ALESIS

FIG. 1:A plethora of I/O options helps elevate the Q20 to pro status.

Q20

Superior multi-effects with a host of professional I/O options.

By John Krogh

Well before the birth of the ADAT, Alesis enjoyed a reputation for making great gear at groundbreaking low prices. No product helped build that reputation more than the original QuadraVerb multi-effects processor, which offered four simultaneously programmable effects, as well as audio quality previously unavailable at its price point.

In 1995, Alesis upped the ante by rolling out the QuadraVerb 2, or Q2, which offered twice the number of simultaneous effects and was one of the first effects boxes to feature ADAT Optical (Lightpipe) I/O. Despite superior audio specs and many extra features, the Q2 didn't do as well as expected: perhaps because of the QuadraVerb moniker (the unit had been aimed toward budget users), recording professionals overlooked it. Home-recording folks, on the other hand, saw it simply as a rehashed QuadraVerb at a higher price.

Several new, fully professional features should make a real difference in clearing the way for the Q20's acceptance in the pro-audio world. These additions include S/PDIF digital I/O (as well as ADAT Lightpipe), 20-bit converters, 200 user programs (twice as many as the Q2), and an internal power supply. What's more, the additional 100 user programs in the Q20 include programs created by Todd Rundgren, Francis Buckley, the Angel, and many other well-known musicians, engineers, and producers.

Still, the Q20's operating system and front panel are virtually identical to those of the Q2 (reviewed in the June 1995 EM), so it's fair to look at the Q20 as an improved Q2 rather than as an entirely new animal. Therefore, I'll discuss the unit's navigational details only briefly and focus primarily on what's new and different about it.

OUTSIDE THE BOX

You could easily mistake the Q20 for the Q2 from the front, except that you won't find the name "QuadraVerb" anywhere on the box. However, you will find dual 4-segment LED level indicators for the analog inputs, concentric knobs for right and left analog-input levels, a generous backlit LCD, a knob for analog-output level (digital signal levels are controlled through the operating system), a Value/Enter wheel, and two rows of seven buttons that get you around the many pages of effects and system parameters.

A glance at the Q20's rear panel reveals a wealth of interface options (see **Fig. 1**). For starters, the analog inputs use Neutrik combination connectors that can accept either balanced XLR or $^{1}/_{4}$-inch balanced/unbalanced jacks. The S/PDIF I/O is on standard RCA connectors, which I'm happy to see because manufacturers of computer digital audio interfaces often favor this kind of connection over AES/EBU. Separate XLR and $^{1}/_{4}$-inch balanced outputs are also provided, and a BNC jack is on hand for receiving 48 kHz word clock.

Footswitch jacks for bypass and advancing through programs are also available on the rear panel. You can specify the range of programs you want to advance through—user programs 10 through 20, for example. After the last program has been selected, the Q20 will wrap back around to the first program of the specified range—an especially handy feature for live situations.

The back panel also houses MIDI In and Out/Thru jacks so that you can control a number of effects parameters in real time from your favorite controller or sequencer. And everyone should be happy that the "lump in the middle" power supply has been replaced by an internal power supply and standard IEC power cable.

INSIDE THE BOX

Programs can comprise up to eight effects algorithms, or blocks, which offer four basic functions: EQ, Reverb, Pitch, and Delay. Each function has several types of effects, such as flange, 3-band parametric EQ, and so on. (See the table "Building Blocks" for a complete list of effects.)

The Q20 uses the same 24-bit DSP chip used in the Q2, so none of the effects are actually new. However, the Q20's effects do sound better, thanks to the 20-bit A/D and D/A converters. In general, the box sounds crisper, and the reverb programs are clearer and smoother in their decay, especially in the highs. To my ears, the chorus programs rival those of units costing twice the money.

Anyone who is serious about tweaking will love the bevy of effects parameters in the Q20. You can modulate up to eight parameters per program in real time through MIDI. What's more, two modulation-source generators are available, each of

The Alesis Q20 uses the same effects and operating system as version 2 of the QuadraVerb 2; thanks to 20-bit converters, it sounds noticeably better.

Q20 Specifications

Analog Inputs	(2) Neutrik Combination XLR/1⁄4" TRS, balanced/unbalanced
Analog Outputs	(2) XLR balanced, (2) 1⁄4" balanced/unbalanced
Digital Input/Output	ADAT Multichannel Optical Digital Interface, S/PDIF, BNC jack for 48 kHz word-clock connection
Digital Converters	20-bit, 256x oversampling
Frequency Response	20 Hz–20 kHz (±0.2 dB)
Dynamic Range	>92 dB (20 Hz–22 kHz)
Distortion (THD + N)	<0.005% @ 1 kHz
Sampling Rate	48 kHz (variable from 40.4 kHz–50.8 kHz under external control)
Preset Programs (ROM)	100
User Programs (RAM)	200
Dimensions	19" (W) x 1.75" (H) x 7" (D)
Weight	4.25 lbs.

which can be set to one of five types: input envelope, peak follower, ramp, LFO, or footswitch. You could, for example, use the two footswitch inputs (Advance and Bypass) as modulation sources to turn specific effects on and off.

In EM's review of the Alesis Q2, Larry the O described several software shortcomings, most notably that direct signal wasn't passed through the effects blocks to the outputs when the unit's bypass was engaged. However, version 2 of the Q2's operating system (which is the same OS used in the Q20) addressed this issue and added another 100 programs, to boot.

