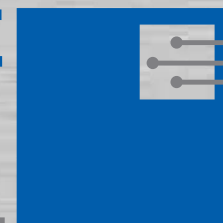


VaultStream® EasyCut™

v9.0 User Guide



**IMAGE
STREAM**
MEDICAL





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1. Welcome

1.1 Guidelines for Usage

The VaultStream EasyCut® software and all documentation supporting the software are considered confidential intellectual property of Image Stream Medical (ISM). Use of these materials must comply with ISM Terms and Conditions.

1.2 Protective Measures for IT Systems and Networks

The user (or IT officer) is responsible for ensuring that no viruses are transferred to the VaultStream via the network connection. It is the user's responsibility to ensure that the media used for data communication (CD, DVD, USB drive) are free from viruses.

1.3 Responsibilities for Data Protection and Information Security

The user (or IT officer) must ensure that the national and state laws and regulations relating to data protection are complied with.

The operators of IT systems and IT networks are responsible for the definition of the safety standards required, i.e. for the creation of the necessary technical and organizational framework.

1.4 Guide Organization

This user guide has been created to achieve optimum VaultStream EasyCut workflow. In addition to a step-by-step explanation of each phase of completing a procedure, notes and warnings are included in each section if applicable as indicated below:



Notes are provided throughout this manual to assist you in using VaultStream EasyCut more efficiently.



Warnings are presented throughout this manual to provide instructions that must be followed in order to ensure that procedures are completed and saved correctly.

1.5 VaultStream EasyCut and Specifications

1.5.1 Intended Use

VaultStream EasyCut is a video editing and production software package that enables incorporation of medical video into Microsoft® PowerPoint® presentations.

VaultStream EasyCut's workflow enables physicians to create broadcast quality video clips with a custom audio track in minutes. Once edits are completed, VaultStream EasyCut enables a physician to integrate high quality video into a PowerPoint presentation. VaultStream EasyCut's PowerPoint interface automatically generates a PowerPoint presentation or a slide for an existing presentation with the correct media player inserted into the slide and all embedding or file linking established.

1.6 Software Notice

VaultStream EasyCut includes Image Stream Medical proprietary software which is provided to customers under an End User License Agreement. The system also uses open source software and third party software. For further information on the End User License Agreement and additional licensing information, please refer to www.imagestreammedical.com/product-licenses.

1.7 Contact Information

In case of questions, please contact:

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2. Installation

2.1 Minimum Requirements

Software

Operating System	Windows® 7, or 10 Mac® OS-X® Sierra (10.12) & El Capitan (10.11)
Microsoft PowerPoint	Required for PowerPoint export feature
Microsoft Office	Windows: 2010, 2011,2013 Mac: 2011, 2013
Adobe® Acrobat®	Current version installed

Hardware

Graphics Adapter	Windows DirectX® 11 Compatible with 128 MB+ Ram
Memory	32-bit OS 2+ GB RAM 64-bit OS 4+ GB RAM
Hard Drive	60 GB minimum (250 GB recommended)
Screen Resolution	1280x1024 (1920x1080 or 1920x1200 recommended)
Network Interface Controller (NIC)	1Gb/s

2.2 Installation Instructions

You must have administrative privileges to complete the VaultStream EasyCut installation.

1. Download the VaultStream EasyCut installer.
2. When the download is complete, navigate to the installer.
3. For all operating systems other than Windows 7, double-click on the Setup.exe file. For Windows 7 users: you must right click on the Setup.exe file and select Run as Administrator.
4. Click the “Yes” button on the next window that appears, and the installer will begin.
5. Click the “Next” button on the following window, and the installation will continue.
6. When the installation is complete, click the “Finish” button on the window that appears.

3. Getting Started

3.1 Opening VaultStream EasyCut

To open VaultStream EasyCut using Microsoft Windows, double-click the VaultStream EasyCut icon on the desktop (see Figure 1) or click the “Start” button, then select All Programs, scroll to the VaultStream EasyCut folder, and then select “VaultStream EasyCut”.

Mac users should click the EasyCut icon (see Figure 1) in the dock.



Figure 1

3.2 Closing VaultStream EasyCut

To close VaultStream EasyCut using Microsoft Windows, click the red “X” button in the upper right hand corner.

Mac users should type command (⌘) + Q, or Click the red “X” button in the upper left corner, or select Quit VaultStream EasyCut from the menu.



Figure 2

3.3 Launching VaultStream EasyCut Projects

VaultStream EasyCut offers a variety of project launching options (see Figure 2):

- A. Open Last Project:** Opens the last VaultStream EasyCut project worked on.
- B. Open Project:** Opens the Existing Projects menu window, displaying all existing projects in the VaultStream EasyCut project folder on the hard drive.
- C. Import Movies:** Opens the “Video Search” menu window to provide users with the ability to locate and select videos and images for inclusion in the project.
- D. Create New Project:** Begins a new project.

3.3.1 Open Last Project

To open the last project worked on:

1. After initially launching VaultStream EasyCut, and prior to starting or opening a project, select the “Open Last Project” button.
2. The last project worked on will open in the VaultStream EasyCut user interface.

3.3.2 Open Project

To open an existing project:

1. Click the “Open Project” button.
2. The Existing Projects menu window will be displayed (see Figure 3). All existing projects in the VaultStream EasyCut project folder on the hard drive will be listed.
3. Select the project to open and press the “OK” button.
4. The project will be loaded into VaultStream EasyCut user interface. Press the “Cancel” button to close the window without opening a project.

3.3.3 New Project

When VaultStream EasyCut is launched there is no active project.

To create a new project:

1. Select the “New Project” button.
2. The Project Name Configuration window will be displayed (see Figure 4) with a name based on the current date and time entered for the project.
3. If desired, select the “Clear” button and enter your own name for the project.



Once a VaultStream EasyCut project has been named, it CANNOT be renamed.

4. Select the “OK” button. Press the “Cancel” button to close the dialogue without creating a project.
5. The current project will be automatically saved and the VaultStream EasyCut user interface will be cleared, ready for new data to be imported.

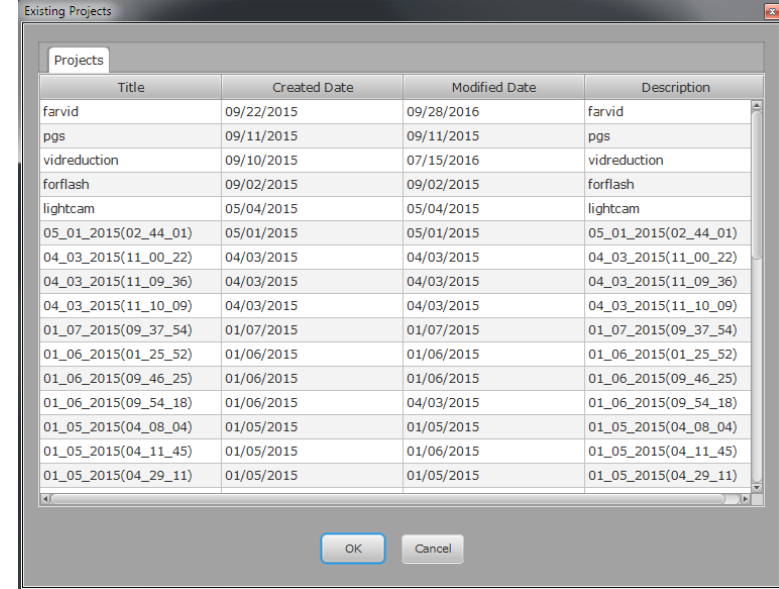


Figure 3

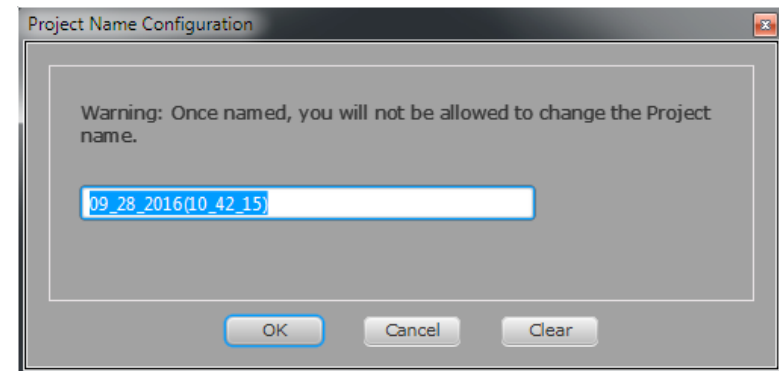


Figure 4

3.4 Saving Projects

VaultStream EasyCut automatically saves your project to the project folder. On Windows systems the project folder is located at C:\EasyCut Projects. Mac systems the EasyCut Projects folder is in the Documents Area in the Finder. The name the folder will use is the name entered while creating a new project (see 3.3.3 New Project). The name initially generated for the project is automatically created using the date and time that the project is created. For example, a project created on May 11, 2016, at 10:30 a.m. will be saved as "05_11_2016(10_30_00)".

If exporting the project to a non-clinical library, VaultStream EasyView will be able to search for the project by title, date, or description.

If an attempt is made to create a project with the same title the user will be advised that the folder already exists.



Video clips or merged video must be generated before exiting, or they will not be saved in the project folder. Users may open the project and render the video at a later time.

