



ConsoleLink

Low-latency monitoring in UAD Console,
the same sound in Pro Tools

User Guide

Version 0.0.1 beta

MBNO · www.consolelink.app

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Chapter 1.

Introduction

ConsoleLink came out of a long-standing question for Pro Tools users who track through a Universal Audio Apollo: how to monitor with the Apollo's low latency, and still hear in Pro Tools what the performers heard while recording. The Apollo's DSP gives the monitor mix its plugins without delay, but that processing and that mix stay in UAD Console, and Pro Tools plays back something different. ConsoleLink brings the two together.

ConsoleLink mirrors each UAD Console channel on the Pro Tools track it belongs to: the same plugins with the same settings, and the same fader level, pan, mute and send levels. What you change in UAD Console, Pro Tools follows as you go. You monitor with the low latency of your Apollo's DSP, and play back with the sound you monitored.

1.1. Who ConsoleLink is for

What this guide describes is specific to working with Pro Tools and an Apollo. Both companies offer their own integrated systems, and they work well: Avid's Pro Tools|HDX and Pro Tools|Carbon systems run DSP processing within Pro Tools for low-latency monitoring, and Universal Audio's own DAW, LUNA, integrates closely with the Apollo's DSP and UAD plugins.

ConsoleLink is for those who want the best of both worlds: Pro Tools as their DAW, and Universal Audio's renowned DSP plugins on their Apollo.

1.2. Why monitor in UAD Console

Universal Audio's Apollo and Arrow interfaces come with UAD DSP chips built in. Their main use while recording is *low-latency monitoring*: in UAD Console, the signal from the microphone runs through UAD plugins on the interface's DSP and is mixed there, straight back to the headphones. Performers can hear themselves with compression, EQ and reverb without any noticeable delay.

That works because the signal never leaves the interface. Monitored through Pro Tools instead, it has to travel from the Apollo (or Arrow) to the computer, through the audio driver and Pro Tools' hardware buffer (the H/W Buffer Size in Pro Tools' Playback Engine), then back through the driver to the interface, and only then to the headphones. The performers then hear themselves a moment late: a drummer hears the snare only after hitting it, a singer hears their voice trail behind. Even a small delay like that can be noticeable and distracting.

That's why many people monitor through UAD Console while recording into Pro Tools, and keep Pro Tools' own input monitoring out of the headphones.

1.3. The problem: what you recorded doesn't sound like what you heard

Most people don't record UAD Console's processing. They use it for monitoring only, so that the recording stays clean and every decision can still be changed in the mix. Pro Tools then holds the dry recording, and plays it back dry: without the EQ, compression and reverb the performer heard while playing.

The levels differ too. What the performers hear is set by UAD Console's faders and by the plugins' gain, a compressor's make-up gain, for example. Pro Tools plays the dry recording at whatever level its own fader is at, so a track can come back noticeably louder or quieter than it was heard. And the fader levels, pans and sends of UAD Console's monitor mix don't carry over: a drum kit recorded on several microphones comes back with kick, snare, toms and overheads in a different balance from the one the drummer heard.

This shows up in two places.

Punch-ins. To fix a passage, you play back the take and punch in during it. During the pre-roll, the performer hears their earlier take from Pro Tools, dry. At the punch-in point, they hear themselves live from UAD Console, processed, and often at a different level: the sound and the level jump. It's hard to blend into a take that suddenly sounds different from what you're performing.

The intended sound. How the performer heard themselves while playing is part of the performance: they played to that compression and that reverb. When the recording comes back dry, that sound is lost, and with it a good starting point for a rough mix. Recording the processing keeps the sound but takes away the choice: whoever mixes can no longer change it.

1.4. What ConsoleLink does

ConsoleLink gives every Pro Tools track the same processing its UAD Console channel has, without recording it:

- **Plugins.** When a plugin is inserted in UAD Console, ConsoleLink inserts the same plugin on the Pro Tools track. Its settings follow as you turn the knobs in UAD Console, and so does bypassing it.
- **Fader, pan and mute** follow each other between the UAD Console channel and the Pro Tools track, in both directions (for stereo channels, the right pan follows UAD Console).
- **Sends:** UAD Console's aux and cue sends are carried over to the sends to the Pro Tools busses you connect them to.

