



**M-AUDIO®**

Axiom® DirectLink for Pro Tools®  
User Guide

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# Chapter 1: Introduction

This guide covers DirectLink, which automatically maps Axiom® controls to common functions in Pro Tools® 8.0.4 and later. DirectLink offers two-way communication with Pro Tools, featuring two distinct modes of operation with a level of integration that makes Axiom feel like a “dedicated” hardware controller.

Once Pro Tools has been launched, DirectLink is activated in its default state which is Mixer Mode. In Mixer Mode, Axiom faders, buttons and knobs are mapped to Pro Tools mixer functions such as track and master channel volume, as well as the pan, track selection, mute, solo, and record arm, as explained in Chapter 3, “Axiom Controls with DirectLink.”

Although Mixer mode provides effective control of the Pro Tools Mixer, Axiom DirectLink also gives you hands on control over any virtual instrument in your session. The first step towards controlling virtual instruments within your session is selecting a “target” track using the dedicated Track “<” and “>” buttons.

The target track determines which track Axiom will control. If there is a virtual instrument in the target track, pressing the Instrument button (Inst) instantly maps all Axiom controls to the most useful parameters based on the default “map” files for the instrument. Each AIR instrument has a corresponding Axiom Instrument Map (also known as Custom Plug-In Maps). Axiom Instrument Maps are available for download and installation at [www.m-audio.com/directlink](http://www.m-audio.com/directlink). Further information about Axiom Instrument Maps can be found in Chapter 4, “Instrument Mode.”

Whenever DirectLink is switched to Instrument mode, the Instrument button will also illuminate to confirm that you are controlling an instrument. Pressing the Patch Up and Down buttons scrolls through patches to audition and select sounds in the targeted instrument. Pressing either of the Track buttons targets an adjacent track, allowing you to switch from one instrument to another.

Pressing the Instrument button a second time returns Axiom to Mixer mode. Holding the Instrument button down opens the virtual instrument window on the target track, allowing you to see the on-screen controls update in real time as mapped Axiom control are used. Holding down the Instrument button again, closes the instrument window.

Instrument Mode has no affect on the Axiom Transport buttons, and they will remain mapped to their counterparts in Pro Tools.

Although this introduction explains how DirectLink with Axiom can enhance your workflow, please take the time to read the rest of this User Guide. Combined with the Axiom User Guide, it will explain how to get the most out of your Axiom Keyboard in Pro Tools.

## DirectLink Requirements

### System Requirements

The latest system requirements can be found at [www.m-audio.com](http://www.m-audio.com).

### Pro Tools Software

DirectLink requires Pro Tools version 8.0.4 or later. Earlier versions of Pro Tools do not support DirectLink. To learn more about upgrading your Pro Tools software, please visit <http://www.avid.com>.

### Axiom Drivers

The DirectLink Keyboard Personality is included in Pro Tools 8.0.4 or later, and can be used without additional drivers. However, we strongly recommend that Windows users download and install the latest Axiom drivers from [www.m-audio.com/support](http://www.m-audio.com/support) if you are planning to do any or all of the following:

- Control more than one application at the same time.
- Simultaneously use other class-compliant USB audio devices.
- Use long System Exclusive (SysEx) commands.

For more information about Windows driver installation, Axiom setup for both Windows and Mac OS X, refer to the “Driver Installation” chapter of the Axiom User Guide.

### Axiom Hardware

DirectLink requires that Axiom is connected to the host computer, and this guide assumes the process has already been completed. The installation and connection procedure is covered in the Axiom User Guide.

**▲** *A list of qualified recording applications, along with current Windows drivers, additional DirectLink installers, and User Guides can be found at [www.m-audio.com](http://www.m-audio.com).*

# Chapter 2: Configuring Pro Tools

## Configuration Steps

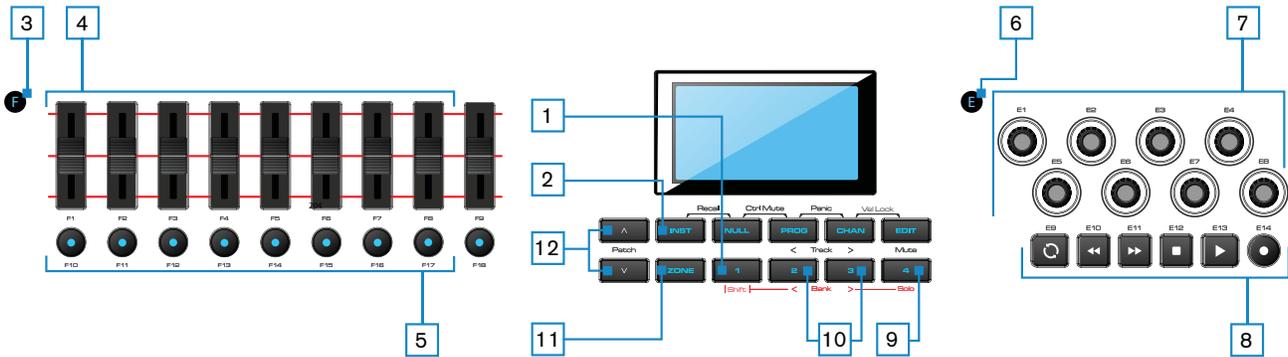
Pro Tools 8.0.4 and later already includes the required M-Audio Keyboard Personality for DirectLink. The steps listed below will guide you through the process of configuring Pro Tools for DirectLink.

