CERTIFIED TRAINING CURRICULUM
for the 3Play 4800

Activities
Training Curriculum Activities
for the 3Play 4800

This is the Activities book for the 3Play 4800 Training Curriculum. It contains a summary section and a details section of the activities to be performed by learners under the guidance of the instructor.

The activities are written for a 3Play 4800 model and assume the included stock NewTek content is present. To the greatest extent possible, the activities are designed to be performed without live camera inputs; however, since the most effective training simulates an actual live production environment, instructors are encouraged to use live inputs whenever possible.

Table Of Contents

Activities Summary ........................................................................................................... 2
Activities Details .............................................................................................................. 7

1 Introduction .................................................................................................................. 7
2 Physical Setup ............................................................................................................... 9
3 The Home and Session Page ...................................................................................... 13
4 Interface and Control Surface Tour ........................................................................... 20
5 Live Desktop and Input/Output .................................................................................. 22
6 CLIP LIST, PLAY LIST, and Tags ............................................................................ 25
7 Modes .......................................................................................................................... 27
8 Basic Workflow ........................................................................................................... 29
9 Advanced Event Creation ........................................................................................... 31
10 Working with the CLIP LIST .................................................................................... 33
11 Tagging Clips ............................................................................................................. 34
12 Adding Media ............................................................................................................. 37
13 Playback Speed Control ............................................................................................ 39
14 CLIP LIST Workflow .................................................................................................. 41
15 Dual Outputs ............................................................................................................... 43
16 Working with the PLAY LIST ..................................................................................... 45
17 Social Media Publishing .............................................................................................. 48
18 Exporting Media ......................................................................................................... 50

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Activities Summary

1: Introduction

#1 Observe Replay in Action
Learners observe instant replay and slow motion in various sports or other productions that use them. The instructor may want to collect video of different styles of replay and slow motion to show the learners, or they may want the learners to find their own examples.

2: Physical Setup

#2 Attach Computer Connections
Learners attach all the various computer-related connections to the 3Play 4800 and ensure the cables hang safely and securely. If the back of the 3Play is inaccessible, the instructor may prefer to have learners point to the appropriate connections on a photograph of the back, rather than actually attach cables.

#3 Attach Video Connections
Learners attach all the various permutations of video input and output connections to the 3Play 4800 and ensure the cables hang safely and securely. The connection types are both input and output for: SDI, YUV component, Y/C, composite, and HDMI. Also, learners hook up a genlock connection. If the back of the 3Play is inaccessible, the instructor may prefer to have learners point to the appropriate connections on an image of the back, rather than actually attach cables.

#4 Attach Audio Connections
Learners attach the various types of audio input and output connections to the 3Play 4800 and ensure the cables hang safely and securely. The connection types are XLR, AES/EBU, and SDI embedded audio. Also, learners hook up a timecode signal. If the back of the 3Play is inaccessible, the instructor may prefer to have learners point to the appropriate connections on an image of the back, rather than actually attach cables.

3: The Home and Session Page

#5 Register a 3Play
Learners go through the registration process for a 3Play. The instructor may prefer to simulate this process, rather than setting up an unregistered 3Play.

#6 Update a 3Play
Learners go through the process of updating a 3Play. The instructor may prefer to simulate this process, rather than actually updating a machine.
#7 Create a New Session
Learners create a new session according to provided scenarios that simulate the needs of a live production. Learners also rename, and delete a session.

#8 Manually Import Media
Learners manually place various types of supported media files in the proper location for a session using a Windows™ Explorer window. Media can be taken from USB drives, removable media drives, or other sessions on the same media drive as the current session. (This is not the typical way media are imported; the main purpose of this exercise is to teach the learner how a session's directories are structured.)

#9 Import Media Using the Import Media Function
Learners import various types of supported media files into a session using the Import Media function. Media can be taken from USB drives, removable media drives, or other sessions on the same media drive as the current session. (This is the preferred way media to import media.)

#10 Set Up Share Destinations
Learners configure accounts for social media sharing in preparation for uploading media to these sites. If desired, they set watermarks and use the Prepare for Web options.

4: Interface and Control Surface Tour

#11 Control Surface Practice
Learners actuate the various controls on the 3Play Control Surface.

5: Live Desktop and Input/Output

#12 Configure Session Parameters
Learners configure the inputs, set up genlock, set up timecode, set the production clocks, configure auxiliary output, set SD analog connections, and configure grab options according to provided scenarios which simulate the needs of a live production.

Learners configure a session according to those needs, then the instructor evaluates the session using the scenario as a standard. Where the scenario does not specify the parameter value, the learner may choose any setting which does not interfere with the output or operation of the live production.

#13 Configure Multiviewers
Learners configure the main interface multiviewer, and the secondary multiview output.
6: CLIP LIST, PLAY LIST, and Tags

#14 Set up Tabs to Hold Clips and Tags
Learners manipulate and rename the various 3Play tabs to prepare them to hold marked events.

7: Modes

#15 Change Modes
Learners change between LIVE mode, CLIP LIST mode, and PLAY LIST mode.

8: Basic Workflow

#16 Create and Playback Events Using IN and OUT
Learners mark events, including changing the In Point by repeatedly pressing the IN button. They playback clips and control the speed using the T-bar. They change camera angles during playback and re-set the In and Out Points using the SHIFT + IN/SHIFT + OUT key combinations.

9: Advanced Event Creation

#17 Create Events Using Other Means
Learners mark and play events using One Button Marking, by marking only an In Point, and by turning the Jog wheel.

#18 Bookmarking
Learners set and to go bookmarks.

10: Working with the CLIP LIST

#19 Playback Clips from the CLIP LIST
Learners change clip angles by using the Arrow keys, the ANGLE button, and clicking in the Clip Angle Preview. They also jog through a clip in both normal and fast jog modes.

11: Tagging Clips

#20 Create Tags Set
Learners create tags and organize them by naming the TAGS tabs.

