PHOENIX

user manual

Javelin

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Phoenix DVD Emulator User Guide — 05/08/07

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1 Getting started with Phoenix

Thank you for purchasing Phoenix from Javelin Ventures, the most advanced DVD emulator ever produced. This chapter gives procedures for some of the most commonly used tasks to help you get started with Phoenix quickly.

The following topics and procedures are included in this chapter:

- "Welcome to Phoenix" on page 8
- "Installation instructions" on page 9
- "Opening and running projects" on page 10
- "Grabbing frames from projects" on page 11
- "Displaying and recording closed captions" on page 12
- "Selecting the jacket picture size" on page 13
- "Mapping custom keyboard commands" on page 14
- "Using the player default accelerator" on page 15

The following chapters in this guide give more detailed reference information about the Phoenix DVD Emulator interface, menu commands, tips and FAQs, and so on.

Welcome to Phoenix

Phoenix is the most advanced DVD emulator ever produced, allowing QC professionals to efficiently ensure the highest level of quality—leading to reduced QC costs and fewer check disc rejections. Developed in collaboration with the World's leading DVD authoring facilities and QC professionals, Phoenix leverages the very latest technologies to deliver the ultimate QC experience and a shorter time-to-approval for production teams.

Offering the most comprehensive feature set of any emulation product on the market, Phoenix has been designed and refined with feedback from QC professionals and DVD authors at leading production facilities who rely on Phoenix every day to perform a vital role in their DVD production workflow.

Phoenix delivers where other fall short—a stable, reliable, and efficient way for your clients to ensure that they are delivering the highest possible quality content to market.

Advanced features include SDI Video Output, S/PDIF Digital Audio Output, Jacket Picture and Text Data verification, Parental Management features, SPRM/GPRM/UOP Monitoring, Built-in Line 21 Decoding, Frame Stepping and a highly customizable and intuitive user interface.

Read on to learn more about how Phoenix can improve your business offering and ensure you're delivering the highest possible quality titles to your clients.

Installation instructions

To install Phoenix:

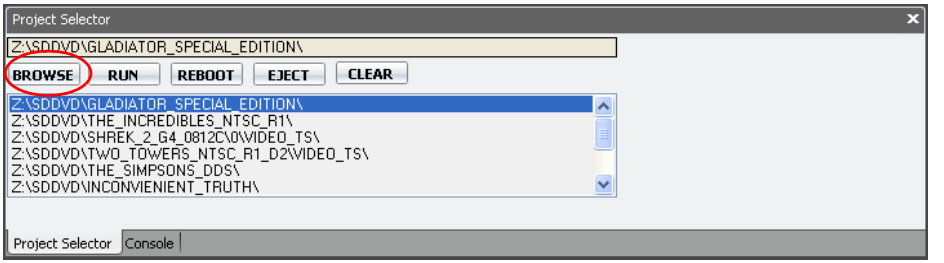
1. Install the Decklink card in the emulator workstation.
2. Connect the Decklink card to the video monitor and audio receiver.
3. Boot the emulator workstation.
4. Windows will prompt for Decklink driver install. Do nothing.
5. Run the installer (which includes the Decklink drivers).

Opening and running projects

To open and run a project in Phoenix:

1 Open Phoenix.

2 Click Browse in the Project Selector window, and then select a project's Video_TS.ifo file.



The project runs automatically.

3 Use the Remote Control buttons to control playback. For more information about using the Remote Control, see "The Remote window" on page 19.

4 When you are done viewing the project, click Eject in the Project Selector window.

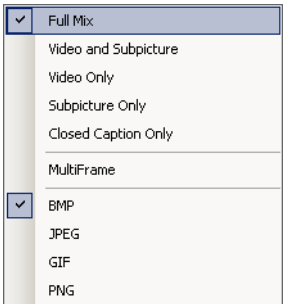
Grabbing frames from projects

To grab a frame:

1 Open and run a project.

2 On the Remote Control, in the Misc area, right-click the FrameGrab button.

3 From the drop-down menu, select the type of grab and output file type that you want to use. For more information about the settings that are available, see “Frame Grab” on page 22 and the description that follows Figure 5.



Tip: You can also change the settings from the Options window on the right side of the screen. For more information, see “Options window” on page 45.

4 Left-click the FrameGrab button to complete the frame grab.

Note: The images are stored in the folder specified in the FrameGrabLocation variable in Extended Options window. (Windows > Extended Options.) For more information, see “Extended Options” on page 58.

Displaying and recording closed captions

To display closed captions:

1 Open and run a project

2 On the Remote Control, in the Misc area, click the Captions button.

Closed captions are enabled.

3 To record captions in the Console window, set the LogLine21 variable to True in the Option windows. For more information, see “Line 21 options” on page 48.

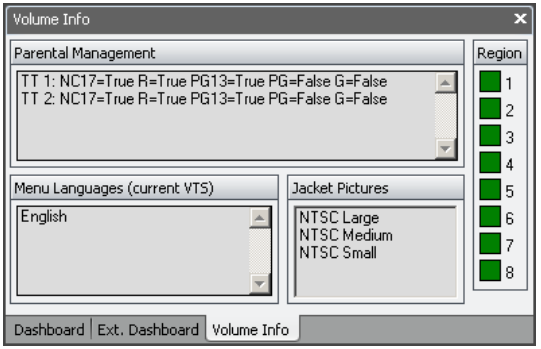
Selecting the jacket picture size

Jacket pictures are image files that are placed on a disc so a player can display them as background images when playback is stopped. If Jacket Pictures are present in the current project, they are displayed in the Jacket Pictures field. When you stop playback of a project that includes jacket pictures, Phoenix displays the large jacket picture by default.

Use this procedure to change the size of the jacket picture display.

To select a size for the jacket pictures:

1. Open and run a project.
2. In the Volume Info window, check the Jacket Pictures area to ensure that they are included in the project.



3. Select the size you want to display.
4. In the Remote Control, click the Stop button.

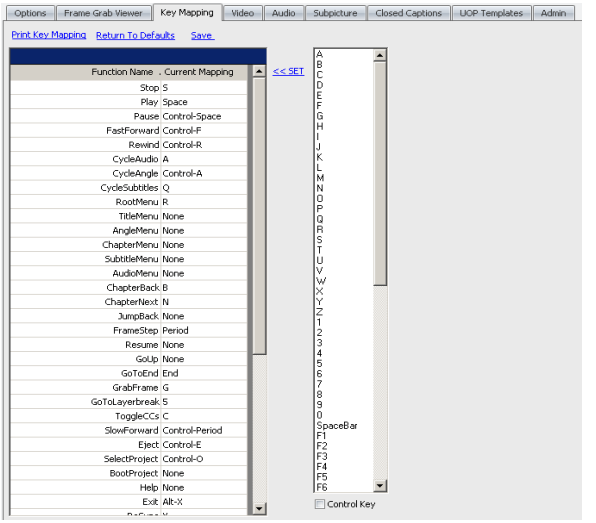
   The jacket picture will be displayed within five seconds on the video monitor.

Mapping custom keyboard commands

Phoenix was designed to perform many tasks without using the mouse. Many of the commands found on the user interface are mapped to keys on the keyboard. Users can utilize the default settings, or change them using the following procedure.

To map custom keyboard commands or shortcuts:

1 In Phoenix, choose Windows > Extended Options > Key Mapping.



2 On the left, select a function.

3 On the right, select a key.

4 Click SET.

5 When you are done, close the Key Mapping window.

6 To save your key mapping, choose Profile > Save Profile.

7 To load the profile with your key mapping, choose Profile > Load Profile.

For a list of default key mappings, see Appendix A, “Key mappings.”

Using the player default accelerator

The Player Default Accelerator lets you quickly change the default emulator settings. You can change the audio, subtitle, and menu language, aspect Ratio, and region settings from the Player Default Accelerator.

To use the player default accelerator:

1. Open and run a project.
2. Choose Accelerators > Player Defaults (or press Alt+A, P).

3. To use a single language, check Apply Aud. To All.
4. Select the languages for audio, subtitles, and menus, and the aspect ratio and region.
5. To open a new project using these settings, check Open New Project.
6. Click Apply.

If you did not check Open New Project, when you click Apply, the current project is ejected, the settings change, and then the current project is reloaded with the new settings in place.

2 Phoenix DVD Emulator window reference

Thank you for purchasing Phoenix, the most advanced DVD emulator ever produced. This chapter describes the general layout of the Phoenix DVD Emulator windows. It also gives detailed reference information about each window in the basic layout.

The following topics are described:

- "Phoenix DVD Emulator basic layout" on page 18
- "The Remote window" on page 19
- "The Dashboard window" on page 25
- "User Operations window" on page 30
- "The SPRMs/GPRMs window" on page 31
- "Video Stream Info window" on page 34
- "Options window" on page 44
- "Project Selector & Console window" on page 51

Phoenix DVD Emulator basic layout

The Phoenix user interface is made up of modular windows, each of which contain related information and/or emulation controls. These windows can easily be reorganized and saved to provide a custom layout that suits individual needs.

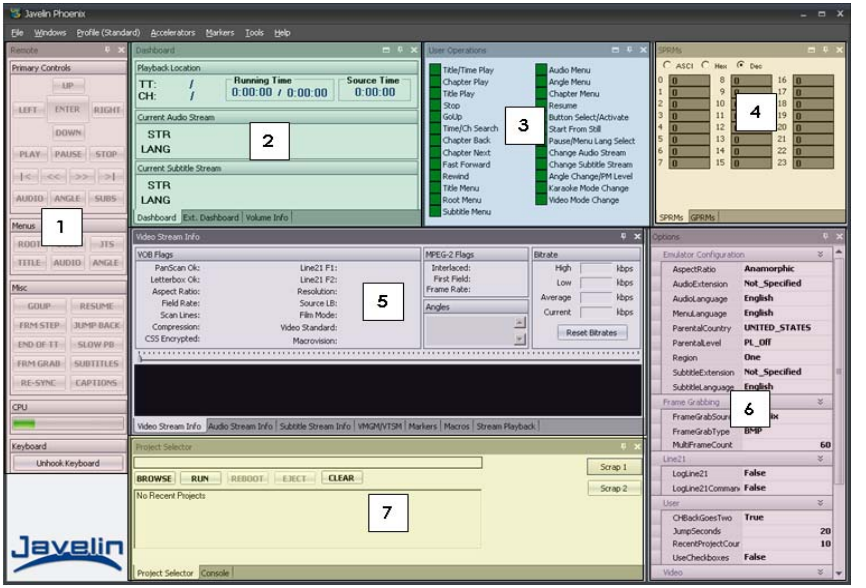


Figure 1: *Main areas of the Phoenix DVD Emulator window*

For detailed information about each area, see the following topics:

- Area 1: “The Remote window” on page 19
- Area 2: “The Dashboard window” on page 25
- Area 3: “User Operations window” on page 30
- Area 4: “The SPRMs/GPRMs window” on page 31
- Area 5: “Video Stream Info window” on page 34
- Area 6: “Options window” on page 44
- Area 7: “Project Selector & Console window” on page 51

The Remote window

The Remote window (labeled as Area 1 in Figure 1 on page 18) contains much of the same functionality as found on a standard DVD player remote control. This functionality allows a QC user to navigate DVD menus, control video playback and change audio and subtitle streams. The Remote window is comprised of the following features:

- "Remote player controls" on page 19
- "Menu calls" on page 20
- "Miscellaneous controls" on page 21
- "CPU meter" on page 24
- "Keyboard" on page 24

Remote player controls

Figure 2: *Remote window—Remote player controls*

The player controls in the Remote window have the same functionality as a standard DVD remote. Up, Left, Enter, Right, Down, Play, Pause and Stop are all used for DVD navigation and playback.

