

ccConvert

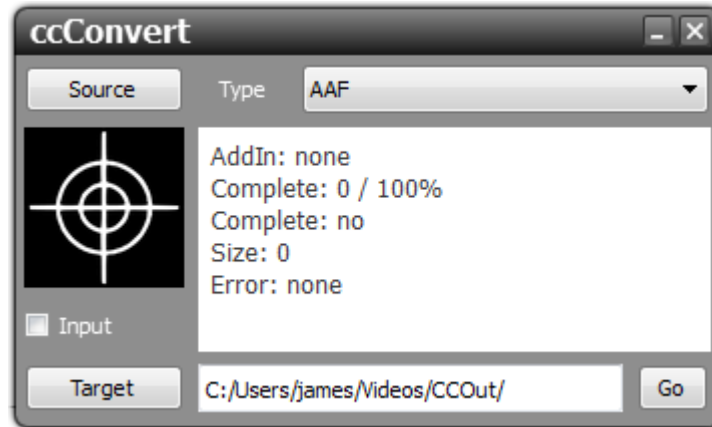


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ccConvert



ccConvert Closed Caption Conversion Software

ccConvert is a suite of software tools which allow the user to select a video file with closed captions, read the closed captions and output a different form of closed captions, either in a directory selected by the user, or in the same folder as the source file. The suite includes the ccConvert interface, an analysis tool called verifyCC, and ccReview professional media player.

Currently ccConvert supports writing the following closed caption types:

SCC – SCC (Scenarist Closed Caption) files for SD only

MCC - files side bar MacCaption/PC-Caption supports both SD and HD

AAF - Data Track for Avid Editors

ccConvert supports closed caption inputs from:

MPEG-2 'user' CC

h.264/MPEG-4/AVC1 'user' CC

MXF SMPTE 436M

MXF Avid embedded CC

MCC files side bar MacCaption/PC-Caption

SCC files side bar MacCaption/PC-Caption

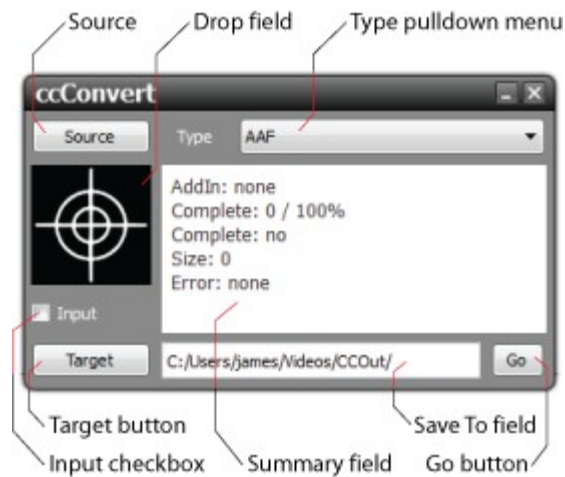
MOV SD/HD CC tracks

MP4 SD/HD CC tracks

Avid AAF Data Track

Controls and Displays

Main Interface – Windows Version



Source button – to select a source file, the user can press the **Source** button to open a browser, and navigate to the folder containing a video file with closed captions for conversion.

Drop field – to select a source file, the user can browse to a folder containing the source file, and drag and drop it onto the **Drop** field.

Type pull-down menu – clicking on the **Type** pull-down menu reveals all supported types of closed captions. Selecting a type means that type will be created from the closed captions in the selected source file.

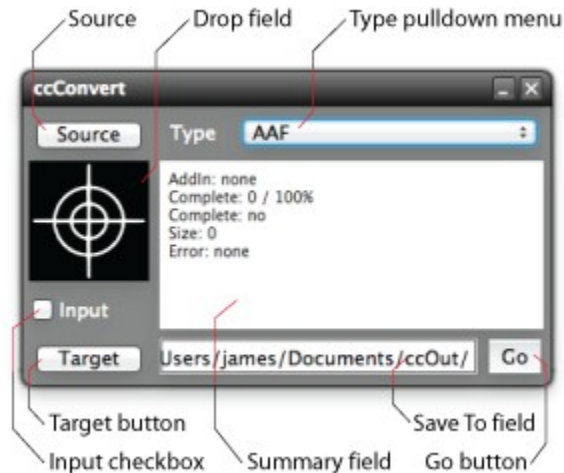
Input checkbox – selecting the **Input** checkbox means the new closed captions file will be created in the same folder as the source file. With the **Input** checkbox unselected, the user will be able to press the **Target** button and browse for a folder in which to save the new closed captions file.

Target button – press the **Target** button to browse for a folder in which to save the new closed captions file. Once selected, the location will be displayed in the **Save To** field.

Summary field – the **Summary** field displays details about the add-in (if any), the completion (percentage and yes/no), the size of the created file and whether any errors were observed in the conversion process.

Go button – press the **Go** button to begin the conversion process.

Main Interface – OS-X Version



Source button – to select a source file, the user can press the **Source** button to open a browser, and navigate to the folder containing a video file with closed captions for conversion.

Drop field – to select a source file, the user can browse to a folder containing the source file, and drag and drop it onto the **Drop** field.

Type pulldown menu – clicking on the **Type** pulldown menu reveals all supported types of closed caption output types. Selecting a type means that type will be created from the closed captions in the selected source file.

Input checkbox – selecting the **Input** checkbox means the new closed captions file will be created in the same folder as the source file. With the **Input** checkbox unselected, the user will be able to press the **Target** button and browse for a folder in which to save the new closed captions file.

Target button – press the **Target** button to browse for a folder in which to save the new closed captions file. Once selected, the location will be displayed in the **Save To** field.

Summary field – the **Summary** field displays details about the add-in (if any), the completion (percentage and yes/no), the size of the created file and whether any errors were observed in the conversion process.

Go button – press the Go button to begin the conversion process.

How to Use ccConvert

Setup

Connect Hardware

ccConvert software will run on most available computers, but to support real time playback of specific file types, typically a powerful, fast system will be required.

To install and take advantage of all the features of **ccConvert** the system may need to be connected to various other hardware devices.

To view the output using an AJA, Bluefish444 or Blackmagic board, a supported board will have to be installed on the system, along with the required drivers. In these cases, suitable video and audio monitors and other devices would be useful.

Install Software

Install **ccConvert** on the system. Regardless of the delivery method, the software will be available at some level as an (executable) installable file. In many cases the user will double-click on the file, or right click and select **Open** from the context menu. Follow the prompts to set where the software should be installed and make other installation-specific decisions.

Licensing

ccConvert will need to be licensed to run without demo limitations.

ccConvert installs an application called LicenseDDR which is included in the program folder. This may be accessed (in Windows installs) via the Start menu, at: **Program Files|ccConvert|LicenseDDR**.

Run LicenseDDR.

Type your name (first and last name are required here) into the **User Name** field. Type a valid email address into the **User Email** field. This is the email address at which the user will receive the required site key, so make sure it can be accessed by the operator of the system upon which the Drastic software is installed.

Press the **Generate** button. This will populate the **Site Code** field with the site code. The site code is a seemingly random string of alphanumeric characters which will be used to generate the site key.

