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THE RECORDING INDUSTRY MAGAZINE

Mix

NAB/Video Production
SUPPLEMENT

**Listings:
Video Production &
Post-Production Facilities
Time Code Explained**



**Christine McVie
Broadcast Sound
Jeff Baxter Interviews
Stray Cat Brian Setzer**

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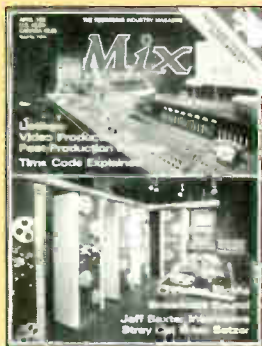
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Cover: The Village Recorder, MRI, CA
 The Village Recorder in conjunction with MRI (Motion Picture Recording Inc.) now offers producers a complete "one stop" sound package that includes scoring, dubbing, automated dialogue replacement and Foley. Pictured on the cover is The Village/MRI's computerized film re-recording console equipped for ADR/looping and 35mm dubbers. For the 3/4" video producer, The Village/MRI offers sweetening, ADR and Foley with 10-foot large-screen projection and 24-track recording via the BTX Softtouch synchronizing system.

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This month, *Mix* takes an in-depth look at developments in both video production and the burgeoning field of audio-for-video. Our special 92 page *Video Supplement* begins on page 67, and includes news features, interviews, technical updates, and listings of facilities nationwide.



In his *Producer's Desk* column, James Riordan talks to Deke Richards, who had a hand in writing and producing some of Motown's biggest chart-busters. This illuminating feature starts on page 168.



We have two extensive articles on time code and synchronization this issue. In *Audio Applications* (page 42) Ken Pohlmann offers a cogent explanation of time code basics and discusses synchronizers, while Lou CasaBianca and Joe Van Whitsen provide a technical update on time code on page VS86.



Two generations of great players meet in our pages when Jeff Baxter, producer/guitarist extraordinaire, interviews *Stray Cats* leader Brian Setzer. See page 64 for the surprising results.

WHY IT'S OTARI FOR MORE POST-PRODUCTION PROS.

Today's top pros in audio post production at Otari. It was a hot topic years ago—and still is.

In 1978, we introduced the MTR-90 multi-track recorder which featured our new revolutionary tape drive system. It was quickly accepted as a superior performer under synchronized control—with faster search and lock-up for quicker editing operations.

In 1980, we introduced the MTR-10/12 10-inch and 12-inch machines—the industry's first with programmable channel bandwidths.

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a serial port for computer control of the transport functions.

Along the way, we've worked with every major audio/video and video color manufacturer to provide for customers with the interfaces they require. Synchronizer interface compatibility and time standard compliance are all MTR Series recorder features.

Our commitment to audio post production continues.

In 1983, we added the EC-400 for game-back SMPTE/EBU time code recording to its rich line. We also developed a 1-inch (1/2-inch) audio playback recorder conversion kit for the MTR-90, and an RS232C serial control port for the MTR-10/12.

Now, we're introducing the EC-400

Series, an advanced time code recorder capable of phase lock over a ±30% frequency range.

These are just a few of the ways we've delivered on our commitment to the audio post production professional. To get the complete story, contact your nearest authorized Otari dealer.

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Mix Magazine is published at 2608 9th St., Berkeley, CA 94710 and is ©1984, by Mix Publications, Inc. This is Volume Eight, Number Four, April, 1984. Mix (ISSN 0164-9957) is published monthly. Subscriptions are available for \$30.00 per year. Single or back issue price is \$3.50. Subscriptions outside U.S.A. are \$42.00. Please address all correspondence and changes of address to Mix Magazine, 2608 Ninth St., Berkeley, CA 94710 (415) 843-7901. Controlled circulation postage paid at Berkeley, CA and additional mailing offices. Mix Magazine is distributed in recording studios, pro-audio stores, music stores and other related businesses. If you have a recording or music related business and would like to distribute Mix, please give us a call. Display advertising rates, specs and closing dates are available upon request. This publication may not be reproduced or quoted in whole or in part by mimeograph or any other printed means, without written permission of the publishers.



Dear *Mix*:

I appreciate being one of the 14 engineers chosen for comment on studio monitors in your January issue. However, after reading your interpretation of our brief conversation I feel there are some points which need clarification.

In your introduction you state some of the many obstacles which audio engineers must endure in order to obtain an accurate perception of sound. There was no mention in the article of my statement concerning room and console reflections and their relationship to the (EAW) MS-50's. I might add at this point in our "B" studio, which is somewhat smaller and intimate, that the MS-50's give a much fuller sound.

When I started engineering some 5 years ago, MDMs were much too expensive to purchase. After a great deal of subjective deliberation, I bought the MS-50s. I have become accustomed to the sound of the MS-50s and I feel that they give me an accurate perspective on what the "end user" will hear. Because of this I have continued to take the 50s with me from studio to studio as a complement to other standard monitoring systems.

Further, I might add, as your article indicates, Crescendo does *not own* any MDM-4s. Rather, the three sets of speakers which satisfy our clients are modified Westlake TM-1s, MS-50s, and baby TOAs.

Sincerely,
Will Eggleston
Crescendo Recording Studio
Atlanta, GA

Dear *Mix*:

I have recently been doing work out of Select Sound Studio here in Buffalo, NY. At Select Sound we offer classes in both basic and advanced recording techniques. Though we use various texts and of course hands-on training, I personally feel it is important for students to get an idea of what the real life recording industry is like.

Of the periodicals available which touch upon the audio industry I think *Mix* does the best job of presenting the clearest overall picture of real life recording. It covers all of the important aspects like the latest technical data, current recording practices, the industry's hottest personalities, not to mention the impeccable list of advertisers which use your magazine.

For these reasons, I like to recommend to all of our students that they subscribe to *Mix* magazine, a move I am sure none of them regret.

Yours truly,
Anthony Mussachio
Williamsville, NY

Dear *Mix*:

First of all, I want to thank you for your fine efforts at producing a "studio" magazine. *Mix* is so popular here that all of our copies are gone in two days and I have to hide my copy from the clients!

In fact, I just got around to reading the November '83 issue covering the North Central studios, which we are one of. I was quite surprised to find no mention in the article of the many fine studios in America's "Rock and Roll Capital": Cleveland, Ohio!

There are at least six 24-track and numerous 16 & 8 track studios in Cleveland with quite a few major hits having been recorded in the area. Just at our old and present studios we have recorded NINE platinum albums! The work that we and the other Cleveland studios have been doing is considerable, especially since we are far from being considered a "recording center".

Sincerely,
Michael J. Bishop
Suma Recording Studio

Dear *Mix*:

Your recent article about unsigned bands in the February '84 issue of *Mix* magazine was very well written and was a long time coming. The

—page 48, *Feedback*

The trouble w ordinary consoles don't work half th



MIX IN
PROGRESS.
DO NOT TOUCH.

It's a situation that every studio manager recognises. A client has been in, done some work, and departed to return some time later. Expecting to find the desk as it was left.

Of course, the engineer could always note down all the settings and then reset the desk. But that's extremely time consuming and not entirely reliable.

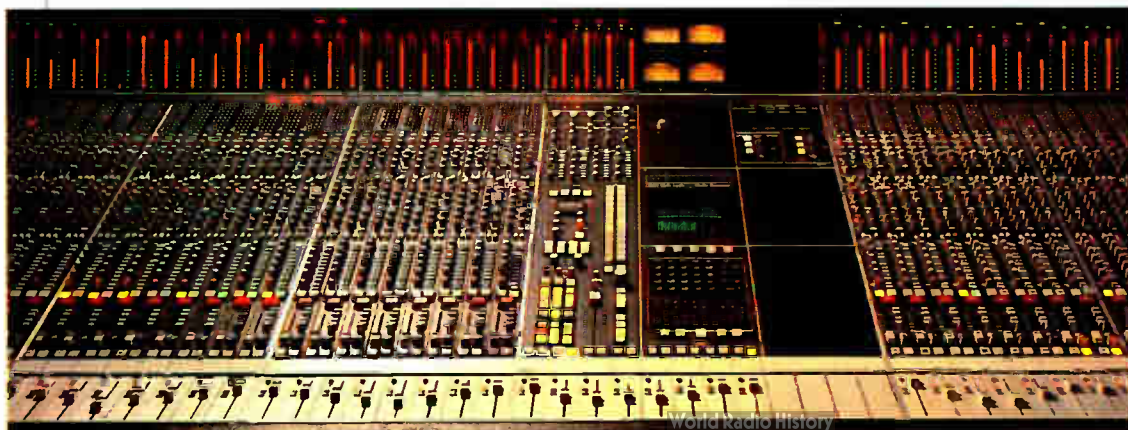
So, usually, the studio has to stand idle between sessions. Keeping the customer happy, but not keeping the money coming in.

At Solid State Logic, however, we've developed a rather more practical solution to this dilemma. We call it the Total Recall System.

Total Recall is completely independent of all audio paths and allows the console settings to be permanently stored on floppy discs within a few seconds.

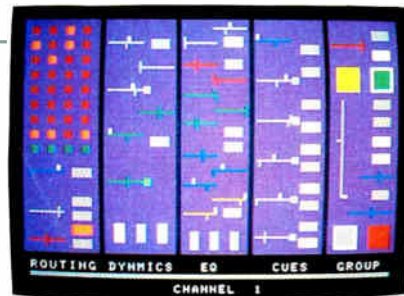
So, at the next session it takes only minutes to reload this information, check it on the colour video monitor and return the console to its original settings.

The same thing can be done at the end of each mix



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is, they
e time.

And it gives producers and musicians real flexibility and continuity. After recording in an SSL studio, they can return there (or to any other computerised SSL studio in the world) and continue work with absolute accuracy and the minimum of fuss.



Yet the computer is simplicity itself to operate. Even inexperienced assistants and tape-operators will soon master its basic functions. While feed-back from studios with SSL systems shows that more advanced expertise is acquired quickly and naturally with use.

The SL 4000 E Series Master Studio System could only have been developed through an understanding of the needs and problems of people who spend their lives in studios.

So it's not surprising that SSL's design team include not only computer and electronics experts, but engineers, producers and musicians. People who both improve studio technology and use it.

What this group sets out to devise, and SSL sets out to produce, are real answers to real problems. Finding ways to improve quality and streamline audio production. But we also produce machines that are built to last.



You will never outgrow an SL 4000 E System because you can start with the basic mainframe and then add extra modules and facilities as your needs and budget dictate. By designing systems with the future in mind we make sure that hardware and software developments can always be integrated into existing systems.

We can build you an SL 4000 E Series Master Studio System in around three months. So if you would like to start cutting the amount of time and money your studio wastes, cut the coupon or call Antony David in the UK, Doug Dickey or Piers Plaskitt in the USA.

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Please send me further information on the SL 4000 E Series Master Studio System.

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CURRENT

Video Pay-For-Play

The hottest issue in music video—cash compensation for airplay rights—gets hotter on the heels of a deal proposed by MTV to Capitol/EMI for exclusives on selected artists' clips.

A copy of the proposed contract, obtained by *Billboard*, suggests cash payments to the record company over a three year period, plus "guaranteed" free advertising time, stating that for each video made available exclusively to MTV, Capitol/EMI would receive ten free advertising spots. Cash value of each spot is approximately \$2,000 apiece.

At the date of this writing Capitol/EMI brass were still examining the proposal as MTV boasted another "world-premiere" coup, this time for a commercial. Michael Jackson's appearance in an ad for Pepsi-Cola was to have premiered on the televised Grammys. But it ran first, the night before, on MTV. Pepsi, which paid big bucks for its Grammy airtime, got not only the MTV spot air for free, but a whole half hour of a "special presentation" on the making of the 60-second spot.

All this raises a lot of interesting

questions. If MTV is compensating for clips with ad time and running ads for free, does this mean the cable service is having difficulty attracting sponsors?

Might short-term exclusivity deals for top acts be used to take the competitive wind out of ad sales among the other clip-based programs, such as *Friday Night Videos*, which already pays record companies for the use of their clips?

Will the dozens of other TV outlets providing clip exposure for both large and small labels dry up, unable to attract enough viewers to attract enough advertisers?

Capitol's corporate family, for example, has its own clip-based show, *Rock In America*, to be barter-syndicated in at least 30 U.S. cities this fall by a subsidiary company called Picture Music International. While its producers had announced that the show would premiere clips by Capitol/EMI groups as well as other record companies', it's likely that all labels will be selling first-run rights of the hottest acts to the highest bidder.

Mark Levinson of EMI said *Rock In America* will be compensating other record companies for TV airplay of their clips, but declined to go into any details of payment arrangements. He added that TV show producers "will all be paying" for rights to clips soon.

"Clips have moved beyond promo and become product," he added. Since PMI is also in the business of producing clips for various labels, Levinson said the firm's contracts with production people now often include percentages of possible royalty payments. "If there will be royalties, why shouldn't they be shared...with producers, directors, unions?"

Pay-for-play is here to stay. We hope the elevation from promos-to-programming is beneficial to both record companies and the visual crafts-people who have, for so long, been unrecognized and underrecompensated for providing so many hours of video entertainment, three minutes at a time.

—Mia Amato

AES Drafts Digital Standards

A draft document outlining digital audio standards recommendations has been prepared by a writing group of the Audio Engineering Society and is being circulated to the AES membership prior to its submission to various national standards institutes. These Recommended Practices deal specifically with sampling frequencies "for the digital encoding of speech or music program signals to be employed for recording, processing or transmission purposes. The intention is to encourage producers of digital audio equipment to use in their products those sampling frequencies which facilitate ease of program interchange to the greatest degree possible."

The draft suggest a sampling frequency of 48 kHz for the "origination, processing and interchange of audio programs." For certain consumer digital audio applications, a sampling rate of 44.1 has been proposed. And 32 kHz was also included as the suggested sampling frequency for transmission-related applications.

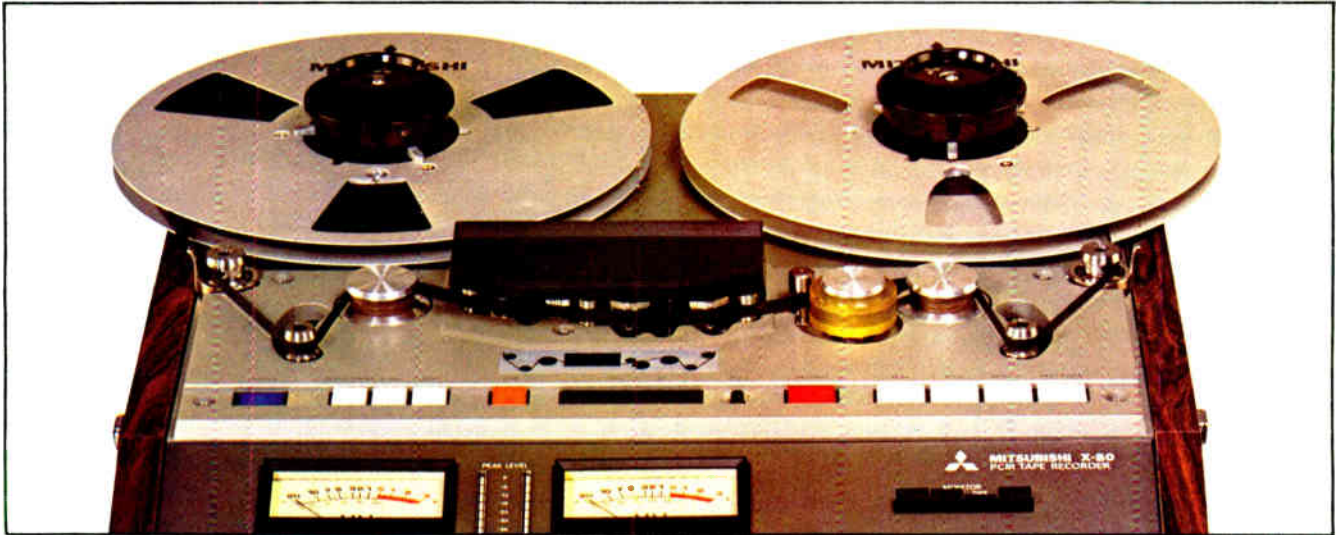
To receive a copy or to comment on the AES document, address comments to: Standards Secretariat, Audio Engineering Society, Inc., 60 East 42nd Street, New York, NY 10165.

notes

Audio Kinetics, of England, is expanding its U.S. operation with a wholly owned American subsidiary in North Hollywood, CA, headed up by V.P. *John Fraser* and Technical Manager *Sean Fernback*. . . . *ADM Technology, Inc.*, the Troy Michigan audio console manufacturer, has promoted *Murray Shields* to V.P. Corporate Sales, *Larry Mandziuk* to Staff V.P. Engineering and *William Keely* to V.P. Engineering. . . . *Precision Record Labs, Ltd.* has recently opened its doors in Chicago for full service record manufacturing. Call 312/225-9117 for more info. . . . *Joseph C. Volpe* has been appointed Division Vice President and General Manager of the *RCA Broadcast Systems Division*. . . . *PanSon Electronics* has put out a 1160 page catalog of original Japanese parts for many audio and video manufacturers. Call 212/721-7615 for Ted Spero. . . . *Novo Communications, Inc.* has ac-

quired *Audio Master Recording Films* in Sylmar, CA. . . . *Ed Grower* has been hired as Director of Production Sales by *VCA Teletronics*. . . . The *Northwest Alabama Press Association* is honoring *Sam Phillips* at a roast on April 19 in Tuscumbia, AL. . . . *Adrian Delgado* has been appointed national sales manager for *Sony* industrial tape. . . . *Bridget Jennings* has been named Director of Sales and Marketing for *Parasound*, of San Francisco. . . . *John Hoffman* has been named president and general manager of *United Video Services, Inc.* in New York. . . . The *Denver Center for the Performing Arts* and the *University of Colorado* will present a conference on the "Biology of Music Making" July 8-12. For more info, call 303/893-4000. . . . *EECO* has appointed *Tim Thompson* to Product Specialist, Video Products Marketing.

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World Radio History

SESSIONS

NORTH CENTRAL

At **Studio A** in Dearborn Heights, MI, **David McCollum** produced a single for M&M Productions on singer/songwriter **Ron Moss**. EMP Productions cut a single for Quality Records recording artist **Claudia**. And **Calvin Simon** formerly of the Parliament/Funkadelic Organization recorded a solo project. Eric Morgeson was behind the board for all sessions. . . . At **R.M.J. Studio** in Detroit, R&B group **Dreamboy** worked on a project for Qwest Records. **Al Taylor** and **Jeff Stanton** produced. **John Jaszcz**, **Warren Woods** engineered. Mike Henderson produced a new 12" single on **Veena Keith** with Mike Brown engineering. . . . **K&R Studios** in Southfield, MI, have been busy: **Tim Garrick** and **Peter Halifax** finished two singles for their next album. Tim produced, **Ken Glaza** engineered. And **John Rencaud**, of **Jupiter 8 & the Venetian Blinds** finished his solo EP, with Glaza again engineering. . . . Coming out of Omnisound Studios in Fort Wayne, Indiana: **Steve** and **Maria Gardner**, formerly with Word Records and now with ASLAN Music, completed work on their latest album **United We Stand**, to be released this month. **James Green** engineered, **Jim Markiton** and Steve Gardner producer.

NORTHEAST

MCA recording artists **The Fixx** and producer **Rupert Hine** returned to **The Workshope** in Douglaston, NY, to continue work on their new material with engineer **Rob Bengston**. Mink DeVille guitarist **Rick Borgia** started a new solo project with engineer **Kevin Kelly** at Workshope and **Nils Lofgren** completed four songs for the Broadway play **Willie** with Kelly engineering. . . . Psychedelic rockers **Plan 9** finished their second LP at **Trod Nossel Studios** in Wallingford, CT. The **Tommy Dorsey Blues Band** also worked on an LP project there. . . . At **Filmsound Audio**, State College, PA, **Alan O'Bryant** produced **Whatstone Run's** fourth album project due out on Red Dog Records this spring. . . . Recent guests at **Boogie Hotel** in Port Jefferson, NY, have included: the group **Earons**, recording for Island Records, **Kevin Nance** and Earons producing, **Chris Isca** engineering; and the Long Island-based band **Industry** on Capitol Records, **Vinne Poncia** producing and **Bob Schaper** engineering. . . . In New York City at **Duplex Sound**, producer **Eunir Deodato** finished an album for the group **Kleer** on Atlantic Records, **Mallory Earl**, engineering. Deodato also cut tracks on his new album for Warner Brothers. . . . Recent projects at **Homegrown Studios** in Grayford, NJ, included an album by fusion guitarist **John Macey**, featuring **T. Lavitz** (Dixie Dreggs) on keyboards and **Ben Grammatico** (Edgar Winters, Rupert Holmes) on drums. Engineering was shared by **Joe Errico**, **Al**

Theurer, and **Bob Buontempo**. **Les Miller** handled engineering duties for the **Bill Tuner & Blue Smoke** album produced by **Jim Calvert** (John Lennon, Phil Spector, Ringo Starr). . . . **Syncro Sound Studios** in Boston was chosen by **Peter Wolf** as the recording site of his first solo album project for **EMI America Records**, which he is co-producing with "Space Cowboy" **Michael Jonzun** (of the funk-crazed Jonzun Crew). **Ed Stasium** is engineering, and **Thom Moore** is assisting. This is Wolf's initial post-J. Geils outing. . . . The new band **Push Push**, led by Dennis Brennan, has finished mixing their first project at **Newbury Sound** in Boston, with **Steve Berkowitz** producing and **Will Garrett** engineering. . . . Engineers at **Frankford/Wayne Mastering** in NYC worked on such projects as **Cindy Lauper**, **Saga**, **Peter Brown**, **Johnny Copeland**, **Waterfront Holmes**, **Patti LaBelle** and **Teddy Pendergrass**. . . . Action at **Celestial Sounds Studio** in NYC: producing team **Skip Anderson** and **Steve Williams** recorded artist **Carl Anderson** for CBS/Epic Records. **Bill Dooley** engineered with **Ron Banks**, assisted by **Larry Decarmine** and **Dean Cochren**. **Davitt Sigerson** cut tracks for Ze Records with engineer **Carl Beatty** and assistant **Ron Banks**. . . . At **Nova Sound Studio** in Markham, Ontario, **Bob Gallo**, producer of James Brown and others produced a new album for **The Grottybeats**. . . . Producer **Maurice Starr** has been working on several projects for Arista Records with engineer **Phil Greene** and assistant **Joe Moody** at Warren, RI studio **Normandy Sound**. Also at Normandy, producer **Le Roy Radcliffe** worked with **Buster Smiles** for 21 Records and several cuts for **Mavericks** with engineer **Tom Soares**. . . . Two recent projects mastered at **McClellan Place Studios** in Toronto by **Joe Webster** were the new **Headpins** single, and a greatest hits package by the group **Toronto**. The Toronto album was compiled to digital from various 1/2" and 1/4" analog sources. . . . At **Studio 4** in Philadelphia **Lita Ford** cut tracks with producer **Lance Quinn**; **Obie** engineering and **Gary King** assisting. . . . At **Greene Street Recording**, NYC, **Industry** completed their album for Capitol Records with **Vinny Poncia** producing, **Bob Schaper** engineering and **Joe Arnold** assisting. . . . **Mark Recording** of Clarence, NY, provided its facilities for the mixing of the soundtrack for the film **Vamping**. The film stars **Patrick Duffy**, of **Dallas** fame. . . . **Plum Studio**, Haverhill, MA, recorded a concert at the Berklee Performance Center in Boston, called "On Wing of Song"; also, completing an album project was **Labonte**, a local rock group.

SOUTHEAST

Recording activity at Orlando, FL, studios **Bee Jay Recording** included **Danny Joe Brown** of **Molly Hatchet** doing vocal overdubs with **Andy**

de Ganahl at the controls, and the country group **Orlando** put the finishing touches on their debut album with the help of producer **Eric Schabacker** and engineer **Dana Cornock**. . . . At Fort Lauderdale's Neve and Studer room, **New River Studios**, CBS International recording artists **Miami Sound Machine** completed their album with **Emilio Estefan** producing, **Eric Schilling** engineering, and **Red Stein** assisting. Also, **Fire's Finest**, consisting of former KC & the Sunshine Band members, put down tracks for new dance market releases. **Joe Gibbs** and **Beverly Champion** produced, Schilling and Stein engineered and assisted respectively. . . . A 20/20 film crew set up shop at **Criteria Recording Studios** in Miami briefly to fill a segment for a Barbara Walters special featuring international recording star, **Julio Iglesias**. On the recording front, producer **Skip Drinkwater** worked in Studio C recording vocals for Jamaican artist **Judy Mowatt** for her third album release. Criteria engineers **Mike Fuller** and **Oliver Masciarotte** worked the sessions. . . . At **Polymusic Studios** in Birmingham, AL, sessions have included Pensacola-based reggae band **Lazy Day** with **Michael Panepento** as producer/engineer, and **Andy Bray** assisting; **Tony Parisi** producing the Birmingham-based band, **Just Friends** with **Mike Guerra** engineering and assisting. . . . At **Morrisound Recording Studios** in Tampa, FL **The Code** completed the sound track for a video project. **Dave Shaffer** produced for New Rock Records, with **Tom Morris** engineering. Another video related project recorded at Morrisound featured singer **Janice Nelson**. . . . **Gil Scott-Heron** worked at **Bias Recording** in Springfield, VA, on his new album for Arista. **Bill McElroy** and **Jim Robeson** engineered. Also in at Bias were the **Johnson Mountain Boys**, whose last album was selected as SPBGMA's 1983 Traditional Bluegrass Album of the Year, working on an album for Rounder Records, with Jim Robeson engineering. . . . **Sound Emporium Recording Studios** in Nashville was the setting for an outstanding moment in rock and roll history when French superstar **Johnny Hallyday** teamed up with **Carl Perkins** and the British group the **Stray Cats** for a video taping for French television. Songs from this and several other Music City video tapings were combined with other recordings made at Sound Emporium in an album released in France by Polygram. **Pierre Billon** produced the recordings, with **Charlie Tallent** engineering and **Cathy Potts** serving as assistant engineer. The studio also hosted another major artists, **Don Williams**, who recorded an album for MCA produced by Williams and **Garth Fundis** and engineered by **Gary Laney**. . . . **John Martyn**, who was re-signed to Island Records worldwide, recorded his next album at Compass Point Studios in Nassau, The Bahamas. **Barry Reynolds** (who co-produced and performed on **Marianne Faithfull's** last album **A Child's Adventure**) produced. Also in at Compass Point

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was *Adam Ant*, who rehearsed there for his American tour. In February, the *I-Threes* (*Bob Marley's* back-up singers—*Rita Marley, Marcia Griffith* and *Judy Mowatt*) recorded an album there.

SOUTHERN CALIFORNIA

Working at *Village Recorders* recently was *Kenny Loggins*, produced by *Alby Gulaten*, engineered by *Elliot Scheiner, Jack Puig* and *Ed Thacker*, assisted by *Cliff Jones*. Also in at *Village* was *Joe Cocker*, working with producer *Gary Katz*, engineer *Daniel Lazerus* and assistant *Robin Laine*. . . . At *Westlake Audio*, the *Jacksons* cut tracks with engineer *Bruce Swedien* and assistant *Matt Forget*. . . . Producer *James Newton Howard* and engineer *Elliot Scheiner* have finished *The Brothers Johnson's* new A&M album at *Village Recorders* in West Los Angeles. . . . *John Denver* was in at *Evergreen Recording Studios* in Burbank recording new material with producer *Barney Wycoff* and arranger *Lee Holdridge*. Engineering the session was *Roger Nichols* with assistance from *Gary Luchs, Tim Gorman* and *Jim Behrendt* were in at *Evergreen* working on a solo album for *Gorman*, as well as working on tunes for the new *Local Boys* album on *Island Records*. . . . At *Mama Jo's Recording Studios* in North Hollywood, *Michael W. Smith* wrapped final mixes on his second album for *Reunion Records*, with *Jack Joseph Puig* engineering and *Steven Ford* assisting. Also at *Mama Jo's*, *Steve Taylor* mixed current release for *Sparrow Records*, with *Jonathan David Brown* producing and engineering and *Steven Ford* assisting. *Zondervan/Milk & Honey* recording artist, *Twila Paris* was at *Mama Jo's* with *Brown* producing and engineering with *Steven Ford* and *Todd Van Eeten* assisting. . . . *Rumbo Records* (Canoga Park, CA) had *Reo Speedwagon* in Studio A doing their *Baker's Dozen* album (#13). It was produced by *Kevin Cronin, Gary Richrath* and *Alan Gratzler*. *David Devore* engineered. *Julian Stoll* assisted. In Studio B, *Capitol* recording artist *Billy Satellite* finished their debut album, with *Don Gehman* producing, *Greg Edward* engineering, and *Paul Reynolds* assisting. . . . At *Sunset Sound* in Hollywood, *Danny Seraphine* did drum overdubs for *Chicago's* upcoming LP with *David Foster* producing, *Humberto Gatica* engineering and *Terry Christian* assisting. Producer *Jim Ed Norman* was in with *Warner Bros.* artist *T.G. Sheppard*, *Terry Christian* engineering with *Stephen Shelton* assisting. . . . *Airetight Records* artist *Vicki Compton* recorded tracks for her next single and her forthcoming album with producer *Michael Perricone* at *KSR Studios* in Hollywood. Contributing to the sessions are such talents as arranger *Jimmie Haskell*, *Steve Miller* Band guitarist *Kenny Lewis*, and *CBS* songwriter and keyboard player *Patrick Henderson*. . . . Activity at *Larrabee Sound*: *Elektra* recording artist *Patrice Rushen* recording vocals on her new album project, produced by *Charles Mims*, engineering by *Peter Chaiken* assisted by *Sabrina Buchanek*. *Jimmy Jam* and *Terry Lewis* mixed *CBS/Tabu* artist *Cheryl Norton's* new single engineered by *Taavi Mote*.

NORTHWEST

T&B Audiolabs in S.F. christened the new year with two very different "dance" projects by the *Defectors* and *Pacific Records/Hot Tracks*. *T&B* staff engineer *Mark Ellinger* produced and engineered the *Defectors* project, which was completed in March. . . . *Steel Breeze* recorded their second LP at *Fantasy Studios* in Berkeley, CA, with *Jim Gaines* (*Huey Lewis* and the *News*, *Steve Miller*, *Santana*) and *Ken Goorabian* producing. Also in at *Fantasy* was the *Grateful Dead*, working on their first studio album since 1980's *Go to Heaven*. . . . *Nightspore Studios* had a number of sessions to report including: *Jungle Dinner, Michael Smith* (*Big Mick*) producing, *Jack Cutter* engineering; *Life on Mars* with the same two handling production and engineering; and *Whorl*, *Cutter* co-producing and engineering. . . . At *Patchbay Studios* in San Rafael, CA singer/songwriter *Kurt Deerfield*, produced by *Chris Rowan*, worked on a collection of his tunes in Studio A. *Ron Saurman* and *Gordon Elliott* were the engineers on the project. . . . At *The Plant* in Sausalito, CA worked on overdubs and mixes for their next album on *RCA/Grunt Records*. *Ron Nevison* produced and engineered, *Kevin Eddy* assisting. Also there, *Bonnie Hayes & the Wild Combo* finished up mixes on their EP, *Brave New Girl*. *Steve Savage* handled both production and engineering chores. . . . *Rainbow Recording*, the newly formed affiliate of *Hayward, CA's* own *Rainbow Sound Studios*, completed negotiations with *Johnny Perillo* to produce his hot, new heavy-metal group *Knightwing*. With the signing of an exclusive record production contract, producer and studio owner *Malcolm Rockwell* is aiming for an early September release for *Knightwing's* premiere album which has been tentatively titled *Flyby Knight*. . . . At *Hyde Street Studios* in S.F. bluegrass piano player "Hurricane" *Sam Rudin* worked on an EP with *Mike Marshall* on mandolin and *Darrol Anger* on fiddle. *Gary Mankin* engineered this project. Also at *Hyde Street*: the *Caribbean All-Stars* recorded and mixed three songs for a *Jane Fonda Workout* video with *John Cuniberti* engineering; *Mark O'Connor*, of the *David Grisman Quintet*, played all of the instruments on a country crossover demo mixed in Studio D. *Mark Richardson* produced and engineered with *Les Stuck* assisting.

SOUTHWEST

Omega Audio in Dallas was kept busy with a variety of projects: *Russ Kunkel*, who has been the drummer on numerous gold records with such artists as the *Bee Gees*, *Jackson Browne*, *Linda Ronstadt*, *Steely Dan* and others, was in the studio completing the first program in a series of video music clinic presentations. The series will feature various "world class" musicians describing their playing secrets. The shows are being produced by Dallas-based *Patrick Tourville* of *Associated Media, Inc.*, with *Omega* handling all the multi-track audio, including mix-to-picture and 46-track sweetening. Audio engineers on the project were independent *Buford Jones, David Buell* for *Omega*, and *Patrick McDonald* with *The LA Studios*. Video post-production was pro-

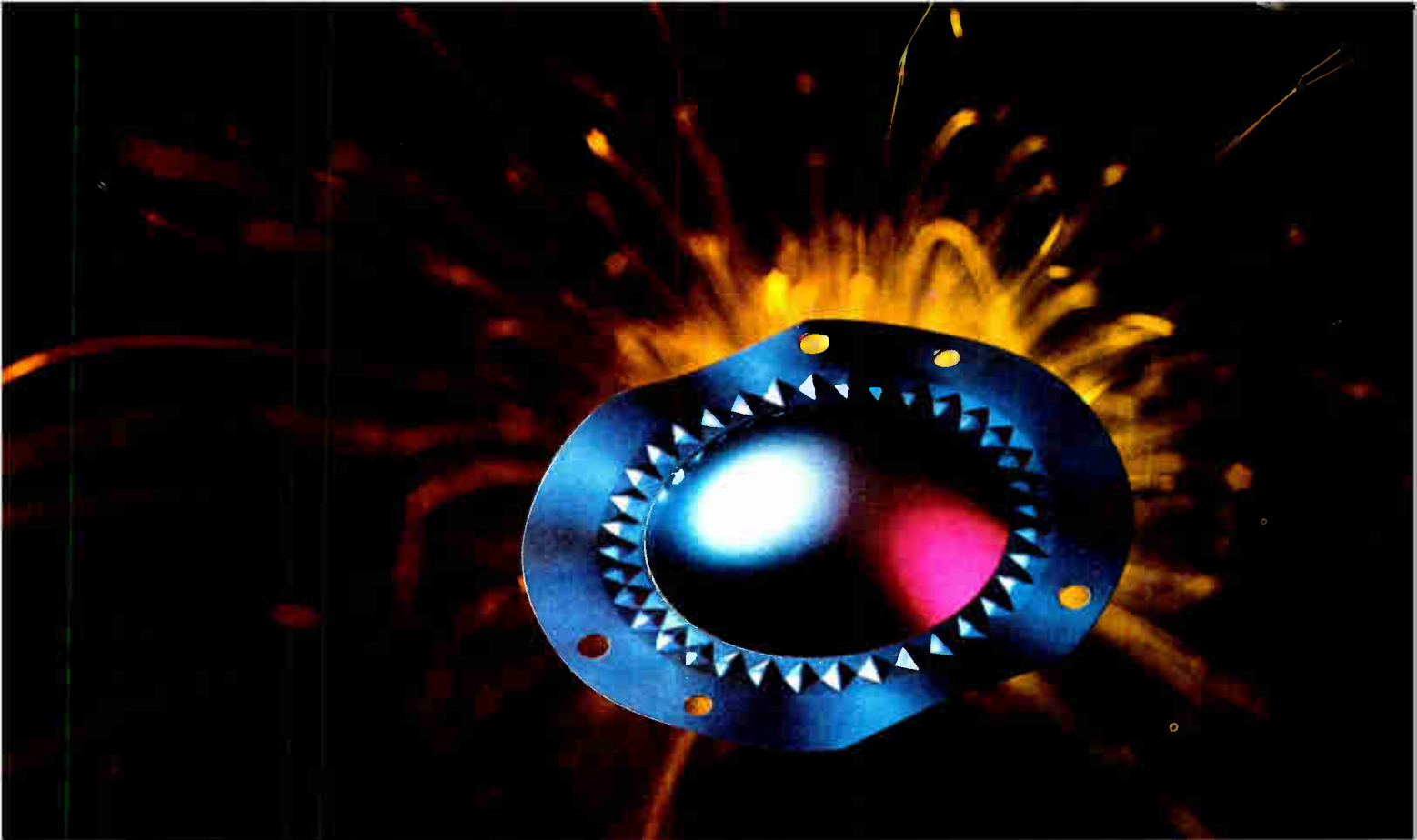
vided by *video Post & Transfer* of Dallas. Video Editor was *Jack Enrietta*. . . . *ReelSound* of Houston had its 46-track truck-trailer in Dallas at *Tango's* for *King Biscuit* to record *Danny Spanos* with *David Knight* producing, and at the *Summit* in Houston for a live album and video shoot with *the Gap Band*. Producing was *Michael Evans*. Other sessions included a *St. Louis* date with *Aldo Nova, Rob Dollinger* producing, *Jerry Lessor* engineering; *Motley Crue* in *San Antonio* with *Knight* producing. . . . At *Pasadena, TX* studio *Rivendell Recorders*, *Nashville* artist/producer *Ed DeGarmo* was in mixing *Farrell & Farrell's* fifth album release for *Star Song Records*. *Jonathan David Brown* engineered. . . . *Rainbow Sound* in Dallas completed an album by *Rhonda Robison*, daughter of evangelist *James Robison*; and also finished projects by *Jeanne Rogers* and *Boyd Bennett*. . .