The Chapter Back button can be set to jump back to the start of the current chapter or to the chapter before the current chapter by changing the CHBackGoesTwo variable in the Options window (Figure 24).

Multiple presses of the fast forward and rewind buttons will increase the speed from 1x to 4x to 8x to 16x to 32x. Audio, Angle, and Subtitle buttons can be used to surf through the available streams.

Menu calls

Figure 3: *Remote window—Menu calls*

Root TCalls the Root menu specified in authoring.

Subs If the project has been authored with a Subtitle menu, clicking the Subs button will direct playback to the Subtitle menu.

JTS If the project has been authored with a “Jump to Scene” menu, clicking the JTS Menu button will direct playback to that menu.

Title Clicking the Title Menu button will direct playback to the Title menu, if authored.

Aud Clicking the Aud Menu button will direct playback to the Audio menu , if authored.

Ang Clicking the Ang Menu button will direct playback to the Angle menu, if authored.

Miscellaneous controls

Figure 4: *Remote window—Miscellaneous controls*

GoUP Clicking the GoUp button calls the GoUp function, if the author has specified a GoUp PGC call. This functionality is UOP and authoring dependant.

Frame Step Clicking the Frame Step button will pause the video stream and allow the user to move forward one frame at a time each time the button is clicked. To resume normal playback, click the Play button.

End of TT Clicking the End of TT button will direct playback to the end of the current title. This allows the user to watch the play-out of the title. The "pre-roll" before the end of the title is determined by the JumpSeconds variable in the Options window (Figure 24).

Frame Grab The Frame Grab feature allows users to quickly and easily save one frame or a series of frames from the video project in order to analyze potential problems such as video compression errors or misplaced subpictures. Right-clicking on the Frame Grab button will bring up the following menu:

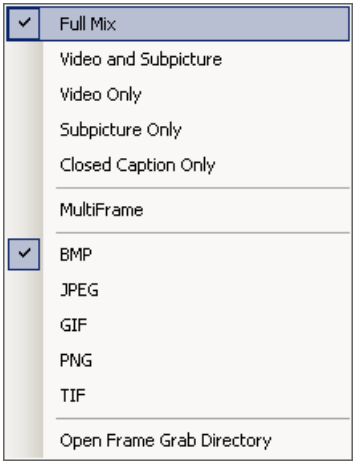


Figure 5: *Remote window—Frame Grab menu*

The first five options on the popup menu determine the level of detail that is captured when a frame is grabbed. Full Mix will capture all of the information displayed on the video monitor including video, subpictures and Line 21 Closed Captions. These options can also be selected by changing the FrameGrabSource variable on the Options window (Figure 22)

Selecting the MultiFrame option will cause a series of consecutive frames to be saved when the Frame Grab button is clicked. This prevents the user from having to frame step to the exact frame with a problem before grabbing it. The number of consecutive frames grabbed is determined by the MultiFrameCount variable on the Options window (Figure 22)

The last five options on the pop up menu determine the file format of the frame grab. BMP files provide a highly accurate, bit by bit representation of the video image and are often very large in size. Users should choose an alternate format with smaller file sizes such as JPEG or GIF if they intend to email the captured images. These options can also be selected by changing the FrameGrabType button on the Options Window (Figure 22).

Once the appropriate settings are in place, left-clicking the frame grab button will cause the frame grab to occur. Frame grabs are stored in the location set on the options tab of the Extended Options drop down menu (Windows > Extended Options > Options).

Frame grabs can be viewed in the Frame Grab Viewer found in the Extended Options drop down menu (Windows > Extended Options > Frame Grab Viewer).

To open the current dump directory in Windows Explorer, simply click the Open Frame Grab Directory option either in the Frame Grab context menu or on teh Frame Grab Viewer tab of the Extended Options window.

ReSync From time to time, video and audio streams may get out of sync due to various issues. Pressing the ReSync button will resolve the issue without having to stop or pause the video. The ReSync functionality is UOP dependant and requires Time Search to be enabled.

Resume Calls the Resume operation. Behavior is partially authoring dependant

Jump Back Clicking the Jump Back button will cause playback to jump backwards by the number of seconds set in the JumpSeconds variable in the Options window (Figure 24).

Slow PB Clicking the Slow PB will cause the video stream to play back at one quarter of the normal speed. Normal playback can be restored by pressing the Play button.

Subs On/Off Clicking the Subtitles button will enable or disable the display of the currently selected subtitle stream.

Captionss Clicking the Captions button will enable or disable the display of closed captions, if available. Availability of line-21 closed captions can be determined by looking at the Line-21 F1 indicator on the Video Stream Info window (Figure 14).

CPU meter

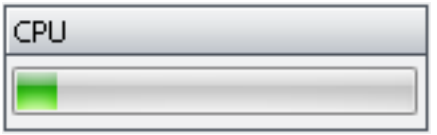


Figure 6: *Remote window—CPU meter*

The CPU meter provides a graphical representation of activity on the Phoenix workstation's central processor. CPU spikes typically occur when grabbing multiple consecutive frames. This can result in loss of sync for video and audio streams, which can be resolved by pressing the ReSync button on the Remote window (Figure 4). CPU spikes should not affect sync if the Phoenix workstation meets the system requirements.

Keyboard

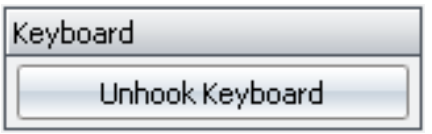


Figure 7: *Remote window—Unhook Keyboard*

In order to avoid losing general keyboard functionality in Phoenix due to various reasons, such as losing focus to another running application, the keyboard is automatically "hooked" into the Phoenix user interface. To regain keyboard access for other programs, simply click the Unhook Keyboard function located on the remote window.

Conversely, if keyboard control of Phoenix becomes unresponsive, clicking the Hook Keyboard button will restore control in most cases.

The Dashboard window

The follow sections describe the Dashboard window (labeled as Area 2 in Figure 1 on page 18).

The Dashboard window includes the following tabs:

- “Dashboard” on page 25
- “Extended Dashboard window” on page 26
- “Volume Info window” on page 28

Dashboard

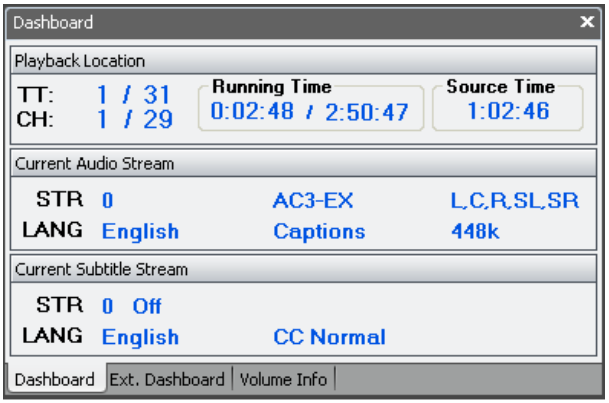


Figure 8: *Dashboard window*

The Dashboard provides a concise summary of player state information including:

Playback Location The Playback Location group provides exact project navigation information including current title (TT) and chapter (CH), overall running time and, if available, the source time code embedded in the MPEG stream (GOP headers).

Current Audio Stream The Current Audio Stream group provides a detailed summary of the audio stream that is currently being output via S/PDIF to the external decoder. This information includes the stream number (STR #), language as set by the DVD author (LANG), stream format, stream extension, a detailed list of available channels, and the frequency of the stream audio. This information can also be seen on the Audio Stream Info Window (Figure 15).

Current Subtitle Stream The Current Subtitle Stream group provides a detailed summary of the subtitle stream that is currently selected. This information includes the stream number (STR), the stream language (LANG), whether or not the stream is currently visible (on vs. off) and the subtitle extension. This information can also be seen on the Subtitle Stream Info Window (Figure 16).

Extended Dashboard window

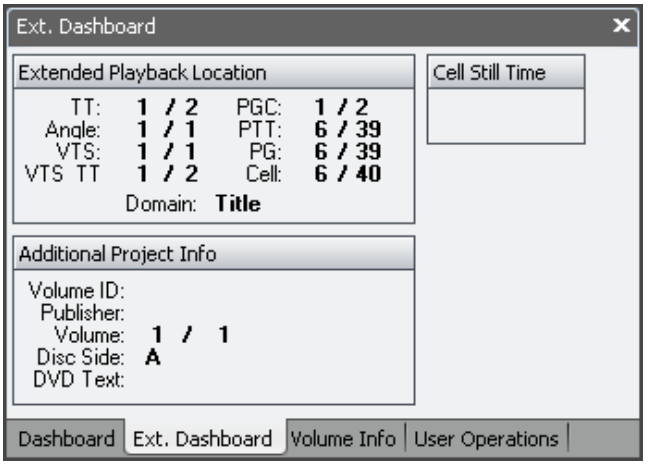


Figure 9: *Extended Dashboard window*

The Extended Dashboard window expands on the playback state information provided on the Dashboard window and includes:

Extended Playback Location The Extended Playback group provides exact project navigation information including:

- Current title (TT)
- Player angle (Angle)
- Video title set (VTS)
- Video title set title number (VTS_TT)
- Program chain (PGC)
- Program title number or chapter (PTT)
- Program number (PG)
- Cell
- Domain

Additional Project Info The Additional Project Info field provides a detailed summary of DVD text programming including VolumeID, Publisher Name, Volume Number, Disc Side and DVD Text. This eliminates the need to test for DVD Text using a DVD-R.

Cell Still Time The Cell Still Time indicator provides either a countdown of the remaining time in the current cell still or "INF" if the current cell is authored for infinite play.

Volume Info window

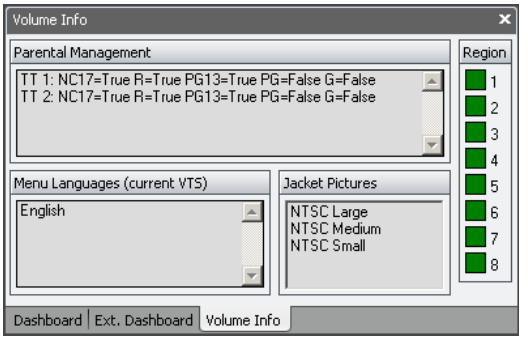


Figure 10: *Volume Info window*

The Volume Info window expands on the player state information provided on the Dashboard window and includes:

Parental Management The Parental Management field provides the current parental management settings for each title of the feature. The Parental Management information does not provide indication of scripted parental management such as an authored "compare" against the player's SPRM 13. The indicator strictly shows the parental level specified for each Global Title in the VMG PPT SRPT.

