



NewTek
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3PLAY™

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Hate reading manuals? If so, you are part of the majority (estimates are that between 60 and 97% of the human race agree). Many prefer to jump right in, maybe asking a friend for occasional help (and who can blame them)?

This manual attempts to tell you what you need to know in a friendly, concise way, while also providing a deeper reference section you can turn to when you really need specifics.

Especially if you hate reading, please take a moment to peruse *this* page, which explains the manual's organization. You may find you can escape with a *minimum* of reading.

- ❖ **Chapter 2 - Software License and Limited Warranty**
- ❖ **Chapter 3 - Introduction:** Basic concepts explained
- ❖ **Chapter 4 - Setting Up:** Connecting external devices (cameras, monitors and the like) and registration
- ❖ **Chapter 5 - Quick Start:** A brisk romp through 3PLAY operations, about 15 pages
- ❖ **Chapter 6 - 3PLAY Reference:** Complete details, for those who love (or need) to know everything
- ❖ **Chapter 7 - How Do I ... ?:** Quick notes, with cross-references. When you have a specific question, skimming a few lines here may be quicker than searching through Chapter 6
- ❖ **Index:** Comprehensive keyword index
- ❖ **Credits:** 3PLAY's family tree

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3 INTRODUCTION



Thank you for purchasing this NewTek™ product. 3PLAY™ is the newest addition to a family of video systems and software with a proud heritage. A genuine video pioneer, NewTek is justifiably proud of its innovation, ongoing commitment to excellence and superb product support.

This chapter provides a quick tour of the major components of your 3PLAY system.

3.1 OVERVIEW

3PLAY is a standalone hardware device that supports simultaneous recording, display and instant replay of up to 3 video (and audio) streams. Its output possibilities include professional hardware connections capable of conveying all three (synchronized) video streams to external video systems such as live broadcast switching equipment, and file export.

3PLAY's playback video output at any moment may be one of the following:

- I. **Live** - Live pass-through of the input sources
- II. **Delayed** – 3PLAY output runs somewhat behind the live input streams
- III. **Event** – Playback of 'bookmarked' time segments that were captured from the live streams
- IV. **Highlight** – Special Highlight Reel playback mode

Hint: It's important to realize that neither Delayed nor Event output interrupts continuous capture.

Both Delayed and Event video streams can be played back at variable speeds. The standard (NTSC) 3PLAY supports NTSC video in HD1080i, 720p, and SD formats. The International model supports the same formats for NTSC, NTSC-J and PAL video broadcast standards.

3.2 RECORDING, MARKING AND EVENTS

Recording is intrinsic to 3PLAY – so much so that live input streams are *only* passed to 3Play's output when **Record** is active (previously recorded streams can be output at any time, of course).

For this reason, **Record** is automatically enabled whenever you press the **LIVE** button on the **3P-10 Control Surface** (to select incoming live video streams as output).

When recording is enabled, all three incoming a/v streams are continuously captured and stored. (Typically, each stream might represent a different camera angle.)

Note: For any single session, recording stops automatically after 12 hours.

3.2.1 WHAT IS AN EVENT?

The 3PLAY operator uses the supplied **3P-10** external control surface to mark **events**. An event entry (in the Event List) is essentially a digital bookmark pointing to a portion of the recorded video. Events are created when you mark **In** and **Out Points** as a live production progresses. These In and Out *timecode* values allow you to isolate interesting segments. Newly-marked events are successively added to the **Master List** of the **Event Panel** for convenient recall.

An *event* is not merely a *clip*. Rather, think of it as a *bookmarked* section of the complete recording. Each event entry denotes a synchronized time slice of *all three* video streams. You can recall and display events instantly. This involves sending the stream from one particular camera or all three simultaneously to 3PLAY's outputs, according to the **Output Mode** for the session.

Events bear another similarity to literal bookmarks. A bookmark is only a convenient *reference* to the printed material on the book's pages – it does not comprise the actual text. Adding or removing a bookmark does not remove pages from the book.

Likewise, 3PLAY normally captures a complete, *uninterrupted* record of your production. Just like bookmarks, the events listed in the Event Panel are *pointers* to this volume of stored information. Add and remove events freely with no fear of losing recorded material. You can even add, remove or reorganize events during recording, or long after your 3PLAY recording session ends.

3.3 3P-10 CONTROL SURFACE

A dedicated external 3PLAY control surface (Figure 1) designated **3P-10** provides primary operational control (see Section 6.2), supplemented by the keyboard.



Figure 1

Note: A variant of the usual 3Play Desktop is automatically displayed if the External 3P-10 Control Surface is not detected on launch. The Dashboard in this alternate interface provides full 3Play control using the mouse.

3.4 ADMINISTRATION SCREEN

The **Administration Screen** (Figure 2) appears on your monitor when you power up 3PLAY. It provides control of important systems settings, along with administrative and system maintenance functions. Most of these will be covered in depth later (in Section 6.3), but we'll touch on a few more noteworthy items here.

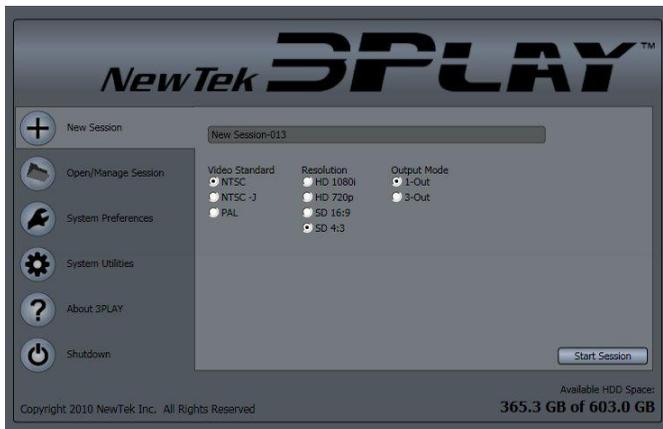


Figure 2

3.4.1 STANDARD AND HIGH DEFINITION

3PLAY records and replays video in a wide variety of popular formats. For a particular 3PLAY session you may wish to connect **High Definition** (HD) devices, while another environment may consist of **Standard Definition** (SD) devices. The **Video Standard** (International model only) and **Resolution** must be correctly chosen in the **New Session** section of the **Administration Screen** *before* beginning a 3PLAY session.

3.4.2 OUTPUT MODE

For newly-created 3PLAY sessions, two optional **Output Modes** are available. These are designated **1-Out** and **3-Out** modes.

Note: The Output Mode is set when a session is created, and can't be changed if it is later reopened.

When you choose **1-Out** mode, a single (switchable) camera view is designated as the **primary output**, and is displayed on all of 3PLAY's video output connectors. In **3-Out** mode, each of the three synchronized views is transmitted independently on its own output.

The **Output Mode** choice allows you to tailor 3PLAY to your specific production environment:

3-Out mode is ideal when camera selections for instant replay are made 'downstream' from 3PLAY. For example, 3PLAY's three independent output streams may be connected to a broadcast switcher. The switcher operator, with all three streams at his fingertips, can broadcast any of them instantly on demand.

At other times, the 3PLAY operator may be more of a 'one-man-band', possibly controlling both 3PLAY *and* a downstream switcher.

1-Out mode sends a single, selectable camera angle to 3PLAY's output. This single video stream requires just one input on the downstream switcher. Or perhaps you use 3PLAY to directly feed a jumbotron-style display without any intervening switching device. 1-Out mode fills this need as well. (See Section 6.3.1.1 for further discussion.)

3.5 3PLAY DESKTOP

Clicking **New Session** (or **Open Session**) in the **Administration Screen** presents the 3PLAY **Desktop** (Figure 3), which provides monitoring as well as numerous event management features.



Figure 3

As mentioned in Section 3.3, 3PLAY's **Standard Desktop** is designed for use with the external **3P-10** control surface. This mode of operation maximizes screen space available for event management.

Hint: A 'Desktop Dashboard' appears automatically if you launch 3PLAY in the absence of the 3P-10 control surface. This adds marking, slow motion, and event transport controls to the interface (at the expense of a little screen space).

If you like, you can opt to display the Dashboard at all times by enabling a switch in System Preferences (Administration Screen) – see Section 6.3.3.

4 SETTING UP



This chapter explains how to properly connect power, external control devices, monitors and audio visual sources to your NewTek 3PLAY™ system.

It also reviews registration for warranty purposes and technical support. After completing this short section, you'll be all set to continue into the Quick Start chapter that follows it.

To begin, let's review what is 'in the box':

1. 3PLAY system
2. 3P-10 Control Surface and USB cable
3. Keyboard and Mouse
4. A/C power cord
5. 3PLAY Reference Manual
6. 3PLAY Quick Start Guide
7. Registration reminder card

4.1 COMMAND AND CONTROL

1. Connect an external computer **monitor** to a DVI or VGA port on 3PLAY's back plate (whichever port is appropriate for your monitor connection type).

Note: As a minimum, 3PLAY requires a Screen resolution of 1280 x 768 pixels for its user interface.

2. Connect **keyboard** and **mouse** to appropriate ports on 3PLAY's back plate.
3. Likewise, connect the **3P-10** control surface to a USB port.
4. Connect the **A/C power cord** from the three-prong connection on 3PLAY's rear to an external power receptacle.
5. Turn on the **computer monitor**.
6. Press the **Power** switch located on 3PLAY's lower front.

At this point, the blue **Power LED** on 3PLAY's faceplate will illuminate, and the hard drive **activity light** should flicker as the device boots up. (If this does not happen, check your connections and retry).

Hint: Though not required for 3PLAY to function, it is always wise to use an uninterruptable power supply (UPS) for any 'mission critical' system. Likewise, consider A/C "power conditioning", especially in situations where local power is unreliable or 'noisy'.

Power conditioning can reduce wear on power supplies and other electronics, and also provide a measure of protection from surges, spikes, lightning and high voltage.

4.2 ACTIVATING & AUTHORIZING WINDOWS™

(Your dealer may have performed this operation for you as part of his pre-delivery service.)

When you see the '**Welcome to Windows**' screen:

1. Click **Next** at lower-right.
2. Choose your time zone.
3. Accept the license agreement.
4. Enter your 25-digit key.
5. Decline automatic updates (by clicking "**not right now**").
6. Give your 3PLAY a distinct computer name for networking.

You can authorize your Windows installation by network or by telephone. Assuming you have an Internet connection available, and have connected 3PLAY to it with an Ethernet cable, the Internet is the fastest method of activation. (See Section 4.4.5 for more on network connections.)

1. Click 'Obtain IP and DNS automatically'.
2. Agree to activate Windows. This activation is permanent, and you won't see these screens again. (Registration with Microsoft is optional).
3. Assign a name to the *administrator* account. You may type your name, company, or simply "3PLAY".
4. Click **Finish**, and you system will re-start.

After restarting and accepting NewTek's 3PLAY **User Agreement**, the 3PLAY user interface will load automatically.

4.3 3PLAY LICENSE AND REGISTRATION

The Registration dialog shown in Figure 4 is presented when you launch 3PLAY, and provides the unique **Product ID** you need to register your system. A 60 day period is allowed for your 3PLAY to be registered and ‘unlocked’ (by entering the **registration code** in the space provided.)

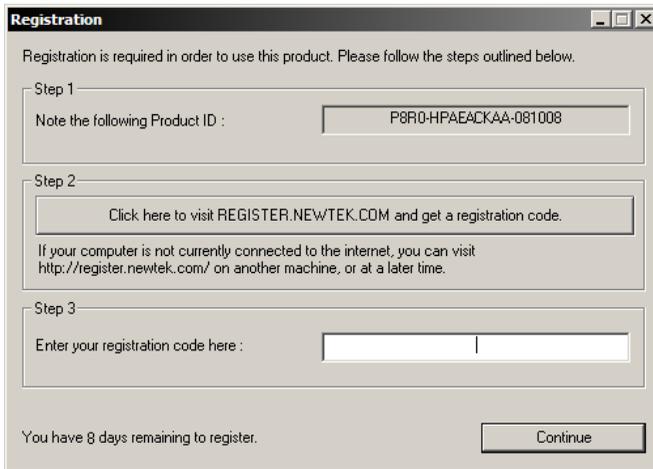


Figure 4

You can register and obtain your registration code either by telephone, or online (directly from 3PLAY or from another system connected to the Internet) as described next.

4.3.1 ONLINE REGISTRATION

If you have connected 3PLAY to the Internet, simply click the button under **Step 2** in the registration dialog. This will take you to the **Registration** page (<http://register.newtek.com>) in the **Customer Care** section of NewTek’s website where you will find further directions.

Hint: More information on connecting 3PLAY to a network can be found in Section 4.4.5

Otherwise, you can visit the registration webpage from another system with Internet access. In either case, enter the **registration code** provided after registering into the field provided at **Step 3** of the dialog. (You’ll want to record the *login name* and *password* you choose when creating your profile, and check your personal area of the site from time to time afterward. Among other things, you’ll be able to download any 3PLAY software updates that are made available.)

4.3.2 REGISTERING BY TELEPHONE

NewTek's Customer Care center can also handle registration requests by telephone, if that is more convenient (when opportunity permits, you should still visit the website as discussed above to gain access to software updates). Please have your **Product ID** (from the Registration dialog mentioned earlier) handy when you call.

The phone numbers for Customer Service follow:

- **Telephone:** (US) 1-800-862-7837
- (Outside US) +1-210-370-8000
- **Fax:** 210-370-8001

Note: For Technical Support contact information, please see Section 7.5.2.

4.4 I/O CONNECTIONS

Next we'll discuss the important external audio and video connectors on 3PLAY's front panel. A bit later, in Section 4.4.4, we'll also consider connecting a reference signal to 3PLAY's **Genlock Input** (and genlocking the source cameras connected to 3PLAY).

4.4.1 A/V INPUT

Three external audio and video sources can be added to the input connectors on 3PLAY's front panel.



Figure 5

1. Connect video sources to appropriately named input connectors, whether **SDI**, **Component**, **Y/C** (may require S-Video to BNC adapter) or **Composite** (may require RCA to BNC adapter).

- a. **SDI** – Attach the SDI source connectors to the BNC connectors marked **SDI** in the **Video In** group.
- b. **Component** – Attach the appropriate BNC connectors from your sources to the *second, third and fourth* BNC connectors (labeled **Y**, **Pb** and **Pr**) in each row in the **Video In** group.
- c. **Y/C** – If your S-Video equipment and cabling has the usual 4-pin mini-DIN connectors, you will need to use an S-Video to BNC adapter. To connect Y/C sources, attach the **Y** (luma) connector of your source to the *third* of four BNC connectors (labeled **Pb**). Attach the source's **C** (chroma) connector to the *fourth* connector (labeled **Pr**). Do this for each row in the **Video In** group.
- d. **Composite** - Attach the composite source's connector (may require an RCA to BNC adapter) to the *second* connector in the **Video In** section (labeled **Y**). Do this for each row in the **Video In** group.

Note: the Video Standard (such as NTSC or PAL in Standard Definition, HD 720P or HD 1080i) of all sources connected for a given session must match.

2. To record analog audio* along with the video, connect external audio sources to the balanced 1/4 inch (6.3mm) phone jacks beside each video input section.

** SDI video sources with embedded audio do not need a separate audio connection. Use the BNC connectors in the Digital Audio In sections if required to connect AES3 (AES/EBU) audio sources.*

4.4.2 A/V OUTPUT

3PLAY has three separate video and audio output connector sections, and provides very flexible options for display of your live and recorded video streams. You may variously:

- View one selected audio/video stream, chosen from 3 live sources (or recorded footage) on your external monitors (**1-Out** mode).
- View all three live sources or synchronized recorded streams simultaneously on three individual monitors (**3-Out** mode).

And of course, from 3PLAY's outputs you may pass either of the above on to downstream live switching and/or recording devices.