Recent projects at *Kludgit Sound* in *Santa Fe* included a four-song EP by *Joey Bradley*, backed by the *Roots Radics* band from *Jamaica*. *John Reed*, soundman for various *Las Vegas* acts, engineered an audio mix of the *Crackers'* video "What Did I Do?", to be distributed on *HBO*. . . . Performer *Dave Mason* spent three days at *Dallas Sound Lab* recording keyboard overdubs for an upcoming album to be released by *Marble Records*. *Jay Pardee* served as engineer with *Rusty Smith* assisting.

STUDIO NEWS

The *Post Group* of *Los Angeles* is on-line with the *Mirage*. Already known as a leader in the video special effects arena (having 4 ADOs, *Mark II DVE, Aurora*, and *Bosch FGS 4000*), *The Post Group* adds the newest type of digital manipulation device to its capabilities. . . . Now open at *Hyde Street Studios* in *San Francisco* is *Studio C*, a state-of-the-art, audio-for-video 16- and 24-track post-production room with *BTX Shadow, Otari MTR 90 II, API console, Sony VCRs* and custom computer control. . . . *Womach Recording Studio, Spokane, WA*, welcomes *Cary Wakeley* as *Studio Manager-Engineer*. *Cary* hails from *Seattle*, where he engineered commercial productions, movie soundtracks, live sound, and local record projects. . . . *That Studio* of *North Hollywood*, has announced installation of an automated *Harrison MR4 28x24 console* and is upgrading its 16-track facilities to 24-track. That *Studio* will still offer 2-, 8- and 16-track formats. They have also just finished remodeling their lounge and producers areas. . . . *Kajem Recording* has updated and augmented their 24-track studio located in the scenic hills of *Gladwyne, PA*. *Kajem* becomes among the first studios in the *Philadelphia* area to offer 24-track recording and 1/2" mastering on a *Studer A-80 Recorder*. Included in *Kajem's* \$100,000 update is the *EMT 251 Digital Reverberation Unit*. . . . New equipment at *Midnight Modulation Recording* in *Saugerties, NY*, includes a 360 digital keyboard, *Marshall Time Modulator 5402, Orban 622B* and an *Aphex Aural exciter*. . . . *Dove & Note Recording Company* of *Houston, TX*, now has digital recording capability. A recent acquisition of the *Sony*-manufactured *Pulse Code Modulation (PCM)*

—page VS28, STUDIO NEWS



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New Horizons in Broadcast Sound

“
I t is
contended that
cable could provide
the entire
telecommunications
industry with a
laboratory-like
opportunity for
developing new
concepts in sound
for entertainment.”

by Dan Abramson

Audio in radio and TV is subject to redefinitions of the term "state-of-the-art" every few months and, according to a number of top engineers in the field of sound for broadcast, that may not be often enough. As these Mix-masters argue, the recent advances in sound for broadcast have been retarded by a variety of bureaucratic roadblocks, limited venture capital and technical difficulties. These chief engineers collectively state the opinion that, while much progress has been made in developing new and better technologies for audio, much more progress could have and should have been made.

This applies to AM stereo, which has largely been held up by bureaucratic snafus, as well as multichannel sound for television, which has been held back by a variety of bureaucratic and technological roadblocks. Sound for cable, on the other hand, has been held back mostly by a sluggish economy.

Cable, however, does provide an interesting number of options for the

chief engineers of TV and radio, both in terms of simulcasts and new technology. In the latter regard, it is contended that cable could provide the entire telecommunications industry with a laboratory-like opportunity for developing new concepts in sound for entertainment. Unfortunately, a higher level of national prosperity will have to be achieved before sufficient funds are made available for cable experimentation. By the same token, the proven broadcast equipment that is functional and available for TV and radio stations is also going unpurchased in many cases, largely due to an unwillingness on the part of station management to pay out the money needed to provide first-rate high-quality sound.

AM Stereo

The new multi-mode AM stereo receivers coming on the market are regarded as the key technological advance of the year by several of the top engineers who were interviewed for this article. Art Sterman, manager of radio engineering operations for KABC-AM in Los Angeles, describes the new receivers, which can pick up

any of the four different AM transmissions, as "a significant advance because it has a chance to straighten out the situation in AM stereo."

Sterman, whose station primarily does talk shows, concedes that this will have little immediate impact on the technical side of his own work. He feels, however, that a quick, technology-induced solution to the AM stereo snarl would be a very good thing for AM radio stations in general. "The receiver manufacturers in this country have just been waiting to see which of the transmission systems will be the most successful in the marketplace. With this receiving system, it doesn't matter which transmission systems the stations use. The listeners will hear it in stereo."

This belief is shared by Cecil Wilkinson, chief engineer for KNOK-FM and KSAX-AM in Dallas. Wilkinson sums up the technology of AM radio by stating that, "We're living with something that was designed in 1934 and hasn't been changed since."

Although Wilkinson has not yet tested the new multi-mode receivers, he

—page 20, **BROADCAST**

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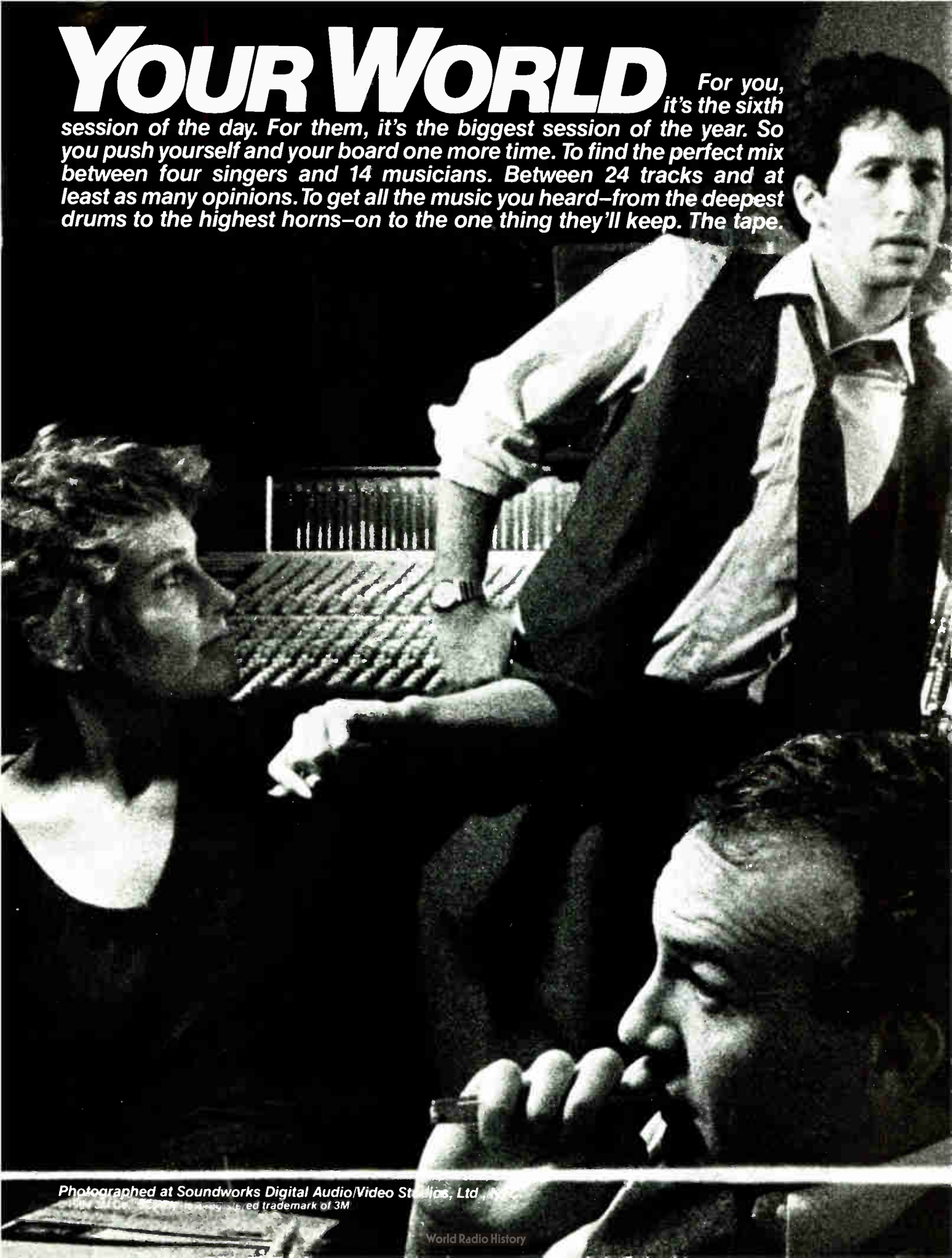
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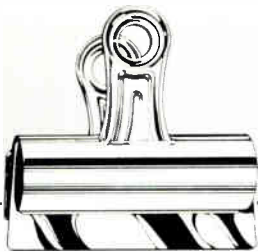


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—from page 16, **BROADCAST**

says that in theory they are the best thing that could possibly happen to the current roadblocked status of AM stereo transmission. In technological terms, however, Wilkinson is looking even further ahead: "I know there are possibilities that could improve AM considerably, although I don't know whether the new multi-modes will be designed for that." As to the improvements he is looking for, Wilkinson offers the example of "synchronous detectors that could make a vast difference in the quality of AM transmissions."

The pre-multi-mode situation was bad enough to lead John Houri, chief engineer of WJJD-AM/FM in Chicago to conclude that, "The way AM stereo was going I thought it was going to just die in the bureaucracy. However, with the multi-mode capability, the receiver became technologically and economically feasible, which sort of put life back into the whole AM business."

Reversing his pre-multi-mode pessimism, Houri now says, "I have a basic feeling that AM stereo is going to be a boost for AM radio in the car environment and make AM more competitive with FM in that regard."

Agreement is offered by Tom Giglio, chief engineer for WQXI-AM-FM in Atlanta. "I think that's definitely the way to go," he comments. "It allows us to pick and choose from the transmission end the system that we think best affects our listeners without forcing us into an overnight change of transmission systems that would leave our faithful listeners who went and bought single-mode radios out in the cold." Giglio believes that leaving such consumers out in the cold would only serve to "antagonize our audience and that, of course, is not the name of the game."

WQXI-AM, however, has displayed its fundamental conservatism in the area of AM stereo technology by purchasing both the Kahn and Harris transmission systems. They are both available for use on AM and "we have used both back and forth," Giglio reports.

TV-Stereo Tech

A good deal less optimism is expressed by television engineers, who argue that the FCC is one of several roadblocks to the development of a new plateau in state-of-the-arts. Other explanations offered for the slow rate of progress towards stereo television include the cost of technology and the recent break-up of the telephone company, whose "telco" lines are still a very important aspect of TV sound transmission.

"I think most audio for television is pretty much on hold," says Ed Merritt, chief engineer for KPLR-TV, St. Louis. "There's a good deal of work to be done," Merritt says. In his opinion, the logjam can be found in the fact that "We're all waiting for the FCC to approve one standard or another and there is no evidence that they are going to do that."

What Merritt fears is that "the FCC may well take the same policy that they took with AM stereo and leave it to the marketplace."

On the other hand, Dick Swank, chief engineer for KNTV television in San Francisco, believes that a combination of money and technology are standing in the way of a workable solution to the problems faced in creating multi-channel sound for TV.

"I don't think its going to come into existence until they have satellite distribution for all three networks," says Swank. "I don't think that they'll be able to keep phasing right, via telco lines, from New York all the way to the West Coast. It's possible, but not very likely."

The problem, according to Swank, lies in the fact that the three networks have been wired for monaural sound for so long that a significant amount of reinvestment would be needed to produce a viable means of transmitting stereo sound for TV.

"The network telco lines are only set up for one audio subcarrier at present," says Swank. "They put that subcarrier on the video instead of on telephone wires. So it would be a great investment to convert that to stereo. In addition, all three of the networks are starting to distribute now by satellite anyway."

Adding the recent deregulation of the phone company to the above data, Swank concludes that the conversion of the telco lines to dual subcarrier capacity is not likely to happen unless the phone company can recoup its money on the conversion. With satellite transmission expected in a few years, he believes that the phone company will avoid this option.

Merritt does not expect a rise in stereo TV to have any serious effect on the art and science of sound technology at his station, since the major music productions that appear on KPLR are almost entirely from syndicated shows recorded elsewhere. "We ourselves use microphones mostly during newscasts," says Merritt. "The new technology of stereo and component TV will not affect us much in that regard. I think most people pretty much expect a monaural production during newscasts."

Swank reports that, for some time, all of the new equipment that has been added at KNTV-TV has had dual-

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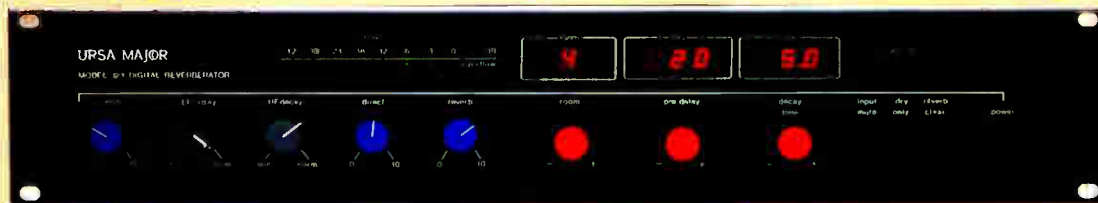
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audio capability, but as he says, "none of it really would be stereo. Except that when we recently bought a new audio processor-limiter it was stereo." That technology, according to Swank, was an Inovonics 250.

Cable Interfacing

The no longer new medium of cable has been providing both radio and TV with an additional number of technological and business interfaces. Aside from having brought the TV world the concept of the Music Video, cable has been providing radio stations with additional audiences for simulcasting, while providing both media with new definitions of the concept of "state-of-the-art" in sound.

Houri reports that his station has been doing simulcasts for Home Box Office, which he describes as being a simple though remunerative procedure. "There's not much effort involved," says Houry. "It's fairly straightforward and about as simple as ordering a short telephone line to whoever the distributor may be."

Swank reports that his station has been gradually gearing up for the inevitability of sound for television on the basis of the success of music videos, among other factors. "In the last two years we have replaced both of our audio boards with stereo-capable technology," says Swank. He expresses doubts as to the long-term potential of the music video fad, but feels that this form of entertainment has had the effect of proving that the public enjoys seeing television that provides quality audio as well as quality visual entertainment.

Wilkinson is of the opinion that cable provides a potentially valuable laboratory for all new telecommunications technology, although he concedes that the capital-intensive nature of the cable TV business makes it seem unlikely that too much experimentation will be going on in these potential laboratories in the near future.

"I look at the new technology of sound and video and realize that there are a lot of things which could be done but are not being done and I find that kind of frustrating," Wilkinson says. One thing that might be developed, in his opinion, is "a system that could radiate digital sound. You run into the same type of industry problems when you keep trying to produce High Definition TV. The problem lies in the fact that there are probably billions of dollars worth of equipment in people's homes that will not pick up the new technologies and trying to change the situation now is next to impossible."

Wilkinson concedes that it would be difficult for a new cable system to help develop such new processes in sound technology and also of-

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Fantasy Records	81 Series/48 (3rd console)
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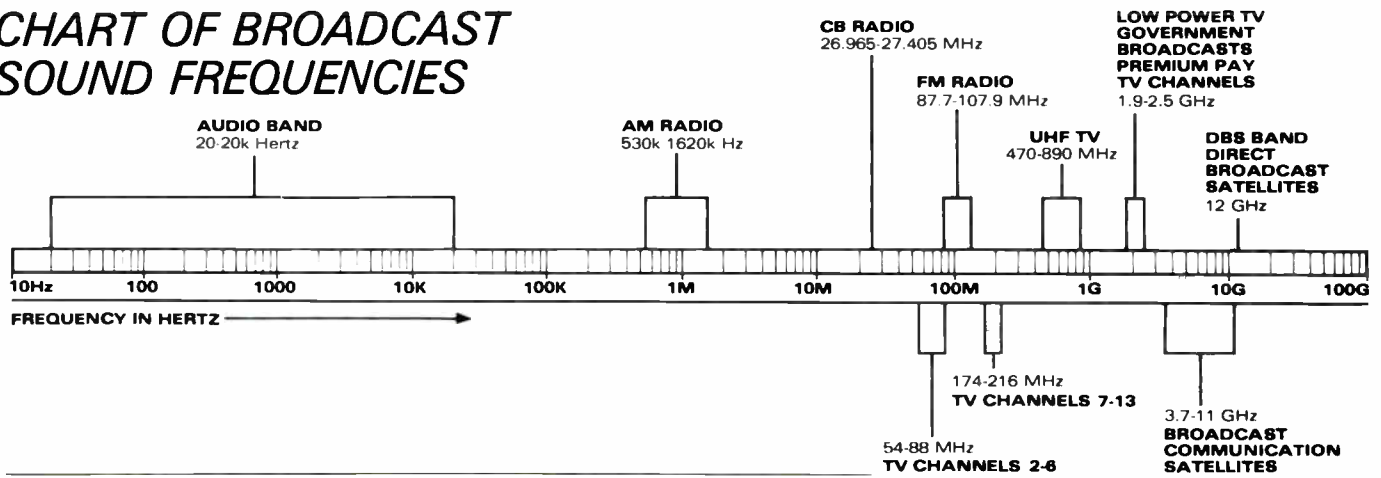
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CHART OF BROADCAST SOUND FREQUENCIES



fers that anyone who did work toward such progress would probably have to wait some time before the profits started to come in. He points out, however, that cable remains the primary area in the industry which has the opportunity to experiment with new technological developments. This is due to the fact that cable is the only medium currently constructing new facilities and channels on a large scale basis, although direct broadcast satellite, which is not far down the road, has a similar potential as a laboratory for state-of-the-art.

Compact Discs

Giglio reports that the compact disc player which his station recently installed has been producing very good results. "Actually," he says, "we transfer from the disc player to a tape cartridge for air use. We are not going directly from the disc to on the air but we are using the disc as the primary source of our music."

The increased ability of CD software helped to decide the matter, according to Giglio, who adds that the lower noise levels were another major appeal.

"We have a special dubbing center that we use for all of our music," he adds, "where we go directly from the turntable pre-amp to the tape cartridge, thereby passing all the other equipment. We are trying to reduce the noise that might be injected into the system if we used a normal studio."

Giglio's station, WQXI-AM/FM, has adult contemporary music on the FM station and an oldies format on AM. The two stations simulcast from 5:30 AM to 10:00 AM each morning. Asked if there are sufficient software discs available for the two stations, Giglio replies, "Not completely but it is getting that way. We see it happening sometime in the course of the next year."

Other New Equipment

Merritt reports that KPLR has recently added "a number of very sophisticated processors made by the

" look at the new technology of sound and video and realize that there are a lot of things which could be done but are not being done and I find that kind of frustrating."

Harris Corp." The station, he says, anticipates an eventual changeover to stereo and this purchase was made with that strongly in mind.

One use that the new technology has been put to at KPLR is in simulcasts with the local radio stations, which provide stereo sound for the appropriate movies that KPLR-TV runs. "We had developed plans to do at least one movie a week in simulcast with a radio station that typically programs the sort of music that would be on those movies," says Merritt, who adds that the schedule hasn't worked out for once-per-week simulcasting, but on that occasion KPLR has used such interfacing to what he considers artistic advantage.

"For example," says Merritt, "in November we showed *2001: A Space Odyssey* in stereo and simulcast it with an FM station that plays classical music." He adds that the TV station is also considering doing a similar stereo simulcast with a local station that plays primarily Broadway show tunes. There is no revenue sharing in this regard, according to Merritt, with each station deriving its revenues from the sale of its own commercial time. Merritt adds that the cost of putting this sort of simulcast on the air can sometimes be significant.

"Generally," he says, "it gets worked out between the two stations one way or the other."

Wilkinson reports that his stations' main technological upgrade in the last year has been the purchase of "a new Broadcast Electronics FS-30 Exciter which we put in to replace one that was probably designed about 20 years ago.

"At the time I bought it, it was probably the best technology available in terms of being clean and quiet. Of course, between the time I ordered it and the time one was delivered Continental came out with one that looks like it might be superior."

Giglio reports that he has upgraded his station's sound facilities in the past year, but he states that "I would not define any of it as new technology.

"We are doing a lot more high-quality remote broadcasts using special high quality radio links for remote pickup." The equipment, according to Giglio, is manufactured by Marti Electronics and operates in the 450 megacycle range. "It is," he says, "full up to 15 kHz bandwidth."

One reason why Giglio considers the investment in this remote equipment to have been a sensible expenditure is that "These units free us from reliance on the phone company as far as doing outside live broadcasts is concerned. With it, we don't have to put in equalized broadcast loops from Southern Bell."

The equipment, says Giglio, has also given his AM-FM operation, "a lot more freedom to do more live broadcasts. We have been doing these in many cases from different festivals, such as the Atlanta Arts Festival and the local Dogwood Festival, named after the city flower of Atlanta."

Sterman reports that one of the biggest recent additions for his station has been stereo sound capabilities. "We are a talk station," he says, "we have the stereo hooked up but we're not using the effect of it. We may not need it now, but it's good to have it installed as a way of being prepared for the future." ■

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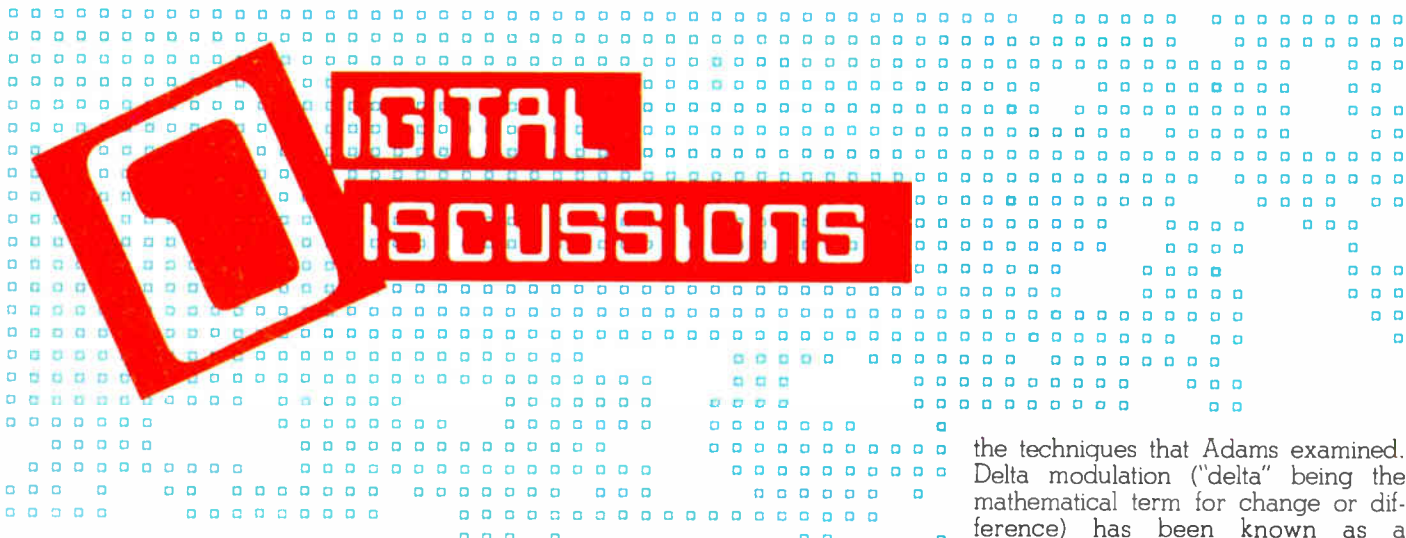


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An Update on dbx Digital [CPDM] Technology

by Lance Korthals
Director, Marketing & Sales
dbx Professional Products Division

About a dozen years ago, David Blackmer, founder of dbx Inc., invented the special voltage-controlled amplifier (VCA) and rms-level detector that became the basic elements of dbx noise-reduction technology. Together with engineer Rene Jaeger, Blackmer developed a wide number of audio applications and a family of products for the professional recording, broadcast and audiophile markets.

By the mid-'70s, dbx wide-band companded type noise reduction was standard equipment in professional recording studios throughout the world; dbx compressor/limiters and other sophisticated signal-processing products were widely used in the broadcast and sound-reinforcement industries, and the company's consumer equipment included a broad line of dynamic-range expanders and tape noise-reduction systems.

Moreover, as a result of a comprehensive licensing program instituted in the late '70s, dbx noise-reduction circuitry has been incorporated into a host of cassette and tape recorders and in car audio systems manufactured by such companies as Matsushita Electric Co. (Technics, Panasonic), TEAC, Onkyo, Alpine, Yamaha and NEC (Nippon Electric Co.), among others.

Much of the consumer equipment manufactured by dbx and its licensees provides playback of dbx software (dbx-encoded records and cassettes) which was also introduced to the consumer market in the late '70s. An important recent development was the

unanimous vote by the Electronic Industries Association (EIA) to name the dbx stereo TV companding system the industry standard for stereo TV broadcasting.

Clearly, "getting the noise out" has been a dbx preoccupation. Therefore, turning our thoughts to the digital processing of sound, with all of its promise and flexibility, was a natural process. A few years ago, our engineering department began to turn its attention to digital audio. Developmental work on our computerized equalizers/analyzers (the Model 610 is the pro version; Model 20/20 is the consumer version) had been completed by the project team headed by engineer Robert W. Adams, who began to explore easier and more effective techniques for D/A/D-conversion alternatives to the then-blossoming system of pulse-code modulation (PCM).

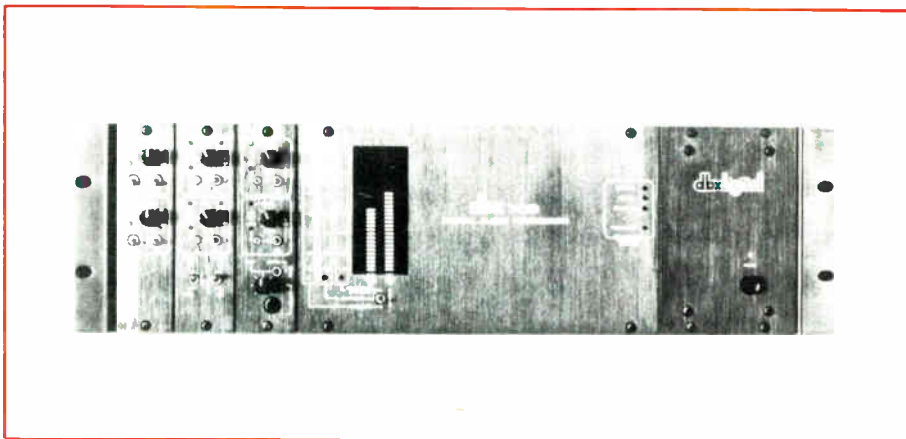
Delta modulation was among

the techniques that Adams examined. Delta modulation ("delta" being the mathematical term for change or difference) has been known as a technology for some years. With this technique, numbers are assigned to *differences* between voltage levels in the music signal rather than to specific levels (as in PCM). However, its noise level has always been too high for serious recording application.

dbx engineers, with their extensive experience in analog and compression/expansion (compansion) technology, thought the best way to improve delta modulation was to use it with a digitally linked companding system. (The digital link makes mistracking impossible.) However, delta modulation has trouble handling high slew rates. Bob Adams conceived a technique to help overcome this limitation. He decided to employ "linear prediction," which estimates a signal's future by monitoring its recent past and enables the A/D converter to keep up with large signal changes at high frequencies. It does this approximately 640,000 times a second.

The brainstorming resulted in a technology which we call CPDM or Companded Predictive Delta Modulation. Compared with PCM, the dbx system appears to have lower costs and greater simplicity at all levels; more graceful overload behavior; considerably less high-frequency phase shift (caused by the extremely steep

dbx 700 Digital Audio Processor



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lowpass filters PCM requires) and hence, as many put it, more "musicality"; and—a creative edge for the recording engineer—a full 15-20 dB more dynamic range.

We in the marketing area at dbx thought that CPDM looked like a great idea for a number of reasons—as a low-cost alternative to PCM recording and a relatively inexpensive technique for digital applications in audio broadcasting, to name a few. The dbx planning group (engineering, management, marketing) decided to manufacture the dbx Model 700b Digital Audio Processor, a prototype of which was introduced at the 73rd AES Convention, in October 1982.

Shipments of the Model 700 to dealers commenced January 1984, with a suggested retail price of \$4,600 (\$400 less than the price we originally estimated). It is a full professional unit, with the appropriate inputs and levels and is designed to be used with U-Matic and other video recorders.

dbx is now designing circuit cards to be interfaced with tape transport in order to produce professional open-reel fixed-head CPDM digital recorders. This will enable recorder manufacturers to offer CPDM machines which will all be compatible with one another, unlike the various

PCM recorders on the market today. To ensure this compatibility, we are specifying the track format to be used.

In addition to the compatibility advantage of recorders equipped with dbx digital over the incompatible professional PCM units, there is another important advantage offered by CPDM, which we call "The Creative Edge". The Compact Disc can provide approximately 90 dB of dynamic range in the home.

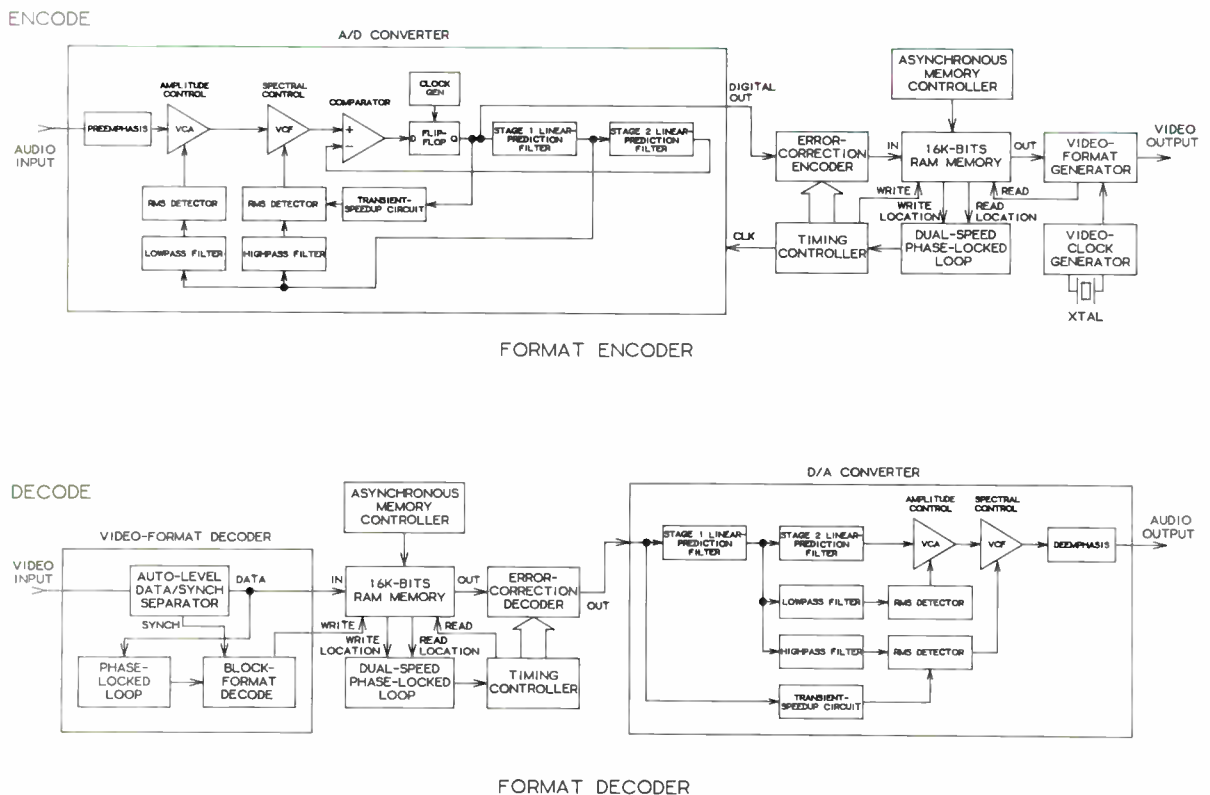
However, since the basic tracks of a PCM multi-track machine have only a 90 dB dynamic range, it is impossible to produce 2-track masters with 90 dB as well, due to losses incurred in the mixdown process. So there is no way professional PCM can deliver the full 90 dB dynamic range that had been promised for the Compact Disc. dbx digital, with its 110 dB range, allows up to 20 dB to be lost in the mixdown process and still provides the Compact Disc with all the dynamic range it can handle.

Earlier, I referred to broadcasting applications for CPDM. Our VCAs, compressor/limiters, noise-reduction systems, and other dbx signal-processing equipment have been used in broadcasting for more than a decade. Furthermore, dbx had moved into the area of satellite transmission

equipment, which began when we designed a noise-reduction system for installation in National Public Radio's ground stations. This technology became the basis of our 321 Series Noise-Reduction cards, a compander system designed to preserve the quality of audio signals transmitted via satellite, microwave and cable links.