So the playback from Pro Tools sounds like the monitoring from UAD Console: punch-ins blend in, and the recording keeps the sound the performer heard, as settings rather than as part of the audio. The mix engineer can still change everything.

A *flush* copies the settings in one go, in either direction: from UAD Console to Pro Tools, or back from Pro Tools to UAD Console, say after changes made in the session.

Native plugins in Pro Tools. On the Pro Tools side, ConsoleLink uses the *native* version of each supported plugin: UA's UADx plugins (or the same vendor's native plugin), which run as AAX Native plugins on the computer's processor, not on the DSP. The DSP stays free for monitoring, and a session full of tracks doesn't run out of DSP power.

How it talks to Pro Tools. ConsoleLink connects to Pro Tools as a control surface, using the HUI protocol Pro Tools supports for hardware controllers. Nothing has to be installed in Pro Tools apart from the optional ConsoleLink Session plugin, which keeps ConsoleLink's settings with the Pro Tools session.

Chapter 2.

Setup

Safety: levels and hearing

ConsoleLink changes fader levels, mutes, pans, sends and plugin settings in Pro Tools and UAD Console, including what you hear on headphones and speakers. A fault, a mistake in operation or a mismatch between the two can raise a level suddenly, and loud sound can damage hearing and equipment. Keep monitoring levels moderate, especially on headphones and while a flush runs, and check levels before a performer puts on headphones.

2.1. What you need

ConsoleLink is currently available for the Mac only.

- A Mac with Pro Tools and UAD Console. ConsoleLink runs on the same Mac.
- A Universal Audio interface with UAD DSP: an Apollo or an Arrow, set up in UAD Console. (Volt interfaces have no UAD DSP.)
- In Pro Tools, the native counterparts of the UAD plugins you use in UAD Console, installed and authorized: as a rule their UADx versions (see chapter 5). ConsoleLink supports the plugins listed in Appendix A.

2.2. Installing and registering

Copy ConsoleLink to your Applications folder. The ConsoleLink Session plugin is optional (see section 3.5); it goes into /Library/Application Support/Avid/Audio/Plug-Ins.

The first time you start ConsoleLink, it shows its license agreement; read it and press Agree. You can read it again later under ConsoleLink > About ConsoleLink.

Then ConsoleLink asks for your license key. Copy the whole key from the email you received, everything from the BEGIN line to the END line, and paste it into the window; if the key is on the clipboard when the window opens, it's filled in already. Press Register. Licenses and trial keys are available at www.consolelink.app.

This guide is in ConsoleLink's Help menu.

Until it is registered, ConsoleLink doesn't connect to Pro Tools or UAD Console. To enter a new key later, for example to replace a trial key, choose ConsoleLink > Enter License Key... in the menu bar. A trial or beta key's expiry date shows in the window's title bar; a week before it, ConsoleLink reminds you when it starts.

2.3. Connecting Pro Tools

ConsoleLink appears to Pro Tools as up to four HUI control surfaces. For each, it creates a virtual MIDI port, which Pro Tools offers for a MIDI controller. The ports exist while ConsoleLink is running, so start it before setting up Pro Tools, and generally before starting Pro Tools: when ConsoleLink starts later, Pro Tools may not connect to it by itself (see section 8.2).

MIDI port	Channel strips
ConsoleLink 1	1–8
ConsoleLink 2	9–16
ConsoleLink 3	17–24
ConsoleLink 4	25–32

In Pro Tools, open Setup > Peripherals > MIDI Controllers, and for each surface you want to use, choose HUI as the type and the same ConsoleLink port under Receive From and Send To. The first one, ConsoleLink 1, goes in the first row; the others follow in order and act as *extenders*: each adds the next eight tracks to the right of the one before, as extra channel strips do on a hardware console.



Figure 2.1.: All four ConsoleLink surfaces set up in Pro Tools' Peripherals dialog.

How many to use. ConsoleLink 1 alone is enough: a HUI surface shows eight tracks at a time, and ConsoleLink banks it to whichever tracks it needs. Each further surface gives ConsoleLink eight more tracks it can reach without banking, up to 32 with all four. With many tracks, that makes syncing faders faster, since ConsoleLink can reach them directly instead of banking to them first.