IMPORTANT NOTES:

- **THE DISPLAY CAPABILITIES OF ALL OUTPUT VIDEO DEVICES CONNECTED TO 3PLAY FOR A GIVEN SESSION MUST MATCH THE SESSION INPUT SETTINGS.**
- **THE OUTPUT TYPE SETTING IN THE I/O CONFIGURATION PANEL MUST CORRESPOND TO THE CONNECTED DEVICES (SEE SECTION 4.4.3).**



Figure 6

1. Connect downstream video devices to the output connectors, whether **SDI**, **Component**, **Y/C** or **Composite**. Some devices may require use of RCA or 4-pin to BNC adapters. Naturally, Composite and Y/C support SD resolution output only.
 - a. **SDI** – Attach the SDI connector to the BNC connector marked **SDI**.
 - b. **Component** – Attach the appropriate BNC connectors from your source to the *second, third and fourth* BNC connectors (labeled **Y**, **Pb** and **Pr**).
 - c. **Y/C** – To connect Y/C devices, attach the **Y** (luma) connector of your source to the *third* of four BNC connectors (labeled **Pb**). Attach the source's **C** (chroma) connector to the *fourth* connector (labeled **Pr**).
 - d. **Composite** - Attach the composite source's connector to the *second* connector in the **Video Out** section (labeled **Y**).

2. Connect 3PLAY's audio outputs:
 - a. **Analog audio** - Connect external audio devices to the 1/4 inch (6.3mm) balanced phone jacks beside each video input section.
 - b. **Digital audio** - A separate audio connection is not necessary for SDI output with embedded audio. Use the BNC connectors in the **Digital Audio Out** section only to connect downstream AES3 (AES/EBU) audio devices.

4.4.3 I/O CONFIGURATION

At this point, you can configure the audio and video sources you have connected. Some other settings can be considered now as well (such as what type of output connection you require).

1. Open a 3PLAY *session* from the **Administration Screen**.
2. Access the **I/O Configuration** panel (Figure 7) by clicking the small 'gear' icon located at upper-right in the titlebar of the **3PLAY Desktop**.
3. Select the correct **Video Connection** and **Audio Connection** types from the drop-down menus for each source you connected to 3PLAY's inputs.
4. Set the correct **Output>Video Connection** type for your external analog monitor(s) or other downstream systems.

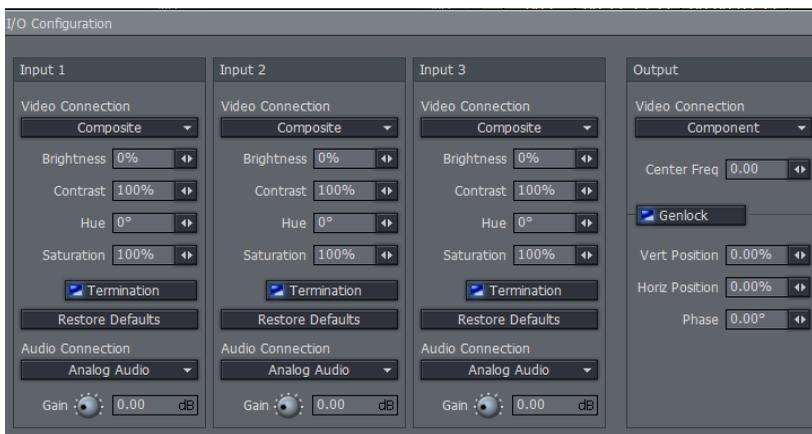


Figure 7

Hint: 3PLAY's SDI and analog output sections can be used simultaneously. For example, for an SD session you could choose Composite Output in the I/O Configuration panel (perhaps to view 3PLAY output on a local composite monitor) at the same time as you use the SDI connection to supply broadcast equipment. (See Section 6.7.1 for more on output options.)

4.4.4 GENLOCK INPUT



Figure 8

The **Genlock** input on 3PLAY's front panel is for connection of a 'house sync' or reference signal (often a 'black burst'). This is a common and important method of synchronizing equipment in the video suite.

Genlocking is customary in higher end environments, and genlock inputs are usually found on professional gear. If your equipment allows you to do so, you *should* genlock all cameras supplying 3PLAY, and 3PLAY itself.

1. Supply the reference signal from the 'house sync generator' to 3PLAY's **Genlock** connector.
2. If you haven't already done so, genlock all cameras connected to 3PLAY inputs to the same reference signal (see your camera manual for details).
3. Open a 3PLAY session from the **Administration Screen**, and access the **I/O Configuration** panel (by clicking the small 'gear' icon at upper-right in the titlebar of the **3PLAY Desktop**).
4. The default **Reference Type** in the Genlock settings is **SD (Bi-level)**, as this is the most common reference signal type. However, if you supply an HD reference signal to the Genlock input, change the setting to **HD (Tri-level)**.
5. Using downstream **Waveform** and **Vector Scopes**, adjust 3PLAY's **Horizontal** and **Vertical Position** and **Phase** settings (in the **Genlock** section of the **I/O Configuration** panel).



Figure 9

Again, ideally both the cameras and the 3PLAY need to be genlocked. If they are not genlocked to the same source as the 3PLAY output, a TBC (Time Base Correction) operation is applied - this can involve frames being dropped or inserted to maintain sync, which is not as desirable.

Note: For a deeper explanation of genlocking, please see Section 6.4.2.4.

4.4.5 NETWORK CONNECTION

Connecting 3PLAY to a *local area network* (LAN) may require additional steps beyond those mentioned back when we discussed Microsoft Windows™ activation (Section 4.2). Here is the basic procedure involved in joining a *workgroup*:

1. Connect an Ethernet cable from the port on 3PLAY's back plate to your external network connection or router.
2. (If necessary) – close the **3PLAY Desktop**, and use **Exit to Windows** in the Administration Screen's **Shutdown** pane to go to the Microsoft Windows™ desktop.
3. Right-click on the **My Computer** icon, and select **Properties**.
4. Scroll down in the right hand pane of the **System** panel that opens to find the **Computer name, domain and workgroups** settings area.
5. Click the **Change Settings** link at right.
6. Click the **Computer Name** tab of the **System Properties** panel that opens.

7. Click the **Change** button, and enter the name of your local *workgroup*, as provided by your system administrator.
8. Close the **OK** button.
9. Close the **System** control panel.

At this point, the network connection should be functional. If further help connecting is required, please consult your local system administrator.

The next section (Chapter 5 - Quick Start) will walk you through your first 3PLAY session. To keep this initial 'orientation run' simpler, you may wish to employ **1-Out** mode and connect a single monitor (of a suitable video standard and resolution for your video sources) to any of 3PLAY's output connections.

5 QUICK START



This chapter provides a brief 'hands-on' tour of the major components and functions of your NewTek 3PLAY™. In a very short time, these basics will be second nature to you.

More detailed reference material on all aspects of 3PLAY follows in Chapter 6, 3Play Reference.

Having made the essential external connections in the previous section, let's start your first 3PLAY session, and review the fundamentals.

5.1 CREATING A SESSION

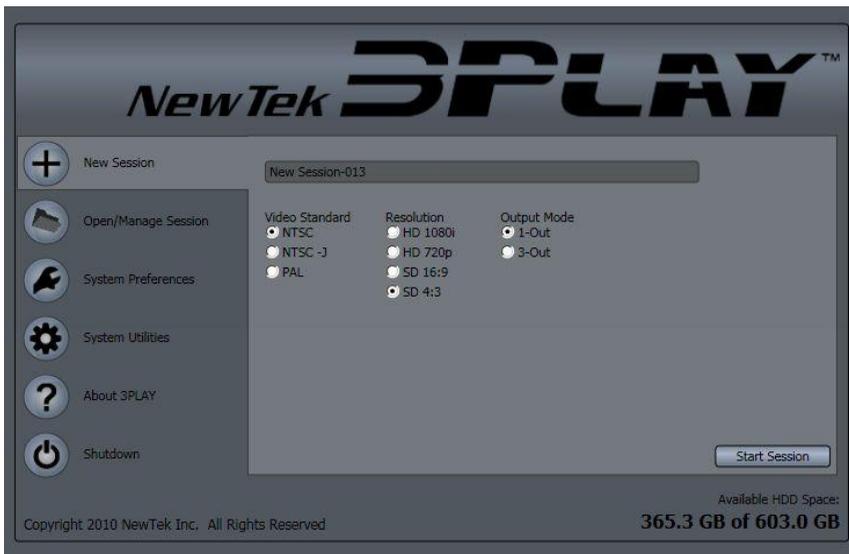


Figure 10

1. Click **New Session** in the **Administration Panel**. Enter a **Session Name** in the input field at upper-right.
2. **3PLAY NTSC**: Select a **Resolution** setting appropriate for your connected sources (see Section 3.4.1).

3. **3PLAY International:** Select a **Video Standard** and **Resolution** setting appropriate for your connected sources (see Section 3.4.1).
4. Choose **1-Out** as the active **Output Mode** for this introductory session (see Section 3.4.2).
5. Click **Start Session**. The **3PLAY Desktop** will appear on your screen (Figure 11).



Figure 11

Assuming you have correctly connected the **3P-10** control surface, the standard **Desktop** will be shown.

Note: If the Dashboard (Figure 12) appears at lower-right on the Desktop, this normally indicates that the 3P-10 control surface was not detected on launch. Exit the Desktop by clicking the [x] Close button at upper-right, remove and reconnect the 3P-10, and open another New Session.

If a connection problem persists, please contact NewTek Tech Support for assistance. (See Section 6.4.9 for information on the Dashboard.)



Figure 12

5.2 CONFIGURING INPUTS

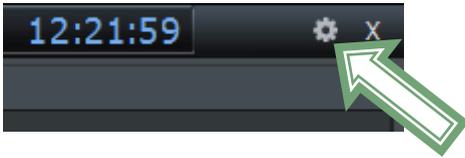


Figure 13

3PLAY needs to know what sort of video sources are connected to it. Click the *gear* icon (Figure 13) next to the **Close** button in the upper-right corner of the **3PLAY Desktop**. This opens the **I/O Configuration** panel (Figure 14).

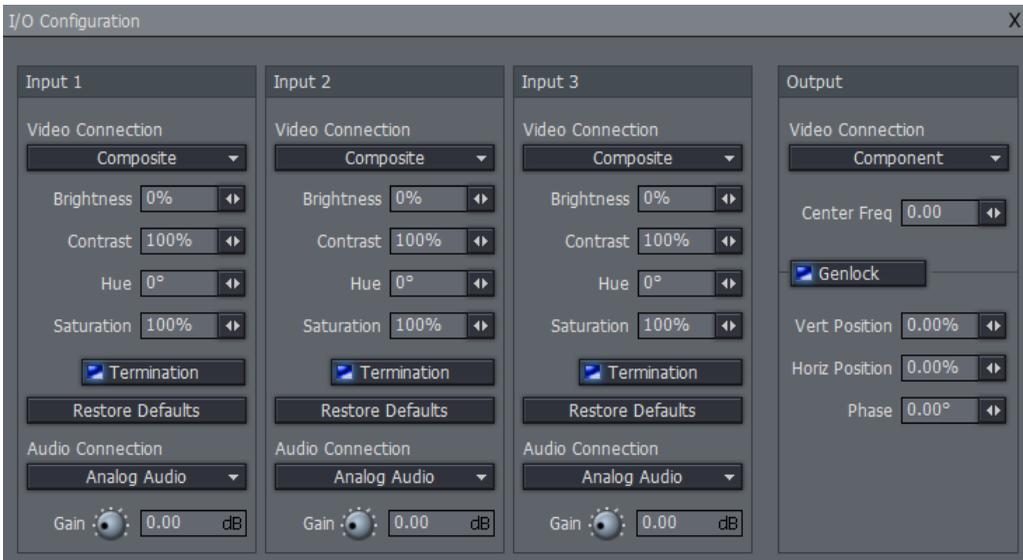


Figure 14

Use the **Video** drop-down menu to identify your sources by connection type, choosing between **Composite**, **Y/C**, **Component** or **SDI** (Composite and Y/C options are shown in the menu for Standard Definition sessions only).

Click the **LIVE** button on the **3P-10** control surface (note that 3PLAY will automatically begin a/v recording). If you have connected one or more video sources to 3PLAY and at least one monitor connected on output, you should now see one of the source video streams on your *external* output monitor.

5.3 MONITORING

At this point, the video streams shown on the Input and Output monitors on the Desktop match. **Live** video is simply being passed through 3PLAY.



Figure 15

The uppermost monitors are labeled **Input Source 1, 2** and **3**. These show the live video sources you connected to 3PLAY's inputs.

(The monitors also have interactive features which will be discussed later.)

The large **Main Output** monitor shows one of the three streams. In **1-Out** mode the stream monitor for the source displayed on the Main Output monitor is highlighted with a red border. You can choose which stream to show on Main Output by using **Camera (1, 2, or 3)** on the **3P-10** Control Surface (or by clicking directly on one of the **Output Stream** monitors).

5.4 RECORDING

At upper-left on the 3PLAY Desktop you will see an area labeled **Device Status**. In addition to the large (and very important) **Record** button, this pane hosts two important bits of data:

- **Session Time Recorded** - The total duration of audio/video recorded and stored on 3PLAY since this session was created
- **Remaining Disk Space**– How much room remains on 3PLAY for additional recording

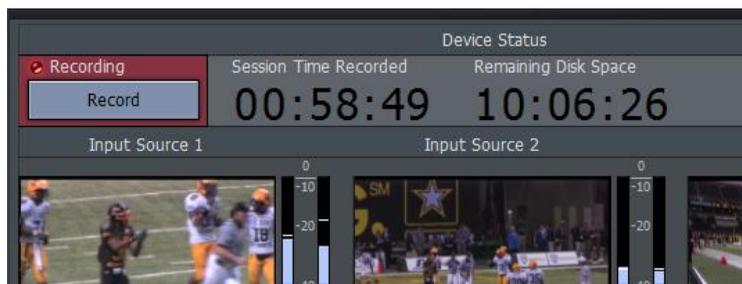


Figure 16

The large **Record** button at upper-left (Figure 16) is automatically enabled when you press **LIVE**. This initiates capture of the source video streams. Recording is confirmed by i) the nearby red **Recording** light and ii) the active **Session Time Recorded** counter.

3PLAY captures a continuous record of all three streams of your production. It is not necessary to toggle recording on and off to *capture* individual events. Rather, events are *marked*, as explained earlier in Section 3.2, Recording, Marking and Events.

We'll describe the process of marking events in a moment, but first please note – it is *permissible* to turn recording on and off during periods of inactivity (such as 'half-time'). Doing so does save storage space, but be careful to turn Record back on before action begins again! For short periods of downtime, it's likely best to simply let recording continue uninterrupted.

Hint: Enabling Record does one other thing – it automatically adds a special event in the Master List. A comment added to this special event displays the time recording began, providing a useful reference.

5.5 MARKING EVENTS

The principal tools you use to create events are the **MARK IN** and **MARK OUT** buttons on the **3P-10** control surface. As you'd expect, pressing **MARK IN** sets an In Point timecode value for an event, initiating a new event entry in the **Master List** tab of the **Event Panel** at the same time. Pressing **MARK OUT** sets the Out Point, automatically updating the **Duration** column to finalize the event.

The MARK IN and Out functions have some other special features too, permitting a variety of convenient marking workflows. We'll get into more detail in an upcoming section, but it's worth noting here that you can mark an event with *just one button press*!



Figure 17

5.5.1 ONE BUTTON MARKING

Watch your monitors for a noteworthy occurrence – perhaps a goal, penalty, or the like. Then quickly press **MARK OUT** on the **3P-10** control surface. A new event will be listed in the **Master List** tab of the **Event Panel** (Figure 17).

