Remembering our mentor and friend: Ed Greene

Coverage of Mix’s ‘Sound for Film’ Event

Dolby Atmos Integration in Pro Tools

AES NY: What’s new in hardware?
“A SUPREMELY ACCOMPLISHED PIECE OF CLASSICAL STUDIO FILMMAKING THAT EARNs ITS EVOCATION OF SUCH PANTHEON WAR FILMS AS ‘THE GREAT ESCAPE’ AND ‘THE BRIDGE ON THE RIVER KWAI.’ IT IS A WORK OF STUNNING ARTISTRY. IT WOULD BE HARD TO OVERSTATE JUST HOW SINGULAR THIS PICTURE FEELS IN ITS SERIOUSNESS OF PURPOSE AND IN ITS CUMULATIVE POWER TO ENTHRALl AND ASTONISH.”

JUSTIN CHANG

FOR YOUR CONSIDERATION IN ALL CATEGORIES INCLUDING

BEST SOUND MIXING
Sound Mixer CHRIS DUESTERDIEK
Re-Recording Mixers ANDY NELSON | WILLIAM FILES

BEST SOUND EDITING
Supervising Sound Editors/Sound Designers WILLIAM FILES | DOUGLAS MURRAY
“Compelling, relevant, surprising, and visually stunning.”

— FORBES, Mark Hughes

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BEST FILM EDITING
BEST SOUND MIXING
BEST SOUND EDITING

CARS 3

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Cover: The sound community gathers.
Ed Greene photo: © 2006 Al Seib/Los Angeles Times.
BEST PICTURE

Best Sound Mixing

PRODUCTION SOUND MIXER
Drew Kunin

RE-RECORDING MIXERS
Andy Nelson | Gary Rydstrom

Best Sound Editing

SUPERVISING SOUND EDITORS
Richard Hymns | Brian Chumney

SUPERVISING SOUND DESIGNER
Gary Rydstrom

A Steven Spielberg Film

The Post

Music by John Williams
Produced by Amy Pascal, p.g.a., Steven Spielberg, p.g.a., Kristie Macosko Krieger, p.g.a.
Written by Liz Hannah and Josh Singer
Directed by Steven Spielberg

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FOXSCREENINGS.COM
It is with excitement that I look forward to the upcoming awards season.

There have been so many inspired projects this last year that I look forward to re-watching our nominees.

I hope the happy and positive time to come will help to put in the past some of the negativity coming to light in our industry over the last few months. We must commend the strength exhibited by those who were hurt and came forward. Much courage is needed to speak up. I hope as time moves forward, we continue to evolve into an industry of safety for all, a place where fear and judgment are marginalized into nonexistence.

Where everyone is heard!

We need to look to a world where the qualities that really count are those of creativity, integrity, honesty and hard work.

As the Cinema Audio Society grows as an organization, it is important that we represent all our members, so that everyone can have a voice. Our Board, like our organization, is the most diverse it has ever been.

But still I encourage you, the members of the CAS from all our different backgrounds and cultures, the young and the older of us ... participate!

Write an article for the *CAS Quarterly*, run for a seat on the Board, nominate a project for a CAS Award.

Participate and be heard.

Mark Ulano CAS  
President
FOR YOUR CONSIDERATION

DAZZLINGLY ANIMATED.”

“

A DELIGHTFUL BLEND OF CLEVER AND TENDER
that's certain to tickle audiences of all ages and stages.”

Hollywood Reporter

BEST SOUND MIXING
Sound Design and Sound Supervision
PAUL N.J. OTTOSSON
Re-Recording Mixer
PAUL N.J. OTTOSSON

BEST SOUND EDITING
Supervising Sound Editor
PAUL N.J. OTTOSSON
Hello CAS members! As you finish raking that last batch of leaves, we bring you the fall Quarterly. In this issue, we look at the making of the musical episode of the FXX series It’s Always Sunny in Philadelphia entitled “The Gang Turns Black,” following from pre-production through the mix. David Bondelevitch CAS MPSE, Peter Kelsey CAS, and Karol Urban CAS MPSE report on Mix magazine’s “Sound for Film” event. G. John Garrett CAS reports in from NYC at this year’s AES Convention and sits down with Avid’s Rob D’Amico to discuss some new Pro Tools features in his “Technically Speaking” column. With the Dolby Atmos-focused features in Pro Tools 12.8, Matt Foglia CAS checks in with some Atmos mixers to get their take on workflow changes and how to mix and deliver for home viewing. Devendra Cleary CAS sits down with production mixer Shawn Holden CAS in our “Meet the Mixer” column. And as always, you can read about the happenings of your fellow members in the “Been There Done That” and “The Lighter Side” sections. Finally, we remember friends and colleagues Sandy Berman, Ed Greene, and Paul Rodriguez.

The CAS Quarterly is produced as a service to our members and relies on their voluntary nature. If you are interested in contributing an article—let us know! Additionally, we greatly appreciate, and want, your feedback and suggestions—so send them in! Email us at CASQuarterly@CinemaAudioSociety.org. Remember, our sponsors are professionals like you who understand the business and the needs of our industry. We encourage your commitment to them.
FOR YOUR CONSIDERATION
IN ALL CATEGORIES INCLUDING

BEST PICTURE

BEST SOUND EDITING
MARK MANGINI
SUPERVISING SOUND EDITOR
THEO GREEN
SOUND DESIGNER

BEST SOUND MIXING
MAC RUTH
PRODUCTION SOUND MIXER
RON BARTLETT
DOUG HEMPHILL
RE-RECORDING MIXERS

“BLADE RUNNER 2049”
PUTS YOU FIRMLY, BRILLIANTLY,
UNASSAILABLY IN ANOTHER WORLD
OF ITS OWN DEVISING,
AND THAT IS NO SMALL THING.”
–KENNETH TURAN / LOS ANGELES TIMES

“BLADE RUNNER 2049”
AMAZES BECAUSE EVERY
ASPECT IS TOP NOTCH.”
–BRIAN TRUITT / USA TODAY

BLADE RUNNER 2049
"WONDER WOMAN" IS AN ELECTRIFYING, BREATHTAKING CINEMATIC ACHIEVEMENT.

MARK HUGHES,

BEST SOUND MIXING
CHRIS MUNRO, AMPS, CAS (PRODUCTION SOUND MIXER)
CHRIS BURDON (RE-RECORDING MIXER)
GILBERT LAKE (RE-RECORDING MIXER)

BEST SOUND EDITING
JAMES H MATHER (SUPERVISING SOUND EDITOR)
CAS Secretary and author of the article “Mentorship: My Mentors in Education” in the Spring 2017 CAS Quarterly (pgs. 48-53), David Bondelevitch CAS MPSE received this email from audio artist and legend Ben Burtt. With permission, we share his sentiments below.

Hello David,

I know it has been weeks but I do want to thank you for the excellent article on Ken Miura. I will treasure it in my sound archives, for it recalls a special person in my career and many good memories of those learning days in sound at USC.

Thanks,
Ben

If you would like to submit a letter to the editor, please direct it to CASQuarterly@CinemaAudioSociety.org. We aim to serve our industry and community and value your feedback.
54TH ANNUAL CAS AWARDS
Timeline has begun and we are accepting submissions

The timeline is as follows:
- Entry Submission Forms available online as of Monday, October 16, 2017, on the CAS website at www.CinemaAudioSociety.org

Located under the CAS Awards tab, on the site you will find:
- CAS 54th Awards Submission Forms
- CAS 54th Awards Entry & Voting Rules & Regulations
- CAS 54th Awards Timeline
- CAS 54th Awards Promotional Regulations

There is no limit to the number of entries or categories you may enter.

Note to CAS members only: Your completed Entry Submission Form is available to view and print through your Memberclicks profile. Select “My Profile” the “View Transactions” from the pull-down menu to choose your receipt for printing.

If you have any questions or if you need help with the submissions, please email CASoffice@CinemaAudioSociety.org or call (818) 752-8624.

- Entry Submissions Due Online—5 pm PST, Monday, November 20, 2017
- Nomination Ballot Voting Begins Online—Thursday, December 14, 2017
- Nomination Ballot Voting Ends Online—5 pm PST, Wednesday, January 3, 2018
- Final Nominees in each category announced Wednesday, January 10, 2018
- Final Voting Begins Online—Thursday, February 1, 2018
- Final Voting Ends Online—5 pm PST, Wednesday, February 14, 2018

The CAS Awards recognize Outstanding Sound Mixing in film and television. This year’s recipient for CAS Career Achievement Award will be re-recording mixer Anna Behlmer. The CAS Filmmaker Award will be announced later in the year.

The 54th Annual CAS Awards will be held Saturday, February 24, 2018, at the Omni Los Angeles Hotel at California Plaza in the Bunker Hill Ballroom, Los Angeles, California.

CHRIS NEWMAN AND JEFF HABOUSH JOIN CINEMA AUDIO SOCIETY BOARD OF DIRECTORS
by Dorothea Sargent

On November 6, 2017, the Cinema Audio Society welcomed new Board members: re-recording mixer Jeffrey J. Haboush CAS and production sound mixer Chris Newman CAS.

Chris and Jeff will be filling the vacancies on the Board left by the recent passing of production mixer Ed Greene CAS and the retirement of Foley mixer Mary Jo Lang CAS. “Adding new Board members at this time is bittersweet but we are proud and inspired by the fact that we can welcome two dynamic and valued members of the sound community to fill shoes that we thought might be impossible to fill,” said CAS President Mark Ulano.

With over 200 feature and television mixing credits, Jeff Haboush has four Oscar nominations and is a CAS, BAFTA, and Emmy nominee as well as an Emmy winner. His career began in 1978 at B&B Sound Studios, Burbank, California. In 1989, he moved to Warner Bros./Goldwyn Sound and in 1999, moved to Sony Studios. Currently, Jeff can be found bouncing between Technicolor and Smart Post Sound mixing stages.

In a career that spans more than 40 years, Newman has been the production sound mixer on more than 85 feature films and garnered eight Oscar® nominations with three wins for The English Patient, Amadeus, and The Exorcist. Newman was honored in 2013 with the CAS Career Achievement Award. He also won a CAS Award for Outstanding Sound Mixing for The English Patient and has BAFTA wins for Fame and Amadeus. Prior to working on feature films, Chris spent a decade working on documentaries, including working for Ted Yates’s NBC unit in Southeast Asia in 1966. Having taught sound and filmmaking in Europe, Brazil, Mexico, and at NYU and Columbia University, Chris currently teaches both sound and production at the School of Visual Arts in New York.
“CLEVER, WELL-PACED, SELF-AWARE AND COMPLETELY SATISFYING.”

Peter Hartlaub, San Francisco Chronicle

BEST SOUND MIXING
MICHAEL SEMANICK GREGG LANDAKER
RE-RECORDING MIXERS

BEST SOUND EDITING
WAYNE PASHLEY, MPSE
SUPERVISING SOUND EDITOR/DESIGNER
What’s new in Pro Tools?
An interview with Avid’s Director of Digital Business Development
Rob D’Amico

At the AES show in New York on October 18, I sat down for a few minutes to talk with Avid’s Director of Digital Business Development Rob D’Amico. It was less of an interview and more of a “Tell Me Everything” session, and Rob came through with some of the latest news, starting with the benefits of their new subscription service for Pro Tools.