If the system is set up with email, the user may press the **Send** button. This opens a new email addressed to Drastic with the site code in the body of the email. If the system is not set up with email, the user may copy (either select the site code and use a standard Copy command, or press the **Copy** button which is just to the right of the **Site Code** field) and paste (use a standard Paste command) the site code into a text file, and open the text file in a system that is set up with email. In this case, create a new email addressed to authorization@drastictech.com. it

would be useful to type a quick explanation regarding which software is to be licensed, and the reason for the license request (such as demo, update license, add software etc.). Send the email.

We will reply with an email containing another seemingly random string of alphanumeric characters - this will be the site key.

Copy the site key from the email into the buffer, and paste it into the **Site Key** field, either using a standard paste command, or by pressing the **Paste** button (the button with the icon to the left of the **Remove** button).

Press the **Register** button, and restart the software. This will update the license status and enable all the features supported by the requested license level.

To view the folder in which the license is located, press the **Folder** button. This opens the folder containing the license, which may be useful in cases where the user may need to move or delete the license.

The license may be removed simply by pressing the **Remove** button.

Once the user is finished with the licensing process, they may press the **Close** button to close **LicenseDDR** window.

This will enable all features provided by your license.

Here is how to set up a conversion using ccConvert.

Run ccConvert

Run the software. If the default installation path is used, you can open it at: Start | Programs | Drastic | ccConvert.

Select a Source File

There are two methods to select a source file.

- a) Press the **Source** button and browse for a source file. Select it and press the **Open** button.
- b) Open a standard browser and find the folder containing the source file. Drag it and drop it onto the **Drop** field.

Set the Conversion Type

Press the **Type** pulldown menu to reveal the available types of closed captions files, and select the desired type from this list.

Set the Target Location

There are two methods to set the target location.

- a) Click the **Input** button – this choice sets the target location to the same folder as the source file.
- b) Press the **Target** button and browse to the location in which you would like the converted closed captions file to appear. Once selected, this location should be displayed in the **Save To** field.

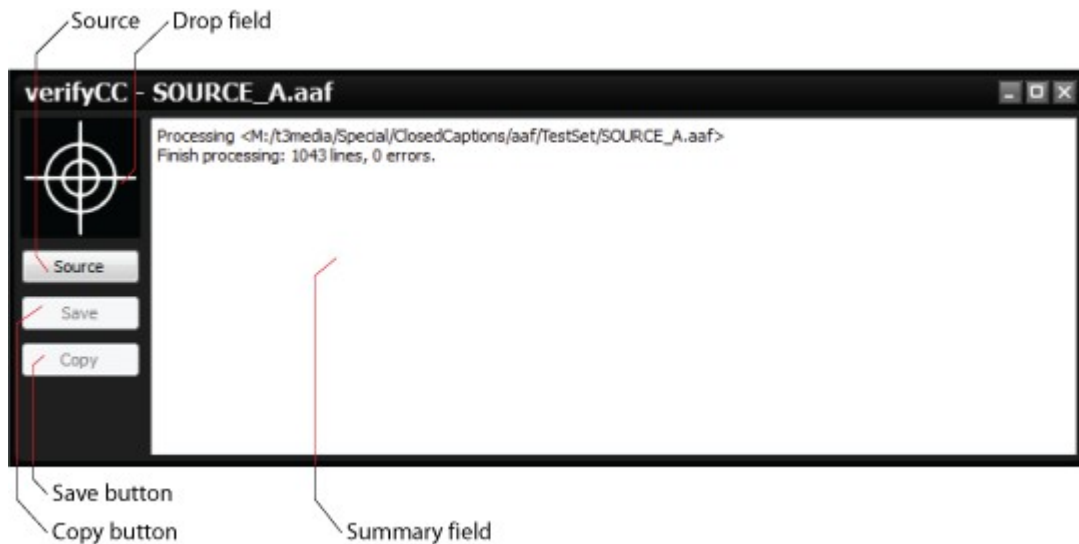
Begin the Conversion

Press the **Go** button.

verifyCC

verifyCC software verifies many aspects of closed caption files, and displays the information in its summary field for review. The verification may be saved to a file for later review or collaboration, or copied for pasting into other documents.

Controls and Displays



Source button – to select a source file, the user can press the **Source** button to open a browser, and navigate to the folder containing a video file with closed captions for conversion.

Drop field – to select a source file, the user can browse to a folder containing the source file, and drag and drop it onto the **Drop** field.

Save button – press the **Save** button to save the analysis into a file.

Copy button – press the **Copy** button to copy the analysis to the clipboard so you can paste it into documents, emails etc.

Summary field – the **Summary** field displays details about the add-in (if any), the completion (percentage and yes/no), the size of the created file and whether any errors were observed in the conversion process.

How to Use verifyCC

Here is how to use verifyCC to analyze a closed captions file

Run verifyCC

Run the software. If the default installation path is used, you can open it at: Start | Programs | Drastic | verifyCC.

Select a Source File

There are two methods to select a source file.

- a) Press the **Source** button and browse for a source file. Select it and press the **Open** button.
- b) Open a standard browser and find the folder containing the source file. Drag it and drop it onto the **Drop** field.

Once the source file has been selected, analysis will begin immediately, with the information being displayed in the **Summary** field.

Save the Analysis to a File

Once a source file has been analyzed, press the **Save** button. This opens a standard browser. Navigate to your preferred location, type in a name for the file and save it.

Copy the Analysis to the Clipboard

Once a source file has been analyzed, press the **Copy** button. This copies the analysis to the clipboard, where it can easily be pasted into a document or email.

verifyCC analyzes and displays the following information:

- header information
- time code validity
- preface
- size
- count
- count matching
- checksum
- valid 708
- valid 608

ccReview

ccReview is a hardware enabled media player. The user will be able to open files and play them on their VGA monitor, and through supported video boards from AJA, Bluefish444 and Blackmagic. A wide range of keyboard and GUI commands allow quick cueing and playback with features including zoom and pan, full screen with time code overlay, and extensive track data display. Signal Analysis tools feature a vector scope, wave form monitor (both YCbCr and RGB), per-pixel data view and Histogram.

ccReview is ideally suited for editing, display, review and collaborative environments

EBU r.128 audio metering is featured for professional loudness control applications.

Specific features and codec support may be offered as options depending on the version of **ccReview** the user has licensed.

Controls and Displays

The reference section provides a detailed look at each of the elements in the **ccReview** interface.

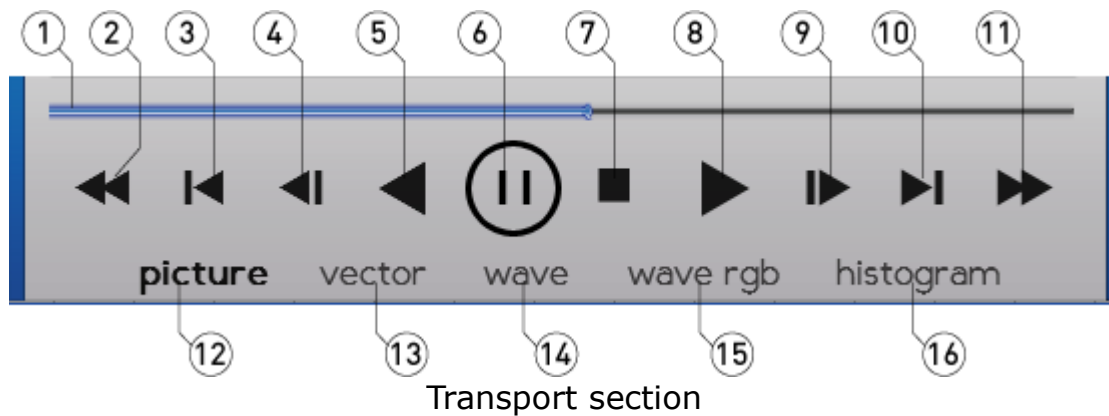
Main Interface Overview



Main interface

1	Transport section	Provides controls for playback and cueing, and playback screen selection.
2	Menu section	Provides controls to media selection, playback mode selection, lock/unlock, full screen mode and closed captioning.
3	Playback section	Displays time code, file name, playback mode and speed, video standard, time code source and audio levels for up to 16 channels of audio.
4	Monitor section	Displays one of: the video image, the vector scope, the wave form monitor (YCbCr or RGB), or histogram.
5	Data Display section	Displays information about the media file, depending on which is selected, between: Track info, Real Time, Metadata and Play list.