3.5 Import Movies

To import movies into a project:

1. Select the “Import Movies” button.
2. The “Video Search” menu window (see Figure 5) will be displayed.
3. Users will be provided with three tabs to select from: VaultStream, Files, or Projects.
4. The “VaultStream” tab will search the library(s) on the VaultStream server
5. The “Files” tab provides the user with the ability to browse to a desired movie file on the users computer or a network location.
6. The “Projects” tab provides the ability to select and open an output video file from projects that have produced video files.
7. Select the intended source location or file.
8. If the imported files are stored on a VaultStream server and the intent is to include images in the project, select the “Copy Still Images” checkbox to copy images to the EasyCut Projects folder on the hard drive.
9. Select the “OK” button.
10. The selected videos will be imported and appear in the Movie List, any images that are imported will appear in the Edit List.

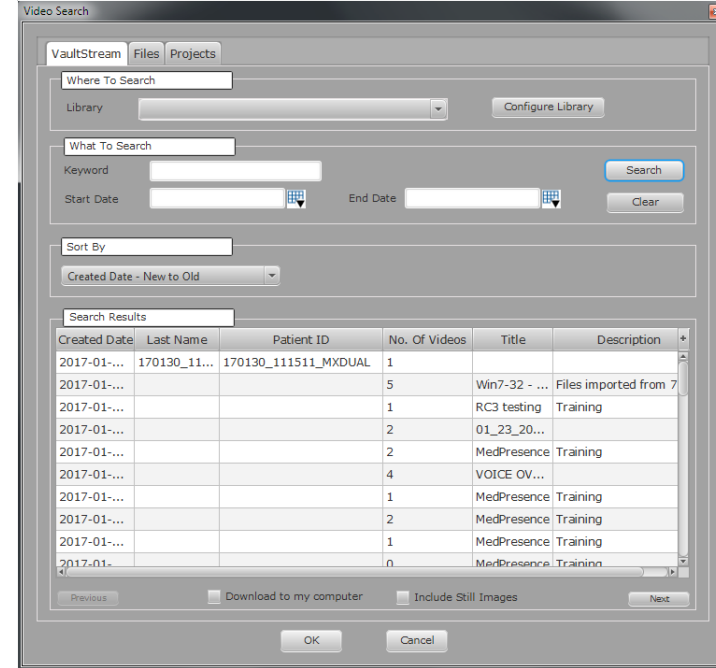


Figure 5

3.5.1 VaultStream Tab

The VaultStream tab will search the Library(s) on the VaultStream server (see Figure 5) using keywords and date range.

3.5.1.1 Configuring The Library

The Library must first be enabled before VaultStream can be searched. To enable the Library:

1. Select the "Configure Library" button
2. The Library Configuration window will open (see Figure 6).
3. Enter the IP address and if applicable the port # for the VaultStream server. In most instances the "Use Default" port # checkbox can be checked. The default ports are 80 or 443. Your facility's IT group can provide you with this information if necessary.
4. Enter your Image Stream Medical login credentials. These credentials are also used for logging into EasyView.
5. To prevent having to repeatedly login, ensure that the "Remember Login Details" check box is checked.

The first time that VaultStream EasyCut imports video or images into a project, a network share will be setup to the Library drive on the VaultStream server. VaultStream EasyCut will ask if the user would like for the network share to be remembered. If no network share is provided, VaultStream EasyCut will require that the user login using their VaultStream user name and password.

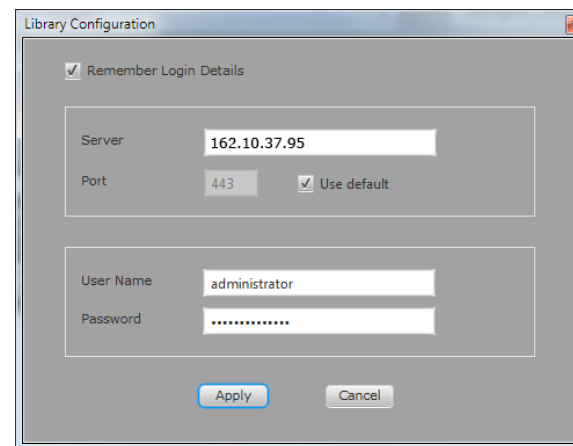


Figure 6

3.5.1.2 VaultStream Search

From the VaultStream Search tab (see Figure 7) you will be able to search for procedures from a specified library. To perform a VaultStream library search:

1. Select the desired library from the “Where To Search” drop-down menu.
2. Once a library has been selected, if desired enter keywords (keywords can include Procedure Type, Patient Last Name, Patient First Name, Patient ID, Physician, Procedure Type, Labels, etc.) and/or a specified date range in the “What To Search” input fields.
3. Once all search criteria has been provided, press the “Search” button to display all matching results.
4. Results will appear in the lower portion of the window and list the Created Date, Last Name, Patient ID, Number of Videos. Non-clinical procedures will list Title and Description.
5. The results list can be sorted by Created Date, Last Name, Patient ID or Title using the “Sort By” drop-down menu.
6. Use the “Previous” and “Next” buttons to navigate between pages of results.
7. To download the video to the “Source” folder in the project folder of the local system, select the “Download to my computer” checkbox.
8. To copy the still images from the procedure to your computer, select the “Include Still Images” checkbox. The images will be copied to the VaultStream EasyCut project folder on your hard drive and will automatically be listed in the Edit List.
9. Select the procedure you would like to import into the VaultStream EasyCut project (to import multiple procedures, Shift-click or Ctrl-click).
10. Click the “OK” button to begin the import process, or click the “Cancel” button to close the Import Movies window without importing anything.

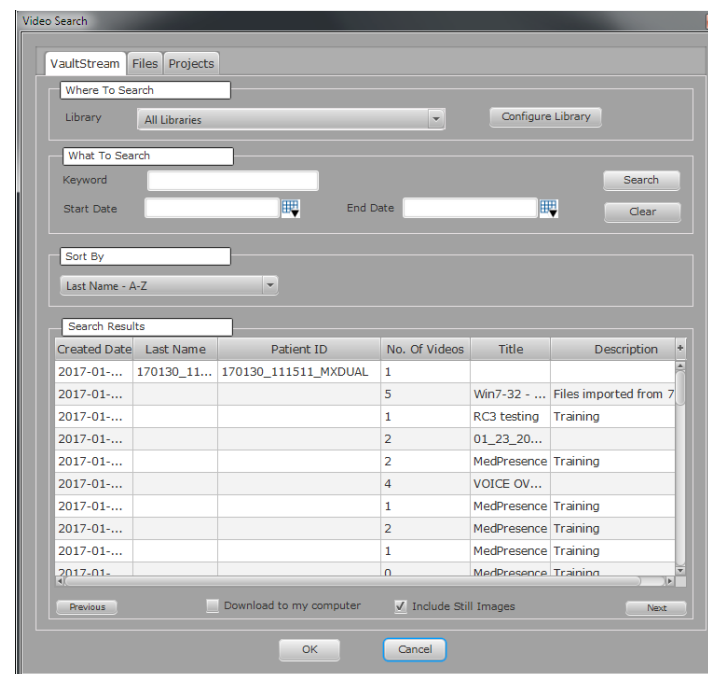


Figure 7

3.5.2 Files Tab

The Files Tab (see Figure 8) provides users with the ability to browse for MPEG-4 files on your computer or a local network drive. To import local or networked files:

1. Select the “Browse” button.
2. Navigate to the desired file and select it (to select multiple files, Shift-click or Ctrl-click).
3. Click the “Open” button.
4. Importing a file from a network location will import the file into the VaultStream EasyCut project, but will not copy the file to the VaultStream EasyCut project folder. In order to save the file directly to the VaultStream EasyCut project folder, ensure the “Download to my computer” check box is checked.
5. Click the “OK” button to begin the import process, or click the “Cancel” button to close the Import Movies window without importing anything.

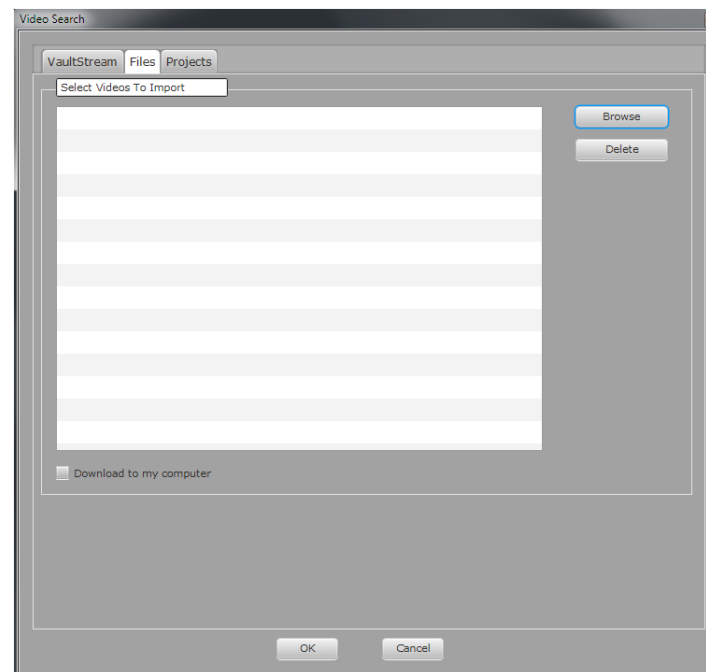


Figure 8

3.5.3 Projects Tab

The Projects tab (see Figure 9) enables you to select and import movies generated by existing projects.