RD: We don’t have to wait for monolithic releases or wait for releases once or twice a year; it’s continuous development. As we finish functionality and capability updates for our end-users’ needs, we deliver to them. By being on a subscription plan, you can reap those benefits right away. In June, we partnered with Dolby Atmos to deliver a very integrated way of mixing for Dolby Atmos right within Pro Tools. That’s a huge undertaking that makes the workflow of mixing for Dolby Atmos like it is for mixing to 5.1 or 7.1: it’s very intuitive, very easy. We actually got a lot of customer feedback through our beta testing and bringing people in and asking them how they want this to function. We worked very closely with Dolby Atmos on the integration. Now our actual panner has been modified to be an object-based panner (See our article in this issue entitled “Dolby Atmos and Pro Tools 12.8: User Insights” for some user feedback on the Atmos integration).

GJG: I guess the other thing about the subscription service is that any change you need to make, if there’s a bug in the field, you can propagate it back into the field right away, right?

RD: You can. We want to make sure that with every release, we add value and functionality—we don’t want to just do bug-fix releases. I say that because we want to make sure that a “dot” release is adding value to the workflows. Like today, we just announced and released 12.8.2, which is a big update from 12.8. It’s packed full of functionality for our Pro Tools First users, our Pro Tools users, and our Pro Tools HD users. So that ranges the gamut from aspiring professionals to the high-end post-production mixer or film editor. It is really powerful to see the number of talented customers we have that subscribe and use Pro Tools as a product of choice.

GJG: What else is new?

In 12.8.2 for the post world, we did more updates for Dolby Atmos to enhance that workflow further. So if you’ve got a session that you now want to mix for Dolby Atmos that was already created, you can now easily repurpose automation data for mixing to object-based elevation data. Along with that, being able to set up your Dolby Atmos renderer for routing purposes. Another improvement is the addition of Ambisonics support. We’re supporting first, second, and third ordering for Ambisonics workflows. We’ve actually partnered with Facebook to bundle their special workstation plugins—which is all the 360 plugins, immersive audio, 3D mixing. So that comes with Pro Tools HD 12.8.2. It was great working with them and we look forward to doing a lot more partnerships like this in the future.

As far as the post-production world where, obviously, time is of the essence, we’ve also enabled some quick editing functionality for scrolling to tracks. So if you have a long list of tracks, you can start typing in the name and it will go right to that track. Also, batch renaming of tracks and clips, because often when you have field recorder media or have imported an AAF from Media Composer or some other NLE, sometimes clip names can be pretty unintuitive. Now you can select a whole region of clips and batch rename them, adding a number at the beginning or end, or removing some text from the clip names in a “find and replace” operation. It’s a really powerful new function. Along with that, we have put a lot of energy into creating “tips and tricks” videos around these new features so our customers can find out quickly how these new features work.

protools12.jpg
FOR YOUR CONSIDERATION

BEST PICTURE

BEST SOUND MIXING

PRODUCTION SOUND MIXER RAY BECKETT, A.M.P.S. C.A.S.

RE-RECORDING MIXER PAUL N. J. OTTOSSON, C.A.S.

DETROIT

NOW MORE THAN EVER

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“Wonderstruck’ lives in the glory of its filmmaking—its photography, its costuming, its set design, its brilliantly variegated Carter Burwell score.”

“Carter Burwell’s score includes some of his best and most ambitious work to date, from the propulsive wind and piano pieces that flesh out the silent-era melodies to the psych drone that welcomes us back to New York.”

“A gorgeously crafted, spectacularly scored affair.”

“CARTER BURWELL’S SCORE IS EXQUISITE, capturing the terror and the wide-eyed excitement felt by two kids venturing into the big city.”

FOR YOUR CONSIDERATION IN ALL CATEGORIES INCLUDING
BEST PICTURE | BEST ORIGINAL SCORE Carter Burwell
I was really excited to take on this assignment and speak to Shawn Holden. To do a bio on a heavy-hitting production sound mixer like her is an immense privilege. She is someone I’ve known for a long time and have a great deal of respect for.

We first met when she hired me to boom a short film called In the Morning, in 2005. And for how long I’ve known Shawn and the fact that we interface often, attend the same industry functions, serve on the Board of Directors of Local 695 together, I was embarrassed by how little I really knew about her and her amazing history in this business. I sat down with her at Tart in West Hollywood for a couple hours. If it wasn’t for the fact that her next appointment for that day was to go buy a SECOND (!) Aaton Cantar X3 (no big deal), I could have chatted her up for several hours more.

Tell me about your roots and early history—before you entered “the biz.”

For the most part, I grew up in Oklahoma. My dad, with his job, we moved around until about the summer before fourth grade. And we landed in a small town of 25,000 people. Then I went to University of Oklahoma. There were lots and lots of friends, we always had a band, we all played musical instruments. There was a lake nearby. You know, lots of time on the water. And I used to take a lot of pictures. And that’s what I went to school for. I was going to be a set still photographer.

You had that specificity of an occupation in your head already?

I did and I knew I wanted to work [as a still photographer] in the movies or TV. I didn’t know what or how but I was really into photography. When I was older, I had a darkroom in my house. And that’s what I wanted to do.

There were a couple of movies that came through our hometown and I’d go and hang out and just watch. On one movie, I drove up to the gate and told them I was with the caterer. It was way out in the country and they were doing this big stunt. So I just hung around and ended up chatting up the really cute stunt guys. They told me how to do different things, like using the parking brake to do 180s and all the car stuff. I was already riding brake, riding motorcycles, riding horses, riding unicycles, water skiing, snow skiing, you know, all the things that I was already doing, they needed. So they said, “Yeah, you gotta come to LA!” But in reality, I knew that was never going to happen. I went to University of Oklahoma with a motion picture major to be a set still photographer.

About halfway through the curriculum, there was an opportunity to either go radio-TV-film or stay in motion picture. The University of Oklahoma—motion picture major? Yeah, not really well-known for its film school. But it’s become a good journalism school. What I did end up doing—I took a lot of classes in photography, the journalism department, as well as the art school. I went ahead and changed to radio-TV-film because I knew the opportunities were smarter. So I was doing an internship in Oklahoma City at a TV station. And there was a TV show called PM Magazine. It was like one of the first newsmagazine shows. You get a reel (from San Francisco, which I think was the base) and you had to fill the rest of the time with your local standup people or local stories that you produce. So by the time I left there, I was writing, shooting, producing, editing, and doing sound. It was just one of the many things I was doing there.

The head news photographer knew me at the station. They hired me after my internship and I worked about a year-and-a-half and then got laid off with about 10 other people. I decided to move to Dallas because they
had built these stages. And it was going to be the third coast and all this stuff was going on. So, of course, I called everybody I knew—which was not many people—when I moved to Dallas. And one of the people was Darrell Barton, a cameraman. And out of the blue one morning, he called me and said, “Get to the airport as fast as you can.” In Mexico City, there had been a big earthquake. “Don’t pack. Don’t do anything. Just get to the airport.” So me being a dumb kid, I did exactly that. He said, “We’re just going to fly down, get there, and then we’re going to come fly back with the tape.” The tape! This is how long ago. “We’ll throw the tape over the fence if we have to.” So we did. Got on a little Learjet and flew to Acapulco where our pilots knew some air traffic control guys that they could bribe to let us into the Mexican airspace. Got to Mexico City—and I was working with Dan Rather! I was a network news sound technician. And that was that.

Was that the first time you considered yourself with that title officially?

That was the first time on that level. Darrell and I worked together for a couple of years after that. He’d won ‘National Press Photographer of the Year’ twice. He was very, very good. We were connected then. We were tied together with cable. And I was carrying a deck when we first started. Three-quarter inch. And I was a pack mule more than anything. But I was one of maybe five or six women in the country doing it. At that time, there were very, very few of us because it was very physically demanding. So, because he was who he was, I was very lucky and got to work on some of the best stuff. We traveled around the world. I’ll never forget some of the times with Darrell. He was the kind of guy—he was a Marine in Vietnam—and he always had this cigarette hanging off his lip. You’d be walking through a field and there’d be a giant puddle of mud and if you walked five feet, you could step around the mud. JUST FIVE FEET! No, no!

Was network news sound the main focus then or were you still pursuing other ventures?

Well, when I first moved to Dallas, the photography thing was still going. I was working for a music magazine that’s sort of like LA Weekly. And I did concert photography. It was great. It was Madonna’s first tour and, I mean, I’ll never forget this—that’s the tour where the Beastie Boys opened for her and they got booed off the stage.

Oh, that’s funny! Seems outrageous from my perspective, growing up being such a fan of theirs. In Dallas, nobody knew who they were.

They were probably thinking: “Who are these clowns?”

Yeah, exactly! But [photography] was something that was still there. I was still sort of doing it. But then this [sound] thing took off and then I was in the union. I was in two unions: IBEW and NABET. And, I’m a union sound technician. So it’s hard to step away from that. I was a kid making bank. I was traveling all over and I think I’ve been in every state but Alaska at this point. I still have my old field mixer, this mixer I still use! I still have one that I went to Africa with. It went all kinds of places with me. I did that for so long. I did that for over 12 years. I kind of reached the peak of what I could do in that world. I have an Emmy and all kinds of things from doing that. And I met Simone. I met my partner of 22 years.
FOR YOUR CONSIDERATION

Best Animated Feature
LEE UNKRICH
DARLA K. ANDERSON, p.g.a.

Best Film Editing
STEVE BLOOM, LEE UNKRICH, ACE

Best Sound Mixing
RE-RECORDING MIXERS
MICHAEL SEMANICK, CHRISTOPHER BOYES
ORIGINAL DIALOGUE MIXER
VINCE CARO

Best Sound Editing
SOUND DESIGNER/SUPERVISING SOUND EDITOR
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BEST SOUND MIXING
MARK WEINGARTEN (Sound Mixer)
GREGG LANDAKER (Re-Recording Mixer)
GARY A. RIZZO (Re-Recording Mixer)

BEST SOUND EDITING
RICHARD KING (Supervising Sound Editor)
ALEX GIBSON (Supervising Music Editor)

“THE CRAFT OF THE MOVIE IS EXTRAORDINARY WITH SUPERB SOUND WORK. THE FILM IS UNFORGETTABLE.”

–PETE HAMMOND

THE FILM IS UNFORGETTABLE.
Doing that newsmagazine work during that time, that’s when you met her?

Yeah. There was a pilot for a newsmagazine show that never aired that was shooting outside of Dallas. I was still living in Dallas at the time. And they needed an all-female crew and there was a DP in New York that I’d worked with a lot, Alicia Webber. She was fantastic. And so she came down and a mutual friend of Simone’s had known Alicia and recommended Simone to come and gaff this thing.

Oh wow! I love hearing these stories of the coincidental meeting of people who become such permanent fixtures in our lives.

So anyway, we all met in Dallas. Doing this show.

That is truly amazing.

Yeah, it was, yeah.

Congratulations on 22 years together!

Yeah, it seems to have worked out! I sold my house nine months later and moved out here [Los Angeles]. I always wanted to work in the movies. I’d wanted to transition into doing that. And there were just no openings, really. I could have come out here not knowing anybody I guess. And when I first came out here, I continued to do some of the news stuff—also behind-the-scenes stuff, getting on a few movie sets. I knew Bob Wald. He helped me loads. He’s great. I could call and ask him all the stupid questions that you’re too embarrassed to ask anybody. Like you really don’t know? Just dumb things. He was really, really great.

Would you put Bob Wald in the mentor category?

Absolutely. I would put him and I would put Bill Kaplan in that category. Bill has been so super good to me over the years. He calls and he says, “This is your agent calling.” Yeah, he’s been super, super sweet.