Transport Section



1	Position Bar	The pointer indicates the current position in the clip. Clicking on the Position Bar cues the clip to that relative location. To scrub through the file, 'grab' the pointer and 'drag' it toward the relative location you're looking for.
2	Fast Reverse button	Play the clip from the cued point in reverse at the fastest possible speed.
3	Back 5 Seconds button	Cues to a point 5 seconds prior to the current location, or the beginning if the current location is less than 5 seconds into the clip.
4	Back One Frame button	Cue the frame immediately prior to the current frame.
5	Reverse Play button	Play the clip in reverse at negative normal play speed (-100%).
6	Pause button	Stop any playback and cue the frame at the current location.
7	Stop button	Stop any playback in progress and cue the first frame of the clip.
8	Play button	Play the clip forward at normal play speed (+100%).
9	Forward One Frame button	Cue the frame immediately after the current frame.
10	Forward Five Seconds button	Cues to a point 5 seconds after the current location, or the end if the current location is less than 5 seconds before the end of the clip.
11	Fast Forward button	Play the clip from the cued point forward at the fastest possible speed.
12	Picture button	Display the video output on the GUI and through hardware output.
13	Vector button	Display the vector scope on the GUI and through hardware output.
14	Wave button	Display the YCbCr Wave Form Monitor on the GUI and through hardware output.
15	Wave RGB button	Display the RGB Wave Form Monitor on the GUI and through hardware output.
16	Histogram button	Display the Histogram on the GUI and through hardware output.

Show Tips Context Menu



A series of tips may be displayed on the VGA screen before the user has loaded a clip. Right clicking on the Transport Controls reveals a **Show Tips** option. Click this option to toggle between showing the tips or not showing the tips. Here is a list of the tips:

Use the **Scroll** button on the mouse to zoom in and out.

Left Click on the mouse and drag the pointer to move the image around the screen.

Right Click on the mouse to reset the picture to fit the application.

Middle Click on the mouse to set the picture to a 1:1 pixel size.

ccReview supports a full set of keyboard commands. Visit www.drastic.tv for more information.

There are configuration files for the Contour Shuttle Pro available at www.drastic.tv. Files can be added to **ccReview** by dragging them from a file explorer and dropping them on **ccReview**.

Clicking on the main time code allows you to type a time code and press **Enter** to cue that time code location.

Pressing <CTRL>-C will copy the current time code to the system clipboard.

Pressing F will set **ccReview** to full screen

Going full screen (F) and unlocking the transport (<CTRL>-L) will show only the image.

Double Click the video display to toggle full screen to hide the controls.

To enable/disable the time code overlay in full screen press the 'T' key.

DrasticPreview supports the J-K-L keys for basic transport control.

The MODE button toggles the playback mode through: normal, loop or palindrome.

Clicking on TC/VITC/LTC will cause the main time code to display that time code source

Clicking the CC button allows the user to select different closed caption sources, or disable closed caption overlay.

The <SPACE BAR> will switch between pause and play.

Tips can be deactivated by right clicking on the control area and selecting the menu item **Show Tips**.

Picture Display

The Picture display may be selected by clicking on the **Picture** button in the **Transport Controls** section.



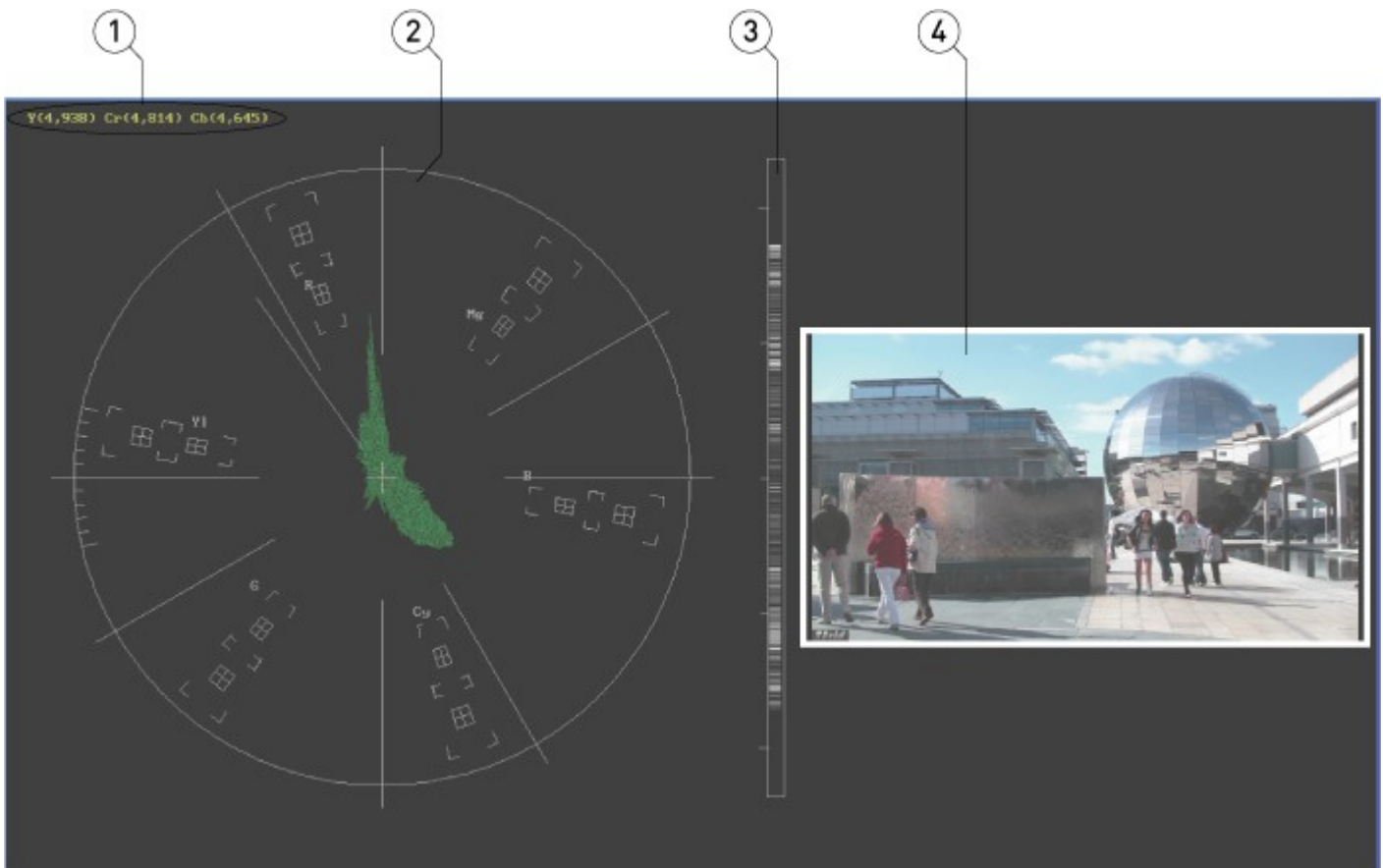
The video screen is optimized to fill its maximum area of the display field. As the user resizes the window, there may be black sides or top/bottom portions revealed, to compensate for scaling mismatches.

