Tracking the Band
With Mackie ONYX-i

Q: Can you daisy chain multiple mixers to get a full 24 or 48 tracks to mix with?

A: On a Mac you can aggregate multiple Onyx 1640i mixers together for 16, 32, 48 or 64 inputs. However, because they do not all share a main mix bus (each 16-channel has its own), it would be challenging to mixdown out-of-the-box in this scenario. For mixdown, one Onyx 1640i is ideal.

Q: Why did you perform the final mix with the console instead of in Pro Tools?

A: For one, you get to mix on a mixer – something not done since the days of 2″ tape. You get the benefits of using analog EQ and the ability to incorporate your rackmount gear as well. Also, the summing bus on the Onyx 1640i is extremely high quality and noticeably different from the sonic character of, say, Pro Tools' summing algorithms.

Q: On the back of the Onyx 1640i it shows that channels 1 & 2 have "Hi-Z" inputs. Can I also use them as a line ins like the other 14 channels?

A: Yes! Channels 1 and 2 on the Onyx 1640i have switches to select between Hi-Z and line level for the ¼ inch input.

Q: Can I mix analog with other Onyx-i Series mixers like the Onyx 1640i?

A: Of the series, only the Onyx 1640i features a full 16x16 integrated interface making it the only mixer in the Onyx-i Series that allows an analog mixdown. The other three Onyx-i mixers have a stereo return from the DAW making them great recording mixers for those needing lower channel counts, less mic pres, and who prefer to mix in their DAW. And our new Onyx Blackbird and Blackjack are great for those who just need an audio interface:

- The Onyx 1620i has an integrated 16x2 FW interface and 8 Onyx preamps
- The Onyx 1220i has an integrated 16x2 FW interface and 4 Onyx preamps
- The Onyx 820i has an integrated 8x2 FW interface and 3 Onyx preamps
- The Onyx Blackbird is a rackmount 16x16 FW interface with 8 Onyx preamps, 8x8 ADAT I/O and Word Clock
- The Onyx Blackjack is a desktop 2x2 USB interface with 2 Onyx preamps and true analog hardware monitoring

Q: Is the EQ IN/OUT switch a hard bypass? Does this help to minimize possible noise?

A: Yes. The 1640i features a hard-bypass EQ switch that is used to either bring the EQ inline or to bypass the EQ section of the console entirely, making for an exceedingly clean path to the signal's next destination

Q: When you select a channel to stream via FireWire to your DAW, are you locked into what channel goes to what track? What about when assigning DAW tracks back to the mixers channels?

A: The DAW itself, such as Pro Tools, allows for assignment of any 1640i input to any track, and any DAW output to any channel of the mixer. The Onyx 1640i is extremely flexible.

Q: How is the latency between monitoring and tracking? In the past I have tried various USB interfaces and have not been happy.

A: One of the best parts of using the 1640i in a session is its intuitive workflow. It's not only your recording solution, but

because it's a full-fledged analog mixer, it's also your monitoring solution. Everything happens in real time, because everything is analog. Setting up headphone mixes and monitoring your recording is all done in the analog domain with zero latency. Here's an example of the only situation in which you will experience latency: If you are adding a real-time plug-in (like compression) in your DAW for monitoring purposes, you will need to have the FW source switch at the top of that input channel in the down position to hear it / route it to auxiliaries for monitor feeds. This means that instead of monitoring the analog input, you are monitoring the DAW's output on the same mixer channel. Similarly, you can use a plug-in from your DAW to add reverb or delay to the monitoring path, allowing your vocalist to really get in the right mood to deliver that killer performance. Both of these will add latency, but because the Onyx-i Series uses Firewire, you should be able to achieve very low latencies for these situations.

Q: Why did Mackie put the low cut button at the pre-amp stage while the Mackie VLZ3 Series implements this at the EQ stage?

A: By low-cutting the signal right after the preamp boost, you will be more certain to not overload your EQ bus on the way to the channel fader (if, say, you engage low-cut but also boost the LF EQ).

Q: I have an existing 16x16 interface and want to get a Mackie console. Do you recommend either an Onyx or VLZ3 console?