### To configure Pro Tools for DirectLink:

- 1 Launch Pro Tools.
- 2 Choose Setup > Peripherals.
- 3 Choose the MIDI Controllers tab from the window that appears.
- 4 Choose M-Audio Keyboard as the control surface type.
- 5 Select DirectLink as both the input and output MIDI port.
- 6 Select 8 as the number of channels.
- 7 Click OK to close the window.
- 8 Axiom will be in DirectLink Mode and ready to control Pro Tools.

Whenever Pro Tools is launched, DirectLink will activate automatically and map Axiom controls.

# Chapter 3: Axiom Controls with DirectLink



This chapter provides an overview of how Axiom controls function when controlling qualified versions of Pro Tools via DirectLink. Where applicable, both Mixer and Instrument Mode will be covered.

## 1 Shift Button

This button is used to access alternate functions of the Faders and Encoder knobs, as well as the Mute and Track (< and >) buttons, as described later in this chapter.

## 2 Instrument Button (Inst)

DirectLink offers two different modes of operation as described below.

### Mixer Mode

This is the default DirectLink mode, in which Axiom Faders, Encoder knobs, and Fader buttons are mapped to their corresponding Pro Tools mixer functions.

When a mapped Axiom control is moved or pressed, the LCD screen shows the current track name and control value, and then reverts to the track name.

Pressing the Instrument button at any time switches Axiom controls to Instrument Mode.

### Instrument Mode

Pressing the Instrument Button (Inst) selects Instrument Mode. The LCD screen will momentarily display the name of the instrument being controlled, and then revert to the name of the target track. This maps Axiom Faders, Fader buttons, and Encoder knobs to instrument parameters within the target track in your Pro Tools session.

**A** *The target track determines the destination of MIDI notes and control data transmitted from your Axiom keyboard.*

When a mapped Axiom control is moved or pressed, the current function or parameter assignment and its value will appear on the LCD screen, and then it will revert to the target track name.

Pressing the Instrument button again will return Axiom to Mixer Mode. Holding down the Instrument button will open and close the window for the target track.

**A** *Axiom Transport, Shift, Track select and Mute/Solo buttons are not affected by the Instrument button, and retain their assignments in Pro Tools.*

### 3 Group F Button

The Group F button is illuminated by default, indicating that all nine Axiom faders and fader buttons (F1–18) are in DirectLink mode. When this button is pressed, it is no longer lit, and the faders and buttons are released from their DirectLink assignments, and mapped according to the active Patch.

Pressing the Group F button again returns all controls to their DirectLink assignments. The button also illuminates confirming the group is in DirectLink Mode.

### 4 Faders

#### Mixer Mode (Default)

On Axiom 49 and 61, the first eight Faders (F1 – F8) control the track volume for the currently selected bank of eight tracks. The active bank (for example 1 – 8) is highlighted in blue along the lower edge of the Pro Tools mixer, as shown below.

The right-most Fader (F9) and the single Fader on Axiom 25 will map to the Master Fader of the Pro Tools session. If the session contains more than one Master Fader, these faders will map to the right most (last) Master Fader. However, they will have no affect if the session does not contain a Master Fader.

When an Axiom fader is moved, the current function or parameter assignment and its value will appear on the LCD screen.



#### Instrument Mode

The faders map to parameters on the virtual instrument within the target track.

When an Axiom fader is moved, the current function or parameter assignment, and its value will appear on the LCD screen.

Moving an Axiom Fader while holding down the Shift button allows you to view or “peek” at its current parameter assignment and value.

## 5 Fader Buttons

### Mixer Mode (Default)

On Axiom 49 and 61, the first eight buttons (F10 – F17) map to the currently selected bank of eight tracks in Pro Tools, and by default each button targets its corresponding Pro Tools track when pressed.

Pressing button the right-most button (F18) switches buttons F10 – F17 to Record Arm mode. The LCD screen will display “Arm,” indicating the current mode of operation. Each button illuminates when pressed, and its corresponding track is armed for recording.

Pressing button F18 again switches buttons F10 – F17 to Mute mode, and the LCD screen will display “Mute.” Each button illuminates when pressed, and its corresponding track is muted.