I talk to Amanda Beggs often and I know he’s pretty good buds with her and she says a lot of the same things about him. Such a good guy and a huge help.

Yeah, he’s been really good with her, too. And he’s that way. He’s just awesome. He’d always have me come do second units and just getting that exposure that’s needed, you know. And I’ll never forget this … It was many years ago. Somebody had called him about this movie in New Mexico and he wasn’t able to do it and he said he was going to give them my name. So he called and asked me about my availability. And I said okay, great. I’d love to go out and do it. Twenty minutes go by. He calls me back and he says I had no idea you being a woman was such a big deal. Well, when Bill Kaplan recommends you for something, people tend to listen. But I never heard a peep, not a peep from them. Well, as I said to Bill, welcome to my world. I mean, welcome to our world. It’s so much better now. So much better because so many women—Amanda [Beggs], great example. There are so many women coming up and doing it and doing great work. And in many cases, even better, more meticulous and because when I first started, the few women that were doing it, you couldn’t say no to anything. Whatever you were doing, you had to wear that flak jacket and sneak up with the rest of everybody. You couldn’t complain about anything. You just had to do it or you better, by God, be good at it because if you’re not—I mean talk about the scrutiny. That was always in the back of your mind. We all had to step up. You had to really get it right. It’s bad enough sitting there with Mike Wallace, but to screw up, no, no, no. It wasn’t an option. It was an option, but you’d never ever be back. You’d never work again for those people, that company, because it was very easy for them not to want a girl.

You have an impressive list of feature film credits. Do you have a favorite movie title that you mixed that sticks out in your memory that you want to talk about?

There are two off the top of my head: Gods and Monsters way back when. It was such a great group of people and the acting was amazing and to be able to watch that happening with those actors was really amazing. And then Nightcrawler. You know, we busted our asses on that movie and it was not easy. It was probably one of the hardest I’ve ever done. But I was proud of what we got in the end. I was proud of our work and that really, it paid off. This movie I just finished, Hotel Artemis, I’m curious about how it’s going to turn out. Sometimes you really...
know when you’re there in the moment. There are a lot
of visual effects that are going to be added and I just
don’t know. But it was a really interesting movie with a
great cast.

You’ve been in this industry for so long, starting in the
news-gathering side and successfully transitioning to
narrative-style production. So, as far as our equipment
and our techniques go, and reflecting on how much it’s
changed and where you are now, where do you see the
future going? Not just equipment, but techniques, too?
How do you think we’re going to expand further than
where we are now?

I’m saddened by the fact that it has gotten to where it is.
And it started with television and multi-camera, not
[necessarily] multi-camera shows, but “single-camera”
shows that really have two and three cameras.
Wide-and-tights at the same time. And so you’re expected to
wire everybody on set no matter what. Sound used to
have life. It, you know—breathed. You felt that if you see
somebody across the room, you didn’t hear them speaking
like they’re sitting next to you at this table. Perspective is
out the window. And we do what we can. We try very hard.
I was grateful on The Grinder, a TV show that I was doing,
that number one on the call sheet refused to wear a wire.
So when we were on stage, we didn’t use wires, but rarely.
We used them like they’re supposed to be used, instead of
how they expect you to use them now.

I have done more features in my career than television.
But it’s bleeding into the feature world, as well. And
it’s just … it’s devastating. I remember at that CAS
[Awards] we were talking about Doc Kane, and he had
called out The Grinder and about how it sounded. He
thought it sounded great and it was amazing. And this is
a man whose received a CAS Career Achievement Award!
He should know. And that’s because we boomed the
crap out of that show. I’m a sound mixer and it starts
to become where you’re just a recordist. I do understand
that with the amount of tracks that we’re being asked
to do and the improv style of many of today’s shows, it
becomes impossible to record it any other way, though.

Who are some of your crew that you’d want to give a
shout-out to now?

Well, Tom Hartig did The Grinder with Yvette Marxer.
They’re both wonderful. We had a great time on that.
Doug Shamburger—Doug is amazing. And I had Doug
and Michelle Guasto on my last movie. Fantastic. Those
are two amazing, amazing people. I’ve had the great
opportunity to work with some of the most wonderful
boom ops and utilities in the business. I’d also love
to give a shout-out to Randy Johnson, Bob Jackson,
Anthony Ortiz, Peggy Names, as well as Ross Levy, just
to name a few. On an upcoming pilot, Rebecca Chan
is going to be my utility. We’ve never worked together
but I’m thrilled she’s going to come. I understand she’s
phenomenal. I’ve been so lucky. I’ve been able to work
with a lot of different people that are just really, really
great. I wish I could keep them with me all the time and
just go from one thing, to the next thing, to the next
thing. We’re only as good as our crew. The difference
between having that mic on and not is something. I
know you feel the same way. Even with your utility. If I
have to do their job, forget it. I can’t do that.

Absolutely right. Well, in conclusion, is there a
solution that you think could start to remedy the
conundrum of how our craft has changed?

I think it’s the reality and we just have to get really good
at it and help educate. Because a lot of these people that
are in positions of making decisions like that, aren’t
educated [fully on sound]. And to some level, when
you work with those people that get it, it’s just such a
dream come true. They understand how important it is
to the entire chain, the entire process. When you have
something that sounds real and awesome, and you don’t
have to fix it later, you don’t have to tweak the hell out
of it. Because you start fixing too much and then it
really starts to degrade what we’ve done. People have
gotten used to that sound, too, which is weird. You go
back and you watch old movies—or even not [very] old
movies. Just—where it breathes. It’s part of the life of
the film. It has feeling to it. And now people are just
so used to it just being right “here” all the time. It’s
a buried “voiceover booth” sound with clothing noise.
And so it’s just kind of a bummer. I mean it happens.
We all often have to wire everybody all the time. You just
have to. Environments and whatever it is. We all have to
grow and adapt and learn. “Old dogs, new tricks.” But
there is an artistry there that we can’t lose.
PHANTOM THREAD

Written and Directed by
PAUL THOMAS ANDERSON

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Remembering

ED GREENE

Ed Greene CAS.
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Photos below from left to right:
Greene with award: Photo by Television
Academy/PictureGroup. Next two photos,
Ed at an event on the set of American Idol
to benefit our CAS members. Left to right:
David Fluhr CAS, President at Soundtronic
Wireless David Bellamy, Ed Greene CAS,
and Debbie Fecteau. Photos courtesy of CAS.
Far right: Steve Venezia and Ed Greene.
Photo by Tonya Wise/Invision for the
Television Academy/AP Images
On August 9, 2017, we suffered the loss of Edward J. Greene CAS, a deeply respected legend and icon in our industry and personal friend to so many of us.

This outstanding human being was born in New York and attended Rensselaer Polytechnic Institute. His first studio job was in 1954 at Allegro Studios in New York. He then served as the recording engineer for the U.S. Army band and chorus. After his discharge, he formed Edgewood Studios in Washington, D.C., and in 1970, he moved to Los Angeles and served as chief engineer for MGM Records. His associations with many stars who started to move into television broadcasts brought him along with them to do live TV projects.

Ed’s career bridged many different disciplines, from music recording to live-event recording to different forms of television production. Ed’s special skill set with live-event recording and broadcasting earned him the recognition as the “go to” mixer for decades of award shows, such as the Grammys, the Oscars, the Tonys, American Idol and So You Think You Can Dance, national events, such as the opening and closing ceremonies for the Olympics, live episodes of episodic television, such as The West Wing Live and ER, noteworthy annual parades, such as the Macy’s Thanksgiving Day Parade and Tournament of Roses, and honoree events, such as The Kennedy Center Honors.

Ed’s special skill set in live entertainment TV earned him many accolades from producers and peers, including 61 Emmy nominations, 22 Emmy wins, and the CAS Career Achievement Award. Ed was also a participant in the AES Oral History Project.

Ed Greene will be remembered for all of the above accomplishments but his legacy will also include our sound community’s deep appreciation for his commitment to mentorship, his humility, and his perpetual eagerness to share his abilities, skills, and knowledge with all of us. He will most definitely be remembered for the clarity of his teaching and professional conduct. He was the personification of the CAS principles to educate and inform the industry and the public of effective sound while maintaining the highest standards of conduct and craftsmanship.

I first met Ed in the late 1970s when I was a young man working for Hollywood Sound Systems. I was delivering rental equipment to the remote truck in which Ed was working. I knocked on the door of the audio booth and Ed asked me to come inside. I was invited to just sit down and observe the master himself at work. I stayed there for a while and Ed explained what he was doing and what was happening.
That was the beginning of a professional mentorship for which I will be eternally grateful. It was the kind of relationship that allowed me to call on Ed at any time for advice during the years that followed as my own career advanced.

One of the most amazing things about Ed’s unselfish willingness to contribute to the growth of others is that there are so many people who have worked in this industry who have shared the experience that I had. Ed often expressed pride regarding the accomplishments of those he had helped along the way and was so happy that he had perhaps contributed in some way to helping them succeed. His ongoing investment in those around him can be likened to the way he always sought to perfect the tracks he was working on right up until the last minute, if not beyond!

When Ed joined the Board of the CAS, we gained a partner who embodied an unrelenting pursuit of excellence in sound, an audio industry icon who generously shared with anyone who would ask for his help, and an engineer who would not simply accept things the way they were but would rather innovatively figure out how to get things done. For example, when what he needed did not exist, he built his own recording console to capture live location recordings like his recording of Ramsey Lewis’ “The In Crowd.” During my tenure as President of the CAS, I was fortunate to have Ed’s invaluable wisdom as a resource.

Ed’s humility was demonstrated time after time through his actions, such as when he submitted his entry for an Emmy Award. The number of names in his submission exceeded the limit. While it was under appeal to the awards committee, Ed suggested that his name be removed from the list so that other names could remain. This helped the awards committee realize the importance of the appeal process and also the need for them to have flexibility. The committee ended up allowing the larger number of names on the entry as a result of Ed’s passionate appeal.

His wife Lynne Cruise, and his children Grant, Sam, Lynda and Larry and his brother David, survive Ed Greene. Ed’s wife perhaps best summed up what all of us who knew Ed had come to understand, with the following:

Ed absolutely loved his life, and he had an extraordinary life. There is no doubt that he was a naturally gifted audio engineer. He was fortunate to have discovered his passion and ability early in life, which led to his long, iconic career, full of innovation, achievement, and friendships. He was in turn, the most generous person I’ve ever met when it came to celebrating the achievement of others. There was not a jealous bone in his body; he truly reveled in the successes of co-workers and family.

To honor the memory of our esteemed colleague, Edward J. Greene, the Board of Directors of the CAS has decided to create a special award for innovation and achievement.

To learn more about Ed J. Greene CAS’s incredible career, visit The Living Television Interview from the Emmy Foundation: www.youtube.com/watch?v=Sf05d3qyw68 and the AES Oral History Project. www.aes.org/historical/store/oralhistory?code=OHP-017-DVD
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GET OUT

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BRILLIANTLY WRITTEN
PERFECTLY EXECUTED.”

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One of the most amazing characteristics of Ed Greene was his ability to always make time to inspire and touch the lives of so many in our community. Here is a minuscule representation of the people whose lives were personally affected by this man’s greatness.

Ed was always generous with sharing his time and insights with his friends and colleagues. He served as the Sound Governor at the Television Academy and gave our Peer Group tremendous insight into the amount of teamwork and talent it took to successfully do a live show like the Grammys or the Oscars. He was always humble about his achievements over the years and would always make sure that every person who contributed to the show was recognized. Ed will be missed.