The Projects tab will list projects that have produced video files from their edited output and includes information such as Title, Description, Created Date, and Modified Date.

The list of available projects may be sorted in order of any of these categories by clicking on that category header. Click on the header once more to reverse the order.

To import movies created by a project:

1. Click the project containing the video that you would like to include in the VaultStream EasyCut project (to import multiple procedures, Shift-click or Ctrl-click).
2. Click the “OK” button to begin the import process, or click the “Cancel” button to close the Import Movies window without importing anything.

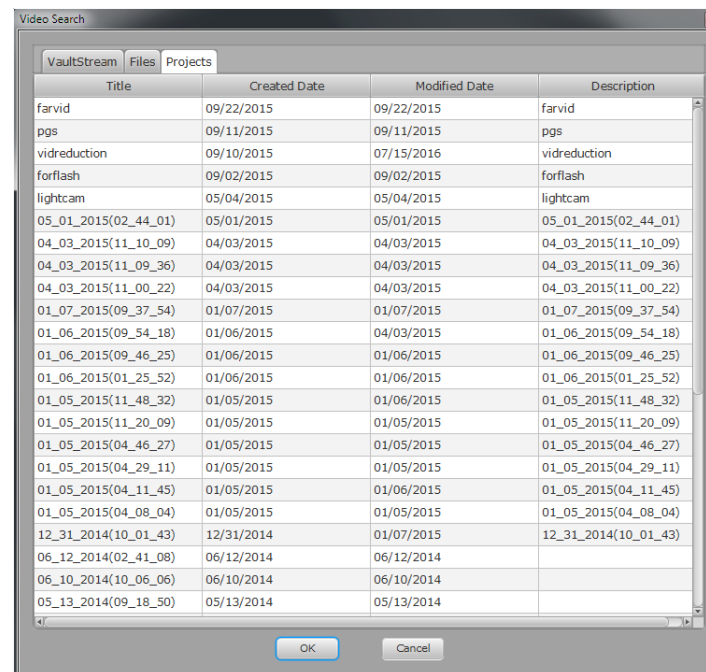


Figure 9

4. VaultStream EasyCut Layout

VaultStream EasyCut interface is organized into three major areas (see Figure 10).

- A. Movie List:** The Movie List contains the chosen source videos for editing.
- B. Video Workspace:** The Video Workspace contains the Video Playback Window, as well as controls for each working mode.
- C. Output Panel:** The Output Panel contains the Edit List and controls for managing output files.

4.1 Movie List

The Movie List is used for managing the current project. While editing, source video is never altered or moved.

Movie List: Source video is identified using a thumbnail and a description containing the name of the video file, duration, and the size of the file (see Figure 11). Additional information about the video such as Source File Name, Thumbnail File Name, File Size, Duration, Start and Stop times can be displayed by hovering the cursor over the thumbnail/description. The video being displayed in the Video Playback Window will be identified with a green outline. Double clicking the thumbnail will load it into the Video Playback Window.

Play Through: Selecting the “Play Through” checkbox will automatically play all of the listed files in succession stopping when the last movie has played to the end.

LockStep: Selecting the “Lock Step” checkbox will simultaneously make matching edits to DualStream video (Stream A/Stream B) recorded at the same time.

Delete: Selecting the “Delete” button (trash can) will remove the selected video from the Movie List. Source video is never removed from its original location via VaultStream EasyCut.

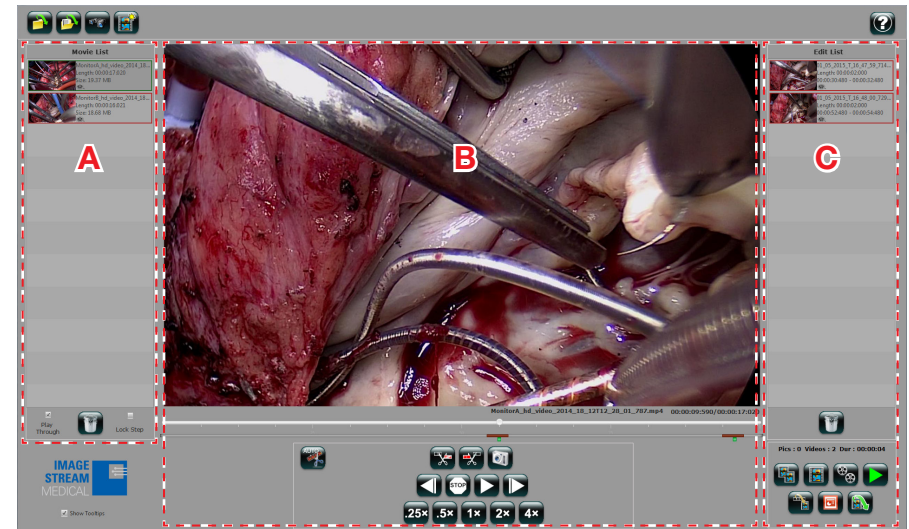


Figure 10

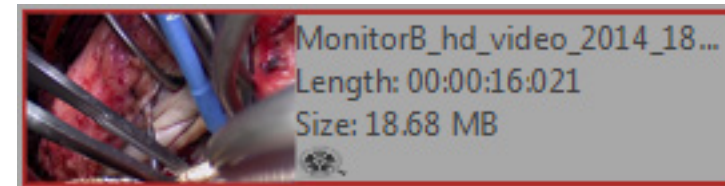


Figure 11

4.2 Video Workspace

The Video Workspace (see Figure 12) is found in the center panel of the VaultStream EasyCut interface and is separated into four main areas:

A. Video Playback Window: The center of VaultStream EasyCut interface contains the Video Playback Window. This is where Source Videos and Output Clips are viewable. The name of the video file, playhead location and duration will be listed below the Video Playback Window.

B. Video Playhead Indicator: A visual representation of where the playhead is located on the video timeline. The Video Playhead Indicator is located directly beneath the Video Playback Window, and can be manually dragged to a new location along the timeline.

C. Edit Indicator: A visual representation of the edits being applied to the source video. The Edit Indicator is located directly beneath the Video Playhead Indicator. Double-click the Edit Indicator to enter Fine Edit mode.

D. Playback/Editing Controls: The video playback and editing controls will change based on the current editing mode (Rough Edit/Fine Edit and Voice Over), and are located directly beneath the Edit Indicator.

4.3 Output Panel

The Output Panel consists of two major areas: the Edit List (Clips and Images) (see Figure 13) and the Output Toolbar (see Figure 14) for managing the current project's Output options. Video and image files can be quickly identified using the icon following the text description.

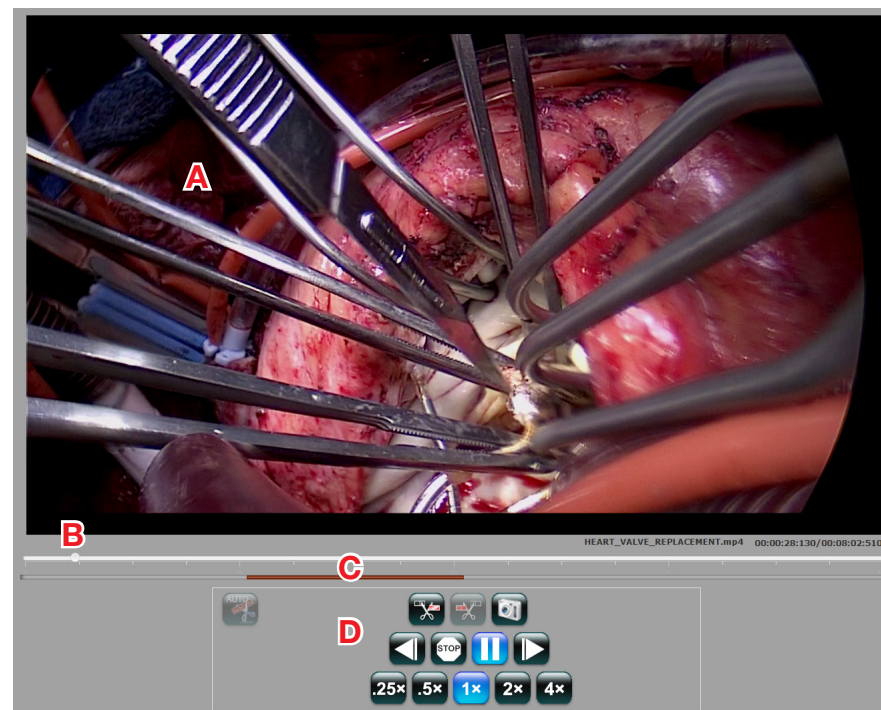


Figure 12

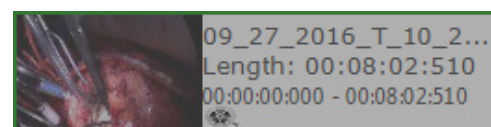


Figure 13

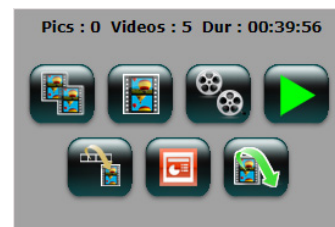


Figure 14

5. Playback

5.1 Controls

VaultStream EasyCut provides video controls to make the video production workflow fast and efficient (see Figure 15).