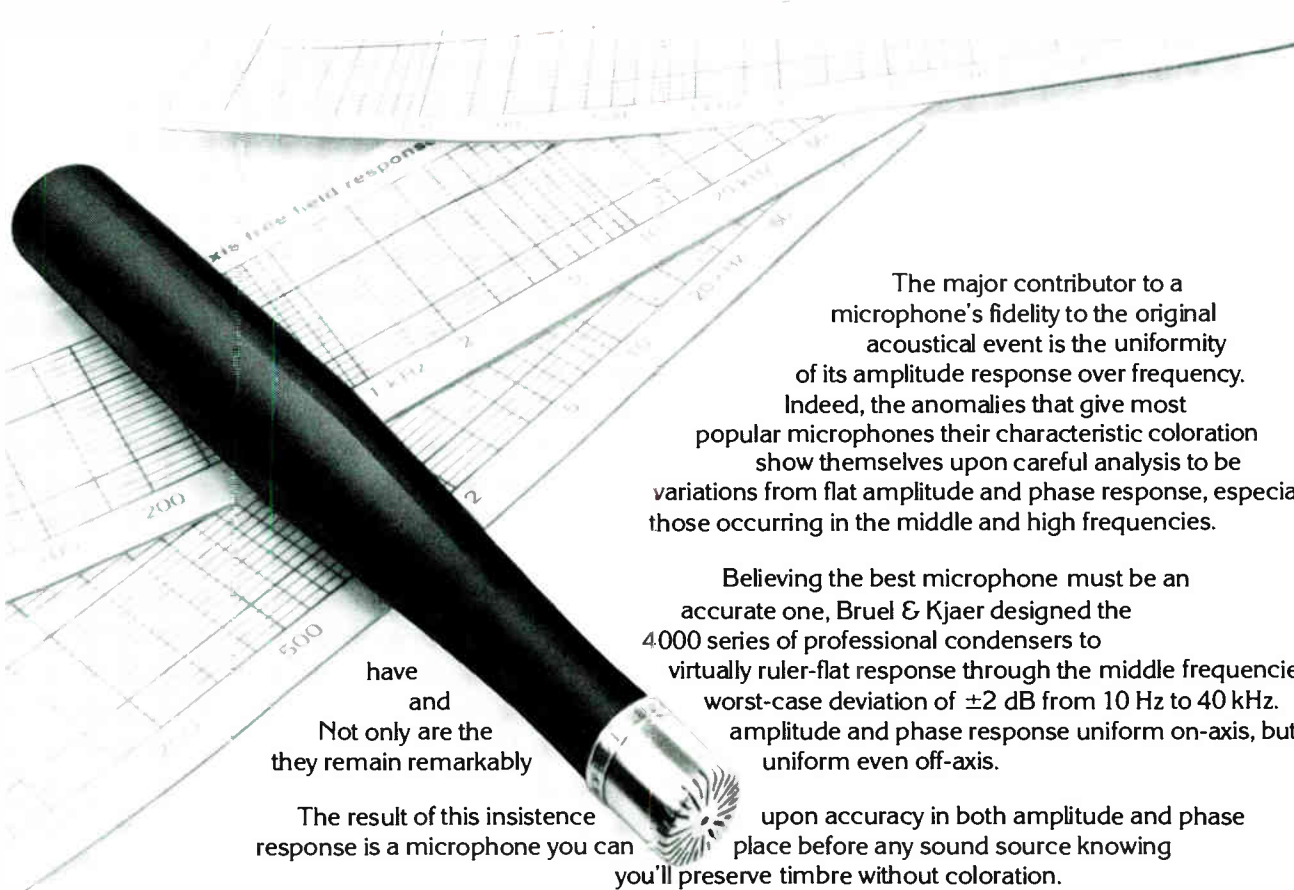
Since we were so heavily involved with broadcasting and with satellite transmission systems as well, it was readily apparent that these were other markets for CPDM and the Model 700. Last fall, we decided to offer a few of the pre-production samples of the Model 700 we had on hand to broadcasters to play with. Several of them put the units to work immediately—with results that met (and even exceeded) their expectations.

Last October, RKO Radio Networks successfully utilized two dbx 700 Digital Audio Processors in a coast-to-coast transmission of a Little River Band concert—a broadcasting first. Digital-bitstream information from one dbx 700 was relayed via satellite to New York, where another dbx 700 performed the digital-to-analog conversion for broadcast from RKO-affiliate stations throughout the country. RKO Networks was very impressed with the performance of the dbx units. According to



A few words on microphone accuracy

from the people who
specialize in it



The major contributor to a microphone's fidelity to the original acoustical event is the uniformity of its amplitude response over frequency. Indeed, the anomalies that give most popular microphones their characteristic coloration show themselves upon careful analysis to be variations from flat amplitude and phase response, especially those occurring in the middle and high frequencies.

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RKO chief engineer Dave Pollard, "They performed flawlessly and with exceptional audio quality." RKO intends to continue using the 700 for these backhaul applications.

WGBH-FM, Boston's highly respected public radio station, conducted unannounced tests of the CPDM system in December and January. According to WGBH chief operator Peter Swanson, "Listeners called spontaneously to comment on the unusually clean and live-sounding broadcast." Beginning March 23rd, the station will be transmitting, via digital audio, live weekly broadcasts of Boston Symphony Orchestra concerts. Two units are being used: one is for encoding, from Symphony Hall; the second Model 700 is installed at the transmitter site, for decoding.

The folks at WGBH told me that usually their studio-to-transmitter link provides a signal-to-noise ratio of only 65 dB, even with Dolby-A noise reduction. In their end-to-end test with the CPDM system, WGBH measured signal-to-noise ratio in excess of 80 dB, plus another 20 dB headroom.

The possibilities are myriad. We are planning to supply more Model 700s to broadcasters, of course, as soon as additional units become available for this purpose. But beyond this, we plan to promote the CPDM heavily for use in satellite, microwave and pro-audio applications. These other possibilities include:

Satellite: network-distribution feeds for radio and television; DBS (direct-broadcast satellite) audio (satellite feeds sent direct to satellite dishes at consumers' homes for radio and TV digital audio); for direct broadcast to the home via cable (the digitized signal is uplinked to satellite, downlinked by cable operator and sent to the consumer's home over cable, where it is decoded); and pay-TV audio (audio for the video signal is sent in digital format and decoded by a box in the consumer's home).

Microwave (point-to-point): STLs (studio-to-transmitter links) for radio and television stations; communications-industry use for telephone systems, corporate communications systems, video-game networking, etc.; remote broadcasts for sporting events, symphony or rock concerts, etc.

Pro Audio: fixed-head open-reel digital recorders; disk-based recorders; soundtracks on film; delay lines, etc.

I've listed just some of the applications for CPDM that come to mind. This sampling will give you an idea of the exciting potential for CPDM. We've only started to tap it and expect to move quickly into many new areas. ■



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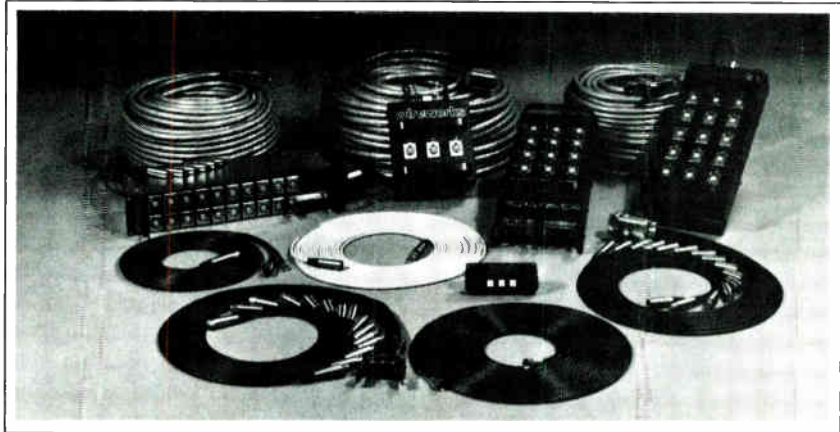
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LIVE

FROM
THE RECORD PLANT
IN LOS ANGELES,
WITH
JO INTERRANTE
AND
FATHER
GUIDO
SARDUCCI

by Mr. Bonzai

Imagine the ol' show biz buzz in the recording studio during the radio broadcasts of *Live from the Record Plant, L.A.* It's a new national phone-in radio show with talk and music, broadcast via satellite. The guests are from the category known as CHR. What's nice about the Contemporary Hit Radio format is that it includes just about anybody—recording artists, movie stars, Broadway performers—as long as they're famous and have godlike appeal to a large chunk of the radio market. The zip of the show comes from ardent admirers who call in with solid groupie interest. Wouldn't you have loved to have called The Beatles in 1967?

On top of all the celebrity yakking and digital broadcasting, the show has well-balanced professional announcers. Jo Interrante provides the female grace and timing that a good



PHOTO: MR. BONZAI

hostess brings to a potentially dull dinner party. And this show's guest host, Father Guido Sarducci, provided the off-the-wall good cheer that penetrates beneath the social decorum.

Studio C is turned into a living room on Sunday nights. Out come the sofas and the plants and the gourmet catering.

"We want the guests to feel comfortable," says Patrick Griffith, executive producer of the program. "Most talk shows are done in dingy, sloppy environments—we want this to be like a real living room. We serve excellent food because we don't want them to leave for dinner breaks."

Well, it's just like Father Guido and groups like The Fixx to drop in for a little snack and there happens to be a satellite dish in the driveway, so why not do a radio show? Well, almost. If you tune in the show (11 p.m. Eastern, 8 p.m. Pacific), rest assured that although it's radio, the good father *does* wear his formal religious attire.

On the technical side, the show

is impeccable and adventuresome. Engineer Dave Pollard explained the use of dual DBX-700 digital encoder/decoders: "It was originally designed for recording digital audio on videocassettes. We decided to use it in satellite transmission. We digitize our audio into video information and then send it on the high-band frequencies. We just substituted satellites for videocassettes."

A telephone line device isolates the incoming caller's voice, providing independent level control. This keeps consistent levels, whether the call is from Miami, Florida, or Moose Lips, Idaho. But it is a live show and there are inevitable surprises. One caller was faded out for obscenity in what sounded like a telephone malfunction. The guest struggled to maintain the conversation, but Father Guido calmly said she was gone, "Long gone."

The show bounces along with

—page 35

"Most talk shows are done in dingy, sloppy environments—we want this to be like a real living room."

(left to right in above photo) Patrick Griffith, executive producer, Jo Interrante, and Father Guido Sarducci

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Audio-May's America

—from page 32, *LIVE*

talk segments and then music playback via Compact Disc players. Future shows will sometimes have live music, depending on the artist and the complexity of production.

Jo Interrante is enthusiastic about the show's approach: "It's the first time to allow a CHR audience to really be in touch with the artists they listen to all the time."

The big obstacle in the way of this type of programming is economic. It's expensive to do a first class job.

Patrick Griffith explained how it works: "Radio has taken on what network television was going through in the '50s. It's less profitable in the '80s to operate a radio station on your own. Radio is becoming a network vehicle; radio series now have budgets of millions of dollars. The revenue dollars are there when you can reach a hundred or more stations."

In the control room at broadcast time the mood got intense, like just before delicate surgery. I chose to listen from the lounge and nibble hors-d'oeuvres like a real listener. It seemed odd and very modern to know that the audio action was being broadcast digitally via WESTAR to New York and then mixed with commercials and redistributed via SAT-COM back to the radio in the next room.

After the show, the gracious Father Guido granted me a brief audience. I asked his holiness if he felt that radio was a step down from network television.

"No, I don't think so," he responded. "Radio is a lot of fun. It's different from television."

I had to admit that he circulated easily in the radio, TV, and literary worlds.

"Bishop Sheen was a like that too," he reminded me. "But this is a better because he had to use chalk. I hate chalk. It gets all over you and I feel a fortunate that I don't have to use a chalk."

I asked if he had any outrageous things planned.

"We just want to have real spontaneous conversations. There's no traps—this isn't *National Enquirer*. We just want a place where people can be a real and talk and take questions from the audience. You know, a lot of talk shows have a delusion of spontaneity, but everything is planned in advance."

Listening to *Live from the Record Plant, LA* is like listening to a sporting event. A lot of things are prepared for—but not everything. ■

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MAKING THE CLIENT FEEL

Comfortable

by Quint B. Randle

There is something awe-inspiring about a recording studio. Newcomers to the recording game gape in wild amazement at the number of buttons, knobs and controls on the console. And because the engineer is the only one smart enough to run the thing, he is usually treated with a god-like respect.

But along with this awe for the studio comes a fear—a feeling of utter inadequacy. To perform in front of this mystery man and his battery of equipment is sometimes worse than the trauma of a third-grade oboe recital. Whether the new client is paying \$10 an hour or \$100 an hour, all he can think about is time. Take 1, take 2 and take 3 whiz by and the basic track still isn't down. "I'm a terrible musician," the client decides, as the engineer peers ominously through the glass. Nervousness takes over and the performer's talent leaves; what was to be "my big day in the studio" becomes a taxing expense.

Of course a scenario like this one is profitable for the studio because the artist is taking MORE time to do what should take LESS. But his first studio experience, or what may be his fourth or fifth, is less than thrilling and the likelihood of him returning decreases.

In addition to getting a technically hot sound, it is also the engineer's job to create a comfortable studio atmosphere for the newcomer as well as the old pro. By accomplishing this the engineer or in-house producer can build a reputation that his or her studio is THE place to get a project done quickly and economically. When a newcomer feels like part of the gang—an accepted professional, not a rank amateur—the finished sound is tighter because he played like part of the professional gang, not an outsider.

An 8-track studio is obviously going to get more beginners than a 24-track studio, but the further one travels from established music centers such as Los Angeles and Nashville, the more first-timers any studio will encounter.

Most successful engineers agree that a good session in the studio begins long before a group or artist shows up with a truck full of equipment.

Ed Zajda, owner and chief engineer at Zem Recording Studio in Cicero, Ill., says he deals mostly with this type of client. One major cause of nervousness is misunderstandings, and the client not knowing who is supposed to do what, Zajda says.

Other studio managers suggest that when a potential client makes the initial phone call to find out about the studio, the studio should try to assess his or her previous studio experience through a casual chat. Ask if he's ever been in the studio before, what his expectations are, etc. If the caller is inexperienced, don't talk down to him; free him of any possible insecurities about entering "a professional recording studio." Most importantly, let the client know that there is no such thing as a stupid question.

Zajda feels the pre-session talk is so important that he often invites the caller to the studio to check things out and become better acquainted. "Set them at ease before they even start the project," he says. The artist may want to discuss the sound he wants, and have an example.

Another thing that can prevent misunderstandings is finding out exactly what the artist wants to accomplish and make sure that he is not underbooking the project, large or small. When time is running short, nervousness tends to run rampant.

Bill Woodard, who runs an 8-track studio in the basement of his home in Farmington, NM, uses the

home atmosphere to his advantage. "This is home; this is the place to be. Ninety percent that come in haven't been in the studio before."

Making sure the first-time recorder enjoys the experience is "the only way I'm going to stay alive," he continues. If newcomers don't have a positive experience he has no return business.

Woodard says that because his home is part of Aspen Recording, the client is less intimidated; he enters a home atmosphere before entering the professional feeling of the studio.

As set up for a session begins the engineer can put the players at ease by displaying his command of the studio. But this does not mean asking the inexperienced clients such things as, "Would you prefer a reference fluxivity of 185 or 250 nanowebers per meter?"

Fumbling for cords, searching for microphones and generally being unsure about things will set off the client's nervousness bomb. "An engineer who is not sure of himself will make the client feel uncomfortable," says Zajda.

Sometimes a client will apologize for screwing up a take, but the engineer must help him understand that the studio is there to serve him, not vice-versa.

"Try finding their strong points and sitting on them rather than what they are having a problem with," says Jeff Carter, owner and engineer at Pyramid Studios of Sacramento, Calif.

So even if the song is terrible and should be played a different way, point out the good things. Positive reinforcement can give confidence to someone with self-doubts.

Micheline Kalsa, assistant manager at The Village Recorder of Los Angeles, says she sometimes offers fruit and cheese and a bottle of wine to make the client feel more at

Fumbling for cords, searching for microphones and generally being unsure about things will set off the client's nervousness bomb. "An engineer who is not sure of himself will make the client feel uncomfortable."

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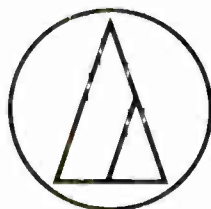
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home. Another engineer explains that little things sometimes do the trick: "Make sure everybody has a pencil on his music stand if you're dealing with more experienced players."

Michael Sauvage, an independent engineer and producer who works mostly out of Electric Lady in New York, says "I put myself in their place," Sauvage is currently co-producing an album by guitarist Roy Buchanan and has worked with Hall & Oates, The Clash and B.B. King. He explains that as he is setting up for a session, he will go, for instance, to where the bass player will be sitting and "just look around." Some engineers put baffling around the piano to get a better sound, but don't realize they are shutting off the player's view of half the band, he says. "Would I be comfortable playing piano here for eight hours?" he asks himself.

The entire staff should be skilled with its equipment—whether it's the tape machine or the coffee machine. Some studio people may do a good job, but they don't show excitement about the client's music. Sauvage says that the needs of the client, including his roadies, should be taken care of: "Don't make the drummer ask twice for a second pair of headphones. If their morale fades because they've been ignored for an hour and a half, then that will affect their playing later."

Sauvage feels that it's easier to please beginners because they are impressed by the studio, but "when Foreigner and The Clash, or other groups that have been in many studios, come to my studio I've got to know they'll be comfortable for a month and a half."

Whether you are working with Foreigner or The Guys Next Door, expressing a personal interest through follow-up is crucial to obtaining return business. A simple phone call "just to see what you were up to" will let a client know that you are thinking of him.

Some studios find that keeping a mailing list and distributing a bulletin or newsletter periodically increases the number of regulars as well as filling in the empty spaces on the calendar.

What it all comes down to is that the client is not there to prove his ability or validity to you and your staff, but you are there to prove your ability and validity to them through your care and pampering.

If you can provide the novacaine and laughing gas to what is a dentist-chair experience for some, the client won't be leaving with a toothache, but with that numbing good feeling that always comes when everyone's done the best he possibly could. ■

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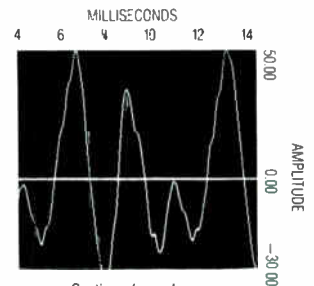
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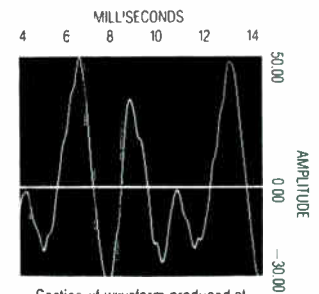
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AUDIO-APPLICATIONS

Synchronization gear can be one of the most cost-effective investments a studio can make, yet many engineers are still unfamiliar with this new technology.

A PRIMER ON TIME CODE AND SYNCHRONIZATION

by Ken Pohlmann

Historically, video technology appeared on inventors' workbenches not too long after the debut of audio equipment. However the development of commercial video equipment, and especially the development of consumer video products, proved to be a formidable challenge. It wasn't until the 1970s, with the introduction of the Sony Beta, that the home market for video began to be penetrated. Today, VHS has taken 75% of the market away from Betamax, but the knot has been forever tied between video recorders and the consumer. Today, one in ten households have a video cassette recorder. That rapid evolution, along with the skyrocket ascent of cable television and telecommunications in general, has irrevocably changed our expectations of entertainment and education in the household.

Of course, audio recording hasn't completely died out yet. In fact, the soothsayers who predicted the demise of audio in the face of the video phenomenon were completely wrong. Video growth has stimulated audio, and brought that industry back to its financial feet both in terms of video-related audio, and a general resurgence of interest in music thanks to music television. The production of audio for video

has dictated development of new hardware and software to do time-keeping of audio events and match them up to video events. While the traditional stop watch might have been reliable, it wasn't terribly efficient. Thus the need for time code appeared; a system in which timing information is recorded alongside audio or video tracks to enable synchronization of the two.

A virtually universal time code was developed as an alternative to the sprocket and frame system used in film post production; SMPTE (later adopted by the EBU) time code is a bi-phase longitudinal code on an 80 bit word per frame subdivided as 26 time-code address bits, two other assigned drop-frame and color-frame bits, sixteen sync-word bits, 32 user-assigned bits, and four unassigned bits. The code provides a readout in hours, minutes, seconds, and frames. Since different frame rates are used (24, 25, 29.97, and 30) the code may take on slightly different manifestations. However it generally reads out about the same; for example a code of 17:45:23:09 specifies 17 hours, 45 minutes, 23 seconds, and 09 frames.

The SMPTE code provides the essential method of specifying what time it is on a given piece of tape; given a little hardware, integration into the audio studio can begin. A time code

generator produces digital SMPTE as a square wave in which a logical zero is defined whenever there is no transition within a bit cell. Thus at 30 frames per second, and 80 bits per frame and 1 transition per bit (a stream of logical zeroes) a square wave of 2400 Hz is generated, while a stream of ones would develop two transitions per bit to generate a frequency of 2400 Hz. This code can be recorded as an ordinary audio signal; however that high level square wave is best placed on an outside track of the multitrack. Most time code readers feature an LED readout of the generated time. In jam sync mode, a generator's output is jammed, or synched, to an external code signal. The other side of the coin is the time code reader, a device which receives code from an external source such as tape and displays the code.

Time code generators and readers are really nothing more than elaborate stop watches; their real utility, and the utility of SMPTE code, occurs with the addition of a synchronizer. If time code is recorded onto multiple machines a synchronizer may be used to lock these machines together. One machine is designated the master while the other(s) becomes a slave. The synchronizer reads code from the machines and matches the code of the slave to that of the master to achieve time synchronization between the two. Likewise, in other transport functions such as fast forward and rewind the machines are matched and kept in sync. In short, the synchronizer becomes a simultaneous autolocator for all of the synched machines. A multitrack audio tape machine may be synchronized to a video recorder, or vice versa; likewise additional tape recorders may be synched together for more tracks. Sometimes tape wear, rather than number of tracks, is the issue; for example, a rough mix rhythm track may be transferred from the original multitrack tape to another tape with time code. Overdubs may be accomplished on the second tape while the original remains unplayed, then the overdubs may be transferred back to the original, in sync. In another case, editing might best be accomplished using time code to precisely define edit points for the electronic editor. When the time code determines that the edit point has been reached, the electronic editor takes over and the master goes into record to receive the signal from the slave. In editing, care must be taken



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to maintain constancy of the time code to eliminate old code from previous takes; recording of fresh code before editing is recommended.

When copying time code, it is not advisable to copy directly from one tape to another; the square wave of the code will suffer deterioration. It is necessary to regenerate the code using the jam sync mode to read incoming code and duplicate it anew for the copy.

There are a wide variety of time code systems available today, most of them appearing only recently, as the audio/video market has begun to expand. Because, for better or worse, the nature of the SMPTE code has defined the nature of the hardware used to work with time code, much of the development has occurred in terms of the software programs of the systems, and advances in the ergonomics of the systems. Two of the most advanced systems are the BTX Softouch Controller and the Audio Kinetics Q-Lock. Both of these systems have evolved over a number of years and today exhibit state-of-the-art in synchronization.

The BTX Softouch Controller interfaces to Shadow synchronizers and Cypher time code systems to provide a complete transport controller system. The Shadow, recently updated as the Shadow II, provides full synchronization features in addition to front panel calibration functions. The Cypher can be configured to read, display, generate characters, and jam sync SMPTE code; an RS-232 interface is also provided. The BTX system utilizes a universal hardware interface, however appropriate cabling is required, with necessary signal protocol interfacing. A Shadow is used to interface to each transport, and up to four transports can be supported by the controller without additional mainframes. Sixteen softkeys enable users to program repetitive keystrokes and a hundred loop memory is offered. All ADR, looping, sound effects functions are included in the Softouch software.

The Audio Kinetics Q-Lock differs from the BTX Softouch in that only mainframes and controller are required. One Q-Lock 3.10C central control unit and its mainframe contain time code generator and reader, synchronizer, and interfacing to transports. The system may be configured for either two or three machine control and provides full time code services as well as complete autolocator functions. Each transport requires a dedicated interface which, depending on your point of view, either specially utilizes the transports' potentials, or requires unnecessary hardware overhead. An RS 232 port permits expansion via the Q-Link, which may be added to the Q-Lock mainframe. Using an additional

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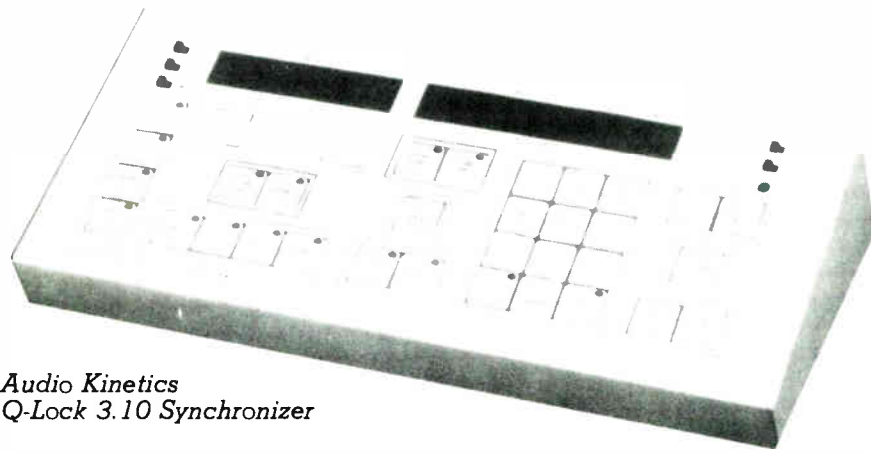


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**Audio Kinetics
Q-Lock 3.10 Synchronizer**

mainframe, up to five transports may be synchronized, or console automation may be interfaced to the Q-Lock. The computer automation may be programmed to control three machines as it would normally control one. Solid State Logic Consoles utilize such a Q-Lock controller. In addition, a stand-alone computer could be used to control the Q-lock mainframe via a Q-Link.

Dedicated control for video audio post production is available with the Q-Soft VAPP package; it is supplied as standard with the Q-Lock synchronizer. A typical VAPP configuration would use a video master holding a final edited copy of the video program, a multitrack audio slave with music,

dialogue and effects, and a mastering machine. Machine hierarchy may be redesignated without unplugging. Special purpose functions are separately available for the Q-Lock 3.10 synchronizer, in which internal software is altered, as well as a few key labels to provide dedicated control. Automatic dialogue replacement for repetitive passes over lines of dialogue can be placed under control of the Q-Lock with the Q-Soft ADR package. There is a 20 cue point or 10 loop memory, loops may be entered on the fly or via keyboard entry, and beep cues may be modified to compensate for performer reaction times. The sound effects assembly package facilitates

transference of sound effects library tapes to multitrack recorder, this benefit is especially great if the library is already time coded. Marking of both point in picture and point in effect is facilitated, and frame by frame crawl for match-up is featured.

SMPTE time code is a relatively new addition to the audio studio's rack. Already, it is perhaps one of the most cost effective pieces of equipment whenever machine linking or video work is required. It will be interesting to observe the direction that the industry will take, now that it has been introduced to the benefits of time code. Ironically, the digital SMPTE code, for use with analog machines, might serve as a bridgehead for digital recorders, and their inherently superior ability to resolve to small increments of time, and achieve amazing time locks, even to the degree of negligible phase difference at high audio frequencies. Meanwhile the question of SMPTE time code is still unfamiliar to some audio studio users, as would be expected with a product developed for a relatively new application. Beginners might start with John Woram's *Recording Studio Handbook*, then carefully read manufacturers' manuals to gain familiarity. For the advanced user, Jung's treatise on Synchronicity is recommended; you never know how far up the charts a little metaphysics might take you. ■

Time Code—A Brief Review

by Lou CasaBianca and
Joe Van Witsen

The application of computers in synchronizing audio, film, and video machines in postproduction is made possible by the common language of time code addressability.

Videotape recording began in 1956, and with its creative freedom came the liability of its cumbersome, inaccurate and time consuming editing characteristics. The time honored cut-and-splice techniques of film editing were not transferable to videotape. The simple fact of easy visible identification of frames on film was not possible with tape. Even if you could "eyeball" the right splice points, the resulting edits often produced a breakup or jump in the picture because of frame-to-frame mismatch at the splice. Even with the evolution of a standardized frame pulse—carried on a separate control track—video tape editing remained a slow, tedious, labor-intensive proposition.

Electronic editing systems

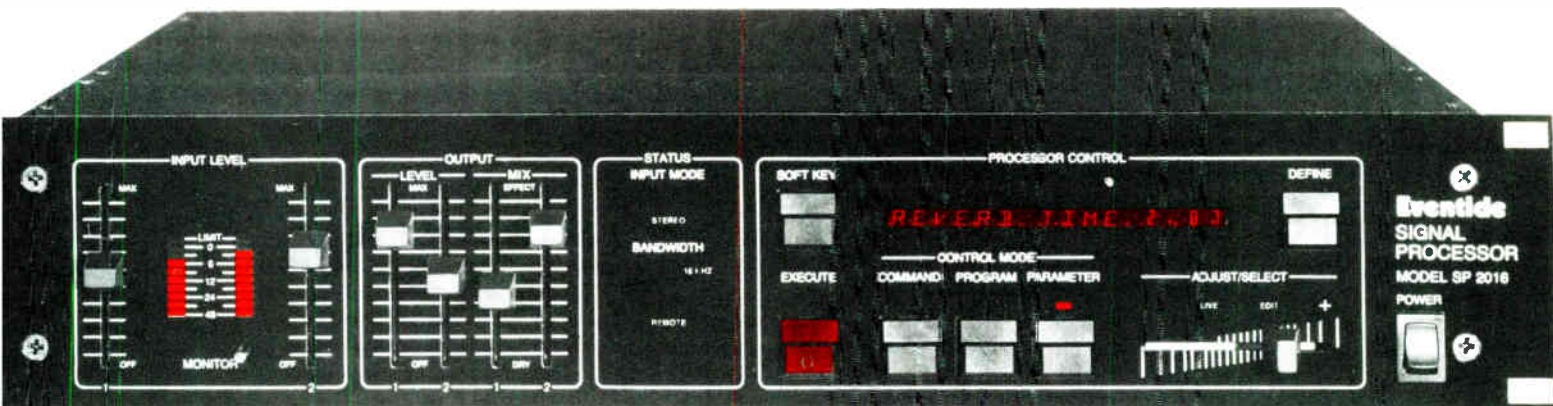
were introduced in the early 1960s. By precisely transferring recorded material from one VTR to another these systems were able to generate frame-to-frame match-up at the splice point. It wasn't until 1967 that the electronic equivalent of film edge numbers was developed, so that each video frame could be uniquely identified for fast electronic searching and synchronization.

The first practical editing system, called "On Time"™, was developed by EECO Incorporated. The system utilized a time code concept similar to that employed by NASA to time-tag telemetry tapes recorded during the Gemini and Apollo missions by its global tracking network. In early 1969, the Society of Motion Picture and Television Engineers (SMPTE) established a standard code that was adopted by all manufacturers and the European Broadcasting Union (EBU), making it a truly valid international standard. The SMPTE/EBU code, as the standard is called, is the basis for all of today's sophisticated audio and video

tape editing and synchronization systems.

Originally, two-inch quad video tape was spliced like film. This was possible because the scan tracks were perpendicular to the tape and were a simple cut across the width. A splice block existed with a head that read the track position and a meter which deflected when the splice point was over the guard band between frames. The editor then cut and fastened the segments together with tape. Eventually electronic editors were developed for quad which relied on control track for frame counting. This method was never perfectly frame accurate since the counting head couldn't read the frame it was parked on and without a frame number it had no way of updating so the edit would be misplaced. By this time, Ampex and Sony were introducing 1 inch type C recorders that were microprocessor controlled, and had a dedicated time code track, the first time on any tape format. **See page VS 86 for a Technical Update.**

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—from page 5, *Feedback*

"garage band syndrome" is overlooked too often due to the cost of high-priced visuals; i.e., videos, costly garments, pictures, etc., that tend to catch people's eyes before the music catches their ears. If the band has the money to afford such luxuries, they may not need to play music for a living and that catapults them out of the realm of garage bands.

The A&R departments of most of the labels these days are closing the doors on acts with the old "catch 22" syndrome: "You must have a successful 45 or album on the market before we will listen to you". This attitude leaves new artists with very few alternatives.

The market for original music is small in the club circuit as well, and articles like yours provide one of the few shots left available for new bands to take, if (and a big if) they are lucky enough to be interviewed.

Sincerely,
Terry LaMont
Bellaire, TX

Dear *Mix*:

I am currently a student in the Audio Technology Program at Indiana University, Bloomington. As an out-of-state student, struggling to pay educational costs, I began wondering if there were any institutions in the recording industry who award scholarships to

students studying the recording arts. If not, are there any other organizations who provide grants or scholarships to students showing exceptional academic progress in the recording field?

I have never heard of any such awards, but if you have any information concerning recording arts scholarships, please pass it on! I'm sure many other students would appreciate the information also.

Sincerely,
Melissa Winblood
Fort Worth, Texas

(Editor's Note: We don't know of any. How about you, readers?)

Dear *Mix*:

I am writing to solicit the opinions of your readers and your editorial staff about the desirability of recording virtually all tracks other than vocals directly into the recording console or recorder. A number of technological developments seem to make this feasible and perhaps esthetically satisfactory.

For example, digital drum machines provide an excellent sound and convenience without the troublesome acoustic problems often encountered when recording drums. Guitar pre-amp devices such as Tom Scholz' "Rockman" can provide a believable "overdriven amp" sound, and modern synthesizers allow the player to create numerous sounds without the signal traveling through an acoustic environment.

In short, the only instrument which would have to be subject to one acoustic field's idiosyncrasies would be the human voice. In addition, there exist several devices which simulate various acoustic environments.

In consideration of these developments, isn't it feasible to radically cut back on the space requirements of a recording studio? Indeed, wouldn't it be possible to package a worthy recording facility in one's apartment bedroom without worrying about disturbing the neighbors? With the use of digital drum kit set-ups such as the Simmons Electronic Drums, it would seem a visiting drummer could even play in such an environment with the neighbors hearing no more than they would from a practice pad setup.

If this prospect is feasible, it would seem that a remote recording truck such as a stepvan would be ideally suited to such recording (while avoiding "garage band" acoustic problems). Of course, overdubbing would often be necessary under such conditions.

Very truly yours,
Roger Wilcox
Santa Cruz, CA

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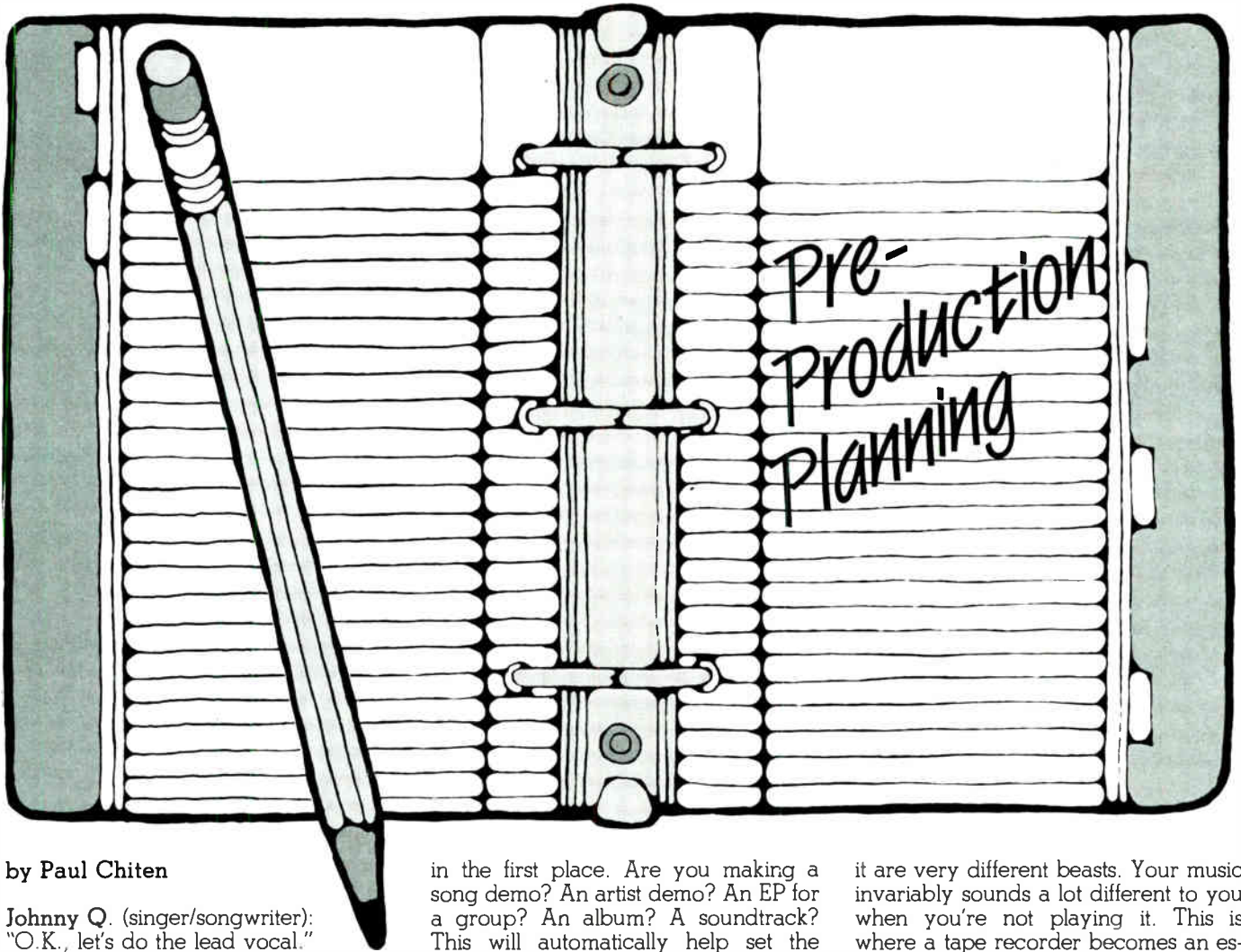
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by Paul Chiten

Johnny Q. (singer/songwriter): "O.K., let's do the lead vocal."

