

DirectConnect

TDM version 1.0 for Macintosh

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DirectConnect 1.0

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 TDM environment.

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

- ◆ Assign them to busses and Plug-Ins
- ◆ 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 available free of charge from Digidesign's website, www.digidesign.com.

DirectConnect Requirements

To use DirectConnect you will need a:

- Pro Tools MIX or MIXplus System
- DAE/DigiSystem INIT 5.0 or higher
- Pro Tools 5.0 or later on the Macintosh
- Third party client software compatible with DirectConnect, such as *Tokyo* from Koblo, *Retro AS-1* and *Unity DS-1* from Bitheadz, *Reaktor* from Native Instruments, and *Alkali* from Gallery.

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/serv/indxdc.html

DirectConnect and Track Count

Each channel of audio transmitted through DirectConnect uses the same amount of resources as a single audio track in Pro Tools. For instance, if you are playing 48 disk tracks on your 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 DSP Resources

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.

* The Show DSP Usage window (available from the Pro Tools Windows menu) allows you to see exactly 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

In addition to Pro Tools 5.0, DirectConnect will also work with other DAE-compatible applications, including sequencers from other third party software companies.

However, in order to use DirectConnect, you must be using version 5.0 of DAE and DigiSystem INIT, and you must install the DirectConnect files described in “Installing DirectConnect” on page 4.

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

Installing DirectConnect

To use DirectConnect, the following files (available as a download from the Digidesign web site), must be installed to the following locations:

DirectConnect This Plug-In file must reside in the Plug-Ins folder inside your DAE Folder (which is in the System Folder).

Digidesign_StreamManager This file must reside in the Extensions folder inside your System Folder.

TokyoPlug This Plug-In description file, which is required to use DirectConnect with your Koblo software, must reside in the Plug-Ins folder inside your DAE Folder (which is in the System Folder).

* To use other third party client software, contact the manufacturer to obtain their Plug-In description file for DirectConnect.

Once these files are in their correct locations, you must restart your computer before you can use DirectConnect.

Using DirectConnect

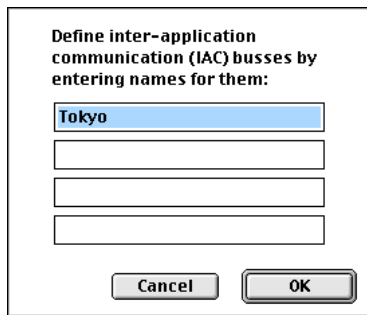
To control your software synth in Pro Tools by MIDI, you'll first need to configure the OMS IAC driver.

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, 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.

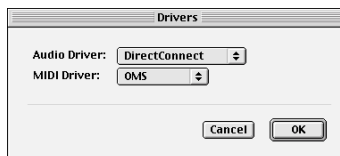
5 Choose File > Save and then close OMS Setup.

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:

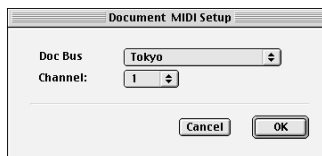
1 Launch the Tokyo application and select the desired synth from the Synths menu.

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

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

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.

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.

DirectConnect and Bypass Button

With the initial 1.0 release of DirectConnect, the Bypass button in the DirectConnect Plug-In window does not function.