered within a scrollable window. In the above image it has been reproduced with all the controls offered (essentially without the interface overlay) so that each component may be identified and described for the purposes of this manual.

|                      |  |
|----------------------|--|
| <b>1 Video Input</b> | Use the <b>Video Input</b> pulldown menu to select between available video |
|----------------------|--|

|    |  |   |
|----|--|---|
|    | pull-down menu                         | input types.  |
| 2  | <b>Video Standard</b> pull-down menu   | Use the <b>Video Standard</b> pull-down menu to select between available video input standards.   |
| 3  | <b>File Type</b> pull-down menu        | Use the <b>File Type</b> pull-down menu to select between available video file types.   |
| 4  | <b>Compression</b> pull-down menu      | Use the <b>Compression</b> pull-down menu to select between available compression settings for the selected video file type.  |
| 5  | <b>Bit Depth</b> pull-down menu        | Use the <b>Bit Depth</b> pull-down menu to select between available bit depth settings for the selected video file type and compression level.  |
| 6  | <b>Audio Input</b> pull-down menu      | Use the <b>Audio Input</b> pull-down menu to select between available audio input types.  |
| 7  | <b>LTC</b> section                     | It is possible to use a LTC signal as the time code source. To set LTC as the time code source, select the <b>Enable</b> checkbox in the <b>LTC</b> section. LTC requires a dedicated channel of audio. Use the <b>Audio Channel</b> pull-down menu to select the audio channel that will be dedicated to LTC time code input and output. Connect the LTC source to this audio channel's input. |
| 8  | <b>Audio File Type</b> pull-down menu  | Use the <b>Audio File Type</b> pull-down menu to select between available audio file types.   |
| 9  | <b>Audio Channels</b> pull-down menu   | Use the <b>Audio Channels</b> pull-down menu to select the number of audio channels supported by the hardware.  |
| 10 | <b>Audio Bit Depth</b> pull-down menu  | Use the <b>Audio Bit Depth</b> pull-down menu to select between available bit depth settings for the selected audio file type.  |
| 11 | <b>Input</b> signal detected           | Displays the type of video input signal detected, if any.   |
| 12 | <b>Reference</b> section               | Displays the source of the reference (genlock) detected, if any. Press the <b>Match Input</b> button to synchronize CineDDR's timing with the input signal.   |
| 13 | <b>Reference Source</b> pull-down menu | Use the <b>Reference Source</b> pull-down menu to select between available reference, or genlock sources.   |
| 14 | <b>Conversion</b> pull-down menu       | Use the <b>Conversion</b> pull-down menu to select between a default conversion setting for video output, if any.   |
| 15 | <b>SD Analog</b> pull-down menu        | Use the <b>SD Analog</b> pull-down menu to select the default SD analog output type.  |
| 16 | <b>Down Mode</b> pull-down menu        | Use the <b>Down Mode</b> pull-down menu to select the default display strategy for downconverted output.  |
| 17 | <b>HD Analog</b> pull-down menu        | Use the <b>HD Analog</b> pull-down menu to select the default HD analog output type.  |
| 18 | <b>Up Mode</b> pull-down menu          | Use the <b>Up Mode</b> pull-down menu to select the default display strategy for upconverted output.  |
| 19 | <b>Limit SDI Out</b> pull-down menu    | Use the <b>Limit SDI Out</b> pull-down menu where it is useful and possible to limit the number of frames displayed to place fewer demands on CineDDR during resource intensive activities.   |
| 20 | <b>Superimpose</b> section             | Select the <b>Superimpose</b> checkbox to superimpose time code on the video output. Use the pull-down menu to choose the style of time code that will be displayed.  |
| 21 | <b>X/Y</b> position superimpose        | Use the X and Y position fields to set where on the screen the time code will be superimposed over the video output.  |
| 22 | <b>2K HD Offset</b> section            | Use the 2K HD Offset X and Y fields to set where on the screen the 2K frame will be located for VGA output.   |
| 23 | <b>Dither Video</b> checkbox           | Select the <b>Dither Video for 8 bit YCbCr only</b> checkbox to dither the video for 8 bit YCbCr files only.  |
| 24 | <b>Preroll</b> checkbox                | Select the <b>Preroll</b> checkbox to add one minute to the beginning and one minute to the end of each clip in the clip bin. The length of each clip in the clip bin will increase by two minutes. Start of media for each clip will be incremented to 00:01:00:00.  |