Pressing F18 another time switches buttons F10 – F17 to Solo mode, and the LCD screen will display “Solo.” Each button illuminates when pressed, and its corresponding track is soloed while all others are muted.

**▲** *Button F18 operates as a “sticky key,” which means the first time it is pressed the LCD screen displays the current mode of buttons F10 – F17. You must press F18 again before the display times out in order to change the button mode.*

### Instrument Mode

Buttons F10 – F17 map to virtual instrument parameters within the target track.

When a mapped Axiom button is pressed, the current function or parameter assignment, and its value will appear on the LCD screen.

Fader button F18 will be lit while DirectLink is in Instrument mode. Pressing this button “flips” the faders and fader buttons back to Mixer mode, while the Encoders remain in Instrument mode. Pressing F18 a second time returns the faders and buttons to Instrument mode.

## 6 Group E Button

The Group E button is illuminated by default, indicating that all eight Axiom Encoder knobs (E1–E8) are in DirectLink mode. When this button is pressed, it is no longer lit, and the knobs are released from their DirectLink assignments, and mapped according to the current active preset Patch.

Pressing the Group E button again, returns all controls to their DirectLink assignments. The button also illuminates confirming the group is in DirectLink Mode.

**▲** *The Axiom Transport buttons are not affected by the Group E button, and will retain their DirectLink assignments.*

## 7 Encoder Knobs

### Mixer Mode

The Encoder knobs (E1 – E8) control the Pan knobs in the Pro Tools Mixer. In the case of stereo tracks, these Encoders control to Left Pan knobs by default. However, turning an Encoder Knob with the Shift button held down controls the Right Pan knob in the stereo track.

The LCD screen will display the current track name and Pan value whenever a knob is moved.

### Instrument Mode

The Encoder knobs map to parameters on the virtual instrument within the target track.

The LCD screen will display the current function or parameter assignment, as well as the current value whenever a knob is moved.

Moving a control while holding down the Shift button allows you to view or “peek” at its current assignment and value.

## 8 Transport Buttons

In both Mixer and Instrument Modes, these buttons map to their corresponding buttons in Pro Tools and control the functions described below.



**Rewind** - This button skips to the beginning of the previous bar (or time/sample delineation, if the Main Counter is set to show time or samples). Holding this button rewinds the Pro Tools transport until the button is released.



**Fast Forward** - This button skips to the beginning of the next bar (or time/sample delineation, if the Main Counter is set to show time or samples). Holding this button rewinds the Pro Tools transport until the button is released.



**Stop** - This button stops playback or recording.



**Play** - This button starts playback or recording.



**Record** - This button record-enables the Pro Tools transport.



**Return to Start** - Holding down the Loop button while pressing Rewind skips to the beginning of the Pro Tools session.



**Go to End** - Holding down the Loop button while pressing Fast Forward button advances to the end of the Pro Tools session.



**Undo** - Holding down the Loop button while pressing Stop cancels the last action performed. This is the same as selecting Undo from the Edit menu.



**Loop Play** - Holding down the Loop button while pressing Play engages looped playback between the Loop Start and End points specified in the Pro Tools transport. Press these buttons again to disengage looped playback.



**Loop Record** - Holding down the Loop button while pressing Record engages the “Loop Record” function. Press these buttons again to disengage “Loop Record.”

## 9 Mute Button

In both Mixer and Instrument mode the Mute button performs the following functions:

By default, pressing this button mutes the target track in a Pro Tools session.

Pressing this button while holding down the Shift button controls the Solo button for the Pro Tools track.

## 10 Track Buttons

In both Mixer and Instrument Mode these buttons select the target track or banks of 8 Tracks within a Pro Tools sessions.

- **Track Selection** - The left Track button (<) targets the previous track the session. For example, if Track 2 is currently targeted, pressing this button will target Track 1. The right Track button (>) targets the next Track. For example, if Track 2 is currently targeted, pressing this button will target Track 3. The LCD screen will display the track name. If the target is an instrument track with a virtual instrument, it is armed for recording, and the instrument sound is heard when the keys are pressed. If Instrument Mode is active the controls will map to the instrument within the target track.

These buttons can also be used to target tracks outside the currently active bank of 8 tracks. For example, if track 8 is currently targeted and the > Track button is pressed, Track 9 will be targeted. Axiom Faders and their corresponding buttons will now control Tracks 9 – 16.

- **Bank Selection** - When the Shift button is held down the left Track button (<) selects the previous bank of 8 Tracks. For example, if the bank of Tracks 9 – 16 is currently selected, pressing this button when Shift is held down will select the bank of Tracks 1 – 8. The right Track button (>) selects the next bank of 8 Tracks. For example, if the bank of Tracks 9 – 16 is currently selected, pressing this button when Shift is held down will select the bank of Tracks 17 – 24.