Region Each DVD volume is authored to play in one or more regions. The Region field provides a graphic representation of the authorized regions, with green signifying that the region is enabled, and red signifying that the region is disabled.

Jacket Pictures Jacket Pictures are image files that can be placed on a disc so that a player can display them aupon entering the stop domain. If Jacket Pictures are present in the current project, they will be displayed in the Jacket Pictures field. Double clicking on the individual Jacket Picture (Small, Medium, Large) enables the user to review the various image sizes.

Menu Languages The Menu Languages field provides a concise summary of all the available menu language sets in the current Video Manager or current Video Title Set's menu space. The active menu set can be affected by modifying the MenuLanguages variable in the Emulator Settings on the Options Window (Figure 21) or by using the Player Default Accelerator (Figure 41).

User Operations window

The following section describes the User Operations window (labeled as Area 3 in Figure 1 on page 18).

Figure 11: *UOPs window*

DVD-Video allows the disc to specify whether or not the user may perform any operation, such as selecting a menu, skipping chapters, forwarding or rewinding-essentially any function on the remote control.

The User Operations (UOP) Window provides a graphical representation of the available User Operations Prohibitions, with green signifying that the UOP is disabled, and red signifying that the UOP is enabled.

UOP functionality in the UOP window can also be viewed as checkboxes by setting the UseCheckboxes variable to True in the Options window (Figure 24).

For more information about creating UOP Templates to easily notify an user when an UOP does not conform to a given specification, please see “UOP Templates” on page 66 of the Phoenix DVD Emulator User Manual.

The SPRMs/GPRMs window

The following section describes the SPRMs (System Parameter Registers)/GPRMs (General Parameter Registers) window (labelled as Area 4 in Figure 1 on page 18). The following windows are described:

- “SPRMs window” on page 31
- “GPRMs window” on page 33

SPRMs window

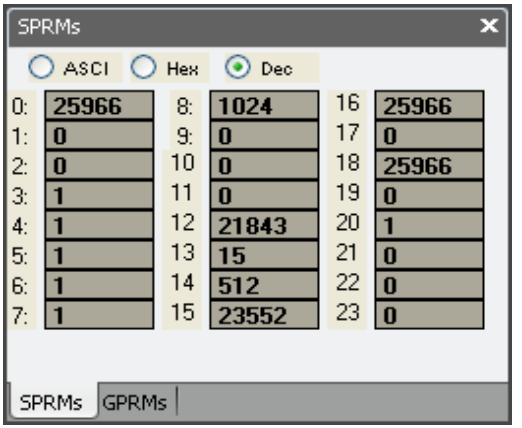


Figure 12: *SPRMs window*

System Parameter Registers (SPRMS) are 24 built-in variables in DVD players that contain the current player settings. These can be used with scripts and navigation commands to program interactive behavior. SPRM information can be viewed in either ASCII, Hexadecimal, or Decimal formats by clicking the radio buttons on the SPRMs window.

The fields in the SPRMs window represent the following variables:

0 - Preferred menu language	12 - Parental management country code
1 - Audio stream number	13 - Parental level
2 - Sub-picture stream number	14 - Video preference and current mode
3 - Angle number	15 - Player audio capabilities
4 - Title number in volume	16 - Preferred audio language
5 - Title number in VTS	17 - Preferred audio language extension
6 - PGC number	18 - Preferred sub-picture language
7 - PTT number	19 - Preferred sub-picture language extension
8 - Highlighted button number	20 - Player region code (mask)
9 - Navigation timer	21 - Reserved
10 - PGC jump for nav timer	22 - Reserved
11 - Karaoke audio mixing mode	23 - Reserved for extended playback mode

GPRMs window

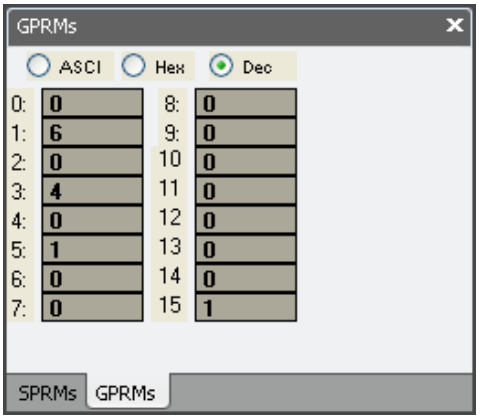


Figure 13: *GPRMs window*

General parameter registers (GPRMs) enable the majority of a DVD's interactive features. GPRMs are memory (RAM) found in every DVD player in the world. DVD authors use this memory to store variable numerical values that can then be used for a variety of purposes including navigation decisions and DVD quizzes and games. GPRM information can be viewed in either ASCII, Hexadecimal, or Decimal formats by clicking the radio buttons on the GPRMs window. There is no standard that dictates how GPRMs should be used.

Video Stream Info window

This section describes the Video Stream Info window (labelled as Area 5 in Figure 1 on page 18) and other tabs in the same window area. The following windows are described:

- “Video Stream Info” on page 34
- “Audio Stream window” on page 37
- “Subtitle Stream Info window” on page 39
- “VMGM/VTSM window” on page 40
- “Markers window” on page 40
- “Macros window” on page 42
- “Stream Playback window” on page 43

Video Stream Info

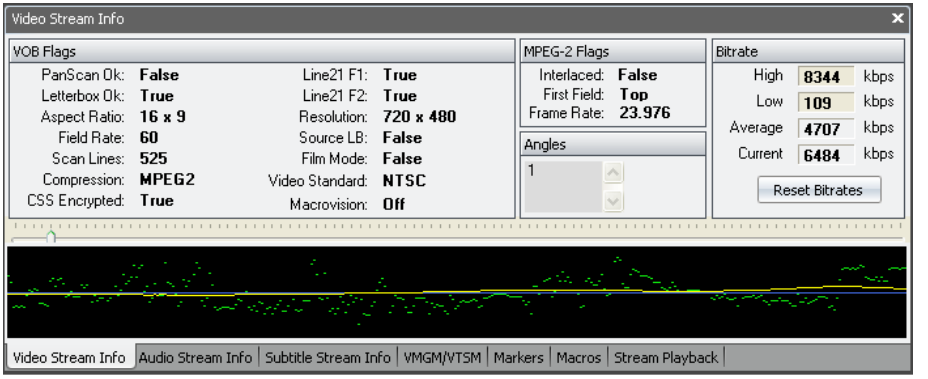


Figure 14: *Video Stream Info window*

The Video Stream Info window provides very detailed information about the project being played back. It includes the following six key areas:

VOB Flags Each VOB has a header that provides metadata about the contents of the VOB including:

- PanScan OK – Indicates whether Pan and Scan viewing is enabled or disabled.
- Letterbox OK – Indicates whether Letterbox viewing is enabled or disabled.
- Aspect Ratio - Displays the aspect ratio in which the original content was encoded. Values are: 1:1, 4:3, 16:9, or 2.21:1.
- Field Rate – Displays the number of times per second that an individual field is displayed on the screen. NTSC standards dictate 60 fields per second (30 frames per second * 2 fields per frame) and PAL standards dictate 50 fields per second (25 frames per second * 2 fields per frame).
- Scan Lines – Displays the number of horizontal lines that comprise one field. NTSC standards dictate that one field should be comprised of 525 horizontal lines while PAL standards dictate that one field should be comprised of 625 horizontal lines.
- Compression – Displays the codec that was used to compress the original source content.
- Line21 F1 – Indicates availability of closed caption data from line 21 of the first video field.
- Line21 F2 – Indicates availability of closed caption data from line 21 of the second video field.
- Resolution – Displays the resolution of the video output screen in horizontal and vertical pixels.
- Source LB – Indicates whether the current video frame signals the layer break in the video stream. Values are True or False.

- Film Mode - Indicates whether the VOB dictates that the video should be played back in Film Mode. Film mode is characterized by 23.976 frames per second as opposed to the 30 or 25 frames per second as dictate by the NTSC and PAL standards. Values are True or False.
- Video Standard - Indicates whether the scan lines and field rate are programmed to meet the specifications of NTSC or PAL.
- CSS Encrypted - Indicates the presence of CSS Encryption. Values are True or False.
- MacroVision - Indicates the presence of MacroVision protection. Values are Off or On.

MPEG-2 Flags In addition to the metadata included in the VOB file, there is additional information that can be pulled from MPEG-2 headers. This information provides information crucial to proper presentation of the video and includes:

- Interlaced – Indicates whether the current MPEG-2 video data is interlaced or progressive.Values are True or False
- First Field – Indicates if the current video is top field or bottom field first. Values are Top or Bottom.
- Frame Rate (Frames Per Second) - Indicates the frame rate of the current video – 23,976, 25, or 29.97.

Bitrate This region provides the following information about video bitrate:

- High - The highest bitrate recorded for the current title/domain.
- Low - The lowest bitrate recorded for the title/domain.
- Current - The average bitrate over the past ONE SECOND of playback.
- Average - The average bitrate since the start of the current title/domain.

- Reset Tracking - Clears High, Low, and Average bitrate settings, as well as the bitrate graph.

Bitrate Graph The bitrate graph provides a scrolling visual representation of the video bitrate information provided. The green lines represent the instantaneous bitrate (past one second) and the yellow lines represent the average bitrate.

Angles The Angles field displays the current number of angles available for viewing. To toggle through the available angles, press the Angle button in the Remote window (Figure 2) or click on the desired angle here. If there is only one angle available, the Angle button in the Remote window is grayed out.

Time Search Bar The Time Search Bar allows a user to quickly move forwards or backwards through a project by sliding the bar to the left or right. The running time will be displayed in a pop up box while the mouse is held over the scroller.

Audio Stream window

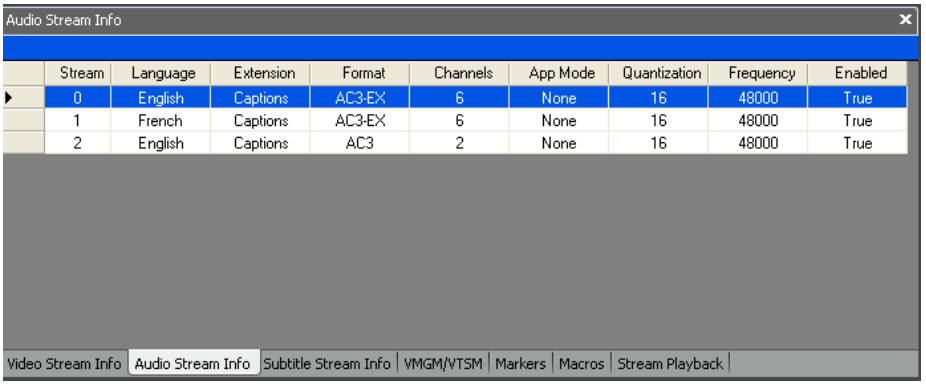


Figure 15: *Audio Stream Info window*

The Audio Stream Info window provides information about audio streams available in the current title. The current audio stream can be changed by clicking on streams in the Audio Stream Info window, or by pressing the “Audio” button in the Remote window (Figure 2) to surf through the available streams.