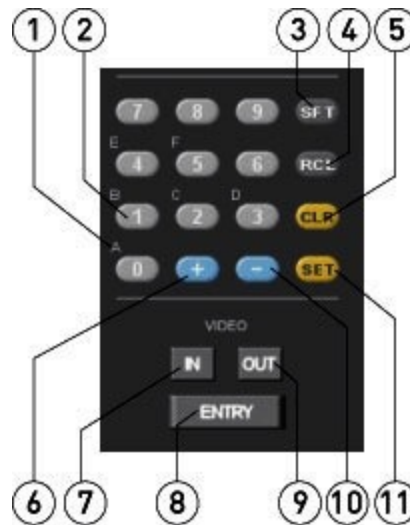
|    |   |  |
|----|---|--|
| 25 | <b>Match Output to Clip</b><br>checkbox | Select the <b>Match Output to Clip</b> checkbox to compare the system settings to a selected clip, and to change the system settings to match the clip's settings, if different. |
|----|---|--|

## Status/Info View



|    |   |  |
|----|---|--|
| 1  | <b>Audio Inputs</b><br>information display  | Displays the number of audio input channels set up for the system.   |
| 2  | <b>Ref</b><br>information display           | Displays the type of external reference (genlock) detected, if any, and the setting, whether none (do not use genlock for a timing reference), input (lock to the timing signal in the input) or reference (lock to an externally generated genlock source). |
| 3  | <b>Input</b><br>information display         | Displays the current video input signal, if detected.  |
| 4  | <b>Memory</b><br>information display        | Displays the current percentage of memory usage.   |
| 5  | <b>VVW Type</b><br>information display      | Displays basic configuration information relating to the system and video hardware.  |
| 6  | <b>Channel Type</b><br>information display  | Displays basic file type, audio/video setting information for the channel  |
| 7  | <b>Versions</b><br>information display      | Displays the software versions installed on the system.  |
| 8  | <b>Total Storage</b><br>information display | Displays how much total storage is set up for the system.  |
| 9  | <b>Storage Free</b><br>information display  | Displays how much storage remains unallocated that can be overwritten without deleting files.  |
| 10 | <b>Info/Status</b><br>button                | The <b>Info/Status</b> button is selected.   |

# Edit Entry



|           |                            |   |
|-----------|----------------------------|---|
| <b>1</b>  | <b>letters</b>             | The letters are used to enter user bits information. To use a letter key, first press the <b>SFT</b> (shift) button, then the corresponding number button to the letter you need. For example, to enter an "A", press the <b>SFT</b> then the <b>0</b> button. User bits information entry, maintenance and display may not be implemented in all versions. |
| <b>2</b>  | <b>numbers</b>             | The numbers are used to enter in and out points for edits.  |
| <b>3</b>  | <b>SFT</b> (shift) button  | The <b>SFT</b> (shift) button is used to enter a letter character for user bits information entry. Press <b>SFT</b> (shift) button then press the corresponding number button to specify a letter character.  |
| <b>4</b>  | <b>RCL</b> (recall) button | Press the <b>RCL</b> (recall) button to recall the most recent value that was entered.  |
| <b>5</b>  | <b>CLR</b> (clear) button  | Press the <b>CLR</b> (clear) button to clear the existing entry or value.   |
| <b>6</b>  | <b>+</b> (plus) button     | Press the <b>+</b> (plus) button to increment the current value upward by one.  |
| <b>7</b>  | <b>IN</b> button           | Press the <b>IN</b> button to mark the current time code location as the in point for an edit.  |
| <b>8</b>  | <b>ENTRY</b> button        | Press the <b>ENTRY</b> button to enter the current value or edit into memory.   |
| <b>9</b>  | <b>OUT</b> button          | Press the <b>OUT</b> button to mark the current time code location as the out point for an edit.  |
| <b>10</b> | <b>-</b> (minus) button    | Press the <b>-</b> (minus) button to increment the current value downward by one.   |
| <b>11</b> | <b>SET</b> button          | Press the <b>SET</b> button to set the current value or edit into memory.   |