A. Frame Step Backward: Moves the playhead one frame backward with each click.

B. Stop: Stops the video shown in the Video Playback Window and queues the video to the beginning.

C. Play/Pause: Toggles between play and pause of the video in the Video Playback Window. Use the playback rates to determine the speed of play. The “Play” button is shown only while video is paused, and the “Pause” button is shown only while video is playing.

D. Frame Step Forward: Moves the playhead forward one frame with each click.

E. Playback Rate: Changes playback rate. Choose from normal play speed (1x), slow speeds (.25x and .5x), or fast speeds (2x and 4x).



Figure 15

5.2 Playing Video

To playback video:

1. Double-click a video in either the Movie List or Edit List.
2. The video will be displayed and begin playing in the Video Playback Window.
3. Select the “Play/Pause” button to pause the video. Select again to play the video.
4. While paused, selecting the “Frame Step Forward” or “Frame Step Backward” button will jump forward/backward a single frame.
5. To stop playback and return to the start of the video, select the “Stop” button.
6. Playback speed can be adjusted faster or slower by selecting one of the “Playback Rate” buttons.
7. At any time, users may click and drag the Video Playhead Indicator to rapidly navigate through the video.

6. Editing

6.1 Rough Edit Controls

VaultStream EasyCut provides buttons for creating clips and capturing images (see Figure 16).

- A. Cut-In:** Creates the starting point of the edit.
- B. Cut-Out:** Creates the ending point of the edit.
- C. Capture Image:** Creates a still image of the video frame that is currently visible. Best results can be achieved by pausing the video and frame stepping to the precise frame you intend to capture.



Figure 16

6.1.1 Capturing Images

Capturing an image can occur while the video is playing or paused. To create an image from the source video:

1. Use the Video Playback Controls to locate the frame you intend to capture.
2. Click the “Capture Image” button.
3. A blue image capture marker will be displayed below the Edit Indicator bar denoting where the image was captured on the video timeline (see Figure 17).
4. The image will appear in the Edit List.



Figure 17

6.1.2 Rough Edit

1. Double-click the source in the Movie List.
2. Locate the point in the video where you would like to start the edit (In Point), and select the “Cut-In” button. This will enable the “Cut-Out” button and creates a representation of the edit displayed as a green bar (see Figure 17).
3. Locate the point in the video where you would like to end the edit (Out Point) by continuing video playback or manually moving the Video Playhead Indicator.
4. Select the “Cut-Out” button.
5. The “Rough Cut” of the video will now be listed in the Edit List, and a representation of the edit (Edit Indicator) will be displayed as a red bar (see Figure 18) and the Rough Edit controls will convert to Fine Edit controls.

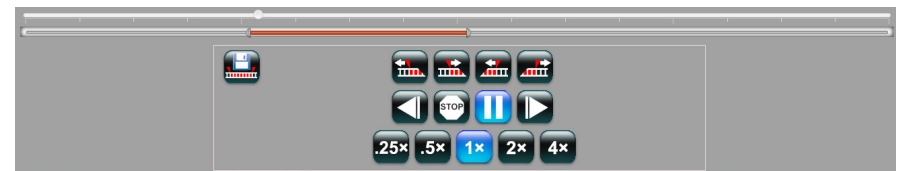


Figure 18



Users can transfer an entire source video to the Edit List by dragging the video thumbnail from the Movie List to the Edit List. Multiple source videos can be selected by depressing the shift or control key on the keyboard while selecting the video thumbnails.

6.2 Fine Edit Controls

Fine Edit mode provides the user with the ability to refine edits made while in Rough Edit mode (see Figure 19). The Fine Edit adjustment buttons (see Figure 20) are used to refine the edits.

A. Nudge Cut-In Back Moves the Cut-In position to the left in ½ second intervals. Increases the length of the clip.

B. Nudge Cut-In Forward Moves the Cut-In position to the right in ½ second intervals. Decreases the length of the clip.

C. Nudge Cut-Out Back Moves the Cut-Out position to the left in ½ second intervals. Decreases the length of the clip.

D. Nudge Cut-Out Forward Moves the Cut-Out position to the right in ½ second intervals. Increases the length of the clip.

6.2.1 Fine Edit

To refine the start and end point of the edited clips:

1. Double-click the clip in the Edit List, or double-click the Edit Indicator for the clip. In the Edit List the clip being edited will have a green border.
2. The Cut-In and Cut-Out points can be adjusted in two different ways:
 - Manually by dragging the ends of the Edit Indicator backward or forward (see Figure 21).
 - Using the Fine Edit adjustment buttons (see Figure 20).
3. To manually refine the start of the edit, click and drag the left end of the Edit Indicator left to change the first frame of the clip to an earlier moment in the source video, or right to change the first frame of the clip to a later moment in the source video.
4. To use the Fine Edit adjustment buttons to refine the start of the edit, click the “Nudge Cut-In Back” button to change the first frame of the clip to an earlier moment in the source video, or click the “Nudge Cut-In Forward” button to change the first frame of the clip to a later moment in the source video.
5. To manually refine the finish of the edit, click and drag the right end of the Edit Indicator left to change the last frame of the clip to an earlier moment in the source video, or right to change the last frame of the clip to a later moment in the source video.
6. To use the Fine Edit adjustment buttons to refine the finish of the edit, click the “Nudge Cut-Out Back” button to change the last frame of the clip to an earlier moment in the source video, or click the “Nudge Cut-Out Forward” button to change the last frame of the clip to a later moment in the source video.
7. When fine edits are complete, select the “Save Edit” button located to the left of the Fine Edit adjustment buttons (see Figure 22). The user interface will return to Rough Edit mode and changes made to the Output clip will be saved.



Figure 19



Figure 20



Figure 21



Figure 22

6.3 AutoEdit

VaultStream EasyCut can automatically create an Edit List using metadata recorded during a procedure each time an image is captured by nCare™ RX/MX or nStream® GX systems.

AutoEdit metadata is identified on the video timeline by squares displayed below the Edit Indicator bar (see Figure 23). Green squares indicate Image markers. Dark blue squares indicate where images have been captured post recording. These are not image markers and cannot be used for AutoEdit.

If the video being displayed in the Video Playback Window does not contain the required metadata, the “AutoEdit” button (see Figure 24) will not be available.

Hovering the mouse over the AutoEdit indicator will display information about what the event was that triggered the AutoEdit indicator, and when it occurred and any labels that may be applied (see Figure 25).

6.3.1 AutoEdit Options

Selecting the AutoEdit button will display options available for AutoEdit (see Figure 26).

A. Select Movie Type Identifies which video files should have AutoEdit applied.

- Current Movie Only: Creates an Edit List using the currently active video.
- Selected Channel Only: Creates an Edit List for DualStream recordings using video in the Movie List, coming from the same channel (Ch. A/ Ch. B).
- All Movies: Creates an Edit List using all of the videos in the Movie List

B. Select Bookmark Type Identifies which metadata in the video should be used to make edits. Currently the supported types are “image capture” (elimage).

C. Select Edit Margins Sets the in point and out point of the edit. By default edits will begin five seconds prior to where the AutoEdit indicator appears on the video timeline, and end five seconds after where the AutoEdit indicator appears on the video timeline.

- Sliding the “In Point” slider towards the 100 increases the number of seconds of video prior to the AutoEdit indicator included in the edit.
- Sliding the “Out Point” slider towards the 100 increases the number of seconds of video after the AutoEdit indicator included in the edit.



Figure 23



Figure 24

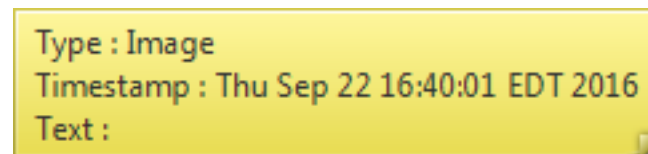


Figure 25

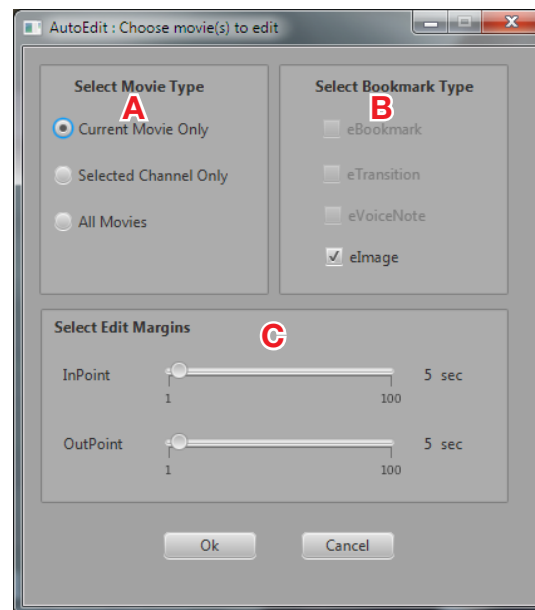


Figure 26

6.4 Creating Edit List with AutoEdit

If the “AutoEdit” button is available users can automatically create an Edit List.

1. Select the “AutoEdit” button.
2. The AutoEdit Editing Options window will be displayed.
3. Select which movies to apply the edits to.
4. Ensure that the “elimage” checkbox is checked.
5. Adjust the Edit Margins if desired.
6. Select the “OK” button.
7. VaultStream EasyCut will create the clips and place them in the Edit List, where they can be reviewed and/or edited the same as any other clip.