The Picture view shows the video signal, to confirm the source is correct and to display time code location. Both picture safe and title safe graticules are optionally available.

There is a scaled down version of the signal input on the right of each of the Vector Scope, Waveform Monitors, Data and Histogram views. They are a useful reference but smaller than the Picture view. This view exists to provide the fullest display of the signal for optimum quality viewing.

Vector Scope Display

The Vector Scope display may be selected by clicking on the **Vector** button in the **Transport Controls** section.



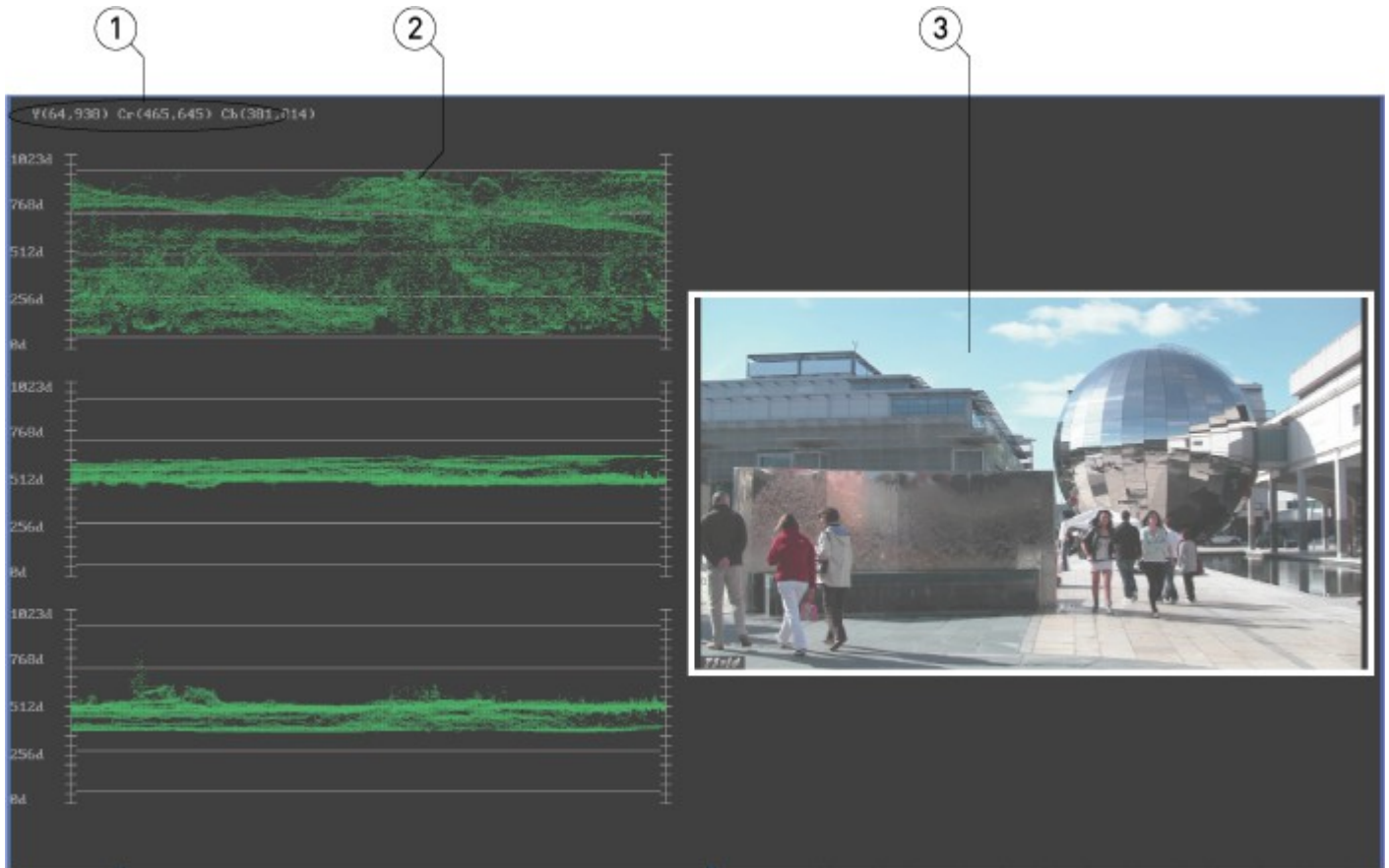
Vector Scope

1	Minimum/Maximum Display	A minimum and maximum value for each of the channels (Y, Cr and Cb) is displayed in 10 bit mode (0-1023). The color of the text for each channel indicates the following: in range (green), out of range but legal (yellow) and illegal/sync values (red).
2	Vector Scope	The Vector Scope displays a traditional Cb by Cr X-Y display with overlaid reference graticule. Color accurate graticules automatically switch between SD and HD color spaces. The markers include color points (for standard bar checks) at 75% and 100% saturation. All the standard points are boxed: red, magenta, blue, cyan, green and yellow. A skin tone/flesh line is provided to allow for easy hue adjustment as well as standard diagonals. For single link 8 and 10 bit YCbCr signals, there is no color processing involved. For dual link 4:4:4 RGB signals, the equivalent Cb and Cr are calculated to create the display.
3	Luma Stick	The exclusive Drastic Luma Stick (patent pending) displays luminance distribution and strength in a space saving and intuitive graphic format.

4 Confidence Monitor	A mini picture is provided as a confidence monitor.
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YCbCr Wave Form Monitor Display

The YCbCr Wave Form Monitor display may be selected by clicking on the **Wave** button in the **Transport Controls** section.