#21 Tag Clips
Learners tag clips using the alpha-numeric keyboard, by clicking on pre-defined tags with the mouse, and by using the Tag mode with the keypad.
#22 Search for Tags
Learners search for tagged clips.

12: Adding Media

#23 Add Media to a CLIP LIST
Learners add media to a CLIP LIST.

13: Playback Speed Control

#24 Use the Playback Controls
Learners play a clip using the transport controls, the T-bar, and play the clip forward and backward using the +/- button.

14: CLIP LIST Workflow

#25 Play Multiple Angles of One Play
Learners switch between multiple angles and play multiple angles of a clip from the beginning using the ANGLE and SHIFT buttons and the keypad.

15: Dual Outputs

#26 Set up and Transition Between Dual Outputs
Learners TAKE from one angle of a clip to another and transition from one angle to another using AUTO. They also set up a transition.

16: Working with the PLAY LIST

#27 Populate a PLAY LIST with Clips and Play It with Transitions
Learners add clips to the PLAY LIST using the Add to Play List button and by dragging with the mouse. They select transitions to happen between clips, set their parameters, and play the PLAY LISTS.

#28 Playback a PLAY LIST with a Music Bed and Render as a Clip to the CLIP LIST
Learners play an audio file during PLAY LIST playback, set the parameters for that audio file, and render the PLAY LIST as a single clip in the CLIP LIST.

17: Social Media Publishing

#29 Populate the Publish Queue with Content and Publish
Learners add video and stills manually and automatically to the Publish Queue. They set the default upload destinations, set upload parameters in the Publish Queue, and then upload the media to social media sites.
18: Exporting Media

#30 Export Media

Learners populate the Export Media window with various media to be exported, set the export parameters, and export to a specified location.
#1 Observe Replay in Action

**Description:** Learners observe instant replay and slow motion in various sports or other productions that use them. The instructor may want to collect video of different styles of replay and slow motion to show the learners, or they may want the learners to find their own examples.

**Objective:** Be familiar with different uses and needs met by instant replay and slow motion.

**Initial Conditions:** None.

**Steps:** Find and watch video productions that use instant replay and/or slow motion. Note the different uses and needs being met by instant replay. Observe or predict how the operators use the devices that do replay/slow motion and speculate on what things the operators must have to consider or keep in mind while operating this gear.

**Watch Out for:** Watching only one sport or observing too limited a number of production types.
Mastery Questions: Name as many different types of uses for instant replay or slow motion as you can. What sorts of things do the operators have to consider or keep in mind while doing this work? Name three core responsibilities of a 3Play operator?

Time Required: Varies.
#2  

**Attach Computer Connections**

**Description:** Learners attach all the various computer-related connections to the 3Play 4800 and ensure the cables hang safely and securely. If the back of the 3Play is inaccessible, the instructor may prefer to have learners point to the appropriate connections on a photograph of the back, rather than actually attach cables.

**Objective:** Be able to correctly attach the keyboard, mouse, control surface, interface and multiview monitors, a network cable, power cables, and an external eSATA hard drive, and ensure the cables hang safely and securely.

**Initial Conditions:** A 3Play with the included computer components and cables, a control surface, an external eSATA hard drive, and a network connection.

**Steps:**

A. Attach each of the cables and/or devices to the proper connector on the machine. Screw in the fasteners on any connection that has them.

B. When done, ensure the cables hang in such a way that people walking by won’t trip on the cables or pull them out.

**Watch Out for:** Cables not secured, not screwed in, or hanging where operators might trip over them or cause them to become unplugged.
Mastery Questions: How many USB ports are there on the 3Play 4800? What is a disadvantage to using the USB connectors on the front, rather than the back? What is the maximum network connection speed the 3Play 4800 supports? Name at least two reasons why cabling should be hung so people won’t get tangled in them. Which port is faster USB or eSATA?

Time Required: 3 minutes.

#3 Attach Video Connections

Description: Learners attach all the various permutations of video input and output connections to the 3Play 4800 and ensure the cables hang safely and securely. The connection types are both input and output for: SDI, YUV component, Y/C, composite, and HDMI. Also, learners hook up a genlock connection. If the back of the 3Play is inaccessible, the instructor may prefer to have learners point to the appropriate connections on an image of the back, rather than actually attach cables.

Objective: Be able to correctly attach all the various permutations of video input and output connections to the 3Play 4800 and ensure the cables hang safely and securely. Be able to correctly attach a genlock signal.

Initial Conditions: A 3Play and cables for each of the possible input and output types of connections (analog, digital, component, composite, HDMI, and genlock.)

Steps: A. Attach the cabling for each of the different types of input and output connections.

B. When done, ensure the cables hang in such a way that people walking by won’t trip on the cables or pull them out.

Watch Out for: Putting cables on the wrong connector, such as mixing up R, G, and B cables for a component connection or connecting the SDI video to the AES/EBU audio input jack.

Mastery Questions: Given various input and output scenarios, describe how the video cabling is attached to the 3Play 4800. Can the 3Play output SDI and component video at the same time from the same output row?
Can the 3Play output component and Y/C from the same output row at the same time? What is the purpose of genlock? What things can generate a genlock signal? What is an advantage of genlocking cameras together? Name at least two reasons why cabling should be hung so people won’t get tangled in them.

Time Required: 6 minutes.

#4 Attach Audio Connections

Description: Learners attach the various types of audio input and output connections to the 3Play 4800 and ensure the cables hang safely and securely. The connection types are XLR, AES/EBU, and SDI embedded audio. Also, learners hook up a timecode signal. If the back of the 3Play is inaccessible, the instructor may prefer to have learners point to the appropriate connections on an image of the back, rather than actually attach cables.

Objective: Be able to correctly attach the various types of audio input and output connections to the 3Play and ensure the cables hang safely and securely. Be able to correctly attach a timecode signal.

Initial Conditions: A 3Play and cables for each of the possible input and output types of connections (XLR, AES/EBU, and SDI embedded.) An audible timecode signal generator.

