INSTALLATION ■ CONCERT ■ THEATER ■ CORPORATE AV ■ WORSHIP ■ CLUB ■ RECORDING

THE JOURNAL FOR LIVE EVENT TECHNOLOGY PROFESSIONALS

LIVE SOUND INTERNATIONAL

FEBRUARY 2006 VOLUME 15 • NUMBER 2 $10

THE MIGHTY KICK DRUM:
OUR LOVE AFFAIR WITH CHANNEL ONE

MONDO AMPLIFIERS:
MORE BANG FOR YOUR BUCK

POWER VIRUSES:
ELECTRONIC INFLUENZA

DON PEARSON:
TRIBUTE TO A LEGEND



WILD WILD WEST

LIVE SOUND International February 2006 THE JOURNAL FOR LIVE EVENT TECHNOLOGY PROFESSIONALS VOLUME 15 • NUMBER 2

INSIDE STORY

The West is the Best

kanYe West raises the game for rap tour technology

By Live Sound International staff

Grammy winning rapper and producer kanYe West recently hit the road for a 46-city U.S. tour with an emphasis on West the producer.

In support of his second release, 'Late Registration,' the *Touch the Sky* tour marks the first headliner outing for West, and puts him in scaled arenas and theaters, complete with a large production, which raises the game from the traditional rap outing. As such, West is joined on stage by DJ Atrak, a keyboardist, percussionist, two background singers and a string section consisting of four violins, two cellos and a harp. Opening acts include *American Idol* winner Fantasia and Keyshia Cole, who sang with West on his previous tour opening for Usher.

With complex sounds well beyond the genre's staples of voice, bass and drum, tour management turned to Genesis Audio Systems of Phoenix, Arizona. They in turn supplied a 36-box Martin W8L Line Array with 28 Martin WSX subs to meet the needs. Far from a stranger to some of the biggest acts in rap and hip-hop, FOH engineer Phil Strong emphasizes the differences in this particular tour. "People think of hip-hop artists as being more bare bones, like early rap artists, but this is a full blown production from one of the hottest producers in the studio and on the road," explains Strong, who came to the tour as mix engineer for rapper, and West's Chicago alum, Common. As it was, Common left at the 11th hour to film a movie, but the crew, planned as a blend of West's and Common's teams, stayed intact.

Strong runs a Digidesign Venue console at FOH, while a Yamaha PM5D-RH covers monitor chores in the hands of Genesis' John Clark III. Out front, the Martin W8L system is normally flown in 12-box main arrays, with arenas supplemented with six-box side arrays. In addition,







new W8LD Martin Audio down-fill boxes at the bottom of the main array provide the required 20- by 120-degree pattern and according to Strong "are helping out a lot and giving us the coverage we need in the first four or five rows." The system is rounded out with Martin WSX single-18 inch, horn-loaded subwoofers placed across the stage front in graduated-height stacks that are load-strapped in sections, and driven from an aux send. "One of our biggest problems is having enough 'blow-through' crowd barriers each day, so the subs don't get blocked," adds Strong. The entire system is powered with Martin MA 4.2s amps, augmented with XTA DP226 DSPs, and to ensure optimum coverage, Genesis system tech Mike Arnold worked with Martin Audio Rep, Rob Hofkamp, to optimize cabinet angles as well as low-end response via differing subwoofer configurations.

EFFECTS CITY

Strong uses TDM software plug-ins for EQ, compression and reverb, and like most Venue engineers he favors the Digidesign Reverb One, Smack compressor and Focusrite d2 EQ bundled with the console. He admits he'd like to try the Eventide Harmonizer plug-in, but for this tour he simply used three of his personal outboard effects, using the FOH rack's digital I/O to connect his t.c. electronic M3000 multi-effects, D-2 delay and Eventide Eclipse for chorusing, delays and doubling. And, as a detail-oriented producer, West has Strong send the effects to monitor world, where Clark adds them to the artist's stage mix.

For Strong, the mix begins with the vocal, and while West's rap style is unique, the genre brings its own demands to the choice of vocal mic. West, Clark and production tour manager Bryon "Hot Dog" Tate decided on the AKG WMS 4000 wireless microphone system with AKG's C5900 condenser capsule. And although the majority of signal processing for the 40 inputs happens within the Venue console, Strong is partial to the Summit TLA50 tube leveler he inserts on West's vocals.

With multiple acts on the bill, the production necessitated a digital desk for recall purposes, but a small footprint was imperative. Strong became a Venue enthusiast after a positive encounter mixing for Common at the Montreaux Jazz Festival last summer. "I walked up to the system guy and said 'I want to set up all my EQ the same on each channel: I want all the high-pass filters on and turned down, I want the lows at 80, the mid-band at 400 and 2.5k, and my highs at 8 kHz," says Strong, "and he just goes click-click-click, done: that would have taken me ten minutes on an analog desk." In addition, he reports it's straightforward to work on: nice to look at, easy to read and simple to get around on. Plus it sounds great.





