

DirectConnect

RTAS and TDM version 1.1 for Macintosh

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DirectConnect 1.1

DirectConnect allows up to 32 separate audio channel outputs from compatible host-based applications, such as software-based synthesizers or samplers, to be independently routed, recorded, processed and mixed within the Pro Tools environment.

Once the outputs of your software synths and samplers are routed to Pro Tools, you can:

- Assign them to busses for plug-in processing
- Automate volume, pan, and plug-in parameters
- Bounce-to-disk
- Take advantage of the audio outputs of your Digidesign audio interfaces

DirectConnect is a DigiRack plug-in that is installed automatically with the Pro Tools software.

☞ If you have downloaded DirectConnect from the Digidesign Web site, see “Installing DirectConnect” on page 5 for installation instructions.

DirectConnect Requirements

To use DirectConnect, you will need:

- A Pro Tools MIX or MIXplus System, or Pro Tools LE software running on a Digidesign-approved Pro Tools configuration
- DAE/DigiSystem INIT 5.01 or higher
- Pro Tools 5.01 or later on the Macintosh
- Third-party client software compatible with DirectConnect, such as:
 - *Tokyo* from Koblo
 - *Retro AS-1*, *Unity DS-1*, *Voodoo*, or *Phrazer* from Bitheadz
 - *Reaktor*, *Dynamo*, or *B4* from Native Instruments
 - *Spark XL* from TC Works
 - *Alkali* from Audio Genetics

DirectConnect support is also under development for other third-party companies. For availability please check with the manufacturer or the Digidesign Web site at:

www.digidesign.com

DirectConnect and Track Count on TDM Systems

Each channel of audio transmitted through DirectConnect uses the same amount of resources as a single audio track in Pro Tools. For example, if you are playing 48 disk tracks on a Pro Tools MIX System, that will leave 16 channels of audio (16 mono, or 8 stereo) that can be used with DirectConnect.

If you attempt to use more channels than are available with DirectConnect, you may encounter a DAE error -6042 (PCI bus too busy).

DirectConnect and Track Count on Pro Tools LE

On Pro Tools LE-based systems, performance is determined by several factors, including host CPU speed, available memory, and buffer settings. Digidesign cannot guarantee 32 simultaneous audio channel outputs with DirectConnect on all computer configurations.

For the latest information on recommended CPUs and system configurations, please check the Digidesign Web site.

DirectConnect and DSP Resources

(TDM Systems Only)

Similar to some plug-ins, DirectConnect requires a specific type of DSP chip (SRAM) to function; there are three of these particular DSP chips on a MIX Core card.

When DirectConnect is in use, it takes up one of these DSPs and makes it unavailable for any other plug-ins.

* You can use the Show DSP Usage window (available from the Pro Tools Windows menu) to see how much DSP is available on your system and how it is currently being used. For details, see the *Pro Tools Reference Guide*.

DirectConnect and Other DAE Applications

DirectConnect will work with DAE-compatible applications other than Pro Tools, including sequencers from other third-party software companies.

However, in order to use DirectConnect, you must be using version 5.01 or higher of DAE and DigiSystem INIT, and you must install the DirectConnect files described in “Installing DirectConnect” on page 5.

* Contact your sequencer manufacturer for information on compatibility with DirectConnect.

Installing DirectConnect

To use DirectConnect, you must install the *plug-in description* file for your software synth or sampler. This file must reside in the “Plug-Ins” folder inside the DAE Folder.

DirectConnect also requires the following files, which are installed automatically with the Pro Tools software:

DirectConnect This plug-in file resides in the Plug-Ins folder inside the DAE Folder (which is in the System Folder).

Digidesign StreamManager This file resides in the Extensions folder inside the System Folder.

▲ Contact the manufacturer to obtain the plug-in description file for your DirectConnect-compatible software.

