

● *An automated editorial or, "We'll fix it in the computerized mix."*

Those who proclaim that technology is slowly ruining the art of recording should have a field day with this issue of **db**. Each of the three automation systems described within these pages brings computer technology into the studio control room, where it may be used, or abused, depending on who's in charge.

Each system has its distinctive operational features. Necam gives us servo-driven faders, for instinctive update. Allison Research suggests a master control concept that eliminates the usual redundancy of console controls. Automated Processes uses its own time code, and stores instructions on a data cartridge.

Each system is totally incompatible with the others, although this may not be quite the disaster that it seems at first. So far, automation remains pretty much a mixdown tool, and usually mixdown work is confined to one *venue* anyway. An occasional feature might be useful during recording, such as instant reset of all equalizers, but this is not the sort of thing that needs to be carried from one studio to another.

#### VERSATILITY

Automation gives the engineer an incredibly versatile production tool. After a few mixes have been stored in memory they can be electronically edited into any conceivable sequence without lifting a razor blade. This feature can be used to advantage in classical music production work as well as in the more obvious multi-track applications.

In the former, each take may be assigned to memory, and when the artist or conductor decides he'd like

to hear several different edited versions of the performance, he may be obliged instantly. If the system is available during recording, this sort of instant editing may even be done during playbacks, thus saving a lot of educated guesswork about how it will all sound later on.

During any mixdown session, there is an obvious saving in two-track tape, since there is really no point in running the two-track recorder until the ideal mix has been worked out. And, if you are concerned about wearing out the multi-track master tape with repeated run-throughs, just make a work copy and use that until you've got your mix worked out. Then return to the master, press the button and go. If the two-track master sounds a bit bright, it could be that all those rough mixes gradually wore down the high end of the work copy, while the still-fresh master retains the original response. At least one manufacturer is studying this possibility, with an eye towards some sort of built-in automated correction factor.

Do these and all the other automated advantages mean that recordings will get better and better? The answer to that one is a definite yes and no. (And remember you read it here first!)

#### THE HUMAN INGREDIENT

Automation is just one more tool to be placed in the hands of the engineer or producer. But—science fiction notwithstanding—it doesn't have much brain power. That's one optional accessory that you have to supply yourself. If you don't understand the technology you're using, your production will surely suffer. But of course, that's as true of the simplest microphone as of the most sophisticated automation package.

By now, even pre-automation technology has progressed to the point where many people are getting left be-

hind. An interview in *Billboard Magazine* some time ago is a good—but depressing—example. An unidentified "industry spokesman" commented on recording equipment. "The real problem," he says, "is that this equipment is made by people who can't evaluate it from a musical viewpoint. And this is not only the people making consoles. This goes for microphone manufacturers and others you may not think of." Of recordings, he observes, "Noise-wise, the current ones are better, but from a musical reproduction, the older ones (20 years ago) win out."

Unfortunately, this sort of reverse logic is very prevalent in the industry. It goes like this:

Premise 1: Recordings of twenty years ago sound better than many of today's releases.

Premise 2: Technology has proliferated over the last twenty years.

Conclusion: Technology is ruining recording.

The more imaginative engineer will object to this sort of reasoning. He may point out that with the technology available today, it is possible to make recordings that are far better than anything produced even ten years ago. But he also knows that it is possible to demolish almost any performance by treating it as a sort of musical Heathkit, to be assembled after hours by a knob-crazed producer (or engineer). So, let's re-write that proposition:

Premise 1: Recordings of twenty years ago often sound superb when heard today.

Premise 2: Technology has proliferated over the last twenty years.

Conclusion: Today's recordings *could* sound even better than the older ones.

The key word is "could." The industry spokesman quoted above is distressed by what he hears, and blames technology. He forgets that *he* is still in charge though, and if he doesn't like what he hears, it's probably because he is mis-using the tools that are available to him. Give him a little automation, and he's really going to get upset!

Automation is not unlike atomic power; it can be used creatively or destructively, though perhaps the results are not quite so dramatic. Used creatively, by knowledgeable engineers and producers, there's no reason why it cannot become one of the most powerful tools in the advancement of the science—AND art—of recording. ■