2.4. Connecting UAD Console

ConsoleLink connects to UAD Console on the same Mac by itself, whenever UAD Console is running. The status at the top of the ConsoleLink window shows the connection; “device offline” means UAD Console is running, but your interface isn’t connected or switched on.

2.5. Preparing the session in Pro Tools

ConsoleLink syncs tracks that exist; it doesn’t create them. Before discovering tracks, set up the session in Pro Tools:

- **A track for each UAD Console channel** you want to sync: mono for a mono channel, stereo for a linked pair.
- **Aux Input tracks for UAD Console’s aux channels**, such as a reverb or a delay: one stereo Aux Input track each, fed by the bus the sends go to. Connect it to the UAD Console aux channel (Aux 1, Aux 2) like any other track, and the sends to its bus (see section 3.3). The aux channel’s plugins then appear on that track.
- **The routing:** each track’s output, and the sends to the Aux Input tracks’ busses. On the sends of stereo tracks, switch on *Follow Main Pan* (FMP): in UAD Console, a stereo channel’s sends follow its main pan (see section 6.4).

There’s no need to insert plugins: ConsoleLink inserts them, with their settings, with the first flush from UAD Console to Pro Tools. If it suits your way of working better, set up the plugins in Pro Tools instead, and flush from Pro Tools to UAD Console (see section 4.3).

2.6. Setting up ConsoleLink for a Pro Tools session

With Pro Tools and UAD Console connected, these steps set up ConsoleLink for the Pro Tools session you’re working in. With the ConsoleLink Session plugin (step 7), the setup is saved with the session, and you load it again with Load from Session. The next chapter explains each step in detail.

1. **Prepare the session in Pro Tools** (see section 2.5): create the tracks, with their routing and sends.
2. **Discover your tracks.** Press Discover Tracks. ConsoleLink reads the names of the session's tracks, and which of them are stereo.
3. **Update the plugin cache** the first time you use ConsoleLink, and after installing or removing plugins: press Update Plugin Cache. It reads Pro Tools' plugin lists on the session's first mono and first stereo track, as found in step 2; they don't need to be connected.
4. **Connect channels to tracks** in the Channels section.
5. **Connect sends to busses** in the Sends section: press Discover Busses first. It finds only the busses that the tracks connected in step 4 send to (see section 3.3).
6. **Flush** with UAD Console → Pro Tools, so that the tracks start out like UAD Console. Or, if your setup lives in Pro Tools, from a session template for example, flush the other way, with Pro Tools → UAD Console (see section 4.3). From then on, changes follow as you make them.
7. **Optional: keep the setup with the session.** Insert the ConsoleLink Session plugin on any track (see section 3.5).

Chapter 3.

The ConsoleLink window

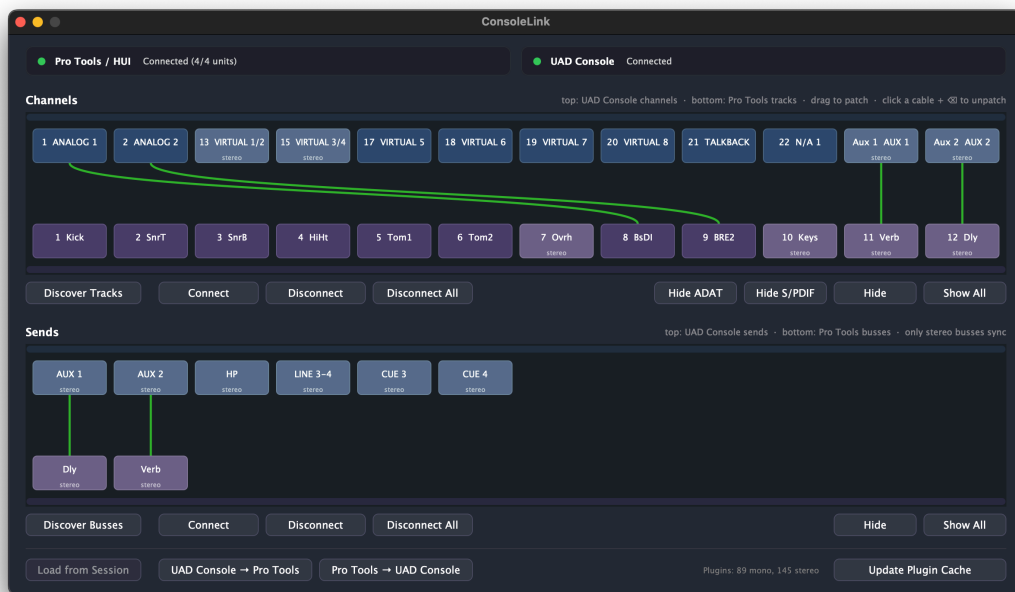


Figure 3.1.: The ConsoleLink window: channels and sends connected, ready to sync.