Notice that the **Duration** column for the new event shows the new event to be precisely four seconds long. There's a reason for this: pressing **MARK OUT** *without having first pressed MARK IN*, automatically sets an **In Point** for the event precisely four seconds (less one frame) earlier.

Hint: Don't worry if four seconds isn't long enough to properly bracket the specific action you are interested in. You can easily trim the event entry later. Too, you can change the four second default preroll duration to something different in System Preferences (Administration Screen).

The **ID#** for the event is automatically assigned, providing a distinctive identifier for the event. It is very useful, too, to add a more descriptive remark in the **Comment** column. Press F6 (Edit Comment) on the keyboard to enter or modify a comment.

Note: ID#s are generated consecutively as events are created. Since you can mark events long after recording is ended, re-order and also clone events, these numbers may not be in chronological order.

5.5.2 TWO BUTTON MARKING

Let's try another approach to marking an event.

Press **MARK IN** on the **3P-10** control surface. This creates a new ‘incomplete’ event in the **Master List** tab of the **Event Panel** (only the **In Point** is shown, not the **Duration**). Then watch the monitor for something noteworthy to occur. When it does, press **MARK OUT** to complete the marking operation. The **Duration** field is completed, showing the time elapsed between the **In Point** and **Out Point**.

Want to expand your marking skills? Try the following:

1. Press **MARK IN**.
2. Allow live play to continue for a while without pressing **MARK OUT**.

Let’s suppose nothing significant occurs in this time interval; consequently, you do not anticipate needing an instant replay of any portion of the recorded video since you last pressed **MARK IN**.

3. Press **MARK IN** *again*, watching the **In Point** of the incomplete event in the **Master List** as you do so. Did you observe how it changed?

What just happened? Because you had pressed **MARK IN** but *not* **MARK OUT**, the current event was in an incomplete state - lacking an **Out Point**. Pressing **MARK IN** a second time updated the **In Point** to reflect the current time, dropping the earlier timecode reference. This event is actually *still* incomplete. You could press **MARK IN** again (and again, and again!) with the same result. Eventually, something interesting may catch your eye, and you can press **MARK OUT** to complete the event.

*Hint: If you wish, you can cancel the current event marking operation by pressing the **ESC** button on the **3P-10** control surface (or the **Esc** key on the keyboard).*

5.6 INSTANT REPLAY

Of course, the whole point of marking events is to play them back for the viewer. To do so, you can just either select the desired event and press **ALT + Play** on the **3P-10**, or double-click on the entry in the **Event List**. Immediately, the selected event is sent to output, playing back from its **In Point**. Playback continues interrupted through the recorded video from that time forward.

*Note: By design, normal playback starts at the **In Point** of the highlighted event, and proceeds indefinitely from that point forward. Unlike a simple “media player”, playback does not normally stop at the **Out Point** of that event, and then skip to next **In Point**, and so on (see Section 5.7, **Play Highlight**).*

Another convenient approach to instant replay may suit you better in some cases. Try this method:

1. Press **MARK IN** (just as you did in steps 1 and 2 of Section 5.5.2, above).
2. Press **Play** (*without* pressing **MARK OUT**).

When you pressed **Play** in this case, an **Out Point** was automatically generated and – without any further action – playback commenced from the In Point you had previously marked. This may be the ideal way to display an instant replay of something that just occurred on the court or playing field.

Hint: As usual, event playback continues without interruption beyond the current event's Out Point. When play surpasses that Out Point, 3PLAY enters Delayed playback mode (see Section 3.1). The output stream continues running behind the actual input stream until you either press the LIVE button on the 3P-10 or click one of the Input Stream monitors.

Here is another way to interrupt **Live** or **Delayed** play to show a selected event:

3. Use the **3P-10** control surface to select an event, either with the **Arrow Up/Down** buttons or by entering the **ID#** and pressing **ENTER**.
4. Press **ALT**, and keep it depressed as you also press **Play**.

5.7 PLAY HIGHLIGHT

At times you may wish to run a sequence of events in the form of a 'highlight reel'. The **Play Highlight** button on the **3P-10** control surface supports this special playback mode.

1. Mark a few events – say five or six.
2. Multi-select several event entries by holding down **Ctrl** and clicking on them. Skip over a few as you do this, so that the selected events are not all right next to each other.
3. Press the **Play Highlight** button.

Notice that in this case, the **In** and **Out Points** of the selected events *are* respected as playback proceeds. When one event ends, the playback position jumps ahead to the next selected event. (The last Out Point is ignored, however; when the end of the highlight reel is reached, play continues indefinitely.) Also, note that *you do not actually have to multi-select events* to use **Play Highlight**. When you wish, you can just play the entire content of the current playlist.

5.8 SELECTING THE CAMERA

Keep in mind that 3PLAY simultaneously records all three inputs, not *just* the stream shown on the **Main Output** monitor (see Section 3.2, Recording, Marking and Events). This is true regardless of whether you chose **1-Out** or **3-Out** as your **Output Mode** for the session (see Section 3.4.2).



Figure 18

In **1-Out** mode, you personally choose which of the three available views is transmitted on 3PLAY's output connections. The video stream displayed on the **Main Output** monitor is the one that appears on output when in this mode.

Let's examine the way you choose which stream appears on the **Main Output** monitor:

1. Press the **LIVE** button, sending one of the three live input streams to the **Main Output** monitor (and beginning recording, if not already enabled).
2. Press **ALT + Play** on the **3P-10** to start the current event selection playing on output, noting which **Camera** is marked in the corresponding column. Of the three available, that is the stream initially sent to the **Main Output** monitor.
3. With event playback continuing, press different **Camera** buttons on 3P-10; the **Main Output** stream updates (but the **Camera** setting for the event does *not* change).
4. Click directly on one of the **Input Stream** monitors – note that **LIVE** play is automatically restored, and that the stream for the monitor you clicked is placed on the **Main Output** monitor.

As we've seen, in addition to the 3P-10 **Camera** buttons, both **Input and Output** monitors are interactive. Clicking on an **Input Source** monitor switches 3PLAY immediately to **LIVE** playback mode (if necessary) and places the corresponding stream on **Main Output**. Clicking an Output Stream monitor behaves similarly, placing that stream onto the Main Output monitor.

5.9 SLOW MOTION

3PLAY is capable of variable speed play between 0 and 100%. You set the playback rate using the **Speed** buttons (**0%**, **33%**, **50%**, **75%** and **100%**) or the variable **Speed-Bar** on the **3P-10** control surface. These controls do not *initiate* playback; they control playback rate. That said, changing the *Speed during playback* has an immediate effect. Otherwise, though, the new rate you establish only applies to subsequent playback operations.

Hint: 0% represents stopped playback, while 100% represents a normal rate of play.

1. Press the **50%** speed button on the **3P-10** control surface.
2. Press **ALT + Play** to replay an event, and it begins playing at half the normal speed.
3. While the event is playing, ease the **Speed-Bar** down to 25%, then back to 100% (gradual speed changes can be more visually pleasing).
4. Click **LIVE** to return to the live source video.

Here's another thing to try:

5. Press **LIVE**.
6. Set **Speed** to **50%**.
7. Press **Play**.

The playback rate for the live video stream will be immediately reduced, automatically placing 3PLAY in **Delayed** playback mode (see Section 3.1).

Hint: Record must be active to engage Slow Motion playback from Live mode as just described.

5.10 JOG AND JUMP

The **3P-10** control surface has a combination **Jog/Shuttle** control. The outer ring is the Shuttle, while the inner dial is the Jog Wheel.

The **Jog Wheel** moves the current frame position forward and backward in the active video with frame precise accuracy. Twisting the **Shuttle Ring** allows you to swiftly scan backwards or forwards in a clip. (The scan rate increases or decreases as you apply more or less rotation to the ring.)

Here's something to try:

1. Replay an event in the **Master List** by pressing **ALT + Play**.
2. Turn the **Shuttle** ring counter-clockwise, reversing the event stream – release it after a moment or two.
3. Playback halts at the current frame.
4. Press **Play**.

Playback will begin anew, starting from the current frame – that is, the one you jogged to. Note that the inner **Jog Wheel** permits you to select this starting frame with fingertip precision.

Now let's try the **Jump** buttons (these are labeled **-2 Sec**, **-1 Sec**, **+ 1 Sec** and **+ 2 Sec**):

5. Start playback of another event, and let it run for ten seconds or so.
6. Press the **-2 Sec** button *three times* in succession.

This time, play backs up 6 seconds and then continues.

Let's try one more method of jogging:

7. Press **LIVE**, to place the live input video on output.
8. Let the video run for several seconds.
9. Drag the mouse to the left on 3PLAY's **Main Output** monitor, and release.

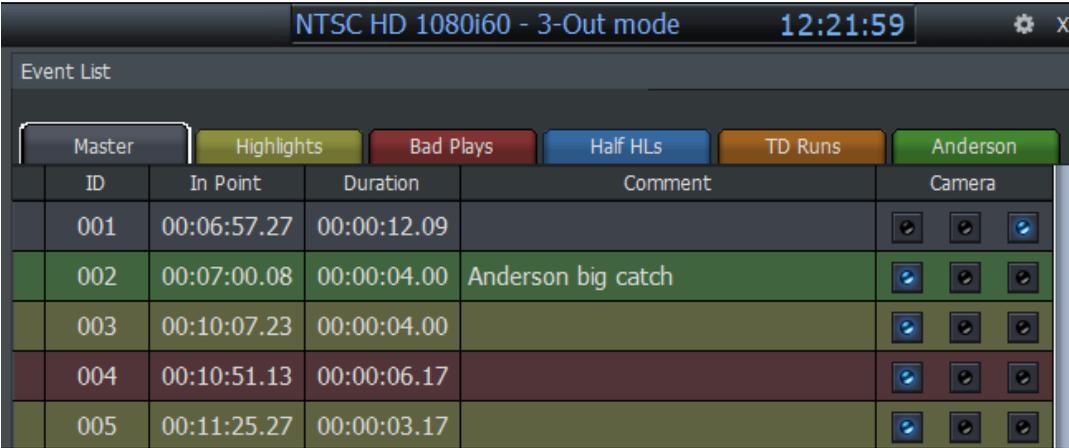
Dragging in this manner interactively jogs the video on output and stops on release (presuming **Record** is active, it really doesn't matter whether the video is LIVE, Delayed or an Event being replayed). This can be useful for a precise review of live action.

5.11 EVENT PANEL

The Event Panel consists of six tabbed columnar lists. The first (uncolored) tab is the **Master List**, which contains entries for all recorded events. Entries in the Master List are initially arranged in the order they are created.

The other tabs, identified by unique colors, provide **Custom Lists** where you can organize events for various purposes. You could use these to list separate events by team, game period, action

type, or for highlight playback (discussed in Section 5.7). Conveniently, Custom Event List tabs can be renamed.



ID	In Point	Duration	Comment	Camera
001	00:06:57.27	00:00:12.09		
002	00:07:00.08	00:00:04.00	Anderson big catch	
003	00:10:07.23	00:00:04.00		
004	00:10:51.13	00:00:06.17		
005	00:11:25.27	00:00:03.17		

Figure 19

Each occupied row in the tabbed panes shows the information associated with one event, listing its **ID#**, **In Point**, **Duration**, an optional **Comment**, and its primary **Camera** stream. During playback, a triangular white marker (the **Play Position Indicator**) at left tracks play progress.

A number of event management features are located here. Let's consider a few:

1. Press **F6** (Edit Comment).
2. Enter a comment about the event, and press **Enter** (on the keyboard) to complete the text entry (keyboard Esc cancels any changes and leaves Edit mode).
3. Press **ALT + (TAB >)** on the **3P-10** Control Surface *twice*, cycling the event color to red.

The event you modified should now appear in the red tabbed **Custom List**. (Press **TAB >** as necessary to go to the red tab to see that it does.)

Hint: New events added when a colored tab is selected will automatically be assigned to that tab, as well as being entered into the Master List.

What if you wish to trim the event to begin at a different frame (either earlier or later)?

You *could* open the event context menu (by right-clicking an event) and select **Edit In Point**, but let's use a quicker method to do this:

1. Use the Jog/Shuttle wheel on the **3P-10** control surface to find the frame where you want the event to begin.

2. Hold the **ALT** button down and press **MARK IN**.
3. If you wish, go ahead and select a new frame for the event to end at in similar fashion, updating the **Duration** by pressing **ALT + MARK OUT**.

5.12 PLAYBACK INFORMATION

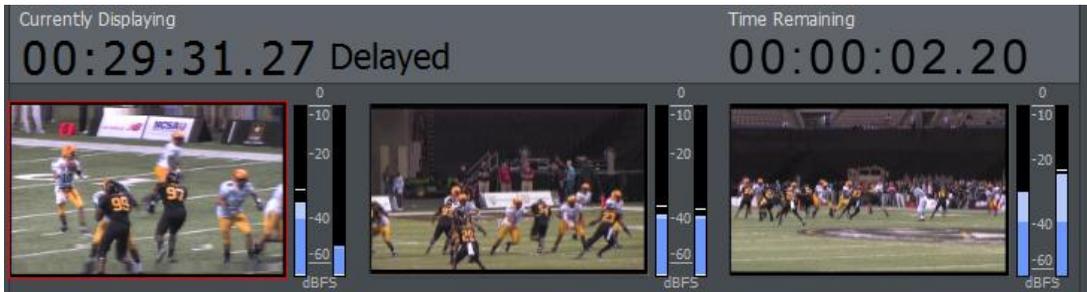


Figure 20

A compact information panel appears between the **Main Output** monitor and the smaller **Output Stream** monitors below. This panel provides information about the video stream(s) currently going to Output. Three important items are displayed: **Current Time**, **Currently Displaying**, and **Time Remaining**.

The **Current Time** counter shows the time of the currently displayed video frame. Note that this time reference is not 'real world time' (i.e., the time your watch shows). Rather, it is based on **Session Time Recorded** -- as shown in the **Device Information** display near the **Record** button.

The **Currently Displaying** status field updates to inform you whether the current 3PLAY output is:

- **Live** – Video passed through directly from 3PLAY's inputs
- **Delayed** - Video running behind real time, perhaps because you have jogged Live Video or jumped it backwards, or assigned a slow motion speed and pressed Play
- **Event** – Playback of an entry from the Event List (the event ID# is shown)
- **Highlight** – Playback is in **Play Highlight** mode (the event ID# is shown)

The **Time Remaining** display is just to the right of **Currently Displaying**. During Event playback, this field contains a countdown showing how much time remains before the end of the currently playing event.

Hint: By design, playback continues indefinitely after the end of an event is reached unless you deliberately press Stop (or reach the end of the recorded video). Thus it can occur that the currently displayed frame is not actually a member of any marked event. When this is the case, the Remaining Time field is blank, and looks something like this: --:--:--:--



This chapter aims to explain every aspect of your NewTek 3PLAY™ in full detail. Each button, menu item, feature and control is considered in these pages, so you can take full advantage of your system.

As explained in the introduction to the section, these details are grouped according to their appearance in the 3PLAY system, whether this is as a button on the 3P-10 control surface or on the 3PLAY Desktop.

The **3P-10** control surface plays a front-line role in 3PLAY operations, while the **3PLAY Desktop** complements the 3P-10 by supplying vital visual feedback. As these two major components are so important, in the chapter that follows discussions of most of the principal 3PLAY functions and features are placed in the context of either the 3P-10 control surface or 3PLAY Desktop.

For example, the **MARK IN** and **MARK OUT** functions are presented as buttons on the **3P-10** control surface. To learn more about their use, then, look in the 3P-10 section. Or suppose you want to learn more about the interactive features of the monitors on the 3PLAY Desktop – you would naturally look in the 3PLAY Desktop section (Section 6.4).

