

# Using ProTools as a device (RM-6, SR-4 or PD-1)

## Device

ProTools should be configured as a device when used as the record machine or Dubber with a controller (RM-6, SR-4. PD-1).

# **Equipment List**

### From Digidesign:

At least one Pro Tools HD card At least one 192 Interface A SYNC I/O Machine Control option Pro Tools HD 7.2 or higher

### From CB Electronics:

A USB-422 with appropriate 9-pin cable The driver for the USB-422 can be downloaded here: http://www.colinbroad.com/cbsoft/usbdriver.html

### **From Other Suppliers**

Video Sync Pulse Generator

### A note on using Windows XP

If your Pro Tools HD system is running on Windows XP, you will need to renumber the COM ports as Pro Tools can only connect to Comm1 and Comm2. More information on how to do this can be found in Appendix C of the USB-422 manual, which can be downloaded here:

http://www.colinbroad.com/cbsoft/usbdriver.html

### Connections

Connect the *Output* port of the rm=6/sr-4/PD-1 to *Port A* of the USB-422 using a standard 1:1 9-pin cable.

# **Configuring Protools**

### 1) Load Session

### 2) Open the Setup > Session Setup dialogue box.

Sample Rate: 48 kHz Audio Format: BWF (.WAV)		Session Sta	art: 10:00:00:00	
Bit Depth: 24-bit		Incoming Tin	ne: 00:00:00:00	
Clock Source: SYNC I/O		Time Code Ra	te: 25	
System Delay:		Feet+Frames Ra	te: 24	
SYNC Setup & Time Coo	de Offsets			
SYNC Setup		xternal Time Code Offsets		
Clock Reference:	Video Reference 📑	- MMC: 00	00:00:00:00 00:00:00 00:00:00:00	
Positional Reference:	LTC 💽	Link 🗹 – 9-Pin: 00		
Video Format:	PAL	└── Sync: 00		
🗆 vso 👘 🦷 🤇	0.00 semitones.cents		and the second sec	
Locke	ed: 🚍 Speed Cal: 🛄			
Time Code Settings				
Generator	Freewheel	Pull Up/Down		
Using SYNC	O None	Audio Rate Pull Up/Down:		
		None		
MTC To Port:	8 frames			
none	🔘 Jam Sync	None		
Time Cod	e Reader Offset	camplec		

- Ensure that SYNC I/O is chosen as the Clock Source.
- Choose either PAL or NTSC as the Video Format.
- Choose Video Reference as your Clock Reference.
- Choose the appropriate *Time Code Rate*.
- Close the dialogue box.

		Peripherals		
Synchronization	Machine Control	MIDI Controllers	Ethernet Controllers	Mic Preamps
MIDI Machi	ne Control			
	Send to	ID		
🗌 Enable	none	\$ 127		
Pre	Preroll: 90 fra	mes		
9-Pin Seria	L			
	Port	Machine Type		
🗌 Enable	None 🛟			
p	reroll: 150 frames			
0.1	les Sucial Time Code	Car Basisianal Dafas		
	ise serial time code	For Positional Keler	ence	
0	Requires SYNC I/O U	sing Video Clock Re	ference)	
9-Pin Rem	ote			
	Port	Machine Type		
🗹 Enable	sbs0B12A 😫	Pro Tools	🕄 🗌 Chase LTC	
C.				
		Ca	ancel )	ок )

### **3)** Open the Setup > Peripherals dialogue box.

Select the Machine Control tab.

- In the 9-Pin Remote section, check the Enable box.
- Choose Port A of the USB-422 in the *Port* drop-down menu.
- Choose *Pro Tools* in the *Machine Type* drop-down menu.
- Click OK.

### 4) Open the Setup > Preferences dialogue box.

Select the Synchronization tab.

- Check the Allow Track Arm Commands in Local Mode checkbox.

This allows track arming even when using LTC chase

Pro Tools F	Preferences
Display Operation Editing Mixing	Processing MIDI Synchronization
Machine Control	Remote Mode
<ul> <li>Machine Chases Memory Location</li> <li>Machine Follows Edit Insertion/Scrub</li> <li>Machine Cues Intelligently</li> <li>Stop at Shuttle Speed Zero</li> <li>Non-Linear Transport Error Suppression</li> <li>Delay before Locking to Time Code: 0 frames</li> </ul>	<ul> <li>Ignore Track Arming</li> <li>Set Servo Lock Bit at Play (Tamura Support)</li> <li>Allow Track Arm Commands in Local Mode</li> <li>Punch In Frame Offset:</li> <li>frames</li> <li>Punch Out Frame Offset:</li> <li>frames</li> <li>Delay after Play Command:</li> <li>frames</li> </ul>
Synchronization	
	Cancel OK

### Select the Operation tab.

- Check that the DestructivePunch File Length is appropriate.
- Click OK.

Display Operation Editing Mixing	Processing MIDI Synchronization
Transport	Record
Timeline Insertion Follows Playback Edit Insertion Follows Scrub/Shuttle Audio During Fast Forward/Rewind Custom Shuttle Lock Speed: Back/Forward Amount: 00:00:05:00:00 Time code Classic Classic Classic Transport Shuttle //ideo QuickTime Playback Priority: Normal	<ul> <li>Latch Record Enable Buttons</li> <li>Link Record and Play Faders</li> <li>Audio Track RecordLock</li> <li>Transport RecordLock</li> <li>Disable "Input" when Disarming Track (In "Stop")</li> <li>Mute Record-Armed Tracks while Stopped</li> <li>PEC/Direct Style Input Monitoring</li> <li>Online Options: <ul> <li>Record Online at Time Code (or ADAT) Lock</li> <li>Record Online at Insertion/Selection</li> </ul> </li> <li>Open-Ended Record Allocation: <ul> <li>Use All Available Space</li> <li>Limit to:</li> <li>for minutes</li> </ul> </li> </ul>
Auto Backup	Misc
<ul> <li>Enable Session File Auto Backup</li> <li>Keep: 10 most recent backups</li> <li>Backup every: 5 minutes</li> </ul>	Auto Region Fade In/Out Length: Calibration Reference Level: - 18 dB Delay Compensation Time Mode: Samples

#### **Destructive Punch**

You can use Destructive Punch or Quick punch, this is how to enable Destructive Punch.

1) Enable *Options* > *Destructive Punch,* and check that the *Record* key on the transport bar shows '*dp*'.

2) Select all record tracks.

3) Option-click (Mac) or Alt-click (Windows) on one of the stem tracks' *R* buttons to enable destructive punch recording. Ensure that all *R* buttons on selected tracks are blue.

3) Format the stem tracks by clicking on *Options > Prepare DPE Tracks*.

Appendix A: RS422 1:1 (Sony 9 pin) CABLE			
Function (Controller)	9 pin 'D' Male on cable (Both Ends)	Cable Colour	Function (Controlled Device)
	1		
Rx-	2	Red	Tx-
Tx+	3	Yellow	Rx+
Ground	4	Screen	Ground
	5		
	6		
Rx+	7	Blue	Tx+
Tx-	8	White	Rx-
	9		

Appendix B : Tx-Rx Invert Sony 9 pin CABLE			
Function	9 pin 'D' Male	9 pin 'D' Male	Cable Colour
	on Cable	on cable	
	1	1	
Tx-	2	8	Red
Rx+	3	7	Yellow
Ground	4	4	Screen
	5	5	
	6	6	
Tx+	7	3	Blue
Rx-	8	2	White
	9	9	

**CB** Electronics

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