Steps: A. Attach the cabling for each of the different types of input and output connections. Attach a timecode connection.

B. When done, ensure the cables hang in such a way that people walking by won’t trip on the cables or pull them out.

Watch Out for: Attaching a line level input then configuring it as Mic in the Audio Configuration Panel or configuring a connected microphone as Line. Connecting a timecode signal to the wrong input. Connecting an AES/EBU connection to an SDI connector.

Mastery Questions: How many channels of audio does the 3Play take from an embedded SDI signal? How many channels of analog audio can be input into a 3Play 4800? How many channels are supported for the audio outputs? How is the Row 2 audio out different than Row 1?
What audio is heard in the embedded SDI audio on output connection 3? Besides using the analog or AES/EBU jacks on the 3Play, how can you output an audio signal? A timecode signal is connected to which connection? Name at least two reasons why cabling should be hung so people won’t get tangled in them.

Time Required: 5 minutes.
#5 Register a 3Play

Description: Learners go through the registration process for a 3Play. The instructor may prefer to simulate this process, rather than setting up an unregistered 3Play.

Objective: Be able to register a 3Play and clear the watermark.

Initial Conditions: A new or just restored 3Play connected to the Internet.

Steps:

A. Boot the 3Play.

B. Accept the 3Play End User License Agreement. Register by going to http://register.newtek.com from the Register 3Play dialog box.

C. Write down the registration code on TriCaster on the provided sticker.

Watch Out for: Difficulty locating the 3Play serial number.
Mastery Questions: When does a 3Play need to be registered? What happens if the 3Play is not registered? Where do you find the 3Play serial number? What is the easiest way to register a 3Play? How is a 3Play registered without an internet connection? Does the 3Play serial number or registration code change after a restore?

Time Required: 10 minutes.

#6 Update a 3Play

Description: Learners go through the process of updating a 3Play. The instructor may prefer to simulate this process, rather than actually updating a machine.

Objective: Be able to update the 3Play software.

Initial Conditions: A 3Play connected to the Internet.

Steps: A. Choose Update 3Play from the Utilities menu. Download the update file. Alternatively, log in to the NewTek account for the machine, go to the 3Play section of the registered products, and download the update.

B. Exit to Windows™, run the update file, and follow the instructions.

Watch Out for: Performing an update too close to the start of a live production.

Mastery Questions: Why do you need to update the 3Play after doing a restore? Should Windows™ updates be performed on the 3Play? Should the 3Play hardware ever be upgraded or changed? How much time should you allow before needing to use the 3Play for a live production when updating? Is it possible for features to change or be added by doing an update? Where can you find the currently installed version of the software and hardware?

Time Required: 5 minutes plus the time during which the 3Play is writing files to the hard drive (10 to 20 minutes).
#7 Create a New Session

Description: Learners create a new session according to provided scenarios that simulate the needs of a live production. Learners also rename, and delete a session.

The learners create a session according to the needs of the scenario, then the instructor evaluates the created session using the scenario as a standard. Where a parameter is not specified by the scenario, the learner may choose any setting which does not interfere with the output or operation of the live production.

Objective: Be able to create, rename, and delete a new session according to a set of specifications.

Initial Conditions: A multi-standard 3Play is better, though not necessary. The instructor should prepare production scenarios which include: the name of the live event; the external inputs to be used, including signal resolution and format; what type of genlock, if any, to be used; what type of timecode, if any, to be used; the start time and expected length of the production; how the Multiview output is to be used; what the auxiliary output needs to feed; for an SD production, what analog output connections are required; and the desired recorded streams. The greater the number and variety of scenarios, the more effective the learning will be.

Steps: 

A. Set the parameters on the Home page for a new session according to the specification. Start, then exit the session.

B. Create a new session using the original session as a template. Right-click on the new session and choose Rename from the context menu. Enter a new name for the session.

C. Right-click on the newly renamed session and choose Delete from the context menu to delete the session.

Watch Out for: Failure to name the new session.

Mastery Questions: How does the 3Play name a session if the operator doesn’t specify a name? How might that cause problems? Where is NTSC-J television broadcast? How can you tell what the resolution of the session is by looking at the live desktop? What does genlock do? When is it important to record time code? How can you tell external timecode is being used? Does creating a session using another session
as a template copy the media?

Time Required: 10 minutes.

#8 Manually Import Media

Description: Learners manually place various types of supported media files in the proper location for a session using a Windows™ Explorer window. Media can be taken from USB drives, removable media drives, or other sessions on the same media drive as the current session. (This is not the typical way media are imported; the main purpose of this exercise is to teach the learner how a session's directories are structured.)

Objective: Be able to manually place the various types of supported media files from external drives, the current media drive, and other internal media drives in the proper location for a session using a Windows™ Explorer window opened from the Session page.

Initial Conditions: Be on the Session page of an existing session. Have media of various types (video clips in different popular formats, still graphics, and audio files) ready to be placed in the current session. Some of the media should be on an external drive, some on a second internal 3Play media drive, and some in a different session on the same media drive as the current session. The external USB drive with the content for import should already be connected to the 3Play and recognized by the system.

Steps:

A. Go to the Session page for a session. Click any of the lines under Browse. A Windows™ Explorer window opens.

B. One-by-one, navigate to the location of the media to be imported to the current session, copy the media, then navigate to the appropriate directory in the current session and paste the files. You can also open a second Explorer window by clicking on one of the lines under Browse and drag files between windows.

Watch Out for: Files placed in a directory that holds a different type of media. Transferring video files that should be transcoded first. Transferring video clips to a drive being used during live production.
Mastery Questions: Explain how the media directories for a session are structured. Which types of video clips, still images, and audio files are supported by the 3Play? Are there any popular video formats not natively supported by the 3Play? What is the danger of copying video files directly to the hard drive instead of using the Media Importer?

Time Required: 5 minutes.