Harold B. (recording engineer): "Fine. Let me get a level on you."

Johnny Q.: "What time is it?"

Harold B.: "5:20."

Johnny Q.: "What?! Don't we have to be outta here by 6?"

Harold B.: "Yup. There's another session booked in at 6."

Johnny Q.: "So we have 40 minutes to do the lead vocal *and* mix?"

Harold B.: "It looks that way..."

Sound familiar? Time has run out—the musicians for the next session are poking their heads in the control room at regular intervals—as you watch your project rush to completion in fast forward.

The picture doesn't have to come out like this. With some attention paid to pre-production planning, you could be cruising out of the studio on time, with a satisfied look on your face and a hot reel in your hand. Pre-production planning can save you a fortune, and make your \$500 demo sound like a \$2000 master, or your \$80,000 album sound simply incredible.

Before you dig into your pocket (or anyone else's) decide *why* you are going into the recording studio

in the first place. Are you making a song demo? An artist demo? An EP for a group? An album? A soundtrack? This will automatically help set the scene for the recording direction. I have attended sessions where so much time was devoted to getting the ultimate floor tom-tom sound that half the studio time was shot before the band even played a note—and this was supposed to be a *song* demo, not a debut single.

A song demo is what you give to a publisher, producer or artist hoping that the song will be recorded and released by an artist. In this case, arrangements are kept simple and to the point; vocals are very up-front. Performance is not as much a priority as the melody line and lyrics, though a hot demo certainly helps get the point across.

An artist demo (or record) features not only songs, but performance and "character" as well. In this case, the sound and feel of the recording are integral forces in making the music come alive. These kind of recordings take more time because the emphasis is placed on the sculpting of sound and the minute of performance. Once you've decided exactly what you're going for, studio time can be figured out accordingly.

Playing music and listening to

it are very different beasts. Your music invariably sounds a lot different to you when you're not playing it. This is where a tape recorder becomes an essential tool. Get your hands on some kind of tape machine, be it an 8-track or a friend's generic hip-pocket cassette special, and *use* it.

You stay ahead of the game when you use the studio as a place to *create* your sound, rather than using it as a rehearsal room. So before you spend your money on the session, record your rehearsals. First try the song as a live performance—include all the vocals and as many special parts as you can. Then, in listening back, see what works and what doesn't. Check the arrangement, tempo, feel, etc. Then give it a rest for a few hours and listen again in a non-working situation; say, before you go to bed, or while stuck in traffic.

Remember: most people will listen to your music far more casually than you will. So give it the "casual listen test" first and see how it feels to be your own audience.

Once you are satisfied with the basic arrangement, take it apart and play it as if you were in the studio; basics first (drums, bass, guitar, piano). go for the same intensity and commitment as if you were hearing *all* the parts being played. Then practice over-



Paul Chiten is a producer/songwriter currently residing in Los Angeles. He has his own production company, Hot Spoons Productions, which specializes in music productions for records and films. A special news series called *Makin' Music*, which was aired by KPIX, San Francisco, featured a tune written, arranged and produced by Chiten.

dubs. If you have a multi-track recorder to work with, it makes this process much easier, because you can make a "work tape" version of the final product.

Just as a casting director must search for the right actors for the parts intended, so must you cast the right personnel for your project. Assuming you are not doing everything yourself, you will need musicians, a studio, an engineer and probably a producer. Finding the right people for you can make or break a session.

Research your musicians. Make sure they have the right feel for your kind of music and that they understand what you are trying to do.

Research your studio. Make sure it has the right sound and equipment for the kind of sound you are after. Listen to some of the studio's latest projects and see if it's what you want.

Research your engineer. In the past, engineers were often simply technicians, pushing faders and jockeying machinery. Today, an engineer is a creative and highly integral part of the recording process. A good engineer can do wonders for a session. A bad engineer can engender visions of harikari.

When scouting for an engineer, look for three things: 1) Technical competence. Listen to what he/she has done recently and see if you like it. Don't be afraid to test their know-how. 2) Direction. The engineer should understand the type of music you are going to record. You probably don't want to hire someone for a heavy-metal session whose sole experience is in recording Broadway shows. 3) Compatibility. Have a meeting and see if you can get along. If everything feels good to you, sit down and map out exactly what you plan to do for your session. Even if you have worked with the engineer before, everything will go more smoothly if he/she knows what to expect.

Most studios have engineers on staff to choose from, but there is also a large number of independent engineers available, so look around before you decide.

True democracy in the studio is like the speed of light: you can get close, but never reach it. The marbles must stop somewhere. This is where the role of producer comes in. Ideally every session should have a producer; someone who understands your music, is on your side, but is somewhat objective. It isn't easy to find a compatible producer. The music biz annals are filled with stories of bad producer-artist marriages. But a good mating can breed pure magic: Michael Jackson and Quincy Jones, The Police and Hugh Padgham, The Beatles and George Martin.

The criteria for finding a good producer and a good engineer are similar. However, the artist-producer relationship is often far more involved. A good producer will save you time and money by keeping things rolling, assisting with the musical arrangements and helping you find that unique sound. He/she can also be a valuable liaison between an artist and the industry. This leaves you free to make your music, which is why you are in the studio in the first place.

If you can't find a suitable producer, then look to yourself. Some people feel comfortable and qualified to produce themselves. But even if you don't, *somebody* must be in control and it might as well be you. Decide *before* the session who will be responsible for the "final say," or you could end up with a serious case of chaos.

If you are the one contracting the session, give everyone a ring a day or two before the session to confirm all details—time, place, equipment to bring, who has the charts, etc. Checking in with everyone a little ahead of time shows you are a pro and it gives you a

chance to deal with any last minute problems before they erupt into crises. I remember once after a long day of sessions, I had to mix that evening. I found that this particular studio shared echo chambers and outboard gear with the other rooms at the same facility. Everybody in the place happened to be mixing that night as well, so I only had one reverb and few effects for my mix! I learned real fast to call ahead and let the studio know exactly what I planned on doing.

Getting in touch with everyone also puts them in touch with you and starts in motion a real collective energy, which is extremely important in any effort.

Pencils and paper are cheap compared to studio time. So make a point to write things down; tempos, keys, notes on arrangements. Make a game plan. Figure out how much time you have to spend. Whether you have six hours or six months, the clock will run out at some point.

Here's part of a sample agenda for a two-song demo session:

12 noon to 1 pm—Set-up
1-2 pm—drum sounds
2-3 pm—bass, guitar, keyboard sounds
3-4 pm—Basics song #1
4-5 pm—Basics song #2
5-6 pm—Keyboard, percussion overdubs, song #1
6-6:30—Break. Eat.

Of course there will be times when something completely spontaneous blossoms in the studio, and you should be flexible enough to go with it. But for the most part you should attempt to stick to your schedule. In a business that's notorious for bandying about, it's incredible how well a band will rise to the occasion if you announce, "Look guys, we've only got five minutes left to get it right, or it's on to the next tune." Bang. A great take. Amazing. Nobody wants to sound bad on tape.

Being a keyboard player, I am immersed in the electronics revolution that allows one person to be virtually a one-man band with the aid of a drum machine, various synthesizers, sequencers, computers and the like. But you still need to experiment and plan your session the same way, so that valuable studio time is spent creating music, not just searching for it.

Those moments of magic that happen in music grow out of the spontaneous and the unexpected. Getting them to happen in the studio can be a real trick. Set the stage so that the scores of technicalities and details are taken care of and put behind you. Then the creative spirit can wrestle free, and that's where the magic really begins. ■

“For two years we’ve heard it all.”

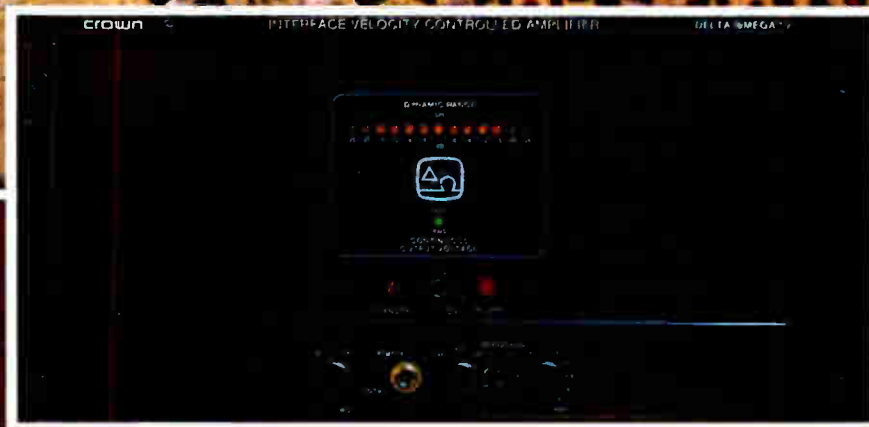


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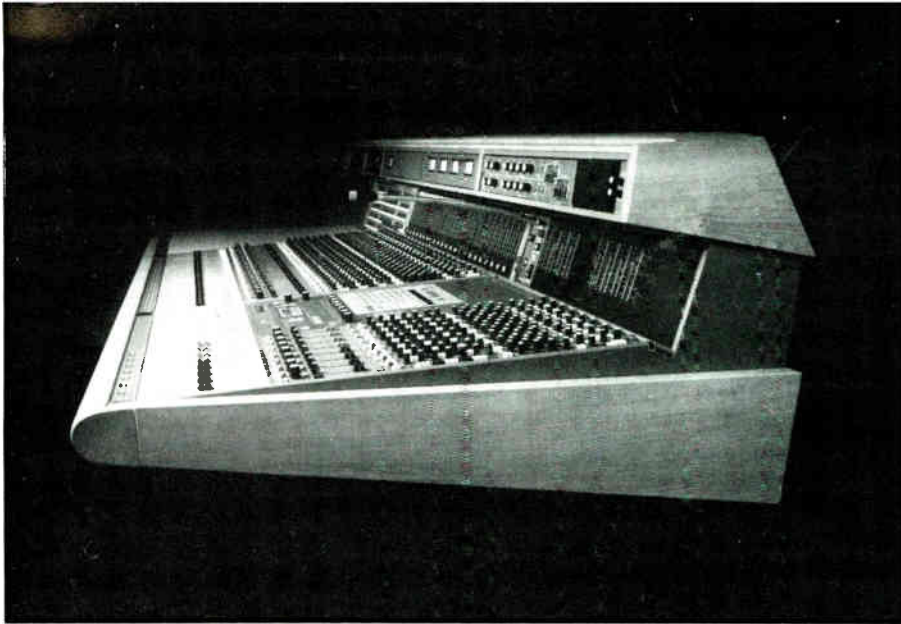
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Neve's 8128 Music Recording Console

TIPS ON BUYING A MIXING CONSOLE

by Sye Mitchell

There is a lot of confusion when it comes to the selection of a mixing console. Most purchasers are in the dark due to the constant trend changes in the recording industry. Some shoppers feel safe buying popular brand names, while others hire consultants to make the selection. The bottom line is to get a console which will satisfy you and your client's needs at the lowest price tag. This article deals with the important elements. It is our hope to clear up the confusions which may occur when buying a mixing console.

WHAT TO LOOK FOR

First, you must determine your needs. Never buy any equipment for prestige only. Ask yourself these questions: Will the price outlay justify my business needs? Will the purchase of more expensive equipment attract the clients I want? If I chose the more expensive model, can my business presently carry the payments? Once you have determined your true needs, you're ready to take the plunge into console buying land. Your best buy may be in used equipment. Used con-

soles can provide the features you need at a price that goes easy on your pocket.

An in-line console is a console which has the monitor section in-line with the input module. Channel one monitor is located on channel one's input module, same with two, three, four, etc. The in-line console is compact. A 32 input console takes up less room than a 32 input *split* model. On the negative side, compact modular design circuits are usually harder to service, due to part crowding. Some manufacturers use larger IC chips which combine multiple functions in a single chip. It's like putting all your eggs in a single basket; if a single element on a quad chip breaks down then you need to replace the whole chip. Another objection with the in-line console is that its monitor section becomes inoperable in the re-mix position, with a few exceptions. A 32 input console can't handle more than 32 playback channels.

The split frame console consists of two sections. First is the input/output module, and the second the monitor section. With the split console a 32 input console with a 24 track monitor section can re-mix 56 channels. The main

objection to the split frame console is its large size. These consoles are usually high end, and high priced.

VU or Light Meters? That is the question. Here the choice is yours. You will find that the trend is moving away from the good old VU to multi-section LED light meters. The only option you might also want is the capability of switching from VU function to PEAK reading. The better consoles usually include both functions.

The better made professional consoles employ 90 mm slide faders for recording and mixing. The 90 mm fader used in the I/O section is either conductive plastic, high-grade carbon, or wire. Conductive plastic will out-live the other types, but consoles with these faders carry a higher price tag. Carbon pots on the other hand do not have the life span of conductive plastic, but perform equally well, and cost much less. As for the remaining controls such as the monitor, auxiliary, and echo sends, these are usually rotary pots, but can be mini slide faders. These controls are all carbon. The most popular switches used in consoles today are shadow switches. These switches are very reliable and long lasting. They can be stacked for multi-function switching ranging from track assignments, EQ, solo, etc.

Competition has forced some console makers to reduce the amount of channel bussing from 24 to 16. With these savings in production costs, they have been able to lower their console's selling price. Their research shows that in most recording applications no more than 16 busses are needed. Now to satisfy the 24 track user a direct buss is installed in channels 16 to 24 in order to extend the recording range from 16 to 24 track. This production short cut has even been used in some high priced consoles. Don't shy away from 16 buss consoles. If the console has enough inputs it will do the work equally as well as a 24 buss board, and with the saving you can buy some more gear.

There has been a revival lately of the vintage discrete consoles. Advocates believe that the older discrete consoles sound better than the new IC chip models. They feel that the IC chip's slew rate is not as fast as the transistor's, seriously hampering the high frequency response. I don't take a position on this point, however, because listening is subjective. Go for the sound that pleases you.

SPECIAL FUNCTIONS

It's the extra features which are important in any console you decide to purchase. Is there a big patch bay? Does the console have parametric equalization? Is there phantom power?

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*When comparing digital delay systems, check the specifications—you will find that the effect specialists at DOD have developed the only full function digital delay systems available today.

*Note: Most other digital delays have sweep widths of less than 6 to 1.

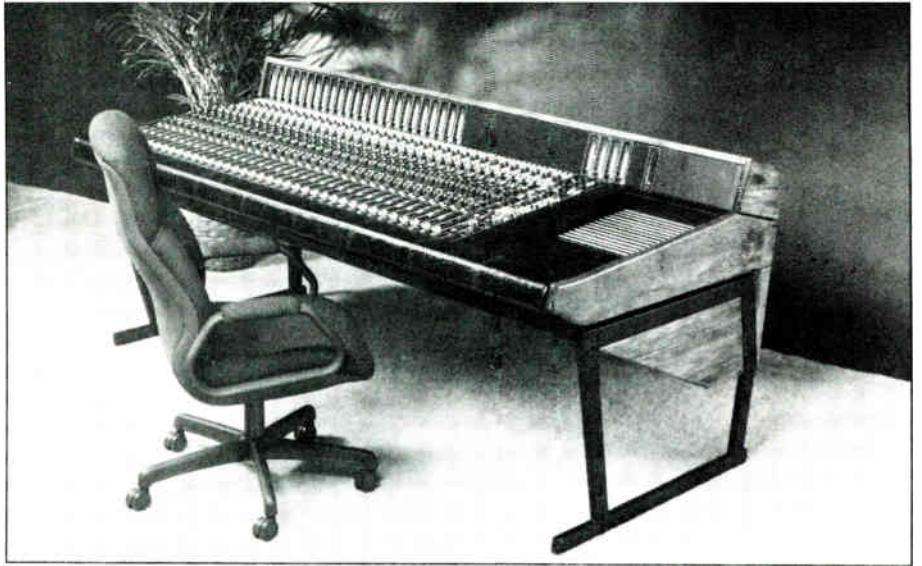


DOD Electronics, Manufactured in the U.S.A.
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Telephone (801) 485-8534

Is it switchable? What kind of automation is there? Does this console have VCA's (voltage controlled amplifier)? Does the I/O module have mike/line padding or phase switching?

A good patch bay is a must on any console you purchase. It doesn't matter if the patch bay is 1/4" or tt (tiny telephone) type, what is important is that the patch bay be flexible. A good patch bay design gives you greater circuit entry, allowing you to use support gear, or switch from section to section with great ease.

A phantom power supply is an important extra feature which should not be overlooked on the next console you purchase. The phantom supply should be switchable on each microphone channel. The reason is that dynamic microphones do not like to see 48 volts of DC. Consoles with good design can turn off the 48 volt DC for the individual channel using dynamic microphones without removing it from channels using condensers.



Harrison's MR-3 in-line design console.

If it's an automated console you're looking for, what kind of computer does it use? How does it store data? Is it VCA or motorized faders? Does it have total recall EQ? The ma-

majority of automated consoles are VCA fader controlled, and have 64k of memory, which is stored on the master multi-track recording. There are other automation systems which store data on floppy disk. The later system works in conjunction with SMPTE time code. Before buying a console with automation, get all possible details from the manufacturer on their unit's function.

There are also automation-ready consoles which are set up for automation, but do not have any computer. Before you purchase any automation-ready console, find out how much it will cost to upgrade to fully automated. You might be shocked to find out just how much more it will cost. If you want automation, buy it up front if possible. You'll generally save money.

Almost all the newer consoles manufactured have parametric equalization available as standard equipment, however some consoles, such as MCI's 600 series, have it as an option. Before you buy a console with parametric EQ, check the following. How many bands does the EQ have? How much boost and cut does it have? What are the shelving points? Is there a high and low pass filter included? What kind of signal-to-noise does it have? Once again, contact the console manufacturer for further details and technical specifications. The drawback with parametric equalization lies in its difficulty to return to a specific setting at a future date.

I hope this article has helped to un-scramble some of the obvious problems involved in purchasing a mixing console. Most important of all is to use good common sense while shopping and you'll find that buying a good recording console is much easier. Remember to ask questions and get a demonstration. If you have any specific questions regarding consoles, forward them to me at Mix Magazine and I will do my best to answer them. ■

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We wish to thank Westwood One for contracting Milam Audio as a major audio supplier during the construction of both Westwood One mobiles built since 1981. We also wish to thank project engineers, Arnold Rosenberg, Biff Dawes and Richard Kimball for their very fine assistance, and Mr. Rosenberg for his following comments:

"During my first business encounter with Milam Audio years ago, it took me a while to understand where they were coming from. Their lack of hype and pressure was just not in keeping with sales companies.

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Arnold Rosenberg;
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when record



CARTRIDGES PART THREE



BY DAVID WILSON



This month we finish up our three-part discussion on design performance characteristics of that fascinating little transducer, the phono cartridge. We have already considered some of the requirements of stylus tip geometry and cantilever materials for optimum signal transmission from the groove walls up to the cartridge's generator. What difference can the cartridge's generator design make in the overall sound you get off the record? Plenty!

Let's concentrate our discussion on the class of cartridges called generically "magnetic". We will not consider piezoelectric generators (ceramic, crystal), variable capacitance (Stax, Robertson), photoelectric (Smith) or frequency modulation (Weathers), designs because, as interesting as they are, they do not constitute a significant portion of the actual units used in the real world of the studio or the home.

Magnetic cartridges generate their output voltage by the relative movement of a coil and a magnetic field. From a practical standpoint you can move either one and allow the other to remain stationary. The most common type of generator is the "moving field" (MF) type, wherein the magnetic field as seen by a stationary coil is moved. The various incarnations of the MF class include the "moving magnet", "induced magnet", "variable reluctance" and "moving iron" types. As a group they tend to be relatively inexpensive, well-suited to mass production, offer user-replaceable stylus assemblies, have fairly high output voltage, and require fairly low tracking forces. The other class of magnetic cartridges includes

the "moving coil" (MC). As a group, MC cartridges tend to be fairly expensive, require critical labor-intensive coil alignment, rarely offer user-replaceable stylus assemblies, have low output voltage and require higher tracking forces.

The above comparison, which is really the type of data a MF cartridge marketing manager might tabulate in a product brochure, tells us very little about the *sound* of the two classes of cartridge. How *do* they sound?

In order for a MF cartridge to have a decently high output voltage along with a fashionably low vertical tracking force, a logical trade-off is made. The magnetic field generating element, since it is attached to the cantilever and adds to its effective mass, is reduced in size—the smaller, the lighter. Unfortunately, this reduces the strength of the magnetic field, so, to compensate, the size of the stationary coils is increased. This may seem like a great idea, because the coils do not add to the stylus moving mass. No effect on performance, eh? Look again! The larger coils have higher inductance, and that inductance is in series with the output voltage. By definition, electrical inductance is that property which resists rapid changes in current level. Let you think for a minute that this is just some sort of irrelevant attention to technical minutiae, consider the fact that musical transients represent rapid changes in signal amplitude, particularly in the mid-range and high frequencies. The cartridge will convert (transduce) those rapid changes in mechanical displacement into electrical signals which will, hopefully, be

analogous to the mechanical waveform. Well, they won't be if too much inductance slows it down. This is an area where the intrinsically lower inductance of the low output moving coil cartridges begins to pay dividends—transient speed.

The phenomenon of transient speed is readily measurable, as square wave "rise time." A square wave, as cut on a test record, is played by the cartridge under test. The output of the cartridge is viewed on an oscilloscope, and the leading (rising) edge and top corner are magnified. The rise time (in micro-seconds), is the time it takes for the cartridge's output to swing from 10% above baseline to 90% of the way up the face of the square wave. It's sort of like elapsed-time in drag racing—the shorter the time, the better.

In a cartridge survey I conducted, which was published in *The Absolute Sound*, Vol. 7 No. 26, June 1982, pgs. 195-208, I compared rise time figures for several high-priced cartridges (\$200 to \$1,200). The moving field cartridges ranged from 33 to 57 microseconds, while the moving coils ranged from 6 to 23 microseconds. The "quicker" response of the moving coils lends to their sound a greater sense of immediacy and precision on percussive material, including piano, and a superior sense of resolving individual voices or instruments in densely scored music. The moving field designs tended to round off and slightly dull or smear transients. Sometimes critics of moving coil designs shrug them off by saying they have a "peaked high frequency response," implying that their sense of

—page VS28, AUDIOFILE

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A speaker design with your ears in mind

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So we designed a three-way system, not two-way, for an all-around sound. For a punchy, tight bottom end, we incorporated acoustic filtering on the front panel. And we put in a moving coil tweeter for a clean high end with lots of definition. In total: great sound.

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Specs like 360 watts continuous power

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Besides psycho-acoustics, that is.

PREVIEW



Ramsa WR-8616

The Ramsa WR-8616 is designed for either eight-track or 16-track recording as well as post-production needs. Two input modules are offered, a mono mike/line module (WU-8101) and a stereo line module (WU-8106). Depending upon which modules are used, the Ramsa WR-8616 can accommodate up to 16 mike in signals, or 32 line in signals, or a combination. For example: 12 mono modules (WU-8101) and four stereo modules (WU-8106) would have the capability of 12 mike signals and 20 line signals.

Two group output modules are offered, a basic group output module (WU-8107) comprised of a fader, L-R send and pan, solo, and group on switches. A tape monitor group module (WU-8102) with all the features of the basic group module except for channel on switch module also incorporates four channels of tape monitoring with both monitor (L-R busses) and send (L, R busses) level and pan controls. All levels of post-production and recording applications are thereby accommodated.

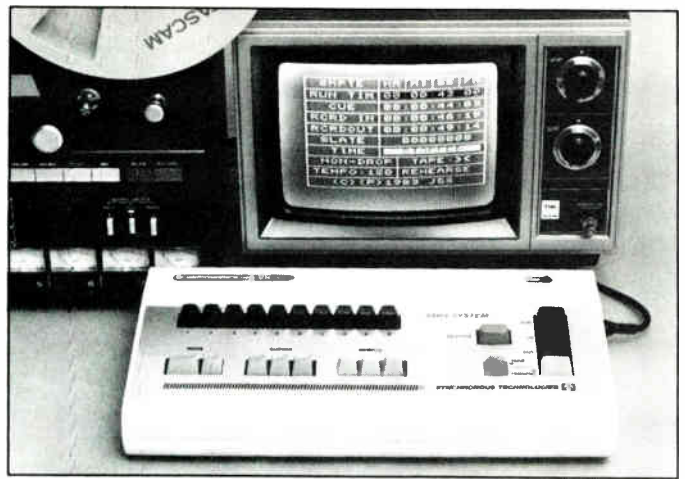
Ramsa WR-8616 provides a total of 10 mixing buss lines which include four group, two master, two send, and two echo. Additional flexibility is featured through 16 insertion jacks on the Input modules, which provide ample capacity for connecting external equipment. In addition, four return jacks are provided to connect a second mixing console, or to return effects to the group modules. Groups and Masters can be monitored in stereo allowing audition and program modes.

Equivalent noise for the mike module is rated at -128dB maximum (IHF "A" weighted), THD is typical 0.05% (1,000Hz, +20dB output level, 64 dB Gain) and maximum output is 23 dB. CMRR is above 70dB at 1kHz.

Circle #035 on Reader Service Card

Synchronous Technologies

Synchronous Technologies, in Oklahoma City, has introduced the SMPL System, the first computer based automation system designed specifically for the smaller recording studio. The low cost SMPL System provides SMPTE time code generator, SMPTE time code reader, autolocator, automatic record in/record out insert editing system, time code derived metronome, 24 tick/beat drum and synthesizer synchronizing system, and recorder remote control as



well as other features.

The SMPL System is especially suited for one person operations with lower cost multi-channel cassette or open reel recorders where it simply plugs into the normal remote control jack, requiring neither tachometer output nor speed control input to the recorder.

During rehearsal, punch in and punch out points can be set on the fly and saved in the computer's memory to be repeated as many times as necessary. Separate rehearse and take modes allow the user to rehearse and preview the edit points as many times as necessary before committing to tape. A programmable CUE point provides both looping type return to CUE function at the end of the insert and also provides a known, repeatable starting point for instrument synchronizing signals.

SMPL uses the "user bits" in the time code to provide an indelible SLATE which becomes part of the control track and can be used as a cross reference for lead and track sheets, billing notes, etc.

Circle #036 on Reader Service Card



ZPE Series II Power Amps

The ZPE Series II dual channel power amplifiers, made by Zetka Professional Electronics of New Zealand, have been designed and engineered for audiophile-calibre performance in professional applications. The series includes three models, conservatively rated from 250 to 500 watts per channel into 8 ohm loads, and 350 to 800 watts per channel into 4 ohms.

The amplifiers utilize power MOSFET output stages, which eliminate the need for thermal sensors or protection circuitry. A modular design approach is used throughout, allowing the amp to be broken down into five subassemblies for easier servicing. The 1000 and 600 watt models also include LED output metering, input attenuators calibrated in 2 dB steps, and both unbalanced and balanced outputs are provided.

Circle #037 on Reader Service Card

Ursa Major StarGate 323

Ursa Major's StarGate 323, a stereo digital reverb for professional applications, is an extremely flexible device

It copies tape

Fast!

What else is there to say?

Well . . . to be perfectly clear we should say that the Telex 6120 Duplicator copies reel or cassette tapes fast. Then we should add that it does it automatically, easily, efficiently and economically. In fact, we **really** should say that the 6120 produces **high quality** tape duplicates — fast.

Yes, the Telex 6120 high speed duplicator has many time-saving, money-saving benefits, including many **automated** features such as end-of-tape stop and auto rewind on the reel master, with a choice of auto or manual rewind on the cassette master. These automated features can eliminate unnecessary down time between copy cycles. All key set-ups and adjustments are **efficiently** accomplished from the front of the system, with all operating, function controls and LED level indicators **conveniently** grouped together on the easy-to-read control module. These automation and convenience features allow even non-technical employees the ability to operate the 6120 **easily**.

You won't have to buy more system than you need because the 6120 allows practical "building block" growth. The modules simply plug together for easy **economical** additions to your system. Each cassette slave position on the 6120 is independent, so a jammed tape won't shut down the entire system creating costly downtime. An LED indicator warns you of an incomplete copy in case a cassette tape jams or ends before the master, thereby preventing expensive mistakes.

Make no mistake, the 6120 **is** fast. It has a speedy 16 to 1 speed ratio and copies both sides at once, so it will duplicate full one hour programs in less than two minutes. As you can see it's not just another high speed duplicator. To learn more about the 6120, call or write today for complete specifications and production tables. While you're at it, make an appointment to see our informative video tape presentation entitled "Beating Real Time."

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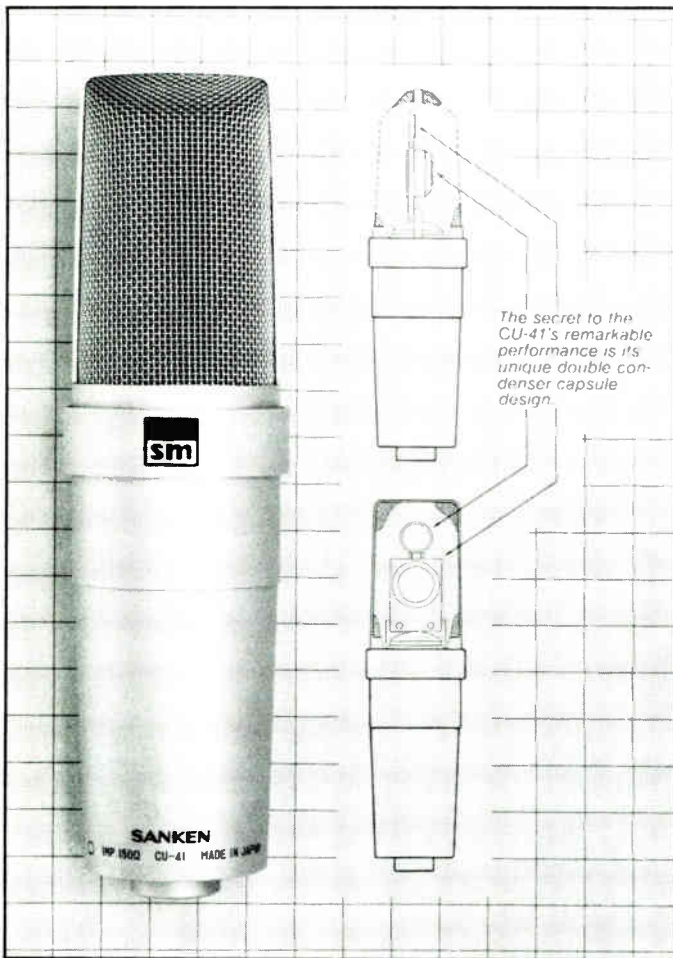
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Circle #038 on Reader Service Card





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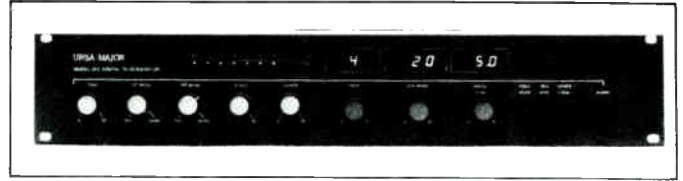
Sanken Microphone Co., which for more than half a century has been famed in Japan for creative excellence in microphone technology, proudly announces its latest and most exciting breakthrough. It's the CU-41 two-way condenser (cardioid) microphone, an astonishing instrument that gives you perfect transparency: frequency response is flat from 20Hz to 20kHz, inherent noise level is less than 15dB, and dynamic range is 119dB. The CU-41 is one of the first microphones in the world that will allow you to realize the full potential of digital audio recording. And it will also, of course, give you truer analogue masters than you've ever had before. For more information on a microphone that could very well change your professional life, write today to the address below.



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Circle #039 on Reader Service Card



with eight room-simulations, including tiny chambers, fast-diffusing plates, concert halls and huge echoing spaces. The rooms can be modified by front-panel controls which adjust decay time, pre-delay, and separate high and low frequency decay curves.

Digital readouts on the front panel show decay time, pre-delay, and room, while eight discrete LEDs monitor signal level. There is also an input level control, an input-mute, reverb-clear, and dry-only buttons, each of which can be operated by foot pedals. The unit features a 15kHz bandwidth at all decay times and a dynamic range of 80dB. Price for the 323 is \$2500.00.

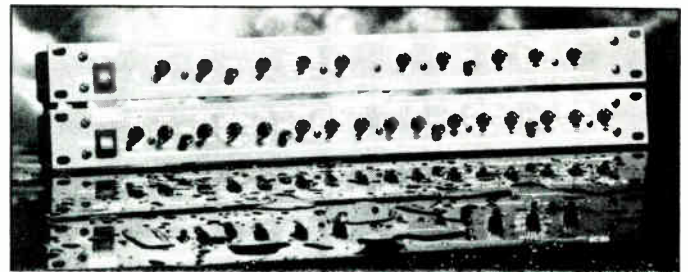
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Lemo Audio-Video Connectors

Lemo has introduced precision audio-video connectors designed to maximize communication capabilities within a minimum of space. Finger clearance only is needed to engage and disengage these connectors simply and quickly by pushing and pulling axially on the outer shell of the plug.

A positive locking mechanism and gold-plated contacts assure reliability with consistent signal transmission to 1.5 GHz. Lemo connectors are available in coax, triax, multipin and mixed coax-multipin configurations, appropriate for a broad spectrum of audio-video applications.

Circle #041 on Reader Service Card



Time Correcting Crossovers from Rane

Rane Corp. has developed two high-performance active crossover networks featuring a proprietary 4th-order State Variable filter network which yields 24dB/octave slopes and Linkwitz-Riley performance characteristics of zero phase shift through the crossover regions, zero lobing error and absolutely flat summed amplitude response, according to the manufacturer. Both units feature built-in continuously variable time delay circuits ranging from 0 to 2mS to allow electronic phase correction of speaker systems whose diaphragms are not vertically aligned.

The Model AC 22, at \$349, is a stereo 2-way/mono 3-way version with a crossover frequency range of 250 -3.6 k Hz, and the \$449 Model AC 23 is a stereo 3-way/mono 4-or 5-way version with crossover frequency ranges of 70 -1k Hz for the Low-to-Mid sections and 450 -7k Hz for the Mid-to-High sections. Both units feature automatic internal switching for mono operation, individual band muting switches for ease of tune-up, level controls on all inputs and outputs, automatic balanced/unbalanced operation, and precision 41-detent frequency selectors.