—Frank Morrone CAS MPSE

I was blessed with the opportunity to assist Ed for many years on numerous post mixes done at Complete Post. It seemed that every session with Ed, I was even more amazed with his talent than I had been at the previous session. Ed had a bag of tricks (and a rack of unlabeled gear) that was as secretive as Houdini’s stunts. I learned a heck of a lot from the man and if anyone deserves the title “Audio God,” it’s Ed Greene. He will be missed. Oh and yes, I too took naps on the couch during those 20-hour sessions.

—Dennis Durante

When I met Ed, I knew who he was in our world. So, I was beyond honored when he asked me to serve in the PGEC for the TV Academy. In the following years, serving with him and getting to know him at CAS and PGEC, he impacted my perspective profoundly. He never seemed to experience those moments when the grind of what we do threatens to blind us from its magic. His passion was endless and steadfast.

—Karol Urban CAS MPSE

I had the great privilege to work with Ed on many different shows over the past several decades. He taught me so much about the industry but most importantly, he taught me the greatest example of staying calm and respecting everyone at all times. He was truly a master of this. I will forever miss him.

—Brian Riordan

I met Ed around 13 years ago serving on the Sound PGEC. I was immediately struck by his demeanor and kindness. He was always free in sharing his vast amounts of knowledge and experience. A gentle man of integrity and honor, he was a true Mensch. I will miss him.

—Bob Bronow CAS MPSE

I have had few true mentors in this business. Ed Greene taught me plenty. I remember picking him up at his house and driving into Star Search with Val Valentin. After that, I was invited to A2 on many of the live shows, including Emmys, Academy Awards, Grammys, MTV Awards, Billboard, and VH1 Music Awards, Rosie O’Donnell Live, Fail Safe Live … His calm in the midst of a storm is what attracted me the most. And if there is anything that I could possibly glean from Ed, I would hope to have a spoonful of his demeanor and professionalism.

In recent years, I asked him to mix Hot in Cleveland Live with me. We served on the Peer Group Executive Committee (PGEC) for sound mixing at the Emmys together. Ed, in capacity as governor, asked me to join the PGEC. Ed, you shone brightly! I miss you!

—Jeff Johnson CAS
for your consideration

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Re-Recording Mixers
PAUL MASSEY
DAVID GIAMMARCO

BEST SOUND EDITING
Supervising Sound Editor
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WAYNE LEMMER
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Re-Recording Mixers
PAUL MASSEY
DAVID GIAMMARCO

BEST SOUND EDITING

Supervising Sound Editor
DONALD SYLVESTER

Sound Designers
HAMILTON STERLING
WAYNE LEMMER
The event’s theme was “The Basics” and included, in addition to its regular offerings for the production, post and sound engineers, a series for composers. This was reiterated by the wonderful choice of keynote speaker—film composer/musician Tom Holkenborg, aka “Junkie XL,” whose credits include Black Mass, Mad Max: Fury Road, and Point Break.

In fact, an overall takeaway for the whole day was the need for a great deal of communication and collaboration between the music people and those who design, edit, and mix, as well as picture editorial, in order to make an exceptional-sounding final mix.

Here are a couple takeaways from some of the day’s highlight events:

**The Composer’s Lounge**

The Composer’s Lounge was a new venture this year for the Mix “Sound for Film” symposium. It was designed to bring in the viewpoints of the many professionals who deal with music in the film- and TV-mixing process.

1. **The Scoring Process: The Music Team, Relationships, and Mentoring**
   - **Moderator:** Steven Saltzman
   - **Panelists:** Bobby Fernandez (scoring mixer), Tommy Vicari (scoring mixer)
Both panelists are award-winning scoring mixers who spoke about their mentors (Danny Wallin for Bobby Fernandez and Armin Steiner for Tommy Vicari).

Bobby Fernandez spoke about there needing to be a trust between the composer and mixer, as he gets sent tracks and is asked to mix them. “Might as well be mixing on the moon,” he said, as he rarely sees the composer, given the new digital workflows.

A conflict was expressed in that music is, at times, in competition with FX. The composer feels he has to defend his music because the director gets very used to the temp. This is a sentiment shared by many sound designers as well who fight the comfort of temp sfx from the assistant picture editor. In fact, the score to 2001 was indeed the temp. There is a need for an interplay of music and sound design where one ends and moves seamlessly into the other. Stemming out wide helps this interplay by allowing troublesome elements in the music to be brought down or removed.

   
   **Moderator:** Steven Saltzman
   
   **Panelists:** Peter ‘Oso’ Snell (music editor), Joseph De Beasi (music editor, composer)

   The music editor’s job can be that of a collaborative bridge, and support the relationship between the director and composer. Joseph De Beasi talked about building relationships with the director and sound design team so that the mix becomes a collaboration. He explained, “We all need each other to get the score where it needs to be.”

   
   **Moderator:** Steven Saltzman
   
   **Panelists:** Kelly Oxford (sound supervising editor), Mark Paterson (re-recording mixer)

   The Keynote Speech by Tom Holkenborg (aka Junkie XL). Photo: David Bondelevitch CAS MPSE
Kelly talked about starting months before the mix. By building a road map that the composer can work against, the effects can flow out of the music instead of being as competitive. But visual FX are often being brought in and upgraded throughout the whole movie-mixing process, which sometimes makes it difficult to get a seamless transition between music and FX. It usually comes together in the last week of a feature. Mark explains, “We never have enough time, no matter the budget,” but reminding us that, “everybody wants to make the movie as good as it can be.”

Joel expressed the excitement of VR, describing it as the first wholly new medium since 1910 (when moving pictures came out). Sound has always been 360. Picture, however, is now catching up and completing the experience.

Now, the user becomes a co-creator and has active participation. The harmony can change depending on the direction you’re facing. Joel spoke about sonic lives being 360. TV and film are time-dependent whereas VR is about space not time. He suggested you write your music for a space.

4. New Life for Documentaries: Original Music with Feature Film Impact
   **Moderator:** Steven Saltzman
   **Panelists:** Pinar Toprak (composer), Joel Goodman (composer)

   Joel talked about writing for advertising and the power of space and the power of holding a note. Pinar, expanding on this, explained that it is important to make sure the music breathes. She figures out the phrasing so the music doesn’t get in the way. She summarizes, “It’s not a fight, it’s a dance.”

5. Music in 360: Scoring for Games, VR, and Augmented Reality
   **Moderator:** Steven Saltzman
   **Panelists:** Garry Schyman (composer), Joel Douek (composer)

6. Featured Score: Composer Mark Isham, Engineer Jason LaRocca
   **Moderator:** Steven Saltzman
   **Panelists:** Mark Isham (composer), Jason LaRocca (engineer)

Mark and Jason discussed workflow and making it as easy as possible to get the music to the stage. Various examples were played and a workflow from Logic to Pro Tools was explored.

In summary, the main takeaway from the Composer’s Lounge is that the communication between music and sound design is paramount. That said, there seems to be some discrepancy between features and TV shows and the amount of communication that goes on. Features tend to have more time for the music to get sound effects and sound effects to get music, resulting in the transition between the two being
“This is a multiplex movie done absolutely right: care and attention and imagination drip from every line and every frame. The visuals are eye-popping.”

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more seamless. But the job of the mixer in both situations is the same. The mixer must make choices that could not have been made between the two departments earlier in the process and create something that honors everyone.

Production Sound Pavilion

The CAS-sponsored Production Sound Pavilion was focused toward production sound mixers, as well as post mixers who wish to learn more about the gathering process.

1. Production Sound Rigs: Carts and Bags
   Moderator: Chris Howland CAS

The Production Sound Pavilion (also known as the “Parade of Carts”) has been a tradition for a while with the Cinema Audio Society, and now takes place as a part of the Mix event. This year, there was an excellent group of production mixers showing off their gear. In particular, some mixers brought their “over the shoulder” bags that they use for smaller shoots (such as documentaries), in addition to their full racks of equipment. Chris Howland CAS has been instrumental in organizing this event for the last couple of years and hosted it. Paul Vik Marshall CAS was also there to introduce the event.

2. RF: Coordination in a Shrinking Spectrum
   Moderator: Phil Palmer CAS
   Panelists: Tim Holly (CBS), Ara Mikharian (WB), Adam Imada (Sony)

This talk was moderated by CAS Vice President Phil Palmer, with panelists from three studios in town: Tim Holly of CBS, Ara Mikharian from Warner Bros., and Adam Imada of Sony. But also participating unofficially was Howard Fine of the Southern California Frequency Coordination Committee, who was able to add many details about the state of the available spectrum in SoCal. The talk was well-attended and useful for all production mixers, as this is a currently changing landscape involving technology and public policy.

Andrew De Cristofaro (left), moderator Mark Mangini, Julian Slater, David Rowe, Jay Jennings, and Tony Lamberti for the MPSE-sponsored panel “Preparing Immersive Audio for Any-Sized Screen.”

The Mix Panel Series

This program was a series of expert panels presented by the Motion Picture Sound Editors, Cinema Audio Society, and Westlake Pro respectively. Each discussion explored the journey of audio and workflow between departments.

One Soundtrack, Multiple Formats: Preparing Immersive Audio for Any-Sized Screen (sponsored by MPSE)
   Moderator: Mark Mangini
   Panelists: Andrew De Cristofaro, Tony Lamberti, Jay Jennings, David Rowe, Julian Slater

Mark opened the panel by asking, “Would you rather have five weeks to mix 5.1, or four weeks to mix in Atmos?” The answer was universal that the panel preferred a longer
Andrew De Cristofaro pointed out that, “We need to make this a special experience to go to the theater and see on the big screen.” Dolby Atmos is a powerful tool that can encourage people to go to theaters rather than wait until it is available for home viewing.

Julian Slater stated simply that, “It’s just more speakers to pan into,” adding that workflow issues are harder than the actual mix, as it can take much longer to prep for an immersive mix than for a 5.1. Tony Lamberti pointed out that, in an effort to streamline the team’s workflow, Spider-Man: Homecoming was mixed virtually, with the final Dolby Atmos mix being the only thing that was printed.
Eventually, thoughts turned to tighter schedule expectations and how they impact the soundtrack. Steve Rivkin pointed out, “Once you do a major feature in 12 weeks, producers expect it every time.” The entire sound department chain lamented that they are seeing time eliminated from their schedules. For example, on set, rehearsals are being eliminated which may lead to missed cues, which makes for additional editorial work in either searching for alternate takes or costly ADR, which can take more time on the dub stage to match back into production.

Moderated by Westlake Pro Chief Technology Officer Jonathan Deans, panelists discussed everything from how to set up workflows for switching between multiple immersive formats to how they meet the demands of new consumer technologies.

Dante has become a very popular and robust format in both production and post production for interfacing many channels of media. Marti Humphrey CAS was quick to point out that with his setup, “We can change formats by pressing a button—all formats, Dolby Atmos, Auro, IMAX, etc.”

The New Audio Workflow: Building a Technology Backbone for Immersive Audio Production, Distribution

Moderator: Jonathan Deans

Panelists: Bill Johnston, Brian Riordan, Kurt Howell, Marti Humphrey CAS, Jeremy Davis
The “Sound for Film” event grows every year and continues to provide professionals in the field information on new technologies and an opportunity to make connections. In addition to the events highlighted here, two entirely separate sets of programming, the Master Class/Demo series and Avid Presents, were present. The Master Class/Demo series was provided by a number of leading technology companies including Avid, Dolby Atmos, Focusrite, Westlake Pro, Auro 3D, Fortium, Yamaha, Steinberg, Line Six, Sound Particles and Meyer Sound, the latter of which introduced its new Bluehorn monitor loudspeaker system. The Avid Presents series brought three panels: two consisting of a micro-focus on the specific production of *War for the Planet of the Apes* and *Game of Thrones*, as well as a panel on TV and film marketing mixes.