Other matters covered in this chapter include **Input and Output** -- see Sections 4.4 and 6.7, which discuss 3PLAY's various external connections. 3PLAY sessions -- their creation and management (including external **Backup** and **Restore** features) -- are intrinsic to the **Administration Screen**, so are covered in that section (6.3). You'll find system maintenance functions such as **Defragment** and **Update 3PLAY** in the same section.

6.1 USER INTERFACE REQUIREMENTS

The **3PLAY Desktop** user interface requires a *minimum* 1280 x 768 screen resolution.

Though not a requirement, you may prefer to use a widescreen display for the user interface when you primarily work with HD (or SD 16:9) sources. Likewise, a 4:3 aspect monitor suits SD 4:3 sessions more closely. This has no bearing on recording or video output, of course. It is simply because an aspect mismatch causes either letterboxing or pillar-boxing of the onscreen monitors (to display video without stretching).

6.2 3P-10 CONTROL SURFACE



Figure 21

The **3P-10** control surface provides tactile control of all important operations. Knobs, buttons and controls are logically grouped for convenience. The purpose and use of many of these features and functions are self-explanatory, but several have optional or secondary features, too. Let's list and define what each button and control does.

6.2.1 PLAYBACK SPEED

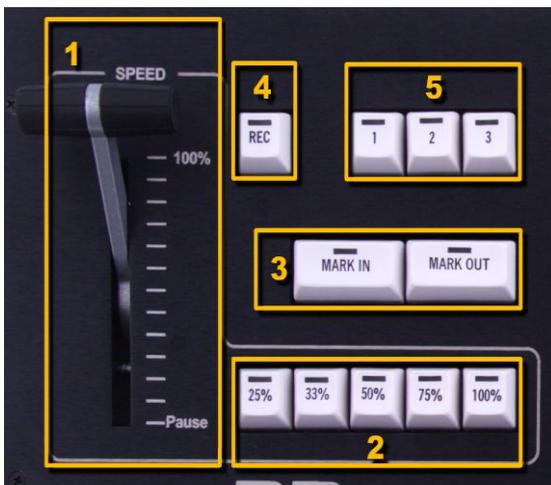


Figure 22

1. **Speed-Bar**: Variable playback speed controller

2. **Speed Presets** (25%, 33%, 50%, 75%, 100%): When lit, these buttons override the current Speed-Bar setting, setting the rate to the indicated speed. When the Speed-Bar is moved again, it regains dominance

Playback speed controls are located toward the left side of the **3P-10** control surface. As you've seen, both **Delayed** and **Event** playback can be viewed at reduced speeds. The **Speed-Bar's** 0% position is effectively a stop, while 100% represents normal speed.

Generally, think of these controls as speed *settings*, as opposed to being buttons that directly perform an action. They do not initiate play. Rather, they pre-set the speed for the *next* playback operation. Thus, selecting an event and setting **Speed** to 50%, does not begin slow motion play immediately; but when you subsequently press **ALT + Play** it runs at half the normal rate.

Hint: To slow down live source video, first set the desired speed and then click Play. This puts 3PLAY into Delayed playback mode), allowing the reduced speed setting to be applied. (Record must be enabled.) Press LIVE to resume play at normal speed.

However, speed changes you make *during playback* of either **Delayed** video or an **Event** are applied immediately. This means that you can adjust playback speed on the fly in these cases by choosing a different speed button or adjusting the **Speed-Bar**.

6.2.2 EVENT MARKING



Figure 23

3. **MARK IN /OUT:**
 - Set an **In Point** or an **Out Point**
 - **ALT + MARK IN /OUT** updates the In or Out Point of the selected event

These buttons add and define entries in the **Event Lists** by setting **In** and **Out Point** timecode references for the video stream currently displayed on the **Main Output** monitor. When both an In Point and an Out Point have been added, the event creation process is complete.

The button actions apply to whatever video is displayed on 3PLAY output at the time. If **Record** is enabled and the output is Live (or Delayed) video, a corresponding event is entered in the current event playlist. **MARK IN** and **Out** even work during Event mode playback. You could, for example, use them to add a new event between two existing ones – or recreate one you had previously removed.

When an **In Point** has been created by pressing **MARK IN**, 3PLAY awaits a user action:

- I. If the operator presses **MARK IN** again (without an intervening **MARK OUT** action), the active **In Point** is updated, replaced by a new one at the current time.
- II. If the operator presses **MARK OUT**, 3PLAY i) records the timecode of the currently displayed frame as the **Out Point**, and ii) calculates and displays the **Duration** for the current event, completing the event marking operation.

Conveniently, the **MARK OUT** operation is sometimes performed automatically. For example, if the 3PLAY operator presses **Stop**, **Play**, or ends **Recording**, 3PLAY performs a MARK OUT operation, adding the Out Point required to complete the current event.

Hint: Pressing ESC on the 3P-10 or Esc on the keyboard cancels the previous Mark IN.

As noted earlier (Section 5.5.1, One Button Marking), you can also create events without ever pressing **MARK IN**. This permits you to easily create a series of events just by pressing **MARK OUT** when noteworthy occurrences take place.

If no In Point has been deliberately marked (by pressing MARK IN), pressing MARK OUT will:

- I. Create a new event
- II. Automatically assign *both* an In Point and an Out Point to it. By default, the In Point will be 4 seconds before the moment the operator pressed MARK OUT (see Section 5.5.1).

Hint: See Section 5.6, Instant Replay for yet another handy way to perform a MARK OUT.

6.2.3 RECORD

4) **REC** (Record) **button** (Figure 24): toggles 3PLAY recording

Though unassuming, the importance of the **REC** button (or to be precise, the function it controls) cannot be overemphasized. *Unless 3PLAY is recording, you cannot even see video from live sources.* Of course, you are free to turn **Record** off -- as you might perhaps during long pauses in the action or when a production ends.

Previously recorded video *can* be sent to 3PLAY's output with **Record** off, but working with live sources requires Record to be enabled. For this reason, recording is also started automatically whenever you press the **LIVE** button ... or click an input stream monitor (see Section 6.4.5).

Hint: Keep an eye on the Remaining Disk Space display in the Device Information pane (see Section 6.4.3.2) to avoid unintentionally using up all your storage capacity.

Each time **Record** is enabled, a special event is automatically added to the **Master List**. This event has a notation in the **Comment** column stating: "Recording started at *timecode*" (the time when recording was initiated is substituted for the *timecode* value). The event is given a null **Duration**, and serves simply as a convenient time reference.

Note: For any single session, recording stops automatically after 12 hours.

6.2.4 CAMERA SELECTION

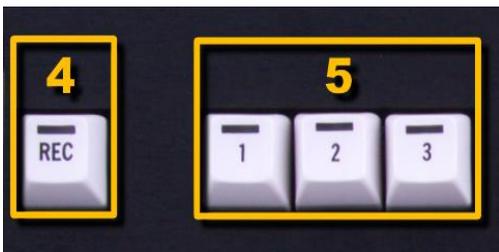


Figure 24

5) **Camera 1, 2 & 3 buttons:**

- b) Press to place the corresponding stream on the **Main Output** monitor. (For **1-Out** mode, this also sets the primary stream).

Hint: This produces the same result as clicking one of the three Output Stream monitors on the 3PLAY Desktop.

- c) Press **ALT + Camera (1, 2 or 3)** to place Live playback of the designated Camera on **Main Output**.
- d) Press **Shift + Camera (1, 2 or 3)** to set the **Camera** for the selected event (just as clicking a button in the Event List's Camera column does). This change does not affect playback already in progress, however.

6.2.5 ALT

- 6) **ALT** (Figure 25): Press in combination with other 3P-10 buttons as specified to provide optional functions.

6.2.6 JUMP

- 7) **-2 Sec, -1 Sec, +1 Sec, +2 Sec buttons:** When pressed, the frame on output "jumps" backward or forward correspondingly.

The **Jump** buttons move the current play position to a different timecode in measured increments. Naturally this action affects all associated video streams simultaneously. (If a 'jump' is executed while stopped, playback re-commences at the current frame when **Play** is pressed.)

Note: if you 'jump' during playback, playback automatically resumes from the 'jump position'.



Figure 25

6.2.7 LIVE

- 8) **LIVE** (Figure 25): press to restore LIVE playback mode, placing live audio and video from the sources connected to 3PLAY inputs on output. (Clicking LIVE also enables recording automatically if necessary, as noted earlier.)

6.2.8 TRANSPORT

The **Stop**, **Play** and **Play Highlight** buttons (Figure 25) also affect video output.

- 9) **Stop**:
- b) Freeze output at the frame currently displayed on output (regardless of its source).
 - c) **ALT + Stop** – jump to the beginning of the current event and stop at that frame.

For live output, pressing Stop effectively invokes a ‘Stopped and Delayed’ playback state. By the way, when output is stopped, interlaced video streams are de-fielded (to prevent flicker)

- 10) **Play**:
- b) Commence playback from the current frame on output (*see discussion below for one exception) at the current **Speed** setting. Play continues seamlessly though the video

record from there, even ignoring **Out Points** for events.

- c) **ALT + Play** – begins playback from the **In Point** of a selected event. Play continues seamlessly though the video record from there, ignoring **Out Points** for events.

With just one exception, playback always commences from the frame displayed on output at that moment. The sole exception allows special instant replay convenience: if the 3PLAY operator has pressed **MARK IN** at some earlier time and is monitoring progress of the action, he can optionally skip a step and immediately output an instant replay.

In this scenario – that is, with live video playing and an *incomplete* event marking operation in progress (only an In Point has been marked) – pressing **Play** does *two* things: it automatically adds an **Out Point** to complete the event, and begins playback from the **In Point**.

Hint: In LIVE mode, pressing Play when the current Speed setting is less than 100% immediately commences Delayed playback at reduced speed (Record must be enabled). To revert to the actual live video stream at the current time and full normal playback rate, push the LIVE button.

Normally, event playback begins at the **In Point** of the current **Event List** entry, and continues uninterrupted through the captured stream from that point forward until the operator ends it (perhaps by pushing the **LIVE** Button). In and Out points encountered as play continues are disregarded. This approach assures a smooth cut back to LIVE video when desired.

11) **Play Highlight:**

- b) Commence special (Highlight Reel) playback mode that respects all In and Out Points of events – See discussion below.
- c) **ALT + Play Highlight** – Begin *looping* Highlight Reel playback.



Figure 26

Play Highlight conforms more exactly to conventional ‘playlist’ behavior.

Playback jumps from the **Out Point** of the first selected event to the **In Point** of the next, continuing to play consecutive marked segments until all marked events have run.

Play Highlight also respects multi-selected events, even when these do not follow each other immediately in the Event List. (When no events are selected, Play Highlight treats all events in the current tab as selected.)

The **Out Point** for the final event is ignored, however, and play continues though the recorded video from that point as usual.

6.2.9 JOG/SHUTTLE

12) **Jog Wheel/Shuttle Ring** (Figure 27): Twist the outer ring clockwise or counter-clockwise to quickly shuttle back and forth through the video stream(s) on output. The video will stop at the selected point on release. Similarly, use the inner jog wheel to 'dial up' a different frame with one fingertip.

The **Jog Wheel** moves the current frame position forward and backward in the active event with frame precise accuracy. Twisting the **Shuttle Ring** allows you to swiftly scan backwards or forwards in time.

(The scan rate increases or decreases as you apply more or less rotation to the ring.)

As you would expect, **Jog/Shuttle** actions affect all video output streams simultaneously. After a jog operation, pressing **Play** would resume playback from the current frame (respecting the established **Speed** setting).

In **LIVE** playback mode, the operator can only **Jog/Shuttle** backwards of course (3PLAY does not currently support Future Playback mode – please see Relativity: The Special and the General Theory, by Dr. A. Einstein).

Jogging during **LIVE** output engages **Delayed** playback mode.

Note: Jog/Shuttle actions during LIVE playback can only be performed when Record is enabled.

6.2.10 SELECT AND MANAGE

The buttons in this group

Figure 28) permit you to select (and multi-select) events in their lists, clone and remove them.



Figure 27

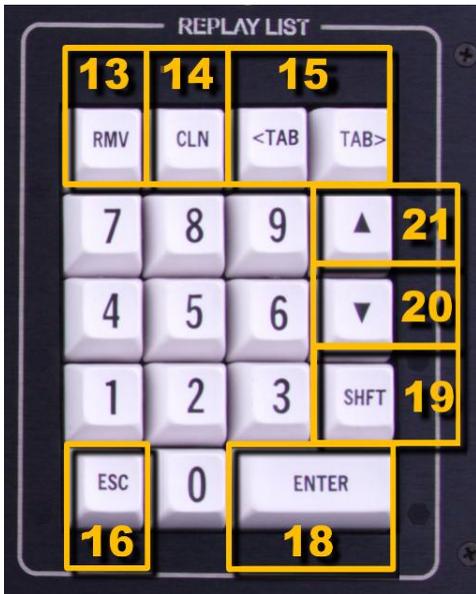


Figure 28

- 13) **RMV** (Remove): remove the selected **Event List** entry (or entries).

If an entry is removed from a colored **Custom List** tab, it will no longer appear in the **Master List** either. Likewise, events removed from the Master List are removed from any colored tabs they were assigned to.

- 14) **CLN** (Clone): create a duplicate event, which will be placed below the existing one in the list.

- 15) **<TAB** and **TAB >**: cycle through the **Event List** tabs in a left or right direction.

ALT + < TAB/TAB >: cycle the color assignment for selected events through the custom tab colors (Master tab only). All selected clips are assigned a single color. For multi-selections that are different colors, color cycling begins with the color of the last selected clip.

- 16) **ESC**: Abort a current MARK IN or supply a negative response to an open dialog panel; equivalent to the keyboard Esc key.

- 17) **Num Pad 0-9**: Type the ID# of an event using these buttons, then press ENTER to select the event.

- 18) **ENTER**: Confirm a numeric entry (jumping to the desired event by its ID#) or send an affirmative response to a open dialog panel.

- 19) **SHIFT**: A qualifier button to allow multi-selection of events in a tabbed list (keep Shift depressed while pressing an Arrow (Up/Down) button; equivalent of the keyboard Shift key.

- 20) **Arrow (Up)**: Move current position in **Event List** up; equivalent of the keyboard Up Arrow key.

- 21) **Arrow (Down)**: Move current position in **Event List** down; equivalent of the keyboard Down Arrow key.

22) ALT + Arrow (Up/Down): Move selected event(s) up/down in the **Event List**.

Note: The Arrow and SHIFT buttons permit multi-selection of adjacent events. Their keyboard equivalents work in the same manner. To multi-select events which are separated in the tabbed list requires use of the keyboard - keep the keyboard Ctrl key pressed while clicking the desired events with the mouse.

6.3 ADMINISTRATION SCREEN

The **Administration Screen** allows you to choose essential startup settings *before* the **3PLAY Desktop** is opened, and to perform project and system maintenance.

The links at left in the panel allow you to choose between several operations and maintenance functions. Tools related to the selection made at left are presented in the pane at right. The amount of unused video storage capacity remaining on the system is displayed (in Gigabytes) at lower-right.

Let's look into each of the major options in the Administration Screen.