Circle #042 on Reader Service Card



Orban 412A & 414A Compressor/Limiters

Orban has introduced the Model 412A (Mono) and 414A (Dual Channel/Stereo) Compressor/Limiters. The 412A/414A is a streamlined version of Orban's 422A/424A Gated Compressor/Limiter/De-Esser, and features user-adjustable compression ratio, attack time, release time, and threshold controls in addition to input and output attenuators. Peak limiting and compressor functions are cross-coupled to eliminate potential pumping and modulation effects. The threshold control with 20dB range allows the user to determine the level at which gain reduction first occurs, without changing below-threshold gain and without compromising headroom or signal-to-noise ratio.

The new units use exclusive Orban feedback control circuitry adapted from the Orban Optimod® -FM Model 8100A broadcast processor. The result is a straight-forward level control device which provides 25dB gain reduction range with minimal audible side-effects, yet control range is adequate to produce special effects in production, if desired.

Suggested retail price of the 412A is \$425, and the 414A (Dual Channel/Stereo) is \$799. Active-balanced, floating inputs and outputs are standard on both units.

Circle #043 on Reader Service Card



Wheatstone Broadcast Group SP5 Stereo Production Console

The SP5 console features stereo line input modules, mono line input modules, stereo grouping, and mix-minus routing. Mainframes are available from 8 to 52 input configurations. Other options include clock, timers, remote start-stop switches, and auxiliary source selectors. The SP5 console will be on display for the first time at the NAB convention booth #121 April 29 through May 2, 1984.

Circle #044 on Reader Service Card

The control electronics behind the 833 Studio Reference Monitor System

Meyer Sound's 833 Studio Reference Monitor System is standardized for consistent response — giving a growing number of professional engineers and producers more creative control. The C833 controller shown regulates frequency and phase response, and has Meyer's exclusive Speaker Sense™ circuitry to prevent driver overload. The 833 handles up to 400W, with power and headroom that lets you feel the full effect of the music — and performs consistently for longer

than previous speaker designs. Effectively linear time response and improved 'coherence'* ensure clear and controllable stereo imaging.

*See our new brochure on the 833.

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Brian Setzer (l) with interviewer (r) Jeff Baxter

A Stray Cat Howls at Midnight

A recording session at LA's Cherokee Studios recently became the scene of a picturesque meeting between three generations of rock and rollers.

Producer Jeff Baxter, a formidable six-stringer in his own right, was working with Bobby & the Midnites, featuring Grateful Dead guitarist Bob Weir. The Midnites' lead guitarist, Bobby Cochran, has a song called "Rock in the Eighties" which celebrates the connection between the '50s (when his uncle, Eddie Cochran, was a hip-shakin' sensation) and today's music. Baxter called in Stray Cats Brian Setzer and Slim Jim Phantom to lend a special flavor to the track, and legendary guitarist Steve Cropper (Booker T. and the MGs and countless sessions) sat in for the session, too.

Baxter and engineer Larold Rebhun wanted to capture the song's energy in a live recording, despite the size of the band they'd assembled: Weir, Cochran, Cropper and Setzer on guitars; Billy Cobham and Phantom on drums; bassist Kenny Gradney (famed for his work with Little Feat); and in addition to Midnites keyboardist Dave

Garland, Jim Ehinger of Billy & the Beaters on acoustic pianos.

The logistics at Cherokee were further complicated by the presence of an MTV camera crew and CBS Records executive Denny Diante, anxious to hear how the Midnites' CBS debut was progressing. Furthermore, the Stray Cats were right in the middle of shooting a video for "Look at that Cadillac," so they had time for only one take of "Rock In the Eighties."

Despite the pressure to get the song on tape in one quick take, the atmosphere in the studio was friendly and loose, a testament to Baxter's skill as a ringmaster in circuses like this. Somehow in the middle of the confusion, *Mix* managed to get Baxter and Setzer to join us in a spontaneous and free-form discussion. Then the big band cut the track, the Stray Cats went back to videoland, and something approaching calm returned to Cherokee.

MIX: For our information, where are you from?

Setzer: I'm from New York. I guess, like a lot of kids who were born in the late '50s or early '60s, I was born in the city and then the American Dream called in

the suburbs. Then the dream backfired and we moved back to the city.

Baxter: Did you ever get down to Greenwich Village in the early '60s?

Setzer: No, I was only born in '59!

Mix: How did you first get turned on to music?

Setzer: Well, I had about four records that I remember. One was my father's copy of *Hank Williams' Greatest Hits*; My mom had some kind of *Elvis' Greatest Hits*; another was the first Beatles album that I liked; another was a record that just happened to be laying around the house, by a doo-wop group called The Diamonds. They did songs like "Little Darling." It was those four records that really turned me on. That's how I got into music. Not a bad four to start with.

Mix: When did you start playing the guitar?

Setzer: I started when I was eight.

Baxter: It helps to start early enough so it becomes second nature. I got started when I was seven.

Setzer: My parents aren't musicians or players. My dad's a construction worker and my mom's a housewife. They weren't really into music. It was just something that was in my soul. It was a passion. When I first heard The Beatles, I thought all four of them played guitar. I just wanted to play the instrument. By the time I was eight, I bugged my parents into getting me a teacher and getting me lessons. So they were pretty helpful.

Mix: What's the band's background?

Setzer: It's funny, like we used to listen to Steely Dan and all types of music I love for the playing. I was never really into it, but I like some of those heavy metal sounding guitar players. But they all seem to sound the same to me, unless it's Eddie Van Halen leading the pack. I got into different types of sounds on guitar when I first heard an Eddie Cochran record; then I heard Scotty Moore and James Burton. That just did it for me. I said, "Why isn't this being done anymore? Why aren't people playing guitar like this?" And the whole thing came together. I discovered rockabilly through the Beatles' and the Stones' covers.

Baxter: Are you one of those people who thought The Beatles was Paul McCartney's first band?

Setzer: No. But at the time, I thought that they wrote "Honey Don't" and stuff like that. Then I found out it was an American guy called Carl Perkins. That's how I got into the whole thing. I

—page 192

Recording at Fantasy Studios is as easy as **A C D**



C Now, the ALL New STUDIO C is ready. Once again, FANTASY STUDIOS and NEVE have successfully teamed up to present the state of the art in recording electronics. Studio C is now equipped with our third NEVE 8108 Console. (You can never have too many NEVE'S!) Thus, Studio C becomes a welcome addition to the Fantasy Studios complex, and will enable us to better meet our goal of providing to our clients the very best recording facilities at the lowest possible cost.

A In 1982, STUDIO A underwent a similar reconstruction and was also equipped with a NEVE 8108 Console and acoustic design by George Augspurger.

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THE RECORDING INDUSTRY MAGAZINE

Mix

Spring 1984



Mix

VIDEO · PRODUCTION SUPPLEMENT

MUSIC VIDEO
UPDATE



*Red Car's Larry Bridges on Editing
Video Producer Fiona Fitzherbert*

*The Sound of MTV
Audio Studios Equip for Video*

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Take this along: CAMERAS — 6 Philips LDK 5B, 2 LDK 14 /
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Mix

VIDEO · PRODUCTION SUPPLEMENT

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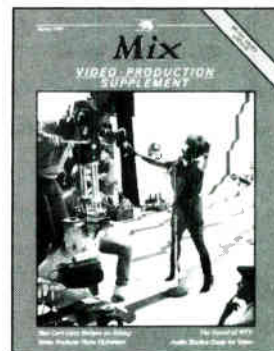
VS84 Video Interface BY NEAL WEINSTOCK

VS86 Time Code Update BY LOU CASABIANCA AND JOE VAN WITSEN

VS89 Hardware/Software

THE COVER

Tiggi Clay, a new Motown band whose song "Flashes" has been moving up the charts, is captured by the cameras of San Francisco-based One Pass Film & Video while making a clip for the hit. Scott Ross directed for One Pass. Photo by Christi Carter.



VIDEO NEWS



(Photo Above) Joe Deu, (in foreground) directing the "Or" segment of Video Caroline's production of the "Reunited" clip for the Greg Kihn Band. Some of the behind the scenes talent included: Juanita Diana, executive producer; Tomas Tucker, cinematographer (at left holding meter); Doug Hunt, assistant; set design by Jacob Korol of Readyset; costumes by Mike and Jennifer Butler; Elizabeth Hollins, assistant director (she also appeared in the clip as Dorothy); and associate producer Rebecca Stephenson, who cost the "Munchkins" with the help of the Little People of America.

by Mia Amato

The promo for Earth, Wind & Fire's "Mandrill"—which depicts band members straggling in a ragdoll-like future city as part of a human video game, is the first video Art Sims ever produced. Not that Sims is any stranger to the record business—Art director at age 18 for Columbia Records, after a stint at Capitol Records he started his own design firm, LL24 Design, which has produced album covers and promotional artwork for musicians like Stevie Wonder, Quincy Jones, The Gap Band, Bob Welch, and others.

"Video to me are not a higher level of art direction," says Sims. "I've worked with a lot of record companies putting together photo sessions, developing images for album covers and ads. Doing the Magnolia video, I found that working with a film director is very similar to coordinating and working with a still photographer, except you've got to give a film director more creative leeway."

Sims chose Jay Dubin to direct the concept, which borrows imagery from *Blade Runner*. "Jay has got to be one of the most creative directors in video," Sims says. "He has literally hundreds of ideas. Through some connections with prop companies in L.A. he was able to locate the ones which had been made for the film—he really pushed to make the visual look close to that of the movie." Location shooting was done at the Bradbury Building, a principal set for the feature film.

Sims admits he's "a real film buff," and says he often gets ideas for album graphics and other visuals by just putting a cassette of the music in my Walkman and walking and looking around. "I hang out where kids hang out. There are some underground clubs in L.A. that I go to and get a lot of ideas." He says he doesn't think he'll ever want to direct videos—coming up with a

concept, and organizing all the elements are what I really enjoy."

Sera is a soft-spoken man but raves up considerably when asked about his future video projects. "Now I'm working on a new video for *Earth, Wind & Fire*, for the song *Touch*. I'm also working with a major film company which wants to make videos for all of its upcoming features." He won't reveal the studio but says the job is "a very large package, a major commitment" for 11-24 Design. There's also a video project for *Stevie Wonder*. "That one's monumental," Sera promises. "I'll give *Thriller* a run for its money."

A second one-inch video editing suite is on line at *Mincey Productions* (Portland). The new room is all *Ampex*, including four VPR-80 synchro, ACE editing system with dual-channel ADO, and ATH-800 audio recorders. Synchronization is built into the system; the ACE controls up to sixteen sources, audio or video. *David Tower* says the new suite was first used on a video for *PeKny*, described as a "dance-metal" band.

"We've gotten more and more into video since our first clip for *Quartusflow* (*Take Me to Heart*). *Tower* adds: "The local cable company recently got the equipment to insert local commercials into its *MTV* feed, so we've been shooting some television commercials in stereo for our agency clients." One ad for a sportswear retailer led to a three-minute point-of-sale videotape as well.

Tower says the studio hopes to attract business from L.A. "We shoot both film and tape and price fairly competitively." He adds that Portland still lacks a 24-track recording facility. ("That's the only thing we need to go out of town for") since the destruction of *Soundsmith* by fire a while back.

Long Beach-based *Video General* has added a remote van, equipped with one-inch and 1/2-inch video decks and isolated audio booth with *Tamasha* console. *Ed Lapple*, head of operations, says the truck may be rented with *Hitachi*, *Ikegami*, *RCA*, or *Sharp* camera packages. *TVC Video* (NY) supplied audio and post for "The *Brocque Invention*," a classical program aimed at the home video market, produced by *Bettina Covino*. A series of concert specials for *BET's* cable channel is underway by *CCR Video* (NY), directed by *CCR's Lou Tyrell* and *Gary Delliner*. Live simulcasts are being handled by *Starfleet Blair*.

Joe Dea decided to build the



A "LOW BUDGET" VIDEO GETS BIG RESULTS

Mary and Peter Buffett, owners of *Independent Sound*, a 24-track studio in San Francisco, were glancing through *Mix* one day and saw that *One Pass, Inc.*, the renowned video production company, was looking to make inroads in the burgeoning conceptual music video field. The Buffetts had just finished recording an updated version of the classic early rock and roll song "My Boyfriend's Back" (with Mary on lead vocals) and so they decided to give *One Pass* a call to see if that song might fill the bill for the video. *One Pass'* *Scott Ross* loved the tune and a deal was struck: *One Pass* would donate their time and equipment and the Buffetts would cut corners wherever they could so that everyone would get what they wanted. *One Pass* had their de facto guinea pig, and the Buffetts had a shot at having their own video.

The video was shot at a local women's college, *Mills*, "because we wanted to get the look of a Catholic girls' school," *Mary* recalls. The story, conceived by *One Pass'* *Joe Murray*, called for *Mary* to be a tough girl in a Catholic school who has a boyfriend behind bars. For the jail sequences, *One Pass*, with director *Ross* at the

helm, got permission from the town of *Martinez*, east of San Francisco, to shoot its unpopulated prison, and then did pick up shots of *San Quentin*. The guard in the video was actually a *San Quentin* guard. The Buffetts figure that if everyone who was in the video had been paid (they solicited volunteers) and *One Pass* had charged their normal fees, the video would have cost about \$40,000. Under the agreement, though, "My Boyfriend's Back" was completed for just \$5,000.

Now comes the miraculous part of the story. Using friends with good connections, the Buffetts and *One Pass* submitted their video to *HBO* and the cable giant liked it, immediately putting it into video rotation. *Showtime* followed, and then a number of smaller music video outlets also picked it up. They got a copy to *MTV*, who also raved about the high quality, but there was a problem on that front: *MTV* only airs videos by bands that have record deals, and "Boyfriend" was still just the Buffett's tape.

And so, the Buffetts successfully landed a deal with tiny San Francisco-based *Moby Dick Records* to put the song out on vinyl. *MTV*, true to its word, put the video in rotation in late January. Where this will all end is anyone's guess, but there's talk now of making an album, which certainly would be followed by more videos. Ingenuity, persistence and old friendships paid off for the Buffetts—and that should give hope to others wanting to break into the world of rock video.



land of Oz at *Cine Reat West's* Stage A for **Greg Kihn's** "Reunited" clip. *I Fratelli Bologna*, last seen as the "Permanent Press Corps" in the film *The Right Stuff*, appears on stilts and choreographed the Munchkinland sequence. Blue-screen and special color sequences edited at *Positive Video* (Orinda, CA) proved a snap next to rounding up sufficient little people to play extras.

"I have to say working as a Munchkin kinds of goes against the grain," commented one, "but I need the screen credit." Definitely not in Kansas anymore.

City Video (Berwyn, IL) celebrates a \$1,000 videoclip for local band *Ace Production* making the roster on *Friday Night Videos*, *Rock On-TV* and other outlets. Directed by **George Niedson**, the clip was shot on J-Matic using Hitachi FP-21 cameras "and a lot of dry ice," according to studio owner **Frank Kostka**.

When the shoot was over, Kostka says he got on the phone and offered the clip to Chicago-area broadcasters. "We feel it's helped develop a rapport between the studio and the local stations," he added. "And the band has gotten a lot of interest." Niedson has gone on to direct two more videos for the band *Nimbus*, which is also receiving some national airplay.

In New York, *Aquarius Transfer* has added a Rank Cintel Mark IIIIC for color correction and film-to-tape transfer. *International Production Center* (IPC) reports the hiring of *Mitchell Skop* to service video music accounts for the studio.

Pacific Video (LA) is one of the few on the West Coast to offer clients the Thompson Vidifont Graphics V, which combines "paint brush" graphics generation with 3-D perspective and effects. The studio is providing editing and sweetening for *Steve Allen's Music Room*, running on Disney's cable channel.

Busy times at *Hyde Street Studios* (San Francisco), handling video auditions for *Ed McMahon's Star Search* syndicated TV program along with sessions for local bands *The Sluglords* and *Feederz* plus a soundtrack for video artist *Tony Labat's* latest work, "Kikiriki," engineered by **Gary Creiman**.

Video Tracks (NY) has christened a new lay-back room with four track audio and one-inch video. **Craig Pitcairn** says the custom console, designed by **David Radin** with video engineer **Chris Turgeson**, is addressable and able to slave five machines.

"We can interface with the 24-track or run it independently," Pitcairn says. Broadcast projects at Video Tracks include, for French television, the preparation of master audio for a musical program destined for PAL telecast as well as videodisc release. Other work includes "straightening out the mix" for a cartoon special and a batch of industrials.

Sound Vault/Audio Video Innovations is open for business in Sunland, CA (that's near Burbank). There's an Angela 28 x 36 audio board, Otari 24-track recorder patched in a complete video suite and 2,000 sq. ft. stage, according to principal **Bill Hawkins**. **Larry Bridges** of *Fed Car Editing* (Hollywood) created the latest clip for *The Gap Band* by cutting down 90 minutes of concert footage. **Mark Bimbaum** has joined the staff of *Southwest Teleproductions* (Dallas) as director.

FACES BEHIND THE CLIPS.

Bill Parker directed the *Rick James-Smokey Robinson* video duet "Ebony Eyes," filming the two singers as WW II pilots stranded on a Pacific island (actually a beach in Malibu). **Dominic Sena** was director of photography; producer was **Peter Allen**. These three also teamed up to create the video for "Heroes," giving the Indiana Jones treatment to **Stanley Clarke** and **George Duke**.

Credit for *Kool & The Gang's* successful crossover clip, "Joanna," goes to **Joe Clark** of *KEEFCO* (LA), who wrote and directed the sentimental diner screenplay. **Steve Purcell** of *The Post Group* edited "Angel Come Home," for **Mick Fleetwood** and client RCA Records. The video for **Adrian Belew's** "I'm Down" was directed by **John Sanborn** (NY) for Island Records.

After sharpening his blade on the cutting room floor for the likes of *Romeo Void*, *Alao Nova*, and the *Angry Samoans*, director **Richard Casey** has dispatched the sci-fi fantasy of *Blue Oyster Cult* member **Eric Bloom** with the same B-movie gusto on "Take Me Away." **John Marsh** produced for Casey Movies.

Brat Records (Richmond, CA) says they've found a way to finance a video to promote a three-song EP for an up-and-coming band: sell "band candy." The chocolate bars sport wrappers with the band's name, **Sazy Saxon & the Anglos**, and were ordered from *World's Finest Chocolate*, which has supplied high school marching bands

with such entrepreneurial confections for years.

"If this is what it takes to do a video, we'll do it," vows **Suzy**. The band estimates it needs about \$10,000 to budget a clip for their song, "Boys in Dresses."

"We'll sell it at our shows, even hit the streets with it," she adds. "After all, how many bands have their own candy bar?"

WHAT IS THIS THING CALLED DBS?


Direct delivery of TV services to the home via satellite to home dish became a reality with the launch of *USCI's* feed to some 1,000 homes in the midwest. The company, backed financially by Prudential Insurance and General Investment Co., which makes the two-to-four-foot rooftop receivers, is offering five services: two movie channels, kid's programming, sports through an arrangement with *ESPN*, and a rock video channel showing clips and long-form specials purchased from firms like *Videowest Productions*. Subscribers pay \$40 a month for the service plus \$300 for installation; subscribers who've bought or built their own dishes pay \$25 monthly.

USCI's bold entree has prompted others to announce satellite-to-home TV, notably, *RCA*, *Western Union*, and *Comsat*, which is considering a joint venture with *CBS* and flirting with the idea of a high-definition TV service.

But DBS was first proposed as a way to sell premium TV to uncabled communities—a concept undermined (and a market very thoroughly mined) by: 1) rentals of videocassette movies as cheaply as \$1 a day, and 2) the growth of low-power broadcasting in areas with poor TV service. Problems in urban areas include zoning laws, like the one in Chicago which prohibits rooftop dishes, and competition from *SMATV*—"master antenna systems" which use a very large dish to feed satellite channels to multi-unit condos and apartment buildings.

Can DBS survive? In cities we've seen over-the-air subscription TV fail because of hard competition from *SMATV* and cable TV. Out on the prairies, a rural customer could pay a little more and buy a 10-foot, not three-foot, satellite receiver and pick off any unscrambled C-band cable service signal (even MTV). DBS companies will have to provide a very different kind of television, not just be cable copycats, in order to emerge as a money-making program distribution system.

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World Radio History

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By Iain Blair

FIONA FITZHERBERT

THE ART OF VIDEO PRODUCTION

What do top videos by such artists as The Police, Fleetwood Mac, Supertramp, The Motels, The Tubes, The Pointer Sisters, Ric Ocasek of The Cars and Gladys Knight and The Pips have in common? The answer is Fiona Fitzherbert, a striking English redhead who in a few short years has become one of the most successful and respected music video producers in the business. In the traditionally male-dominated areas of filmmaking and video she is definitely somewhat of a pioneer, and has helped pave the way for an increasing number of women directors and producers.

Fitzherbert first arrived in the U.S. in 1972, and for the next few years worked in the music business for a variety of record and management companies, as well as rock bands, including Pink Floyd. Subsequently she was hired as production manager for the U.S. and European tours of The Floyd's spectacular *The Wall* show. In 1980 she became the U.S. rep for Millaney-Grant, the well-known British video company, and at the beginning of last year set up her own independent production company called, appropriately enough, F.F. Productions. Currently in the middle of producing a variety of projects, Fitzherbert is a busy lady, but we finally caught up with her in between pre-production meetings.

Mix: How did you first become involved in music video?

FF: Well, I'd always been working in rock and roll, either with record companies, or with managers. During the '70s, I worked at Denny Cordell's Shelter Records with such artists as Tom Petty & the Heartbreakers, J.J. Cale and Dwight Twilley, and became good friends with a lot of them. In fact, it's always great in this business when you meet someone in one context, and then they pop up a few years later in another—for instance, I first met the Heartbreakers' key-

boardist Benmont Tench at Shelter, and last year he was playing with Stevie Nicks when we shot her "If Anyone Falls" video.

Mix: What about your involvement with Pink Floyd?

FF: In a way that was quite instrumental in my gradual move towards music video. *The Wall* shows were just such a giant extravaganza, and a great education for me. It was really like getting thrown in the deep end, because up until then I'd never dealt with gigs bigger than 3,000 seaters—and suddenly, there we were in the Sports Arena and Earls Court with a million screaming fans, tons of sound equipment, and all these people to organize! That's when I really learned the value of great organization, which is an essential part of producing.

Anyhow, after *The Wall* tours, I continued to rep Pink Floyd in the U.S.—in fact, I still work with them when the need arises—and that's when I set up "The L.A. Office." Besides the Floyd, I took on half-a-dozen other European clients and formed this company which was essentially an office in Los Angeles for companies that didn't necessarily want or need a full-time operation, but who needed a local contact. And one of those clients was Millaney-Grant, whom I'd met through Roger Watson, head of A&R at Chrysalis Records.

Mix: They were already pretty successful in Britain. . .

FF: Yes, and they were just beginning to expand into the U.S. market which hadn't really caught up with the British video explosion at that time. You also have to remember that this was before MTV and all the rock video shows

now on television. A lot has changed in the past three years or so!

Mix: What was your first project with Millaney-Grant?

FF: It was Olivia Newton-John's *Physical* video-album and cassette, so again it was a bit like the Floyd and *The Wall* shows, getting thrown in the deep end!

Mix: How did that come about?

FF: Well, I showed Brian Grant's reel to Olivia's manager, Roger Davies, and he really liked it. So then Brian flew out, everyone met, liked his ideas, and that was it. It was *then* that all the hard work really started! I mean, it was obviously a very intense learning experience.

For a start, we were shooting an entire album instead of just one video, and we were filming on a variety of sets and at a number of different locations, so the logistics involved were tremendous. As production manager, I had to co-ordinate all the people, equipment, schedules, etc., and it was further complicated by the fact that Scott Millaney, the producer, and Brian, the director, decided to fly out their own crew.

Mix: Why was that?

FF: Because to make a conceptual video album like *Physical* with ten separate videos is an incredibly costly affair, so you need a very tight crew and the best people available. And at the time, London had developed into a center for video promos, and there was the advantage of an enormous pool of talent there, of people who worked together all the time, efficiently and quickly. For instance, at that time there were relatively few good lighting directors working in the music video field, so they brought over Michael Sutcliffe who'd worked on "Fashion" and "Ashes to Ashes" for David Bowie. We also flew in our own set designer, Kim Colfax, as well as

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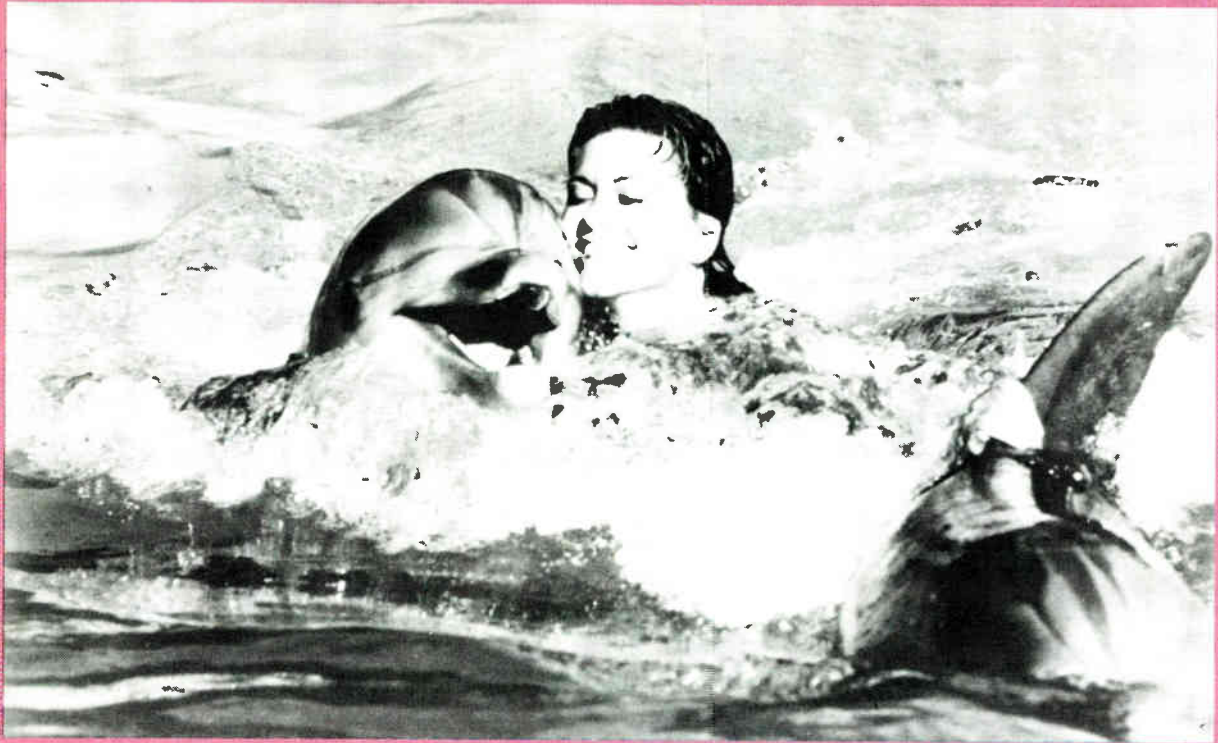


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Olivia Newton-John gets "physical" with Flipper's friend in video.

two scenic artists, Eric Critchley and Tony Collin, who specialize in using glass matte techniques on videotape. They had both previously worked at the BBC where Tony Collin had headed the scenic art department. Eric has also just finished The Tubes' video album which was shot in Britain, as well as working on Kim Carnes' "Bette Davis Eyes."

Mix: Did you encounter many problems when you started shooting?

FF: Well, there are always problems, especially on a project this big and this complicated. We'd assembled the very best crew we could get, but it was also the first Californian production for Millaney-Grant, and everyone had to learn the ropes. Of the ten songs we were shooting, five were set entirely on location, so of course we had to scout for locations. Then there are always the inevitable technical problems and hitches. For instance, we did one song out in the Mojave desert, so there's the sun and sand to contend with, and the fact that makeup starts dripping, everyone's thirsty, you need back-up technical equipment in case of failure, etc. . . .

In the ghost-town sequence, which we shot at this old movie ranch set near Chatsworth, there were more mundane problems like getting the horses

to walk in the right direction! The other factor is that you're always racing against time and failing light on location, whereas on a soundstage you're utilizing a much more controlled environment.

Mix: Were you able to shoot all the location work first?

FF: No, unfortunately, so there were all the pressures of constantly moving from location to set, and then back again. For one number, "Silvery Rain," we had this incredible alien planet set on one of the huge soundstages at Raleigh Studios in Hollywood, where we were shooting for two days in an enormous water-tank. But it kept leaking at first, which presented a terrible problem, quite apart from the time wasted. It was a very complex number, with a lot of props and costume changes—Olivia had seven changes alone! Then the very next day we headed out to the desert, and then the following day it was back again to a soundstage with the gym set for the title track "Physical."

Mix: How long did the project take in the end?

FF: About six weeks, which was pretty good considering! It was further complicated by the fact that Olivia's

album hadn't even been completed at that point—we were working with rough mixes which were sometimes being finished at 6 a.m. the morning of the particular shoot.

Mix: How was Olivia to work with?

FF: Fantastic—extremely considerate and cooperative, and all the crew just loved working with her. That's a very important consideration when you're all jammed together for weeks at a time, out in the desert, or splashing around in a water-tank! She was totally committed and totally professional. Personally, I think it took a lot of nerve for her to do this project, because it was a definite change of image for her. She's a very sexy, exciting lady, and I don't think anyone had really managed to capture that side of her before.

Mix: After the incredible success of the *Physical* project, you started working pretty regularly with Russell Mulcahy. How did that come about?

FF: Well, the great response to *Physical* opened a lot of doors, and suddenly music video started to become big business over here. Millaney-Grant expanded, with Russell and David Mallet (another director) joining forces to form MGMM, and I started producing with Russell.

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World Radio History



Mix: Which videos did you do together?

FF: I co-produced Fleetwood Mac's "Gypsy," "It's Raining Again" for Supertramp, "Only the Lonely" and "Take the 'L' Out of Lover" for The Motels. We shot "Gypsy" at TVC and on location all around L.A. and it was a pretty complicated and ambitious project—for instance, there were three different sets on the stage, so it required a lot of organization. We shot "Only the Lonely" at The Variety Arts Theatre in downtown L.A., which was a great location that I found by mistake when I went out dancing one

night! I also remember that we didn't have a budget for all the extras needed, so we ended up roping in everyone we knew. "It's Raining Again" was also shot at a variety of locations around Hollywood, and in the desert, and down at Pomona, so again the logistics involved were quite complex. We also used a lot of cars, as well as a Greyhound bus, so I was fairly busy cutting all those deals as well!

Mix: You obviously enjoyed working with Russell. . .

FF: Absolutely. He's enormously

talented and has terrific ideas. It's always a challenge, because he asks for the impossible, and somehow always manages to get it!

Mix: What other directors have you enjoyed working with?

FF: Well, I must mention Kenny Ortega, who was the choreographer on "Physical." He'd always directed the dance sequences he'd choreographed, so it was a natural progression for him to become a director. The first project we did together was "I'm So Excited" for the Pointer Sisters. It was another real fun video to shoot and the girls were great to work with . . . there was lots of dancing, a big cast, etc. The second video was "The Clapping Song" for Pia Zadora, which we did over at Raleigh, and that was another fun project.

Mix: You set up your own production company, F.F. Productions, in January last year.

FF: Yes, the time was right, and it certainly proved to be a good move, as I was so busy all last year.

Mix: What were some of your productions?

FF: Well, I produced a couple of videos for Ric Ocasek of The Cars—"Jimmy Jimmy" and "Something to Grab For"—and "If Anyone Falls" for Stevie Nicks, as well as another video for Supertramp, "My Kind of Lady." Also, "She's a Beauty" for The Tubes, "Save the Overtime for Me" for Gladys Knight & the Pips, and two for The Police—"Wrapped Around Your Finger" and "Every Breath You Take."

Mix: How was it working with The Police?

FF: Very interesting, especially as they were both directed by Godley & Creme of Medialab. I think "Wrapped Around Your Finger" was particularly interesting as for a start, we didn't have any of the band there at the same time when we shot it at A&M.

Mix: Why was that?

FF: Because their schedules were all different. We shot Stewart Copeland and then he disappeared off to London, and Andy Summers came in before he left for New York, and then Sting arrived! But the main thing people ask about is the slow-motion effect, and that was achieved by running the audio track at double-speed, along with the film-speed. So that when it was played back at real-time, it's all in slo-mo. I don't think any of the crew

—page 209, FITZHERBERT

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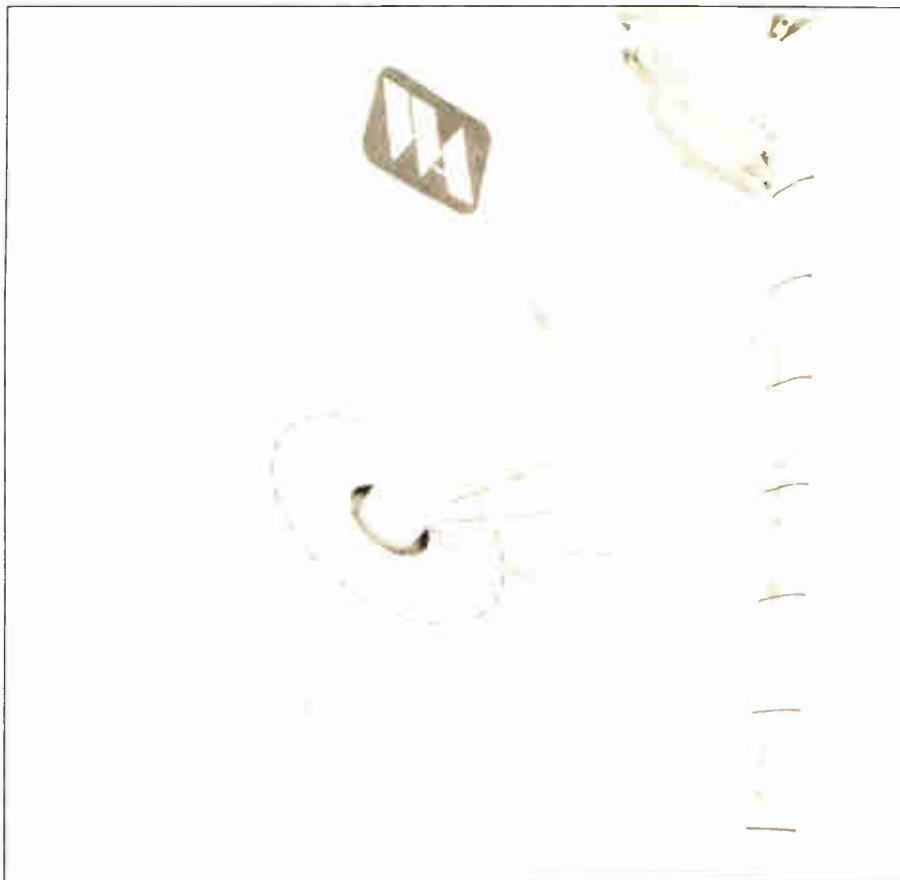
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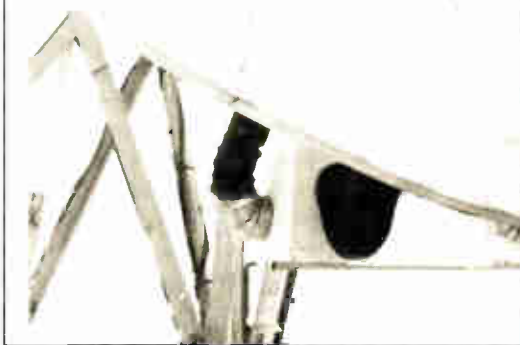


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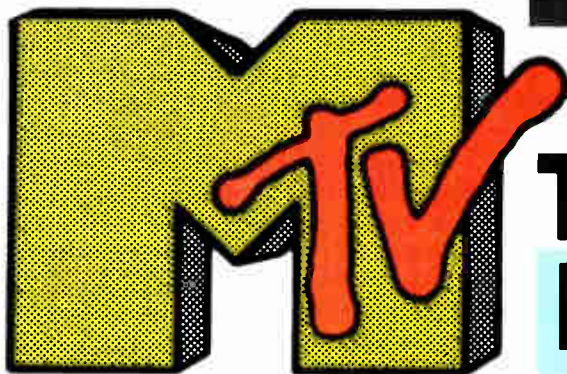
"MTV runs, operationally speaking, like a radio station. We use cart machines like a radio station, and can play any clip we want—ID, promotion or commercial—in real time. It could never be edited together like a conventional program, because it never repeats."