Stream Number The stream identification number as assigned by the DVD author.

Language As specified by the author.

Extension As specified by the author.

Format The encoding format (DTS, AC3, PCM, MPEG).

Channels The number of channels in the stream. The mapping of these channels is available on the Dashboard window (Figure 8) for the currently active stream.

App Mode Refers to the application mode variable in an AC3 stream.

Quantization Lists the number of bits used to quantize a sampled audio stream.

Frequency Lists the frequency at which the audio stream is sampled.

Enabled Indicates whether or not a particular audio stream is currently available for listening. For example, a VOB could have four audio streams enabled because one PGC has four audio streams but all of the other PGCs only have three audio streams. In this case, Phoenix would indicate that stream four is not enabled in the PGCs that only have three audio streams.

Subtitle Stream Info window

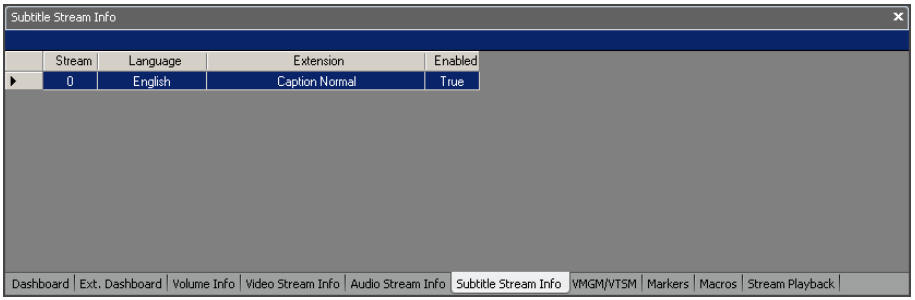


Figure 16: *Subtitle Stream Info window*

The Subtitle Stream Info window lists all subtitle streams available in the current title. Subtitle streams can be turned on by clicking the “Subs On/Subs Off” button in the Remote window (Figure 4). Subtitle streams can be changed by clicking on streams in the Subtitle Stream Info window, or by pressing the “Subtitle” button in the Remote window (Figure 2) to surf through the available streams.

Stream Number The stream identification number as assigned by the DVD author.

Language As specified by the author.

Extension As specified by the author.

Enabled Indicates whether or not a particular subtitle stream is currently available for viewing. For example, a VOB could have four subtitle streams enabled because one PGC has four subtitle streams but all of the other PGCs only have three subtitle streams. In this case, Phoenix would indicate that stream four is not enabled in teh PGCs that only have three subtitle streams.

VMGM/VTSM window

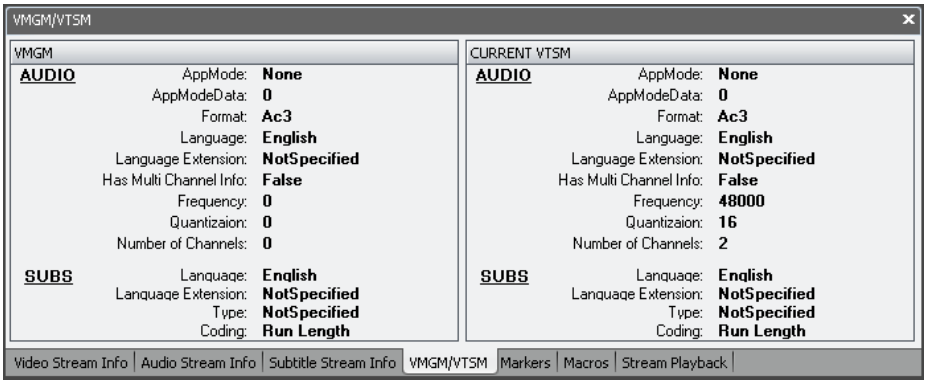


Figure 17: *VMGM/VTSM window*

This window provides detailed stream information for the VMGM (video manager) and the menu space of the current VTS.

Markers window

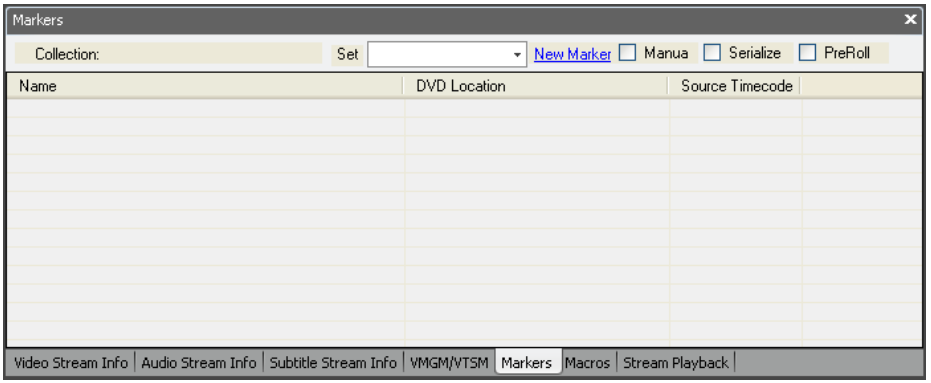


Figure 18: *Markers window*

The markers feature in Phoenix allows a user to create a list of issues pertaining to a DVD project. Each item in the list includes a description (name), and its location in the project. Markers can only be created in title space. Once a marker has been created, double-clicking it will (UOPs permitting) redirect playback to the location where that marker was created.

When “New Marker” is clicked for the first time in a project the user will be prompted to enter a collection name, a set name, and a name for the new marker. The collection name usually would be the name of the project (i.e. “TwoTowers_NA_EE_D2”), the set name could be the name of the title (i.e. “feature” or “making-of documentary”), and finally the marker name should be a description of the issue encountered (i.e. “Possible video hit”).

A user can manually enter the running time for a marker by clicking the Manual checkbox. If this box is not checked, the marker will use the running time at the moment the user presses the New Marker button.

If the Serialize checkbox is checked, Phoenix will name new markers automatically with a number so that the user is not required to enter a name for each marker.

If the PreRoll checkbox is checked, upon executing a marker, playback will resume five seconds before the marker’s running time.. Double clicking a marker without checking the PreRoll checkbox will jump directly to the running timecode of that marker.

Once a collection of markers has been created it can be saved to a file by using the Markers menu. The resulting file can be e-mailed to another user of Phoenix who can open the collection and, if the drive mapping is the same on each emulator workstation, the same project will be opened on the second machine and the second user can use the marker collection to review the issues noted by the first user.

Macros window

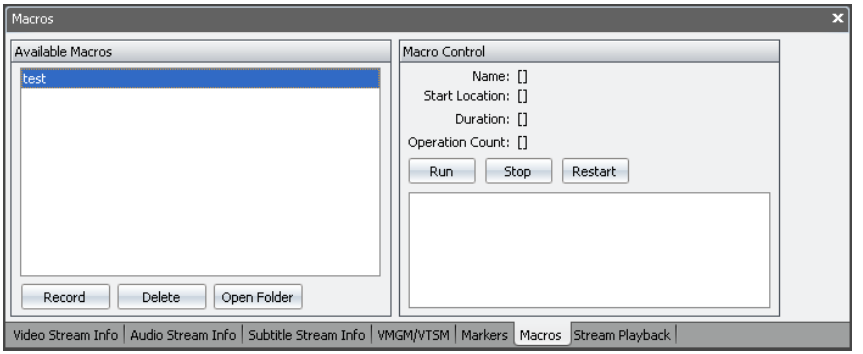


Figure 19: *Macros window*

The Macros window allows a user to record a series of user inputs and reuse them later to automate repetitive or commonly used sequences of user behavior.

To record a macro, press the Record button to start recording the sequence of behaviors to be automated. When finished with the sequence, press the Record button again. The user will then be prompted to name the macro.

To delete a given macro, select it from the Available Macros listbox and click the Delete button.

To use a Macro, select the desired macro from the Available Macros listbox and click the run button. A description of the macro, including the name, start location, duration and operation count can be viewed in the Macro Control box.

To stop a macro before its sequence of behaviors ends, click the Stop button. To restart a macro, click the Restart button.

Stream Playback window

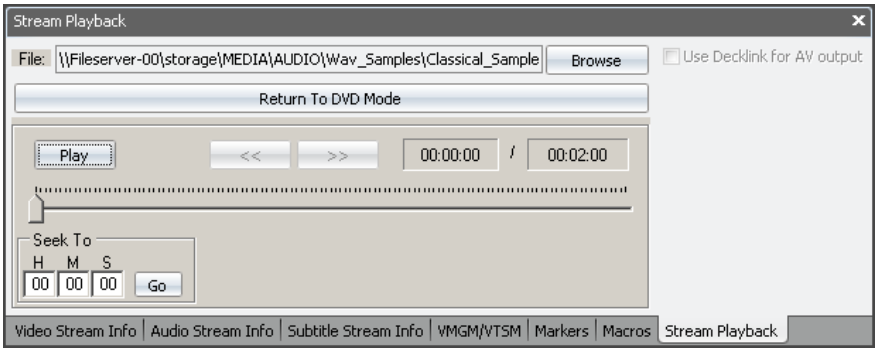


Figure 20: *Stream QC window*

The Stream Playback window enables linear-pass quality control for elementary video and audio streams, MPEG Program Streams and VOB Files. This is useful for checking video and audio streams for encoding errors independent of any DVD authoring information such as menus or subtitles.

To begin Stream Playback, a user must click the Browse button and select a file the press Play. To stop playback, the user must press the Stop button. The Time Search Bar directly below the Play and Stop button allows direct navigation to any point in the file. Running time search is also provided. To use the running time search, enter an exact time (Hour : Minute : Second) and press go.

To return to normal emulation functionality, press the Return To DVD Mode button.

Options window

The Options window (labeled as area 6 in Figure 1 on page 18) enables changes to many emulator settings and features. The following options are discribed:

- “Emulator configuration options” on page 44
- “Frame Grabbing options” on page 46
- “Line 21 options” on page 47
- “User options” on page 48
- “Video options” on page 49

Emulator configuration options

Changes made to the Emulator Configuration variables must be followed by rebooting or by pressing eject and re-opening the project in order for the changes to take effect.

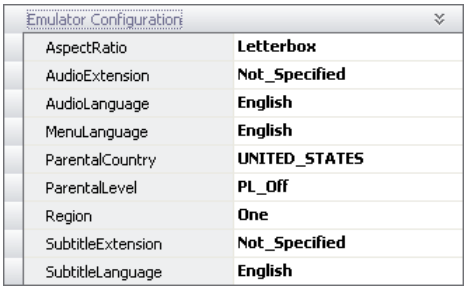


Figure 21: *Emulator Configuration options*

Aspect Ratio The Aspect Ratio setting determines the Aspect Ratio (Anamorphic, PanScan, or Letterbox) in which the DVD emulator will playback the content. This setting can also be changed using the Player Default Accelerator (Figure 41).

