

# Your Job Description

by Tal Herzberg

It's becoming a familiar sight in most recording studios around the world: the DAW, or digital audio workstation. I often find it hard to explain what the role of a DAW operator exactly is in audio production, due to the tremendous range of tasks he or she is regularly performing.

This new reality requires the DAW operator to have a basic understanding of many different elements in the production process. Since many of us are coming from a musical, rather than a technical, background, in this series of articles we'll be discussing the varied palette of tasks DAW operators can (and often need to) perform on the material they're working on. To get things rolling, let's run through what some of those tasks might include.

## BASIC AUDIO ENGINEERING TASKS

• **Session setup:** Choosing the sampling rate of the session (traditionally 44.1 or 48 kHz, but potentially up to 192 kHz or even higher), and the session's bit rate (16, 24, or sometimes even 32 bits).

• **Signal routing and interfacing:** Setting inputs and outputs to and from the audio and MIDI hardware, connecting instruments and microphones into the DAW, connecting the DAW to an external mixer and monitors, all-digital interfacing, etc.

• **Basic recording techniques:** Microphones selection, direct-injection interfacing (DI), preamp setting, wiring and cabling, etc.

• **Recording and playback:** Punching (drop-in), setting pre- and post-roll times, click track setup, destructive and nondestructive recordings, loop recording, multiple takes, position markers, track

labeling, playlists and vertical recording, multiple versions, etc.

• **Mixing:** Blending multiple audio and MIDI streams into a mono, stereo, or multichannel master, creating rough mixes, creating mix stems, etc.

• **Signal processing:** Using software plug-ins, understanding and applying dynamic processors such as compressor/limiters and gate/expanders, equalizers, and filters, delay-based effects such as echo and reverb, amplitude and frequency modulators, pitch shifters, time-based effects such as flanging and phasing, choosing, modifying, and creating effects presets, automation, compensating for latency and DSP delays, etc.

• **Synchronization:** Choosing timecode format (24, 25, 29.97, 30 frames per second, drop or non-drop frame), working with a synchronizer, clocking the DAW, locking with tape machines, video decks, video sync, MIDI Beat Clock, etc.

• **Basic mastering:** Choosing the final delivery format, whether analog or digital, basic mix-bus signal processing, etc.

• **Control surfaces and automation:** Working a dedicated control surface, understanding the basics modes of fader and switch automation (write, snap-back, trim), etc.

## BASIC COMPUTER AND DATA MANAGEMENT TASKS

• **Computer troubleshooting:** Operating system-related problems, audio and MIDI software and hardware problems, etc.

• **Hard disks types and configurations:** Dealing with SCSI drives and cards, FireWire, USB, RAID systems, multiple users, fibre-channel, removable and fixed media, etc.

• **Hard disks maintenance:** Formatting (quick and low-level), drivers and updating, tuning (defragmenting and optimizing), etc.

• **Data backup:** Choosing the backup media (tape, CD, DVD, drives), choosing