From top to bottom:

- **Status.** Whether ConsoleLink is connected to Pro Tools, with how many of its surfaces are set up there, and to UAD Console.
- **Channels.** UAD Console's channels in the top row, Pro Tools' tracks in the bottom row, each as a small tile (a *chiclet*). A cable between them connects a channel to a track, like a patch cable on a patchbay; only connected channels and tracks are synced.

- **Sends.** UAD Console's sends in the top row, Pro Tools' busses in the bottom row, connected the same way.
- **Bottom row.** Load from Session, the two flushes (UAD Console → Pro Tools and Pro Tools → UAD Console), and Update Plugin Cache.

Buttons that start a longer operation are greyed out while one runs, and while Pro Tools has a dialog open: Pro Tools doesn't respond to ConsoleLink then, and the status says so.

3.1. Discovering tracks

Discover Tracks goes through the whole session and reads each track's name, and also finds out which tracks are stereo. It takes a moment; leave Pro Tools alone meanwhile.

ConsoleLink knows tracks by their position in the session. That keeps syncing fast: a HUI surface only shows track names on its displays, so finding a track by name would mean banking through the session and reading the displays every time. After adding, removing, moving, hiding or renaming tracks in Pro Tools, press Discover Tracks again, and check the connections.

3.2. Connecting channels

Each row scrolls on its own, with the mouse wheel, the trackpad or its scrollbar. To connect a UAD Console channel to a Pro Tools track:

- **Drag** a chiclet onto one in the other row. With several selected, they're connected in order, starting from the one you drop on.
- Or **select** channels in the top row and tracks in the bottom row, and press Connect: the first channel goes to the first track, and so on. Click to select; ⌘-click adds a chiclet, ⇧-click selects a range.

A mono channel connects to a mono track, a stereo channel to a stereo track (see chapter 6). A green cable syncs; a red one doesn't, because its two ends no longer match, after linking or unlinking channels in UAD Console, for example.

To disconnect, click a cable (⌘-click for more) and press ⌘, or select chiclets and press Disconnect; Disconnect All removes every cable.

To tidy the rows, hide what you don't use: select chiclets and press Hide (or ⌘). Hide ADAT and Hide S/PDIF hide those inputs in one go; Show All brings everything back.

3.3. Connecting sends

Discover Busses finds the Pro Tools busses to connect UAD Console's sends to. It looks at the sends of the tracks connected in the Channels section, and lists every bus one of those sends goes to. A bus that none of them sends to isn't found.

So, before pressing Discover Busses:

1. Connect your tracks in the Channels section.
2. In Pro Tools, give at least one of those tracks a send to each bus you want to connect, such as the busses feeding your reverb and delay Aux Input tracks (see section 2.5), or a headphone mix.

Then connect each send in the top row to its bus in the bottom row, as with channels. Busses marked "mono" can't be connected: UAD Console's sends are all stereo.

3.4. Syncing

Once connected, changes in UAD Console follow in Pro Tools as you make them (see chapter 7 for which ones also go the other way).

A *flush* copies everything at once, track by track:

- UAD Console → Pro Tools makes the connected tracks match UAD Console: plugins and their settings, fader, pan, mute and sends. Use it after connecting, or whenever the two have drifted apart.
- Pro Tools → UAD Console makes UAD Console match Pro Tools: plugins and their settings, fader, pan, mute and sends. Use it when you open a session and want UAD Console set up the way you left it.

A flush takes a while, longer the more there is to copy; the button shows Flushing... until it's done.

3.5. Keeping the setup with the session

ConsoleLink's setup belongs to a Pro Tools session: its tracks, connections and hidden chiclets. The ConsoleLink Session plugin keeps it in the session file. Insert it on any track, a Master Fader for example; it leaves the audio untouched. Its window shows whether it's connected to ConsoleLink and what it holds.