7. Edit List

Output Clips are clips created by making edits to the source videos. Output Images are still images captured from the source video or from importing still images. Each item in the Edit List is represented by a thumbnail and a description. Video clips (*see Figure 27*) contain the name of the file, duration and the cut in point and cut out point of the edit from the source video.

Images (*see Figure 29*) contain the name of the file, and position of the playhead when captured.

Video and image files can be quickly identified using the icon following the text description.

Hovering the mouse over the thumbnail provides the following information for the Output Record it represents.

Video file information (*see Figure 28*) contain:

Source File Name: Indicates the location and name of the Source Clip used to generate the clip.

Thumbnail File Name: Indicates the name of the thumbnail representing the clip

Duration: Indicates the length of the Output Clip in Hours: Minutes: Seconds..

Start: Indicates the cut in point of the Output Clip in Hours: Minutes: Seconds.

Stop: Indicates the cut out point of the Output Clip in Hours: Minutes: Seconds.

Image file information (*see Figure 30*) contain:

Source File Name: Indicates the location and name of the Source Clip used to generate the image.

Thumbnail File Name: Indicates the name of the thumbnail representing the image

Position: Indicates the time in the video that the image was captured.

7.1 Viewing Edit List Video

To view and/or edit the video clips in the Edit List:

1. Double-click the clip in the Edit List.
2. The clip will be displayed in the Video Playback Window. Playback and Fine Edit controls will be available. The clip being displayed will be identified with a green outline in the Edit List.

7.2 Viewing Edit List Images

To view the images contained in the Edit List:

1. Double-click the image in the Edit List.
2. The image will open in a VaultStream EasyCut image viewer window.
3. To close the image viewer window select the red "X" button in the upper right (Windows) or upper left (Mac) of the viewer.

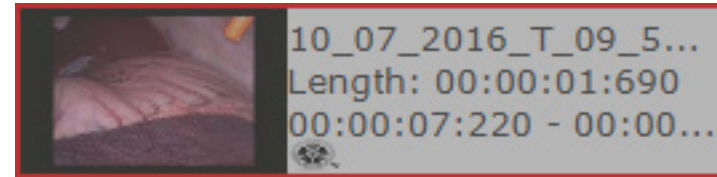


Figure 27

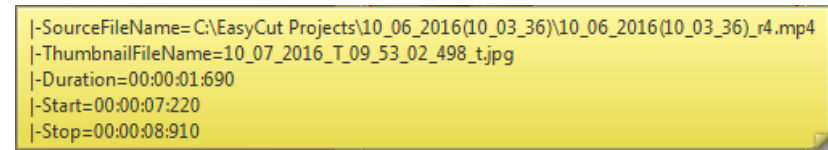


Figure 28

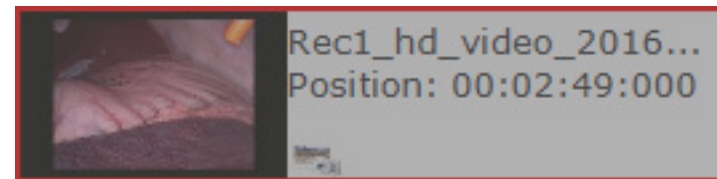


Figure 29

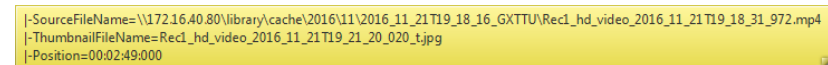


Figure 30

7.3 Output Toolbar

The Output Toolbar (see Figure 31) lists a summary of the Edit List and buttons used to export the clips and images. The summary lists the number of video and images it contains as well as the total duration of the video clips. The following provides a description of each button available on the Output Toolbar.

- A. Create Clips:** Produces an individual movie for each clip in the Edit List.
- B. Create Movie:** Produces a movie consisting of all clips from the Edit List merged together. If the Edit List contains clips with differing resolutions, a movie will be created for each resolution represented, containing only the clips with that particular resolution.
- C. Multi Movie:** Produces one output movie for the collection of clips extracted from a source video. (i.e. Two movies in the Movie List. Movie001 has two clips extracted. Movie002 has three clips extracted. Multi Movie would create two movies: MultiMovie001 containing the two clips extracted from Movie001, and MultiMovie002 containing the three clips extracted from Movie002.)
- D. Preview:** Previews the movie files generated from the clips in the Edit List. (Not available until videos are generated)
- E. Successive Reduction:** Replaces all movies in the Movie List with the movie created from the clips in the Edit List. The Edit List will be purged, with the exception of images. Successive Reduction is available only when a single movie is created, not with multiple clips.
- F. Export To Presentation:** Assembles a PowerPoint® presentation containing the movie(s) and/or image(s) produced by the project (Windows® or Macintosh® with PowerPoint installed only).
- G. Export Project:** Exports the output files from a project to a specific storage location (Not available until the Edit List contains an image or a movie file is generated).



Figure 31

7.4 Generating Video

After all edits have been made, the next step is to generate video(s). There are three options for creating videos from the Output Clips: a video for each Output Clip can be created, all the clips of the same format can be merged into one video, or all edits from specific source files can be combined into one video. All videos are created in MPEG-4 video format.

7.4.1 Create Clips

To create a video for each Output Clip listed in the Edit List:

1. Click the “Create Clips” button.
2. VaultStream EasyCut will generate a video for each Output Clip in the Edit List.
3. A progress window for each video generated will be displayed (see Figure 32). Click the “Cancel” button at any time to cancel the generation process.
4. When the generation process is complete, a message will be displayed to indicate that the clips have been generated and ask if you would like to review the videos (see Figure 33). Click the “Yes” button to review or the “No” button to close the dialogue without reviewing.
5. The “Create Clips” button will turn blue to indicate that clip generation is complete, that Create Clips was the chosen action, and that the videos in the Edit List have not been modified.
6. The video clips are automatically saved to the VaultStream EasyCut Projects folder on the users hard drive.



If any changes are made to the Output Clips after generating the clip(s), the blue background of the “Create Clips” button will revert to black. Changes to the Output Clips will not be saved until they have been regenerated.

7. Double-click the videos in the Edit List to open the clip in Fine Edit Mode.



Create Clips will overwrite any previously generated clips for the current project. If narration has been added to previously generated clips, the narration will need to be re-recorded using the new clips.

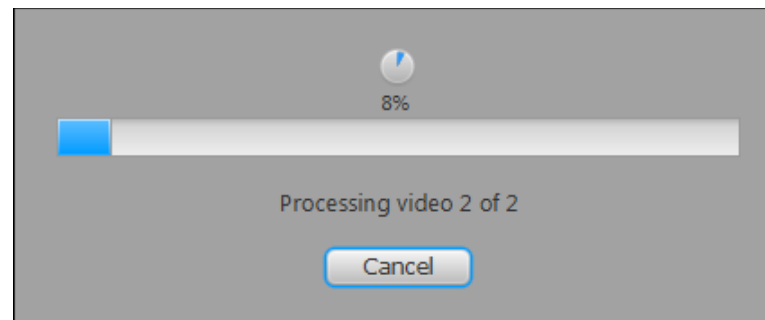


Figure 32

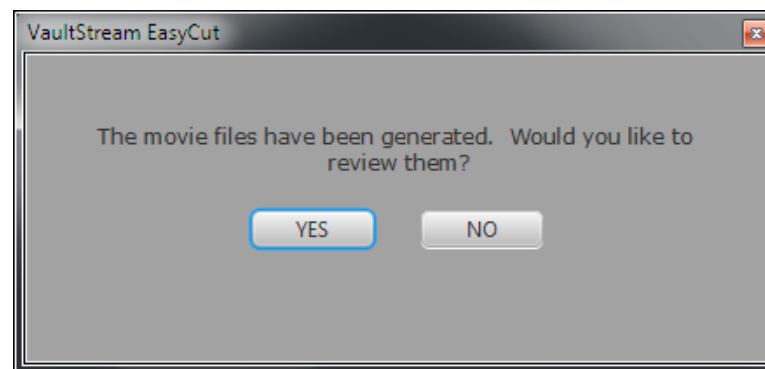


Figure 33

7.4.2 Create Movie


To create a single video containing all of the Output Clips listed in the Edit List:

1. Click the “Create Movie” button.

 *Selecting Create Movie will only merge video clips of the same resolution. For example, all 720p clips will be merged together and all 1080p clips will be merged together. Different resolutions cannot be merged together.*

2. Users will be presented with a progress window while the video is created (see Figure 34). Click the “Cancel” button at any time to cancel the generation process.
3. If a single video has been created, when the generation process is complete the video will automatically be reviewed in the Video Playback Window.
4. The “Create Movie” button will change to blue indicating that video generation is complete, Create Movie was the chosen action, and the videos in the Edit List have not been modified.
5. The movie is automatically saved to the VaultStream EasyCut Projects folder on the users hard drive.