#9 Import Media Using the Import Media Function

Description: Learners import various types of supported media files into a session using the Import Media function. Media can be taken from USB drives, removable media drives, or other sessions on the same media drive as the current session. (This is the preferred way media to import media.)

Objective: Be able to import several different types of media at once into a session using the Import Media function.

Initial Conditions: Be on the Session page of an existing session. Have media of various types (video clips in different popular formats, stills graphics, and audio files) ready to be placed in the current session. Some of the media should be on an external drive, some on a second internal 3Play media drive, and some on the same media drive as the current session. The external USB drive with the content for import should already be connected to the 3Play and recognized by the system.

Steps:

A. Go to the Session page for a session. Click the Import Media button. An Import Media window opens. Click Add and navigate to the location of the media to be imported to the current session. You can select files individually, or multi-select.

B. As you select files to import, the Import Media window is populated with a queue of items to import. Some of the clips may have a Transcode checkbox which is either forced to stay checked, not able to be checked, or can be checked at the operators discretion. Click Import.

Watch Out for: Not testing clips that could have been transcoded, but which weren't by playing them in a DDR before the production starts. Such clips may not play properly in the DDR, and the operator won't know until too
Mastery Questions: What is the preferred method of loading content into a 3Play? What are the dangers and/or symptoms of media being copied directly into a media drive as opposed to being imported using the Import function? What determines when the operator should enable transcoding for clips when the option is available?

Time Required: 3 minutes.

#10 Set Up Share Destinations

Description: Learners configure accounts for social media sharing in preparation for uploading media to these sites. If desired, they set watermarks and use the Prepare for Web options.

Objective: Be able to configure accounts for social media sharing and set a watermark or the Prepare for Web options.

Initial Conditions: User accounts set up with Facebook, Twitter, YouTube, and an FTP site. An internet connection for sharing media. A location, possibly over a network, to receive copied files.

Steps: A. Open the Account Configuration panel for media sharing. Log in to each of the sites for which the learner has accounts. For Facebook, choose the page for which the learner is an administrator, if applicable.

B. For Facebook, Twitter, or YouTube, set the watermark, if desired. The FTP and File Transfer options can also have a watermark if they are set to Prepare for Web.

Watch Out for: Not having accounts already set up; losing the password or log in information for these sites.

Mastery Questions: Where in the interface are social media sites logged-in to or configured? How are social media sites logged-in to or configured during live operation? If a company has a corporate Facebook page, how does an individual employee of that company upload media to Facebook? What does the Prepare for Web option do and when would an operator want to use it? Where does the watermark come
from when used on a media file?

Time Required:  3 minutes.
#11 Control Surface Practice

**Description:** Learners actuate the various controls on the 3Play Control Surface.

**Objective:** Become familiar with the action of the various Control Surface controls.

**Initial Conditions:** At least two different live sources coming in to the 3Play. Several events marked in the CLIP LIST and added to the PLAY LIST.

**Steps:**

A. Switch between the three operational modes of the 3Play (LIVE, CLIP LIST, PLAY LIST). Place different sources in Channel A and B and perform a *TAKE* and *AUTO*. Play, stop, and jog a clip with the two channels linked and unlinked.

B. Start and stop recording.

C. With a clip playing, move the *T-bar* through its entire run. Repeat with the +/- button turned on.

D. Use the *Arrow* keys to navigate around within a group of captured
events in the CLIP LIST. Repeat in the PLAY LIST. Navigate through the tabs in both the CLIP LIST and PLAY LIST using the Arrow buttons.

Watch Out for: None.

Mastery Questions: How does the interface indicate which of the three operational modes (LIVE, CLIP LIST, PLAY LIST) it’s in? What does the changing color of the T-bar mean?

Time Required: 5 minutes.
### 5: Live Desktop and Input/Output

#### #12 Configure Session Parameters

**Description:** Learners configure the inputs, set up genlock, set up timecode, set the production clocks, configure auxiliary output, set SD analog connections, and configure grab options according to provided scenarios which simulate the needs of a live production.

Learners configure a session according to those needs, then the instructor evaluates the session using the scenario as a standard. Where the scenario does not specify the parameter value, the learner may choose any setting which does not interfere with the output or operation of the live production.

**Objective:** Be able to configure a session’s inputs, set up genlock, set up timecode, set the production clocks, configure the multi-view output, configure auxiliary output, set SD analog connections, and configure grab options according to a set of specifications.
Initial Conditions: The instructor should prepare production scenarios which include: the name of the live event; the external inputs to be used, including signal resolution and format; what type of genlock, if any, to be used; what type of timecode, if any, to be used; the start time and expected length of the production; how the Multiview output is to be used; what the auxiliary output needs to feed; for an SD production, what analog output connections are required. The greater the number and variety of scenarios, the more effective the learning will be.

Steps:

A. Configure the inputs according to the specification.

B. Set the genlock, timecode, and start and end production clock as applicable.

C. Set the auxiliary outputs and SD analog connections according to the specification.

D. Open the Grab Configuration panel and set the file base name, de-interlace, and Add to Clip List settings.

Watch Out for:

- Not using the Subtract 12 hours function for productions which might go past mid-night.
- Not setting the auxiliary output analog connections.
- Not turning on De-interlace when appropriate.
- Not adding them to the Publish Queue or CLIP LIST when wanted.

Mastery Questions:

- What does genlock do? When is it important to record time code? How can you tell external timecode is being used? What will happen to an analog SD output if the analog output is not configured correctly? What is video interlacing? When is de-interlacing typically used when grabbing frames? How can you tell whether the current session is an interlaced one or not? How can you tell when a session is being created whether or not it will be interlaced? Where are grabbed frames stored? What file format are frames saved in?

Time Required: 15 minutes.

### #13 Configure Multiviewers

Description: Learners configure the main interface multiviewer, and the secondary multiview output.
Objective: Be able to configure the main interface multiviewer and the secondary multi-view output.

Initial Conditions: The instructor may wish to prepare scenarios that require specific setups of the main interface multiviewer so that the operator can monitor the most appropriate inputs for the production’s needs.