Information is always close at hand – Production console screen views from the Digidesign Venue (left) and Yamaha PM5D-RH (right).

And it doesn't end there. Strong's list of invaluable features includes the digital patch bay, the ease and benefit of bringing studio plug-ins on the road, as well as the EQ interface. And working with a producer on the tour means that Strong takes daily advantage of the console's FireWire output to Pro Tools feature, with nightly recordings for review, adjustment and rehearsals. Indeed, Strong was so sure of his choice that getting the desk just days before the tour start was barely a hiccup.

"I love the flexibility and sound of the Digidesign Venue so much I don't want to mix on anything else," he states enthusiastically, adding that mixing the tour is usually more than level changes, as he's constantly re-contouring some sounds to fit with other sounds, or to recreate a sound from the record. "Rather than creating snap shots for many MIDI effects as I might normally do, I have to deal with them in real-time to make adjustments for the song on that night, even though I am able to build EQ libraries."

According to Strong, the key to the tour's success was to know the music and the desires of the artist. "To accomplish that, you need to really understand the musical vocabulary and know how to identify what is important about the record," he explains. "If you choose incorrectly you can alter the perception and feel of the song drastically, and for a detail-oriented producer like West, that is unacceptable."



Strong: "... click-click-click, done: that would have taken me ten minutes on an analog desk."

MEANWHILE, STAGE RIGHT ...

Over in monitor world, John Clark provides a dozen mixes for a combination of wedges and in-ears. West, who uses the entire stage, monitors via four pairs of L-Acoustics 115XT coaxial wedges across the front, supplemented by two more pairs of Martin WSX subs on the deck and flown L-Acoustics ARCs sidefills powered by Lab.gruppen fP 6400 amps. The eight downstage wedges get just West's vocal and the backing tracks, while the side fills are a full mix. "Everything that goes to kanYe's mixes is post-fader, and I'm mixing it similar to FOH, with dynamic level changes as instruments, vocals or tracks need to come up and then restore," explains Clark.

Three additional upstage mixes are fed to five Audio Analyst FR12 wedge monitors for the percussionist, keyboardist and the DJ. The principal violinist and the harpist utilize Shure PSM 700s, and hardwire mixes are supplied for the three violins and two cellists, who are contracted locally, monitoring via generic Sony MDR-848 ear-buds fed by Samson C-Que8, headphone amps.

Clark's wireless rack has eight SR4000 receivers, a pair of PS4000 antenna splitters, and a HUB4000 for connection to his G4 PowerBook running AKG's Mission Control 4000 software. This displays a customizable view of all the status and history readouts for a multi-channel system on a single screen, and includes a spectrum analyzer. In addition, it has an Auto Set-up procedure that scans the entire 30 MHz band and automatically sets the

Inside Story



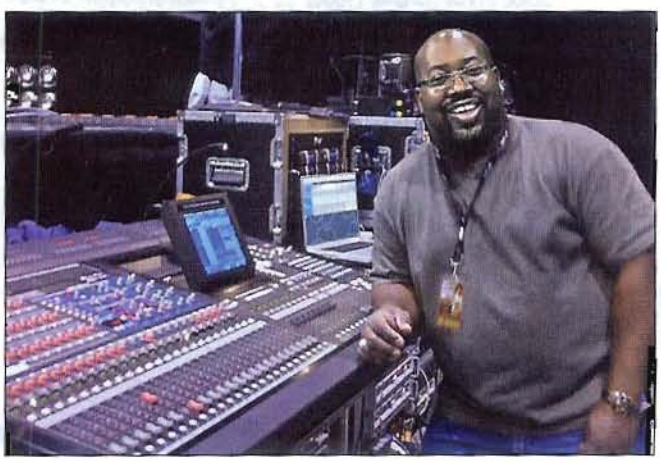
frequencies for the receivers. "I love the simplicity and accuracy that the AKG software gives the system by picking out available clean frequencies and assigning them to each unit," says a clearly impressed Clark. G.O.O.D. label artists Lupe, GLC, Consequence and Really Doe also join West on stage, all using AKG C5900 wireless mics.

Interestingly, John Clark is normally found manning FOH, and like Strong, has seen many rap acts in his career. With a number of guest rappers joining West on stage throughout the tour, Clark referenced the mic handling technique of choice by most and how the AKG seems to be making a definitive difference. "I think that other rappers have grown so accustomed to the sound coloration that comes from cupping the mic, that they look for that emphasized 2.5 kHz sound," he explains. "The AKG 880 doesn't respond that way, and there were several guest rappers attempting to get that sound without success with the AKG."