Finally, the day was capped with a networking cocktail hour and “Sound Reel Showcase,” which displayed 11 reels from major motion pictures of this year in their premium audio formats. It was introduced by key members of the sound teams, including *Baby Driver*, *Guardians of the Galaxy Vol. 2*, *War for the Planet of the Apes*, *The Dark Tower*, *Atomic Blonde*, and *The Foreigner*.

The entire day was a great experience, even for people who have worked for decades in the industry. There is a great feeling of collegiality amongst all the disciplines and genres of sound for picture. If you have not been to this event previously, we highly recommend it.

You can hear many of the programs discussed here in their entirely at the SoundWorks Collection site ([SoundWorksCollection.com](http://SoundWorksCollection.com)). The direct address of the podcast recordings can be found at: [http://soundworkscollectioncom/news/mix-presents-sound-for-film-event-2017-audio-podcast-series](http://soundworkscollectioncom/news/mix-presents-sound-for-film-event-2017-audio-podcast-series)
We made a list and checked it twice...
For the 12th season of FXX’s It’s Always Sunny in Philadelphia, the multitalented creator/writer/producer/cast came out of the gate with a hilariously bold episode titled “The Gang Turns Black,” in which the gang is watching The Wiz during a lightning storm and gets struck through their electric blanket, only to wake up the following morning … well, black. They spontaneously break into song throughout the episode as they try to figure out what has happened, and how to get things back to normal, all the while experiencing “firsthand” what it’s like to be black in America. A sensitive subject, to be sure, and one hilariously tackled with all the trademark subtlety and tact the Always Sunny cast has become known for. And, to top it off, a fantastic cameo from Mr. Scott Bakula.

All the songs were prerecorded, and then fed into earwigs for the cast to perform them live on set, with the intention of capturing and using as much of the live singing as possible. This presented some interesting challenges for everyone involved from pre all the way to post.

PRE-PRODUCTION
From my perspective as the dialogue/music re-recording mixer, my biggest concern was being able to match between production singing and prerecord, as a crossover taking place at some point was inevitable. I asked Sunny’s composer, Cormac Bluestone, and production mixer George Flores CAS, if they considered using boom or lavaliere mics to match the forthcoming production recordings for the prerecords. As it turned out, their focus lay elsewhere at that stage:
Cormac Bluestone: For this episode, RCG (Rob, Charlie, Glenn) wanted to sound better than they ever had before and felt strongly about getting a great studio recording. I can’t remember what mic we used, but it was definitely something to give us a great studio recording rather than something that would emulate production’s booms or lavs.

On the day, it was all about just getting as much material to comp together. The cast had received rehearsal recordings in advance, but the day we recorded in the studio was essentially their first live rehearsal. We used click tracks (that I had bounced separately from the instrumental recordings) and looped them. We would then let the cast do some of the songs phrase by phrase—almost like a musical looping session. The cast is really talented and all of them pick up music very fast, but for some of the more intricate parts (background vocals, harmonies, etc.), it was easier to just pump it out phrase by phrase. I knew we’d pull it all together in post.

Once we had the studio recordings, I comped together the audio tracks in Logic, and then would adjust timing and pitch with Melodyne (per the suggestion of our music editor, Adrian Van Velsen). I aimed to put together the absolute best version of the recordings, musically, that I could because these recordings were not only going to be the “backups” for production sound, but they were going to be the learning tracks for the cast over the next month in preparation for the shoot. They’d also be what production would have for playback.

George Flores: For me as a sound technician working in the Television Dream Factory, Season 12’s musical opener really began in previous seasons of the show. The concept of on-set live performance weighs heavily on the actor-creators of Sunny. When I received the first draft of this script, I pictured what I had done in earlier episodes, where song performance was based on in-ear monitor (earwigs) music playback, helping the live performance to remain fairly intact. This “Gang Turns Black” episode, however, was a different ball of wax in that a lot of written dialogue would be intertwined with singing and dancing, therefore creating a challenge to secure on-set performances. Our actor/writer/producer, Charlie Day, wrote the songs with composer Cormac Bluestone with the idea that “The Gang” would be trapped inside a musical and would need to sing their way out. Therefore, this was the impetus to make top-notch recordings with top-notch vocal performances to be played back on the set during production.
PRODUCTION

George was able to make some considerations on set to get the cleanest and warmest recordings he could, which did help with matching between vocals during the mix.

GF: Our shooting schedule for Sunny is fast; 3-4 cameras, with not a lot of wiggle room. So your plan of attack and audio decisions better be clear. My decision from the get-go was to try to capture all on-set performances as they were, providing exceptional in-ear monitoring for music playback and reaching into the bag of audio tricks for overhead mic placement with some warmth.

My mics of choice for Sunny are the Sennheiser MKH 50’s (interiors) and DPA 4017b’s (exteriors). The body lavs used were Sanken Cos11’s and DPA 4071’s. There were a few instances where I was able to run the MKH 50’s into my Manley Dual Mono Tube preamplifier for the singing/vocal parts. As many of we audio people know, condenser microphones paired with high-end preamps are good ingredients to start with before baking! Even before shooting commenced, with all the upcoming dancing, dialogue-singing-dialogue-singing directives, I knew that for the singing parts themselves, we were going to do a combination of overhead microphones and body lavaliere, as well as utilize the studio prerecordings for the actors to sing/lip sync to.

While I did not have an opportunity to visit the recording sessions due to our shooting schedule, and therefore, did not get to talk to the recording engineer about mics and matching, getting the music and vocal tracks early enough (this episode was the last episode to be shot) gave my music playback operator, Daniel Quintana, and I enough time to formulate a strategy. Music playback can get very demanding with routing and distribution, yet, I am always aware that the more technical aspects I can absorb and get on the ready, the smoother the creative process will be on the set. Daniel preferred to use Apple Logic Pro X and we used Phonak Invisity in-ear monitors and the Phonak Roger in-ear monitor system. The music and vocal tracks were sent simultaneously to the actors’ ears and my Sound Devices 688 timecode recorder. This way, the live performances would be in exact time with the prerecorded vocals and music mix and the instrumental interludes. Daniel also was the constant thread in the process of this episode, in that he also traveled to Philadelphia to work with our Philly sound mixer, Chris Kellett, to shoot the final big number.

All in all, the ability to move according to circumstances and working toward a common goal of the story first (and, in this case, the lyrics), made for a successful outcome. Our cast knows what it wants and needs after helming It’s Always Sunny for 12 seasons. Yet, having a strong bedrock of prerecorded material gave the on-set performances a bump.
POST
Cormac and music editor Adrian Van Velsen, along with supervising editor Mike Marchain and his guys, laid solid groundwork for the mix stage after the show was locked. Dialogue and effects came to the stage as one delivery, and then the singing all came with the music delivery from Adrian and Cormac.

CB: After the episode was shot, edited, and picture-locked, I received a bunch of production sound for the episode and went to work comping together the production vocals (again with Logic and Melodyne). Some of the audio was a little more difficult to work with because of sound on a location. I’d use Adobe Audition to pull background noise out of a few things to give me a little more latitude to manipulate the vocals. Also, now that I had a cut of the episode, I had to go back and re-comp some of the studio vocals so they would work with the on-camera performances. I would use the region’s amplitude as a guide in adjusting the timing of the studio vocals to match.

Once I had completed the production and studio vocal passes for picture, I bounced everything out for the mixing stage. Ultimately, the decision of whether we were going to use the sound from studio or production was not going to be mine, and I wanted the mixers and RCG to have as many options available to them as possible when they did the final mix.

Once I bounced out those passes, I created a third pass of my “suggestions.” I really wanted to use as much production sound as possible. I believe that our using production sound for our musicals sets Sunny apart from other shows with musical elements. This is something we’ve done with all our episodes with musical elements, like “Nightman Cometh” and “Frank’s Little Beauties.” Our cast is very talented and the crew is always able to capture those performances seamlessly, so why wouldn’t we use the live performances?
My “Suggestion” pass is essentially the live production pass peppered with studio recordings. For example, for “What Are the Rules,” we used Glenn’s lead vocals, but used the studio recordings for Charlie, Danny, Kaitlin, and Rob’s backups. The toughest song to put together was Danny and Kaitlin’s song. It was a little windy on that day, they’re under an overpass, they’re walking while they sing, and Danny is really spontaneous on camera. I was comping together bits and pieces from the studio recording into the live production pass so we wouldn’t lose Kaitlin and Danny’s actual performance in it. It took just a few words from the studio recordings to make the production sound work.

Mike Marchain: This Sunny episode was a much more difficult task to cut on the dialogue/sfx side of things due to the on-set vs. studio recordings of dialogue and musical numbers. We decided early on that it would be best to have all options prepared and mixed seamlessly, whether we went with on-set recordings or prerecords. We were able to utilize a combination of the two based on the subjective tones that Rob, Glenn, and Charlie were looking for. Our mix crew, along with our music editor, Adrian, were able to cut, blend, and mix between the live and on-set recordings very smoothly, as our talent was very consistent with respect to singing in tune and time. We worked hard to ensure that we created the same feel and tonal vibe as what was recorded in the studio. We found that common thread between the two sets of vocals, and were able to swap back-and-forth whenever necessary to fill out a moment, or to help with vocals tonally with respect to matching key and balance.

There was a lot more collaboration between the music, mix, and sound departments than I’d seen in several years on the show, due to the detail and specific direction Rob, Glenn, and Charlie wanted. The episode turned out really great, and RCG were very pleased with the final mix. We’ve certainly done musical numbers on the show over the years, but this episode was particularly challenging, but also extremely creative and collaborative throughout the process. I was very happy with our mix and glad we were able to capture the vision of RCG along the way.

MIX

John-Thomas Graves (FX mixer): The opening scene of this episode starts with the gang getting electrocuted by a lightning strike, which was quite fun to mix. There are big thunder rolls, lightning strikes, and the electrical arc that travels throughout the room as it hits the TV/VCR and the electric blanket. Using reverb, I tried to fill up the room with both lightning and thunder. I also employed reFuser’s Lowender, my plugin of choice for all sub/LFE source material, to create the big “boom” during that sequence. I panned the electrical arc around the room as it hits the lights and everything electric in the room—which is great to hear in 5.1.

Near the end of the episode, Charlie’s character gets shot by the police, sadly, not an uncommon thing these days, which plays to the story of the show. Most TV shows and/or movies would use a “big” gun sound, instead of a “real” gun sound, which often sounds weak or smaller than what most people think it should sound like. I thought I would try to mix in a “big” gun with the editor’s choice. But in the end, it didn’t sound right and didn’t feel proper for the scene or the show and the “real” gun was all that was needed to sell the scene.

I think the most difficult part about mixing this episode was concentrating on not laughing too much, especially during the Scott Bakula scene. It was truly a pleasure to mix such a funny show.

Given the challenges of shooting on location, it was inevitable there would be some blending between the studio vocals and production sound. In the instances where Cormac used a lead vocal from production and backing vocals from the studio, the blending was easy enough because the difference in quality could be used to affect and differentiate the voices in the space. The slightly more polished-sounding backing vocals could sit back in the space, and the more live-feeling lead vocals could breathe out in front due to the nature of the tracks. It became trickier when we needed to cut between the tracks over the course of a lead vocal.