Steps:  
A. Rename the input and output monitors.

B. Cycle through the different *Multiview* layouts on the *Workspace* menu. Change one of the layouts into the different layout types. Set the various *Multiviewer* output sources.

C. Reveal and hide the *TAGS* area using the keyboard shortcut (*SHIFT + TAG*).

Watch Out for: None.

Mastery Questions: How are the monitor displays configured? What are some reasons to rename an input monitor? How does renaming an input monitor affect the recorded file of that input? What type of connection is the Multiview output (SDI, DVI, HDMI, Component, etc.)?

Time Required: 6 minutes.
#14 Set up Tabs to Hold Clips and Tags

**Description:**
Learners manipulate and rename the various 3Play tabs to prepare them to hold marked events.

**Objective:**
Be able to set up the tabs in the CLIP LIST and PLAY LIST to organize marked events.

**Initial Conditions:** None.

**Steps:**
A. Reveal and hide the TAGS area using the Control Surface shortcut (\textit{SHIFT + TAG}).

B. Navigate through the tabs in both the CLIP LIST and PLAY LIST using the \textit{Arrow} buttons. Rename the tabs.

**Watch Out for:** None.
Mastery Questions: What are some of the reasons to name tabs with specific names? Why would putting multiple tags be helpful?

Time Required: 3 minutes.
#15 Change Modes

**Description:** Learners change between LIVE mode, CLIP LIST mode, and PLAY LIST mode.

**Objective:** Be able to change between LIVE mode, CLIP LIST mode, and PLAY LIST mode.

**Initial Conditions:** At least two different live sources coming in to the 3Play.

**Steps:**

A. Ensure Channel A is selected and in LIVE mode. Change the angle being sent to live using the ANGLE button and numeric keypad.

B. Mark a few events.

C. Go to CLIP LIST mode. Note that the most recently marked even is the selected one. Use the Arrow keys to select different events and different camera angles. Add a few events to the PLAY LIST.

D. Go to PLAY LIST mode. Use the Arrow keys to select different events and different camera angles.

E. Repeat the above steps for Channel B. Note how Channels A and B behave independently. State which color of the T-bar is associated with each mode.

**Watch Out for:** Forgetting what mode you’re in.

**Mastery Questions:** What does the LINK button do?
Time Required: 5 minutes.
#16 Create and Playback Events Using IN and OUT

Description: Learners mark events, including changing the In Point by repeatedly pressing the IN button. They playback clips and control the speed using the T-bar. They change camera angles during playback and re-set the In and Out Points using the SHIFT + IN/SHIFT + OUT key combinations.

Objective: Be able to mark events, playback events while changing playback speed, change camera angles while playing back, and re-set the In and Out Points using the SHIFT + IN/SHIFT + OUT key combinations.

Initial Conditions: Have at least two different live sources coming in to the 3Play. This activity should begin in LIVE mode. If the instructor wants the learners to play back the clips and see them stop at the Out Point, Out Point Padding on the Options menu should be disabled.

Steps:

A. Using whatever camera angle is selected, mark an In Point, then an Out Point. Notice the event added to the CLIP LIST. Use the ANGLE button and the keypad to choose a different angle. Mark another event as above.

B. Mark an In Point, then repeatedly press the IN button. Notice what happens to the In Point time code. Finish marking the event.

C. Ensure the T-bar is at the 0% position. Mark an event, then go to CLIP LIST mode. Ramp the T-bar up and down to observe the effect on clip playback.

D. Reset the just-played clip. Play it again, and reduce the speed using the T-bar. While the clip is playing back, change the camera angle being play by using the ANGLE button and the keypad.
E. Reset the clip just played and put the *T-bar* to the 0% position. Use the Jog wheel to scroll through the clip; go all the way to the end, then back to the beginning. Note how the jogging is limited to the In and Out Points. Now, hold down the *SHIFT* key and jog back in time, past the In Point. Keep the *SHIFT* key held down and press the *IN* button. Note that the In Point has been changed. Move the Out Point to a later time using the same method.

**Watch Out for:** Not starting in LIVE mode. Letting go of the *SHIFT* key before re-setting the In or Out Points. Learners should mark clips long enough to give enough playback time to see the effect of moving the *T-bar* and to give time to change camera angles before the clip reaches the end. If Out Point Padding is not deactivated, the learners will be able to play and/or jog past the marked Out Point.

**Mastery Questions:**

Name some situations where being able to repeatedly press the *IN* button would be useful? Since Out Point Padding can be set to Infinite, what is the value of marking an Out Point? Why is Out Point Padding useful?

**Time Required:** 10 minutes.
#9: Advanced Event Creation

<table>
<thead>
<tr>
<th>Event ID</th>
<th>In Point</th>
<th>Out Point</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>14:32:00.07</td>
<td>14:32:10.07</td>
<td>00:00:10.00</td>
</tr>
<tr>
<td>0-11</td>
<td>14:31:26.01</td>
<td>14:31:26.02</td>
<td>00:00:00.01</td>
</tr>
<tr>
<td>0-13</td>
<td>16:10:04.28</td>
<td>16:10:04.29</td>
<td>00:00:00.01</td>
</tr>
<tr>
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<td>16:10:04.28</td>
<td>16:10:07.18</td>
<td>00:00:02.20</td>
</tr>
<tr>
<td>0-15</td>
<td>16:10:22.08</td>
<td>16:10:34.24</td>
<td>00:00:12.16</td>
</tr>
</tbody>
</table>

#17 Create Events Using Other Means

**Description:** Learners mark and play events using *One Button Marking*, by marking only an In Point, and by turning the Jog wheel.

**Objective:** Be able to mark and play events using *One Button Marking*, by marking only an In Point, and by turning the Jog wheel.

**Initial Conditions:** Have at least two different live sources coming in to the 3Play. This activity should begin in LIVE mode.

**Steps:**

A. Begin recording and set *One Button Marking* to 4 seconds. Press the OUT button. Notice that a 4-second clip is created.

