



## PART 21

# Studio Documentation, Part 2—The TAKE SHEET, SETUP SHEET, AND RECALL SHEET

BY ALEX CASE

**T**hough we are engineers and not bankers, we've got a lot of documentation to complete. Studio paperwork essentials include the track sheet, the take sheet, the setup sheet, and recall sheets. We talked at length about the importance and application of track sheets last month; we now pick up where we left off and continue our discussion with the take sheet.

Like the track sheet, the take sheet serves a misleadingly straightforward function: it lists the takes recorded. One goal of this month's N&B is to reveal some of the hidden benefits that come from giving the take sheet a little extra care and attention.

Figure 1 shows the take sheet we use at my studio, Fermata. On the top we find very nearly the same information that capped the track sheet. The project is identified by artist name (written in large print), the producer, the engineer, the assistant, and the date the project commenced. The reason for all this information is self-evident. The heart of the take sheet is what comes next.

### Odometer

The principal role of the take sheet is to identify the precise location of each and every take of each and every song recorded. It's risky to rely on memory. It's foolish to rely on the assistant engineer's memory. It's flat out dangerous to rely on the drummer. And above all we must try to avoid torturing the client with "Wait, let me find it. Here it is. No, wait. Is that Take two? Not sure. Hold on."

It's even worse on those sessions where the vocal doesn't get recorded until some future overdub session. Tonight you might just be looking for that killer take for the rhythm section only. Without a vocal track it will be

difficult to distinguish verse one from verse two and take one from take two. For a smooth session it is positively vital to keep a thorough and accurate take sheet, starting with the song title and start time.

Beyond this basic bookkeeping, the take sheet serves a valuable production function. During the course of a session we use the take sheet to keep track of which songs have been recorded and which songs have not. It identifies those songs that are recorded and those that aren't.

Continuing last month's session with the band Scribe, we see the four songs they are working on are scribbled down at the bottom of the take sheet (see Figure 1). Typically this is done on the back of the track sheet; we show it here for illustrative purposes. As the band completes a take that everyone likes, the engineer checks that tune off. For 12-song projects, this sort of thing is very useful.

The take sheet does more than just list the tunes tracked and their start times. We note the take number, which as we'll see below is important information for

monitoring the health and productivity of a session. We also note the approximate end time for each take (rounded off to the nearest 5-second increment) and calculate the length of the song. Watch and compare these numbers to track how the session is brewing.

There is also a 'Notes' column on the take sheet. Naturally, here you make notes of critical observations offered by the producer or the band members. It's important to keep track of comments such as the producer likes the bridge, the drummer loves the solo, the singer hates verse 3, etc.

Instead of panicking and wildly turning knobs, you can instead calmly trace problems to their source—if you took good notes.

## TAKE SHEET

artist: *SCRIBE*  
 producer: *SPILL CHELSEA*  
 engineer: *ALEX CALE*  
 assistant: *HUMBLE SERVANT*

date: *14 FEB 00*  
 studio: *A ROOM*  
 tape: *OMAS 60 MP*  
 machine: *DA-38*  
 sample rate: *44.1 KHZ*  
 reel: *(2) + 4*

song #	title	notes	take	start	end	length
1	<i>WRITE IT ALL DOWN</i>	<i>C</i>	<i>1</i>	<i>2:00</i>	<i>4:40</i>	<i>2:40</i>
2	<i> </i>	<i>V3! C32 C</i>	<i>2</i>	<i>5:00</i>	<i>7:50</i>	<i>2:50</i>
3	<i> </i>	<i>C</i>	<i>3</i>	<i>8:30</i>	<i>11:05</i>	<i>2:35</i>
4	<i> </i>	<i>GROOVES HAND C</i>	<i>(4)</i>	<i>11:30</i>	<i>14:10</i>	<i>2:40</i>
5	<i>NOTORIETY</i>	<i>BLAH!! C</i>	<i>1</i>	<i>14:30</i>	<i>18:40</i>	<i>4:10</i>
6	<i> </i>	<i>I</i>	<i>2</i>	<i>19:00</i>	<i>20:20</i>	<i>1:20</i>
7	<i> </i>	<i>FS</i>	<i>3</i>	<i>21:00</i>		
8	<i> </i>	<i>I</i>		<i>21:15</i>	<i>22:40</i>	<i>1:25</i>
9	<i>SUBSCRIPTION</i>	<i>Keep Some Ails C</i>	<i>(1)</i>	<i>23:00</i>	<i>26:10</i>	<i>3:10</i>
10	<i>SHARP PENCIL</i>		<i>(1)</i>	<i>26:30</i>	<i>29:35</i>	<i>3:05</i>
11	<i>NOTORIETY</i>	<i>I</i>	<i>4</i>	<i>30:00</i>	<i>31:30</i>	<i>1:30</i>
12	<i> </i>	<i>I</i>	<i>5</i>	<i>32:00</i>	<i>33:40</i>	<i>1:40</i>
13	<i> </i>	<i>C</i>	<i>6</i>	<i>34:00</i>	<i>38:35</i>	<i>4:35</i>
14	<i> </i>	<i>C</i>	<i>7</i>	<i>39:00</i>	<i>43:45</i>	<i>4:45</i>
	<i>✓ SHARP PENCIL</i>					
	<i>✓ SUBSCRIPTION</i>					
	<i>✓ NOTORIETY</i>					
	<i>✓ WRITE IT ALL DOWN</i>					