AudioExtension The AudioExtension variable determines the primary audio stream the DVD emulator will play back. (Not_Specified, Director_Comments_1, Director_Comments_2, Visually_Impaired, or Captions.)

AudioLanguage The AudioLanguage variable determines the language in which the DVD emulator will play back audio streams. The list of languages available depends on the DVD specifications. This setting can also be changed using the Player Default Accelerator (Figure 41).

MenuLanguage The MenuLanguage variable determines which language the DVD emulator will display for all menu content. The list of languages available depends on the DVD specifications. This setting can also be changed using the Player Default Accelerator (Figure 41).

ParentalCountry The ParentalLevel variable allows the user to set the parental country levels of the DVD emulator. The list of countries available depends on the DVD specifications.

ParentalLevel The ParentalLevel variable allows the user to set the parental levels of the DVD emulator. Values are PL_OFF, PL_1_G, PL_2, PL_3_PG, PL_4_PG13, PL_5, PL_6_R, PL_7_NC17, or PL_8.

Region The Region variable allows the user to set the Region of the DVD emulator (a numerical value of 1—8). This setting can also be changed using the Player Default Accelerator (Figure 41).

SubtitleExtension The SubtitleExtension variable allows the user to set the size of subtitles and closed captions. Values are:

• NOT_SPECIFIED	• CLOSED_CHILDREN
• CAPTION_NORMAL	• FORCED
• CAPTION_BIG	• DIRECTORS_COMMENTS_NORMAL
• CAPTION_CHILDREN	• DIRECTORS_COMMENTS_BIG
• CLOSED_NORMAL	• DIRECTORS_COMMENTS_CHILDREN
• CLOSED_BIG	

SubtitleLanguage The MenuLanguage variable determines which language the DVD emulator will display for all subtitle streams. The list of languages available depends on the DVD specifications. This setting can also be changed using the Player Default Accelerator (Figure 41).

Frame Grabbing options

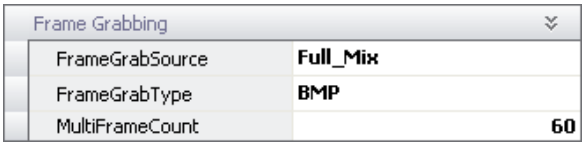


Figure 22: *Frame Grabbing options*

FrameGrabSource The FrameGrabSource variable determines the level of detail that is captured when a frame is grabbed. (Full_Mix, Video and Subpicture, Video Only, Subpicture Only, Line21 Only, or MultiFrame.) Full_Mix will capture all of the information displayed on the video monitor including video, Subpictures and Line21 closed captions. This setting can also be changed by right-clicking the FrameGrab button on the Remote window (Figure 4).

FrameGrabType Changing the FrameGrabType variable allows the user to specify the output format of frame grabs. (BMP, JPEG, GIF, PNG, of TIF.) BMP files provide a highly accurate, bit-by-bit representation of the video image and are around 1MB in size. This setting can also be changed by right-clicking the FrameGrab button on the Remote window (Figure 4).

MultiFrameCount The MultiFrameCount variable determines how many consecutive frames will be captured when using the multi-frame grab feature (Figure 5).

Line 21 options

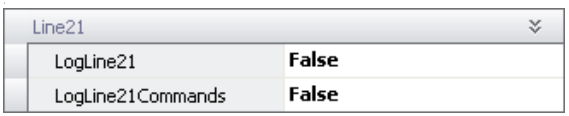


Figure 23: *Line 21 options*

LogLine21 Turning on the LogLine21 variable will cause the text from closed captions to be recorded in the Console window (Figure 27). Values are True or False.

LogLine21Commands Turning on the LogLine21Commands variable will cause commands and positioning information from closed captions to be recorded in the Console window (Figure 27). Values are True or False.

User options

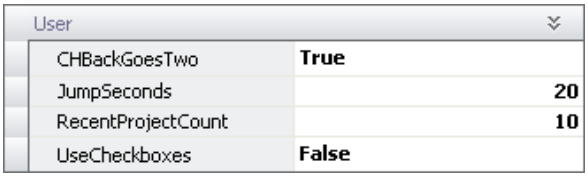


Figure 24: *User options*

CHBackGoesTwo When the CHBackGoesTwo variable is set to false, clicking the chapter back button on the remote widow (Figure 2) will rewind the project to the start of the current chapter. When the CHBackGoesTwo variable is set to true, clicking the chapter back button on the remote window will rewind the project to the start of the title *before* the current title. Values are True or False.

JumpSeconds The JumpSeconds variable establishes the number of seconds that the project will rewind when the JumpBack button is clicked on the remote window (Figure 4). The JumpSeconds variable also determines the number of seconds before the end of the title to which the project will advance when the EndOfTT button is pressed on the remote window (Figure 4). Values are an integer from 1 to 20.

RecentProjectCount The RecentProjectCount variable determines how many recent projects are cached and displayed in the Project Selector window (Figure 26). Values are integers from 1 to 10.

UseCheckBoxes Toggling the UseCheckBoxes will switch the color coded boxes to check boxes in the UOP window and Region Display (Figure 11) on the Volume Info Tab (Figure 10) to more closely reflect the user interface on the Panasonic emulator, with which some users may be more comfortable. Values are True or False.

Video options

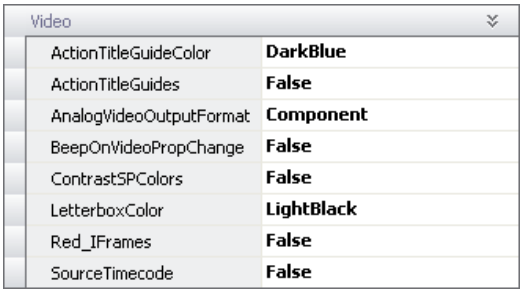


Figure 25: *Video options*

ActionTitleGuidesColor The ActionTitleGuidesColor variable allows the user to choose the color of the Action Title Safe guides to make them more visible depending on the relative darkness of the project. Action Title Safe Guide color also can be adjusted on the Extended Options Menu located in the Windows drop-down (Figure 29). (Values are Gray, White, Dark Gray, Dark Blue, or Dark Red.)

ActionTitleGuides Toggles the display of Action Title Safe Guides in the video output stream. The color of the Action Title Safe Guides can be selected by changing the ActionTitleGuidesColor variable in the Options window. Action Title Safe Guides can be set to any configuration by adjusting their positions on the Extended Options Menu located in the Windows drop-down (Figure 29). Values are True or False.

AnalogVideoOutputFormat If the video I/O card installed on the Phoenix DVD Emulator workstation supports analog video output in addition to SDI output, toggling the AnalogVideoOutputFormat enables the user to switch between Component and Composite settings. Values are Component or Composite.

BeepOnVideoPropChange Toggles an audio warning for users whenever a video property change is logged in the console window. Values are True or False.

ContrastSPColors Turning on the ContrastSPColors option changes the colors of all sub pictures to high contrast settings. This makes it very easy ensure the exact placement of sub pictures and to identify stray pixels that may otherwise blend into the background. Values are True or False.

LetterboxColor Changing the LetterboxColor variable will alter the color of the background letterbox. This is particularly useful when viewing a dark scene or background where it is not easy to distinguish the letterbox from the video. Values are Dark Black, Light Black, Blue, Green, or Red.

Red_IFrames Turning on the Red_IFrames will cause the source time code to display in red when an I Frame is displayed in the video output. Values are True or False.

SourceTimecode Toggles the display of source time code in the video stream. Source time code will not be available if it was not included during the encoding process. Values are True or False.

Project Selector & Console window

This section describes the window labelled window 7 in Figure 1 on page 18. The following windows are described:

- “Project Selector” on page 51
- “Console window” on page 52

Project Selector

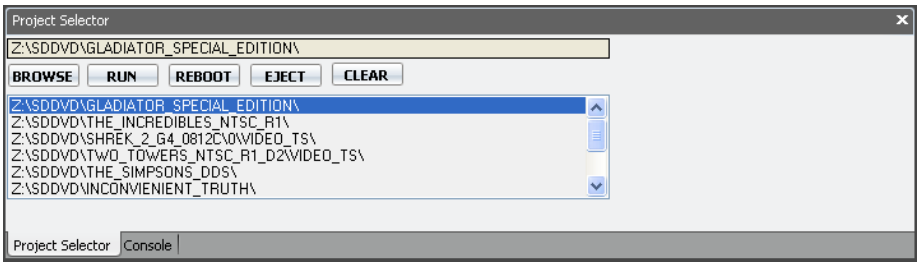


Figure 26: *Project Selector window*

The Project Selector window provides for selection of projects for emulation. Recently opened projects will appear in the window and can be reopened by double-clicking on the project path. The number of recent project is determined by the RecentProjectCount variable in the Options window (Figure 24).

Browse Clicking on the browse button allows a user to browse for the Video_TS folder associated with a given project in order to open it.

Run Selecting a project in the Project Selector window and clicking the Run button will open a project.

Reboot Pressing the reboot button will stop any current project and emulate a reboot of the DVD player. This action is required after changing the emulator configuration in the Options window (Figure 21) or in a Player Default Accelerator (Figure 41).

Eject Clicking the Eject button will stop playback of the current project. It is advisable to press the Eject button before changing any of the Emulator Settings in the Options window (Figure 21) as the emulator will need to reboot before the new settings take effect.

Clear Clicking the clear button will empty the Previous Projects List in the Project Selector window

Previous Projects List Recent projects opened with Phoenix will be stored in the Previous Projects List. To reopen a recent project, double-click on the path to that project. The number of recent projects kept in the Previous Projects List can be increased or decreased by changing the RecentProjectCount variable in the Options window (Figure 24).

Console window

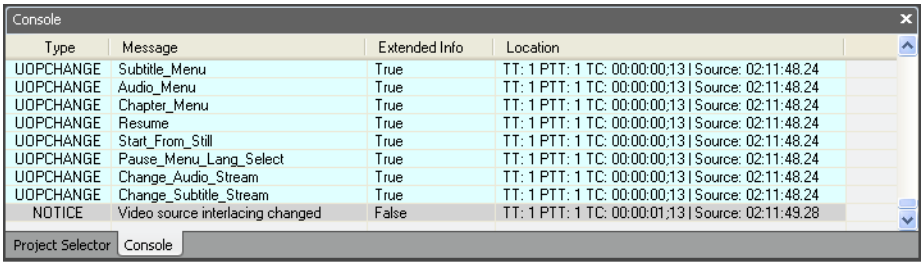


Figure 27: *Console window*

The Console window serves as the primary log of activities and events in Phoenix DVD Emulator. Certain items in the list (depending on how or when they occurred) can be double-clicked to redirect playback to the location where they occurred.

Type The type of event that Phoenix has logged

Message The Message field provides details for the type of event that has been logged.

Extended Info The Extended info field provides further details about the nature of the event that was logged.