A: A more "direct" replacement for a standard 16x16 interface would be the 16x16 Onyx Blackbird FireWire interface. As for Mackie consoles, only the Onyx-i Series features FireWire connectivity, where the VLZ3 compact mixers are purely analog. The new VLZ3 4-Bus mixers do feature USB connectivity, but offer a 4x2 USB interface instead of the full 16x16 FireWire interface features on the Onyx 1640i.

Q: Do you have to create a headphone send in your DAW, or can you create them without running through the software?

A: In a recording scenario you would use the auxiliary sends to create up to six unique headphone mixes. From the mixer, running the auxiliary outs into a headphone amp would allow all monitor mixes to be entirely in the analog domain with zero-latency, of course.

Q: How many mic pre amps are on the Onyx 1640i?

A: The Onyx 1640i features 16 Onyx mic preamps – our flagship preamp series. As we already mentioned, though, there are many flavors of Onyx products. Feel free to visit http://www.mackie.com to find the one that's right for you.

Q: Any comment on the quality and usability of the Onyx Blackbird 16x16 FW interface?

A: If you're an in-the-box recordist/engineer, the free Blackbird control matrix mixer software is extremely easy to use and customize in comparison to other market offerings. Furthermore, because the Onyx Blackbird can also be used as a standalone preamp with digital outputs, you can daisy chain two Blackbirds together via ADAT/Word Clock (over a single FireWire connection) and/or aggregate up to four units via four independent FireWire connections, making for as many as 64 Onyx preamps in 8 rack spaces.

Q: Is phantom power global or selectable per channel?

A: Phantom power on the entire Onyx-i Series is available on a channel-by-channel basis, perfect for situations with a wide variety of studio microphones.

Q: Do the smaller format mixers in the Onyx-i Series (820i, 1220i, 1620i) have the same FireWire feature set as the Onyx 1640i?

A: Only the Onyx 1640i features the full 16x16 interface that allows for input and DAW return mixing; the other three mixers (1620i, 1220i and 820i) feature a stereo return that can be routed into the control room section or down a channel strip – a very handy feature for overdubs in low-input scenarios.

Q: This is a basic question from an old tape-machine, group/buss kind of guy.... am I right in thinking there's potentially 16 outs to 16 tracks (like a 16 bus console)?

A: Answer from a guy who group up mixing on tape. That's exactly how the 1640i operates. It was designed with true "tape-style" mixing in mind for the "modern" recording engineer.

Q: Are Onyx-i Series mixers compatible with my favorite DAW?

A: The Onyx-i Series of recording products is compatible with all the latest Mac/PC operating systems, and fully supports any DAW that uses CoreAudio, WDM and/or ASIO. So chances are if your software deals with audio, the Onyx-i Series will work with it. For the latest support info, feel free to visit the following product links:

- Onyx-I Series: http://www.mackie.com/products/onyxiseries/drivers/
- Onyx Blackbird: http://www.mackie.com/products/onyxblackbird/
- Onyx Blackjack: http://www.mackie.com/products/onyxblackjack/

Q: Do Onyx-i mixers work with any particular version of Pro Tools (M-Powered, LE, HD)?

A: The Onyx-i Series of mixers are compatible with Pro Tools M-Powered 8. For all the details, check out our driver support page: http://www.mackie.com/products/onyxiseries/drivers/

Q: What sort of equalizer is present on each input of Onyx-i mixers?

A: The Onyx-i Series of mixers feature different configurations of our flagship Perkins EQ, featuring a wide, musical curve that's extremely easy to work with. Please visit the respective Onyx-i Series model webpage for detailed info about specific configuration per mixer.

Q: How well would the Onyx 1640i integrate into a small venue FOH desk? Simultaneous recording? Monitors?

A: The Onyx 1640i is a 16-channel 4-bus console with 6 pre/post assignable aux buses, so it is not only a powerful recording board, but a powerful live sound tool kit. The built in 16 x 16 FireWire interface takes it even further, allowing you to track your shows, perform a virtual soundcheck, and integrate with Waves Live MultiRack to insert your favorite Waves plug-ins right into your live mix, replacing racks of outboard gear. The Onyx 1640i is truly just as much of a live sound product as it is a powerful recording desk.