Larry the O also took exception to the fact that the Q2's parameter display didn't show the effect of modulation, but Alesis has not addressed that concern.

PEDAL TO THE METTLE

I used the Q20 in several applications, including mixing a demo of a five-piece band. I also enlisted the services of producer/musician Bill Gould (of Faith No More) and sound designer Malcolm Fife—two people with very different effects-processing tastes and needs—to rate the Q20 on sound and general ease of use.

Comparing the Q20 with its predecessor, Fife noted that, although the Q20 offers the same effects as his trusty Q2, they sound much better coming from the Q20's 20-bit converters. "On the whole, they're noticeably more crisp. For my work, the difference in sound quality alone is worth the cost of upgrading."

The Q20 is a breeze to operate, even with all of its editable parameters. In fact, experienced users could probably get by without even opening the reference manual. Those who do use the manual, however, will find it well organized, clearly written, and thorough. (A "Quick Reference Guide" and lists of preset and user programs are provided separately on handy card-stock sheets.)

Effects range from utilitarian to bizarre, with an emphasis on reverb and chorus. There are 14 reverb types to choose from, including the usual suspects and spring, nonlinear, and reverse. Overall, the reverbs are smooth, transparent, and definitely expensive sounding. Gould agreed, saying that they "add presence and body, yet don't color the sound at all." My personal favorites are the room/ambience programs, followed by the plates.

Gould and I both noticed, however, that, when fully cranked, the Q20 has a considerable noise floor. With the output knob set to about 75 percent (the setting recommended by the manual), though, the noise was not noticeable.

If you want unusual sounds, the modulation and resonator effects are very cool. The Q20 has a good selection of delay/chorus programs, too, which are best suited for sound effects and general "moodiness." As for a wish list, mine would include some sort of lo-fi or overdrive effects like those currently heard in electronica and dance music.

BLOCK BUSTERS

Considering the depth of control available in the Q20, programming your own effects is relatively straightforward. Combinations of effects are made by connecting different types of blocks with virtual patch cords, for

Building Blocks

Complex multi-effects can be created in the Alesis Q20 by combining up to eight of the effect types, or blocks, listed below. Blocks are combined by connecting them with virtual patch cords, which are displayed onscreen.

Block Type	Variations
EQ	lowpass, bandpass, highpass filters;lowpass, highpass shelf;1-band low and high parametric; 2-band sweep shelf;3- and 4-band parametric; 5-band graphic;resonator; mono and stereo tremolo;stereo simulator; soft and hard overdrive; panning; phase inverter
Pitch	mono and stereo chorus;quad chorus; mono and stereo flanging; phaser; mono and stereo Lezlie;pitch shift and detune; ring modulator; mono and stereo trigger flange
Delay	mono and stereo; ping-pong (with tap tempo); multitap (with tap tempo); sampling
Reverb	room (4);hall (2); plate (3);chamber (2); spring; nonlinear; reverse

which you set level, source, and destination.

As stated previously, you can combine up to eight effect blocks to create one program. In most cases, though, only four or five blocks can be combined before the unit runs out of DSP power. Beyond that, trying to add more blocks generally results in a "DSP IS FULL" message.

Fortunately, the manual provides a list of how much DSP each kind of block uses. Therefore, with a bit of planning, you can squeeze out every last bit of DSP for large combinations. Of course, it would be nice to have some sort of DSP monitoring onboard to display the amount of processing power used by a program and to tell you how much a block would use before you add it.

20/20 VISION

The Q20 is a great-sounding box filled with lots of useful programs. Its programmability is extensive, with most effects parameters controllable through MIDI for some interesting real-time possibilities. The effects are well programmed, too, although dance and remix musicians might be disappointed by the lack of lo-fi sounds.

If you use effects primarily for live applications, such as sound reinforcement, then the Q20 offers but a few advantages over the Q2—for example, an internal power supply and locking XLR connectors. Beyond that, the appeal is limited. After all, most users aren't likely to need digital I/O for live shows, and the improvement in audio quality probably wouldn't be noticeable out front.

However, if you do most of your work in a studio, especially with desktop recording systems, then consider upgrading. The unit's digital I/O provides a lot of options. For example, in a hybrid computer/ADAT recording system, you could access the Q20's arsenal of software effects over the Lightpipe connector—which would be very handy if you ran short of CPU memory while trying to add another reverb plug-in. For processing field-recorded sound effects completely in the digital domain, you could run digital signals from DAT through the Q20 and then into your computer's S/PDIF digital input.

These abilities are something to crow about in a box with this price tag. In fact, it's hard to cite any direct competitors for the Q20, because the closest comparisons come from processors costing far more. (Alesis's own Q2 is perhaps the best head-to-head competitor.) Although more processing power would have been nice, overall the Alesis Q20 is a great addition to anyone's toolbox.

San Francisco–based music journalist John Krogh is currently wrapping up pre-production with his band My New Gun for its upcoming release on Geffen Records

ALESIS
Q20 multi-effects processor
$999

FEATURES ■■■■▮
EASE OF USE ■■■■
AUDIO QUALITY ■■■■
VALUE ■■■▮
1 2 3 4 5

PROS: Excellent sound quality, with 20-bit converters. ADAT Lightpipe and S/PDIF digital I/O. Easy to use. Extremely programmable.

CONS: DSP typically limits programs to no more than four effects. Middle-of-the-road effects selection.