The two hardest scenes were Frank and Dee under the
overpass and the grand finale number, which takes place on a main street in Philadelphia proper—outside a TV repair shop, with traffic and busses passing by. The location was just so busy that the mismatches and tone differences made it impossible to use the live vocals, but the number starts with Charlie going right out of a line of dialogue into a cappella singing before the music joins in, and this cross was just too abrupt and obvious. Our solution was to use Charlie’s first couple of live-sung lines for the a cappella intro, and then switch over to the prerecord in a longer pause at the point where the music comes in, allowing us to feather down the noisy production track with the backgrounds and the rest of the world. I used a combination of the usual EQ and compression tricks, along with iZotope’s EQ Match module in RX5 to make the studio vocal sound more like the production track. Since subtracting can frequently be simpler than adding, this approach of thinning the warmer studio track worked well and the cross is barely noticeable. It also helped to maintain the approach throughout the episode of having the music mixed to sound like a full studio recording, while the vocals were mixed to sound like they are live, in the moment. This made for an interesting effect where the vocals are sort of disconnected from the music, almost as if the music is imaginary, and for the audience’s benefit, the gang is just spontaneously singing like crazy people in the real world—which is how anyone they meet during their adventure reacts to them.

J-TG: My approach to mixing effects begins with establishing a sense of place or environment. I prefer to mix the backgrounds so they are “felt” and don’t overpower the dialogue or call attention to themselves. For a show like Sunny, which often shoots on location in Philadelphia, the city sounds often get recorded within the dialogue tracks, which can make for a noisy, but useable recording. For instance, when the gang is standing in front of the repair shop on a busy street, there are buses going by, people talking, cars with horns, all of which are being recorded with the dialogue. When we shift between camera angles, the sound shifts as well, which is noticeable on the dialogue tracks. Using the elements of the backgrounds and hard effects tracks, I try to blend them so the “shift” is undetectable and/or minimized. Moving car bys to coincide with a noisy clip of dialogue helps to heal the sound “bump” of a noisy track. Combined with noise reduction on the dialogue tracks, we end up with a nice, cohesive scene.

For a normal show with score or source material, it’s pretty straightforward, but for this episode, having live singing and prerecorded music together creates holes in the ambience. This missing ambience was noticeable, so weaving in and out of the songs was a delicate matter and took some finessing to fill in the gaps.

As Cormac mentioned, the other tricky scene was Frank and Dee under the bridge. Despite best efforts to make the production singing work, we ended up going back to the prerecord during playback on the mix stage with Glenn and Charlie for both technical and performance reasons. It was a pretty last-minute judgment call and it turned out we needed one line from Kaitlin (Dee) due to an overlap that we couldn’t get around. Kaitlin shot the line as a loop after the rest of the mix was done and we dropped it in a few days later. This wouldn’t be the only tweak we’d make.

There is a line in the first scene where the gang is discussing how America had its first black president “before the orange one.” The line we had in the cut originally was a reference to Hillary Clinton being president. But when the 2016 election happened, we had to go back in and swap the take out for the one the guys had shot in case it went “the other way”…!

All told, the episode was a great success due, in no small part, to all the preparation and attention to detail from start to finish. It was also a great learning experience, as any mix should be, but particularly in this case because of the unique scenarios and requirements of the show. If I were to do another episode like this, I’d strive to be involved earlier in the process in order to make some suggestions and considerations that I know would eventually become relevant in the mix. I’d add that perspective toward the end to get the most cohesive final product possible. Even without this perspective, though, the episode was a pleasure to work on and mix, and the end product is a favorite of all the things I’ve worked on.
THE RELEASE OF DISNEY AND PIXAR’S BRAVE in the summer of 2012 introduced the world to Dolby Atmos. This new immersive audio format expanded the articulation of sounds in a mix with an increased speaker count and use of the z-axis. Dolby Atmos’ ability to scale mixes based on playback speaker setup and room size provided an increased level of mix continuity and accuracy across playback venues.

As theatrical installations grew, expansion into the home arena, naturally, followed. Blu-ray discs with Dolby Atmos soundtracks are readily available for theatrically released movies. However, some shows that weren’t originally mixed in Dolby Atmos are now available, including the multiple CAS Award-winning Game of Thrones. We’re also seeing broadcasters and streaming services incorporate the technology. BT Sport broadcasted the Liverpool vs. Chelsea soccer match in Dolby Atmos last January and Sky Sports will broadcast 124 Premiere League matches in Dolby Atmos this season. Vudu and Netflix can stream Dolby Atmos mixes, with Netflix now creating original content that is mixed in Dolby Atmos.

There are even Dolby Atmos music mixes. To celebrate the 50th anniversary and release of a boxed set, The Beatles’ Sgt. Pepper’s Lonely Hearts Club Band, we held Dolby Atmos mix listening experiences at select venues in North America. And R.E.M. included an Dolby Atmos mix of the whole album in the just released 25th anniversary reissue of Automatic for the People.
What am I getting to with all of this? Basically, I’m just pointing to the fact that we’re seeing growing penetration of this format outside of theatrical soundtracks. As a result, for those who are delivering non-theatrical mixes, clients may be asking for a Dolby Atmos mix in the near future. This transition may now be a little smoother with Dolby Atmos-integrated features in Pro Tools 12.8 and the Dolby Atmos Production Suite and Mastering Suite.

**FIRST, LET’S REVIEW** some terminology. Dolby Atmos, as you are probably aware, incorporates a traditional 7.1 discrete channel layout (Left/Right, Center, LFE, Left/Right Surround, Left/Right Rear Surround) and adds two discrete height channels—referring to this combination as a “bed”—so it is a 9.1 bed. It then utilizes “objects” which are, essentially, individual or groups of sound elements that share the same location in a room. Metadata information associated with each object details the position of those sounds at any specific time. These objects can provide greater sound localization within a mix and can utilize additional speakers. Dolby Atmos allows for 118 objects, which are scalable based on playback theater size, speaker number (up to 64), and speaker orientation. These objects are, in short, remixed in real-time by the Dolby Atmos Cinema Processor to best represent the intent of the mix based on the specifics of the theater.

On the home theater front, speaker layouts can come in a couple configurations. The 9.1 mentioned earlier is now referred to as a 7.1.2 (7 horizontal, 1 LFE, 2 height). I’ve come across 7.1.4 most often when hearing about mixing in Atmos for home/broadcast/streaming. Additionally, you’ll find 5.1.2 up to 9.1.6—and variations. To compensate for the fact that most consumers are unwilling to mount speakers to their ceiling, there are forward-firing speakers that also have an upward-firing driver with separate input. The idea being that using them in collaboration with the reflective and dispersive properties of a typical flat home ceiling (e.g., drywall) will give the height channels realism. These speakers are being marketed as “Dolby Atmos”-enabled. Separate upward-firing speakers are also available.

I CHECKED IN WITH DAVID GOULD, Director, Audio Content Solutions at Dolby, to get some insight into the Dolby side of the Dolby Atmos integration with Pro Tools HD that we content creators should be aware of.

Since the release of 12.8, have you seen more interest for Dolby Atmos incorporation in smaller, more TV-focused rooms?

Yes, absolutely, and in addition, the Netflix announcement, for example, was one of those things that really increased the interest in these smaller rooms being capable of mixing in Dolby Atmos. We had interest before that for various reasons, but [the Netflix announcement] was...
something that, shall we say, increased the frequency of phone calls.

**What’s needed for an already existing 5.1 or 7.1 TV mixing room to be able to mix Dolby Atmos for the home using Pro Tools?**

There are a couple parts. Obviously, they’ll need version 12.8 of Pro Tools HD and also an audio interface with MADI connectivity (if they’re working with the Dolby Atmos Mastering Suite). Then there are two products from Dolby Atmos: the Dolby Atmos Production Suite and the Dolby Atmos Mastering Suite.

The Dolby Atmos Mastering Suite is a hardware/software solution that provides the same workflow as the traditional hardware Dolby Atmos RMU (Rendering and Mastering Unit) does for cinematic mix rooms. The hardware is an approved fixed configuration server from Dell that is a fairly standard hardware platform, but something that we’ve tested and validated with our software. Along with the Mastering Suite software, it also contains a couple of RME MADI cards. Running the Mastering Suite on the server computer removes the processing from your main computer. From a workflow point of view, it makes it easier to deal with multiple sources or recorders if you’re in a workflow with a couple source machines. It can also provide some of your B chain functionality. That is what we consider our mission critical Dolby Atmos mastering workflow for non-theatrical content.

The Dolby Atmos Production Suite, which is our software-only solution, replicates some of that functionality, but sits directly aside Pro Tools. Instead of using the MADI connectivity, we use send and return plugins to get audio to and from the renderer software. We then use local networking to send the metadata to the rendering application. Now, the metadata is compatible across all these solutions and that’s really where the Pro Tools integration comes in since their panner can output object and Dolby Atmos metadata. That can feed into a theatrical room running an RMU, it can feed into a mastering suite or it can feed into a production suite because the actual, underlying metadata and positional information is all the same. The Production Suite is designed for editorial and premix work rather than being a final mastering tool.

**What is the benefit of running both instead of solely the Production Suite?**

Running the separate Mastering Suite when you’re ready to print will, obviously, reduce processor overhead, especially with higher track counts as there are a lot of disk I/O issues you can run into. But one of the other issues deals with how the delay compensation in Pro Tools is set up. Its delay compensation engine is located after the sending and receiving of information to the Production Suite. While this is fine for editorial or premix work, it’s much better if you’re using physical outputs when printing the final files.

**Aside from the hardware and software processing solutions, are there room specs?**

We are developing room specifications with clients around the world to see what the program is exactly going to look like. We’re also working with a network of dealers who are selling the Dolby Atmos Mastering Suite to ensure that

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Pro Tools HD panner with Dolby Atmos height positioning

Selecting an object output path for a mono audio track
rooms they’re installing in will fit within specification once those are available.

**What is the most common speaker configuration you’re seeing?**

Most rooms are installing 7.1.4. We also have a number of rooms that are installing a 9.1.6. In our view, 7.1.4 is the right size for flexibility in that it gives you the best compromise. Considering that 9.1.6 is the easiest large configuration that someone could install in their home, 7.1.4 will translate up to that very well. Additionally, it will translate down to 7.1.2, 5.1.4, and 5.1.2.

**AFTER SPEAKING WITH DAVID, I wanted to get some insight from users and hear about their experience working with 12.8 and the Dolby Atmos features.**

**TIM HOOGENAKKER CAS** has a great deal of Dolby Atmos mixing experience—starting in 2014. He’s mixed everything from theatrical releases, Blu-ray and Ultra HD Dolby Atmos remixes, streaming mixes for Dolby Atmos and anything in between. He did the Dolby Atmos remixes for Seasons 1-7 of *Game of Thrones* and was the Dolby Atmos re-recording mixer on Netflix’s first Dolby Atmos release, *Okja*. He even did the initial Dolby Atmos remix for R.E.M.’s “Losing My Religion”—which helped convince the producers they should release the whole 25th Anniversary version of *Automatic for the People* in Dolby Atmos (producer Scott Litt and engineer Clif Norrell performed the Dolby Atmos mixes for the new release). Tim was kind enough to share some thoughts on mixing in Dolby Atmos and working with Pro Tools 12.8.2.

**What speaker configurations are you mixing in?**

In the main room I’m mixing in, Studio A, which is in Santa Monica (at Formosa Group), our setup is based on a 7.1.4 configuration because that’s, generally, considered the standard for Home Dolby Atmos. Granted, we have more speakers in the room which we can expand to, but the default I work with is 7.1.4. If I’m doing a theatrical mix, I’ll go to our Stage 1 in Hollywood, which is full Dolby Atmos.