OLD-SCHOOL MEETS NEW TOOL

Along with the obligatory pair of Technics SL-1200 turntables, DJ Atrak relies on Rane's SeratoLive technology. Serato employs a vinyl 'control track' that plays on the turntables, a computer interface, and software with a visual display that makes it easy to see sound, and gives digital music mixing an analog feel. Instead of carrying a hundred pounds of vinyl, the DJ simply brings two Scratch vinyl control records and carries his entire library on a portable hard drive. "The Serato has changed the world of DJ more than any technology since the CD," states Clark.

By the time *Live Sound* caught up with the tour, percussionist Karriem Riggins had left to rejoin his gig with Diana Krall to support her Christmas album, and filling in was the venerable Frankie 'Knuckles' Walker from pioneering hip-hop group The Roots. A predominately AKG mic set-up, his congas are mic'ed with 419 miniature goosenecks, cowbell and high-hat are mic'ed with 391 pencil condensers with a pair of 451 condensers for overheads. He also plays an AKAI MPC 3000 sampler that's loaded with actual drums sounds from West's album to ensure transitions, and overlap between tracks to live, are seamless. As it is, West's show is not entirely scripted and though some of



Clark: "I love the simplicity and accuracy that the AKG software gives the system by picking out available clean frequencies and assigning them to each unit."





The Digidesign Venue in place at FOH.

it runs from studio samples, there are significant live elements that play through, around and between the tracks. West is also known to change the set nightly and to helpfully call changes mid-show, so everyone has to be totally focused.

There's more AKG on BV duties, with singers Tony Williams and Joi Campbell utilizing AKG D880 vocal mics. They rely on a vocal-only mix through Shure E3 ear buds and PSM700 wireless to turbo-charge the vocals and supplement the full mix from the pair of wedges that flank them, as their position on stage-right is in the line of fire from the flown ARCS sidefills, and in close proximity to the flown mains and stacked subs. An additional AKG D880 is set up with 3-1 compression for guest vocalists and rappers, who have ranged from Patti Labelle and Jamie Foxx, to Jay Z and Adam Levine. It's possibly no surprise therefore, that stage volume runs anywhere from 100 dB downstage to 110 dB upstage with an incremental increase over the show's progression.

STRINGS N' THINGS

More than a gimmick, the production fully utilizes the string section texturally and musically on the majority of songs. Principal violinist and conductor Nicole Garcia and harpist Rebekah Raff travel with the tour, but the remaining strings are hired daily. With just one day to rehearse the section and acclimate them to the music, Garcia and Strong work together closely to make decisions. "My job is to place them or not place them, when they get it or don't get it," explains Strong. "Things like intonation changes, or their own personal take on the dynamics, require me to make split second judgments on where and how I'll place them in the mix, if at all."

Strong also points out the challenges of dealing with different players and physical instruments in each city. As such, both FOH and monitors worked together to standardize the microphone and monitoring set-ups, so that the only variables are the instruments and the players.

At FOH, the challenges are met with a combination of ears, feel and plug-ins including the Pro Tools Smack! compressor/limiter plug-in. "I comp the group, which helps me smooth out the string section when necessary, and when we have an exceptional string section or weak one, I remove or add the backing string tracks as needed," says Strong. Meanwhile, stage techs Chainey Harpe and Marcus DuFrene, experimented extensively with microphone placement, settling on just below the bridge towards the lower strings for a consistent full sound. The lead violinist and harpist use Fishman V-100 pickups, while the rest of the strings use AKG C411 contact mics; and in order to insure solid contact without marring expensive instruments, Harpe and DuFrene use the supplied putty-like double-sided adhesive.

The string rehearsal begins well before load-in and continues throughout the day, culminating in sound check, followed by more practice, and for this tour, sound check becomes even more important, as it is the first chance to begin dialing in the virtually new string section in each city.

kanYe West returned to Portland later in December, opening for U2 on their last four North American shows, with Clarke returning to his regular position at FOH, this time mixing on a Clair-supplied XL4. The tour made its final stop for 2005 on New Years Eve at the Aladdin in Las Vegas, which was a successful cap to a highly anticipated and well-attended tour. With highlights ranging from sold out back-to-back Madison Square Garden dates to West's triumphant return to his hometown of Chicago, the tour proved challenging but highly successful for all involved. The next stop is a return engagement at the Staples Center on February 8th. ■

The 27-year-old kanYe West was nominated for eight 2006 Grammy awards, including album of the year for his sophomore album, Late Registration.