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Figure 1

SETUP SHEET

artist: SCRIBE  
 producer: SPELL CHECKER  
 engineer: ALEX CASE  
 assistant: HAMBILL SERVANT  
 title:

date: 14 FEB 00  
 studio: A ROOM  
 tape: OARS 60 MP  
 machine: 04.38  
 sample rate: 44.1 kHz  
 reel: (2) OF 4

WRITE IT ALL DOWN (TAKES)

mic	instrument	input	track	notes
451 PRO	H/H	1	1	
D12E	K	2	2	DRUM L
57	SN	3	3	Seq-o-Matic #3
84MM	SN	4	3	DRUM R
441	SN	5	—	PEAK!
421	R <sub>1</sub>	6	4/5	160X
421	R <sub>2</sub>	7	4/5	160X
421	FL	8	4/5	160X
487	OH L	9	6	OH!
487	OH R	10	7	OH!
4006	ROOM	11	6	1176 #1
4006	ROOM	12	7	1176 #2
		13		
		14		
		15		
		16		DRUM LEFT
SM7	LV	17	23	Seq-o-Matic #1
		18		
		19		
		20		
		21		
57	EGT	22	10	Pultec #3
01.133	BASS	23	8	
447	B-15-447-1605A	24	9	2:1 gain

Figure 2

# NUTS and BOLTS

In addition, every take gets one of three codes:

**C: Complete**—this is a complete take, top to bottom. It does not reflect an opinion whether or not this is the preferred, selected, sure to win a Grammy take, just that it is complete.

**I: Incomplete**—the band aborts the take somewhere along the way. There's enough good stuff in it, though, that rather than erase it and lose it forever you save it.

**FS: False Start**—the tune didn't start cleanly, maybe someone missed a cue. The band stops and immediately counts it off, launching right

back into the tune again. We consider all of this part of the same take and just note the start time of the next down beat without stopping tape and interrupting the groove.

When the band lays down a take that everyone knows is the one, circle the take number to designate it the selected take. At the end of the basics

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session, there should be only one circled take for each song title. Titles without circled takes aren't done yet.

## Barometer

A good engineer and producer will watch the take sheet for clues about how the band is feeling. You might easily need three, four, or more takes of the first tune as the band warms up, the engineer gets the sounds under control, and everyone gets used to the studio and each other.

When the band starts getting things in one or two takes, they are in 'the zone.' At this point they should not be interrupted for any-

thing short of a pending nuclear disaster or a really good episode of The Simpsons

If the session persists with multiple unsatisfactory takes (e.g. 'That isn't happening. Let's move on to the next song') song after song, your take sheet is trying to tell you there's a problem. Check to make sure the headphone mix sounds great, review the studio setup and make sure the players can see each other, and most importantly manage the session mood to help people relax, forget the studio, and just play the music.

Looking at Figure 1, you'll see we were having trouble with the tune 'Notoriety.' Take 1 was just okay; no one really liked it. Takes 2 and 3 were incomplete, with a false start in between. The band keeps hitting a snag and aborting the take. "No problem," the producer said, "that interlude is a tricky section. Let's come back to it later." So the band proceeds to one-take the next two songs. A good sign.

Back to 'Notoriety' Take 4, and problems resume. A careful look at the timing of the aborted takes reveals that the band keeps stopping at the same point, the interlude about 90 seconds into the tune. The producer and band have a musical road block to solve; time to rehearse, rewrite, or remove the trouble spot.