**Do you feel limited when working in a Home Dolby Atmos room versus a theatrical room? Anything you need to be extra aware of?**

Well, I don’t feel limited at all, actually, because I still have the same movement, it’s just in a smaller space. However, let’s say I have something panned front-left-height, for example. In a smaller room, it’s more localized and pointed, whereas it becomes a little more spread out in a theatrical space due to room volume. So, sometimes, you have to be conscious of that so things don’t sound like they’re really coming at you. But other than having front-side arrays theatrically, my workflow for both is nearly identical—I’m just mixing to a smaller footprint.

**Other than localization considerations, what else should you be aware of when mixing for Home Dolby Atmos delivery?**

When mixing for the home, the RMU has a technique called “spatial audio coding.” So if I’m mixing for Home Dolby Atmos for Blu-ray or UHD, it’s going to end up as a Dolby Atmos TrueHD encode. With that, the spatial coding takes into account information from objects and clusters the mix to be more efficient for encoding. The lower the spatial coding, the smaller the file, but you may hear some differences that you’ll need to adjust for. For instance, I was remixing a film that had some dialogue pulled off the screen about five percent off to the side—and it sounded great in the theater. When we went to Home Dolby Atmos, we heard the dialogue shifting a little between the front and the sides. It was easy enough to adjust, but it’s just an example of something we needed...
to be aware of and adjust for home. Luckily, the RMU emulates this in monitoring so you can hear the way it’s going to be heard by consumers.

**Any differences when mixing for streaming?**

Streaming uses Dolby Atmos Digital Plus encoding, which is lossy (unlike TrueHD which is lossless). So, it's not going to sound exactly like it does coming out of my console, but the same intent of the mix is there. Monitoring the DD+ to hear the differences is always recommended, and now with the new ASTC 3.0 standard, Dolby Atmos is ramping up with Dolby Atmos AC-4 encoding which will be very efficient for streaming.

**Have you changed any of your Dolby Atmos workflows since Pro Tools 12.8 was released?**

Before 12.8, the Dolby Atmos panner was a plugin. In order to pan, I used to use custom fader plugin mapping to pull up the panning parameters to the faders on my Icon D-Control, since you can do that and because I couldn’t use my joysticks to pan for any height data. I put the X and Y on faders to my left and the Z (height) on my right faders. I became really quick working that way. Now with 12.8, the Dolby Atmos info is in the panner, so I can’t map them and I had to relearn the panning approach. However, when I go to our big Hollywood stage, this is good because we have an S6 and I can use the joysticks or the master touch module. However, it would be great if [the Dolby Atmos panner] could work with the Icon joysticks.

**What other things have you noticed?** [Note: Tim is using 12.8.2]

When I’m using a separate system as a recorder, it’s a lot easier in 12.8 to set up the recorder system for recording the metadata. It’s nice that it links to your RMU in the Peripherals really easily. Also, you can have your busses match your RMU exactly via a dropdown bussing tab within the I/O page. So if you have specific beds and objects set up in your RMU, it lists all your busses to match the RMU. You can also batch rename tracks, which is great if you have a bunch of objects and you need to have different names of the actual tracks that you printed.

I print to the RMU and, unlike with a theatrical RMU where you’ll print MXF files with your Dolby Atmos engineer, for Home Theater Atmos, it creates an .atmos file. Some people call it a DAMF (Dolby Atmos Master File), which is actually the older name, but the name is still commonly used. The DAMF contains three things; an .atmos file, an .atmos metadata file, and an .atmos audio file. Those three files then go to a Dolby Atmos TrueHD encoder. Interestingly, the TrueHD encode will also make an .ac3 5.1 encode. That way, if you have an older decoder that can’t read TrueHD (usually, anything without an HDMI input), it’ll still be able to play a 5.1. You also choose a 7.1 or 5.1 (more common) core that will play, based on deliverables.

Also, now in 12.8, Pro Tools has the flexibility to create and/or import an ADM .WAV file, which basically consists of one large 128-channel .WAV file with Dolby Atmos panning metadata baked in. You can create these from the DAMFs and then import back into Pro Tools with the internal panner data in place to re-edit for versioning or streaming level requirement adjustments if need be. I’ve exported them, imported them, speed corrected them 24fps to 23.976fps and, so far, it’s been robust.

**5,700 MILES AWAY**, across the Atlantic, Portugal’s **Branko Neskov CAS** shared some of his thoughts.

**How long have you been mixing in Dolby Atmos?**

I did my first Dolby Atmos mix relatively early—April 2013. It was a theatrical mix done in six weeks for a Russian film called *SOLDAT*, directed by Aleksandr Chernyaev. We used the Euphonix S5 console on that. Since then, I’ve done several trailers and another feature film in Dolby Atmos.
How is your stage set up?
My room was originally built in 2011 and updated to Dolby Atmos two years ago. It is a mid-sized studio, measuring 6.5m wide, 11m deep, and 4.5m high. It has three front speakers (L, C, R) and two front subwoofers. There are 2 x 6 side surrounds, with a corresponding number of top surround speakers. There are four rear surrounds for a total of twenty-eight boxes. There are also two rear subwoofers. I am monitoring through the RMU and feeding it with the Avid HD MADI interfaces. All the speaker management is done via BSS Soundweb units: formats, input selection, levels, EQ, and delays. We built a custom interface and are operating it from a touch screen.

Has your workflow changed since you started mixing in Dolby Atmos with 12.8?
Yes. Dramatically. The most important being the structure of the session, as I’m not using dedicated tracks for Dolby Atmos anymore. When needed, I simply switch the panner from bus to object and vice versa. The arrival of the integrated panner was a big improvement—no more inserting Dolby Atmos panners (and fighting with one-year authorizations in the beginning!). It simplifies the operation and the layout of the session.

When I mixed my first Dolby Atmos project on the S5 console, it was very challenging. You could not insert the Dolby Atmos panner on the same strip where your channel was, but had to create a virtual console just with dummy channels with panners. It was a nightmare. Today, I work on the S6 and I always liked the possibility of using the central touch screen for panning, and now I can extend it to Atmos as well. I love it.

Any suggestions for mixers who haven’t used the Dolby Atmos features in 12.8 but are thinking about it?
I would suggest mixing everything in Dolby Atmos. I did a feature in Dolby Atmos and used Dolby Atmos’ mixdown to 5.1 and it sounded great. This way, if anyone wants to release the film in Dolby Atmos later, it’s already done. It is very simple to work with it now—just use it!

WHILE RESEARCHING for this article, I also found an unusual use of Dolby Atmos. Nathaniel Reichman is a New York-based re-recording mixer with a client who was looking to create an audio-only sonic experience for a specific demographic. The caveat? The user would be listening, primarily, on headphones. Given this request, Reichman felt the immersive nature of binaural would provide the most engaging result.

When deciding on how to go about providing the mixes, Reichman states, “I’m aware of the Facebook and GAudio packages that are available, but knew I’d be asked sooner or later to make a conventional Dolby Atmos mix. Honestly, I was initially a little bit of a skeptic, but decided to try mixing in Dolby Atmos while monitoring the binaural output of the renderer.”

And his client’s response when hearing the first mix? “They were amazed. They loved it!” Some nuances he notices: “Subtle pannings across the center sound even more directional and focused. Even playing the binaural mix on loudspeakers translates pretty well—not one hundred percent, but pretty well.” Nathaniel continues, “I have numerous copies of the Dolby Atmos Production Suite. I’ve been using it for months and it hasn’t crashed—other applications have, but not that. I found the learning curve to make templates a little steep, but once you do it, you’re set.”

IN CONCLUSION, as more nontheatrical Atmos mixes are requested, Dolby Atmos and Avid are working together to increase the ease of integration which, in the end, will lead to more fluid workflows. More information can be found, obviously, on the websites for Avid and Dolby Atmos. Be sure to reference the most recent Pro Tools release, 12.8.2, when researching further, as it fixed a couple of issues users noted and adds some very useful features. For a great, in-depth review of the initial release of 12.8 and its Dolby Atmos features, I recommend visiting www.Pro-Tools-Expert.com. Also, at press time, Avid just posted an insightful video on the topic: www.AvidBlogs.com/Dolby-Atmos-Improvements-In-Pro-Tools-hd-12-8-2.

Here’s this year’s installment of my wanderings around on the exhibit floor and reporting on the interesting new hardware developments I found in the fast-developing field of production and post-production sound.

The Lectrosonics SMWB Miniature Wideband Transmitter (three blocks) is out. It makes a backup recording to micro SD along the way. It works with the Digital Hybrid receivers and is also backward compatible with some of their 200 and 100 series, as well as others.

Tascam is selling the Studiomaster DigiLIVE in a few variations. One being a 12-mic pre 16-channel mixer that runs on 12V DC for under $1K.

They also were showing their SS-R250N and SS-CDR250N two-channel networked recorder/players. One works with SD cards, the other with CD media. It looks like a great tool for radio stations and installed applications. MSRP $799/$999.

Along with that was a controller that turns the recorders into virtual System360 machines at $400 street price.

Lawo was showing off its new mc²96 Grand Production Console for live/studio work. With an impressive capability to handle lots of signal types (analog, MADI, DANTE, Ravenna, SMPTE2011, AES67, AES3, and so on).
Sennheiser has a 360 mic now. The Ambeo 1600es features four capsules in a tetrahedral array. MSRP $1,650

Neumann has rolled out a line of small powered monitors from $499 (KH 80 DSP), $699 (KH 120), to $2,249 (KH 310) apiece.

Sontronics is relatively new to AES, displaying a line of British designed and built mics. Among them is a hypercardioid dynamic called the SOLO, which may become an SM58 killer.

The AMS Neve DFC-3D console looked great, as you would expect. It’s made for multi-format film and television post projects. It is compatible with Atmos, Auro3D, and IMAX. It starts at $70K with models up to 1,000 channels.

Zaxcom was showing some new products, like its new ZMT3-HH handheld wireless recorder with a ZaxNet-controlled color tally and XLR connection for hardwiring. The tiny ZMT3 and ZMT3-HM boom transmitter and ZFR400 mini-recorder were also on display. By now, the Deva 24 should be shipping to beta testers with general deliveries to follow. Also, the relatively new RX12R was on display, which is a rackmount version of the RX12.

API has made improvements to its legendary line of mic preamps with the 512V (lunchbox slot) and 3124+ (4-ch 1RU).
Speaking of mic preamps, Millenia has repackaged its outstanding HV-32 and HV-35 into portable preamps (HV-32P and HV-35P respectively). They run on 12V DC for around $750 for the mono HV-35P and $1,250 MSRP for the 2-channel HV-32P.

Direct Out was showing its $1,200 EXBOX.MD, a MADI-DANTE converter with four ports and Power Over Ethernet. I’m sure that will come in handy for some!

SSL had an interesting new DAW control surface, the Nucleus², which will talk to all major DAWs, speaks DANTE, has SD card project storage, a couple of mic preamps and monitor outputs, and other nice features for about $6,000.

I also spotted the Lynx Aurora high-end converter with 32 channels of I/O, improved processor performance and cooler running.

Another surprising microphone was the Sanken CSR-2 short shotgun rear-rejection microphone. The rejection off the back of this mic was astounding and, at $1,450, an attractive tool for the field.