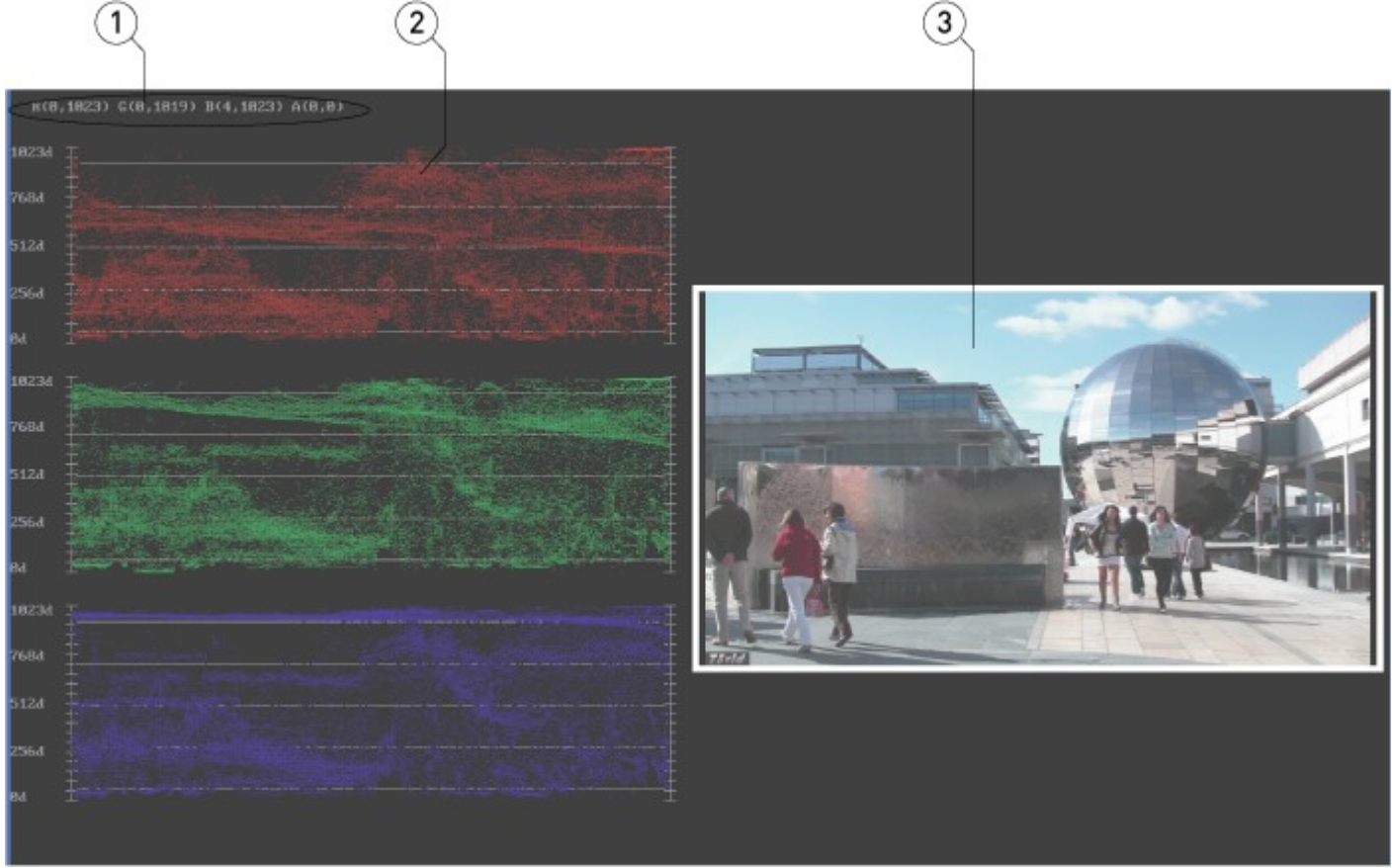


YCbCr Wave form Monitor

1	Minimum/Maximum Display	A minimum and maximum value for each of the channels (Y, Cr and Cb) is displayed in 10 bit mode (0-1023). The color of the text for each channel indicates the following: in range (green), out of range but legal (yellow) and illegal/sync values (red).
2	YCbCr Wave Form Monitor	The YCbCr Wave Form Monitor displays the levels of the Y, Cb and Cr from the left of the picture to the right of the picture with all the lines summed into one graph. The Y, or luma/luminance, graph provides accurate white and black level information, as well as the range in between. The Cb and Cr display the +/- 512 levels of chroma of both types. This provides a visual representation of the chroma range of the signal. For single link 8 and 10 bit YCbCr signals, there is no color processing involved. For dual link 4:4:4 RGB signals, the equivalent Cb and Cr are calculated to create the display.
3	Confidence	A mini picture is provided as a confidence monitor.

RGB Wave Form Monitor Display

The RGB Wave Form Monitor display may be selected by clicking on the **Wave RGB** button in the **Transport Controls** section.



RGB Wave form Monitor

1	Minimum/Maximum Display	A minimum and maximum value for each of the channels (R, G and B) is displayed in 10 bit mode (0-1023).
2	YCbCr Wave Form Monitor	The RGB Wave Form Monitor shows each of the red, green and blue signals as independent graphs, displaying the RGB, or chrominance/color values associated with the signal. For dual link RGB signals, the original RGB 10 bit values are used unprocessed. For single link YCbCr signals, they are first converted to RGB before being analyzed and displayed.
3	Confidence Monitor	A mini picture is provided as a confidence monitor.

Histogram Display

The Histogram display may be selected by clicking on the **Histogram** button in the **Transport Controls** section.

