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This type of time schedule isn't the norm for live-action or cartoon sitcoms. Most production companies work a season ahead, and take nine months to do a show. But the *South Park* team obviously thrives on the stress of scrambling to meet its ever-approaching deadline of 1:00 p.m. each Wednesday afternoon, just in time to uplink the show to New York for a 7:00 p.m. broadcast.

The process of crafting an episode of *South Park* starts not just with the script, but with the sounds as well. The sound team at *South Park* is made up of three engineers: Bruce Howell, Lydia Quidilla, and D.A. Young, who exhibit an unusual level of good spirit given the insane hours they've put in over the past year. "Usually we get five months off between seasons," explains Howell. "But we did a movie this year — *Team America*, for Paramount — so there's been no break. We started the movie at the end of last season, and when the movie was finished we dove straight into this season."

By the time this season ends, the *South Park* team will have put in an entire year of 12- to 13-hour days, seven days a week, just so that we can be entertained each week by the sick antics of Stan, Cartman, Kyle, and co.

**Getting a Gig at South Park**

Howell earned the head sound engineer position at *South Park* by being both persistent and prepared. After touring as a guitar player for Patti Smythe, Belinda Carlisle, Cher, Berlin, and other bands, he decided he wanted to get into engineering sound. After cold-calling for two months, he finally landed a gig at Screen Music, doing sound for several Saturday morning cartoons. After a few years there, the *South Park* opportunity knocked.

"*South Park* fell into my lap," he admits. "A friend of mine said he was going to do the gig and asked if I could cover for him for one week. Eight years and well over 100 shows later I'm still here, and it just keeps going. It won't stop!"

Likewise, Lydia Quidilla caught the audio bug when she got tired of working as an account executive for an ad agency. "I remember watching my sound engineer friend working, and saying, 'You mean they actually pay you to do this?'" She soon took on the night shift at Screen Music, and was mentored in the art of engineering sound by her girlfriend using Digidesign's AudioVision. Quidilla also freelanced at other studios such as Saban, the production company that put out the *Power Rangers* series. She then moved to working the day shift at Screen Music, where she cut dialog for several animated shows for HBO, Disney, and Universal. That's when she met Howell.

At the end of the first season, Bruce called me to say *South Park* had taken off and he wanted to bring me in," she reflects. "I said, 'You mean you're only working on one show?' But I didn't realize just how intense this show was."



Lydia Quidilla and Bruce Howell.

**The Evolution of an Episode**

"When we first start a show, we get maybe two or three pages of script," explains Quidilla. "It develops every day, and sometimes the whole story changes. The idea we start with on Thursday can be totally different by the time it airs the following Wednesday."

At 1:30 a.m. on Wednesday morning, a fifth of the animation is still to be finished. "Bruce turns to me and says, 'This has to all be done tomorrow morning,'" Quidilla recalls.



For *South Park*, the sound studio is a much more intensive part of the production than it is for many other shows. "*The Simpsons* episodes take nine months to make," notes Quidilla. "We do all this in five days."

Matt Stone and Trey Parker, the show's creators, give the sound team a lot of leeway. "They're not in here going, 'Can you move that,'" Quidilla says. "But that can also be bad, because sometimes you get no direction. But it can't be too bad, because we're still here after eight years!"

To start the process each week a basic script is written. Stone and Parker will immediately come into the control room and do preliminary voiceovers for all the characters in the show. "They're usually in and out of here in, like, 15 minutes," Quidilla says. "They usually know exactly what they want as far as the tone and inflections of the lines, so it doesn't take them any time at all to lay down the initial ideas."

Next, Howell and Quidilla look at the scripts and locate appropriate sound effects for what they think the scene will require — from doors slamming to sirens blaring, electricity, lightning, and so on. They add the sound effects to the mix, alongside Parker's and Stone's voiceovers. "This helps the illustrators and animators get inspiration on how the scenes should look," says Howell.

The rest of the process is very back-and-forth. The storyboards are developed and thrown into the timeline as the sound continues to take shape. Fifty animators work on developing the animations. When these are completed, they're dropped into the timeline, replacing the storyboards.

During this process, the sound team must continuously be on hand to adjust the sound, shifting and replacing voiceovers to match the animation, and in some cases time-stretching or pitch-shifting files to sync to the visuals.

For the "Preschool" episode, Howell and Quidilla spent three days in the studio with real-life preschoolers, recording voiceovers for a segment where the main *South Park* characters reflect back to their preschool days. "We spent a lot of time trying to get the kids to stop touching the microphone while recording," says Quidilla. "That part made it a bit harder than the normal voiceover recording process."

In a normal week, the voiceover talent checks in around 10:00 p.m. on Tuesday, the evening before the show airs. They read directly over Stone's and Parker's placeholders, mimicking the original inflections, tones, and emotions of the creators' vision.

**Pro Tools Control Rooms**

The main control room at *South Park* features a Pro Tools|HD 3 Accel system with ProControl and AVoption on a Power Mac dual 2 GHz G5. There's also a second Pro Tools|HD 3 Accel system, which is used to create songs and additional score elements.

The *South Park* sound team relies heavily on Pro Tools plug-ins. "We use X-Noise from the Waves Diamond Bundle a lot," says Howell. "It works incredibly well. Matt and Trey do a lot of voiceovers back to back and don't take any pauses in between, so sometimes the recordings we get are really low, and sometimes they're cranked really loud. I'll use an L1 limiter to boost everything, or the AudioSuite Normalize function, but then you might get room hiss. But when we use X-Noise, it completely clears all that up."

**"I remember saying, 'You mean they actually pay you to do this?'"**

**"The Simpsons episodes take nine months to make. We do all this in**

Howell also uses the Oxford EQ frequently. "It's the only thing that sounds as good as the sweet knob at the top of the 1073," he says. The *South Park* sound crew also swears by Line 6's Amp Farm and Echo Farm plug-ins, and often uses Line 6 PODxt and Bass PODxt amp simulators.

Howell and Quidilla use Soundminer audio file management system for both sound design and management of the extensive *South Park* sound library. This asset management system organizes samples and metadata about each sample, and integrates directly with Pro Tools. "You can just select a sound — say, lightning — click on it, and it transfers it straight into your Pro Tools session," Howell explains.

## five days.”

The sound bank is stocked with over 100 GB of 24-bit/48 kHz samples. “From time to time, we’ll bring sheet metal in and mic up some Foley for the sound palette,” says Howell. “But most of the time, we just dig into our sound libraries with Soundminer.”

### Scoring with Pro Tools via Email

The show’s composers, Jamie Dunlap and Scott Nickoley of Mad City Productions, work across Los Angeles in another studio. As the episode takes shape, they take the test voice scripts and write cues for different scenes in Pro Tools. When the cues are finished, the composers email the audio files as mp3s, which Howell converts back into AIFF files. The composers use voiceovers as leads to the cues, so Howell can sync up the music to the appropriate place on the timeline. Stone and Howell then decide whether they think the music works for the final animation, and Howell inserts additional sound elements if it makes the music blend better with the scene.

All the mixing for *South Park* is done inside Pro Tools. “The first season, we mixed using three Mackie boards and punching into a Tascam DA-88,” says Howell. “It took forever, it didn’t allow for easy changes, and I had to wait until everyone else was finished with the show, which is physically impossible at this point.”

Then, about five years ago, Howell switched and started mixing inside the box using Pro Tools and ProControl. “Mixing inside Pro Tools is the best thing that could ever happen to any person on the planet,” he says. “I love the way faders feel. I love the ultimate control we have. Everything is changeable and recallable. It’s the only way to work.”