Q: Do I need an additional interface to integrate an Onyx-i mixer with Pro Tools?

A: The Onyx 1640i IS your Pro Tools interface – no extra hardware required (except the iLok, of course). The custom Mackie Universal Driver is required, and you can get that from Mackie's website. For more information, check out the following page: http://www.mackie.com/products/onyxiseries/drivers/

Q: I'm looking at the "Hookup Diagram" on the Mackie website. Where or how would you connect this mixer with a Pro Tools system?

A: A single FireWire cable (and your Pro Tools M-Powered 8 iLok) is all that's needed to connect to Pro Tools M-Powered 8. You can acquire the Mackie Universal Driver required to complete your setup from the Mackie website: http://www.mackie.com/products/onyxiseries/drivers/.

Q: What is the highest sample rate that you can track at in Pro Tools? For example, is a resolution of 88.2 kHz possible?

A: The Onyx-i Series of FireWire recording products all recording up to 24-bit, 96 kHz sample rates (including 88.2 kHz).

Q: Am I safe in assuming this console is fully recognized by other DAWs, specifically Logic Pro?

A: Better than safe.

Q: How would you incorporate outboard preamps into the system? Through the line ins?

A: The line-ins would be the preferred method, because the connection would be balanced. The other place to enter the channel strip would be from the insert returns, for which you would need to use the ring-return path of a ¼" "Y" insert cable (leaving the send portion going nowhere, and having nothing else plugged into that channel's inputs).

Q: As far as automation goes, how deep does the Mackie work as a control surface?

A: The Onyx 1640i is purely an analog mixer with a 16x16 FireWire interface; therefore there is no control of DAW functions from the mixer itself. Opting to route signals back into the 1640i's return path completely bypasses the need to use the DAW mixer, although you are free to "share" as much of the workload as you want between products. You can edit, add plug-ins and write as much automation as you want in your DAW, and you can then opt to use the 1640i's Perkins EQ, its inserts paths and/or its summing bus during the mixdown phase. It's very flexible, and the rest is up to you. In the meantime, if you're looking for a dedicated control surface, check out the MCU Pro: www.mackie.com/products/mcupro.

Q: The original Onyx 1640 compact mixer has only two returns from the DAW. The 1640i has 16? How are these configured?

A: The Onyx 1640i does indeed allow 16 returns from your DAW. These can be routed into each channel instead of the mic/line input, and because most DAWs allow free routing of virtually any signal to any output, you can send whatever you like to each of the 16 channels. Additionally, like the original 1640 with a FireWire card, the first two returns can feed your control room for basic stereo monitoring purposes.

Q: The faders are not motorized, so how does DAW control get translated to the faders with the FW switch down?

A: As mentioned before, the 1640i is not a control surface. It is a full featured analog mixer with a FireWire audio interface, but it does not control your DAW nor does it receive control from your software. So your faders never get out of sync.

Q: Is the FW output pre-fader or post?

A: Either. The 1640i offers a pre/post EQ switch on each channel that lets you determine whether you are recording with or without EQ and/or inserts. Additionally, there are several available modifications that our service center network can perform, including post-fader FireWire sends, fixed post-insert FireWire sends (instead of needing to engage the EQ button), and pre-EQ auxiliary sends. Feel free to visit our Support page to learn more: www.mackie.com/support

Q: When tracks stream back from your DAW, are the input volumes determined by the software or the gain knob?

A: The return stream from the DAW – when the FW button on each channel is depressed – is post-gain and post-high pass filter, so the output level faders in your DAW control the level returning to the console.

Q: But what about…?

A: We got a lot of great questions during the webinar – nearly too many to answer! But the above sums up the majority of the Onyx 1640i specific ones. We also have a mixer-based tutorial section on our website that can provide a lot more of the basics of mixing and routing info you may be looking for: www.mackie.com/support/compactmixer

Feel free to visit our website for more information and thank you so much for your time! www.mackie.com