Location The playback location for the event that was logged as available.

A number of additional options are available in teh context (right-click) menu in the console window.

3 Application menus

This chapter gives detailed information about the menu commands available in Phoenix. The following menus and commands are described:

- “File menu” on page 56
- “Windows menu” on page 57
- “Profile menu” on page 70
- “Accelerator menus” on page 72
- “Markers menus” on page 75
- “Tools menu” on page 78
- “Help menu” on page 79

File menu

The File menu contains options that allow a user to open a project, close a project and exit the Phoenix application:

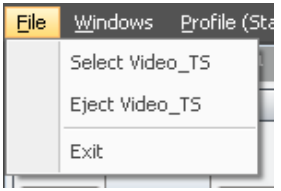


Figure 28: *File Menu*

Select Video_TS The Select Video_TS option will open a file selection menu that allows a user to browse for the Video_TS folder associated with a given project in order to open it. A user can also select and open a project in the Project Selector window (Figure 26).

Eject Video_TS The Eject Video_TS option will close the current project. A project must be closed before changing any of the default emulator settings in the Options window (Figure 21). A user can also eject a project in the Project Selector window (Figure 26).

Exit The Exit option will close the Phoenix application.

Windows menu

The Windows drop-down menu details all of the available windows in Phoenix.:

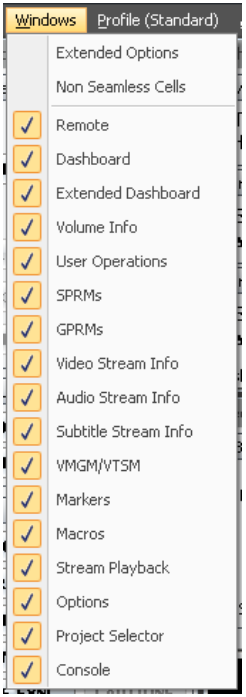


Figure 29: *Windows Menu*

The first fourteen windows listed are checked and appear automatically when that application launches as a part of the default emulator profile. To remove a window from the screen, uncheck the window name by clicking on it.

Custom window configurations can be saved as a part of a user profile and loaded by default whenever Phoenix is opened.

There are also several windows that do not appear on screen automatically by default. These windows are described in the following sections.

Extended Options

The Extended Options window is comprised of several tabbed sub-windows including:

Options

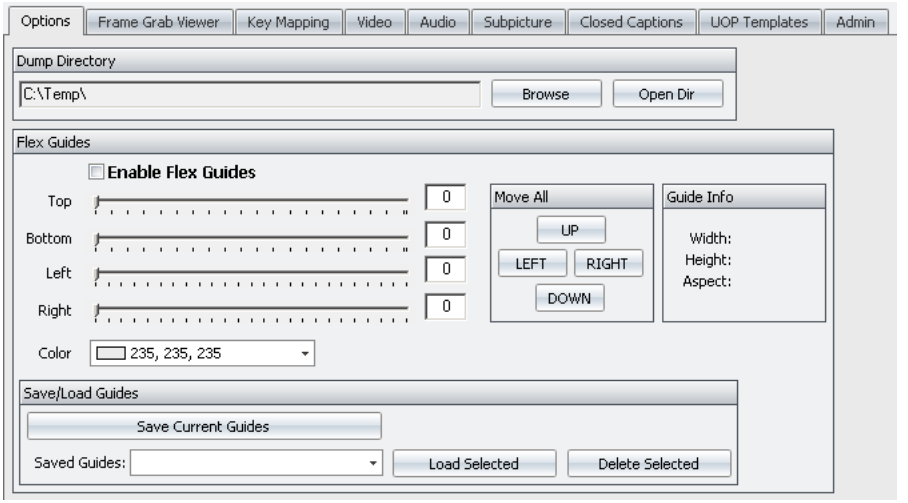


Figure 30: *Options*

Dump Directory The Dump Directory determines where all materials exported by Phoenix are placed. The default location is C:\Temp. To specify a different location, click the Browse button and select a new folder.

Flex Guides The Flex Guides group is dedicated to the placement and configuration of custom guides. To make the guides visible, click the Enable Flex Guides checkbox.

There are several ways to adjust the positioning of the action title safe guides. Each of the four distinct guides (Top, Bottom, Left, Right) has a dedicated slide bar that specifies the distance in pixels from the top or left. The distances can also be set manually by entering values into the text fields next to each bar.

All four guides can be moved in unison by pressing the U (Up), D (Down), L (Left), and R (Right) buttons located in the Move All field. Each click will move all four guides one pixel in the direction chosen. Fine positioning can be achieved through use of the arrow keys when foucus is placed in the number field for a given guide.

The exact positioning and aspect ratio of the Flex Guides is displayed in the Guide Info group.

The current color of the action title safe guides is show directly below the positioning slide bars. There are several ways to change the color of the action title safe guides. Click the Color drop down bar to select colors from a several preset configurations or to choose a custom color from the color picker.

These presets can be selected using the drop-down box located directly below the positioning slide bars. The width (in pixels), height (in pixels) and aspect ratio of the area bounded by the action title safe guides are displayed to the right of the positioning preset drop-down menu.

Custom configurations of color and positioning can be saved and accessed later. To save a custom configuration, click the “Save Current” link and enter a name in the pop-up box.

To access a saved custom configuration, simply select a saved guide from the Saved Guides drop down list located at the bottom left corner of the Flex Guides field and click the Load Selected button.

To delete a saved configuration, load it from the Saved Guides drop down list and press the Delete Selected button.

Frame Grab Viewer

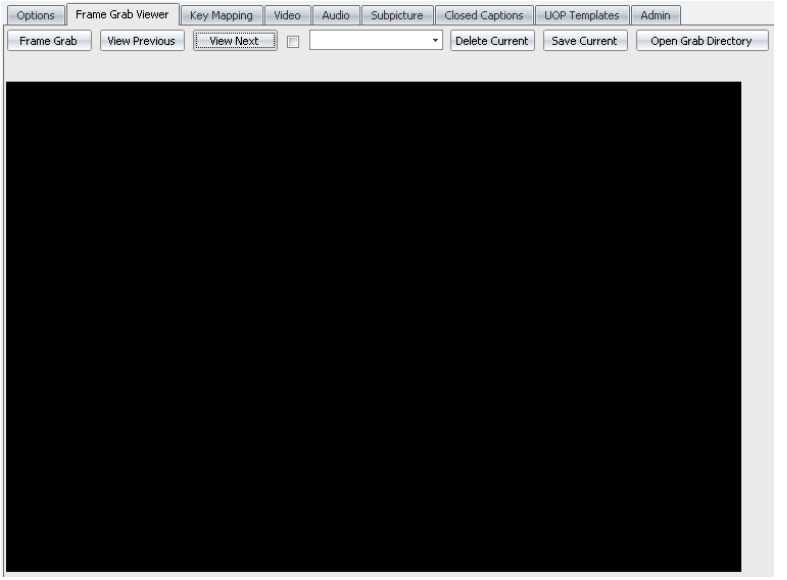


Figure 31: *Frame Grab Viewer*

The Frame Grab Viewer allows a user to view frame grabs from within Phoenix. The frame grab viewer automatically searches the directory specified by the Dump Directory on the Extended Options Window (Figure 30).

Users can also capture new frame grabs from the Frame Grab Viewer interface by pressing the Frame Grab button located at the top left.

Clicking the View Previous and View Next buttons will cycle through all available screen grabs in the selected directory.

If a multi-frame grab has been performed, the sequence of frames can be viewed by clicking the checkbox and selecting the multiframe folder from the drop down list. If the user has not performed a multi-frame grab, the drop down list will be empty.

Users can delete individual screen grabs by clicking the Delete Current button, or save a screen grab to another location by clicking the Save Current button.

To go directly to the Dump Directory where frame grabs are stored, users can click the Open Directory button.

Key Mapping

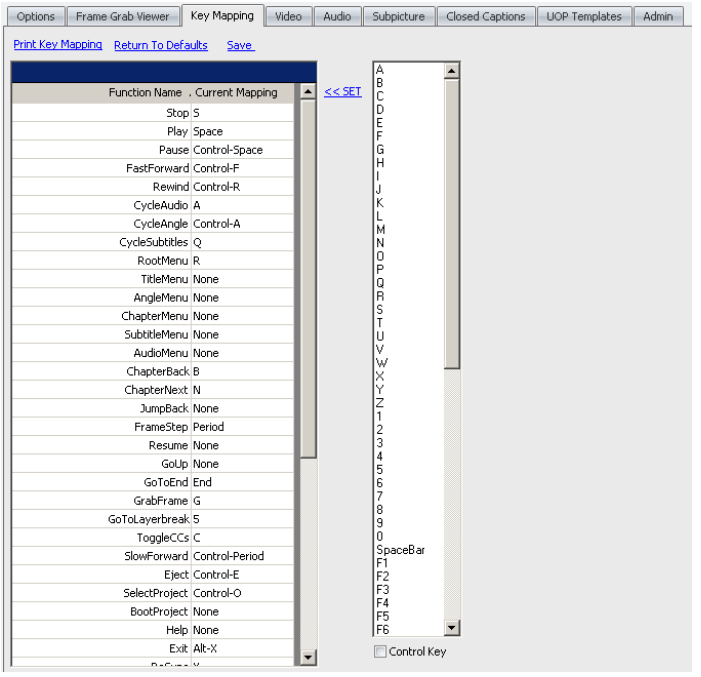


Figure 32: *Key Mapping*

Phoenix was designed so that a user could perform a majority of their tasks without using the mouse. Many of the features found on the user interface are mapped to individual keys on the keyboard and can be customized in the Key Mapping window.

The box on the left side of the Key Mapping window shows the available Functions and their currently mapped key. The box on the right side of the Key Mapping window displays all available keys on the keyboard. To set a custom key map, select a function from the left hand side, a key from the right hand window and click the Set button. If the selected key has already been mapped to another function, it will set that function's key map to "None."

To restore the default key mapping settings, click the "Return to Default" link located at the top of the Key Mapping window. A full list of the current key mapping settings can be printed by clicking on the "Print Key Mapping" link. You can also find it in Appendix A, "Key mappings."

Custom key mapping configurations can be saved and used as a part of a user profile. For more information, see "Profile menu" on page 70.

Video

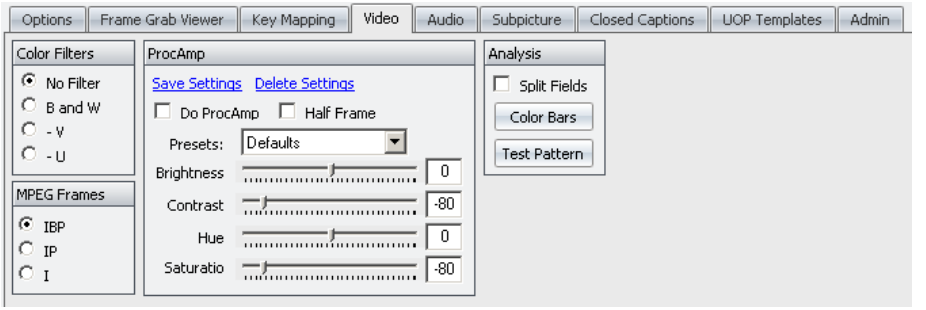


Figure 33: *Video window*

The Video window provides a variety of features tailored to the needs of Video QC users and compressionists. These features include:

Color Filters Color filters allow a compressionist or QC user to closely inspect the video stream for color quality. These filters include:

- B and W - Displays the video stream in Black and White
- –V – Removes V values from the video stream.
- –U – Removes U values from the video stream.