From then on, ConsoleLink saves every change of its setup into the plugin, and Pro Tools saves it with the session. When you open the session again, press Load from Session.

If you change the setup in ConsoleLink before loading the session's, ConsoleLink asks which one the session should keep: Load from Session, or Save Current to replace it with ConsoleLink's.

Chapter 4.

Working with ConsoleLink

There are three ways of working with ConsoleLink. They differ in where you make your changes: on a hardware controller, in UAD Console, or in Pro Tools.

4.1. Hands-on control with Softube Console 1 (recommended)

ConsoleLink works especially well with Softube's Console 1 and Console 1 Fader controllers, controlling UAD Console through Apollo Central. The controllers set faders, mute, sends and plugins in UAD Console, and ConsoleLink carries every change over to Pro Tools: to the faders and sends of your tracks, and to the UADx and other native plugins on them.

In effect, you control your Pro Tools tracks from the hardware while monitoring with the low latency of UAD Console, and can leave UAD Console's window out of sight. As long as you make your changes on the controller, the monitor mix and the Pro Tools session stay alike.

4.2. Working in UAD Console

Without a controller, make your changes in UAD Console's window while you record: insert and adjust plugins, set faders, pans and sends there, as you would anyway for the monitor mix. ConsoleLink carries each change over to Pro Tools as you make it, so the session always sounds like what the performers hear.

4.3. Setting up in Pro Tools, then flushing

If you'd rather prepare a session in Pro Tools, set it up there: insert the plugins on the tracks, and set their parameters, faders, pans, mutes and sends. Then press Pro Tools → UAD Console: ConsoleLink sets up UAD Console to match, with the DSP versions of the plugins, ready for tracking.

From then on, faders, mutes and pans can be adjusted in Pro Tools as you go: UAD Console follows them live. Changes to plugins, their settings and sends don't reach UAD Console live: change them in UAD Console, or after changing them in Pro Tools, flush from Pro Tools to UAD Console again before you record (see chapter 7 for the details).

4.4. Tracking and punch-ins

While you record, the performers hear their live input from UAD Console, and everything already recorded from Pro Tools. Pro Tools must not play the live input as well: they would hear themselves twice, the copy from Pro Tools a moment late, which sounds like a slapback echo or a hollow, phasey tone.

In Pro Tools, switch on Options > Low Latency Monitoring. Pro Tools then mutes record-enabled tracks while recording or stopped, so the live input comes only from UAD Console, while the other tracks play as usual, with the plugins and settings ConsoleLink gave them.

Leave Allow Sends to Persist During LLM (in Pro Tools' Preferences > Mixing) switched off. With it on, Pro Tools keeps the sends of record-enabled tracks open, and its reverb and delay tracks would get the live input late, on top of UAD Console's own reverb and delay.

Punch-ins. During the pre-roll, Pro Tools plays the earlier take on the record-enabled track; at the punch-in point, the live input from UAD Console takes over. With ConsoleLink, the two sound alike and play at the same level, so the performer can blend into the take.

Record dry. Set UAD Console's insert effects to monitor only (UAD Mon): the performers hear the plugins, ConsoleLink puts them on the Pro Tools track, and the recording stays dry. ConsoleLink is made for this way of recording. With UAD Rec, the plugins' sound is printed into the recording, and ConsoleLink would add it a second time on playback; ConsoleLink warns you when a connected channel with plugins is set to UAD Rec. A plugin in the Unison slot is always recorded, and ConsoleLink leaves it out (see section 5.2).

Chapter 5.

Plugins

5.1. Native counterparts

For each supported UAD plugin in UAD Console, ConsoleLink inserts its native counterpart in Pro Tools, where one exists: as a rule the UADx version of the same plugin, which runs on the computer's processor. Not every UAD plugin has a native version; Appendix A lists the plugins ConsoleLink supports. More plugins, from Universal Audio and other vendors, will be added over time.

A few plugins are paired differently, as listed below.