The Core Audio folks have gone one (well FOUR) better than their TetraMic 360 surround mic by introducing the OctoMic. Featuring a bigger sweet spot and lower self-noise than the TetraMic, along with better image localization in the 3D space. Around $2,000.

While I stuck with hardware, there was also, as always, a plethora of software innovations this year. See my article “What’s new in Pro Tools?” to read about my interview with Avid’s Director of Digital Business Development Rob D’Amico where I find out what Avid has revealed this season in its version 12.8.2 and the benefits of the new subscription-based licensing.
Paul Rodriguez
INDUSTRY ADVOCATE

MPSE Board member and active supporter of the sound community, Paul Rodriguez, left this world in September at the age of 65. Over his career, Paul served as the mix facility coordinator for over four dozen projects and held many high-level supportive roles, including VP and Director of Feature Sales at Todd-AO/Soundelux, Senior VP of Wilshire Stages, Director of Sound Services at 4MC, and President of EFX Systems. Rodriguez was President of South Lake Audio Services and VP Audio Services and Development at its sister company, Roundabout Entertainment, when he passed.

An active member of MPSE, including serving eight years as its Treasurer, Paul had a passion for the sound community. MPSE President Tom McCarthy reflected on Paul: “Paul was an ambassador to the art of sound throughout all aspects of entertainment worldwide. He played an integral role within the Board of the MPSE for many years. The success of our organization was supported by his continued efforts to recognize the importance of sound to filmmakers and the studios.”

CAS President Mark Ulano remembered Paul: “Paul Rodriguez’s energy, mentoring, and enthusiasm will be sorely missed as he was always there as a go-to guy. His capacity for collaboration and generosity seemed boundless. We at the Cinema Audio Society send our heartfelt condolences to his family and the larger community to which he has so effectively participated as a creative force and a leader. He will be greatly missed.”

Sandy Berman
SOUND SUPERVISOR AND DESIGNER

Past MPSE President, sound supervisor and editor Sandy Berman spent over 40 years working in and helping to innovate the creative use of sound in film. His numerous credits include Public Enemies, The Princess Bride, Analyze This, Tombstone, and JFK. Sandy was once a visiting professor at UCLA, teaching the course “Sound Design for Directors.” He even acted as the picture editor for John Mellencamp’s video A Ride Back Home. In addition to his film work, Sandy was an accomplished musician who had played and recorded with artists such as Bruce Springsteen, James Brown, Chuck Berry, and Hall & Oates. The CAS extends our thoughts and condolences to the family and friends of Sandy.
Karol Urban CAS MPSE has recently completed the series The Mortified Guide for Netflix, as well as the smart comedy police procedural Ryan Hansen Solves Crime on Television for YouTube Red. She is currently mixing Season 14 of Grey’s Anatomy with Ross Davis at Westwind Media.

Devendra Cleary CAS checking in from the set of The Last Man on Earth. Joining me this season is Scott LaRue on boom and Tanya Peel doing utility. The first six episodes were covered by Mitchell Gebhard on boom with Alexander Miles Burstine guesting as well. Enjoying the occasional hiatus life every few weeks where we catch up on ... well, life. As well as some new sound cart fabrication ideas coming to fruition lately, I’ve been plenty busy.

It’s been a very busy year for Darryl L. Frank CAS. We started the year off with the Christmas movie that’s coming out December 8 called Just Getting Started, starring Morgan Freeman, Tommy Lee Jones, and René Russo. So much fun on and off the screen. Also, thoughts and prayers to Glenne Headly’s family for her sudden passing ... Sweet lady that will be missed ... RIP ... We then went onto the first season of Midnight, Texas for NBC with vampires, angels, and zombies ... after we went to work on a pilot for CBS with Andy Weir, the writer of The Martian. Then it was onto the Season 2 of Graves with Nick Nolte and Sela Ward, which started on October 22 on Epix. Now we are coming to the end of another year with The Brave, which is airing now on NBC. So thankful for all the work and my stellar crew, David Sickles and Joe Heise.

Dick Hansen CAS went to Atlanta to work on the film Dumplin’. The film is based on The New York Times number one bestselling book by Julie Murphy. The film starred Jennifer Aniston and Danielle Macdonald and featured songs from Dolly Parton. The film was directed by Anne Fletcher and written by Kristin Hahn. My crew were locals to Atlanta and did an outstanding job. My boom man was Fred Kupfer and my utility was Matt Aston.

Woody Woodhall CAS has supervised sound editorial and mixed 10 hours of programming for the second season of Ozzy & Jack’s World Detour for A&E Network, detailing Ozzy Osbourne’s travels across the USA with his son Jack. He did the same for the television series Return of the Mac, featuring boy band star Joey McIntyre, delivering the first season for POP TV. Woody Woodhall is also looking forward to the US theatrical release of The Orchard’s feature documentary 11/8/16, which enlisted 16 documentary teams who followed American citizens on election day 2016, from morning to night, watching as they see the ultimate results unfold. He was supervising sound editor and re-recording mixer for that doc, as well as the debut feature film Lost Fare, produced and directed by visual effects guru and cinematographer Bruce Logan (2001 A Space Odyssey, Star Wars, TRON), a gritty story about a young disabled girl coping with a prostitute mother and her inhumane pimp.

Just in time for the premiere of Amazon’s new Lore series, which he mixed with Kelly VanDever. Mark Rozett CAS completed Runaway Romance for UP Network, as well as his yearly Warren Miller ski extravaganza Line of Descent. Now, he’s ready to hit the slopes himself.

Brendan Beebe CAS is midway through the second season of GLOW for Netflix coming off the seventh season of AHS for FX and Sharp Objects on HBO. Special thanks to Sam Hamer, Rebecca Chan, Sheraton Toyota, Dennis Fuller.

Jon Ailetcher CAS has had a busy summer and now fall, with lots of day playing and then settling in on Lucifer Season 3. Swinging the stick is Jeff Norton and handling much more than just utility is Kelsey Jonikas.

At Smart Post Sound on Stage 5, Sherry Klein CAS and Scott Weber have wrapped Season 2 of Queen of the South (USA) and Unreal Season 3 (Lifetime). They are currently mixing Exorcist Season 2 (Fox) and will begin mixing Revere in November for midseason airing on NBC.

CAS Associate Rob Disner has been staying busy in Atlanta mixing indie projects and booming bigger shows with mixer Erik Magnus CAS. Rob mixed the month-long indie feature Things Don’t Stay Fixed in Columbus, GA, this summer, and then switched over to boom for the Lionsgate feature Umpire. After that, he began booming the new Netflix series Insatiable. Rob also has a steady freelance gig at Turner Classic Movies, running the board for their Filmstruck streaming service, and recording hosted movie intros with Ben Mankiewicz for TCM.

Gary Bourgeois CAS and Alex Fehrman are mixing Shut Eye for Hulu and also S.W.A.T. for CBS at Formosa’s new Stage X in North Hollywood.

Steve Weiss CAS completes Season 6 of Major Crimes on TNT and begins Season 1 of Netflix’s Best Worst Weekend Ever, with Vince Schelley on boom and Dennis Carlin handling utility chores.

Sylvain Arseneault CAS, location mixer, just completed Condor for MGM/Audience Network and is finishing 2017, with MGM/Hulu’s The Handmaid’s Tale Season 2, with Michael Kearns on boom and Erik Southeby on cable.

Freshly back from the Emmys for Big Little Lies, Gavin Fernandes CAS is back on with HBO for Sharp Objects, with Jean-Marc Vallée. There will be a few docs and TV movies mixed in to keep him out of trouble (Sleepers, At War with the Dinosaur, etc.). He then moves onto the MGM series The Truth About the Harry Quebert Affair.

Philip Perkins CAS is currently mixing the A&E miniseries The Menendez Murders, and recording and mixing the new Broadway-bound musical Ain’t Too Proud: The Life and Times of the Temptations for a forthcoming broadcast. He just completed mixes for Ottomatica for its premiere next month. A ballet score he mixed, The Propelled Heart, just premiered in Hong Kong and is now touring the USA.

Geoffrey Patterson CAS has had a busy year with Snowfall for FX, Love for Netflix, and currently on Westworld for HBO. Next up, True Detective 3.

And at Universal:
Over on the Hitchcock Theater, mix
team Jon Taylor CAS and Frank Montano are wrapping up the mastering for Fifty Shades Freed for director James Foley. Director Albert Hughes was in finishing up the mix on his first feature for Studio 8, Alpha. The crew will mix Pacific Rim Uprising for Legendary Entertainment in November.

Mix team Dan Lehay CAS and Steve Pederson CAS are mixing in Dolby Atmos on Mix 2 for Counterparts for Starz Entertainment. Up next for the team is the much-anticipated series Jack Ryan, starring John Krasinski for Amazon Studios.

Mark Fleming CAS and Myron Nettinga CAS have partnered up on Studio 1 and are currently mixing Ragtag for Marvel Entertainment and 12 Monkeys for NBC.

Jon Cook CAS and Bill Freesh CAS are in Studio A mixing Brooklyn 99, The Good Place, and Superstore for NBCUniversal and alas, the third season of Mr. Robot for the USA Network.

Alan Decker CAS and Nello Torri CAS are mixing The Brave and Gone for NBCUniversal and the series Chance for Hulu. Up next for the team is Homeland for Showtime.

Mix team Pete Nusbaum CAS and Whitney Purple CAS are mixing AP Bio, Blackish, Just Add Magic, Grownish, Life Sentence, and the comeback of the first “new” season of Will & Grace, shooting here on the lot.

Derek Marcil CAS and Greg Watkins CAS are mixing the 19th season of SVU Law & Order, the third season of Chicago Med, and Law & Order True Crime: The Menendez Murders for Wolf Films.

Mix team Pete Reale & Todd Morrissey are in Studio C for Chicago Fire and Chicago P.D.

Mix team Robert Carr CAS and Scott Lewis are mixing the new series Damnation for NBC and Runaways for Marvel Entertainment.

Mix team Bob Edmundson CAS and Rusty Smith CAS are mixing Kevin Saves the World and Heaven.

Derek Marcil CAS and Greg Watkins CAS are mixing the 19th season of SVU Law & Order, the third season of Chicago Med, and Law & Order True Crime: The Menendez Murders for Wolf Films.
The mix team for Big Little Lies from the Emmys. Left: Gavin Fernandes CAS. Right: Louis Gignac.

Watching the total eclipse of the sun in Black Canyon Wilderness Study Area near Howe, Utah, with a crew of motion picture people, including Ted Macklin, Dan Dugan CAS, Andy & Lou Wiskes, Peggy Geary, Fred Runner.

Our CAS office manager, Carol Thomas, appears to be raising the next generation of sound superstars. Here, Grace Hazel Thomas poses for her first photo as a boom operator. Adorable!

Mixer Steven A. Morrow CAS and boom op Craig Dollinger enjoying the Venice Canals during the filming of The 15:17 to Paris.

On location at Griffith Park shooting The Ranch for Netflix. Pictured: Mixer Laura King CAS, boom operator Matt McFadden, sound recordist Gerry Beg, sound utility Joanna Copland, sound utility Gil Castro, and John from Sony.

The sound team for the final sound mix for the feature The Shape of Water for Guillermo del Toro and Fox Searchlight at Deluxe Post in Toronto. Left to right: Nathan Robitaille MPSE (supervising sound editor/sound designer), J. Miles Dale (producer), Brad Zoern Christian T. Cooke CAS (re-recording mixer), Guillermo del Toro (director), Ferreira (dialogue editor), Fil Hosek (mix assistant), Cam editor, Rob Hegedus (music editor), and Doug Wilkinson
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