6.3.1 NEW SESSION

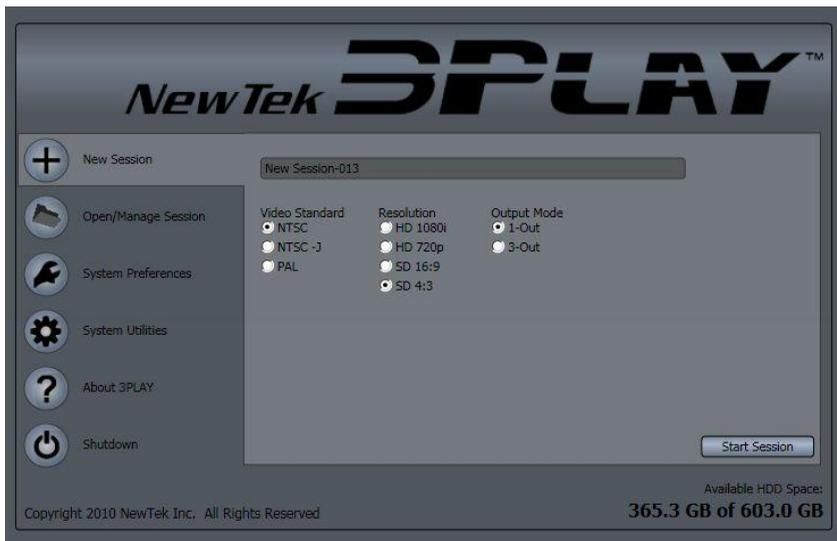


Figure 29 – 3Play International

The **New Session** options include:

- **Session Name:** Click to enter a unique name in the text entry field.
- ***Video Standard:** For the International model 3PLAY, select the appropriate video standard for your locale and external equipment by choosing **NTSC**, **NTSC-J**, or **PAL**.

** Video Standard options are shown only for 3PLAY International.*
- **Resolution:** The options are **720p**, **1080i**, **SD 16:9**, or **SD 4:3**. For one 3PLAY session you may wish to connect High Definition (HD) devices, while another setting may require you to connect to Standard Definition (SD) devices. The video standard and resolution for both input and output must match, and the corresponding settings set *before* beginning a 3PLAY session.
- **Output Mode** – choose which output mode (**1-Out** or **3-Out**) is best for your current application (see the discussion of output modes following below).

Note: All external video devices - both input and output - connected to 3Play must conform to the settings established in this pane.

Clicking **Start Session** (at lower-right) launches the **3PLAY Desktop** (see Section 6.4).

6.3.1.1 OUTPUT MODE

3PLAY always supports up to 3 connected video *sources*, but the operator has a choice between two different configurations of video streams for output.

The **Output Mode** must be chosen in the **Administration Screen** prior to creating a new session (when you open an earlier session stored on the system, the original Output Mode setting is retained).

1-OUT MODE

In this mode the 3PLAY operator selects just one primary stream to be displayed on all outputs. During 1-Out operation, all three of 3PLAYS output connections transmit the same user-selected stream.

In addition to placing camera selection directly under control of the 3PLAY operator, this can be useful for distributing 3PLAY's output to different external environments. (For example, one output could supply video for a commentator's monitor, another to a switcher for broadcast, while the third is supplied for review by referees).

3-OUT MODE

The synchronized segments of all three streams are individually displayed on Outputs 1-3 respectively. To a great extent this frees the 3PLAY operator from having to determine which camera angle to send to output. That responsibility typically then falls on the director, who tells the operator of an outboard switcher which of the three camera angles from 3PLAY's Outputs 1-3 he wants shown.

6.3.2 OPEN/MANAGE SESSION

This panel (Figure 30) presents a window that lists all sessions currently stored on 3PLAY, showing the **Session Name**, **Last Mod(ification) Date**, **Duration** (total a/v captured length) and **Size on Disk**, and of course allows you to re-open these sessions. It also provides various session management functions.

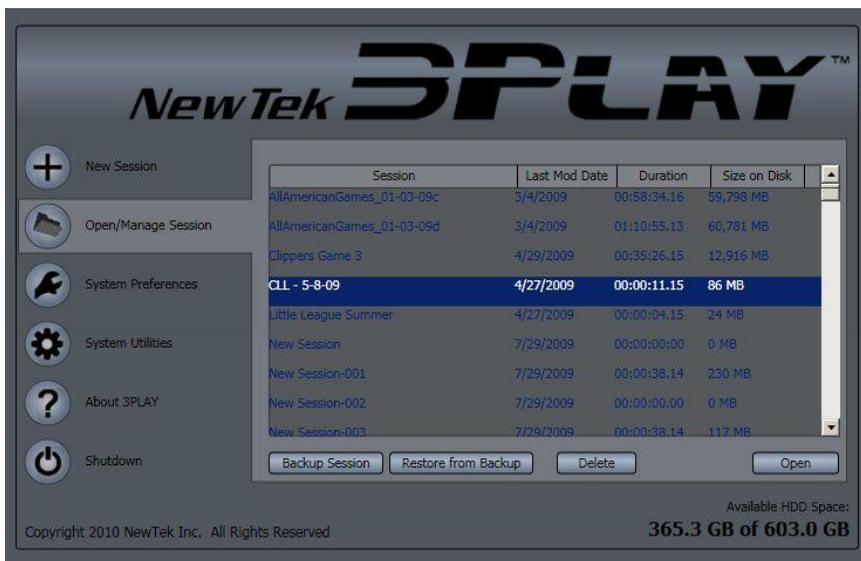


Figure 30

Selecting a session **Name** and clicking **Open** launches the **3PLAY Desktop** (using the former input and output settings), complete with the video record and **Event List** contents from the earlier session. Among other things, being able to re-open stored sessions is useful for use with the **Export Tab** feature (See Section 6.4.8.9).

- Double-click a **Session** (name) to quickly open that session (without pressing **Open**).
- Click on an already highlighted session (name) a second time to change its name, or you may right-click to open a **context menu** with two menu points:
 - **Rename**
 - **Delete**
- Click a session name, and then click **Delete** to completely remove it and all associated data. (A confirmation dialog is presented before the deletion proceeds).

6.3.2.1 BACKUP SESSION

This feature allows you to backup an entire 3PLAY session to an external storage system. When **Backup Session** is clicked, a file requester appears so you can choose a target volume and directory from among those connected to 3PLAY (by network or USB cable). The session currently highlighted in the list will be stored at this location.

Hint: Before data copying actually begins, you will be warned if there is not enough room on the target volume for the session.

Session backup can take some time, depending on the total duration of the session and its resolution. A progress gauge is shown during the process. It is appropriate to store backups on volumes formatted using the NTFS file system, to avoid the restrictive file size limitations of FAT32 (see Section 7.1.5).

Note: You cannot open another session during backup (or restore) operations, so you likely wouldn't want to begin this process just moments before another scheduled production.

6.3.2.2 RESTORE FROM BACKUP

When you click **Restore from Backup**, a file requester appears so you can choose a session backup folder from an external location. This folder, created by a previous Backup operation, will normally contain all assets required to restore the session. If any external file manipulations have resulted in missing assets a dialog lists the missing files and the backup is aborted.

The backup function will make sure there's enough room on 3PLAY for the session you wish to restore (a modest safety allowance for extra space is added to calculation by design). Next, assuming no session with the same name as the selected backup already exists on 3PLAY, the restoration is performed.

Hint: If the name of the selected backup is already in use, you will have an opportunity to rename it and continue, or Cancel the operation.

A progress gauge is displayed during the restore operation. The time required to restore a session varies with its size (HD or SD, and Duration) and the speed of the connection to the external volume. In due course, the restored session's name will appear in the list pane.

6.3.3 SYSTEM PREFERENCES

The System Preferences pane provides a couple of opportunities to customize 3Play to your own liking.



Figure 31

The **One-Button Mark Preroll** drop-down menu pertains to the duration of events marked using the one-button method described in Section 5.5.1. The default is 4 seconds, but you can choose a different value according to you need here.

Normally, 3Play's **Desktop Dashboard** (see Section 6.4.9) is only presented if the 3P-10 control surface is not connected. The **Show Dashboard** switch in **System Preferences** permits you to force it to appear at all times, instead. You may find the extra feedback this provides useful.

6.3.4 SYSTEM UTILITIES

System Utilities (Figure 32) is home to the (hard drive) **Defragment** tool and **Update 3PLAY** utility.



Figure 32

6.3.4.1 DEFRAGMENT

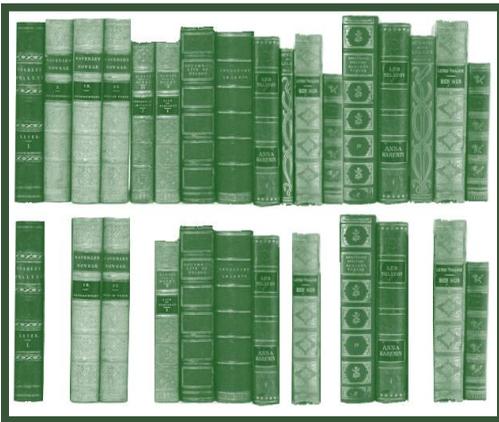


Figure 33

Over the course of lengthy use, the section of 3PLAY's internal storage devoted to audio and video storage can become fragmented. Eventually, this can degrade playback performance. Defragmenting corrects this condition.

You could think of your hard drive as being like a shelf in your library. As time goes along, the shelf fills with books. Some are large while others are small, just as recorded 3PLAY sessions may be shorter or longer.

To make room for new additions, you decide to remove books you have finished with from the shelf. You remove a book here, another there, opening up gaps between the remaining books.

This makes some shelf space available, but does so in the form of gaps separated by the remaining books. Sadly, when you obtain another large book, it may be too big to fit in any one of the gaps. A foolish librarian might tear the new book into sections just big enough to fit into the open spaces on the shelf. This would obviously be unwise. When you wish to refer to the book later you will waste a lot of time locating and assembling its sections before you can read it.

How much better it would be to slide the remaining books closer together, combining all the free space first. Unfortunately, computers are ‘foolish librarians’. They tend to want to fill in all the gaps in their storage areas, even if it means literally shredding your ‘book’ (in reality large video files from your 3PLAY sessions) into tiny fragments.

Defragmenting the storage volume has the same effect as sliding the books together, resulting in one or more larger gaps. The end result is that 3PLAY doesn’t have to frantically search in many different places to assemble the video streams from your recorded session. This process can take considerable time, so it’s not something you want to begin just before another production.

6.3.4.2 UPDATE 3PLAY

Periodically, NewTek may provide software updates for your 3PLAY. Updates can enhance performance, security or even add useful new features.

If 3PLAY is connected to the internet, clicking **Update 3PLAY** will automatically access the update webpage, and check to see if you have the latest version. If an update is available, you will be able to download and install it directly. Otherwise, connect to the Registration page (and the personal Downloads area for your registered NewTek products) and manually download any available update. This way you can be sure the very latest version of the software for your 3PLAY is installed.

6.3.5 ABOUT 3PLAY



Figure 34

This pane lists software version information, credits and acknowledgments, etc.

6.3.6 SHUTDOWN SYSTEM



Figure 35

This selection provides **Restart**, **Shutdown 3PLAY**, and **Exit to Windows** icons – click them to perform the named action in the usual manner. (In the case of the latter function, you can return to the 3PLAY environment from the Windows™ interface by double-clicking the desktop icon named **Launch 3PLAY**.)

6.4 3PLAY DESKTOP



Figure 36

The 3PLAY Desktop provides visual feedback for 3PLAY operations, including monitoring, event marking, management and playback controls, and output control. In addition, it hosts the **I/O Configuration** controls for your external sources and output connections.

The **Desktop** is shown after you click **Start Session** or **Open Session** in the **Administration Screen**. Actually, 3PLAY provides two Desktop variants.

- The **Standard Desktop** is designed for use with the external **3P-10** control surface. It allows as much space as possible to be devoted to event management.
- If the **3P-10** is *not* detected for any reason on opening a session, the **Dashboard** appears on the Desktop. The Dashboard is small panel allowing tasks normally performed using the **3P-10** to be carried out with the mouse instead. (The Dashboard is discussed in Section 6.4.9.)

6.4.1 TITLEBAR DISPLAY

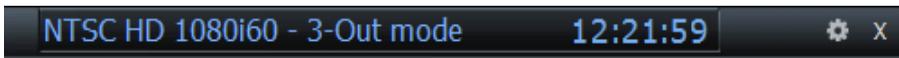


Figure 37

An information display in the **Desktop** titlebar provides useful data about the current session. Displayed information includes:

- **Video Standard:** (NTSC or PAL), along with format information such as HD 1080i60, HD 720p30, etc.
- The current **Output Mode** (1-Out or 3-Out)
- **Time of Day** (from the system clock)

6.4.2 I/O CONFIGURATION

Video and audio sources *and* output devices connected to 3PLAY need to be properly configured. The video format and resolution are set in the **Administration Screen** (prior to launching the **3PLAY Desktop**), but other settings are located in the **I/O Configuration** panel. This arrangement permits them to be freely modified as necessary during a session.



Figure 38

Click the small *gear* button (near the **Close** gadget in the upper-right corner of the **Desktop**) to open the **I/O Configuration** panel. The panel can be re-positioned by dragging its titlebar.



Figure 39

6.4.2.1 INPUT 1, 2 AND 3

For each video input (numbered 1-3), the **I/O Configuration** panel provides such video source settings as type, termination, and proc amp controls. As well, output and genlock settings are located in this panel.

VIDEO CONNECTION (DROP-DOWN)

The **Video Connection** drop-down menu allows use of various types of video sources. Ideally, all three inputs should be identical, but it is permissible to vary the source type individually here in order to take full advantage of the equipment you have on hand. The options available are:

1. **Composite** (option shown for SD sessions only)
2. **Y/C** (option shown for SD sessions only)
3. **Component**
4. **SDI**

TERMINATION

The **Termination** switch toggles a 75 ohm resistance, which may be required by certain video sources.

PROC AMP

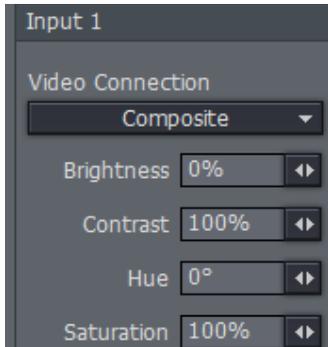


Figure 40

Individual proc amp control is likewise provided for each video input. The four basic camera adjustments available are **Brightness, Contrast, Hue** and **Saturation**.

The first two (**Brightness** and **Contrast**) are familiar to all of us, and need no explanation. **Hue** adjusts the color of the video signal, swinging the range of the entire image through the spectrum as depicted on a color wheel.

Saturation controls color *intensity*. Zero saturation removes all color, producing a black and white image. Increased saturation results in richer colors. Over-saturation can quickly result in video signal values that are deemed *illegal* for transmission and display, however. This condition can manifest itself in all sorts of nasty ways, including smearing and ‘crawling’ colors, and can even cause audio issues – so be conservative when raising Saturation.

RESTORE DEFAULTS

Clicking this button resets all options for the input to factory defaults.

6.4.2.2 AUDIO

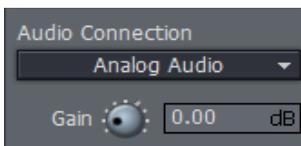


Figure 41

Audio you wish to record with video sources must be specified and configured in this section.

AUDIO TYPE (DROP-DOWN)

The optional audio connection types are:

1. **Analog Audio** – Utilizes the four inputs in the **Analog Audio In** section on 3PLAY's front
2. **Digital Audio** – Utilizes the two inputs in the **Digital Audio In** section on 3PLAY's front for AES3 (AES/EBU) digital audio sources

For SDI video sources (only), an additional option is added to the drop-down list, so that it includes:

3. **SDI Embedded Audio** - Digital audio streams from an SDI source, embedded in the digital video stream

Note: If Video Connection is "SDI" but no valid video source is connected, neither digital nor analog audio will be heard for that input.

LEVEL

The Level knob allows the operator to trim audio gain to suit various audio sources. The **VU meters** (located next to the video stream monitors on the **Desktop**) help you adjust audio levels for recording and transmission. Each calibrated vertical strip can show the level for either one or two audio channels; when 4 input channels are supplied, the levels for channels 1 and 3 are superimposed (not 'summed') on the left meter, while the right meter displays channels 2 and 4.