 *If you make any changes to your Output Clips after generating your video(s), the blue background of the “Create Movie” button will revert to black. Changes to your Output Clips will not be saved until they have been regenerated.*

 *Create Movie will overwrite any previously generated movie for the current project. If narration has been added to previously generated movie, the narration will need to be re-recorded using the new movie.*

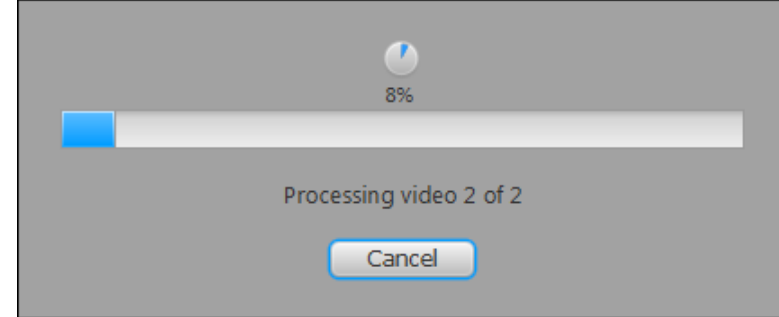


Figure 34

7.4.3 Multi Movie

The “Multi Movie” button will create a single video for each source file that clips were extracted from. For example if the Movie List contains three movies Movie001, Movie002, and Movie003. Edits are made resulting in three clips from Movie001, two clips from Movie002, and two clips from Movie003. Selecting the “Multi Movie” button will create a video containing the three clips extracted from Movie001, a video containing the two clips from Movie002 and a video containing the two clips from Movie003.

To create a single video for each edited source file:

1. Select the “Multi Movie” button.
2. Users will be presented with a progress window while the video is created (see Figure 35). Click the “Cancel” button at any time to cancel the generation process.
3. The generated movies are automatically saved to the VaultStream EasyCut Projects folder on the users hard drive.
4. When the generation process is complete, a message will be displayed to indicate that the clips have been generated and asks if you would like to review the videos (see Figure 36). Click the “Yes” button to review or the “No” button to close the dialogue without reviewing.
5. Selecting the “Yes” button will open the folder containing the video files.
6. Double-click the file you intend to review
7. The file will begin playing in the Video Playback Window
8. The “Multi Movie” button will change to blue indicating: that video generation is complete, Multi Movie was the chosen action, and the videos in the Edit List have not been modified.

 If you make any changes to your Output Clips after generating your video(s), the blue background of the “Multi Movie” button will revert to black. Changes to your Output Clips will not be saved until they have been regenerated.

 Multi Movie will overwrite any previously generated movies for the current project. If narration has been added to previously generated movies, the narration will need to be re-recorded using the new movies.

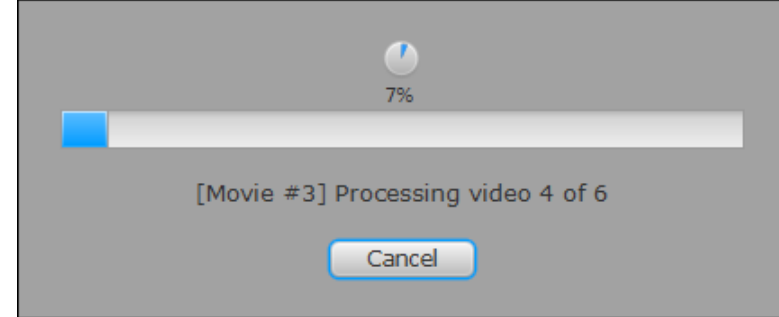


Figure 35

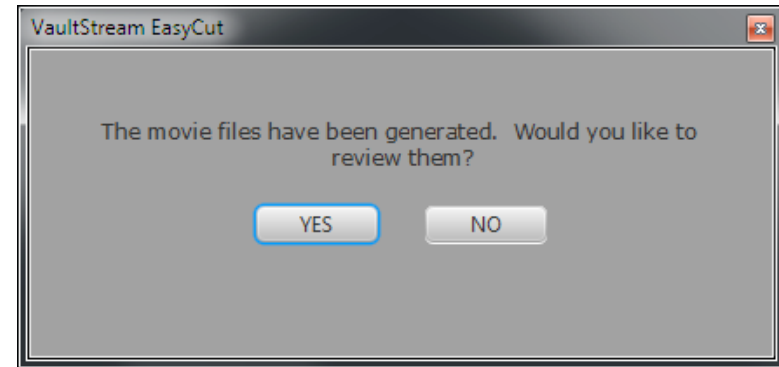


Figure 36

7.5 Preview

The “Preview” button is not available until video files have been generated by VaultStream EasyCut. To preview the created files:

1. Select the “Preview” button.
2. VaultStream EasyCut will open the folder containing the video files.
3. Double-click the file you intend to review
4. The file will begin playing in the Video Playback Window

7.6 Successive Reduction

The “Successive Reduction” button is not available until a single video file has been generated by VaultStream EasyCut. To replace the movies in the Movie List with the movie created using the clips in the Edit List:

1. Use the “Create Movie” button to render a single movie file.
2. Select the “Successive Reduction” button.
3. VaultStream EasyCut will purge the Edit List with the exception of images, clear the Movie List and insert the movie rendered by Create Movie into the Source Panel.



Successive Reduction is only available after a movie has been rendered from the Edit List, and only when Create Movie is used.

4. Double-click the video in the Movie List to continue editing the video file.

7.7 Export To Presentation

Based on whether Microsoft PowerPoint is installed on the system, VaultStream EasyCut can quickly produce a PowerPoint presentation with the images and video(s) created in an edit session.

7.7.1 Create Presentation Menu Options

The following options are available within the “Create Presentation” menu window (see Figure 37):

Create Presentation: Creates a presentation using the selected template. A slide will be created for each video in your project; images will be grouped four per slide. Video slides will appear first in the order in which they are listed in the Edit List, followed by any Images. PowerPoint will automatically open, and you will then be able to modify the presentation using PowerPoint. If a presentation has already been created for the current project, a dialogue will appear asking if you would like to replace it.

Linked Video: Links the movies stored in the EasyCut Projects folder with the presentation.

Embedded Video: Embeds the videos into the presentation to provide a portable presentation.



Users running Windows 7 and PowerPoint 2010 will not have the option of embedding the video into the presentation due to a limitation created by this operating system and software combination.

Copy To Alternate Location: Will bundle the presentation and all associated videos, images, and links to ensure that the presentation can be viewed in another location without access to the network sources.

Select Template: Use the drop-down list to select available templates. If no template is selected the presentation will be created using the default PowerPoint format.

Create New Template: Enables the user to create a new presentation template without leaving VaultStream EasyCut.

Import Templates: Provides the user with the ability to import previously created templates.

Cancel Closes the “Create Presentation” menu window without taking any action.

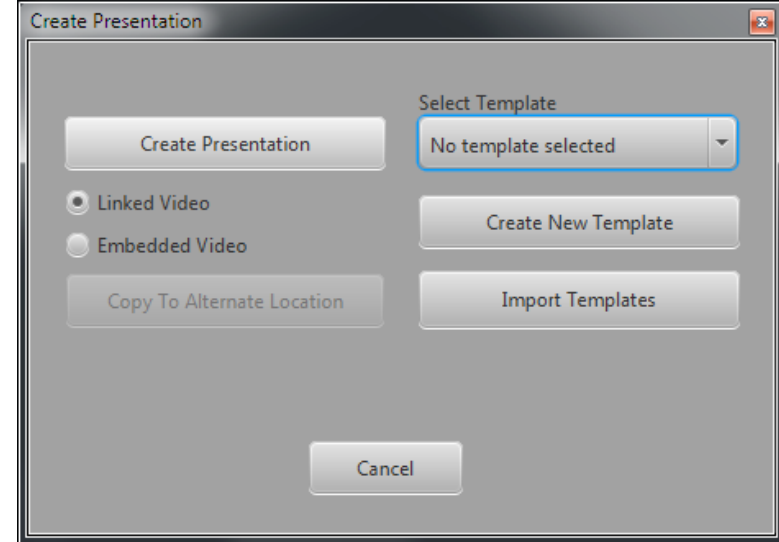


Figure 37

7.7.1.1 Create Presentation

To create a presentation using the video and images in the Edit List:

1. Ensure that your computer has the correct version of Microsoft Office installed (see 1.5 VaultStream EasyCut and Specifications).
2. If the Edit List contains Output Clips, either Create Clips, Create Movies, or Multi Movie will need to be used to process the video. If only images have been created, processing video will not be required.
3. Click the “Export To Presentation” button.
4. The “Create Presentation” menu window will be displayed (see Figure 39).
5. Select a template if required.
6. Select “Linked Video” or “Embedded Video”.
7. Select “Create Presentation”.
8. A progress bar will be displayed, showing the status of the creation of the presentation.
9. Microsoft PowerPoint will launch and open the presentation.
10. If you intend to view the presentation on a different PC or Mac:
11. Click the “Export To Presentation” button again and then select “Copy To Alternate Location”.
12. A file explorer window will be displayed.
13. Navigate to the intended location, and press the “Select Folder” button.
14. Once the presentation has been saved, the presentation may be opened for viewing.



For optimal VaultStream EasyCut performance, upon opening PowerPoint, ensure that on the Slide Show tab, “Use Current Resolution” is selected as the resolution setting.

7.7.1.2 Create New Template

To create a custom template using an image:

1. Select the “Create New Template” button
2. The Create Presentation Template dialogue will be displayed (see Figure 38).
3. Enter a name for the template and select the “OK” button.
4. An File explorer window will be displayed.
5. Navigate to the image file you intend to use as a background image and select it.
6. Select the “Open” button.
7. A status indicator will be displayed as VaultStream EasyCut creates the template and saves it to “EasyCut Projects\templates”.
8. Once the template has been completed it will be available in the “Select Template” drop-down list (see Figure 39).