## Speedometer

By song number 14, 'Notoriety' Take 7, the band has progressed beyond the musical train wrecks that caused the whole take to stop. But the finished takes are getting

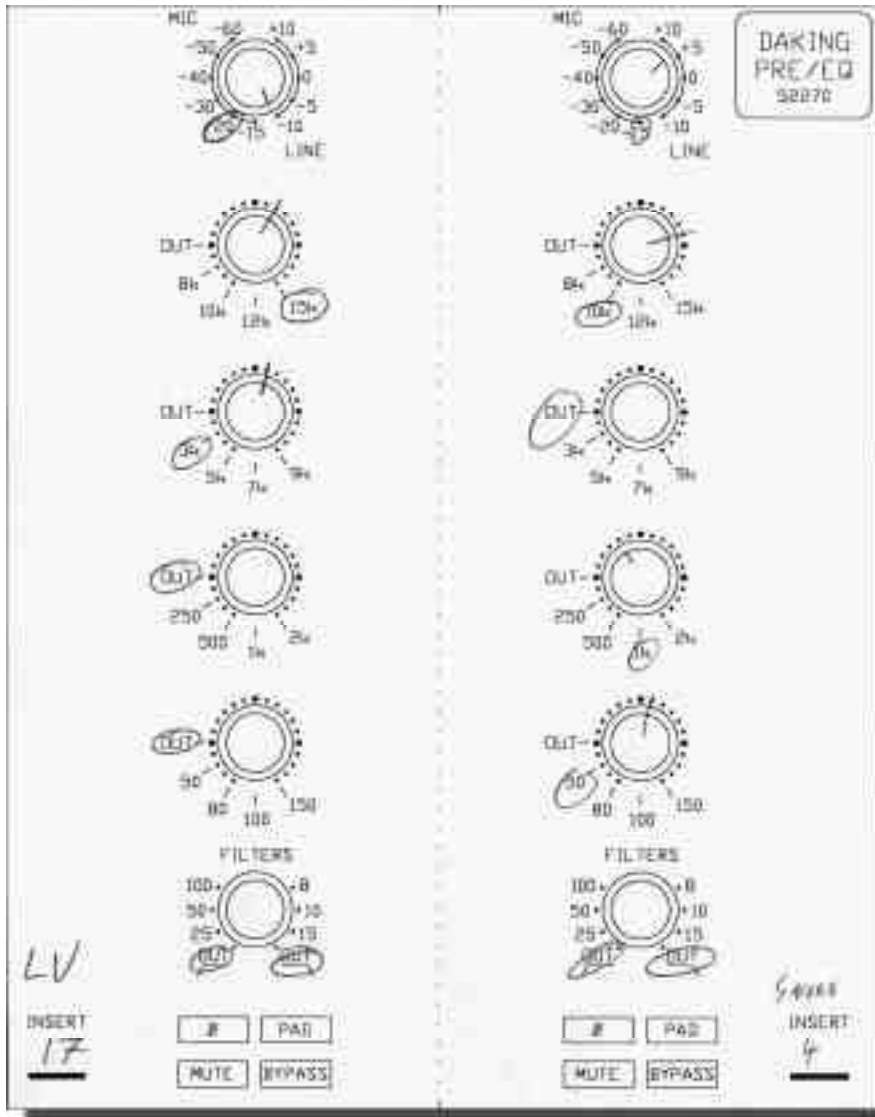


Figure 3

longer and longer. The tune is dragging. No one seems thrilled with the feel of the take.

Maybe the song is too hard; maybe the band is too tired. The take sheet points out the problem. The producer must decode this and direct the session accordingly. Sometimes the take sheet simply hints that the band needs a break, and they should have one—preferably before they notice they need it. The easy way to take a

that tells you that the one plugged into microphone receptacle input number eight is the floor tom mic. Unplug it. Leave it in the rat's nest of cables and just add another. The problem is solved and little time was wasted. (Ideally you'll also mark the guilty cable with a piece of tape so you know which one gets repaired later.)

If you are lucky enough to own four identical compressors—same make and model number—it can be hard to remember which Squishomatic Tormentor Mark IV was on the snare. Setup sheet to the rescue again.

When you are sitting at a console full of twitching meters spitting out the sound of the band rehearsing their first number, it can get confusing and more than a little intimidating. You might find yourself unable to locate the fader that controls the electric guitar signal. You're trying to send it to track ten, but the meter on the multitrack doesn't budge.

Instead of panicking and madly pushing faders, throwing switches, and cranking microphone pre-amps up to their maximum gain settings hoping to hear some guitar, you can instead calmly trace the problem from its source. Did someone forget to plug in the EGT mike? It's a simple, common mistake. The setup sheet makes it clear: the electric guitar microphone should be plugged into microphone input number 22.