MPEG Frame MPEG Frame Filters allow viewing of certain frames of an MPEG stream in order to closely inspect the video quality. These filters include:

- IBP - Displays the full video stream including I, B and P frames
- IP - Displays only I and P frames
- I - Displays I frames only

ProcAmp The ProcAmp field allows a user to adjust certain qualities of a video stream including brightness, contrast, hue and saturation in order to closely inspect the overall quality of the video stream. To enable the ProcAmp, click the Do ProcAmp checkbox. The ProcAmp settings can be applied to the full video stream or only half of the frame. Viewing only half of the frame provides a side by side comparison of the video stream with and without adjustments and is enabled by clicking the Half Frame checkbox.

Phoenix ships with two ProcAmp presets which can be selected from the Presets drop-down menu. These presets include:

- MPEG Blocking - Increases Hue and Saturation to check for blocking errors in the MPEG stream
- Noise - Increases Contrast and reduces brightness, hue and saturation to check for noise in the MPEG stream.

Custom settings can be configured using the ProcAmp slide bars or by entering values directly into the text fields next to each slide bar. These settings can be saved by clicking on the “Save Settings” link and entering a setting name into the pop up box. Once saved, custom settings will appear in the Presets drop-down menu. To delete a custom setting, load it from the Presets drop-down menu and click on the “Delete Settings” link.

Split Fields Clicking the Split Fields checkbox will take each video frame and split it into separate top and bottom fields. This can be useful for troubleshooting 3:2 problems.

Color Bars Clicking the Color Bars button will stop the video stream and output color bars. The color bars have been tested on a Tektronix scope and are accurate. Should the need arise, users can calibrate their SDI monitors using the color bar output. This feature must be activated during playback of a title.

Test Pattern Clicking the Test Pattern button will stop the video stream and output a test pattern in order to troubleshoot video output problems without playing back a project. This feature must be activated during playback of a title.

Audio

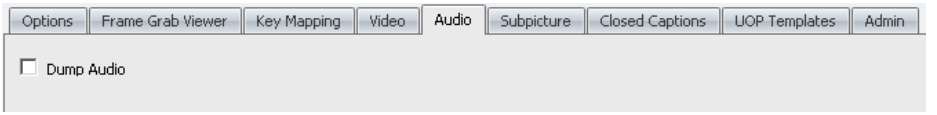


Figure 34: *Audio window*

The Dump Audio feature allows the user to capture the audio from the project and export it in its native format. This is particularly useful if a user suspects there is a problem with an audio stream and would like to share it with a compressionist.

Audio capture begins when the Dump Audio box is checked and continues until it is unchecked. The audio files are stored in the directory set using the FrameGrabLocation variable on the Options window (Figure 22) or the Frame Grab Target Folder on the Extended Options window (Figure 31).

Subpicture

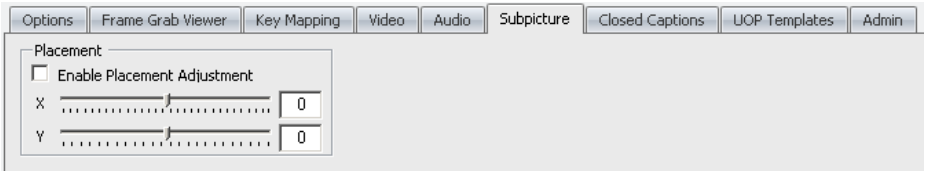


Figure 35: *Subpicture window*

The Placement field on the Subpicture window allows a user to temporarily adjust the positioning of subpictures for a given project. To adjust the placement, a user must check the Enable Placement Adjustment check box and then move the X axis (vertical) and Y axis (horizontal) sliders.

Note: This does not change anything in the project itself.

Closed Captions

Figure 36: *Closed Captions window*

The Placement field on the Closed Captions window allows a user to adjust the positioning of closed captions for a given project. To adjust the placement, a user must check the Enable Placement Adjustment check box and then move the X axis (vertical) and Y axis (horizontal) sliders.

Note: This does not change anything in the project itself.

UOP Templates

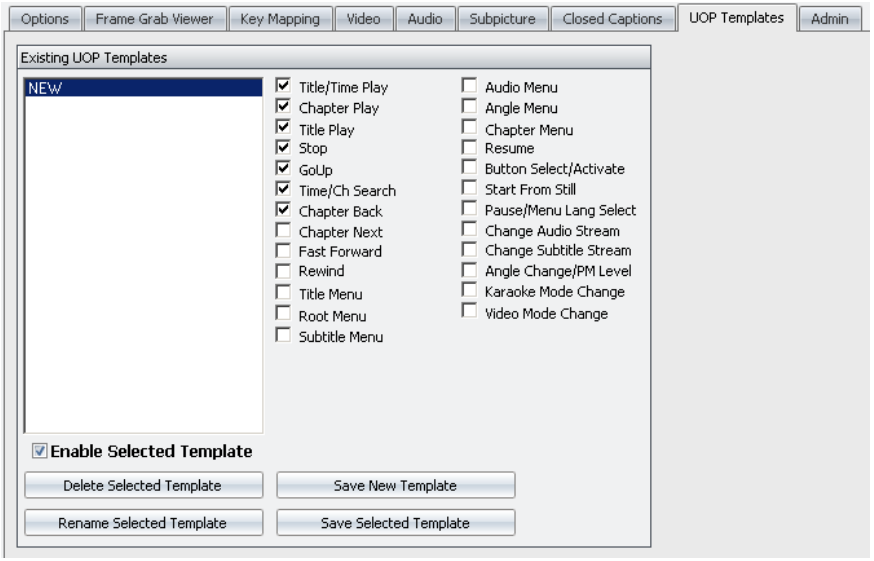


Figure 37: *UOP Templates window*

UOP Templates provide an easy method for notifying users when a given UOP or multiple UOPs are not set according to a given specification. By clicking the checkbox next to any or all of the UOPs listed, the user is indicating that a specific UOP should be prohibited.

If a given UOP is checked in the template, and the author has programmed that UOP to be permitted, the UOP name in the User Operations window of the user interface will change from black to red. Conversely, if a given UOP is unchecked in the UOP Template and is permitted (shows up green) in the project, the UOP name in the User Operations window of the user interface will change from black to red.

Figure 38: *UOP window*

To create a new UOP template, simply check the necessary UOPs in the window and click Save New Template. The user will be prompted to enter a Template name. To turn this feature on, click Enable Selected Template checkbox.

To modify an existing template, simply select the template from the drop down list, make the necessary modifications by checking or unchecking UOPs, and click the Save Existing Template button.

To rename an existing template, simply select the template from the drop down list, click the Rename Selected Template button and change the template name in the pop up window.

To delete an existing template, simploy select the template from the drop down list and click the Delete Selected Template button.

Non-Seamless Cells

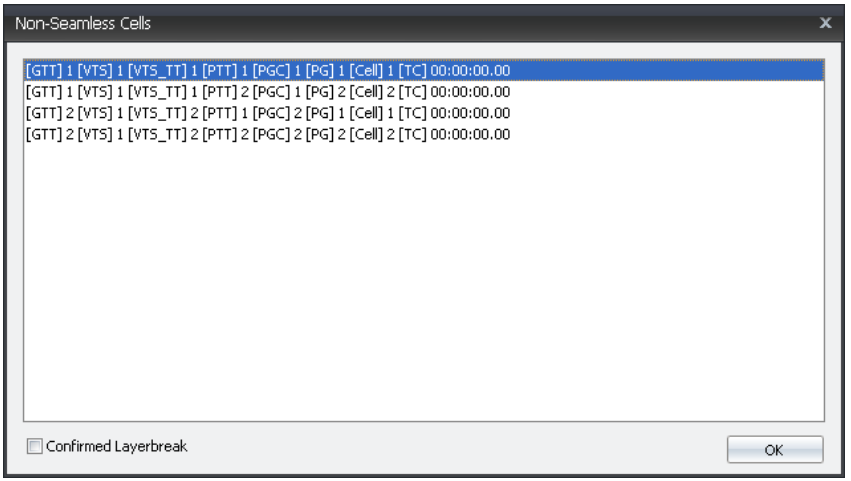


Figure 39: *Non-Seamless Cells window*

The Non-Seamless Cells window provides a list of significant non-seamless cells that Phoenix discovers in a given project. Double-clicking one of any of the non-seamless cells will direct playback to the location of the cell, given that searches are not prohibited by User Operation control.

Profile menu

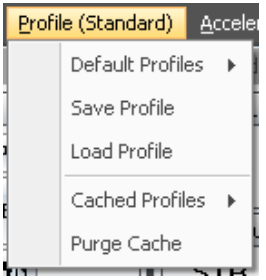


Figure 40: *Profile Menu*

Phoenix allows a user to modify the user interface, key mapping, and emulator options to suit their personal preference and needs. Phoenix allows users to save these settings in a personal profile that can be reloaded later.

Each profile includes the following settings:

Window configuration The exact placement, sizing, and choice of available windows on the screen.

Key Mapping Any custom configuration of hot keys and shortcuts as determined by the Key Mapping window (Figure 32).

Emulator Configuration All emulator defaults (Figure 21) found in the Options window including default audio and video languages, parental levels, aspect ratio and so on.

The Profile drop-down menu contains the following options:

Default Profiles Phoenix ships with 2 default profiles. These include the Standard profile and TCS profile.

Save Profiles To save a user profile, including the window configuration, key mapping, and emulator configuration, click the Save Profiles option and name the profile. All information is captured in a .pup file and can be moved to a different workstation. All default settings should be compatible if the workstations have identical folder structures and mapped drives.

Load Profile To load a profile from a network drive or local machine, click the Load Profile option and search for a .pup file.

Cached Profiles Phoenix will keep a record of the last 5 custom profiles used on a workstation. This makes it easy for a user to quickly load their custom settings if they use the same workstation frequently.

Purge Cache Clicking on the Purge Cache option will delete all profiles from the Cached Profiles option.

Accelerator menus

Phoenix was designed with a great deal of user feedback from leading DVD production facilities around the world. The accelerators serve to speed up the QC process by streamlining the following activities:

- Setting emulator options.
- Jumping to a location based on running time.
- Jumping to a chapter in the current project.
- Jumping to a title in the current project.

Player Defaults

Figure 41: *Player Default Accelerator Menu*

The Player Default Accelerator enables a user to quickly change the default emulator settings. Instead of changing individual settings on the Options window (Figure 21), a user can quickly change the Audio Language, Subtitle Language, Menu Language, Aspect Ratio, and

Region settings from the Player Default Accelerator. When the user clicks Apply, the current project will automatically be ejected, the settings will change, and the current project will be reloaded with the new settings in place.