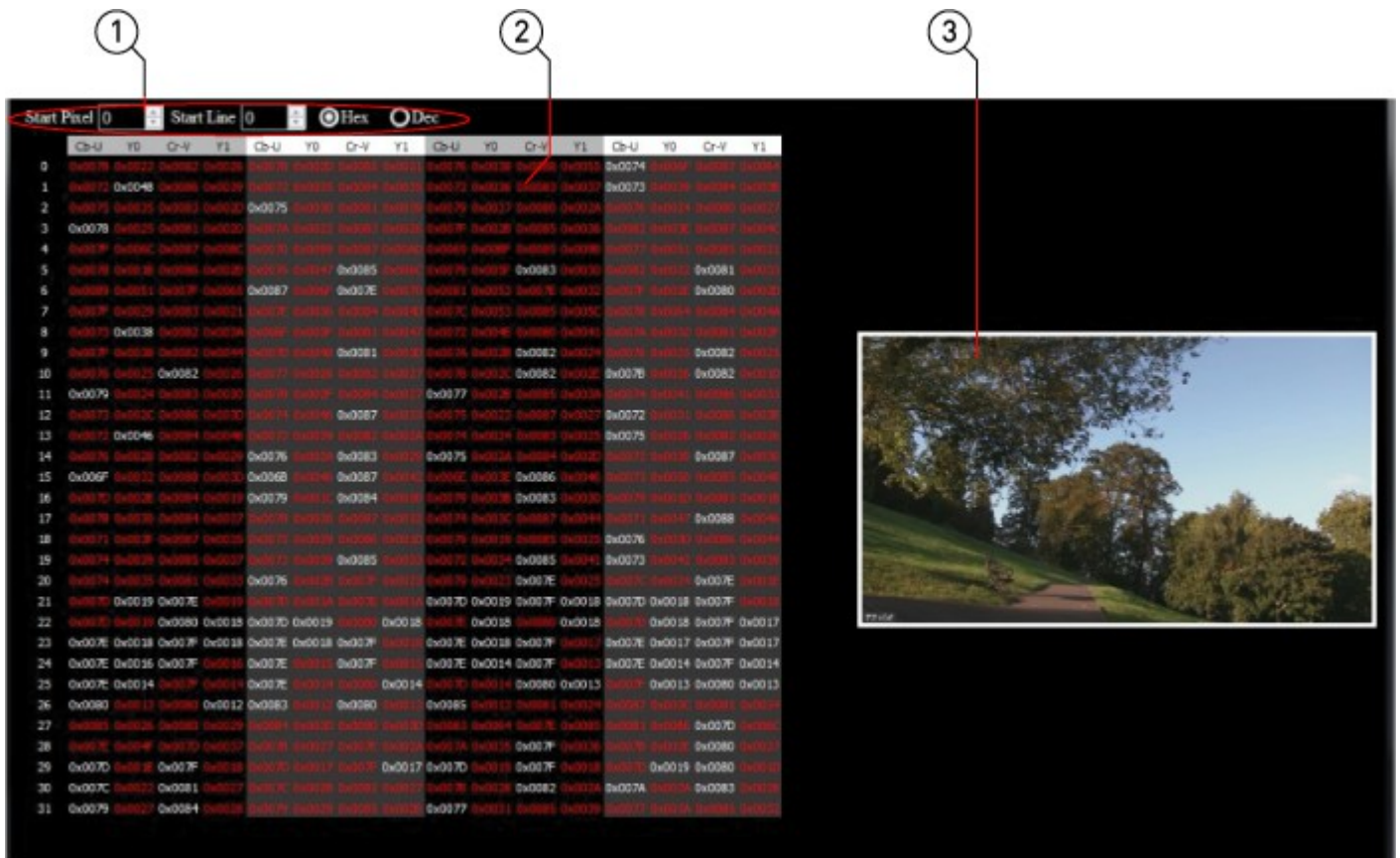


Histogram

<p>1</p>	<p>Histogram</p>	<p>The Histogram view shows the distribution of red, green and blue within the signal as a series of discrete bars that make a continuous graph for each color. This display provides an overview of the tonal range of each color in the picture. Each bar is the count of the number of pixels for one of the 1024 possible colors. These totals are then auto ranged to fit within the graticule and represent the relationship between the shades of each color and between each other.</p> <p>Each color has its own graph. The color's levels are represented from left to right, with the absolute left being 0 and the absolute right being 1024. The scale is presented as a percentage to allow for extremely bright or dark pictures to be analyzed without truncating.</p>
<p>2</p>	<p>Confidence Monitor</p>	<p>A mini picture is provided as a confidence monitor.</p>

Data Display

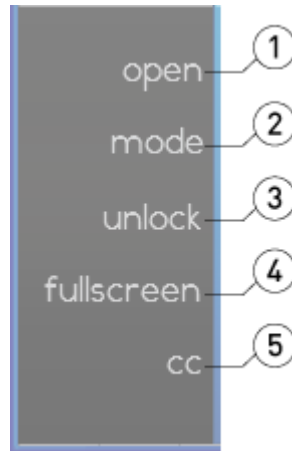
The **Data** display may be selected by clicking on the **Data** button in the **Transport Controls** section.



Data view

<p>1 Data Controls</p>	<p>Start Pixel – defines the start pixel with an up- or down- arrow. This allows the user to view data starting at a particular pixel</p> <p>Start Line - defines the start line with an up- or down- arrow. This allows the user to view data starting at a particular line</p> <p>Hex or Decimal selector – allows the user to select between displaying the data in either hex or decimal.</p>
<p>2 Data view</p>	<p>The Data view allows access to the raw pixel values being monitored on the HDMI or SDI input. Values are captured and displayed in their raw values, with no manipulation by the software. Capture card ranging is maintained, supporting both 0..255 and 0..1023 (inclusive). For YCbCr signals, the Y/Cb and Y/Cr pairs are displayed next to each other with no interpolation. This mode is perfect for checking vertical blank signaling and metadata, as well as picture issues like inner line sync markers or out of range colors.</p>
<p>3 Confidence Monitor</p>	<p>A mini picture is provided as a confidence monitor.</p>

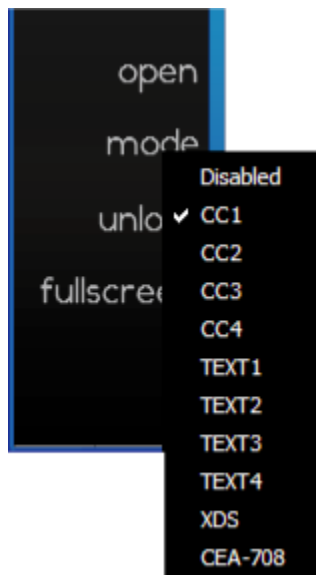
Menu Section



Menu section

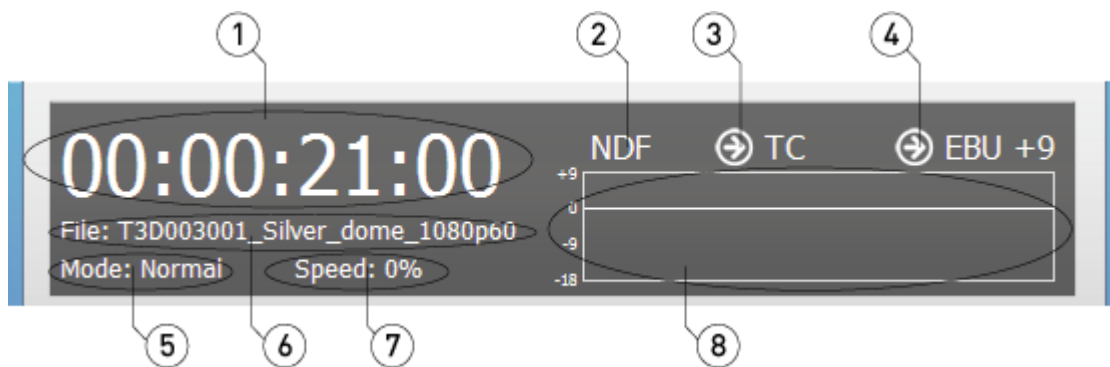
1	Open	The Open button opens a browser which allows the user to browse for and load a media file.
2	Mode	The Mode button cycles through playback modes. Playback modes include: Normal (play from the current frame to the end of the clip) Loop (play from the current frame to the end, return to the first frame and resume playback, until interrupted) Palindrome (play from the current frame to the end, then play in reverse to the first frame, then play forward to the end, repeating until interrupted).
3	Unlock	The Unlock button “unlocks” the controls from the GUI, so that when the mouse is not over the GUI, the controls disappear, leaving more room to display video. When in unlocked mode, this control becomes a Lock button, to allow the user to return to the previous state, where the controls are always displayed on the GUI.
4	Fullscreen	The Fullscreen button resizes the GUI to fill the entire VGA screen. When in Fullscreen mode, this button becomes a Restore button, to allow the user to return to the previous state, where the GUI may be arbitrarily resized by the user, by hovering near the edge until a sizing arrow appears.
5	CC	The CC button displays a menu of closed caption types when pressed, allowing the user to select between available types, or to disable closed caption display.

Closed Captioning Menu



Press the **CC** button to reveal the **Closed Captioning** menu. Where a file has a supported form of closed captioning, the user can select it from the menu to display it on the screen. If the user does not want to display closed captioning or if the file does not have closed captioning, select **Disabled**.