One of the people who helped create MTV as the quintessential "radio with pictures" is Andy Setos, VP of operations and engineering at WASEC. Setos, whose roots include a stint at Top-40 radio station WABC-

—page VS16



(Above) WASEC satellite dish and (right) Andy Setos in MTV control center.



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AM as well as WNET-TV, where he worked on pioneering stereo simulcasts like *Live From Lincoln Center* and *Great Performances*, brought the MTV control room from concept to August 1, 1981 airdate in nine short months. Setos gave us an inside tour of the audio side of music television.

Clips, of course, are the essential element. Sound and picture are submitted separately. "We prefer a half-inch four-track of at least 15 ips, with Dolby A, of the master mix," Setos explained. The audio tapes are sent to Regent Sound, to be cleaned up if necessary and then synchronized to a one-inch Type C video master via EECO synchronizer. The visual portion, submitted in either one-inch or two-inch video or film, is sent to Image Transform in Los Angeles for "video sweetening." This is a patented signal process which selectively enhances and corrects the signal for drop outs, noise, or color distortion.

One technique, according to IT technical supervisor Ron Nichols, is four-frame averaging. "Basically, the machine studies four sequential frames of video (less than a tenth of a second) and will combine or average the visual information for the most com-

plete picture."

Sound and picture merge when each clip is dubbed onto a two-inch videotape cartridge like those used to distribute TV commercials to TV stations around the country.

Quadruplex recording, the oldest and most unwieldy videotape format, ironically proved to be the perfect on-air medium for MTV, Setos explained. The image quality of 3/4-inch cassettes was rejected as too poor; the one-inch helical Type C format has too complicated a threading path to make an automatic cartridge system practical.

"Almost every commercial you ever see on TV is being rolled off a two-inch cart machine," Setos said. "Years ago CBS proved the video cart machine could be a powerful tool for production, by using it for news inserts.

"But we have the only three **stereo** ACR-25 quad cart machines ever built. You're listening to them every time we play a clip or ID." Each cartridge player holds 26 carts. Two are used exclusively for MTV. The third is used for other company business, including on-air insertion for WASEC's pay-TV service The Movie

Channel, which is also telecast in stereo. WASEC is the country's largest purchaser of quad cartridges in six-minute length; Setos estimates each is good for 50-100 passes before wearing out.

The MTV master control suite at Network Operations Center (NOC) in Smithtown, Long Island, reminds Setos of "major market Top-40 radio of the '70s—jocks on-air, the engineer starting all those carts in the right sequence; not just tunes, but the jingles, and the stingers, and ID's, the bongs and the bings."

But MTV technical directors segue both sound and picture on a specially-built console. Setos didn't want to show too much of the control panel ("it's part of what makes MTV so unique") but he did say it was built upon a Grass Valley 1600IX video switcher, the first synched audio-follow video switcher available. A special effects unit (dual-channel DVE) and remote controls for the cart machines were built in.

The console wraps around the operator. Monitors are in front, as is a Rolodex indexed to every clip in the MTV library. There's a comfortable "ergonomic" chair and intercoms for communication with the people who load the cart machines.

Using the DVE and switcher effects banks, the operators segue between the clips, commercials, and other elements in real time. They have no choice of clip sequence—MTV's playlist is fully programmed ahead of time—but they are free to create each special-effect transition.


"It's the key operations job and we have about 20 people who do it," Setos said. "I created the job—it really has no analogue in broadcast television—because I remember what a blast it was in radio to bring everything together, four turntables, six cart machines, your arms flying all over the place. I'm really proud of these people.

"We do split segues. Sound and picture are done separately at whatever timing makes sense in duration, start and stop."

The jock wraparound material is rolled off one-inch Type C machines. Earlier in the day, the disc jockey segments are recorded at Teletronics' Center Stage in Manhattan and sent by messenger to Smithtown NOC.

Frederick C. Birks, who designed the studio facility in Spring 1981, said little has been changed in three years beyond expanding the green rooms and dressing rooms for the VJs and their guests.

—page VS19, MTV



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Over the past year, people have really warmed to our new video audio mixing room. Bette Midler's "No Frills" for Cinemax got our blood pumping. Then with the music video trend toward mini-movies (instead of merely playbacks), Pat Benatar's hit, "Love Is A Battlefield", gave us the opportunity to demonstrate the "total control" necessary to

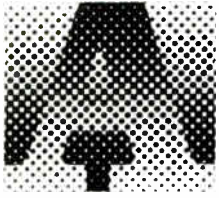
mix 24-track and complex effects to picture. Soon we were mixing digital masters of all the musical numbers for "The New Show"... and a full slate of commercials to boot. Now, along comes Marvin Gaye's theme song, "I Heard It Through the Grapevine" from The Big Chill. It looks like we're getting even hotter!

"No Frills" produced by Tommy Schlamme Productions

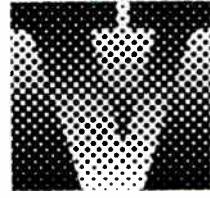
"Love Is A Battlefield" video produced and directed by GASPI
 Edited by Billy Williams/Another Direction

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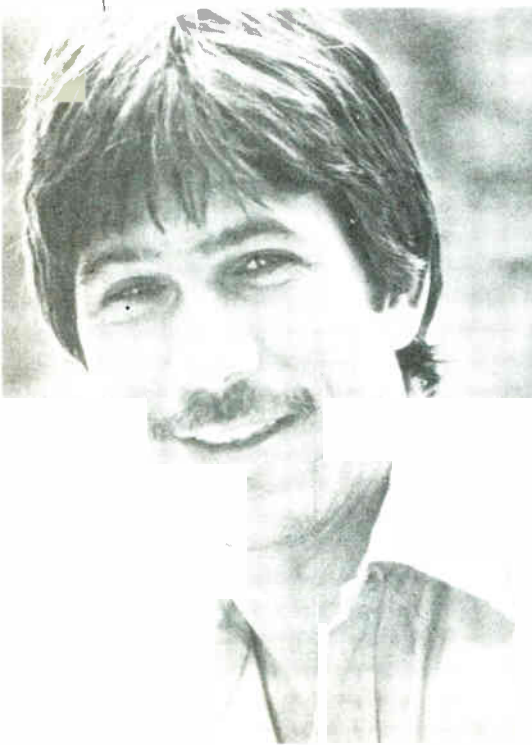
by Blair Jackson and George Petersen

We have entered, with considerable ballyhoo, the "Age of Video," the era in which the visual overtakes the aural, in which video kills the radio star, as The Buggles prophesied several years ago. What the seers and pundits might not have predicted, however, is that the so-called video revolution would be accompanied by a tremendous surge in interest in good audio, as well. One thing the rise of music video has made very clear is the inadequacy of television sound, and as manufacturers rush to make the move to stereo, the makers of music videos are trying to elevate the status of the audio track to the point where it sounds as good as a conventional record. This has meant that music video makers, as well as commercial and corporate filmmakers interested in high quality sound, have been turning more and more to top audio studios, particularly those with state-of-the-art synchronization gear,



A recent scoring session at Russian Hill Recording in San Francisco.

PHOTO: GEORGE SERVICE



Video under \$3000?

Dan O'Dowd on Down-in-the-Trenches Video

by George Petersen

Dan O'Dowd, owner of Audio Video Craft, a Los Angeles rental firm, production company and editing facility, is also a contributor to *The Hollywood Reporter*, and a consultant for *Billboard's* International Music Video Conference. He recently took time out from his busy schedule (he was between coordinating backstage camera crews at the Grammy awards during this interview) to give some of his feelings about low budget video production.

Mix: What are some of the mis-

conceptions about shooting on a low budget?

O'Dowd: A lot of people are shooting low budget stuff without really knowing what they're getting into. We have to tell them that they are going to have to spend at least 5-6 hundred to rent a three-tube camera. There's no way to get on the air unless you play by the rules—the vertical blanking specifications the FCC laid down in 1976. These are strict guidelines that one doesn't run into when doing guerilla style filmmaking.

We give seminars for people who rent equipment. A big part of these involves how to shoot for the editor. In conceptual videos, where you are cutting to the music, beat after beat, you need a lot of extra shots for editing options.

—page VS24



for help in getting their visuals to *sound* as good as they look.

All across the country, audio studios are finding that by purchasing a synchronizer and equipment for lay-backs, etc., they can dramatically increase their business, as well as attract a new breed of client. Of course there's nothing cheap about transforming an audio-only studio to one that can handle various video production and post-production chores. But every day another studio seems to come to the realization that video is here to stay and

so they take the plunge into those still largely uncharted waters. Recently, we talked to a cross-section of audio studios that have equipped for video work to find out whether the transformation—the leap into the future—was paying off.

"Audio-for-video is not just something you can jump into," warns Howard Schwartz, whose New York City recording complex contains two rooms specifically designed for audio sweetening. "You have to ask yourself whether the investment is worth the re-

turn—you can't do it for only \$25,000. We put more than \$250,000 into our audio-for-video rooms. We're not a studio who put this equipment in because we couldn't do enough music business." Schwartz went on to say that the studio's investment eventually did pay off with a large number of major network bookings last year, especially in the areas of sports and music special programs. He also said that the present size of the cable TV industry is less than expected and "the growth in the next

—page VS23

Morningstar Video

by Bruce C. Pilato

Joel Nagy doesn't need L.A. He doesn't need New York, or even London, for that matter. As one of the leading innovators in the marriage of audio-video and computers, Columbus, Ohio suits him just fine.

One might not picture Columbus, Ohio as a thriving center for advancements in audio and video automation, but in fact, it is. In addition to being the state capitol of Ohio, the highly industrial market of over 1 million is the headquarters for Nationwide Insurance, Borden's Foods, and Wendy's Restaurants. It is also the home of Cranston-Csuri, one of the world's leading computer graphics companies and the outfit responsible for the graphics seen at the opening and closing of the *ABC Evening News* and the recent 1984 Superbowl.

Columbus, Ohio is also where one will find Joel Nagy and Morning Star Video, the production company he runs with his younger brother Russ.

Morning Star Video (and its audio division, Gracewood Studios), are not particularly big. By most standards of production companies, in places like Los Angeles, Morning Star's operation would probably be considered small. There are no huge soundstages, nor a floor loaded with a dozen or more production rooms. And although Morning Star does not have the physical space, nor the most elaborate audio and video gear, it does excel in its use of computer automation, and may be one of the most cost-efficient rooms in the country.

Joel, 35, and brother Russ, 28, have been working since 1980 on ways



Main Post-Production Editing Room at Morningstar

to perfect the interface of computers for video and audio hardware, and certain automated instruments such as the Fairlight and Prophet V synthesizers and the Linn Drum machine.

"The marriage between audio and video *and* computers has been around for a while," says Russ, who is in charge of the company's audio division. "We're different in the sense that we're one of the few groups of people that has the video talking all the way back to the Fairlight, which is doing the performing."

The company's achievements in automation are most important to a client in the editing process. The Nagy brothers have developed ways to allow someone to cut and store, economically, several different edited versions of a particular program or make minor changes without recutting everything.

Though Morning Star has used its advancements in the field of music video, it readily admits its primary market is corporate industry.

"We discovered," says Joel,

—page VS22

—from VS21, *Morningstar*

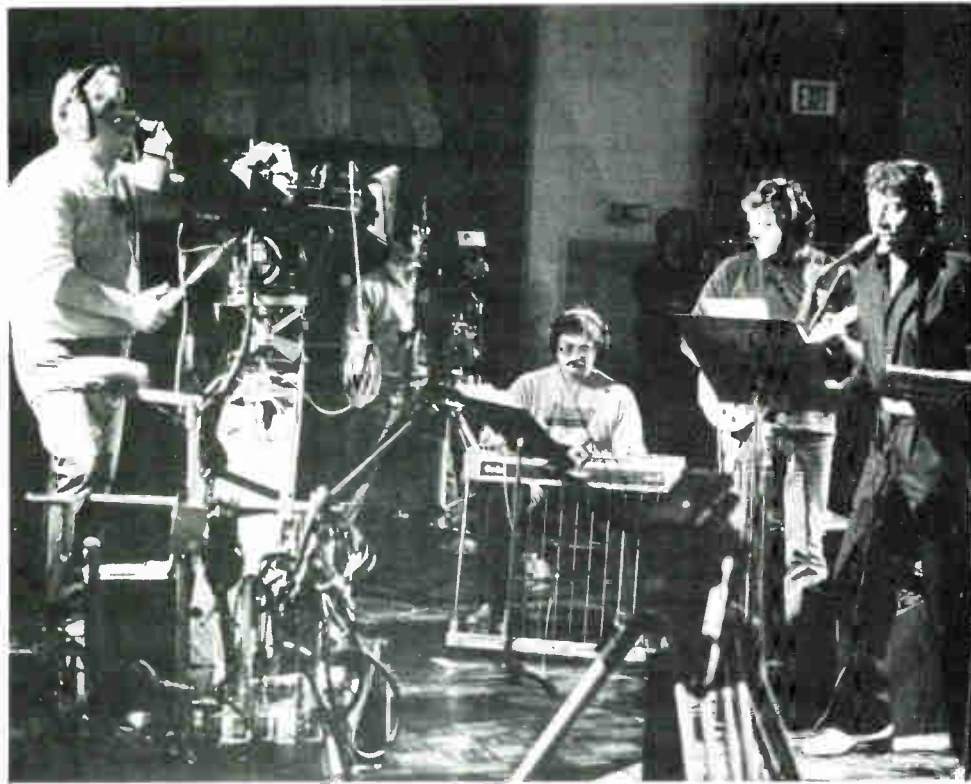
"the manufacturing and corporate videos are made by those who are much more sensitive to getting a good return on their investments, than some other kinds of clients. Manufacturers typically use and re-use the same pieces of video. They'll have you put them together twelve different ways and have you make the same program with just slight differences for a totally different purpose.

"Without computer editing and without a lot of things that we've tried to do, that means re-making the program all the time. You have to take the same source tape and edit up a new program."

The Nagys, through extensive experimenting, have developed a relatively inexpensive way for their clients to rebuild programs a week, a month or years down the line, with the same edits, audio mix and even the actual electronic performances originally employed. All of this, however, has been a long time coming.

Ten years ago, the Nagy brothers were just two more graduates of the "Me" generation working locally in Columbus in sound reinforcement. In 1975, they were doing sound for a contemporary Christian passion play entitled

—page VS30



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New Options in Video

Another outgrowth from the video boom has been an increased involvement by audio studios into the area of video production, especially with music-oriented shows. Memphis-based Ardent Teleproductions, the video wing of Ardent Recordings, has completed a music program for the French national television network. The sixty-minute show, entitled "Go, Johnny, Go", was shot on location in Nashville and features French rocker Johnny Hallyday, and includes appearances by Emmylou Harris,

Ardent Teleproductions on location at Sound Emporium in Nashville shooting Johnny Halladay special for French TV. Left to right: Phil Herring (camera operator), Russ Hicks (steel player), Reggie Young (guitar), Johnny Hallyday.

Don Everly, The Stray Cats, and Tony Joe White. The producer was Antoine de Caunes for Antenne 2 in Paris. Other recent productions at Ardent have included programs for Federal Express and the U.S. Postal Service, and a number of thirty second television spots.

Rich Goldman, the owner of Fifth Floor Recording Studios in Cincinnati, formed "No Problem Productions" (in association with Merv Griffin Productions) to produce *Clips*, a daily half-hour show. Goldman described the show as "a video music program, but designed along a magazine/*Entertainment Tonight*-type format, with interviews and newsclips from around the world. It's much more than stringing a bunch of music clips together. We showed it at NATPE and there was a lot of interest in the show. Another plus is that Lisa Lee, the program's host, also speaks fluent Japanese and we've had about five offers from the Japanese market so far." ■

—from page VS21, *Gold Rush*
three to four years is not predictable. You can't bank on it."

Fantasy Studios' Nina Bombardier says that the Berkeley, CA based facility has had enough requests for use of their Q-Lock synchronization room that "we could probably support a second room." Most of what Fantasy has been doing is sweetening, for everyone from Pizzatime Theatre to rock projects like the Hagar-Schon band. During much of the Winter, however, Fantasy Films was utilizing the facilities for sound work on the upcoming Milos Forman film *Amadeus*, based on the hit Broadway play.

Dave Michelson of Bonneville Media Communications (formerly Bonneville Productions) in Salt Lake City is another big booster of the Q-Lock. Bonneville has been getting a lot of looping work, and translating training films and the like into foreign languages. For instance, Michelson cites a recent project for Mrs. Field's Cookies, which needed a Japanese soundtrack for their American training film. "The Q-Lock has been fantastic,"

—page VS24

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—from page VS20, O'Dowd

Another thing we emphasize is pre-production planning, which is the biggest part of doing a music video. Then, given your budget, script and shot list, you can figure out what you can rent.

Mix: What if you can't afford to shoot on one-inch tape?

O'Dowd: Oddly enough, 3/4" is one of the hottest formats for music videos. Everybody knows that MTV is going to ask for a C format one-inch tape, but MTV is not the largest music video outlet—*Nightflight* is three times their size. For all the other outlets and markets in the world, you can get on the air with 3/4".

Mix: What are some of the secrets of doing a successful low-budget video?

O'Dowd: We have five videos shot by our production company on the air now that cost from \$3000 to \$10,000. To beg, borrow or steal—what I call down-in-the-trenches video—with a rental of \$500, paying your people \$100/day, and getting your talent for free, you can actually make a video for under \$3000. In one instance, I

bribed one of the builders of a set from a famous science fiction movie to let us on the set for one hour. We brought in our own lighting, and we got that big word: Production Value. For a few hundred dollars, we got a \$40,000 set to use for a brief part of the conceptual video.

One advantage video offers over film is speed. Tom Hayden at TSR Records came over and said he only had a budget of \$3000, for one of his artists, Miquel Brown's "So Many Men, So Little Time." At the time it was on the charts around #14 with a bullet. He needed something to support it in the outside markets, so he gave me the audio tape on a Thursday night. On Saturday night, I handed him a finished production. We shot in one day and edited the next, and had 104 cuts in all, and this was under \$3000.

Consequently, the song went to #1 and crossed over onto the pop charts as well. That's what video can do for you. The point is not to let the money factor get you down. ■

—from page V23, Gold Rush

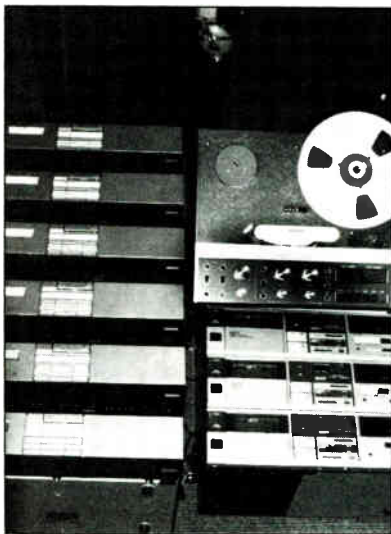
he says. "It's the best investment we've made in recent years. We made our money back and more in the first year after getting it." Michelson even has a second Q-Lock on order. Incidentally, Bonneville's parent company owns several television properties, including Video West, which has a 35-foot, five-camera truck based in San Diego.

The Music Annex, in the S.F. Bay Area community of Menlo Park, has been using its growing facilities to do sound-for-video work for large corporations primarily. David Porter tells us that the high stakes world of the big tech industries located nearby has changed in many ways over the last few years. "It used to be that companies would make up slide shows, but now they've become very sophisticated in their use of video. What used to be a Mickey Mouse slide show is now a \$40-50,000 video project. It's really taken as seriously as a major album project." Music Annex has such clients in this area as Apple, Memorex, Hewlett-Packard and National Semiconductor. "In video," Porter says, "audio used to be considered a bastard step-child. No one really paid that much attention to it. But now people want great audio. We've tried to build an environment that sounds great and has all

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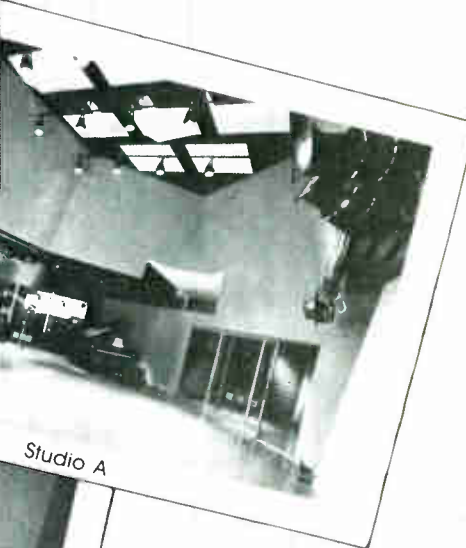
the amenities of the good video places." To that end, Music Annex is about to open a new video room that will have a fixed lighting grid, hard cyc, soundstage, all with easy access to the studio's formidable audio set-up. Porter says they've been renting a Q-Lock, but that when Q-Lock and BTX come out with their new boxes, he may choose to purchase one or the other.

According to Joey Newman of the Village Recorder in Los Angeles,
—page VS26

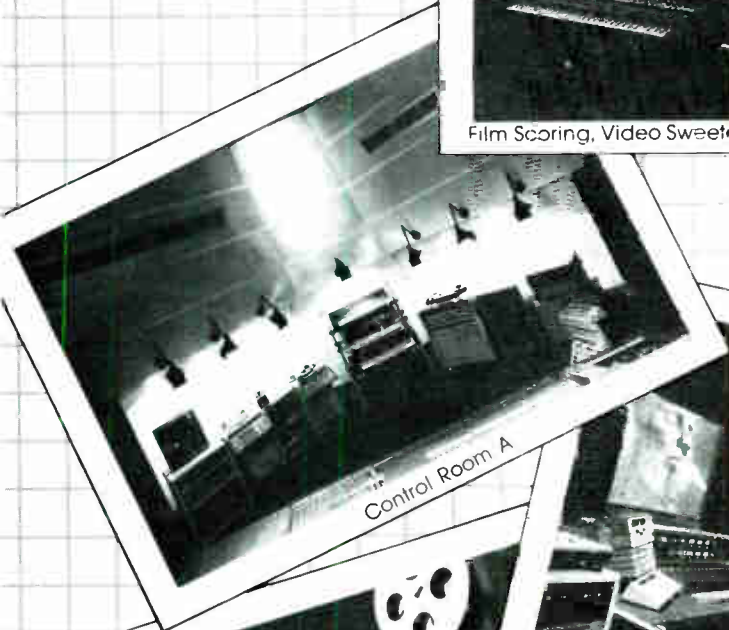
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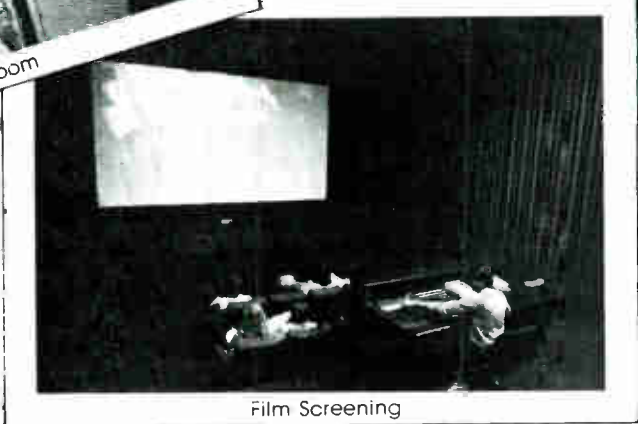
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—from page VS24, *Gold Rush*

that facility is planning its video emphasis on working in 3/4" and betting on the likelihood that filmmakers will be willing to convert from 35mm to 3/4" work prints because of the ease of working in that format. "We're really testing the market," Newman comments. The Village is also hoping to lure more film and television soundtrack work, and with that in mind they have been constructing a second-floor room with an 18-foot ceiling into a string room "with perfect isolation for that kind of work," in addition to a state-of-the-art monitoring system for the visual end. Newman is also enthusiastic about the potential of *live* rock video work. "We can control all the elements in here so well they could have great sound, lighting *and* visuals. It's really exciting."

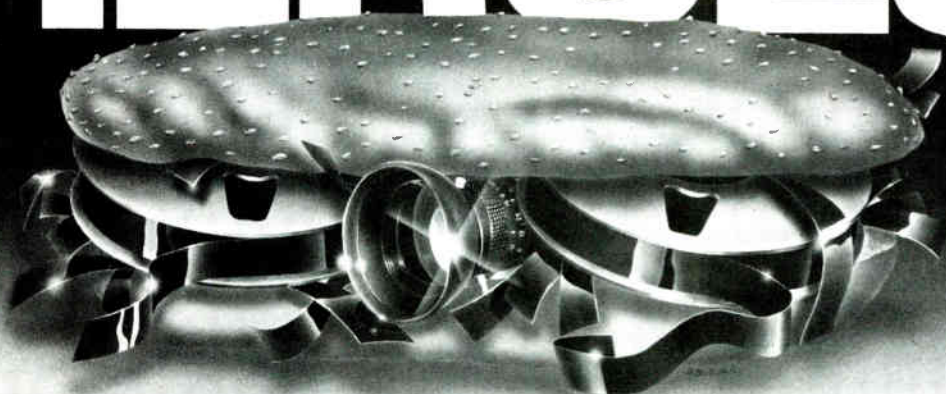
At Tim Pinch Recording in LA, big plans are afoot for expansion into the video realm. Pinch has long been well established in audio recording, and is known particularly for his mobile live recordings. Now, Pinch has purchased a second mobile unit and is offering a full range of services so he can shoot

"As audio becomes more and more important on video projects," he says, "it's becoming increasingly important to have good engineers who really know how to use this new equipment."

the shows he records. TPR already has a pair of Hitachi FP15 cameras, a Convergence editing system and a BTX Shadow synchronization unit. "I've been on so many shoots that were screwed up by people who didn't know what they were doing," Pinch says. "I want to be able to offer people good audio and good video in one reasonably priced package. There's a real need for it right now."

"You know, video people used to say that 'a picture is worth a thousand words' so they considered audio 'low level distortion,'" jokes Midcom Inc.'s owner Mike Simpson. "Today, good audio is much more important." The Arlington, TX remote recording facility has been involved with audio-only and audio-for-video for some time now, working with numerous large clients, from the Southern Baptist church to

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NBC (for whom they did audio work for an upcoming Olympic fundraising special). Midcom does extensive synchronization work with its BTX Shadow, which Simpson raves about. "It's very versatile," he says. "It allows you to assemble the audio program almost as if you had a regular video editing system." In addition, it provides a link between Midcom's audio recorders giving them 48-track capability. "The reason we got this equipment originally," Simpson says, "was to give us more flexibility, and it's done just that. Business has been good."

In the case of Dallas Sound Labs, the move into video necessitated a geographic switch, from Austin to Dallas. According to John Marshall, DSL has been drawing a wide range of clients for the video end of the operation, from Bob Banner, who has used it for sound effects and music assemblage, among other things, for several TV projects, to rockers like Phil Collins, who re-cut some vocals for a video there. DSL is one of the few complexes to offer both a Q-Lock and a BTX Shadow. Marshall says they tend to use to Q-Lock on straight lock-ups, and the BTX on projects that require more sophisticated sound effects work. "As audio becomes more and more important on video projects," he says, "it's becoming increasingly important to have good engineers who really know how to use this new equipment. In fact we've had projects that use outside engineers and then use our people for the BTX or Q-Lock. We like to think our people are right on top of it."

Russian Hill Recording, in San Francisco, has made a major commitment to audio-for-video projects. Last year the studio completed their new film-to-tape transfer suite, which links a KEM K-800 16/35mm flatbed editor with video scanner to any video recorder via a Control Video Corp. "Intelligent Controller" system. The suite provides excellent positive/negative video workprints with time coding in a variety of formats: vertical interval, longitudinal, window dub, film frame numbering, film edge codes, and more. It doesn't take long for film people to get used to the video/multitrack sweetening technology, according to studio owner Jack Leahy, who commented that one local 16mm producer scored and mixed five 13 minute films in one day. Aside from major scoring and ADR projects like *The Right Stuff*, *Never Cry Wolf*, and *Maria's Lover*, a growing number of commercial and documentary producers are also turning to RHR for their post work. ■

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Circle #064 on Reader Service Card

—from page 14, *STUDIO NEWS*

Digital Processor will enable Dove and Note to record digital stereo master tapes compatible with digital compact disc format. . . . *Strawberry Jamm Studios* in West Columbia, SC, recently purchased an MCI JH-114 Multitrack Recorder with Autolocator II, Ampex AG-440-B Two-Track Recorder with Remote, three additional Urei 1176 Limiter/Compressors, and more. . . . *Pace Recording Service* of New Orleans recently made two additions to its equipment roster: A Soundcraft 32-channel console has been added to the remote truck; along with the Soundcraft comes the purchase of a 24-track Neotek console to be installed in the New Pace Sound Studio which opened recently. . . . *Valley Audio* in Nashville, TN, has increased their sales staff with the addition of *Johnny Meyers*. Johnny has an extensive background as a recording engineer in midwest and southeast recording studios. . . . Valley Audio also recently hired *Miki Harrison* as their new purchasing agent. Miki, whose name should be familiar to many in the professional audio industry, brings many years of experience and vast knowledge to this position and Valley Audio. . . . *Plum Studio* of Haverhill, MA, has installed a new 24-channel Audio Arts 8-track recording console. This console boasts specifications suitable for digital tape recordings. Also added were the following: Hammond C-3 with Leslie, Lexicon Prime Time digital delay and Symetric compression. . . . *Polymusic Recording Studios Inc.* of Birmingham, AL, reopened its doors after three months of remodeling and

reworking on its existing facility. The updated facility now contains a new Trident Series 70 28x24 console, an Ampex MM 1200 24-track machine, a Synclavier Music System with music printing option, and a post-production room, just to name a few. . . . *Reciprocal Recordings* of Seattle opened the doors to a new 8-track facility. It features Otari and Revox recorders, as well as a Tascam M-50 board and a full complement of outboard gear. . . . *Rainbow Sound Studios* of Hayward, CA, has added *Doug Dorrity* to its newly formed sales and promotions department. . . . *Kenny Rogers' Lion Share Recording Studio* in L.A. purchased a new Mitsubishi X-800 32-channel digital multitrack recorder. . . . *Crystal City Tape Duplicators* of Huntington, NY, acquired two new Otari master recorders to compliment their Otari DP 7500 bin loop duplication system. An MTR-12 quarter inch two-track and a MTR-10 half-inch four-track have been added to help keep the facility state-of-the-art. Other recent equipment additions include Dolby model 361 noise reduction units; a pair of JBL 4411 reference monitors; a new cassette packaging system; and an Otari model DP 1610 quality control monitor. . . . *Spectrum Recording Studio, Inc.* of Waldwick, New Jersey had its grand opening in January. Owned and operated by *Nan Polanski* and *Michael Zavoski*, the 8-track studio is equipped with a custom built TMS Studiomixer recording console, Tascam 38, Ursa Majors 8x32, and a full complement of outboard equipment. There is also a staff of composers and writers that specialize in jingles and commercials. ■

—from page 58, *AUDIOFILE*

"presence" is merely an artifact. Actually, in steady state frequency response measurements (which, as you know, I consider of only modest value) many of the better MC's are easily as flat as the MF's. Using FFT analysis, the better MC's are *much* flatter out to 50 kHz to 100 kHz than almost all MF's.

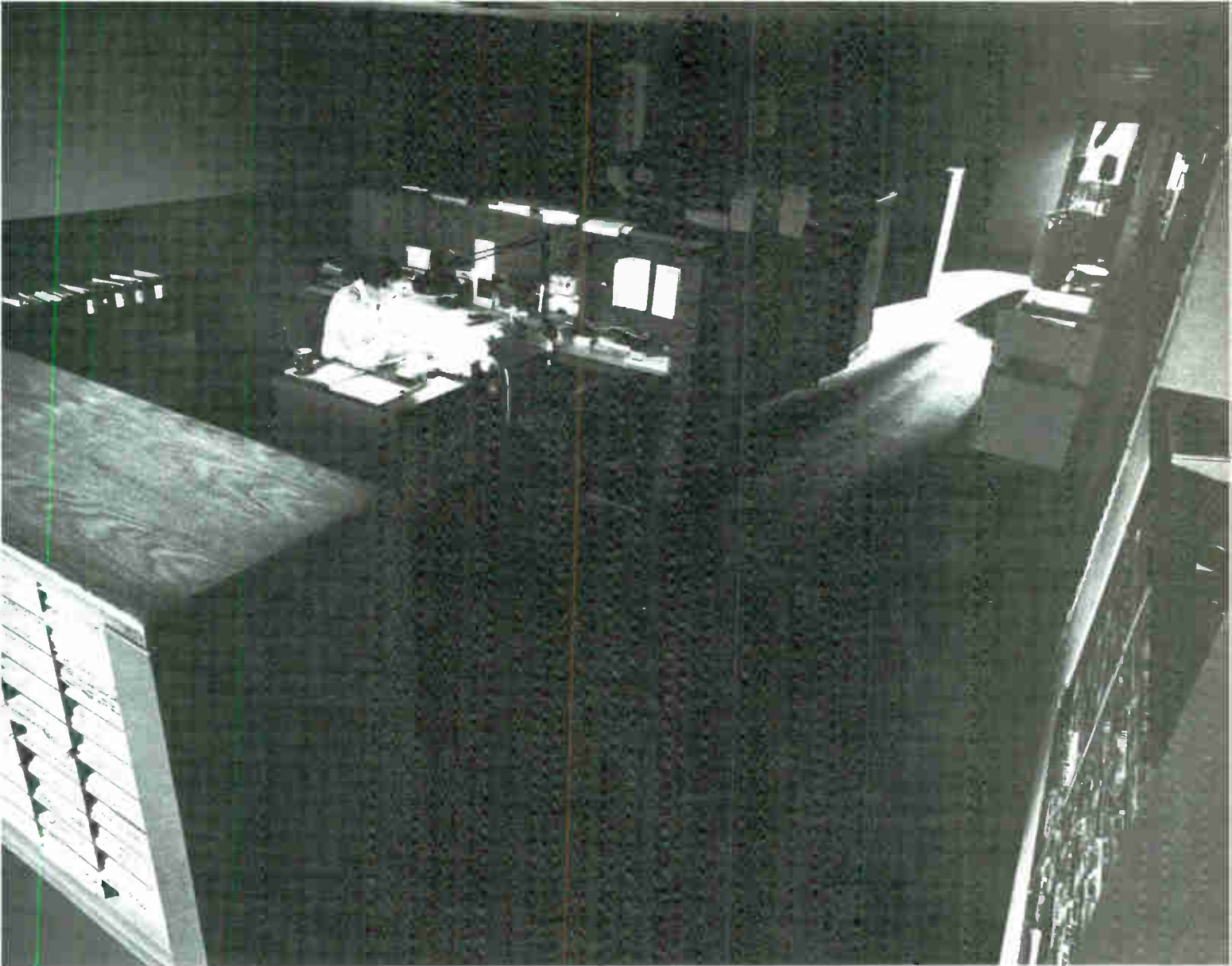
There are other sonic advantages of good MC cartridges. One is the fact that, because it represents a low source impedance, it is insensitive to preamp input capacitance effects in the high frequencies which tend to drive some moving field cartridges crazy. Moving coils do not necessarily perform optimally into a standard 47k ohm input load. Indeed, sensitive users of moving coil cartridges can optimize the performance of their cartridges by varying the input load, generally in the range of 400 ohms down to around 10 ohms. This loading electromechanically damps the MC generator, measurably and audibly reducing distortion, and improving tracking. Moving field cartridges are much less amenable to "performance tuning", other than alterations in high frequency response (not distortion) through varying load capacitance and resistance (only above about 20k ohms). The price

you pay, however, for the MC's low inductance virtue is low output voltage. In almost all instances an additional stage of preamplification (a pre-preamp or "head amp") is required. This adds an additional \$200 to \$900 to the already steep price of the MC cartridge. However, thus equipped with adequate voltage gain, the user can now optimize the sonic performance of his moving coil cartridge to an almost astonishing degree of accuracy.