B. Go to LIVE mode and press the IN button. Go to CLIP LIST mode, then play the clip using the Transport controls. Set an Out Point to complete the event.

C. Go to LIVE mode, then turn the Jog wheel ¼ turn in either direction. Notice that the video movement stops, and the display says “Delayed”. Jog forward and backward through the clip. Press the Play button and notice the clip plays in real time. Use the T-bar to slow the clip down. Press the +/- button, then play the clip forwards and backwards. In and Out Points can be created if desired.

**Watch Out for:** Failing to start recording before marking an Out Point causes recording to start, but the first clip will have only one frame.

**Mastery Questions:** Name some situations where using *One Button Marking* would be useful? Name some situations where marking an In Point, but not an Out Point would be useful? Name some situations where
turning the Jog wheel to delay playback would be useful?

Time Required: 5 minutes.

#18 Bookmarking

Description: Learners set and to go bookmarks.

Objective: Be able to set and to go bookmarks.

Initial Conditions: Have at least one live source coming in to the 3Play. Recording must be enabled.

Steps:

A. Set several bookmarks by pressing the BOOK MARK button. Go to each of the set bookmarks by pressing \textit{SHIFT + BOOK MARK}, then continue to “go” to more.

Watch Out for: Trying to set bookmarks when not recording. Setting more than the maximum number of bookmarks and not understanding where the oldest ones went.

Mastery Questions: What is the maximum number of bookmarks that can be made? What happens if the operator makes more than this number? What happens if the operator continues to go to set bookmarks after reaching the last one? If the 3Play is in \textit{LIVE} mode and the operator goes to a bookmark, what mode does the 3Play go to? Does the 3Play need to be recording to set bookmarks?

Time Required: 2 minutes.
#19 Playback Clips from the CLIP LIST

**Description:** Learners change clip angles by using the *Arrow* keys, the *ANGLE* button, and clicking in the *Clip Angle Preview*. They also jog through a clip in both normal and fast jog modes.

**Objective:** Be able to change clip angles by using the *Arrow* keys, the *ANGLE* button, and clicking in the *Clip Angle Preview*. Be able to jog through a clip.

**Initial Conditions:** *Clip Angle Previews* should be on. Several clips with several camera angles should be already marked in the CLIP LIST.

**Steps:**

A. Go to CLIP LIST mode and play a long clip by double-clicking it in the CLIP LIST. While the clip is playing, change the angle by clicking on the *Clip Angle Preview* monitor. Change the angle by using the left and right *Arrow* keys. Change the angle by pressing the *ANGLE* button and a number on the numeric keypad.

   B. Jog a clip by turning the Jog wheel. Turn on *Fast Jog* and jog through the clip again.

**Watch Out for:** Forgetting to turn the *Fast Jog* button back off after use.

**Mastery Questions:** What is the value of the *Clip Angle Preview*? What is the effect of turning on *Fast Jog*?

**Time Required:** 3 minutes.
11: Tagging Clips

#20 Create Tags Set

Description: Learners create tags and organize them by naming the TAGS tabs.

Objective: Be able to create tags and organize them by naming the TAGS tabs.

Initial Conditions: The instructor may wish to prepare a game scenario to include team names, player names, and types of plays a replay operator would want to mark.

Steps:
A. If not visible, open the TAGS area of the interface. Name the TAGS tabs of at least three tabs with appropriate names.

B. Turn on Edit Tags and create tags in the three named tabs.

Watch Out for: Not turning off Edit Tags mode.

Mastery Questions: Come up with some different sets of tags and tabs for different sports or other live events.

Time Required: 2 minutes.
#21 Tag Clips

**Description:** Learners tag clips using the alpha-numeric keyboard, by clicking on pre-defined tags with the mouse, and by using the Tag mode with the keypad.

**Objective:** Be able to tag clips using the alpha-numeric keyboard, by clicking on pre-defined tags with the mouse, and by using the Tag mode with the keypad.

**Initial Conditions:** Several clips with several camera angles should be marked in the CLIP LIST. At least three tabs in the TAGS area should have prepared tags. The Tag mode should be off and Auto Advance should be on at the start of the activity. The TAGS area should be visible.

**Steps:**

A. Select a clip in the CLIP LIST. Click in the FastClip dataview port and type a description of the clip on the numeric keyboard. Press the ENTER key on the Control Surface keypad. Note that the clip is tagged.

B. Select an untagged clip in the CLIP LIST. Click on one of the tags in the TAGS area. Go to a different TAGS tab, then click on a tag in that tab. Press the ENTER key on the Control Surface keypad. Note that the clip is tagged with the selected tags.

C. Select an untagged clip in the CLIP LIST. Turn on Tag mode. Use the Control Surface keypad to select tags from the TAGS tabs. If Auto Advance is on, tag selection should automatically advance each time a tag is selected. Press the ENTER key on the Control Surface keypad. Note that the clip is tagged with the selected tags.

**Watch Out for:** Not pressing 0 to skip a TAGS tab. Not pressing ENTER on the keypad to assign the tags to a clip. Not being in Tag mode when attempting to tag clips with the keypad.

**Mastery Questions:**

- What is the keyboard shortcut to show/hid the TAGS area?
- In a TAGS tab with more than 10 predefined tags, what key combination selects a tag in the first row?
- Is there a way to apply the selected tags to all angle of a clip at once?
- Can tags be automatically applied when the TAGS area is hidden?

**Time Required:** 5 minutes.
#22 Search for Tags

Description: Learners search for tagged clips.

Objective: Be able to search for tagged clips.

Initial Conditions: Numerous clips with several camera angles should be marked and tagged in the CLIP LIST. It is best if the same tags have been applied to multiple clips and the clips are in several tabs in the CLIP LIST. The TAGS area should be visible.

Steps:

A. Click in the FastClip dataview port, then select a tag in the TAGS area that has been applied to some clips. Don’t press ENTER; instead, click the Search button. Notice that the search results are shown in their own tab in the CLIP LIST.