Playback Section

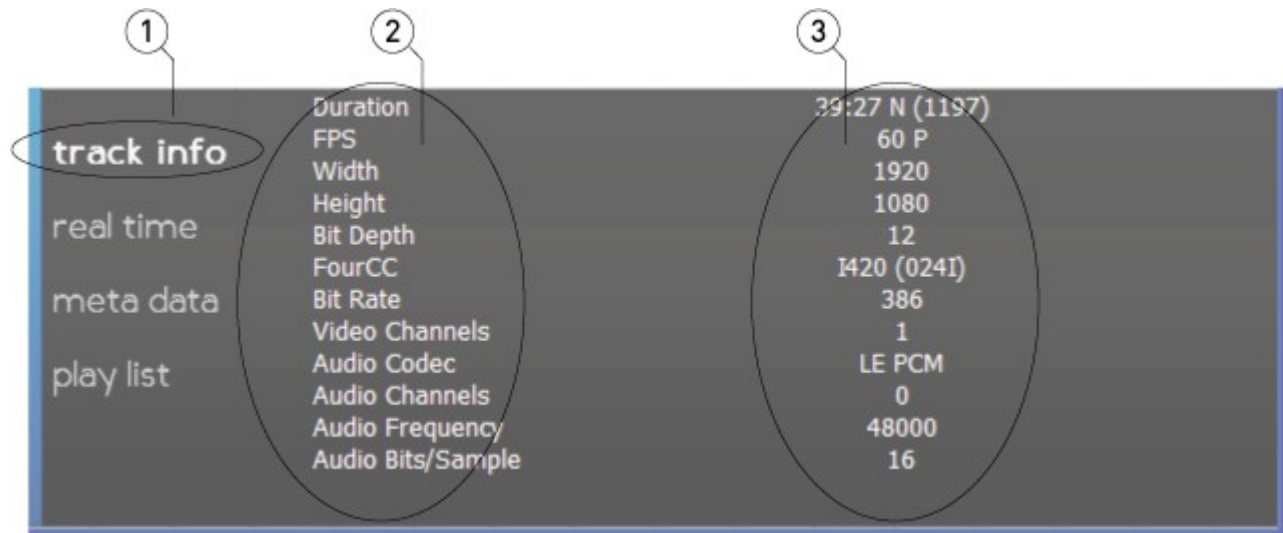


Playback section

1	Time Code	Displays the current time code location within the selected video file, and allows the user to: click in the time code field, type in a time code location and press Enter on the keyboard to cue that frame.
2	Video Standard	Displays the video standard of the selected file.
3	Time Code Source button	Displays the time code source. Clicking on this field will cycle through available time code source settings.
4	EBU Mode button	Clicking on this button displays the available EBU modes and allows the user to select the preferred mode.
5	Playback	Displays the current playback mode. Playback modes include:

	Mode	<p>Normal (play from the current frame to the end of the clip)</p> <p>Loop (play from the current frame to the end, return to the first frame and resume playback, until interrupted)</p> <p>Palindrome (play from the current frame to the end, then play in reverse to the first frame, then play forward to the end, repeating until interrupted).</p>
6	File Name	Displays the name of the selected file.
7	Playback Speed	Displays the current playback speed. Reverse playback is preceded by a minus.
8	Audio Levels	Displays relative audio levels for up to 16 channels of audio.

Data Display Section – Track Info



Track Info section

1	Track Info button	The Track Info button is highlighted
2	Data Category fields	Displays the categories of track data available for the selected media file, including Duration, Frames Per Second, Width, Height, Bit Depth, FourCC, Bit Rate, Video Channels, Audio Codec, Audio Channels, Audio Frequency and Audio Bits/Sample.
3	Data Value fields	Displays the data value associated with each category.

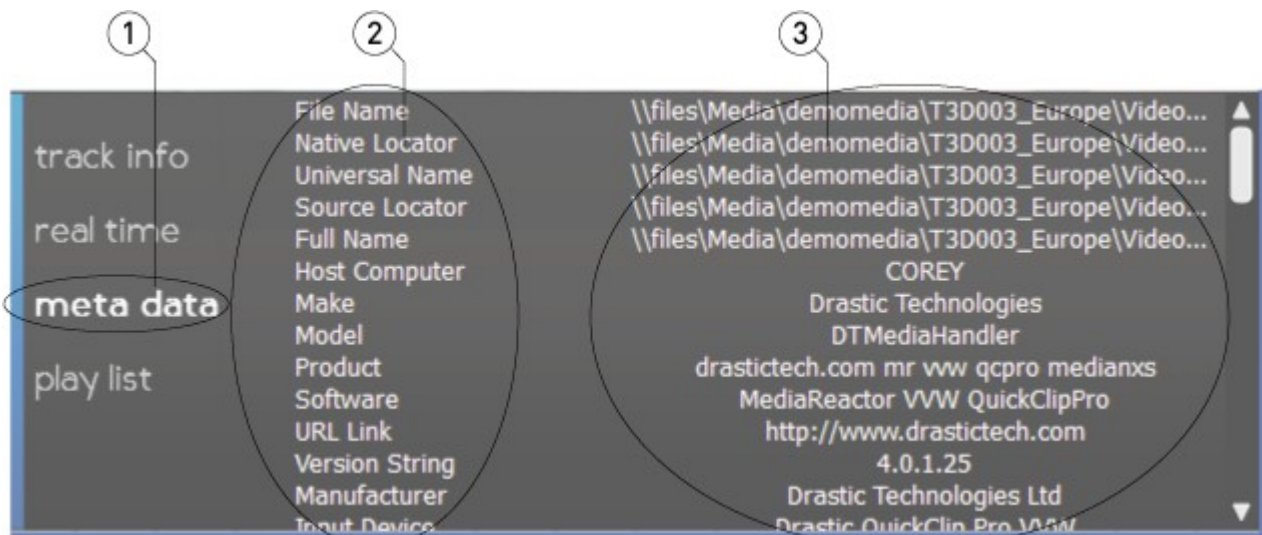
Data Display Section – Real Time



Real Time section

1	Real Time button	The Real Time button is highlighted
2	Category field	Displays the categories of real time data available for the selected media file, including TC (or other selected time code source), LTC Frame, LTC Ub, VITC Frame, VITC Ub, Data 0 and Data 1.
3	Data Value fields	Displays the data value associated with each category.

Data Display Section – Metadata

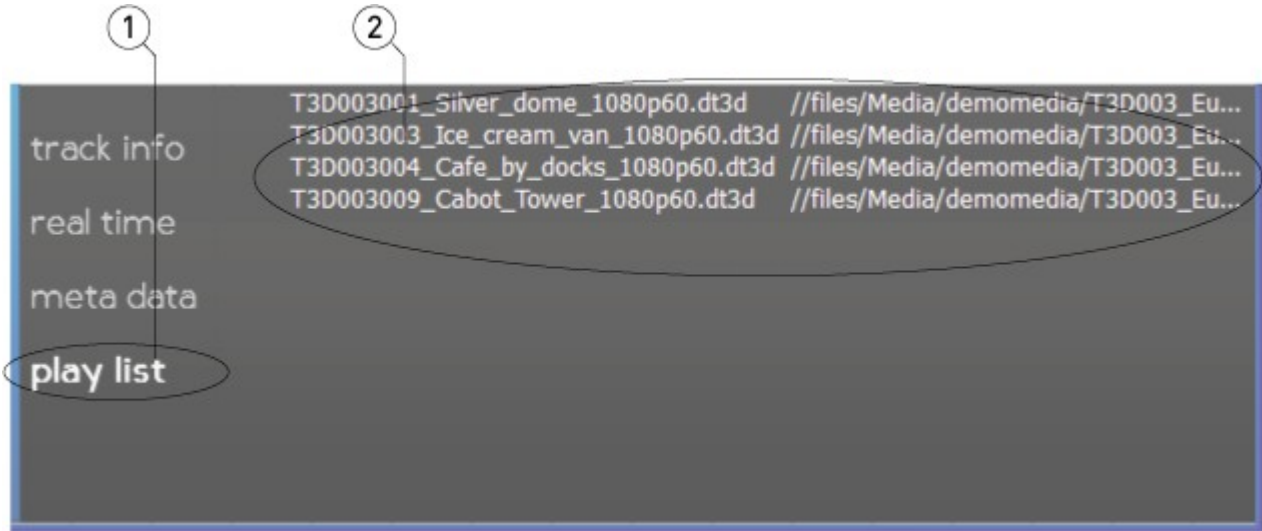


Metadata section

1	Metadata button	The Metadata button is highlighted
2	Category field	Displays the categories of meta data available for the selected media file.