UAD Legacy plugins

Some plugins run in UAD Console as their Legacy versions. Two of them are paired with a different native plugin in Pro Tools:

UAD Console	Pro Tools
UAD Teletronix LA-2A Legacy	Teletronix LA-2A Tube Compressor
UAD UA 1176LN Legacy	UADx 1176 FET Compressor

Third-party plugins

Plugins from other vendors that run on the UAD DSP are paired with the same vendor's native plugin, not a UADx one:

Vendor	UAD Console	Pro Tools
Brainworx	UAD Ampeg SVTVR Classic	Ampeg SVTVR Classic
Brainworx	UAD Ampeg SVTVR	Ampeg SVTVR
Softube	UAD Eden WT800	Eden WT800

5.2. Unison plugins

A plugin in a channel's Unison slot in UAD Console is always recorded, even with the insert effects set to UAD Mon: Unison processes the input before anything else on the channel. Its sound is already in the recording, so ConsoleLink doesn't put it on the Pro Tools track, where it would be applied a second time. A Unison-capable plugin in one of the channel's insert slots works like any other plugin, and is synced.

5.3. Plans: choosing the variant

We're considering two more ways of pairing plugins, both to be set per plugin:

- **DSP in Pro Tools too.** Pro Tools would get the UAD DSP version of a plugin, the same as in UAD Console, instead of a native one. That would cover plugins without a native version, so the full range of UAD plugins could be synced.
- **Legacy versions in UAD Console.** Many UAD plugins have a Legacy version, which needs less DSP power and can have lower latency. Where that matters, UAD Console could run the Legacy version while Pro Tools gets the full plugin.

So, where a plugin offers the choice, you could pick the Legacy version for UAD Console, and the DSP or the native version for Pro Tools.

5.4. Plugins on stereo tracks

On a stereo track, ConsoleLink inserts a plugin's stereo version where it has one, and otherwise its multi-mono version. Some controls exist only on a plugin's stereo version, such as link switches and balance; they are synced on stereo channels only.

Chapter 6.

Stereo channels and tracks

6.1. Connecting

A stereo channel in UAD Console, that is two linked inputs or any aux, connects to a stereo track in Pro Tools, and a mono channel to a mono track. ConsoleLink refuses to connect a mono channel to a stereo track or the other way round.

A linked pair appears once among UAD Console's channels, under the stereo name UAD Console gives it, such as "ANALOG 1/2". Its right input is hidden and never synced on its own.

Discover Tracks also finds out which Pro Tools tracks are stereo; they are marked "stereo".

6.2. Linking and unlinking in UAD Console

Linking two inputs in UAD Console resets their pans to hard left and right, and resets their send pans; unlinking leaves the right input as an empty channel, with its fader at 0 dB, its sends off and no plugins. Connected Pro Tools tracks follow.

If linking or unlinking leaves a connection between a mono and a stereo side, its cable turns red: that channel and track aren't synced until you connect them again to a matching partner.

6.3. Pan

A stereo channel has two pans, left and right. The left pan behaves like the pan of a mono channel. The right pan follows UAD Console as you go, and is copied by a flush from UAD Console to Pro Tools. A change to the right pan made in Pro Tools reaches UAD Console only with a flush from Pro Tools to UAD Console.

6.4. Sends

UAD Console's sends are all stereo, so they connect only to stereo busses in Pro Tools. Discover Busses marks mono busses "mono", and they can't be connected.

In UAD Console, the sends of a stereo channel have no pan of their own: they follow the channel's main left and right pan, as a Pro Tools send does with *Follow Main Pan* (FMP) switched on. So for stereo channels, ConsoleLink syncs a send's level, mute and pre/post-fader setting, but not its pan, and leaves the pan of the Pro Tools send as it is. Pro Tools' sends have a pan of their own, so to keep them panned like UAD Console's, switch on FMP on those sends in Pro Tools. ConsoleLink can't do it for you: HUI can switch a send between pre- and post-fader, but not FMP. Sends from mono channels have their own pan, in UAD Console as in Pro Tools, which ConsoleLink syncs.

Chapter 7.

Limitations

7.1. Which direction changes follow

ConsoleLink talks to Pro Tools through HUI, short for *Human User Interface*: the protocol of Mackie's HUI control surface, which Pro Tools has supported for a long time. As the name says, a HUI surface is an interface for a person: it shows what Pro Tools sends it, and passes on what the person presses and turns. It doesn't keep track of a session itself. Pro Tools sends it the contents of its displays and the state of its lights and faders, much like a remote screen, and only for what is currently in view on the surface. A parameter changed somewhere else isn't reported at all.