The current state of very high performance of some cartridges has, therefore, been the result of five major elements.

1. Optimized stylus tip geometry
2. Very light, rigid cantilevers constructed of sometimes exotic materials.
3. Low inductance generator elements
4. Availability of low noise, high speed, gain stages
5. Consumer willingness to spend the money to justify the new product development.

What do music-loving audiophiles hear that is special in today's best equipment? Next month we will look at how certain sound qualities are perceived, and, moreover, how these perceptions may be communicated. ■



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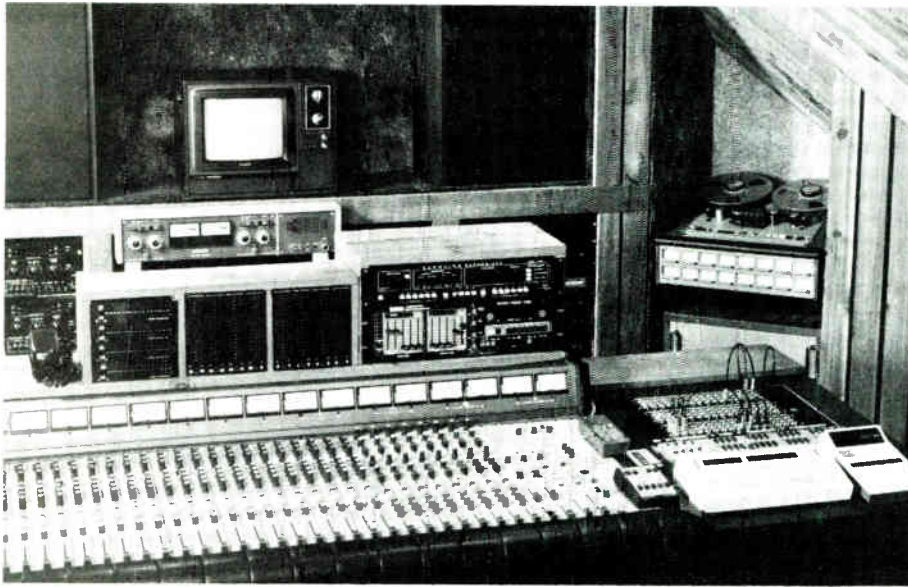
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—from page VS22, *Morningstar* ed Telestai, when they became involved in producing a record of the drama's music.

Soon after they began recording and producing projects with local artists. Eventually, they realized it was time to get their own audio studio. According to Joel, "the economics motivated us into some kind of studio on our own."

They acquired a large garage in a somewhat residential area of the city, where the brothers, along with two additional partners, designed and built Gracewood Recording Studio. Originally a 16-track complex, it was ex-

The facility's versatile Fairlight system and Linn drum machine are synchronized to both VTR and multitrack recorder for fast, flexible scoring to picture.



Audio control room at Morningstar Video, Columbus, Ohio.

panded to 30 tracks when the Nagys made the jump into video.

The audio studio is still located in the original building, which has a bi-level arrangement with the studio on the main floor and the control room upstairs.

In 1981, both knew the transition to video was essential. They folded the assets of their original partnership and sold that portion of Gracewood to the industrial company which is now the principle owner of Morning Star.

"At the time we first became interested in video, we contemplated the idea of keeping the studio as a separate investment," explains Joel. "But fairly early on, we realized we still needed the basic design approach we'd taken, in terms of the equipment. We would have been going out and buying a lot of the same gear, at much higher prices. So we thought, why re-invent the wheel?"

The audio studio was upgraded to meet the needs of video production, and a video production suite and offices were constructed in a separate building about a mile away.

So how, you ask, can they do their production in two separate facilities? It's possible. All you have to do is to get the equipment talking to each other on the telephone, with the help, of course, of a bunch of computers.

The computers are the heart of Morning Star's operation. The main computer is a Fortunes System; a 16 disk, multi-user system. The company runs a 3 CPU network with a total of 90 megabytes on line, in three sites con-

nected by telephone.

"We operate this," says Joel, "with a Bell Labs UNIX. That's the operating system that the computer uses and it had particular interest to us because it's very powerful and very well documented. It's very flexible in regards to input-output and it interfaces with outboard pieces of equipment very readily. We're very interested in interfacing it with everything we can."

In the audio studio, the two Tascam 24 channel boards, the two 16-track Tascam decks and the Studer 2-track mastering machines are all linked together by means of the Audio Kinetics Q-Lock. The instruments, such as the Fairlight, the Prophet V and the Linn Drum machine are linked together with sync-tone cues on the multichannel, so effectively, the Nagys have been able to get them hooked into the same time code that the audio and video equipment employ.

"Although they're not hooked up directly," explains Russ, "you can set the cue tones as such on the tape, so that the instruments respond to the same commands as the machines. The instruments cannot read time code, but they *can* respond to sync tones which are on the time coded audio or video tape."

"We haven't figured out," interjects Joel with a laugh, "how to interface a grand piano yet!"

The Nagys have also made great strides at capturing the best possible audio and video in the field, in a way that previously would have been too expensive to be cost-efficient.

On a recent video shoot of a live music concert, they used three cameras and four video tape decks. By running multi-camera film style and recording four different outputs, they are able to capture not only what each camera sees, but what the switcher (or director) delegates. In essence, it gets back to the idea of live television production, but still preserves everything that was filmed and allows for changes in the master later on.

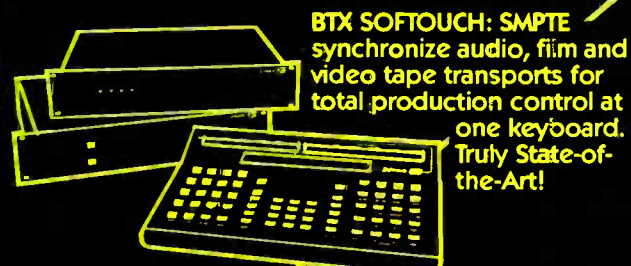
"We want the best of both worlds. To keep the cost down, we want to get as much as we can get at the time we shoot, but we also want to fix it if it doesn't come out right."

The Nagys have also experimented with recording PCM digital audio while shooting in the field. "We're still working on it," according to Russ, "because so far, we haven't got the degree of confidence with it that we're used to with analog."

"Film audio has always been done with Nagra crystal sync tones," adds Joel. "It's very good but it's also

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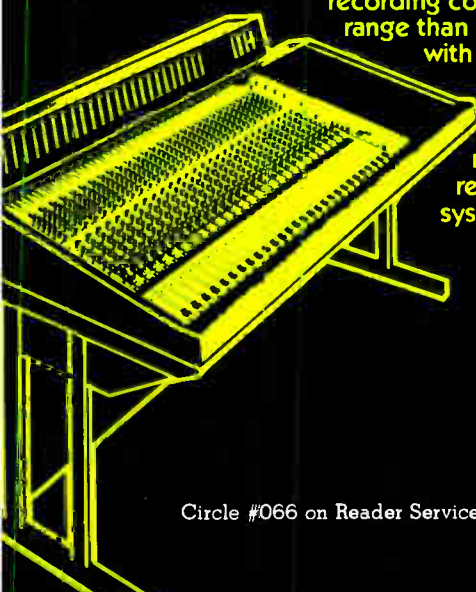
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—from page VS30, Morningstar

very expensive. We use a converter to transfer the digital audio to a Beta industrial tape. The digital audio is put on a video tape in the field with time code to record it initially. Then we bring it back here and without any loss in generations, we're taking digital field audio and syncing it to the video product itself. Then, if it needs sweetening or to be mixed with any other audio, it can be done."

As stated earlier, all this is best

appreciated when it comes time to edit and assemble a program. By using the technology that allows all the equipment to interface, the Nagys have developed a method of video and audio production which can save thousands of man-hours and as many dollars.

"We went ahead and invested in computerized editing equipment, because it generates an edit decision list, which is a floppy disc-based (or printed) list of all the editing decisions

you've made, the source video and source audio you've employed. So you can cut at precisely the point to which it was taken. And by entering that disk file into the system, you can automatically rebuild the program and be able to change the appropriate audio and video tapes at the appropriate points.

"In essence, it's very similar to word processing. You don't rewrite the letter, you simply make a few judicious changes and you print it out again. It's the same thing here with audio and video. So, if the customer comes back with some minor changes or additions, it doesn't cost him very much or take us very long to make it up again."

The editing system is by CMX and is a free standing computer. It, along with the others, can operate on its own or in conjunction with the main computer.

"The essence of what we're doing," says Joel, "is to tie in all the computer bases and pieces of hardware, like the editor, the Audio Kinetics, the Fairlight, etc., to interface with the main system which is the Fortune Systems computer.

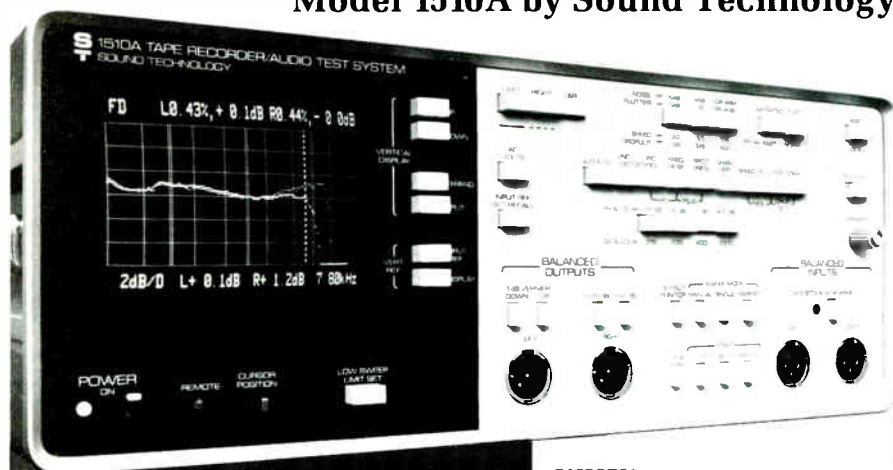
Between the time code and the sync-tone cues, the Nagys keep finding ways to exchange data within the devices and cause them to share their information, as well as operate synchronously.

The Nagy brothers admit they've had a great deal of help from several manufacturers in their quest for advanced audio-video automation. "Audio Kinetics, Fairlight, Dubner, CMX. All of these manufacturers went into the sale of their equipment to use with the understanding that all of them would cooperate in the development of interface software. All of us have the appropriate hardware, but not all of us have the appropriate software to work with a main-frame computer. We've been working with all of them on an ongoing basis in the development area so that we can tie a link between all the machines."

"The name of the game," concludes Russ, "is not so much control of data, but rather, data transfer. You spend all this time setting levels and making decisions and that's the stuff you go on when a customer comes in. And when you've cleared the board, it becomes history. If you can save all that thinking and all that decision making time and then make it reproducible time and time again, you can now offer the video client something he couldn't get before: quick, economical, update repeatability."

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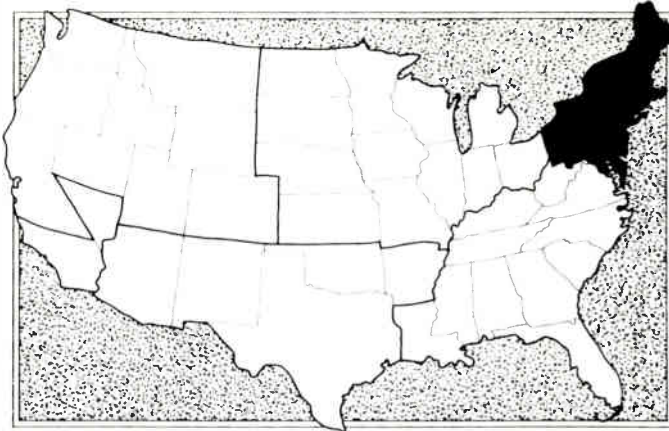
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VIDEO PRODUCTION AND POST PRODUCTION FACILITIES



The following studios span the spectrum from audio recording studios with basic video interfacing equipment to full video production centers with audio sweetening capabilities.

As this area is in a dynamic growth and update period, we encourage readers to contact the facilities for specifics.

Please note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

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A & G VIDEO
VPF, OLVP, VPP/E
245 E. 84th St., New York, NY 10028
(212) 288-3883
Owner: Arnold Mintz
Manager: Chip Ruhnke

AMERICAN VIDEO CHANNELS, INC.
VPF, OLVP, VPP/E, APPV
321 W. 44th St., New York, NY 10036
(212) 765-6324
Owner: Jack Allalouf, Liv Hinkley, Yair Tropen
Manager: John Middleton

AUDIO INNOVATORS, INC.
APPV
216 Blvd. of the Allies, Pittsburgh, PA 15222
(412) 471-6220
Owner: Norman J. Cleary
Manager: Kim Bondi

AUDIO RECORDING TECHNOLOGY INSTITUTE
APPV
756 Main St., Farmingdale, NY 11735
(516) 694-6036
Owner: Bob Lessick

AUDIO VIDEO PRODUCTIONS
VPF, OLVP, VPP/E
P.O. Box 6287, Lawrenceville, NJ 08648
(609) 882-5570
Owner: Mel Obst
Manager: Manny Obst

AURA SONIC MOBILE
OLVP, APPV
140-02 Poplar Ave., Flushing, NY 11355
(212) 886-6500
Owner: ASL Corporation
Manager: Steven Remote

BAYSIDE SOUND
OLVP
P.O. Box 129, Bayside, NY 11361
(212) 225-4292
Owner: Bayside Sound Recording Studios Inc.
Manager: David Ena

BEARSWAMP STUDIOS
APPV
83 Cherry Lane, Macungie, PA 18062
(215) 398-1492 or 776-0720
Owner: Clark Ferguson
Manager: Dan Ross, Ross Media Services

L. BRODY VIDEO PRODUCTIONS INC
VPF, OLVP, VPP/E, APPV
1400 Mill Creek Rd., Gladwyne, PA 19035
(215) 649-6200
Owner: Louis Brody
Manager: Louis Brody

BURNT TOAST PRODUCTIONS
VPF, OLVP, VPP/E, APPV
77 Huron Ave., Cambridge, MA 02138
(617) 876-5678
Owner: David Titus
Manager: David Titus

C & C STUDIOS
Audio/Video Specialties
VPF, OLVP, VPP/E, APPV
R.D. #1, Box 581-A, Glassboro, NJ 08028
(609) 881-7645
Owner: Edward Candelora, Jr.
Manager: Terri Candelora

CAROB VIDEO
VPP/E, APPV
250 West 57th St., New York, NY 10019
(212) 957-9525
Owner: Carolyn Everett
Manager: Hannah Greenberg

CCR VIDEO CORPORATION
VPF, OLVP, VPP/E
135 East 55th St., New York, NY 10022
(212) 753-7431
Owner: Public Stock
Manager: Rich Kearney, Dir. of Sales

CELEBRATION RECORDING, INC
APPV
2 West 45th St., New York, NY 10036
(212) 575-9095
Owner: MZH&F Inc.
Manager: Jack Zimmerman, Mark Hood, Chief Engineer
EQUIPMENT
Synchronizer: Audio-Kinetics Q Lock 3 10 2
VCRs: JVC CR82500, JVC CP5000V
Audio Recorders: Studer, 3M 24 tracks, 4 tracks, 2 tracks, monos
Audio Mixers: Harrison 3624, Harrison 3232
Other major equipment: Lexicon 224X, Prime Time, EMT 1 and 3 track Magna Tech dubber (45min)
Rates: \$225/hr & \$50/hr SMPTE sync to cassette
Direction: Celebration Recording is owned and operated by MZH and F Inc. - a music production company with 35 years experience writing and producing music for television and radio commercials, made for TV, feature release and educational films

and videotapes, and corporate presentations. Daylight hours are booked with pre- and post-scoring of commercials, both in-house and for other production firms, album work occupies the evenings and weekends. Credits include hundreds of commercials for every major agency and many gold albums. 48 track audio lock-up available.

CELEBRATION RECORDING, INC. New York, NY



CENTURY III TELEPRODUCTIONS
VPF, OLVP, VPP/E
651 Beacon St., Boston, MA 02115
(617) 267-6400
EQUIPMENT
VTRs: NEC TT-7000, RCA TH 50, RCA TR-800, RCA TR-600 A
VCRs: Sony 2860A, BVU-800's
Switchers: Grass Valley
Cameras: RCA TKP-46, Arrillex 35 BL-2 (2) Ikegami 357-A, HL-79D
Audio Recorders: MCI
Audio Mixers: Soundcraft 24 track
Other major equipment: NEC/DME digital video effects system, CMX 340 editing system
Rates: Competitive
Direction: Ed Bullman, Lou LaMont, Colin McLaren, three national award winning commercial directors. (Clio awards, etc.)

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 B. Sales/Marketing
 C. Producer
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 E. Technician
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 G. Student
 H. Musician/Performer
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 2. Male
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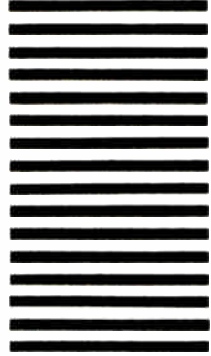
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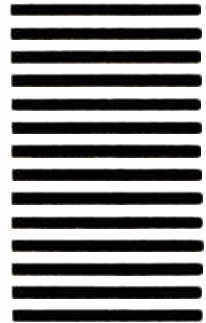
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| <input type="checkbox"/> Video Prod. | <input type="checkbox"/> Tape Duplication |
| <input type="checkbox"/> Post Prod. | <input type="checkbox"/> Music Retailer |
| <input type="checkbox"/> Broadcast | <input type="checkbox"/> Audio Retailer |
| <input type="checkbox"/> Sound Reinforcement | <input type="checkbox"/> Video Retailer |
| <input type="checkbox"/> Contractor/Installer | <input type="checkbox"/> Equipment Manufacturer |
| <input type="checkbox"/> Studio Design | <input type="checkbox"/> Manufacturer's Representative |
| <input type="checkbox"/> Mastering | <input type="checkbox"/> School |
| | <input type="checkbox"/> Other _____ |

NEED MORE INFORMATION?

MIX READER'S INQUIRY SERVICE. ISSUE: APRIL 1984. EXPIRES: AUGUST 1, 1984.

Name _____ Phone _____
 Company _____ Title _____
 Address _____
 City _____ State _____ Zip _____

PLEASE CIRCLE AN ENTRY FOR EACH CATEGORY:

- 1. Type of Firm:**
 1. Recording Studio
 2. Sound Reinforcement
 3. Equipment Retailer
 4. Equipment Mfg
 5. Record/Tape Processing
 6. Video/Broadcast
 7. Recording/Music School
 8. Other
- 2. Job Function:**
 A. Owner/Manager
 B. Sales/Marketing
 C. Producer
 D. Engineer
 E. Technician
 F. Consultant
 G. Student
 H. Musician/Performer
- 3. Sex:**
 1. Female
 2. Male
- 4. No. of Years in Industry:**
 A. Less than 1
 B. 1-3
- 5. Trade Shows You Attend:**
 1. AES
 2. NAB
 3. NAMM
 4. CES
 5. SMPTE
 6. SPARS
 7. PEPS
- 6. This Inquiry Is For:**
 A. Immediate Purchase
 B. Files
- 7. Purchasing Authority:**
 1. Recommend
 2. Specify
 3. Approve
- 8. Where did you get this copy of MIX?**
 A. Subscription
 B. Recording Studio/Prodn. Facility
 C. Newsstand
 D. Audio/Video Retailer
 E. Other

Check each advertisement or editorial piece for corresponding number and circle below (Maximum 20 items):

001	021	041	061	081	101	121	141	161	181
002	022	042	062	082	102	122	142	162	182
003	023	043	063	083	103	123	143	163	183
004	024	044	064	084	104	124	144	164	184
005	025	045	065	085	105	125	145	165	185

006	026	046	066	086	106	126	146	166	186
007	027	047	067	087	107	127	147	167	187
008	028	048	068	088	108	128	148	168	188
009	029	049	069	089	109	129	149	169	189
010	030	050	070	090	110	130	150	170	190

011	031	051	071	091	111	131	151	171	191
012	032	052	072	092	112	132	152	172	192
013	033	053	073	093	113	133	153	173	193
014	034	054	074	094	114	134	154	174	194
015	035	055	075	095	115	135	155	175	195

016	036	056	076	096	116	136	156	176	196
017	037	057	077	097	117	137	157	177	197
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Mix Magazine
P.O. Box 1960
Clinton, Iowa 52735



EQUIPMENT

VTRs NEC TT-7000, RCA TH-50 RCA TR-800, RCA TR-600
 A
 VCRs: Sony 2860A, BVU-800's
 Switchers: Grass Valley
 Cameras: RCA TKP 46, Arriflex 35 BL-2 (2) Ikegami 357-A, HL-790
 Audio Recorders: MCI
 Audio Mixers: Soundcraft 24 track
 Other major equipment: NEC/DME digital video effects system, CMX 340 editing system
 Rates: Competitive
 Direction: Ed Buffman, Lou LaMont, Colin McLaren three national award winning commercial directors (Clio awards etc.)

CHESTNUT SOUND AUDIO VIDEO PRODUCTIONS

VPF, OLVP, VPP/E, APPV
 1824 Chestnut St., Philadelphia, PA 19103
 (215) 568-5797
 Owner: Joe Alfonsi, President
 Manager: Joe Alfonsi

C.L.O.S. VIDEO ASSOCIATES INC.

OLVP, VPP/E
 165 Park Ave., Rutherford, NJ 07070
 (201) 935-0900
 Owner: Frank O'Connell
 Manager: Bob Schaffner

COAST COMMUNICATIONS, INC.

APPV
 Suite 32 Independence Mall, Wilmington, DE 19803
 (302) 654-2713
 Owner: Mitchell E. Hill
 Manager: Richard Miles

COLT HELICOPTER, LTD.

OLVP
 155 W. 18th St., New York, NY 10011
 (212) 929-1156
 Owner: Tony Foresta, Kay Armstrong
 Manager: Barbara Olsen

CORELLI/JACOBS RECORDING, INC.

APPV
 25 West 45th St., New York, NY
 (212) 382-0220
 Owner: Andrew M. Jacobs
 Manager: John Miller

CUSTOM SERVICES

VPF
 6 Touraine Ave., Hull, MA 02045
 (617) 925-1055
 Owner: Jean Paul Gauthier
 Manager: Lisa Berzen

DEVLIN PRODUCTIONS

VPF, OLVP, VPP/E, APPV
 150 West 55th St., New York, NY 10019
 (212) 582-5572
 Owner: Sandra Devlin, Contact: John Krans, Donna Shavelson

DIMENSION SOUND STUDIOS

APPV
 368 Centre St., Jamaica Plain, MA 02130
 (617) 522-3100
 Owner: Thom Foley, Dave Hill
 Manager: Thom Foley

DCA PRODUCTIONS

VPF
 5202 River Rd., Washington, DC 20016
 (301) 654-2600
 Owner: Tait Broadcasting
 Manager: Chris Bartch

DON CASALE RECORDING STUDIOS, INC.

APPV
 377 Plainfield St., Westbury, L.I., NY 11590
 (516) 333-7898
 Owner: Don Casale
 Manager: Don Casale

EAGLE VISION, INC.

VPF, OLVP, VPP/E, APPV
 P.O. Box 3347, 50 Wardwell St., Stamford, CT 06902
 (203) 359-8777
 Owner: Mike Macari, Jr., Rocky Proqano
 Manager: Mike Macari, Jr., Rocky Proqano

EAST COAST RECORDING & VIDEO PRODUCTIONS

VPF
 1509 Jarrett Place, Bronx, NY 10461
 (212) 409-4900
 Owner: Tom McDonnell
 Manager: Victor Vanzo Bruce Alcott

EASTERN SOUND & VIDEO

OLVP, APPV
 11 Messina Ave., Methuen, MA 01844
 (617) 685-1832
 Owner: Pat Costa
 Manager: Jack Pinaro
EQUIPMENT
 Synchronizer: BTX
 VTRs JVC
 VCRs: Panasonic JVC
 Switchers: Panasonic
 Cameras: KY-1900's (3), JVC
 Audio Recorders: Ampex ATR 1200-24T
 Audio Mixers: Syncon 28x24
 Other major equipment: Full 24 track audio facility
 Rates: Negotiable
 Direction: Eastern Sound & Video specializes in on-location video production as well as music videos. Our facilities not only include a multi-camera video production van, but a full in-house 24 channel sound studio.

EASTMAN VIDEO PRODUCTIONS

175 Bunker Hill Rd., Auburn, NH 03032
 (603) 483-2662
 Owner: Tom Bartlett
 Manager: Tom Bartlett

EDITEL NEW YORK

VPP/E, APPV
 222 E. 44th St., New York, NY 10017
 (212) 867-4600
 Owner: Bell & Howell/Columbia Pictures
 Manager: Dan Rosen, President

E.J. STEWART, INC.

VPP/E, OLVP, VPP/E, APPV
 525 Mildred Ave., Primos, PA 19018
 (215) 626-6500; (212) 288-0525
 Owner: Hal Lapman, Eric Address, Dave Wiggins
 Manager: Bob Momyer

ESPN

VPF, VPP/E
 ESPN Plaza, Bristol, CN 06010
 (203) 584-8477
 Owner: Getty Oil Company
 Manager: Carl Peterson, Mgr. Remote Facilities Leasing

FAIRVIEW VIDEO INC.

VPF, OLVP, VPP/E
 2491 W. Main St., Jeffersonville, PA 19403
 (215) 630-0500
 Owner: Fred E. Downs Jr.
 Manager: Steve Moss

FAMA II PRODUCTIONS

VPF, OLVP, VPP/E, APPV
 2750 Richmond Terr., Staten Island, NY 10303
 (212) 273-1780
 Owner: John Fama
 Manager: Judy Olivero

FEDCO AUDIO LABS

OLVP
 60 Manning St., Providence, RI 02906
 (401) 272-3157
 Owner: Lyle Fain
 Manager: Jeff Eustis

FLITE THREE RECORDINGS, LTD.

VPF, OLVP, VPP/E, APPV
 1130 E. Cold Spring Lane, Baltimore, MD 21239
 (301) 532-7500
 Owner: Frank Aya (President)
 Manager: Frank Aya

FLYING TIGER COMMUNICATIONS, INC.

VPF, OLVP
 155 W. 18th St., New York, NY 10011
 (212) 929-1156
 Owner: Kay Armstrong, Tony Foresta
 Manager: Barbara Olsen

FRED/ALAN, INC.

VPF
 870 Seventh Ave. 28th Floor, New York, NY 10019
 (212) 586-6333
 Owner: Fred Seibert/Alan Goodman
 Manager: Tom Pomposello, Senior Music/Video Producer

GREEN MOUNTAIN VIDEO & FILM

VPF, OLVP, VPP/E
 27 Goose Ct., Burlington, VT 05401
 (802) 864-5124
 Owner: Anthony V. Villan, Jr.
 Manager: Ralph Ackerman
 Rates: By project
 Direction: Green Mountain Video specializes in producing music videos and product for the music video cable market. Our rock video for group, 1-800 was one of only fifty videos selected by Billboard Magazine to be showcased at their 5th International Video Music Conference. Our director, Ralph Ackerman, has twenty years of film experience and has won several film awards. Script writing is a specialization. We have a New York office for customer convenience.

GRENADIER

VPF, APPV
 10 Parkwood Ave., Rochester, NY 14620
 (716) 442-6209; 275-2942
 Owner: J. Greene
 Manager: T. Greene

HALLMARK COMM

VPF, OLVP, VPP/E, APPV
 51-53 New Plant Ct., Owing Mills, MD 21117
 (301) 363-4500
 Owner: Max Brecher
 Manager: Phil Brecher

HI-FIVE AUDIO/VIDEO STUDIOS

VPF, OLVP, VPP/E, APPV
 377 Park Ave. So., New York, NY 10016
 (212) 684-3766
 Owner: Mark (Moogy) Klingman
 Manager: G. Parker

HOUSE OF MUSIC, INC.

VPF, OLVP, VPP/E, APPV
 1400 Pleasant Valley Way, West Orange, NJ 07052
 (201) 736-3062
 Owner: Charles Conrad
 Manager: Irene Conrad/Gary Rosen

HOWARD SCHWARTZ RECORDING

APPV
 420 Lexington Ave., New York, NY 10170
 (212) 687-4180
 Owner: Howard Schwartz
 Manager: M. Laskow, B. Levy

EQUIPMENT

Synchronizer: ECCO MQS 100A
 VTRs NEC TT7000
 VCRs: JVC 8250
 Audio Recorders: MCI JH114 1108
 Audio Mixers: MCI 556C-538C
 Other major equipment: Events, port delegation, audio relay, code time base correction and conversion, full jam sync and all code formats

IMAGE PRODUCTIONS, INC.

VPF, OLVP, VPP/E
 50 Water St., So. Norwalk, CT 06854
 (203) 853-3486
 Owner: Francis T. Cornwall, President
 Manager: Kenneth W. Collett, V.P.

INTERCONTINENTAL TELEVIDEO INC.

VPF, VPP/E
 13 West 36th St., New York, NY 10018
 (212) 947-9097
 Owner: Gerald Citron
 Manager: Robin Reeves

INTERFACE VIDEO

VPF, OLVP, VPP/E, APPV
 1333 New Hampshire Ave., N.W., Washington, DC 20036
 (201) 861-0500
 Owner: T. Angell

INTERNATIONAL PRODUCTION CENTER

VPF, OLVP, VPP/E
 514 West 57th St., New York, NY 10019
 (212) 582-6530
 Owner: MPC'S Video Industries, Inc.
 Manager: J.T. Ottens

JHANA SOUND PRODUCTIONS
APPV
 Walnut Tree Hill Rd., Sandyhook, CN 06482
 (203) 426-0307
 Owner: Jack Hanna
 Manager: Jack Leonard

JSL VIDEO SERVICES
VPF, VPP/E, APPV
 25 West 45th St., New York, NY 10036
 (212) JSL-5082
 Owner: Walter Leller (President)
 Manager: Art Walker (advertising), Michael Carney, (Mgr. of operations)

KAMPO CULTURAL CENTER
VPF, APPV
 31 Bond St., New York, NY 10012
 (212) 228-3063
 Owner: Hiroshi Harada
 Manager: Tom Toeda

KANBAN INTERNATIONAL
APPV
 6 West Ave., Suite 1E, Larchmont, NY 10538
 (914) 834-3304, (914) 833-0482
 Owner: Al Craven
 Manager: John Leitch

LEGALVISION, INC.
VPF, OLVP, VPP/E, APPV
 146 W. 46th St., Suite 3, New York, NY 10036
 (212) 302-0092
 Owner: LegalVision Inc.
 Manager: Bruce Coltin, President, Mitchell Hammer

LE MOBILE
APPV
 211 W. 56th St. Ste. 20-6, New York, NY 10019
 (212) 265-1979
 Owner: Guy Charbonneau
 Manager: Bookings Abe Hosh

LE MOBILE
 New York, NY



LION & FOX RECORDING INC.
APPV
 1905 Fairview Ave. N.E., Washington, DC 20002
 (202) 832-7883
 Owner: Hal Lion, Sally Lion, Jim Fox
 Manager: Jim Fox

LONG VIEW FARM
VPF, OLVP, VPP/E, APPV
 Stoddard Road, North Brookfield, MA 01535
 (617) 867-7662 or (800) 225-9055

Owner: Gil Markle
 Manager: Andrea Marchand
EQUIPMENT
 Synchronizer: BTX Shaddow/Cypher
 VCRs: EVU 800's, JVC
 Switchers: Crosspoint Latch & Dual T B C
 Cameras: Ikegami, JVC
 Audio Recorders: Studer, Otari, MCI
 Audio Mixers: MCI
 Other major equipment: Sound Stage built for Rolling Stones
 Fully lit, with catwalks and elevated dolly ways for cameras. Accommodates audience of 350
 Direction: Ideal for rock concert sweetening, film scoring, etc.
 Luxury live-in accommodations and full support staff. Studio musicians and arrangers on premises



LONG VIEW FARM
 North Brookfield, MA



LONG VIEW FARM
 North Brookfield, MA

LRP VIDEO
VPF, OLVP, VPP/E
 3 Dag Hammarskjold Plaza, New York, NY 10017
 (212) 759-0822
 Owner: Lee Rothberg
 Manager: Mitchel Brill, Director of Sales

MANHATTAN TRANSFER/EDIT
VPP/E
 545 Fifth Ave., New York, NY 10017
 (212) 687-4000
 Owner: Howie Burch
 Manager: JoAnn Fahrer

MASTER SOUND PRODUCTIONS, INC.
VPP/E, APPV
 921 Hempstead Tpke., Franklin Sq.,
 Long Island, NY 11010
 (516) 354-3374
 Owner: Eeri Rizzi, Maxine Chrein
 Manager: Maxine Chrein

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1" VTR To 1/2" 4 trk "Audio Relay"

Music Scoring • Voice Over • Dialogue Replacement • Sound Repair • Post Sync • Time Coding
 48 trk, 24 trk, 2 trk Studer's • Limiters, Compressors, Filters • 30 ips 15 ips • Stereo/Mono/Dolby • 5 Machine SMPTE Lock-Up

VT AUDIO FOR VIDEO
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VIDEO TRACKS

(212) 397-8992 231 West 58th St., N.Y., N.Y. 10019

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MATRIX VIDEO
VPF, OLVP, VPP/E, APPV
 727 Eleventh Ave., New York, NY 10019
 (212) 265-8500
 Owner: Richard Sens, President, Martin Begley, Exec. V.P.
 Manager: Maury Beaumont, V.P. Operations

MINOT SOUND
APPV
 19 South Broadway, White Plains, NY 10601
 (212) 828-1216, (914) 428-8080
 Owner: Ron Carran
 Manager: Thom Cimillo

JON MILLER PRODUCTION STUDIOS
VPF, OLVP, VPP/E, APPV
 7249 Airport Rd., Bath, PA 18014
 (215) 837-7550
 Owner: Jon K. Miller
 Manager: Jon K. Miller

MODERN TELECOMMUNICATIONS, INC.
VPF, OLVP, VPP/E, APPV
 885 Second Ave., New York, NY 10017
 (212) 355-0510
 Owner: Robert Weisgerber
 Manager: Theodora K. Sklover

MODERN VIDEO PRODUCTIONS
VPP/E
 1818 Market St., Philadelphia, PA 19103
 (215) 569-4100
 Manager: Jean Mason III, President, Jim Burt, Sales

MRC FILMS
VPF, OLVP, VPP/E
 71 West 23rd St., New York, NY 10010
 (212) 989-1754
 Owner: Lawrence Mollot, Executive Producer

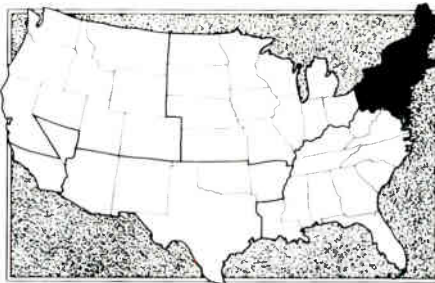
MTI
VPF, VPP/E, APPV
 885 Second Ave., New York, NY 10017
 (212) 355-0510
 Owner: Robert C. Weisgerber, President

MULTIVISION, INC.
VPF, OLVP, VPP/E, APPV
 161 Highland Ave., Needham, MA 02194
 (617) 449-5830
 Owner: Donald O'Sullivan, Jay Heard
 Manager: Jay Roewe

NEXUS PRODUCTIONS
VPP/E, APPV
 10 East 40th St., New York, NY 10016
 (212) 679-2180
 Owner: Alfred Muller, Gersh Bhargava
 Manager: Jack Shults, Gen. Mgr.