## System Display



|          |                              |  |
|----------|------------------------------|--|
| <b>1</b> | <b>Clip</b> settings         | Displays settings for the currently selected clip. The PB at the beginning of this string refers to playback. Where the clip settings are incompatible with the system settings, the clip settings will be displayed in red. |
| <b>2</b> | <b>System</b> settings       | Displays the current CineDDR system settings   |
| <b>3</b> | <b>Time Code</b> location    | Displays the current time code location.   |
| <b>4</b> | <b>Disk Full</b> indicator   | Functions as a disk full warning - displays as lit up when the disk is nearing or completely full.   |
| <b>5</b> | <b>Ext Ref</b> indicator     | Functions as a reference warning - displays as lit up when the external timing reference is not recognized as valid.   |
| <b>6</b> | <b>Input Video</b> indicator | Functions as an input warning - displays as lit up when the video input signal is not recognized as valid.   |

## Transport Functions



|    |                            |  |
|----|----------------------------|--|
| 1  | <b>Edit</b> button         | Press the <b>Edit</b> button to preform the edit as it has been set up.  |
| 2  | <b>Rec Inhibit</b> display | This functions as an indicator, displaying as lit up when the record inhibit has been set. When it is lit and the record inhibit has been set, the system will function as a <b>player</b> only, as the record functions have been disabled. |
| 3  | <b>Servo</b> display       | This functions as an indicator, displaying as lit up when CineDDR is operating under control, or in servo mode.  |
| 4  | <b>Player</b> button       | Press the <b>Player</b> button to set or view the current in and out points for the player side of an edit.  |
| 5  | <b>Input Check</b> button  | Press the <b>Input Check</b> button to confirm that the system sees a valid input signal. Where a valid signal is attached, pressing the button will cause it to display as lit up while pressed.  |
| 6  | <b>Recorder</b> button     | Press the <b>Recorder</b> button to set or view the current in and out points for the recorder side of an edit.  |
| 7  | <b>Standby</b> button      | Press the <b>Standby</b> button to place CineDDR into standby mode. In standby mode the system is paused on the frame of video last cued to.   |
| 8  | <b>Stop</b> button         | Press the <b>Stop</b> button to stop any transport or record actions and allow passthrough video and audio monitoring.   |
| 9  | <b>Preroll</b> button      | Press the <b>Preroll</b> button to test the preroll to determine whether there is enough tape prior to the first edit on an external VTR to perform an edit.   |
| 10 | <b>Play</b> button         | Press the <b>Play</b> button to play a selected clip.  |
| 11 | <b>Rec/Edit</b> button     | Press the <b>Rec/Edit</b> button to start a record.  |
| 12 | <b>Preview</b> button      | Press the <b>Preview</b> button to play an edit without creating a file so the media can be viewed before committing it to a record  |