3PLAY's VU meters are calibrated in dB FS units. The dB FS notation stands for "Decibels, Full Scale." In digital equipment, 0 dB FS is the maximum value for quantization purposes, and thus properly sits at the top of the VU scale. To allow comfortable headroom for normal audio variance and unexpected peaks, various international organizations suggest either -20 (SMPTE) or -18 dB FS (EBU) as the Alignment Level (representing a reasonable or typical level).

Note: 3PLAY conforms to the professional -20dB FS SMPTE specification for digital audio. This means its reference level is 20dB below Full Scale (often referred to as +4dBu reference level and corresponding to 1.23v RMS). If you like, you can take advantage of that headroom to achieve the highest dynamic range and lowest signal-to-noise ratio possible when recording with 3Play.

6.4.2.3 OUTPUT

VIDEO CONNECTION

This drop-down menu allows the operator to select between **Component**, **Y/C**, **Composite** and **SDI** output for 3PLAY.

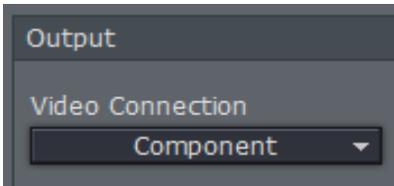


Figure 42

Some output types do not support high definition resolutions. Thus, the options available vary depending on whether or not the current session is standard or high definition, as follows below:

- **SD Sessions:** Component, Y/C, Composite
- **HD Sessions:** Component

(It's worth noting that SDI output does not need to be manually selected here – it is always active.)

Hint: See Sections 4.4 and 6.5 for information on 3PLAY's physical a/v connections.

CENTER FREQUENCY

This setting is applied when a genlock reference signal is not in use. To adjust the setting, supply color bars to a 3PLAY input and pass the video output to a vectorscope. The vectorscope display is completely stable when Center Frequency is properly adjusted.

6.4.2.4 GENLOCK

3PLAY's **Genlock** feature allows it to 'lock' to a reference video signal (house sync, such as 'black burst') supplied to its Genlock input connector. This synchronizes 3PLAY output to other external equipment locked to the same reference.

Among other things, genlocking permits seamless downstream integration of 3PLAY output with other video sources locked to the same sync pulse (without requiring time base correction, which provides a less ideal solution).

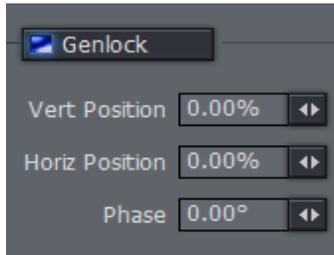


Figure 43

Hint: “Genlock” is an abbreviation for “generator locking”. A professional video device often provides a “genlock input”, which allows an external reference signal (often referred to as ‘house sync’) to control its video timing.

When video sources are connected in this manner their output is synchronized to the reference signal, and they are referred to as ‘genlocked’.

There is a more important reason for genlocking in a 3PLAY context, however:

Seemingly insignificant deviations in the framerate of individual cameras are common. As well, the timing of cameras can vary slightly during use. For a single camera or short durations, this is virtually irrelevant. However 3PLAY’s design involves capturing output from three cameras – small timing variations do matter. Especially over longer periods of time, very trivial timing deviations between sources can produce noticeable and complex synchronization issues on playback.

Serving i) 3PLAY’s Genlock input and ii) other video devices in the chain all with the same reference signal eliminates potential for these undesirable conditions. You could think of it this way:

- Genlocking your cameras locks their output together, preventing sync issues on arrival at 3PLAY’s inputs and subsequent recording.
- Supplying the same sync source to 3PLAY’s Genlock input during live sessions ensures a match between 3PLAY output and downstream video devices required to handle both it *and* other (genlocked) sources.

VERT POSITION, HORIZ POSITION AND PHASE

Locking all devices to house sync is important, but this alone does not actually ensure a perfect downstream match. Consider an army marching along: each step the soldiers take occurs at precisely the same moment, so we could say their timing is synchronized. Even so -- if one soldier leads with the left foot while everyone else is on the right, problems result. Or perhaps everyone is evenly spaced and perfectly aligned but for one misfit who is badly out of position.

This is essentially why 3PLAY provides several adjustments in its Genlock section. The **Horizontal** and **Vertical** Position settings pin the image in the proper space in the frame, and in doing so could be likened to making sure each marching soldier is in position relative to his fellows as viewed from above. The **Phase** setting ensures proper color alignment, corresponding more to the matter of making sure everyone is on the left or right foot at the same time (Phase adjustment is not required for HD sessions, so it is not shown in that case).

Thus, the **Vert Position**, **Horiz Position** and **Phase** settings allow you to adjust synchronization to arrive at an optimal match between devices. (Typically, these settings are tweaked with the aid of downstream *Vectorscope* and *Waveform* monitors.)

A discussion of these adjustments goes beyond the scope of this manual, but a quick online search for the keywords “genlock” and “adjust” turns up a number of excellent references.

REFERENCE TYPE

For standard definition 3PLAY sessions, only the traditional “bi-level” reference signal is supported, so the **Reference Type** selector is not shown. However, 3PLAY supports *both* bi-level and the newer tri-level reference signals for HD sessions.

Use the Reference Type selector to identify the signal supplied to **Genlock input**. Note that for **HD (Tri-level)**, the reference signal *must* conform to the Video Standard and Resolution selected for the session in the Administration Panel.

NOTE: FOR NTSC SESSIONS, THE REFERENCE SIGNAL MUST BE EITHER 29.97 OR 59.94 FRAMES PER SECOND.

6.4.3 RECORD AND DEVICE STATUS



Figure 44

We discussed this **3PLAY Desktop** panel briefly way back in Section 5.4 (Quick Start). In addition to providing some valuable information, it is home to the all-important **Record** button.

6.4.3.1 RECORD

This button toggles live video recording on and off. Naturally, recording begins when **Record** is pressed, and ends when it is pressed again.

At times you may wish to halt recording temporarily within a session, perhaps during some lengthy interruption. You can easily tell when recording is active by glancing at the button and its nearby 'LED', which will be lit up. As well, the value in the nearby **Session time Recorded** counter is always climbing when **Record** is on. Please see Section 6.2.3 for other important details about the Record function.

NOTE: 3PLAY DOES NOT DISPLAY LIVE VIDEO SOURCES WHEN RECORD IS *DISABLED*.

6.4.3.2 SYSTEM INFORMATION

This area shows important system information such as **Session Time Recorded** and the **Remaining Disk Space** on the device (displayed as hours, minutes and seconds.)

Hint: If Remaining Disk Space falls below 5 minutes, the text turns red, to warn that the hard drive is nearly full. Recording will stop automatically when all available space is used up (a dialog appears stating that the drive is full).

6.4.4 MONITORING



Most of the left-hand side of the **3PLAY Desktop** is devoted to monitoring. Three small upper monitors (labeled **Input 1**, **2** and **3**) always show the video streams serving 3PLAY's inputs.

The large monitor is the **Main Output** monitor. Beneath it are three smaller **Output Stream** monitors. The smaller monitors show all three streams (camera angles) associated with the current 3PLAY output. The various monitors serve different purposes, and also include interactive features.

Figure 45

6.4.5 INPUT 1, 2, 3

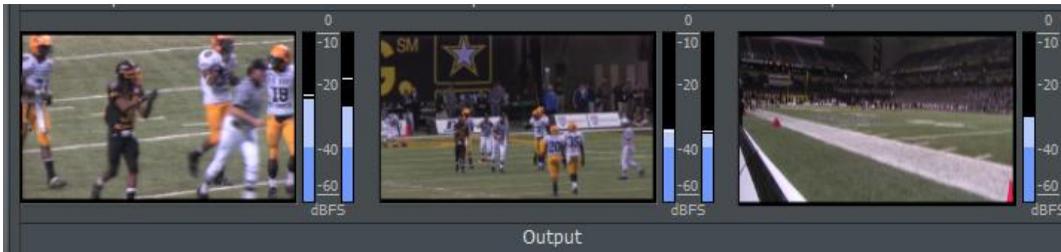


Figure 46

Three **Input Source Monitors** at upper-left show live video from video sources connected to Inputs 1-3, providing full-time monitoring of live cameras -- even during **Event** or **Delayed** playback. If a particular input is currently on the **Main Output** monitor, the corresponding Input Source monitor is outlined in green.

NOTE: RECORD MUST BE ENABLED TO VIEW LIVE VIDEO, AND WILL BE AUTOMATICALLY ENABLED IF NECESSARY. SEE SECTIONS 6.2.3 AND 6.2.7 FOR MORE DETAIL.

The input monitors do more than just provide visual feedback, though; they are also interactive. Clicking on any of them will switch 3PLAY immediately to **LIVE** playback mode. This will end **Event** or **Delayed** playback if in progress, and will also enable **Record** if necessary.

If 3PLAY is operating in **1-Out** mode (see Section 3.4.2), the stream represented by the monitor clicked becomes the **primary output**.

VU meters beside each of the monitors provide the audio monitoring capability you need to adjust input levels correctly (Section 6.4.2.2). These also serve to provide assurance of the integrity of your audio connections during recording and transmission.

6.4.6 OUTPUT MONITORS

The **Output** section of the interface consists of one larger **Main Output** monitor window above 3 smaller ones. These monitors show what is displayed on 3PLAY's video outputs at any given moment, and also provide functions related to event marking, trimming, and even transport.



Figure 47

Like the Input Source monitors, the various Output Monitors also incorporate interactive features, discussed in context below. Let's consider the three **Output Stream** monitors first.

Hint: Output streams can consist of Live (input) streams, Delayed streams, or (synchronized) Event streams, depending on operator selections (see Section 3.1).

6.4.6.1 OUTPUT STREAM MONITORS

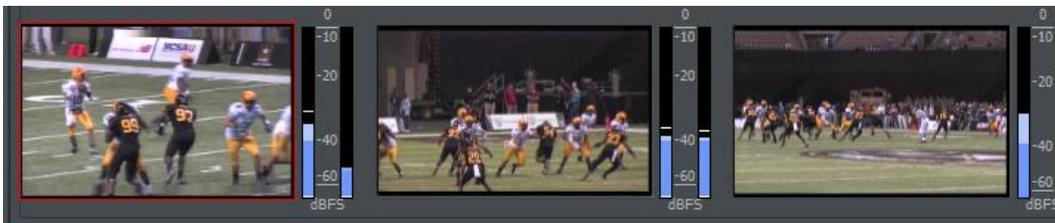


Figure 48

The three small **Output Stream Monitors** (Figure 48) show the 3 streams available for output, and also serve as interactive controls. As you know by now, these three synchronized streams may be i) live video passed directly from 3PLAY's video inputs (and hence identical to the streams shown on the Input Source monitors), ii) delayed video, or iii) an event (see Section 3.1).

When 3PLAY is in **1-Out** mode, the primary output stream is displayed on the **Main Monitor** above. A red outline highlights the corresponding output stream monitor. The primary stream is selected by clicking one of the smaller stream monitors. Thus, you can effectively switch the camera view on 3PLAY output by clicking a different output stream monitor (of course 3P-10's **Camera** buttons serve the same purpose).

In **3-Out** mode, you likewise assign one of the 3 available streams to the **Main Output** monitor by clicking on a stream monitor. In 3-Out mode, though, this selection does not really affect 3PLAY output. Even so, the enlarged view on the Main Output monitor is useful for event marking, trimming, etc.

Selecting the primary output (by any means) has other ramifications, too. During marking operations, the initial **Camera** for a new event is the stream displayed on the large **Main Output** monitor at the time of creation (i.e., at the time when its In Point is set).

Hint: Switching by clicking an output stream monitor during playback affects the Camera setting for subsequently marked events, but does not modify the Camera selection for existing events.

6.4.6.2 MAIN OUTPUT

The largest of the seven monitors is the **Main Output** monitor. It shows one selected video stream from among those displayed on the **Output Stream** monitors below.

The primary or selected output stream is displayed on the **Main Output** monitor, and a red outline highlights the corresponding **Output Stream** monitor.

There are various ways to assign a specific video stream to the **Main Output** monitor:

- Press **Camera (1, 2 or 3)** on the **3P-10** control surface.
- Press **LIVE** on the **3P-10** to place the last previously selected incoming stream on **Main Output**.
- Click one of the three **Input Stream** monitors to put 3PLAY into **LIVE** playback mode and assign that stream to **Main Output**.
- Click one of the three **Output Stream** monitors to assign that stream to **Main Output**.
- Double-click an event in the **Event Panel** (or select it and click **ALT + Play**) to send the **Camera** stream for that event to **Main Output** (playback begins at the **In Point**).
- During event trimming operations, the **In** or **Out Point** of the **Camera** stream is displayed on **Main Output**.

Hint: 3PLAY's Desktop monitors are previews, and can drop frames under certain conditions. 3PLAY Output does not do so, however – thus you may use external monitors for greater fidelity if desired.

INTERACTIVE JOG

The mouse pointer becomes a *double-headed* arrow when you move it over the **Main Output** monitor. This is a reminder that interactive jogging is available (during **LIVE** playback, **Record** must be enabled before jogging – see Section 6.2.3). Dragging left or right on the monitor jogs all three synchronized video streams backwards or forwards in time. (If you Jog while playback is *stopped*, pressing **Play** immediately afterward commences playback at the current frame.)

6.4.6.3 PLAYBACK INFORMATION AREA

Separating the **Output Stream** monitor group from the **Main Output** monitor is a small information panel labeled **Currently Displaying** (Figure 49).



Figure 49

The tag to the right of the **Currently Displaying** label indicates one of the following playback types:

- **Live** – input video streams, passed through live to output
- **Delayed** - delayed playback results when:
 - 3PLAY is in **LIVE** mode and you jog or jump back in time
 - 3PLAY is in **LIVE** mode and you engage slow motion playback
 - 3PLAY is in **LIVE** mode and you press **Stop**
 - Playback moves past the **Out Point** of the selected event
 - Playback moves past the last event in **Play Highlight** mode
- **(ID#) Event** - The unique **ID** number for an **Event** displayed on output, followed by the label “Event”

- **(ID#) Highlight** - This tag indicates playback is in **Highlight Reel** mode. When you press **Play Highlight**, playback of events respects marked **Out Points** (see Section 6.2.8).

The **Current Time** timecode display shows the current recorded time in **LIVE** playback mode, or the timecode of the current frame in **Delayed, Event or Highlight** mode. Just to the right of **Current Time** is the **Time Remaining** field. This is essentially an event countdown:

During standard playback of an event from a playlist, this field shows time remaining to the end of the event that was initially played. If play enters another event, the countdown is reinitialized to reflect the duration of *that* event. If play enters a period of the video record for which an event is not marked, **Time Remaining** shows --:--:--.—.

6.4.7 AUDIO, AND AUDIO MONITORING

The audio **VU** (Volume Unit) meters beside each of the video stream monitors serve several purposes. At the simplest level, if you intend to record audio with your video (or pass it through to 3PLAY's outputs), the input meters assure you that audio is being received at 3PLAY's inputs.

Likewise, the output VU meters provide confidence that 3PLAY is supplying audio to its outputs. More importantly, you can monitor audio levels to be sure you are not overdriving the system, which would result in clipping of the signal (see Section 6.4.2.2).

6.4.8 EVENT PANEL

Master						Highlights			Bad Plays			Half HLs			TD Runs			Anderson		
ID	In Point	Duration	Comment						Camera											
001	00:06:57.27	00:00:12.09							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
002	00:07:00.08	00:00:04.00	Anderson big catch						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
003	00:10:07.23	00:00:04.00							<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
004	00:10:51.13	00:00:06.17							<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									

Figure 50

The right side of the 3PLAY Desktop is devoted to the **Event Panel**. By way of reminder (as discussed in depth back in Section 3.2), an event is not merely a 'clip'. Rather it can be compared to a *bookmarked* section of the complete recording, a synchronized time slice of *all three* streams

3PLAY captures. The Event Panel provides information about events you have marked, along with numerous event organization and management features.