After the session the setup sheet guides you through the many things you accomplished. Inevitably the

Inevitably the producer says something like "Didn't you use the mic that looks like a giant Tylenol?"

break without undermining the band's confidence is to announce "Pizza's here" or "Hey, we've got a fresh pot of coffee."

Don't fail to notice the opposite trend: speeding up. No matter how talented they are, bands are prone to rushing the tempo as they fight their way through a complicated arrangement while the studio clock ticks and the adrenaline flows. Good producers already have a target beats per minute goal for each tune. Let the take sheet help you measure the tempo of the tune so you know when the band is sprinting instead of grooving.

### Setup sheets

For any session other than a single overdub, it makes sense to document the general layout of the studio—the equipment used, the location of the players, the placement of the microphones, etc.

The heart of the setup sheet is simply a list of what microphone and signal processing was used in the recording of each and every track. This sheet acts as an equipment road map both during and after the session. Follow along on Figure 2.

During the session, when the studio is crowded with microphones, buzzing with musicians, and tangled with countless mic cables snaking their way around the studio, it can be difficult indeed to find and fix problems. If, for example, you hear the dreaded crackle and crunch of a failing microphone cable on the floor tom, good luck replacing it.

Unless, of course, you've got an accurate and current setup sheet

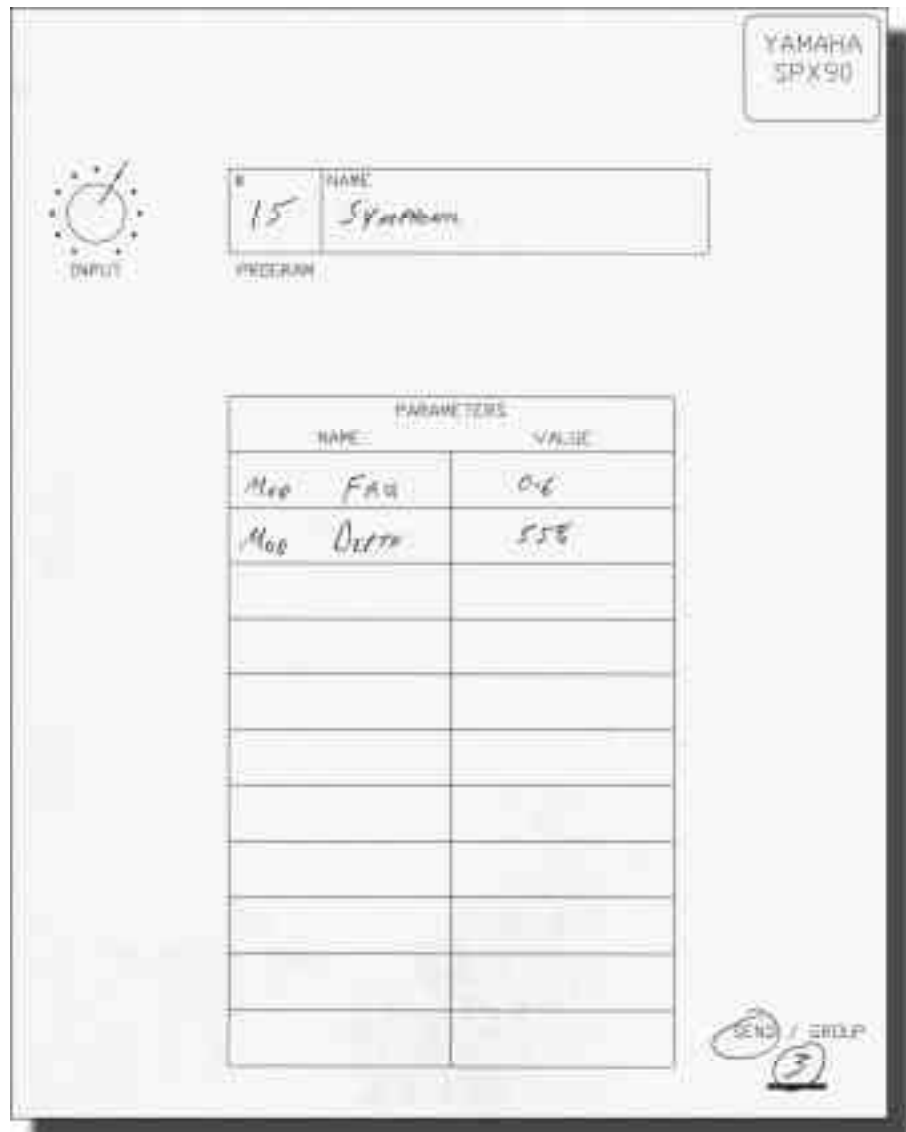


Figure 4

producer says something like “Give us that killer guitar sound you had during tracking. Didn’t you use the big microphone that looks like a giant Tylenol?” And this will be a good ten days after the basics session. To have a fighting chance of satisfying this request, you’ll need a setup sheet that archives the basic elements of the signal you put on tape: mic(s) and any compression, equalization or other effects.

