

MOTU 24I/O Overview

The MOTU Audio 24I/O interface fulfills the promise of host-based hard disk recording: to record, edit, mix process, and master multitrack recording projects entirely inside the computer. It provides 24 high quality, 24-bit/96kHz analog inputs and outputs in a cost effective, single rack space package, allowing you to connect and record from 24 simultaneous analog sources.



The 24I/O can be purchased as an expander for an existing PCI-424-based MOTU Audio System, or as a core system which includes the PCI-424 card and Audiodesk workstation software.



[\[next\]](#)

MOTU 24I/O Specifications

- 24 analog inputs/outputs with 24-bit, 96kHz converters on balanced/unbalanced 1/4" TRS connectors
- 16, 20 and 24-bit recording at 44.1, 48, 88.2 and 96kHz kHz
- ADAT sync input on PCI-424 card
- Word clock
- Includes cross-platform PCI-424 card

[\[next\]](#)

MOTU 24I/O CueMix DSP

The PCI-424 card features a powerful DSP chip dedicated to creating a custom tailored monitor mix of up to 96 channels of 96kHz audio. Because the mixing takes place on the card itself, instead of making the round trip from the PCI bus to the host processor, the system provides the same near-zero latency performance as today's latest digital mixers. CueMix DSP completely eliminates the buffer latency associated with monitoring on host-based systems. Because the DSP is mixing for you, your computer's CPU is free for other tasks.

Cuemix DSP is the most flexible Cuemix ever, allowing you to mix multiple channels into multiple mix busses or directly assigned outputs. Manage your monitor mix with the intuitive Cuemix Console software included with the 24I/O.

Cuemix console greatly now provides independent level and pan controls for each input on every mix. Also, CuemixDSP does not limit you to four stereo mixes. You can configure a unique mix for every physical stereo output you have available. This means you can have up to 48 separate stereo mixes on a 96 output system.

Any MOTU Audiowire interface plugged into the PCI-424, including the original 2408, can take advantage of Cuemix's flexible monitoring.



[\[next\]](#)

MOTU 24I/O FAQ

How do I use effects such as EQ or reverb on live inputs I'm monitoring with CueMix DSP?

CueMix DSP itself does not provide effects processing, so you have several choices: 1) bus the live signal to your host audio software and apply a plug-in effect or 2) bus the live signal to a hardware reverb or other effects unit that is connected to your 24I/O as a send/return loop. With CueMix DSP, this loop has the same near-zero latency performance as one of today's latest digital mixers. With plug-in effects such as reverb, you can actually combine a little of the dry CueMix signal together with the processed wet signal.

Can I use my original 2408 with the PCI-424 card included with the 24I/O core system?

Yes, older legacy MOTU Audiowire interfaces (2408, 2408mkII, 1224, 308, 24i, 1296) are fully compatible with the PCI-424. Even the new Cuemix DSP and synchronization features can be used with legacy interfaces.

Can I buy a 24I/O expander to use with my PCI-324 card?

No, the 24I/O only works with the latest generation design of the PCI-424.

Can I still use my MTP-AV or Digital Timepiece with the PCI-424?

Yes, use the sample accurate ADAT sync connector on the PCI-424.

What operating systems are supported by the 24I/O?

MacOS 9, MacOS X (10.2 or higher), Windows 98SE, 2K, Me, XP

Does the 24I/O support OS X?

Yes! Download the drivers from the downloads section of the MOTU web site.

What is the difference between a core system and an expander?

A core system includes the PCI-424 card and Audiodesk software.

Can I plug my MOTU 828 or 896 Firewire interfaces into the PCI-424 card?

No. Like the PCI-324, the PCI-424 is an Audiowire interface only.

[\[next\]](#)

MOTU 24I/O Compatibility

Great performance with your favorite software

Regardless of which software you use, the 24I/O's unique and efficient driver design produces optimum performance.

Mac OS X Software CoreAudio

| | |
|-------------------|---|
| AudioDesk | x |
| Cubase | x |
| Digital Performer | x |
| GarageBand | x |
| Live | x |
| Logic | x |
| Nuendo | x |
| Peak | x |
| Reason | x |
| Soundtrack Pro | x |

Mac OS 9 Software ASIO MAS Sound Manager

| | | | |
|-------------------|---|---|---|
| AudioDesk | | x | |
| Cubase | x | | |
| Digital Performer | x | x | x |
| Live | x | | x |
| Logic | x | | |
| Nuendo | x | | |
| Peak | x | | x |
| Reason | x | | |

Windows Software ASIO WDM GSIF

| | |
|------|---|
| Acid | x |
|------|---|

| | | | |
|----------------------|----------|----------|----------|
| CakeWalk | | x | |
| Cool Edit Pro | | x | |
| Cubase | x | | |
| Gigastudio | | | x |
| Live | x | | |
| Logic | x | | |
| Nuendo | x | | |
| Reason | x | | |
| Samplitude | | x | |
| Sonar | x | x | |
| Sound Forge | | x | |
| Vegas | | x | |

MOTU 24I/O Expansion

The 24I/O uses the same PCI-424 card that comes with the 2408mk3. You can connect up to four audio interfaces to a PCI-424 in any combination to create a system that fits your needs.



An ideal companion for the 2408

The 24I/O adds 24 channels of high quality analog input and output to your MOTU Audio system. With that much I/O available, you can keep the outputs of your synthesizers and outboard effects patched into your computer at all times. It is a snap to route the output via the PCI-424 Console Software.

[\[next\]](#)

MOTU 24I/O Feature Summary

- Expandable - connect up to four 24I/O units to a PCI-424 audio card for a total of 96 inputs and outputs. Use as many simultaneous channels as host software and computer allow.
- 100% compatible with all MOTU Audio Wire interfaces. Mix and match MOTU audio interfaces (up to four at once) to meet your exact I/O needs.
- ASIO drivers for Mac OS and Windows - provides multi-channel 24-bit I/O for all leading ASIO-compliant audio software on both computer platforms.
- Multichannel WDM driver - provides simultaneous inputs/outputs for all Windows audio applications that support standard WDM and multi-channel Wave drivers.
- 100% compatible with VST, MAS, Premiere, DirectX, and all other host-based native plug-in formats supported by today's popular audio programs. Does not require proprietary plug-ins.
- Word clock - resolves to time code or any other external time base via MOTU's Digital Timepiece synchronizer or any other standard digital audio synchronization device.
- Resolves directly to SMPTE time code (LTC) with fast lock-up and sub-frame accuracy.

[\[next\]](#)

MOTU 24I/O Legacy Compatibility

The PCI-424 card included with 24I/O core systems is fully compatible with legacy MOTU interfaces originally designed for the PCI-324 card. Connect any MOTU PCI interface, including the 2408mk3, 2408mkII, 2408, 1296, 1224, 24I/O, and 308. Mix and match new and legacy interfaces as you please. All connected interfaces can take full advantage of the PCI-424's CueMix DSP features.



[\[next\]](#)

MOTU 24I/O Interactive Tour

Point to an item to learn more about it.



[\[next\]](#)

Tech Notes

<http://www.motu.com/products/pciaudio/24IO/technotes.html>