## Jog Shuttle Controls



|   |                            |  |
|---|----------------------------|--|
| 1 | <b>Jog/Shuttle</b> control | This control provides a virtual jog/shuttle "knob" which can be operated by "grabbing" with the mouse and "dragging" to produce varying degrees of movement in the "knob", producing variable speed playback. The 3 buttons control the type of variable speed playback which is produced - the active button (lit up) indicates the current mode. |
| 2 | <b>Shuttle</b> button      | Dragging the <b>Shuttle</b> button causes the <b>Jog/Shuttle</b> knob to shuttle through media at up to maximum speeds. Letting go causes the <b>Jog/Shuttle</b> knob to snap back to its upright (paused) position.   |
| 3 | <b>Jog</b> button          | Dragging the <b>Jog</b> button causes the <b>Jog/Shuttle</b> knob to shuttle through media at slower speeds for fine previewing or to cue to a specific frame. Letting go causes the <b>Jog/Shuttle</b> knob to snap back to its upright (paused) position.  |
| 4 | <b>Variable</b> button     | The <b>Variable (VAR)</b> button causes the <b>Jog/Shuttle</b> knob to "stick" at a location and play at a relative speed (percentage of playback speed forward/reverse) to its location.  |

## Keyboard Shortcuts

|                                    |   |
|------------------------------------|---|
| <F1>                               | Help  |
| <Q>                                | Record (crash record)                                 |
| <8>, <w>, Num<8>                   | Preview from in to out                                |
| <v>, <k>, Num<.>                   | Pause   |
| </>, <V>, <+>                      | Stop (pass through, e to e)                           |
| <c>, <l>                           | Play (forward at normal speed 100%)                   |
| Shift<C>                           | Play double speed (200%)                              |
| <b>, <j>                           | Play reverse (-100%)                                  |
| <z>                                | Fast rewind   |
| <x>                                | Fast forward  |
| <}>, Num<2>, Arrow<Up>, Shift<L>   | Step forward 1 frame                                  |
| Ctrl <L>                           | Step forward 1 field                                  |
| <{>, Num<8>, Arrow<Down>, Shift<J> | Step backward 1 frame                                 |
| Ctrl <J>                           | Step backwards 1 field                                |
| <[>, Shift<X>                      | Step forward # (def 5) seconds                        |
| <]>, Shift<Z>                      | Step backward # (def 5) seconds                       |
| <h>, Num<3>, Arrow<Right>          | Shuttle forward faster                                |
| <g>, Num<1>, Arrow<Left>           | Shuttle backward faster                               |
| Shift<H>, ShiftArrow<Right>        | Fine shuttle up                                       |
| Shift<G>, ShiftArrow<Left>         | Fine shuttle down                                     |
| <'>, Shift<B>                      | Return to 0 or start                                  |
| <\>. Shift<T>                      | Loop  |
| <m>, Num<4>                        | Mark in point at current location                     |
| <<>, Shift<M>, Num<6>              | Mark out point at current location                    |
| <n>, <Home>, Num<5>                | Go to in point  |
| Shift<N>, <End>, ShiftNum<5>       | Go to out point                                       |
| <y>                                | Toggle video edit on/off                              |
| <u>                                | Toggle audio 1 edit on/off                            |
| <i>                                | Toggle audio 2 edit on/off                            |
| <o>                                | Toggle audio 3 edit on/off                            |
| <p>                                | Toggle audio 4 edit on/off                            |
| Ctrl<O>                            | Eject   |
| Ctrl<Q>                            | Quit  |
| Ctrl Alt <F1>                      | Select Camera 1                                       |
| Ctrl Alt <F2>                      | Select Camera 2                                       |
| Ctrl Alt <F3>                      | Select Camera 3                                       |
| Ctrl Alt <F4>                      | Select Camera 4                                       |
| Ctrl Alt <F5>                      | Jump # (def 5) seconds back from current record point |
| Ctrl Alt <F6>                      | Jump to current record point and play                 |

This manual has been compiled to assist the user in their experience using this CineDDR software product. It is believed to be correct at the time of writing, and every effort has been made to provide accurate and useful information. Any errors that may have crept in are unintentional and will hopefully be purged in a future revision of this document. We welcome your feedback.

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