## 11 Zone Button

This button is used for accessing the individual Zone buttons (1,2,3, and 4).

Zones are used to split or layer the keyboard. When the Zone Button is active, Shift, Track and Mute buttons will not function in DirectLink Mode. Pressing the Zone button returns these buttons to DirectLink.

 For more information, refer to Chapter 7, “Keyboard Zones,” of the Axiom User Guide.

## 12 Patch Buttons

These buttons are used for selecting virtual instrument sound patches.

# Chapter 4: Instrument Mode

Instrument Mode maps Axiom controls to numerous virtual instrument parameters within a targeted track in Pro Tools. This chapter provides an overview of how to setup and use DirectLink to control an instrument loaded into a track within a Pro Tools session.

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## Setting Up Instrument Mode

The following steps will guide you through setting up Instrument Mode. Please make sure Axiom is properly installed and connected to the host computer.

### To Set Up Instrument Mode:

- 1 If needed, create an Instrument Track in the Pro Tools session. Please refer to the Pro Tools Reference Guide for more details.
- 2 Load a virtual instrument into one of the track insert slots.
- 3 Select the track using either the Fader buttons or the Track buttons.
- 4 Switch DirectLink to Instrument Mode by pressing the Instrument button (Inst). The button will illuminate, confirming that Axiom is in Instrument mode
- 5 Hold down the Instrument button down to open the Instrument window.

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## Using Instrument Mode

### Axiom Instrument Maps

Axiom Instrument Maps (also known as Custom Plug-In maps) have been created for each of the AIR virtual instruments, which define the default mapping assignments for Axiom controls. These maps are available for download at [www.m-audio.com/directlink](http://www.m-audio.com/directlink).

### Installing Axiom Instrument Maps

Once you have downloaded the Axiom Instrument Maps, they can be installed as described below.

### To install Axiom Instrument Maps:

- 1 Locate and open the downloaded zip file, to access the Axiom Instrument Map (.pim) file.
- 2 Open a Pro Tools session if you have not already done so.
- 3 If needed, load an instance of the AIR instrument into an instrument track. This instrument must correspond to the downloaded file.

- 4 Open the instrument window, and click on the Map menu in the upper right corner.
- 5 Choose “Import Plug-In Map From File...”
- 6 Locate and select the .pim file for the open AIR instrument.

#### **Windows**

Click the OK button to confirm your selection.

#### **Mac OS X**

Click the Open button to confirm your selection.

- 7 If you want Axiom controls to always map according to the Axiom Instrument Map whenever the instrument is loaded into a track, choose “Set As Default” from the Map menu.

### **Creating Axiom Instrument Maps**

You can define how Axiom controls are mapped to an instrument by creating your own Axiom Instrument Maps (also known as Custom Plug-In maps) using the Learn button on a virtual instrument window.

#### **To create Axiom Instrument Maps:**

- 1 Hold down the Instrument (Inst) button to open the virtual instrument window.
- 2 Click the on-screen Learn button in the upper right-hand corner of the instrument window. This button will turn red.
- 3 While holding down CTRL+ALT+START keys (Windows) or CTRL+CMD (OS X) on your computer keyboard, click an on-screen control. The on-screen LED for the control will highlight red, and the parameter name will appear to the left of the Learn button.
- 4 Move the Axiom control you are re-assigning. This links the on-screen control to the Axiom control, and the new parameter assignment will appear on the Axiom LCD.
- 5 Repeat steps 3 and 4 for any other control re-assignments.
- 6 Click the Learn button to exit Learn Mode on the instrument.
- 7 Click on the Map Menu in the upper right of the plug-in window and choose “Set as Default.” This saves the new assignment, and it is applied whenever the plug-in is loaded into any instrument track.



*To restore the default control mapping choose “Factory Default Map” from the Map menu.*

## **Controlling Virtual Instruments**

Once an Instrument Track is targeted by Axiom and Instrument Mode is activated (See “Instrument Button (Inst)” on page 7), the instrument name will appear on the LCD screen. After 1 second the screen will display the track name. If the Track buttons (See “Track Buttons” on page 11) were used for targeting a track, it is also armed for recording, and notes are heard when the keys are pressed.

### **Opening an Instrument Window**

Holding down the Instrument Mode will open the window for the virtual instrument being played.

### **Instrument Preset Selection**

Sound patches within virtual instruments are selected using the Axiom Patch buttons.

### **Adjusting Instrument Parameters**

When a mapped Axiom control is moved its parameter assignment and numerical or positional value will appear on the LCD screen. After 1 second the screen will revert the track name.

Axiom controls can be returned to Mixer Mode, at any time, by pressing the Instrument button.

 Refer to Chapter 3, “Axiom Controls with DirectLink,” for more information about Axiom control types and their Instrument Mode functions.





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