B. Select one of the clips in the search results. Click the GO TO button. Notice that the tab in the CLIP LIST with that clip opens and the clip is selected.

Watch Out for: Pressing ENTER after putting tag data in the FastClip dataview port applies the tag to the selected clip and clears the dataview port. Text already in the dataview port when trying to search.

Mastery Questions: Give some examples of why an operator would search for specific clips.

Time Required: 2 minutes.
#23 Add Media to a CLIP LIST

Description: Learners add media to a CLIP LIST.

Objective: Be able to add media to a CLIP LIST.

Initial Conditions: Media should be imported to the 3Play before adding it to a CLIP LIST.

Steps: A. Click the Add Media button in the CLIP LIST. Navigate to the media to be added and select it.

Watch Out for: Adding media from an external USB drive is not advised as the throughput may not be enough to play the media properly. Having to press the Browse button often is a sign that the media is not well organized. Make sure text is not in the Filter field.

Mastery Questions: Can still images be added to the CLIP LIST? Can you add a clip that is not internal to the session?
Time Required: 2 minutes.
#24 Use the Playback Controls

**Description:** Learners play a clip using the transport controls, the *T-bar*, and play the clip forward and backward using the +/- button.

**Objective:** Be able to play a clip using the transport controls, the *T-bar*, and play the clip forward and backward using the +/- button.

**Initial Conditions:** At least one event marked in the CLIP LIST. This event should be of sufficient length. The 3Play should be in CLIP LIST mode at the start of the activity.

**Steps:**

A. Ensure the *T-bar* is at the 0% position. Choose a marked event in the CLIP LIST. Press the *Play* button, after a moment, press the *Stop* button. Then press *Stop* again.

B. Ramp the *T-bar* up to 100% and down to observe the effect on clip playback. Put the *T-bar* back to the 0% position, and press *Stop* twice.

C. Turn on the +/- button, then ramp the *T-bar* up to the mid-position. Now, move the *T-bar* up and down through the mid-position and note the effect on clip playback.
Watch Out for: Not turning the +/- button off after using it. To get the T-bar to “grab” control of clip playback, it needs to move through the position where it would be if it were playing the clip.

Mastery Questions: What is the difference between pressing the Stop button the first time and pressing it the second time?

Time Required: 3 minutes.
#25 Play Multiple Angles of One Play

**Description:** Learners switch between multiple angles and play multiple angles of a clip from the beginning using the ANGLE and SHIFT buttons and the keypad.

**Objective:** Be able to switch between multiple angles and play multiple angles of a clip from the beginning using the ANGLE and SHIFT buttons and the keypad.

**Initial Conditions:** A clip with multiple camera angles and of sufficient length to complete the activity should be in the CLIP LIST.

**Steps:**

A. Select a clip in the CLIP LIST. Ramp the T-bar up to 100% to begin playing the clip, then ramp the speed down to about 25–30%. Use the ANGLE button and the Control Surface keypad to view different angles of the clip while it’s playing.

B. Put the T-bar back to the 0% position. Reset the clip to the beginning. Ramp the T-bar up to 100% to begin playing the clip, then ramp the speed down to about 25–30%. Use the SHIFT and ANGLE buttons and the Control Surface keypad to play different angles of the clip from the beginning.

**Watch Out for:** To get the T-bar to “grab” control of clip playback, it needs to move through the position where it would be if it were playing the clip.

**Mastery Questions:** How can an operator watch all the angles of a clip play while the 3Play is outputting only one angle?
Time Required: 3 minutes.
#26 Set up and Transition Between Dual Outputs

**Description:** Learners TAKE from one angle of a clip to another and transition from one angle to another using AUTO. They also set up a transition.

**Objective:** Be able to TAKE from one angle of a clip to another and transition from one angle of a clip to another using AUTO. Be able to set up a transition.

**Initial Conditions:** At least two clips of sufficient length to complete the activity should be in the CLIP LIST. The channels should be unlinked at the start of the activity.

**Steps:**

A. Turn on *AutoPlay* and select a clip in the CLIP LIST using Channel B. Go to Channel A and choose a different camera angle of the same clip. The 3Play is now set up to do a TAKE between camera angles.

B. Go to Channel B and begin clip playback. Adjust the playback speed if desired. After the interesting part of the action is past, or when the clip stops at the end, press the *TAKE* button on the Control Surface. Notice that the camera angle from Channel A now switches to Channel B and begins playing.

C. Click on the *Transition* icon and select a transition. Set the desired transition speed. The 3Play is now set up to do the transition between camera angles.

D. Repeat steps A and B above, except press the *AUTO* button instead of the *TAKE* button. Notice that the camera angle from Channel A now transitions to Channel B and begins playing.
Watch Out for: If the clips available in the CLIP LIST are so short that they stop playing before learners can perform a transition, the instructor may have them slow the playback speed down before performing the transition. Notice that if you press TAKE and the clip in Channel A is stopped (but AutoPlay is on), the clip plays back at 100% after transitioning.

Mastery Questions: If the playback speed in Channel B is less than 100%, at what speed does the clip transitioning from Channel A to B play after the transition? Is it possible to set up a clip in Channel A while Channel B is playing back?

Time Required: 5 minutes.
#27 Populate a PLAY LIST with Clips and Play It with Transitions

Description: Learners add clips to the PLAY LIST using the Add to Play List button and by dragging with the mouse. They select transitions to happen between clips, set their parameters, and play the PLAY LISTS.

Objective: Be able to add clips to the PLAY LIST using the Add to Play List button and by dragging with the mouse. Be able to select transitions to happen between clips, set their parameters, and play the PLAY LISTS.

Initial Conditions: Several clips with multiple camera angles should be in the CLIP LIST.

Steps:

A. Select a particular camera angle from a clip in the CLIP LIST. Press the Add to Playlist button. Choose a different clip and angle and press Add to Playlist again. Notice these clips have been added to the PLAY LIST.