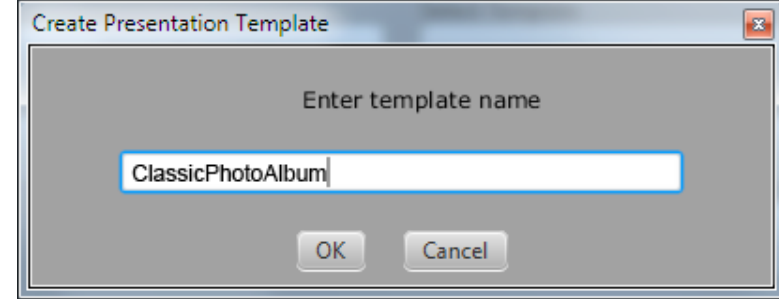


Figure 38

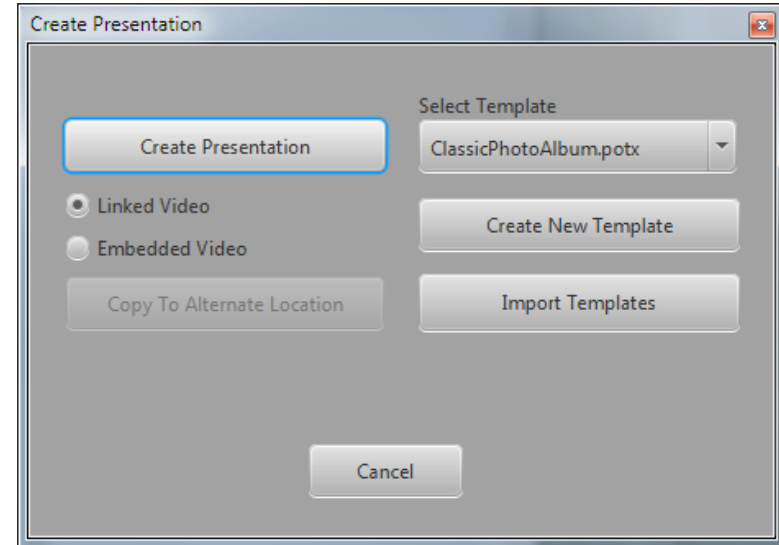


Figure 39

7.7.1.3 Import Templates

To import an existing template:

1. Select the “Import Templates” button.
2. A File explorer window will be displayed.
3. Navigate to the template you intend to use. A typical path may appear as “C:\Program Files\Microsoft Office\Templates\1033” but it may differ depending on the OS.
4. Select the template.
5. Select the “Open” button.
6. The template will now be available in the “Select Template” drop-down list

7.8 Export Project

When you have completed an editing session, you may wish to export your output files to another machine, library, or network location for presentation or storage. VaultStream EasyCut provides an export function that enables this to be done seamlessly.

7.8.1 Export to Disk

The files can be exported to a hard drive or network location. To export the output files:

1. Click the “Export Project” button in the Output Toolbar.
2. The Export Project window will be displayed (see Figure 40).
3. Click the “Export to Disk” radio button
4. Select “MP4” or “WMV” radio button.
 - MP4:** Will export the video in MPEG-4 (MP4) format.
 - WMV:** Will export the video files in Windows Media Video format. Transcoding video to WMV is only available when Exporting to disk and is not available for Mac users.
5. A file explorer window will open.
6. Navigate to the intended location and choose the “Select Folder” button.
7. An export status window will be displayed while the files are being copied.



There may be instances where in order to export to a network location, the destination network must be mapped on your computer using File Explorer prior to navigating to the network in VaultStream EasyCut.

7.8.1.1 Export Options

Prior to selecting a location to which your project will be exported, you are presented with Export Options:

Include Images To include any still images you captured within your project, click the “Include Images” checkbox. With the checkbox checked, pictures will be included (see Figure 40). Click again to remove the check and exclude images.

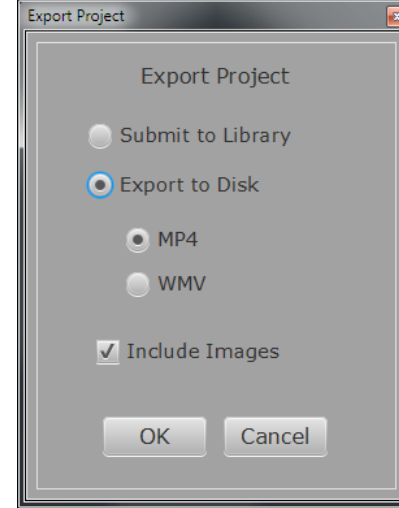


Figure 40

7.8.2 Submit to Library

You have the option to copy your project to a non-clinical library on the VaultStream. Doing so will enable you to search for and view your procedure using VaultStream EasyView. The VaultStream must be configured for non-clinical libraries.

 For more information on VaultStream or VaultStream EasyView, refer to the VaultStream User Guide.

 Submit to Library is not supported on v7.0 VaultStream servers.

To copy your project to a non-clinical library:


1. Click the “Export Project” button in the Output Toolbar.
2. The Export Projects window will be displayed (see Figure 41).
3. Select whether or not to include images.
4. Ensure the “Submit to Library” radio button is selected.
5. Click the “OK” button.
6. The Library Export window will be displayed (see Figure 42).
7. The videos and images of the project on which you are currently working will be displayed in the “Data to Export” window. To add additional videos or images you may click the “Browse” button to navigate to a desired video or image. To remove items currently listed, highlight the file by clicking on it in the “Data to Export” window, then click the “Remove” button.

 Deleting videos may cause video in parts of the project to be unviewable in VaultStream EasyView.

8. To change the Title or Description of the project, edit the associated fields at the top of the Library Export window.

 Titles and Descriptions may be used for searches within VaultStream EasyView.

9. Select the library to which you would like to save the project from the Library Information drop-down menu.

 Only non-clinical libraries will appear in the Library Information drop-down menu. If no libraries appear in the menu, this indicates that there are no non-clinical libraries on the VaultStream which you are currently connected to.

10. Click the “OK” button to export the project files to the library. Click the “Cancel” button to return to the Export Videos menu window without copying.

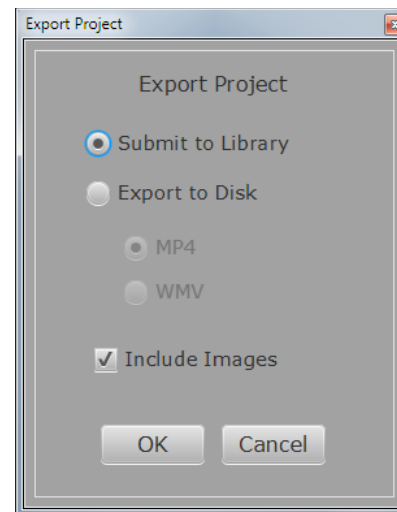


Figure 41

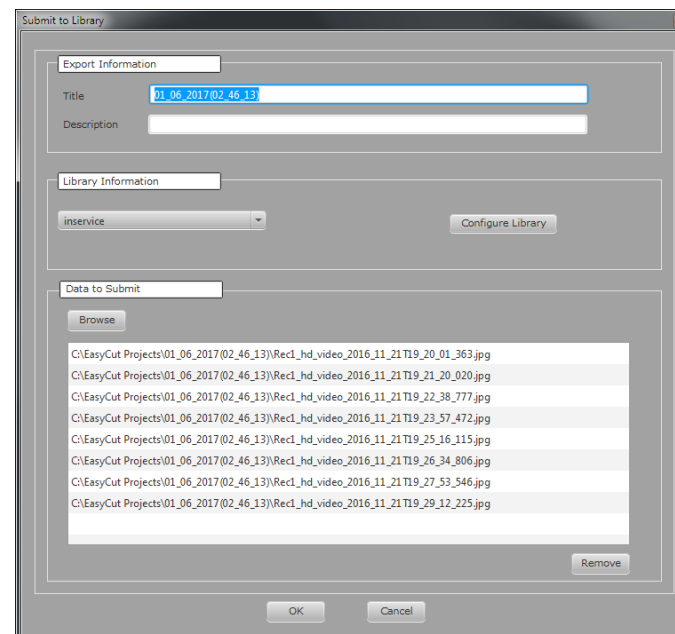


Figure 42

7.8.2.1 Configure Library

To configure VaultStream EasyCut to send to a library or to change the current library configuration:

1. Click the “Configure Library” button in the Library Export window to display the Library Configuration window (see Figure 43). The information being displayed will default to the VaultStream Server that was used to import files into the project.
2. Ensure that the name or IP address of the Library Host is accurately entered.
3. Unless your VaultStream has been configured to use a different Port, select the “Use Default” checkbox
4. Enter your VaultStream User Name and Password
5. Ensure that the “Remember Login Details” checkbox is checked so you do not have to perform configuration each time you want to export to the library.
6. Press the “Apply” button to finalize the library configuration.