Using DirectConnect

Configuring the IAC Driver

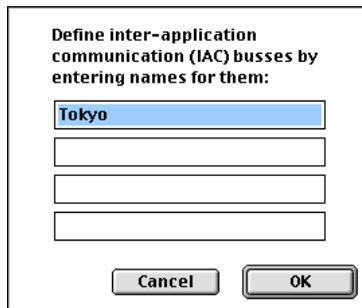
To control your software synth in Pro Tools by MIDI, you may need to first configure the OMS IAC driver.

To configure the OMS IAC driver:

1 If it’s not already installed, install the OMS IAC driver. To do this, perform a “Custom Install” from the OMS Installer.

2 Once the IAC driver is installed and you have restarted your computer, you’ll need to update your OMS Studio setup. In the OMS Setup application, choose Studio > MIDI Cards and Interfaces.

3 Once the IAC driver appears in your Studio Setup, double-click its icon and rename one of the busses as desired.



Renaming an IAC bus

Since in this example we’ll be connecting to the Tokyo software (from Koblo), we’ll rename the bus as “Tokyo.”

4 Click OK.

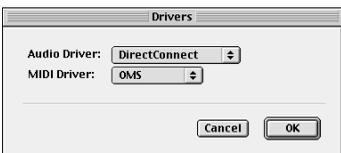
5 Choose File > Save and then close OMS Setup.

Configuring the Software Synth

Next you’ll need to route the software synth’s audio output to DirectConnect, and assign its MIDI control to the IAC bus. Following is an example for configuring the Tokyo software for Koblo synths.

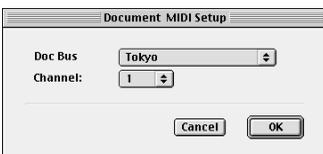
To configure the Tokyo application for DirectConnect:

- 1 Launch the Tokyo application and select the desired synth from the Synths menu.
- 2 Choose File > Select Drivers. Set the Audio Driver to “DirectConnect” and the MIDI Driver to “OMS.” Click OK.



Drivers dialog in Tokyo application

- 3 Choose Options > MIDI Setup. Set the Doc Bus to “Tokyo” and the Channel to 1, then click OK.



MIDI Setup dialog in Tokyo application

Configuring Pro Tools

Lastly, you’ll need to configure Pro Tools to connect to your software synth through DirectConnect and the IAC bus.

* Some third-party products allow both mono and stereo outputs, while others use mono or stereo outputs exclusively. If you cannot instantiate a DirectConnect plug-in on a mono track, it is likely that it can only be used on stereo tracks. Conversely, if you cannot instantiate a DirectConnect plug-in on a stereo track, it is likely that it can only be used on a mono track.

To configure Pro Tools for DirectConnect:

- 1 Launch Pro Tools and open a new or previously saved session.
- 2 Choose File > New Track and specify one Auxiliary Input (stereo) track, then click Create.
- 3 Choose File > New Track and specify one MIDI Track, then click Create.
- 4 In the Mix window, click on the new MIDI track’s Device/Channel Selector and select Tokyo on channel 1.
- 5 In the Mix window, assign the DirectConnect plug-in to the Auxiliary Input track.
- 6 In the DirectConnect plug-in window, set the output to Tokyo Stereo Out 1-2.



DirectConnect plug-in window

- 7 Select MIDI > Keyboard Thru and record-enable the MIDI track. Play some notes on your MIDI controller to trigger the Koblo synth.
- 8 Assign additional plug-ins as desired for the Auxiliary Input track.

▲ The Bypass button is not supported in the DirectConnect plug-in window.

Recalling DirectConnect States

Provided your client software supports it, DirectConnect lets you recall the patch settings for your software synth or sampler. Once you save and re-open your Pro Tools session, DirectConnect will automatically recall the settings previously used. Pro Tools will even launch, if necessary, your client software when opening a session that uses DirectConnect.

▲ If your client software is not running and you open a DirectConnect session, please allow for a short delay while Pro Tools locates and launches your client software.
