

Midas *PRO6* Digital Console

by Russ Long

Having just returned from the two-day Midas PRO6 digital console global launch in Minneapolis, I must say, I'm envious of anyone who gets to mix a show on one of these wonderful desks. The PRO6 is Midas' second venture into the digital console market. Their first — the XL8 — was greeted with rave reviews (see PAR December 2006) but because of its steep price tag of \$250K+ a pop, it has only been accessible to the audio elite (Midas just recently marked the sale of the 100th XL8).

Historically, second and third generation digital console releases have been somewhat compromised versions of the original with compromised features, components and even audio quality. This is not at all the case with the PRO6, which is essentially just a smaller version of the XL8. It has fewer inputs and outputs, a smaller work surface and fewer screens but still using the same uncompromised audio performance as the world-class XL8 in a compact package.

| FEATURES

The PRO6 has a footprint relative in size to a 32-channel Midas Verona and, in addition to the surface, it requires only two 7U 19" rack units, a DL351 Modular I/O and a DL371 DSP. The components are connected by a networked data system that carries both proprietary control data and open architecture AES50 digital audio. The stable Linux powered system has the ability to provide up to 80 simultaneous input processing channels and up to 32 (+3) discrete mixes in monitor mode, of which each fea-

ture EQ and dynamics processing options. The PRO6's network can be expanded up to 264 inputs and 264 outputs by adding additional I/O hardware. The PRO6's snapshot automation allows these connections to be patched and routed on a scene-by-scene basis.

The standard PRO6 provides 56 channel inputs, eight returns, 41 buses (16 auxes, 16 matrices, three masters and six solos), four-band parametric EQs on inputs and six-band on outputs, eight standard (up to 36 maximum) 31-band graphic EQs, eight configurable stereo effects, and 5.1 surround panning. The PRO6 automation provides up to 1,000 scenes with snapshot save/recall capability.

Midas has employed dual redundancy to the PRO6, making it tolerant of many types of hardware or software failure; key components have an identical redundant spare ready to take over if they should fail. The entire system reboots in less than 30 seconds, so if a restart is required, it can happen very quickly.

The PRO6 has three control microprocessors and two master control computers. If one of these five processors fails, control input can be made from one of the two remaining control computers, or, in the case of the MC, the Control Centre can be switched over to the redundant MC. All of this takes place without any interruption of audio. The FPGA processing engine has redundant power supplies, is modular, and has the option of a redundant spare processing module that activates automatically in the event of a failure.

The PRO6 has 10 VCAs and 6 POPulation Groups, which provide a quick means to bring particular channels to the control surface. VCAs, POP groups and channels can be color-coded also, making them instantly recognizable. A group can have any channels (input or output) assigned to it, although, typically, you wouldn't want to combine input and output channels into the same group. The VCA groups include mute, solo and fader control, where the POP groups are limited to the unfolding of channels to the console's surface.

Twelve of the console's input channels are found on the left side of the surface and four on the right. The surface's center section includes the aux mix masters, VCA faders, POP group select buttons, mix group select buttons, dual trackball control panel, communications panel, monitoring control and two daylight-viewable TFT display screens with 3-way KVM switches. One or both of the monitors can easily be switched to an external source like a computer running Smart Live, a video monitor feed from the stage, or even a Wii or Playstation.

The Midas PRO6 along with the XL8 are the world's only live audio consoles that feature a unique and comprehensive automatic latency management system that manages all of the internal routing and processing delay and includes compensation for external analog inserts. All of the audio is synchronized to sample accuracy before summing resulting in absolute phase coherency at all outputs.

IN USE

I can't imagine a better scenario. Midas hired Myth (www.mythnightclub.com), one of the Twin Cities' top clubs which already has a great PA, brought in a PRO6 desk, and let a bunch of us engineer junkies spend the day mixing our hearts out using virtual soundcheck.

Virtual soundcheck allows all of the inputs to be recorded pre-processing. This feature (Yamaha and Digidesign digital desks have a variation of this as well) allows an engineer to listen to a band and theoretically soundcheck them even if they aren't there. Midas used the Klark-Teknik KT DN9696 recorder to accommodate the playback but as long as the PRO6 is configured with the right I/O, any multi-track recorder will work.

At first glance, I was impressed with the console's small footprint, which will make it inviting to theaters, churches and touring sound companies. A closer look revealed an overly inviting work surface layout, which often isn't the case with digital desks. I started pushing buttons and turning knobs and was immediately struck by how real the desk actually feels — not that digital consoles aren't real, but the faders and knobs typically don't have the same resistance and feel when you touch them as a classic analog desk. It turns out this is because all of the console's variable controls are genuine potentiometers, not encoders. These controllers access the FPGA engine through A/D converters and Midas' custom interpolation algorithms. This ensures that mixing on the console looks and feels exactly like the real deal. I

found that mixing on the PRO6 was like sitting down at a nine foot Steinway grand piano after playing a Yamaha DX-7 for several years; it's almost indescribable.

As I pushed the faders up and listened to the individual inputs, I was again impressed. The sound quality rivals a top studio desk and the onboard EQ and compression sound wonderful. Navigation of the control surface is intuitive and all of the controls are within easy reach. The mic pre-amps in the PRO6 are built from discrete components and based on the classic Midas design and as with other Midas desks, they can be pushed harder to attain more of that classic Midas sound.

My first concern with the PRO6 is the limited number of active faders. I thought that mixing a full band might be compromised with only 16 channel and 10 VCA faders. After a few minutes on the console, this perception was quickly altered. By utilizing the VCA/POP groups and their pallet of 16 selectable colors, it is easy to navigate any of the inputs to the surface in any desirable configuration. So instead of thinking in terms of layers and pages as with other digital consoles, the PRO6 allows you to think of the surface as one single, big layer that

you can look at in many different ways.

I initially questioned the PRO6's inability to support third-party plug-ins but once I heard what the desk had to offer (and I'm sure there will be more in the future), I became more than confident that the internal processing could handle any situation. The track ball is the only feature that I see taking a while to get used to. The buttons are above the ball rather than beside it making it a bit awkward. The trackball seemed a bit stiff as well but hopefully that was just because it needs to be worn in a bit.

Technical aspects aside, the PRO6 simply feels human. A great example is the warning message I received after choosing to clear the routing, "WARNING: Do you want to Clear All Routing (not undo-able)? This is the same as unplugging all cables in the system, packing them in flight cases, putting them in the truck and driving away." You simply won't find that kind of humor on a Japanese desk.

SUMMARY

The reasonably priced Midas PRO6 is a wonderful sounding, feature-packed console that should be given top consideration in the broadcast and sound reinforcement arenas by anyone looking for a digital console with a small footprint and uncompromised sound.

Russ Long, a Nashville-based producer/engineer, owns The Carport recording studio. He is a regular contributor to Pro Audio Review. Visit him at www.russlong.ws

Contact: Midas Consoles
☎ 800-392-3497
🌐 www.midasconsoles.com



Midas PRO6, which is essentially just a smaller version of the XL8.