6.4.8.1 MASTER LIST

At the top of the Event Panel, you will see 6 tabs. The first of these is labeled **Master**. The Master List plays a special role in event management.

Events are created by any action that creates a new **In Point**. Generally, In Points result from your pressing **MARK IN** on the **3P-10** control surface during recording of your production. It's also possible to create a new event from an existing one, and a special event is generated simply by enabling **Record** (see Section 6.2.3).

Newly created events appear as new entries in the **Master List**. These are always added at the bottom of the **Event List**, with the exception of cloned entries -- clones initially appear below the original selection (see Section 6.4.8.8).

For each event entry, the following data and controls are displayed:

- **ID #:** The unique ID number for the event (not editable)
- **IN Point:** The start timecode for the event
- **Duration:** The time between the In Point and Out Point (inclusive)
- **Comment:** A user editable memo field
- **Camera:** Designates the primary stream for 1-Out output mode (see Sections 3.4.2 and 6.4.8.7)

Hint: events can coincide, or overlap; a section of your overall recording may well be part of several event entries.

6.4.8.2 CUSTOM LISTS

Immediately next to the **Master List** tab is a group of colored tabs.

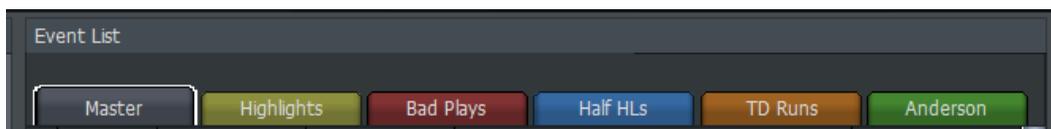


Figure 51

Pressing **TAB** on the **3P-10** Control Surface (or clicking a tab) activates a different **Custom List**. The Master List contains every existing event; but *you* decide which of these (if any) to add to the Custom Lists.

Hint: You can use Custom Lists for a variety of purposes. For example, you could use them to quickly collate events for each quarter of a football game, or arrange them by team or event type, such as goals, penalties, and so on.

The color assigned to an event (by pressing **ALT + TAB** (< or >), or via the event context menu) determines which list an entry appears in. The **Master List** is gray – events shown in gray appear *only* in the Master List. Assigning the color orange to an event causes it to appear in the orange-tabbed **Custom List** as well.

Note: Events created when a colored Custom List tab is selected are automatically assigned to it (as well as being added to the Master List).

An event can be transferred from one **Custom List** to another by assigning it a different color. Assigning gray to an event removes it from all Custom Lists, but of course does not remove it from the **Master List**.

Hint: Only one color can be assigned to a given event; hence an event can appear in only one of the five Custom Lists at a time (use Clone to sidestep this if necessary).

RENAMING TABS

To change the name shown on a **Custom Event List** tab, press **F7** (or right-click on the tab and select **Rename** from the menu).

EVENT ORDER

Although events are initially added to **the Master List** in the order of their creation, this does not always mean they are in chronological order. For example, you can add new events long after recording ends. Though such new events may refer to early portions in the recorded footage, they are still added to the end of the list.

You are free to re-order events (and event selections) up and down in the list using the **3P-10** control surface. Use **ALT + Arrow** (Up/Down) to do so. Alternatively, you can drag them up or down in the list using the mouse. (Re-ordering is especially useful in connection with the **Play Highlight** feature - see Section 6.2.8, item 11).

6.4.8.3 SELECTION

You can use the **3P-10** Control Surface **arrow** buttons to select an event, or select it directly by entering its number on the 3P-10 numeric keypad and pressing **Enter** (another way to choose an event is to click it on the Desktop.)

Entries for selected events are displayed in a lighter shade and surrounded by a white border. Standard multi-selection methods (Shift + click, and Ctrl + click) are supported.

For example, you can choose one entry, press and hold **Shift**, then 'arrow' to (or click) another and release Shift. All entries between (and including) the two chosen are selected by this method. Press and hold **Ctrl** on the keyboard, and click multiple events anywhere in the list to select just those events (even when they are not next to one another in the list.) Selecting an event (without pressing Ctrl or Shift) deselects all other events.

Hint: When multiple events are selected, pressing Ctrl + click actually toggles selection state – that is, an already selected item will be de-selected.

When **Play** is active, selecting an event does not display it on output. However, selecting an event when playback is stopped *does* display it on output (initially, the **In Point** for the selected event is shown).

During event marking operations, setting an **In Point** (using **MARK IN**) creates a new (selected) event which in turn awaits a subsequent **MARK OUT** action.

6.4.8.4 PLAYBACK

Playback of an event can be initiated in several ways:

- Select an event in the list and press **ALT + Play** on the **3P-10** control surface.
- Double-click an event in the list to select and play it.
- During event marking operations, after pressing **Mark In**, pressing **Play** immediately plays back the new event from its **In Point**.
- Press **Play Highlight** (see Section 6.2.8).

Note: For normal playback, when multiple events are selected, playback begins from the last event clicked. The Play Highlight feature treats multi-selection differently, however – see Section 6.2.8)

PLAY POSITION INDICATOR

002	00:01:10.26	07:15
 003	00:02:10.23	07:15
004	00:03:10.25	07:15

Figure 52

During playback, a triangular white marker referred to as the **Play Position Indicator** is overlaid on the event currently being shown on 3PLAY output.

Of course, since events can coincide and/or overlap, the segment currently playing may well occur in more than a single event. In such cases, the first event encountered containing the frame displayed shows the **Play Position Indicator**. If playback continues beyond the **Out Point** of that event, it moves to the next valid entry, if any – otherwise, it remains on the last valid entry (during **Highlight** playback, however, the indicator always marks the *currently playing* event).

6.4.8.5 TRIMMING

The **In Point** and **Duration** of events can be modified interactively or by direct numeric entry. As noted earlier, use the **Jog/Shuttle** or **Jump** buttons to move to a frame, and press **ALT + MARK IN** to update the current **In Point**, or **ALT + MARK OUT** to reset the **Duration**.

Alternatively, when you move the mouse above the **In Point** with the **Alt** key depressed, the cursor becomes a double-headed arrow, indicating that you can drag left or right to modify the current **In Point**.

The **Duration** field can be modified in a similar manner. When dragging the mouse above the Duration field (with Alt depressed), the frame representing the **Out Point** is displayed on the output monitors (requires that playback be stopped first); the display snaps back to the **In Point** on release.

6.4.8.6 CONTEXT MENU

Right-clicking on an event (or multiple selected events) opens a context menu which includes the following items:

- **Edit IN Point**
- **Edit Duration**
- **Edit Comment**
- **(Color)**
- **Remove Event**

Selecting one of the first three menu options opens an input dialog that allows you to make suitable entries, either timecode or a comment.

The **Color** for **Custom List** assignment can be directly selected using the menu (selecting gray removes the event from any Custom Lists, but leaves it in the **Master List**). **Remove Event** removes all references to the event (but, of course, not the actual recorded a/v data).

6.4.8.7 CAMERA

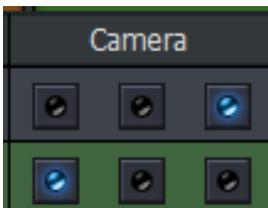


Figure 53

Normal playback of 3PLAY's recorded data generally proceeds as follows:

- The operator initiates playback of an event.
- Playback begins at the **In Point** of the designated event.
- All three synchronous recorded streams play back in unison.
- One of the three available streams (the *primary stream*) is shown on the **Main Output** monitor.
- If the **Output Mode** is **3-Out**, 3PLAY's video outputs numbered 1-3 each carry their corresponding video stream.

- If the **Output Mode** is **1-Out**, the primary stream is delivered to *all* of 3PLAY's output connectors for transmission to downstream video systems.

The **Camera** switch (in the last column of the **Event List**) designates the primary stream. The initial Camera setting corresponds to the stream displayed on the large **Main Output** monitor at the time the event is created.

Note that - once playback begins - the primary stream shown on Main Output does not normally alter as events with different Camera settings are encountered during normal playback.

You can, however, deliberately *switch* the stream shown on the **Main Output** monitor during playback by pressing **Camera (1, 2, or 3)** on the **3P-10 Control Surface** (or by clicking one of the **Output or Input** stream monitors.) Switching cameras during play in this manner does *not* affect the already-established **Camera** setting for an event.

The stream on the **Main Output** monitor does not immediately update if you modify the **Camera** option in the **Event Panel** *during* playback. To modify the Camera setting using the **3P-10 Control Surface**, press **SHIFT + Camera (1, 2, or 3)**. The change will be respected the next time the event is played.

Play Highlight, however, does conform to the **Camera** setting - just as it recognizes both In and Out points for individual events. If (during Play Highlight playback) you change the Camera for an upcoming event, the modified setting takes immediate effect. When playback reaches the modified event, the new **Camera** setting will be respected.

6.4.8.8 REMOVE AND CLONE



Figure 54

Clicking **Remove** performs the same action as selecting **RMV** (Remove) on the **3P-10 Control Surface** (or **Remove Event** from the Event List **context menu**.) Selected events are completely removed from the Event Lists.

Remember that this is a non-destructive operation; it does not actually affect the recorded data at all. It merely removes a 'bookmark'. And, it is entirely possible to re-create events - as long as you do not delete the session (see Section 6.3.2).

Pressing **Clone** duplicates the current event selection. Cloning can be useful when you wish to assign copies of an event to more than one **Custom List**. Or, perhaps you wish to have copies of events with different **Camera** assignments for successive playback using **Play Highlight**.

Hint: Trimming a clone offers one way to obtain an event entry that refers to a previously un-marked section of the recording.

6.4.8.9 EXPORT TAB ...

The events listed in any tabbed panel can be exported as discreet audio/video files for storage and use with other systems. The exported files respect the **Camera** settings for each event.

Note: Export cannot be performed when 3PLAY is recording, so the button is shown as ghosted.

The exported files include the audio visual data (from **In Point** to **Out Point**) for the designated events, each as a discreet file. As well, an industry standard **EDL** (Edit Decision List) file is created to accompany the exported files. The EDL comprises a sequential list of daisy-chained events (multiple tracks are used if event timecode values overlap).

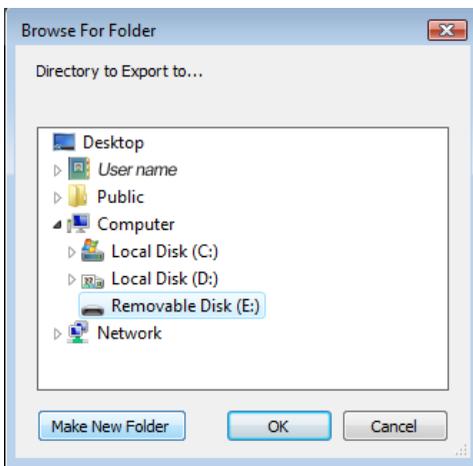


Figure 55

When you click the **Export Tab ...** button, a file dialog is presented (Figure 55) to allow selection (or creation) of a directory for the exported files - whether on the 3PLAY system hard drive or an external drive. A folder named for the current session will be placed at the selected location.

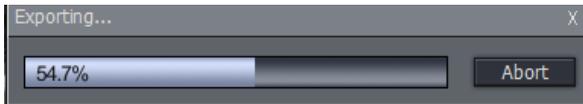


Figure 56

Export can take some time, depending on the duration of the events selected and their resolution (note that Export to an external drive is faster). A progress gauge is shown during the process.

NOTE: YOU CANNOT WORK ON A SESSION DURING EXPORT, SO YOU LIKELY WOULDN'T WANT TO BEGIN THIS DURING OR JUST BEFORE A PRODUCTION.

Exporting does not reduce image quality. The file compression format is MPEG2, I-frames. The naming convention for files includes convenient (**In Point**) timecode and camera references.

Hint: In rare cases when several events have identical In Points, the filenames could be incremented, such as event_0:34:34:2(1).mpg, event_0:34:34:2(2).mpg, etc.

Exports use the following filename and folder arrangement:

> *User-Selected-Folder-or-Drive/Session-Name/*

SessionName.edl
SessionName_cam1_0.34.34.2.mpg
SessionName_cam2_0.34.34.2.mpg
SessionName_cam1_0:38:15:02.mpg
SessionName_cam3_0.39.11.26.mpg
Etc.

6.4.9 DESKTOP DASHBOARD



Figure 57

As mentioned earlier, in the event you do not have a working 3PLAY **3P-10** control surface connected, an alternative **Desktop** showing the **Dashboard** automatically appears when you open

a 3PLAY session. The reason for this is to provide assurance that - even if your **3P-10** gets lost in transit or suffers some catastrophic accident - you retain full control over 3PLAY.

The **Dashboard** features onscreen versions of the marking, transport and speed controls normally accessed from the **3P-10** (see Section 6.2 for details). If you would like the Dashboard to be displayed even when the control surface is connected, you can choose that option in the **System Preferences** section of the **Administration Screen**.

6.5 KEYBOARD SHORTCUTS

F7	Custom Event Playlist tab - Rename
F6	Event – Edit Comment
Ctrl + a	Select all events (in the current Event List)

6.6 3P-10 FUNCTIONS

REC	Enables/Disables recording
1	Switches to Input 1
2	Switches to Input 2
3	Switches to Input 3
ALT	modifier key
-2	Jumps backwards in time 2 seconds
-1	Jumps backwards in time 1 seconds
1	Jumps forwards in time 1 seconds
2	Jumps forwards in time 2 seconds
MARK IN	Marks an In Point at current output timecode
MARK OUT	Marks an Out Point at current output timecode
25%	Presets variable play speed at 25%
33%	Presets variable play speed at 33%
50%	Presets variable play speed at 50%
75%	Presets variable play speed at 75%
100%	Presets variable play speed at 100%
LIVE	Enables Live Mode
Stop	Stops current frame on all outputs
Play	Initiates Play mode at preset variable speed
Play Highlight	Initiates Highlight mode playback
RMV	Removes selected Event(s)

CLN	Clones selected Event(s)
<TAB	Cycles backwards through Event Tabs
>TAB	Cycles forwards through Event Tabs
Num Pad	Numeric pad to enter Event number
SHFT	modifier key used for multi selection of Events in list
ESC	Escapes numeric entry mode
SHFT – 1	Changes Default Camera of selected Event(s) to Input 1
SHFT – 2	Changes Default Camera of selected Event(s) to Input 2
SHFT – 3	Changes Default Camera of selected Event(s) to Input 3
ALT – 1	Send Camera 1 (Live) to Main Output
ALT – 2	Send Camera 2 (Live) to Main Output
ALT – 3	Send Camera 3 (Live) to Main Output
ALT – MARK IN	Updates the selected Event's In Point using the current timecode
ALT – MARK OUT	Updates the selected Event's Out Point using the current timecode
ALT – PLAY	Begins playing the selected Event immediately
ALT – PLAY HIGHLIGHT	Initiates Highlight mode playback in LOOP mode
ALT – Stop	Jumps to the beginning of the current Event and stops at that frame
ALT - <TAB	Cycles backwards through currently selected Event(s) colors.
ALT - >TAB	Cycles forwards through currently selected Event(s) colors.

6.7 FRONT CONNECTIONS



Figure 58

3PLAY's front panel connections have been discussed in Section 4.4, but we'll review them briefly here.

6.7.1 VIDEO CONNECTIONS

Three horizontal rows of BNC connectors are grouped and labeled **Video In** and **Video Out** respectively. These comprise one row for each a/v input stream, and one for each output.