The other side of the setup sheet has a floor plan of your studio for you to make notes on where you set

essing, phasing and/or any other effects, this is also noted. The documentation must also capture the exact settings of each piece of gear.

Two things help: recall sheets and recallable consoles. For each piece of gear you own, it is wise to create a recall sheet that lays out every knob, switch, and editable window in the device. Figures 3 and 4 show a common pair of recall sheets I use.

Figure 3 is the recall sheet for a mic pre/eq—the Geoffrey Daking model referred to in Figure 2. The page visually shows the knobs. Here

device, the venerable Yamaha SPX90. The recall sheet for this device changes form to accommodate the lack of knobs but wide range of editable windows. This much detail is only necessary in situations where your patches can get overwritten by someone else—and you’re not running some sort of SysEx librarian on the studio computer to save your own patches away from the effects unit.

During a basics or live-to-two session, there will be a fair amount to document; the typical overdub is

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the various players up in the room. Here you note the approximate location of the drum kit in the big space, the location of gobos around the guitar amp, that the singer was in the booth but his amp was out in the hallway, and so on.

For super tweaky sessions you might even make measurements of the locations of key microphones. Photos—made especially easy in this age of digital photography—help, but a sketch of the session layout on the back of the setup sheet is a useful way to document what happened.

#### Recalls

If you’ve had the pleasure of working in a full-rate studio that assigns an assistant engineer to your project, you know the benefits this brings. There’s a team of runners and assistants getting food, etc. The assistant also takes care of the essential thorough note taking that goes on during your session.

Professional facilities will document every setting of every single

## Don’t tempt fate

Notice that these studio documents always contain the same key information: artist, producer, engineer, etc. These documents should live with the multitrack tapes at all times. But if ever they get separated, this information will help you re-attach them to the correct project.

A multitrack tape without a track sheet isn’t easy to use. You’ll need a couple hours just to figure out what the heck is on tape, track by track. Ditto for a missing take sheet. I’ve attended sessions where they mixed the wrong take of a song. A solid ten hours of studio time wasted.

Additionally, these documents should always, always include your studio contact information. You want to get the call from the record company when it’s time to do some more mixing.

(The phone and address are omitted from the figures in this article only because this magazine is read by billions and billions of enthusiastic and talented recording musicians. If even 1% of you decided to call, I’d never get anything done. Rest assured that the actual documents do in fact include this information!)

generally much simpler. But during midown you may have to document settings on every piece of gear you own.

Beyond recall sheets, we have the ability on many consoles and pretty much all digital audio workstations to store the many settings and effects on the mixer. A vocal overdub might get some equalization from your DAW. Documenting those settings is as easy as a “Save As...” command. At the end of a project a single song might have well more than a dozen saved versions.

#### Taking note

Projects end not only with a stack of master tapes, but also with a thick file full of documents. The track sheet (discussed last month), the take sheet, the setup sheet and all those recall sheets are an essential part of the recording craft. These documents help you get more out of your equipment and communicate a higher level of professionalism to clients.

**...and above all we must try to avoid torturing the client with “Wait, let me find it. Here it is. No, wait. Is that Take two? Not sure. Hold on.”**

piece of gear you use. This documentation makes it possible—at least theoretically—to recall at a later date any sound you record at any time throughout the project. If you select a microphone and record a track straight to tape without effects, that is noted. If you add some compression, equalization, de-

we added sparkle to the lead vocal by pushing up the super high frequency range at 15 kHz. Presence was helped by a little boost at 3 kHz. The other bands of equalization and the low pass and high pass filters were not used (noted ‘out’).

Figure 4 shows the philosophical opposite, a digital multieffects

Alex Case reminds you that while you can track a take sheet, and you can take a track sheet, you can’t sheet a take track. Send questions and suggestions for Nuts & Bolts to [case@recordingmag.com](mailto:case@recordingmag.com).