Newer protocols work differently. Avid's EUCON, for example, gives a surface access to the session itself, and would probably remove every limitation in this chapter. But EUCON isn't an open standard: it is built into DAWs and other software, but there are no third-party EUCON control surfaces, only Avid's own.

So not every change made in Pro Tools reaches UAD Console as you make it:

- **Both directions, live:** fader, mute and pan (for stereo channels, the left pan).
- **UAD Console to Pro Tools, live:** everything else: plugins, their settings and bypass, the right pan of stereo channels, and sends.
- **Both directions, by flush:** everything: plugins, their settings and bypass, fader, pan, mute and sends. So changes made in Pro Tools that don't come back live reach UAD Console with a flush from Pro Tools to UAD Console.

7.2. Pan accuracy

A HUI surface shows a pan position as one of eleven lights around a knob, so a pan change made in Pro Tools reaches UAD Console only to the nearest step of about 10 %. And since

ConsoleLink can only turn Pro Tools' pan knob by steps, not set it to a value, a pan that differs between the two after such a change stays off by that much when you then move it in UAD Console.

Start pan moves in UAD Console, where they come across accurately, or accept a difference of up to about 10 %.

7.3. One thing at a time

To sync the right pan of stereo channels, or sends, ConsoleLink briefly switches its view of Pro Tools to them, as a hardware controller switches its knobs to the right pan, or its faders to the sends. Other syncing waits until it's done.

7.4. Speed

Because a HUI surface only sees what is in view, ConsoleLink sometimes has to bring something into view before it can change it: bank the surface to the right group of tracks, or open a plugin's page of parameters. The first change after such a move can therefore lag a little. Changes that follow, on the same track and plugin, go through in an acceptable time.

A flush goes through every connected track, plugin and parameter this way, so it takes a while, longer the more there is to copy.

7.5. The plugin cache

HUI can't insert a plugin by name: a surface scrolls through Pro Tools' list of installed plugins, one entry at a time, as a person would. To find a plugin quickly, ConsoleLink keeps a list of where each plugin sits in that list, and scrolls straight to it.

This list has to be made once, before you use ConsoleLink, and again whenever you install or remove plugins: press Update Plugin Cache. It reads two lists, one on a mono track and one on a stereo track, so the session needs one track of each kind, found with Discover Tracks first. If a plugin isn't where ConsoleLink expects it, inserting it fails, and ConsoleLink tells you so and offers to update the cache.

Chapter 8.

Troubleshooting

8.1. ConsoleLink doesn't appear under "Receive From"

In Pro Tools' Setup > Peripherals > MIDI Controllers, the ConsoleLink ports (ConsoleLink 1 to 4) should be listed under Receive From and Send To. If they aren't:

- Check Setup > MIDI > MIDI Input Devices: the ConsoleLink ports have to be enabled there.
- Check Setup > MIDI > Input Filter: it must not filter out what ConsoleLink sends.

8.2. Pro Tools doesn't connect after starting ConsoleLink

Start ConsoleLink before Pro Tools. If ConsoleLink is started after Pro Tools, the HUI connection may not come up by itself. Then open Setup > Peripherals > MIDI Controllers once and close it again without changing anything; that makes Pro Tools connect.

Appendix A.

Supported plugins

ConsoleLink syncs these UAD plugins, with their native counterparts in Pro Tools (see chapter 5):

Ampeg SVTVR	Pultec EQP-1A
Ampeg SVTVR Classic	Pultec HLF-3C
Ampex ATR-102	Pultec MEQ-5
API 2500	Pure Plate
API Vision Channel Strip	SSL E Channel Strip
Avalon VT-737sp	SSL G Bus Compressor
Brigade Chorus	Studio D Chorus
Century Tube Channel Strip	Teletronix LA-2
dbx 160	Teletronix LA-2A Gray
Eden WT800	Teletronix LA-2A Legacy
Empirical Labs Distressor	Teletronix LA-2A Silver
EMT 140	Teletronix LA-3A
Fairchild 660	UA 1176 Rev A
Fairchild 670	UA 1176AE
Galaxy Tape Echo	UA 1176LN Legacy
Helios Type 69	UA 1176LN Rev E
Lexicon 224	UA 610-A
Neve 1073	UA 610-B
Oxide Tape	