To further speed up the process of changing emulator settings, the user can click the "Apply Audio To All" checkbox. If clicked, once the user changes the Audio Language field and presses "the Tab" key, the Subtitle Language and Menu Language settings will automatically be changed to match the Audio Language.

If a user wants to open a new project when the new settings are implemented, he or she can click the Open New Project checkbox. If a user clicks Apply with the Open New Project checked, it will eject the current project, apply the default emulator settings and prompt the user to browse for a new project.

Time Search

Figure 42: *Search Accelerator window*

The Time Search Accelerator allows a user to quickly jump to a desired location based on running time in the project. Enter the hour (h), minute (m) and second (s) desired, and then click Go.

Chapter Search

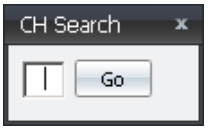


Figure 43: *Chapter Search window*

The Chapter Search Accelerator allows a user to jump quickly to a chapter in the current project. Enter the desired chapter in the accelerator, and then click Go to jump to that chapter.

Title Search

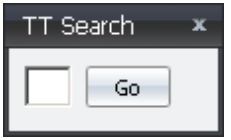


Figure 44: *Title Search window*

Enter the desired title in the accelerator and then click Go to jump to that title.

Markers menus

Phoenix allows users to organize their markers into sets and collections. Collections are comprised of multiple markers while sets are typically comprised of various collections. For instance, many users choose to create a set called "Video Compression QC" and have collections named "Artifacts" and "Tearing" where they store individual markers that point to exact moments in the project where artifacts and tearing occurs.

Collections

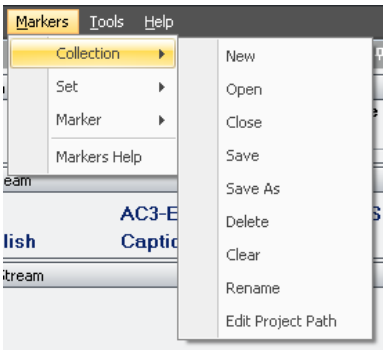


Figure 45: *Collections Menu*

To create a new collection, click on Collection in the Markers drop down and select New. The user will be prompted to name the new collection.

To open an existing collection, simply click on the Open option in the Markers menu. The collection will automatically populate the Markers window. A user can also close a collection by clicking the Close option.

Collections can be saved by clicking the Save option or Save As option should the user wish to rename the collection file name.

Collections can be deleted by opening a collection and then selecting the Delete option. Should a user wish to start over with an existing collection, they can delete all markers from a current collection by clicking the Clear option. Users also have the option of renaming a given collection by clicking the Rename option.

Markers can be transferred from one Phoenix workstation to another and should open an existing project automatically if the drives on both machines are mapped identically. If the drives are not mapped identically, users can click Edit Project Path to enter the correct path to the desired project in order to open the collection of markers.

Sets

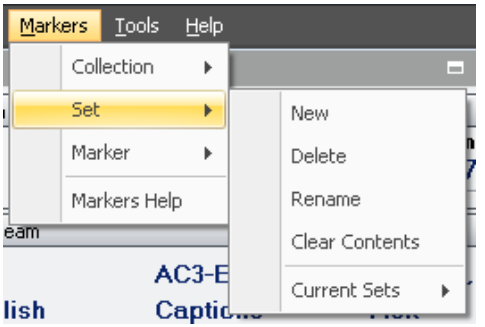


Figure 46: *Sets Menu*

To create a new set of markers, simply click on the New option and enter a name for the new set. To delete an existing set, click the Delete option. To rename an existing set, simply click the Rename option. To remove all of the existing collections and markers from a given set, simply click the Clear Contents option.

A user can view and load existing sets by clicking the Current Sets option.

Marker

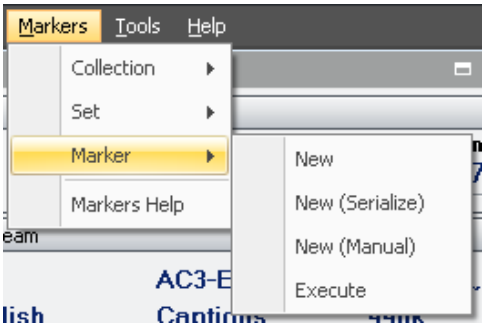


Figure 47: *Marker Menu*

In addition to creating and running markers directly from the markers window, users also have the option to create new markers from the Marker drop down menu.

Users can simply click New to create a new marker, click New(Serialize) to have Phoenix create a new marker name automatically based on the previous marker or New(Manual) to manually enter a marker name and source timecode.

To run a marker from the Markers window, simply select the Execute option from the Marker menu.

Tools menu

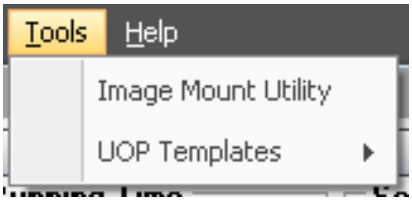


Figure 48: *Tools Menu*

Image Mount Utility

The Image Mount Utility is a third party plug-in that allows a user to mount an ISO disk image as a drive in Windows. To use this plug-in, click on the Image Mount Utility option and follow the directions on screen.

UOP Templates

The UOP Templates option allows a user to select from saved UOP Templates. For more information about configuring UOP Templates, see “UOP Templates” on page 67 in the Phoenix User Guide.

Help menu

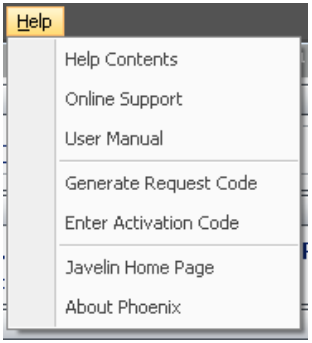


Figure 49: *Help Menu*

Phoenix DVD Emulator Help Selecting this option launches the help file.

Enter New Activator Code Allows entry of a new activator code.

Online Support Link to Javelin's support web site for Phoenix DVD Emulator.

Javelin Home page Link to Javelin's home page on the web.

About Displays the splash screen which contains the version number and legal info about Phoenix DVD Emulator.

4 Troubleshooting & FAQs

This chapter provides troubleshooting tips and answers to frequently asked questions. The following topics are included:

- “Troubleshooting” on page 80
- “Frequently asked questions” on page 81

Troubleshooting

Problem	"Problem with DisplaySysJP" error message.
Solution 1	Reinstall the proper version of Decklink drivers.
Solution 2	Run the installer for Phoenix DVD Emulator.

Problem	Audio drops out, or no audio is heard.
Solution 1	Confirm that a receiver that meets the system requirements is connected to the emulator workstation (Blackmagic SPDIF output) using a suitable coax cable. The audio cable needs to connect the "AES/EBU Out" from the emulator workstation with the "DVD Audio In" on the receiver. It must be the digital audio in on the receiver. The analog audio inputs will not work.
Solution 2	Verify settings on your receiver. For Sony receivers, there is a setting that can cause difficulties with output from Phoenix DVD Emulator – specifically set DEC. PCM to DEC. AUTO. The audio source type must also be set to "Digital Coax."

Frequently asked questions

This section gives answers to some frequently asked questions.

Q: Can I use the keyboard to navigate?

A: Yes, you can. For information, about the default keyboard shortcut mappings, see “Default key mapping” on page 86, For information about creating your own keyboard shortcuts, see “Key Mapping” on page 61.

Q: Is there a way to view analog video output from Phoenix?

A: Yes, the emulation workstation needs to be configured with either the Decklink SP or the Decklink Pro. Analog video can be switched between composite and component using the AnalogVideoOutput format setting in the User Options window (see “User options” on page 48). S-Video is not supported.

Q: Can I use my computer’s audio card & attached speakers to listen to audio output from Phoenix?

A: No, you cannot.

Q: The audio coming out of my receiver doesn’t seem right. Is there any particular setting that I need to use?

A: Generally speaking, Phoenix outputs professional AC3 streams with S/PDIF co-axial cable. We recommend using a Sony DG500 receiver with the decoding mode set to DEC. AUTO (instead of DEC. PCM) to ensure proper playback. For more information, the Sony user manual.

Q: What is saved in a profile?

A: When you save a profile, custom key mappings, default emulator settings, and UI configuration (for example, which windows appear) are saved. For more information, see “Profile menu” on page 70.

Q: I was moving around the windows on the UI and now I can’t find something. How do I get the interface back to normal?

A: To restore the UI, go to the Profile drop-down menu and select one of the default profiles. For more information, see “Profile menu” on page 70.

Q: I’m pressing a mapped key on the keyboard but it doesn’t seem to be working.

A: Make sure that the application focus is not on a text field or drop-down menu. This typically happens when a variable on the Options Window is highlighted.

Q: I’m trying to change the default emulator configuration settings but it doesn’t seem to be working. What could be causing the problem?

A: To change default emulator configuration settings, you must eject the current project (in the Project Selector, click Eject), and then reload it (in the Project Selector, click Run). Alternatively, press the Reboot button found on the Project Selector window. For more information, see “Project Selector & Console window” on page 51.

Q: Does Phoenix support HD-DVD or BD-DVD emulation?

A: Phoenix currently supports standard definition DVD emulation. Please visit the Javelin web site frequently for news about HD and BD emulation.

A Key mappings

This appendix lists the default key mappings for Phoenix DVD Emulator. For information about changing the key mappings, see “Key Mapping” on page 61.

Default key mapping

The following table shows the default key mappings in Phoenix.

To do this	Press	To do this	Press
• Stop	• S	• Go To Layerbreak	• 5
• Play	• Space	• Toggle CCs	• C
• Pause	• Control-Space	• Slow Forward	• Control-Period
• Fast Forward	• Control-F	• Eject	• Control-E
• Rewind	• Control-R	• Select Project	• Control-O
• Cycle Audio	• A	• Boot Project	• None
• Cycle Angle	• Control-A	• Help	• None
• Cycle Subtitles	• Q	• Exit	• Alt-X
• Root Menu	• R	• Re Sync	• Y
• Title Menu	• None	• Burn Source Time Code	• F1
• Angle Menu	• None	• Action Title Guides	• F2
• Chapter Menu	• None	• New Marker	• F3
• Subtitle Menu	• None	• Multi Frame Grab	• F4
• Audio Menu	• None	• Time Search Accelerator	• F5
• Chapter Back	• B	• Split Fields	• F8
• Chapter Next	• N	• Advanced Video Settings	• F9
• Jump Back	• None	• Restart Chapter	• Home
• Frame Step	• Period	• Go To Pre Next Chapter_Next	• H
• Resume	• None	• Go To Pre Next Chapter_Back	• I
• Go Up	• None	• Toggle Subtitles	• J
• Go To End	• End	• Chapter Search Accelerator	• F6
• Grab Frame	• G	• Title Search Accelerator	• F7

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