B. With the mouse, grab a few particular camera angles from clips in the CLIP LIST and drag them to the PLAY LIST. Use the mouse to reorder the clips in the PLAY LIST. Use the Cut and Paste functions to reorder clips in the PLAY LIST.

C. Select the Clip ID from a clip in the CLIP LIST, then press Add to Playlist. Notice how all the camera angles were added to the PLAY LIST for that event. Change the In and Out Points for a few of the clips in the PLAY LIST. Notice how this does not affect the duration of the same clip in the CLIP LIST.
D. With several clips in the PLAY LIST, select transitions to occur between each clip in the PLAY LIST. Set the transition parameters, including which transition runs and its duration. Play the PLAY LIST to observe the clips all playing with the selected transitions between them. Notice multiple clips can be selected at once to change parameters for multiple clips.

Watch Out for: Don’t set the transition length to be longer than the clip duration.

Mastery Questions: What are some particular uses for the PLAY LIST, as opposed to the CLIP LIST?

Time Required: 7 minutes.

#28 Playback a PLAY LIST with a Music Bed and Render as a Clip to the CLIP LIST

Description: Learners play an audio file during PLAY LIST playback, set the parameters for that audio file, and render the PLAY LIST as a single clip in the CLIP LIST.

Objective: Be able to play an audio file during PLAY LIST playback, set the parameters for that audio file, and render the PLAY LIST as a single clip in the CLIP LIST.

Initial Conditions: An audio file, suitable to be the music bed of a highlight reel, should have been imported to the session with the Media Importer. Several clips should be in the PLAY LIST.

Steps:
A. Turn on the Music Track checkbox in the PLAY LIST. Click the drop down to add an audio file as the music bed for the PLAY LIST. If desired, click the gear to set the start time and adjust the volume for the audio file. Play the PLAY LIST and note the audio playing.

B. Reset the PLAY LIST to the beginning by pressing the Stop button three times. Begin playing it again. During playback, push from the playing clip to the next by pressing the Next Clip button.

C. Rename the PLAY LIST tab using a meaningful name. Render the individual clips in the renamed PLAY LIST into one clip in the CLIP LIST using the Export to Clip List button. Notice that the rendered clip has
the name of the tab as it’s tag information.

Watch Out for:  None.

Mastery Questions:  What audio file formats are supported for PLAY LIST playback? What happens if the audio file is longer than the total duration of the PLAY LIST in which it plays? What are some uses for an audio track in a PLAY LIST?

Time Required:  3 minutes.
#29 Populate the Publish Queue with Content and Publish

**Description:** Learners add video and stills manually and automatically to the *Publish Queue*. They set the default upload destinations, set upload parameters in the *Publish Queue*, and then upload the media to social media sites.

**Objective:** Be able to add media to the *Publish Queue* manually and automatically. Be able to set the default upload location and cause media to upload manually and automatically to social media sites.

**Initial Conditions:** Properly configured accounts for the desired sharing destinations. Several clips and stills should be in the CLIP LIST and PLAY LIST.

**Steps:**

A. On the *File* menu, choose *Publish Queue* to open that panel. Click the *Add* button, then navigate to and select media to be uploaded to social media sites. Repeat this until all desired media are in the queue, then set the *Destination* and add comments. Press *Publish* to upload the media.

B. On the *File* menu, set the default destinations for media to be sent to. If desired, check the *Auto Upload* button. Open the *Grab Configuration* panel and set *Add to Publish Queue*.

C. Select a clip in the CLIP LIST, then press the *Publish* button on the Control Surface. Open the *Publish Queue* to verify the clip was sent to the Queue. Notice the default destination is the one set in step B.

D. Select a clip in the PLAY LIST, then trim the In and Out Points using the Jog wheel. Press the *PUBLISH* button on the Control Surface. Open the *Publish Queue* to verify the clip was sent to the Queue. Notice that the default destination is the one set in step B.
Watch Out for: Not having accounts properly configured when trying to share media. Inadvertently uploading test files and test recordings to social media sites because Auto Upload is checked. Failing to realize the learner can add multiple media to the Publish Queue before uploading.

Mastery Questions: Can a video file be uploaded to a social media site while it is still being recorded? Name two ways to add media to the Publish Queue? Can content be uploaded to social media sites without opening the Publish Queue? How is one image configured to upload to multiple social media sites at once from outside of the Publish Queue? How is one image configured to upload to multiple social media sites at once from inside of the Publish Queue?

Time Required: 8 minutes.
#30 Export Media

**Description:** Learners populate the *Export Media* window with various media to be exported, set the export parameters, and export to a specified location.

**Objective:** Be able to populate the *Export Media* window with various media to be exported, set the appropriate *Target* and *Preset*, and export to a specified location.

**Initial Conditions:** Be on the *Session* page of an existing session. Have media of various types (video clips in different popular formats, stills graphics, title graphics, and audio files) to export from the current session.

**Steps:**

A. Go to the *Session* page for a session. Click the *Manage* icon on the icon ring. Click the *Export* button. An *Export Media* window opens. Click *Add* and navigate to the location of the media to be exported from the current session. You can select files individually, or multi-select.

B. When the media are in the *Export Media* window, select the appropriate setting on the *Target* dropdown first for each item, then select the appropriate setting on the *Preset* dropdown for each item. Select the dropdown for *Destination* and choose a location to receive the files. You can multiple select the items before setting the parameter on the dropdowns to avoid having to set it for each file.
individually.

Watch Out for: Failing to appropriately set any of the necessary export parameters or the export location.

Mastery Questions: What is the reason for choosing from among the choices of Target and Preset? Name some uses for an exported file and what Target and Preset settings are right for that use. Is there a way to get a QuickTime file out of the media exporter with no render time? If a web stream was not recorded as a streaming file, is there a way to convert the recorded MPEG file for use on the web? Can a single MPEG file be converted to multiple formats in one pass?

Time Required: 5 minutes.