3 Data Value fields	Displays the data value associated with each category.
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Data Display Section – Play List



Play List section

1 Play List button	The Play List button is selected
2 Play List field	Each clip that has been loaded during the session appears on the Play List, and may be selected by double clicking on it.

How to Use ccReview

File Playback

Run the software. If the default installation path is used, you can open it at: Start | Programs | Drastic | ccReview.

Load a File

Press the **Open** button. A standard browser opens which allows the user to navigate to the location of the desired media file and load it for playback. Select a file and press the **Open** button in the browser.

Alternately, navigate to the folder where the desired media is located, and 'drag' the file onto the **ccReview** interface.

Once loaded, the file will be cued to the first frame and ready to play. Its name will appear in the Play List and in the Transport section.

Cue to a Location

Transport Controls: Jump through the file in 5 second increments using the **+5** button to get near the desired location. Press **Play** (or **Reverse Play**) if you're close, then **Pause** when you're real close. The **+1** (or **-1**) button can get you to the exact frame, just keep clicking.

Position Bar: Select a point on the Position bar at the top of the transport controls and click on it. The file will be immediately cued to that relative location. Click to 'drag' the pointer to the left or right to get to the desired location.

Use the Time Code Display: Click with the mouse in the time code display – now a cursor should appear in this display, which allows you to cue to an exact location. Enter a time code location after 00:00:00:00 and before the end of the file, and press the **Enter** button on the keyboard. The file will be immediately cued to that exact location.

Use the Transport Controls

With a file loaded, press the **Play** button to play the file from start to finish. The other transport controls are available for cueing (plus or minus 1 frame, plus or minus 5 seconds) and quick review (reverse play, fast reverse, pause, fast forward) functionality. **Stop** cues the first frame of the file.

ccReview supports the J-K-L keys for basic transport control.

Playback Modes

The **Mode** button on the Transport section lets you cycle through available playback modes.

Normal Mode

In **Normal Mode**, file playback starts at the cued location, and stops at the end of the file or PlayList.

Loop Mode

In **Loop Mode**, the file plays to the end of the file or PlayList, then restarts playback at the beginning, playing repeatedly until interrupted.

Palindrome Mode

In **Palindrome Mode**, the file plays forward to the end of the file or PlayList, then restarts playback at the end and plays in reverse, front to back and back to front repeatedly until interrupted.

Playlist Operation

Each file loaded within the session is added to the playlist. Press the **Play List** button. The files are displayed as a simple EDL in the order in which they have been loaded. Clicking on a file loads it for playback.

To play the entire playlist, press the **Play List** button. Double click on the first file in the playlist. Press the **Play** button on the **Transport Controls**. Each file will be played, front to back at normal speed. Once the last file has been played, it will pause on the last frame.

If the **Play List** button has not been pressed or one of the other buttons (**Track Info**, **Time Code**, **Metadata**) has been selected, the playlist function is turned off and clips will be played one at a time.

Display

Picture

Press the **Picture** button in the **Transport Control** section for video playback. This outputs the media file via both the system resources (VGA screen) and through the video hardware.

Vector Scope

Press the **Vector** button in the **Transport Control** section to display the Vector Scope. This displays the Vector Scope output via both the system resources (VGA screen) and through the video hardware.

Wave Form Monitor - YCbCr

Press the **Wave** button in the **Transport Control** section to display the YCbCr Wave Form Monitor. This displays the YCbCr Wave Form Monitor output via both the system resources (VGA screen) and through the video hardware.

Wave Form Monitor - RGB

Press the **Wave RGB** button in the **Transport Control** section to display the RGB Wave Form Monitor. This displays the RGB Wave Form Monitor output via both the system resources (VGA screen) and through the video hardware.

Histogram

Press the **Histogram** button in the **Transport Control** section to display the Histogram. This displays the Histogram output via both the system resources (VGA screen) and through the video hardware.

Data

Press the **Data** button in the **Transport Control** section to display the Data view. This displays the Data output via both the system resources (VGA screen) and through the video hardware.

Zoom In/Out

Press the **Picture** button in the **Transport Control** section to enter **Picture** view. Press **Ctrl+Z**, and click (left mouse button) to drag the mouse pointer to the left or right. The size of the image will shrink or enlarge. This allows the user to see fine details in the video portion of the file.

To return to normal size, press **Ctrl+Right Click** on the keyboard and shift the mouse slightly.

Pan/Center

Press the **Picture** button in the **Transport Control** section to enter **Picture** view. Press **Ctrl+C**, and click (left mouse button) to drag the mouse pointer to the left or right. The image will move around the screen correspondingly. This allows the user to focus on a particular area of the image, which is especially useful where the user has zoomed in and wants to see a specific portion of the video in fine detail.

To return to the normal location, press **Ctrl+Right Click** on the keyboard and shift the mouse slightly.

Full Screen Mode

Press the **Full** button to enter 'Full Screen' mode. In 'Full Screen' mode the portion of the interface within the GUI window expands to fill the VGA monitor. This setting does not affect the video output from the AJA, Bluefish444 or Blackmagic board, as the interface is not present through the video board's HD-SDI output.

Alternately the user may press **Ctrl+F** on the keyboard to enter full screen mode.

The **Full** button becomes a **Restore** button when in 'Full Screen' mode. To return to normal, non-full screen mode, press the **Restore** button or **Ctrl+F** on the keyboard.

Note: in normal, non-full screen mode the user can simply optimize the window to retain the minimize/resize/close controls yet still see a large image.

Closed Captioning

Where an existing file has a supported form of closed captioning the user may opt to display it over the video output. Once the file is selected, press the **CC** button and select the specific closed captioning type. When the file plays you should see the closed captioning.

To turn off the closed captioning display, press the **CC** button and select **Disabled**.

Lock/Unlock

The user may press the **Unlock** button to enter 'Unlocked' mode. This mode causes the controls to disappear when the mouse is not above the interface, and thereby increases the amount of screen available for displaying the video.

The **Unlock** button becomes a **Lock** button in 'Unlocked' mode, and pressing the button will return **ccReview** to the normal, 'Locked' mode with the controls and displays always shown.

Display Time Code Over Unlocked GUI

When in 'Unlocked' mode, and once the mouse is not above the interface, the controls and displays will disappear. Press the **T** button on the keyboard to display the time code over the video in this mode.

To remove the time code overlay from the 'Unlocked' mode, press the **T** button on the keyboard.

Keyboard Commands

G+Ctrl = GoTo

Finish

Exit

Once you are finished using **ccReview**, click on the **X** in the upper right hand corner.

This manual has been compiled to assist the user in their experience using **ccConvert** software. 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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