- **SDI** - The first connector in each row is labeled **SDI**. This is short for "Serial Digital Interface," which is a digital transmission protocol for very high quality (uncompressed) digital video and optionally, embedded audio.

Hint: If your equipment supports SDI, this would be your best option for 3PLAY.

- **Y, Pb, Pr** – Connect to the second, third and fourth BNC connectors (labeled Y, Pb and Pr) if your video gear uses this high quality analog color system (often referred to loosely as "component", or occasionally "YUV").
- **Y/C** – For Y/C (also called 'S-Video', for "Separate Video") equipment, attach the "Y" (luma) connector to the *third* of the four BNC connectors (labeled Pb). Attach the "C" (chroma) connector to the *fourth* connector (Pr).
- **Composite** - Attach the composite source's connector to the *second* connector in the BNC connector row (labeled Y).

6.7.2 AUDIO CONNECTIONS

Next to the video input/output groups are sections labeled **Digital Audio In/Out**. These are for AES3 (AES/EBU) digital audio connections. **Analog Audio Input** and **Output** groups complete each row, comprising four balanced mono ¼" (6.3mm) phone jacks.

Note: Analog levels conform to SMPTE RP-155. The maximum input/output level is +24 dBu, nominal input level +4 dBu (-20dBFS), and the sample rate is 48 kHz.

6.7.3 GENLOCK INPUT

See Sections 4.4.4 and 6.4.2.4 on the use and importance of the **Genlock** input.

6.7.4 USB

The four **USB 2.0** ports at lower right on 3PLAYs faceplate can be used to connect the keyboard, mouse and **3P-10** Control Surface, or external drives.

Note: 3PLAY does not support IEEE1394 (DV/HDV) video capture

6.8 SYSTEM RESTORE

We firmly expect you will never need it, but isn't it good to know that a complete System Restore function is available in the event of an unforeseen problem?

Ordinarily, on power up 3PLAY automatically performs various diagnostic tests, launches Microsoft Windows™ and then displays the **Administration Screen**. To access **System Restore**, press **F8** (you may need to do so a few times in quick succession, say once per second) immediately after powering up and *before* Windows launches.

This will present you with a black screen listing boot options that include "Safe Mode" and "Return to OS choices menu." Choose the latter option, and then select **Restore** from the next screen.

This procedure will completely restore your system drive ("C") to its 'as-shipped' state. Note that any additional content you may have added after your system was new, including software updates, will be over written – so use this function only if you truly find it necessary (a call to NewTek's excellent **Tech Support** first may often be fruitful – see Section 7.5.2).

6.9 SCREEN SHARING AND REMOTE DESKTOP

Attempts to run screen sharing or remote desktop software on 3PLAY are strongly discouraged (this includes NewTek's own iVGA client). Applications of this type require *significant* system resources. At the same time, 3PLAY's *primary* functions require unhindered CPU and GPU access. Adding the resource demands of additional software of this type would almost certainly cause 3PLAY to drop frames on output, and should simply never be done.



In this section, we'll consider the most common questions 3PLAY operators may have, and of course we'll provide the answer, too.

The answers are intentionally brief - perhaps just a reminder of one or two steps required to perform some operation. For this reason, we'll also point you to explanatory information elsewhere in this manual whenever that would be useful.

Hint: If you've largely mastered 3PLAY but have one or two quick questions, this may be the best place for you to look first. The headings that follow list related questions and answers together, along with cross-references and other helpful remarks.

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7.1 CONNECTIONS

7.1.1 CONNECT CAMERAS?

1. Connect video sources to the appropriate BNC input connectors on 3PLAY's front panel, according to your camera's video output connection type (see Section 4.4.1).
2. Open a 3PLAY session from the **Administration Screen**, and access **the I/O Configuration** panel (by clicking the small 'gear' icon at upper-right in the titlebar of the **3PLAY Desktop**).
3. In the **Input 1-3** groups, set the **Video Connection** type to suit the connected sources (see Section 4.4.3).

7.1.2 CONNECT MONITORS?

7.1.2.1 COMPUTER MONITOR

Connect an external computer monitor to a **DVI** port (for VGA, use a DVI->VGA adapter) on 3PLAYS's back plate (whichever is appropriate for your monitor connection type).

7.1.2.2 DOWNSTREAM VIDEO MONITORS/DEVICES

Connected devices must be compatible with the video standard (such as NTSC or PAL) and resolution you intend to use in the 3PLAY session (see Section 6.3.1).

For **3-Out** output mode, you will need three such connections to view all of 3PLAY's output streams. For **1-Out** output mode, all three of 3PLAY's output connections transmit the same stream, selected by the 3PLAY operator (see Sections 3.4.2 and 6.3.1.1).

1. For downstream video monitoring, connect cables between your downstream devices (whether monitors or a broadcast switcher) and the appropriate output connectors on 3PLAY's front panel (see Section 4.4.2).
2. Open a 3PLAY session from the **Administration Screen**, and access **the I/O Configuration** panel by clicking the small 'gear' icon at upper-right in the titlebar of the **3PLAY Desktop**.
3. Set the **Output>Video Connection** type (see Section 4.4.3) to suit the connected external monitor(s).

RELATED QUESTIONS:

- **I connected video sources and monitors, but don't see video being passed through 3PLAY – why not?**

Source video streams are not sent to 3PLAYs outputs unless Record is enabled (please see Section 3.2).

7.1.3 CONNECT THE 3P-10 CONTROL SURFACE?

Connect the USB cable from the 3P-10 Control Surface to one of 3PLAY's USB 2.0 ports.

7.1.4 CONNECT THE GENLOCK REFERENCE SIGNAL?

1. Connect the reference signal to the Genlock Input on 3PLAY's faceplate.
2. See Section 4.4.4 for details on configuring Genlock settings.

7.1.5 CONNECT AN EXTERNAL HARD DRIVE?

Connect an external hard drive to one of 3PLAY's USB 2.0 ports. Note that the external drive should probably be formatted using the NTFS file system (the FAT file system chokes on exported files exceeding 4 Gigabytes, as will often be the case).

7.1.6 CONNECT TO A NETWORK?

Please refer to Section 4.4.5.

7.2 SESSIONS

7.2.1 START AN SD SESSION?

1. Connect your SD sources to 3PLAY's input connectors (see Section 4.4.1).
2. Connect your SD monitors to 3PLAY's output connectors (see Section 4.4.2).
3. Select **New Session** in the **Administration Screen** (see Section 5.1 and 6.3.1).
4. 3PLAY International only: choose your local **Video Standard** (NTSC, NTSC-J or PAL).
5. Choose either **SD 4:3** or **SD 16:9** (widescreen) for **Resolution**.
6. Click **Open Session**.
7. Open **I/O Configuration** by clicking the little gear icon in the **3PLAY Desktop** titlebar, and configure the video source type for each input (see Section 5.2 and 6.4.2).

7.2.2 START AN HD SESSION?

1. Connect your HD sources to 3PLAY's input connectors (see Section 4.4.1).
2. Connect your HD monitors to 3PLAY's output connectors (see Section 4.4.2).
3. Select **New Session** in the **Administration Panel** (see Section 5.1 and 6.3.1).
4. 3PLAY International only: choose your local **Video Standard** (NTSC, NTSC-J or PAL).
5. Select either **HD 720P** or **HD 1080i** for **Resolution**.

6. Click **Open Session**.
7. Open **I/O Configuration** by clicking the little gear in the **3PLAY Desktop** titlebar, and configure the video source type for each input (see Section 5.2 and 6.4.2).

7.2.3 WORK ON A STORED SESSION?

1. Select **Open/Manage Session** in the **Administration Panel**.
2. Click the listing for the session you want to re-open, and then click the **Open** button at lower right (see Section 6.3.2).

7.2.4 CLEAR OUT OLD DATA?

1. If necessary, close the **3PLAY Desktop** by clicking the [x] button at the right-hand end of the titlebar.
2. Click **Open/Manage Session** in the **Administration Panel**.
3. Click the name of the session you are finished with and want to delete in the list shown at right.
4. Click **Delete** at left beneath the list (see Section 6.3.2).

7.2.5 RENAME A SESSION

1. If necessary, close the **3PLAY Desktop** by clicking the [x] button at the right-hand end of the titlebar.
2. Click **Open/Manage Session** in the **Administration Panel**.
3. Right-click the name of the session you want to rename in the list shown at right to open the context menu.
4. Choose **Rename Session** from the menu that appears (see Section 6.3.2).

7.2.6 BACKUP A SESSION TO AN EXTERNAL DRIVE

1. If necessary, close the **3PLAY Desktop** by clicking the [x] button at the right-hand end of the titlebar.
2. Click **Open/Manage Session** in the **Administration Panel**.
3. Click the name of the session you want to back up in the list shown at right, highlighting it
4. Click **Backup Session**.
5. Use the file dialog to designate an external location where you want the backup to be created, and then click **Proceed** (see Section 6.3.2.1 for more details).

Note - You cannot open another session during backup operations.

7.2.7 RESTORE A BACKUP SESSION

1. If necessary, close the **3PLAY Desktop** by clicking the [x] button at the right-hand end of the titlebar.
2. Click **Open/Manage Session** in the **Administration Panel**.
3. Click **Restore from Backup**.
4. Use the file dialog to locate and select a session backup folder to be restored, and then click **Proceed** (see Section 6.3.2.2 for more details).

*Note - You cannot open another session during session **Restore** operations.*

7.3 EVENTS

7.3.1 MARK AN EVENT?

There are two principle methods for marking events:

7.3.1.1 ONE-BUTTON METHOD

With 3PLAY in **LIVE** mode, watch for notable events on the Main Output monitor, and press **MARK OUT** whenever one occurs.

This creates a new event, sets an **Out Point** at the current timecode, and sets the **In Point** automatically to establish a default **Duration** (see Sections 5.5.1 and). You can later trim the event if you wish.

7.3.1.2 TWO-BUTTON METHOD

1. With 3PLAY in **LIVE** mode, press **MARK IN** at any convenient time. This creates a new 'incomplete' event in the Master List.
2. Press **MARK OUT** when you observe something interesting occur on **Main Output**. This completes the event – see Section 5.5.2.

Hint: Many other useful details with respect to marking can be found in Sections 3.2, 5.5, and 6.2.2.

7.3.2 CANCEL AN INCOMPLETE MARKING OPERATION?

1. Press **ESC** on the **3P-10** control surface (or Esc on the keyboard) – see Section 6.2.2.

7.3.3 REPLAY AN EVENT?

1. Use the **3P-10** control surface **TAB** and **Arrow** buttons to choose an event, then press **ALT + Play**, or ...
2. Use the **3P-10** control surface to type the **ID#** for an event, press **Enter** to confirm the entry, and then press **ALT + Play** (see Sections 6.2.10 and 6.2.8), or ...
3. Double-click an entry in the **Event Panel**.

RELATED QUESTIONS:

- **I pressed Play, so why is my output frozen?**
 - Check to see if your **Speed-Bar** is set at the 0% position.

7.3.4 PLAY AN *INSTANT* REPLAY?

1. With 3PLAY in **LIVE** mode, press **MARK IN** at any convenient time. This creates a new ‘incomplete’ event in the **Master List** (if nothing interesting happens, press **MARK IN** again occasionally to *update* the **In Point**).
2. When something noteworthy happens and you want to immediately play from the last **In Point**, just press **Play** (see Section 5.6 and 6.2.8).

7.3.5 PLAY IN SLOW MOTION?

1. Slide the **Speed-Bar** to set the desired Speed or choose a **Speed Preset** (25%, 50%, etc.).
2. Press Play to slow down whatever is on output (**Record** must be enabled if 3PLAY is in **LIVE** playback), or play an event (select it and press **ALT + Play**).

7.3.6 PREPARE A HIGHLIGHT REEL?

1. (Optional step): Choose the events you want to include in a Highlight Reel, changing their color assignment using **ALT + Tab** (on the 3P-10) to add them to an otherwise unused **Custom List** tab (see Section 6.4.8.2).
2. Trim the **In Point** and **Duration** for each of the events in your Highlight Reel as desired (see Section 6.4.8.5).
3. Drag the event entries up or down in the playlist as necessary to place them in the order you want them to play.

7.3.7 PLAY A HIGHLIGHT REEL?

1. If the current Event List contains just the events you want in your Highlight Reel, select the first entry using the 3P-10 **Arrow** buttons (or by clicking it on the screen).
2. Otherwise, multi-select just the events you want to include in the Highlight Reel (see Section 6.4.8.3).

3. To play the Highlight Reel, press Play **Highlight** (see Section 5.7 and 6.2.8).
(Note: pressing **ALT + Play Highlight** beings looping playback of the Highlight Reel.)

RELATED QUESTIONS:

- **Why didn't playback stop at the end of the last event in my highlight reel?**
 - The last out point in the highlight reel is ignored. This assures you can make a smooth cut back to LIVE video when desired (rather than stopping suddenly and then holding the last frame in the final event making up the highlight reel).

7.3.8 RENAME A CUSTOM EVENT TAB

1. Press **F7** (or right-click on the tab and select **Rename...** from the menu).

7.4 FILES & MAINTENANCE

7.4.1 EXPORT A/V FILES TO AN EXTERNAL DRIVE?

1. Prepare a **Custom List** containing all the events you want to export (if you want to export all events, you can just use the **Master List** (see Section 6.4.8)).
2. Normally, only the **Camera** stream is exported – if you want more than one view of a particular event, use **Clone** and change the Camera for the clone(s) – see Sections 6.4.8.7 and 6.4.8.8).
3. Click **Export Tab ...** (see Section 6.4.8.9).
4. Use the file dialog that pops up to choose the path to the external volume and directory (also see comments on File System in Section 7.1.5).
5. Click **OK** to perform the file export.

7.4.2 IMPROVE PERFORMANCE?

1. If necessary, close the **3PLAY Desktop** by clicking the [x] button at the right-hand end of the titlebar.
2. Click **System Utilities** in the **Administration Panel**.
3. Click the **Defragment** icon in the pane at right (see Section 6.3.4).

7.4.3 UPDATE MY 3PLAY?

1. Connect 3PLAY to a valid Internet connection.
2. If necessary, close the **3PLAY Desktop** by clicking the [x] button at the right-hand end of the titlebar.
3. Click **System Utilities** in the **Administration Panel**.
4. Click **Update 3PLAY** and follow directions provided (see Section 6.3.4.2).

7.4.4 RESTORE 3PLAY FACTORY DEFAULTS?

Please refer to Section 6.8.

7.5 REGISTRATION AND TECH SUPPORT

7.5.1 REGISTER 3PLAY?

1. Obtain the unique **Product ID** from the **Registration** dialog presented on launching 3PLAY.
2. Visit the **Registration webpage** (in the **Customer Care** section of the NewTek website) and follow the directions there to obtain your *registration code* - or call Customer Service.
3. Enter the **Registration Code** provided into the Registration dialog at Step 3 (Please see Section 4.3 for more detail).

7.5.2 CONTACT TECHNICAL SUPPORT?

Visit the NewTek website at www.newtek.com and select **Technical Support** from the main **Customer Care** menu at the top of the page. This page always contains the latest support information for your NewTek products, including **FAQs** for all products. It also lists the Technical Support Department's hours of operation and contact details.

7.6 MISCELLANEOUS

7.6.1 ACCESS WINDOWS™?

1. If necessary, close the **3PLAY Desktop** by clicking the [x] button at the right-hand end of the titlebar.
2. Click **Shutdown** in the **Administration Panel**.
3. Click "**Exit to Windows**" in the right-hand pane.

7.6.2 RETURN TO 3PLAY FROM THE WINDOWS® DESKTOP

Double-click the **Launch 3PLAY** icon on the Windows desktop to return to the 3PLAY **Administration Screen**.

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