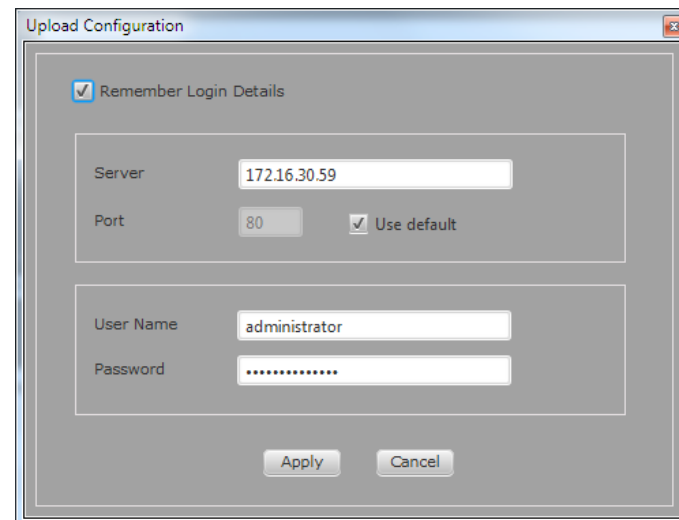


Figure 43

8. Voice Over

The VaultStream EasyCut Voice Over controls provide the ability to record voice overlays which will replace the current audio track of the video. When utilizing the audio overlay Voice Over feature, users have the option to record, review, save or discard the recorded audio.

To utilize the Voice Over feature, you must first create either video clips or a full video using either the “Create Clips”, “Create Movie” or “Multi Movie” buttons. Once the movies have been created, the “Preview” button becomes active to the right of the “Multi Movie” button in the Output Toolbar. When the “Preview” button is selected, and a processed movie is loaded into the Video Playback Window the Voice Over buttons are made available (see Figure 44).

8.1 Voice Over Controls

Voice Over buttons include (see Figure 45):

- A. Start/Stop Voice Over** Selecting will start recording the voice overlay, selecting again will stop the recording.
- B. Save Recording** Selecting will add the voice over to the video.
- C. Discard Recording** Selecting will delete the selected voice over.



Figure 44



Figure 45

8.2 Recording A Voice Over

To add a voice over to a video in the Edit List:

1. Generate video files using Create Clips, Create Movie, or Multi Movie.
2. Ensure that a microphone and speakers are connected/installed on the system.
3. Select the “Preview” button (see Figure 46).
4. Users may need to select the movie to preview from a Windows Explorer file dialogue.
5. While previewing the video, the Voice Over buttons will be displayed.
6. Move the playhead indicator to the location on the timeline where you intend to add the voice over.
7. Select the “Start/Stop Voice Over” button (see Figure 47).
8. VaultStream EasyCut will provide a countdown of the time remaining until recording begins (see Figure 48). The countdown begins at “3”, after it displays “1” recording will begin.
9. When recording begins speak into the microphone. The “Start/Stop Voice Over” button will turn blue with a red dot (see Figure 49), and the audio track will be displayed in green below the video timeline (see Figure 50).
10. When recording is complete, select the “Start/Stop Voice Over” button to stop recording. The voice overlay will be displayed in blue below the video timeline (see Figure 51).



Voice Over will automatically stop if the video comes to the end while recording.

11. The “Save Recording” (‘B’) and “Discard Recording” (‘C’) buttons will be enabled (see Figure 45).
12. To preview the voice over prior to saving, select the “Play/Pause” button.



Figure 46



Figure 47



Figure 48



Figure 49



Figure 50



Figure 51

13. If the voice over is unacceptable, select the tracks corresponding blue indicator and select the “Discard Audio Recording” (“C”) (see Figure 45) button. Confirm your intention to delete the recording (see Figure 52). If the recording seems too loud or too quiet, adjust the volume of the microphone using the computer Control Panel. Repeat the steps above.
14. If the voice over is acceptable, select the “Save Audio Recording” (“C”) (see Figure 45) button and VaultStream EasyCut will automatically add the voice over to the video (see Figure 53).
15. Users may add multiple voice overs to each video.
16. Voice overs may be placed on top of each other or overlap, but the new voice over will replace the existing audio.
17. If the user attempts to navigate away from the Voice Over session without saving or deleting the voice over, VaultStream EasyCut will prompt the user to save the recording (see Figure 54).



Create Clips, Create Movie and Multi Movie will overwrite any previously generated clips/movies for the current project. If narration has been added to previously generated clips/movies and the user attempts to process the videos in the Edit List again, VaultStream EasyCut will warn the user that the narration will need to be re-recorded using the new clips/movies.

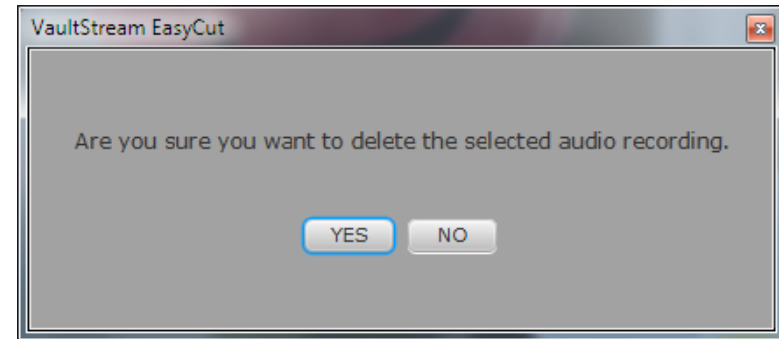


Figure 52

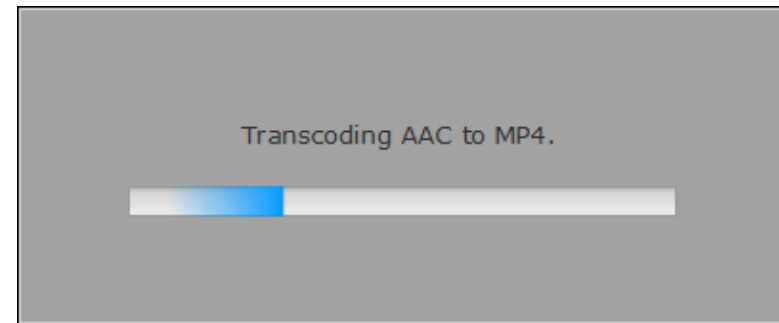


Figure 53

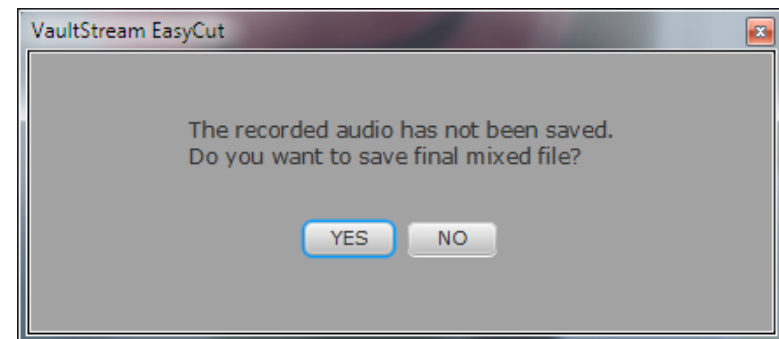


Figure 54

9. Glossary

Clips See “Video Clips”.

Copy To create an exact duplicate of the data.

DualStream Ability to simultaneously record video from two inputs.

Frame Step Forward Advances the video by 1 frame on each click.

Frame Step Reverse Reverses the video by 1 frame on each click.

Folder The computing location of data.

High Definition (HD) Refers to any video system that has a higher resolution than Standard Definition (SD). nStream HD systems captures up to a 1080i digital input through the Serial Digital Interface (SDI) port. High definition video formats include 1080i and 720p.

Images Still images that are captured from either a live or a recorded video stream.

JPEG Or JPG (Joint Photographic Experts Group) is a graphics formats supported by the Web. It is a lossy compression technique that is designed to compress color and grayscale continuous-tone images.

Library A library is a collection of procedural data including movies, still images procedural notes, and reports.

LockStep Editing In LockStep Editing mode, cuts made in Stream A are applied to Stream B at the same time sequence and vice versa. This is useful when two streams of video are recorded for a procedure.

Merge Clips Ability to combine all captured clips into one single movie upon finalization.

Movie A group of one or more video clips merged into a single MPEG-4 video file.

MPEG-2 Moving Pictures Experts Group is a broadcast quality video format.

National Television Standards Committee (NTSC) The analog broadcast video standard for North America and Japan with a frame rate of 29.97 frames per second and 525 horizontal scan lines of resolution.

nCare™ RX, nCare MX, nStream® GX Digital video and still image recording device that assists in the video capture and documentation of medical and surgical procedures.

Phase Alternation Line (PAL) The analog broadcast video standard for the majority of countries in the world including Europe and China with a frame rate of 25 frames per second and 625 horizontal scan lines of resolution

Progressive Scan The process of creating a frame of video by scanning every successive line of the frame in order. This technique requires a higher frequency rate than interlaced video.

Standard Definition (SD) Refers to analog video formats such as NTSC or PAL.

Stream A The video source connected to the A input.

Stream B In a DualStream system, the video source connected to the B input.

VaultStream® Is a networked archival and data management system tailored for both clinical and surgical workflow. It provides nCare and nStream devices with the ability to archive patient data, video and still images to a central location.

Multiple users can access, modify, review and analyze archived data and images from various locations using nCare, nStream, VaultStream EasyView, VaultStream EasyView Mobile.

Video Clips A collection of recorded video segments.