NIMBUS NINE RECORDING INC.
APPV
 1995 Broadway, New York, NY 10023
 (212) 496-7771
 Owner: Geoff Daking
EQUIPMENT
 Synchronizer: BTX 4500 SMPTE.
 VCRs: Sony U Matic JVC VHS
 Audio Recorders: MCI JH-24 Multitrack, Otari 4 track, 2 track and mono
 Audio Mixers: Trident Series 80 Console
 Other major equipment: Full 24 track recording studio
 Rates: \$225/hr
 Direction: Scoring and voice overs for numerous major national TV commercials for various advertising agencies, additional music mixing for No Nuke film "In Our Hands" for the June 12th Film Group, Zack-Job Fuiter (ABC TV) with Luther Vandross (Voice of Zack) for Elliot Lawrence Productions

OMNI PRODUCTIONS
VPF, OLVP, VPP/E, APPV
 916 S. Bodine St., Philadelphia, PA 19147
 (215) 389-5541
 Owner: Electra Briggs, Robert Wynn



NORTHEAST

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

ONOMATAPOEIA, INC.
APPV
 37 W. 57th St., Ste. 1210, New York, NY 10019
 (212) 688-3167
 Owner: Matthew Kaplowitz
 Manager: Mike Fernicolle

P & P STUDIOS, INC.
VPF, OLVP, APPV
 17 Viaduct Rd., Box 4185, Stamford, CT 06907
 (203) 327-9204
 Owner: John Fishback, Terry Puffer
 Manager: Dena Leonard

PENNY LANE STUDIOS
APPV
 1350 Ave. of the Americas, New York, NY 10019
 (212) 687-4800
 Owner: Harley Flaum
 Manager: George Staller
EQUIPMENT
 Synchronizer: Q-Lock 3.10-3.
 VCRs: JVC
 Audio Recorders: Otari 24 track, 3M-79 24 track, Ampex ATR 2 and 4 track
 Audio Mixers: Trident TSM 32/24
 Other major equipment: Comprehensive selection of outboard audio equipment
 Rates: Call for rates
 Direction: Penny Lane Studios was designed to provide music for advertising and record albums

PHANTASMAGORIA SOUND STUDIOS, INC.
APPV
 630 9th Ave., #801, New York, NY 10036
 (212) 586-4890
 Owner: Keith Robinson
 Manager: Keith Robinson

PHOENIX PHOTOGRAPHY
OLVP
 1226 West Kings Hwy., Haddon Heights, NJ 08035
 (609) 547-4610
 Owner: Thomas Crehan
 Manager: Thomas Crehan

POWER STATION RECORDING STUDIOS
APPV
 441 W. 53rd St., New York, NY 10019
 (212) 246-2900
 Owner: Bob Walters, Tony Bongiovi
 Manager: Dianna Alleyne

PRECISION VIDEO SERVICES, INC.
VPF, OLVP, VPP/E, APPV
 630 9th Ave., New York, NY 10036
 (212) 489-8800
 Manager: Bernie Barnett

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RESOLUTION

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Burlington, VT
05401-1514

Circle #071 on Reader Service Card



NORTHEAST

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

PROFESSIONAL SOUND FILM & VIDEO, INC.
APPV
136 Arlington St., Boston, MA 02116
(617) 423-0007
Owner: Vincent R. Parla
Manager: John Parla

THE RANCH RECORDING STUDIO
APPV
37 W. 20th St., Ste. 1107, New York, NY 10011
(212) 741-0784
Owner: Kathy and Andy Parks
Manager: Kathy Parks

R.B.Y. RECORDING AND VIDEO
VPF, OLVP, VPP/E, APPV
920 N. Main St., Southbury, CT 06488
(203) 264-3666
Owner: Jack Jones
Manager: Marjorie Jones

RECORD PLANT STUDIOS
APPV (Two remote trucks)
321 W. 44th St., New York, NY 10036
(212) 581-6505
Owner: Roy Szala
Manager: David Hewitt
EQUIPMENT
Audio Recorders: Ampex MM 1200 24 track, Ampex 4 track/2 track, ATR 100
Audio Mixers: API custom 44x24 Trident Series 80 48x24
Other major equipment: Westlake 2-way monitors, closed circuit video systems
Rates: Contact David Hewitt or Randi Greenstein
Direction: Services available audio for live albums, live broadcasts for television and radio, and large-scale TV and video production. Recent credits include work with MTV, National Public Radio, PBS, Tony awards, Emmys, J. Geils (live), The Rolling Stones, and a live album, film, and final-night live satellite broadcast for The Who tour.

REEVES TELETAPE
VPF, OLVP, VPP/E, APPV
304 E. 44th St., New York, NY
(212) 573-8888
Owner: Reeves Communications
Manager: Caddy Swanson, President

REGENT SOUND STUDIOS, INC.
APPV
1619 Broadway, New York, NY 10019
(212) 245-2630; 245-3100
Owner: Robert Luftin
Manager: Elissa Kline, Studio Mgr., Sandi Moroff, Gen. Mgr.
EQUIPMENT
Synchronizer: EECO MQS 100A w/UART (3), Convergence 103, BTX Shadow (2)
VTRs: Ampex VPR 2 w/Dolby (2), VPR 80
VCRs: IVC 8250 (2), 8200 (3), Sony 2860 (2)
Audio Recorders: Ampex ATR 124, ATR 116, MM1200 (5) w/PURC and Rehearse functions, ATR 104 (3), ATR 102 (6), ATR 100 (4), 440 modified mono Nagra, Studer A810, TEAC 40-4, Magnatech 16/35 mm Mag Dubber, AIWA cassette decks (5), Nakamichi cassette deck 500

Audio Mixers: MCI JH532 (2), JH528, EELA 12x4
Other major equipment: EECO Time Code Generator, Time Code Reader, Datametrics & Esse Character Generators, Conrac & Sony video monitors, programmable Autolade, Ampex Sync-Lock (2), Sierra/Hidley audio monitors, JBL 4313's & 4311's, Canton LE 900, ROR's, Auratones, Lexicon DDL's, Lexicon 224's, Audicon Plate, AKG BX-20, UREI 565 filter sets, 360 systems programmable EQ, plus standard outboard equipment
Direction: Electronic editing with or without picture and digital recording

REGENT SOUND STUDIOS, INC.
New York, NY



regent sound studios inc.

PRODUCERS VIDEO CORPORATION
VPF, OLVP, VPP/E
3700 Malden Ave., Baltimore, MD 21211
(301) 523-7520
Owner: Gordon Faulkner
Manager: David Hopper, President



RESOLUTION, INC.
Burlington, VT

RESOLUTION, INC.
VPF, OLVP, VPP/E, APPV
The Chase Mill, One Mill St., Burlington, VT 05401
(802) 862-8881
Owner: Corporation
Manager: William H. Schubart, President
EQUIPMENT
Synchronizer: BTX Shadow
VCRs: (3) BVU 800s, (1) Sony 500A 1"
Switchers: ISI 904 w/computer edit interface
Cameras: Sony BVP-330
Audio Recorders: MCI JH1114, (16 trk & 8 trk) MCI JH110 (4), Scully 280 (2)
Audio Mixers: MCI JH416, Electrodyne
Other major equipment: Harris Time Base Correction w/digital noise reduction and compression.
Rates: Please call for rates
Direction: Resolution is a full audio and video facility with expertise in music and promotional video. Our all-MCI studio links via SMPTE to video recorders. We shoot concept and performance video in broadcast quality using Sony Pro cameras and VCRs. We also offer real-time cassette duplication, custom loading Agfa tape into the best five screw housings and recording in real-time on NAD machines. Price is competitive with high speed, the quality is infinitely better.

COMPUTERIZED disc mastering



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132 N. 12th Street, Philadelphia, PA 19107 (215) 561-1794

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Camera Mart and MilabTM

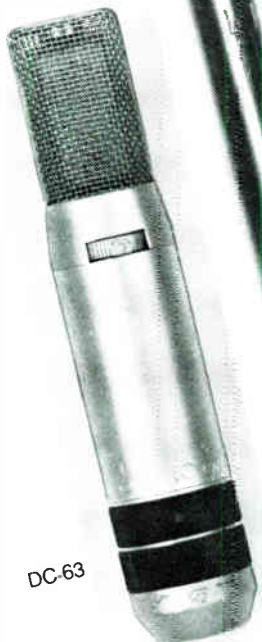
Whatever your professional needs Milab makes the right microphone at the right price. Each model is engineered with special capabilities to give you top performance and versatility in all your PA, broadcast and recording requirements. *And each is the best in its class for the money.*

LC-25



LC-25 Transformertless Cardioid:
For extraordinary purity of sound. Very low inherent noise for the most demanding studio work such as direct-to-disc or digital recording.

DC-63



DC-63 Variable Pattern:
For general studio and concert hall use, where the ultimate fidelity and ambient sound pick up is required, from close-in vocals to full orchestra and chorus.

DC-21



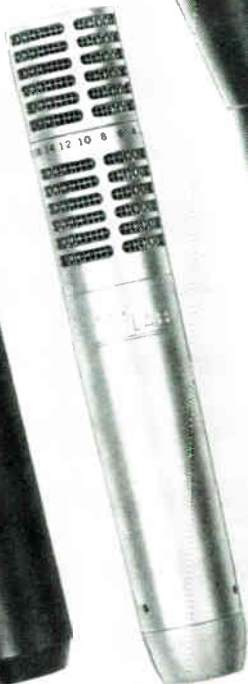
DC-21 Cardioid:
Small, rugged, lightweight. For podium, PA use, and as choir/orchestra pick up in close to long range. Good definition for strings and brass.

VM-41



VM-41 Cardioid:
For acoustic instruments, overhead percussion, cymbals, snare and brass. Close to medium range PA and ENG work.

DC-96B



DC-96B Studio Cardioid:
For all studio and line recording use. Low noise, high output. For instruments, narration or choir. Close or distant work.

XY-82

XY-82 Coincident Stereo Cardioid:
Top of the line dual cardioid stereo/mono with separate outputs. Two single membrane condenser capsules, smooth on and off-axis frequency response, two separate pre-amps, two separate output signals. Unmatched fidelity and versatility.

BM-73

BM-73 Cardioid:
For live hand held vocals, drums and amplified instruments. Built-in "pop" filter with LF roll-off. Close to medium range studio or outdoor work.

**SIMPLY THE BEST PERFORMANCE FOR THE MONEY IN
PROFESSIONAL CONDENSER MICROPHONES.**

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World Radio History

We take the time



**because we know the
ropes and we know
the problems.**

Every recording studio is different. They all have their own style and that's what drives the music industry. We at PRS realize this and that's why we take the time to get to know you and your specific needs. We start by providing a wide variety of professional products. We continue with professional studio design consultation and expert service. My name is Luke Furr and I know the ropes and the problems because I've been in the music industry for over 12 years. I've seen it from both sides: from owning a recording studio to playing in a band. I know what it's like to hunt down products and be assured of reliable service. I know what it's like for someone to take the time. And, because of this, we at PRS do just that. I want to be of help so give me a call at (617) 254-2110.

PRS

Professional Recording & Sound
1616 Soldiers Field Road
Boston, MA 02135 (617) 254-2110
Outside Massachusetts (800) 343-3001.

The GROUP FOUR COMPANIES
Professional Video Systems
Professional Recording & Sound
Video Technology Resources
The Service Group

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VS40



NORTHEAST

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

RGS VIDEO PRODUCTIONS
VPF, OLVP, VPP/E, APPV
1161 Lynda Lane, Warminster, PA 18974
(215) 343-4272
Owner: Ray Sears
Manager: Adele Mariani

RIGHT TRACK RECORDING
APPV
168 West 48th St., New York, NY 10036
(212) 944-5770
Owner: Simon Andrews
Manager: Mark Harvey

RIMYTH, INC.
VPF, OLVP, VPP/E, APPV
96 Florida Ave., Paterson, NJ 07503
(212) 687-1217, (201) 278-7582
Owner: Robert & Shirley Bass
Manager: Shirley Bass Marie Gorogone

WARREN ROSENBERG VIDEO SERVICES
VPF, OLVP, VPP/E, APPV
308 E. 79th St., New York, NY 10021
(212) 744-1111
Owner: Warren Rosenberg
Manager: Warren Rosenberg

SCHARFF COMMUNICATIONS
OLVP, APPV
1600 Broadway, Suite 503, New York, NY 10019
(212) 582-7360
Owner: Peter B. Scharff, President
Manager: Josh Weisberg, Gen. Mgr
EQUIPMENT
Synchronizer: Q Lock BTX
VCRs: Sony 341, JVC, Panasonic VHS
Audio Recorders: Ampex MM-1200 440K 4 track, Studer 2 track, Otari 8 4 & 2 track, Nakamichi cassette
Audio Mixers: Harrison MR 3, 36 in x 24 out, Yamaha RM 1608 APSI 32, Midas 32 x 16, Audio Developments 8 x 2
Other major equipment: RTS Intercom, UREI B13A speakers and amps, Mikes: Neumann, Schoeps, Sennheiser Electro Voice Shure, AKG
Rates: Call or write for price list or job estimate. Call for rental catalogue
Direction: Our video music truck has recorded 24 track audio for opera, rock, Broadway, popular and classical television productions. The versatility and flexibility of our truck allows us to adapt it to your every need because we're also New York's most comprehensive audio rental company. We'll even ship the truck to your location as we did in Jamaica and the Dominican Republic. We've recorded Sinatra, Pavarotti, Santana, and Lena Horne to name a few. Who's next?

SECRET SOUND STUDIO INC.
VPF, OLVP
147 West 24th St., New York, NY 10011
(212) 691-7674
Owner: Jack Maiken
Manager: Debra Rebhun

Servisound

SERVISOUND, INC.
New York, NY

SERVISOUND, INC.
APPV
35 W. 45th St., New York, NY 10036
(212) 921-0555
Owner: Nat Levy, Mike Shapiro
Manager: Chris Nelson

SHEFFIELD AUDIO VIDEO PRODUCTIONS
VPF, OLVP, VPP/E, APPV
13816 Sunnybrook Rd., Phoenix, MD 21131
(301) 628-7260
Owner: John Anosa
Manager: Nancy Scaqqs



SKYLABS INC.
Dover, DE

SKYLABS INC.
"The Mobile Recording Unit"
On Location Audio for Video
58 W. Tidbury Dr., Dover, DE 19901
(302) 697-6226
Owner: Bob Skye
Manager: Bob Skye
EQUIPMENT
Synchronizer: MCI Autolock/Client's choice
Audio Recorders: MCI JH-24 24 track, Ampex 2 track
Audio Mixers: Sound Workshop Series 30
Other major equipment: Video Monitor interface, 42 Audio inputs
Rates: Call or write for rates and information
Direction: Sky Labs specializes in catering to the specific requirements of each client. We tend to avoid negative superlatives like, "Can't," "Too Difficult," "Fix it in the Mix," and other lacking excuses that might leave our clients with less than a professional, high quality product. After all, if we didn't enjoy the challenge of our work, there would be no point in offering you the best.

SKYLINE STUDIOS INC.
APPV
36 W. 37th St., New York, NY 10018
(212) 594-7484
Owner: Paul Wickliffe, Lloyd Donnelly
Manager: Lloyd Donnelly

dynafex™

HAVE YOU HEARD?



Available in rack-mount or modular formats.

The Dynafex noise reduction system has grabbed a lot of attention since its introduction, mainly because it provides up to 30 db of noise reduction without the encode/decode process. Impossible you say? Then you haven't HEARD the Dynafex.

We have been receiving rave remarks from engineers all over the world. Some of these comments have been, "It REALLY does work!", or "Best single-ended system I've ever heard!", or "Every audio facility should have one." Engineers have discovered that the Dynafex can be an invaluable problem-solver and can sometimes even be a client-saver.

Noise problems are encountered every day that conventional encode/decode systems or noise gates cannot deal with. Having the capability of being used on virtually ANY audio signal, along with providing a dramatic amount of noise reduction is what makes the Dynafex a vital tool in any audio facility.

Contact your nearest professional audio dealer for more information on this totally unique noise reduction system. You owe it to yourself...and especially to your clients.

Here's what the magazine reviewers have said:

"...Performs what might be called 'sonic miracles'..."
Len Feldman, *Modern Recording & Music*

"I was most impressed with the Dynafex, and everyone I have shown it to has felt the same." Richard Elen,
Studio Sound

"Its ease of usage, versatility, and effectiveness make the Dynafex most desirable." Robert Musso *Music & Sound Output*

Current Applications:

- During recording
- On-line in radio
- Concert sound reinforcement
- Mixdown recording
- Disc Mastering
- On-line in Television
- Tape duplication
- Video/Film production
- Cable television
- Telephone lines
- Satellite communications
- Motion picture sound
- Audio sweetening
- Microwave transmission



International Distributor:
J.C. Audio Marketing
(617) 368-0508
Telex: 951546 JCAUDIO

MICMIX Audio Products, Inc.
2995 Ladybird Lane
Dallas, TX 75220
(214) 352-3811

RON SMILEY VISUAL PRODUCTIONS, INC.
VFF, OLVP, VPP/E, APPV
 1728 Cherry St., Philadelphia, PA 19103
 (215) 561-RSVP
 Owner: Ron Smiley
 Manager: Jean Richardson

SOFT FOCUS PRODUCTION
VFF, OLVP, VPP/E, APPV
 27 East 21st St., New York, NY 10010
 (212) 475-5791
 Owner: Ed Steinberg

SOUNDTRACK MUSIC/RECORDING STUDIOS
VPP/E, APPV
 77 North Washington St., Boston, MA 02114
 (617) 367-0510
 Owner: Rob Cavicchio
 Manager: Rob Cavicchio

THE SOUND SHOP
APPV
 304 E. 44th St., New York, NY 10017
 (212) 573-6777
 Owner: Reeves Communications, Inc.
 Manager: Emil Neroda, President

SPECTRUM RECORDERS, INC.
APPV
 151 S. Main St., Lanesboro, MA 01237
 (413) 499-1818
 Owner: Spectrum Recorders, Inc.
 Manager: Peter Seplow

SULLIVAN ASSOCIATES
VFF, OLVP, VPP/E, APPV
 880 Commonwealth Ave., Boston, MA 02215
 (617) 277-1710
 Owner: John Sullivan
 Manager: Jan Webster

TCS PRODUCTIONS
VFF, OLVP, VPP/E
 890 Constitution Blvd., New Kensington, PA 15068
 (800) 245-6314, (412) 361-5758 in PA
 Owner: Nelson I. Goldberg
 Manager: Heather Farrington, Prod. Coordinator

TECHNISPHERE CORPORATION
OLVP, VPP/E
 215 East 27th St., New York, NY 10016
 (212) 889-9170
 Owner: Jack N. Goldman
 Manager: Mark Brownstone

TELETIME VIDEO PRODUCTIONS
VFF, OLVP, VPP/E
 3 Grace Ave., Great Neck, NY 11725
 (516) 466-3882
 Manager: Harold Klein, Andy Ambrosio

TELETRONICS
VFF, OLVP, VPP/E, APPV
 231 East 55th St., New York, NY 10022
 (212) 355-1600
 Owner: Video Corp. of America
 Manager: Will Roth

TEL E VUE PRODUCTIONS
VFF, OLVP
 Box 217 Old Route 17, Ferndale, NY 12734
 (914) 292-5965
 Owner: Paul Gerry
 Manager: Patricia Gerry

TRANS VIDEO
VFF, VPP/E
 506 W. 57th St., New York, NY 10019
 (212) 265-4141
 Manager: Sy Yoskowitz

TULCHIN STUDIOS
VFF, OLVP, VPP/E, APPV
 240 E. 45th St., New York, NY 10017
 (212) 986-8270
 Owner: Hal Tulchin
 Manager: Nancy Finn

TVC VIDEO, INC.
VFF, OLVP, VPP/E, APPV
 225 E. 43rd St., New York, NY 10017
 (212) 599-1616
 Manager: Dan Shilon, President, Sandye Garrison, V.P. Sales & Marketing

UNITED CINE & SOUND
OLVP, APPV
 P.O. Box 403, New York, NY 10108
 (212) 247-5678
 Owner: John Cacciatore
EQUIPMENT
 Synchronizer: BTX Shadow
 Audio Recorders: MTR 90 24 track
 Audio Mixers: Neve 5116/36
 Other major equipment: PCMF 1
 Direction: Opening late June 1984, mobile audio for video on location and post-production

UNITEL VIDEO
VFF, OLVP, VPP/E
 515 West 57th St., New York, NY 10019
 (212) 265-3600
 Manager: Account Exec. Garth Gentilin, Ilene Goldberg, Jack Beebe

UPSWING PRODUCTIONS
VFF, OLVP, VPP/E, APPV
 156 Bank St. 2A, New York, NY 10014
 (212) 242-0783
 Owner: Bruce Collin, Martin Steinkler
 Manager: Mitchell Hammer

VIDEO COMMUNICATION SERVICES
OLVP, VPP/E, APPV
 208 Linden Ave., Riverton, NJ 08077
 (609) 786-1775
 Owner: Frank Siegel
 Manager: Dyan Alan

THE VIDEO EDIT
VPP/E
 1071 Avenue of the Americas, New York, NY 10018
 (212) 221-1976
 Owner: The Video People, Inc.
 Manager: Barbara DiBenedetto

VIDEOLAB
VFF, VPP/E, APPV
 77 Huron Ave., Cambridge, MA 02138
 (617) 876-5678
 Owner: S. Doyle
 Manager: David Titus

THE VIDEO TEAM, INC.
OLVP, VPP/E
 165 W. 46th St., Suite 1109, New York, NY 10036
 (212) 840-4666
 Owner: Don Blauvelt
 Manager: Felice Gittelman, Office Mgr



NORTHEAST

VIDEO WORKS
VFF, OLVP, VPP/E, APPV
 24 W. 40th St., New York, NY 10018
 (212) 869-2500
 Owner: Ken Lorber, Frank Herold, Gary Turkovich
 Manager: Carol McCoy, V.P. Operations

VIDEO VIDEO PRODUCTIONS
VFF, OLVP, VPP/E
 40 E. 21st St., New York, NY 10010
 (212) 475-4140
 Owner: Bill Hutnagle
 Manager: Rachelle Barkus

VIZWIZ, INC.
VFF, OLVP, VPP/E
 115 Dummer St., Brookline, MA 02146
 (617) 739-6400
 Owner: Peter Fasciano, Thomas Sprague
 Manager: Tony Armeim, Acct. Executive

WINDSOR TOTAL VIDEO
VFF, OLVP, VPP/E, APPV
 565 Fifth Ave., New York, NY 10017
 (212) 725-8080
 Owner: Bob Henderson, Bert Goodman
 Manager: Carl Crawford, Sales Mgr



THE WORKSHOPPE RECORDING STUDIOS INC.
 Douglaston, NY

THE WORKSHOPPE RECORDING STUDIOS INC.
APPV
 40-35 235 St., Douglaston, NY 11363
 (212) 631-1547
 Owner: Kevin Kelly
 Manager: Kevin Kelly
EQUIPMENT
 Synchronizer: BTX Shadow system
 VCRs: JVC 6650
 Audio Recorders: Otari MTR 90 II 24/16/8 MCI JH110 4/2 mono
 Audio Mixers: Sound Workshop series 40 42/24, Lortek 8 12 8
 Other major equipment: Large mike complement, musical instruments and full outboard effects
 Rates: On request
 Direction: Studio A 24/16/8 track music scoring to video tape
 Studio B Voice over to picture, sound effects, needle drops 20 minutes from Penn Station, NYC at the Douglaston LIRR station on the north shore of Long Island

Audio Sweetening, Automated Mixing

1" VTR To 1/2" 4 trk "Audio Relay"

VT AUDIO FOR VIDEO
 AT PARK SOUTH STUDIO
VIDEO TRACKS

(212) 397-8992 231 West 58th St. N.Y. N.Y. 10019

VIDEO TRACKS, INC.
 New York, NY 10019

VIDEO TRACKS, INC.
APPV
 231 W. 58th St., New York, NY 10019
 (212) 387-8992
 Owner: Craig Pitcairn

ADCO PRODUCTIONS
VPF, OLVP, VPP/E, APPV
 7101 Biscayne Blvd., Miami, FL 33138
 (305) 751-3118
 Owner: Sheer Genius Inc.
 Manager: Earl Wainwright

ADVANCED VIDEO PRODUCTION, INC.
VPF, OLVP, VPP/E, APPV
 201 North 37th St., Birmingham, AL 35222
 (205) 591-4460
 Manager: Alan Mitchell

ALLEN-MARTIN VIDEO PRODUCTIONS, INC.
VPF, OLVP, VPP/E, APPV
 9701 Taylorsville Rd., Louisville, KY 40299
 (502) 267-9658
 Owner: Ray Allen Hardy Martin
 Manager: Michael J. Gibson

ALPHA AUDIO
APPV
 2049 W. Broad St., Richmond, VA 23220
 (804) 358-3852
 Owner: Alpha Recording Corp.
 Manager: Nick Colletan
EQUIPMENT
 Synchronizer: BTX & The Boss
 VCRs: JVC, Sony
 Audio Recorders: Studer 800, Otari 90
 Audio Mixers: Sphero, Quad Eight
 Rates: \$196/hr. w/one engineer, \$216/hr. w two engineers

AMERICAN MULTIMEDIA INC
OLVP, VPP/E, APPV
 Rt. 8 Box 215A, Burlington, NC 27215
 (919) 229-5554
 Manager: Richard Clark



SOUTHEAST

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

EQUIPMENT

Synchronizer: Acous Smul
 VTRs: Ampex VPH 2/BS
 VCRs: Panasonic "4" & "2"
 Switchers: Grass Valley 300 w/2 channel DVE
 Cameras: Ikegami studio belt cameras
 Audio Recorders: Otari 24 track MTR 90, Ampex ATR 100
 Audio Mixers: Neve, Tinsol Hill Audio
 Other major equipment: Chyron Graphics
 Rates: Available on request
 Direction: Specializing in major remote productions with suspended sound system, front truss with 450 pairs multi camera one-inch recording with Grass Valley switcher and DVE, 25" wide screen projection, 24 track recording



AMERICAN MULTIMEDIA INC
 Burlington, NC

ARDENT TELEPRODUCTIONS, INC.
VPF, OLVP, VPP/E, APPV
 2000 Madison Ave., Memphis, TN 38104
 (901) 726-6553
 Manager: Joe Dyer

EQUIPMENT

Synchronizer: Unated Media, MCI
 VTRs: Hitachi 1" Type C with Slo Mo
 VCRs: JVC B200 w computer interlace
 Switchers: Grass Valley w EMEM
 Cameras: Ikegami FC 45, Hitachi SK 91 w/di xie pluribron
 Audio Recorders: MCI 24 track, MCI 2 track
 Audio Mixers: MCI w automation, Neve
 Other major equipment: Steadicam, E Flex DVE, Chyron IV, Commander II computer editor
 Rates: On request
 Direction: Broadcast, ZZ Top, "TV Dinners", Schlitz, Rocks

MPL OFFERS YOU COMPLETE VIDEO SERVICES...

Two Video Editing Suites Sony 1" C machines with slow or fast motion available, Grass Valley with E-Mem, Chyron, insert cameras and audio equalization.

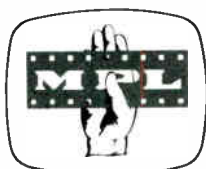
Animated Logos, Intros, Closings With our Dubner CBG II we can add excitement to your ID's, titles and promos. Send us your storyboard...there's no obligation.

Special Effects Quantel 2 Ch DPE-5000 with "Dimension" package. Autoflex shapes, perspective, Teltrack, trailing freeze, multifreeze and picture splits, all at the touch of a button.

Track Sweetening With our MCI Recorder/Player you can sweeten your tracks with the touch of a button. Stereo or Mono. SMPTE time code for frame accuracy.

Call us.
 There's no obligation.

1-800-238-2636

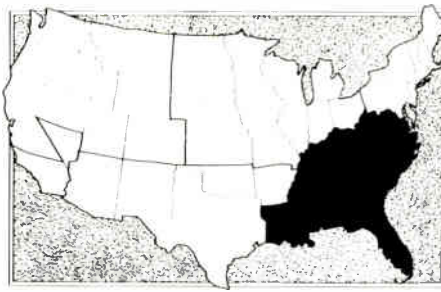


video/film post production

Motion Picture Laboratories, Inc.
 781 South Main, Memphis, TN 38101
 (901) 774-4944

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ARDENT TELEPRODUCTIONS, INC.
Memphis, TN



SOUTHEAST

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

sonnel, creativity and modern technology. We can provide producers with a wide choice of services for commercials, industrial presentations, even feature-length films. Complete film tape and music production facilities are available—just give us a call.

AUDIO-VIDEO PRODUCTIONS
VPF, OLVP, VPP/E, APPV
1821 SW 11th St., Ft. Lauderdale, FL 33312
(305) 763-7935
Owner: Berry E. Cardot
Manager: Berry E. Cardot

AUGUST RECORDING STUDIO
APPV
2136 Kings Ave., Jacksonville, FL 32207
(904) 399-8283
Owner: Wayne Fanning
Manager: Wayne Fanning

AVT TELEVISION PRODUCTIONS
VPF, OLVP
1466 Amherst Rd., Knoxville, TN 37919
(615) 584-2166
Owner: Bill Tapp, President
Manager: Russ Manning

ARTISAN RECORDERS, INC.
APPV
1421 SW 12th Ave., Pompano Beach, FL 33060
(305) 786-0660
Owner: Peter Yianilos

EQUIPMENT
Synchronizer: BTX Shogun
VTRs (3) Ampex 1" Ampex 2" Hitachi 1" portable
VCRs: 3/4" Beta, VHS and 1/4" video formats
Switchers: ISI 904
Cameras: NEC MNC 71 JVC KY1900
Audio Recorders: Sontecrat 24 track
Audio Mixers: Sound Workshop Series 40 Sound Workshop Logex 8
Other major equipment: Convergence ECS 104S editor, video color correctors, frame synchronizers, title cameras, camera boom, dbx noise reduction
Rates: Excellent—please call for a quote
Direction: Audiofonics' goal is to offer the perfect blend of per-

BALL TELEVISION GROUP, INC.
VPF, OLVP, VPP/E, APPV
2501 Hillsboro Rd., Nashville, TN 37212
(615) 292-2800
Owner: Martin A. Ball
Manager: Todd Staff

AUDIOFONICS INC.
VPF, OLVP, VPP/E, APPV
1101 Downtown Blvd., Raleigh, NC 27603
(919) 821-5614
Owner: Larry Gardner
Manager: Sally Butler Customer Service

BES TELEPRODUCTIONS, INC.
VPF, OLVP, VPP/E
6829-E Atmore Rd., Richmond, VA 23221
(804) 276-5110
Owner: Guy Spiller
Manager: Charlie Reilly



- CVS "Lightfinger Plus" editing system.
- 3M TT-8000 1" Type C VTR's.
- Hitachi HR-200-B Type C VTR.
- Sony BVU-820/BVU-800 3/4" VCR's.
- (2) 24 Track Recording Studios w/interface.
- Full field production services available.
- Triple re-entry switching and complete graphics capabilities.
- Seasoned & professional staff.

Contact—Bob Head



Henderson-Crowe Productions, Inc. 125 Simpson Street, NW / Atlanta, Ga 30313 / (404) 223-0021

BOUTWELL STUDIOS
APPV
 720-23rd St South, Birmingham, AL 35233
 (205) 251-8489
 Owner: Cecil Boutwell
 Manager: Mark Harrison

BULLET RECORDING, INC.
VPF, OLVP, VPP/E, APPV
 49 Music Square West, Nashville, TN 37203
 (615) 327-4521
 Owner: Nancy Holland
 Manager: Miles Hessiot

CHANNEL ONE VIDEO TAPE, INC.
VPF, OLVP, VPP/E
 3341 N.W. 42nd Ave., Miami, FL 33122
 (305) 592-1764; (212) 926-6391
 Owner: George Livingston, President
 Manager: Paul J. Marquie, VP & Operations Manager



COMMUNICATIONS CONCEPTS INC.
 Cape Canaveral, FL

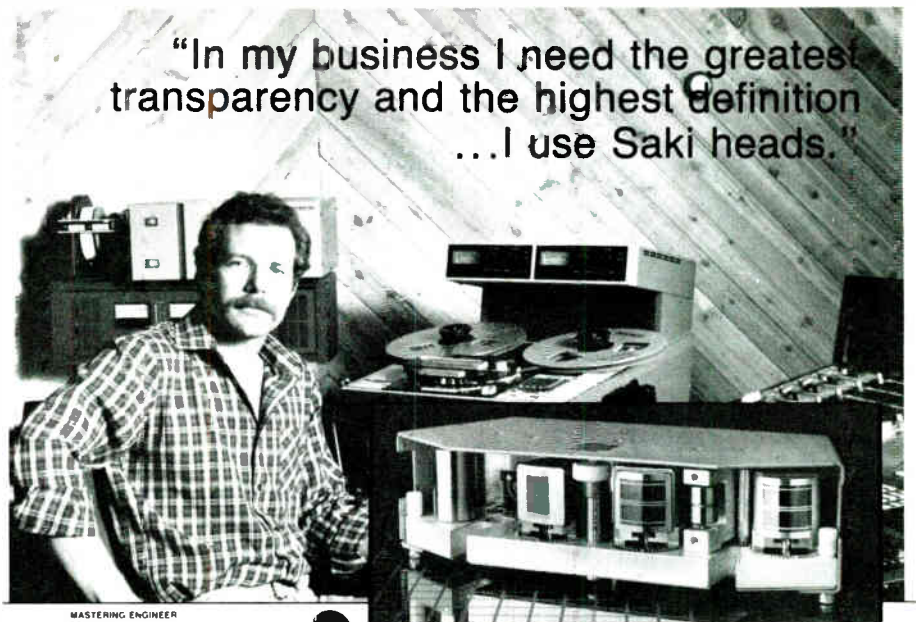
COMMUNICATIONS CONCEPTS INC.
VPF, OLVP, VPP/E
 7980 N. Atlantic Ave., Cape Canaveral, FL 32920
 (305) 784-5232
 Manager: Jim Lewis
EQUIPMENT
 VTRs: (4) BETHLEHEM 100 1/2 TH 50
 VCRs: (4) Sony VO 5850
 Switcher: ADC
 Cameras: Philips
 Audio Recorders: Revox & Nagra
 Audio Mixers: TOA RX5 16
 Other major equipment: Quantel DVE 5000
 Direction: Videos we produced now on MTV and other major networks. State-of-the-art multi-camera mobile truck, studio, and two editing suites. We shoot film and edit too. Discounts to audio recording studios. Call (305) 784-5232

COMPUTER VIDEO PRODUCTIONS, INC.
VPF, OLVP, VPP/E, APPV
 1317 Clover Dr. at I35W & 494, Minneapolis, MN 55420
 (612) 888-2388
 Owner: James A. Henton
 Manager: James A. Henton

CONTI STUDIOS
VPF, APPV
 P.O. Box 968, 509 N. Ridgewood,
 Edgewater, FL 32032
 (904) 427-2480
 Owner: Frank Conti—Conti Organization
 Manager: Dick Conti

CREATIVE SOUND CONCEPTS
VPF, OLVP, VPP/E, APPV
 1066 Bona Vista Terr. N.E., Atlanta, GA 30324
 (404) 634-3382
 Owner: Dennis Baxter
 Manager: Spencer Herzog

CRITERIA RECORDING STUDIOS
APPV
 1755 N.E. 149th St., Miami FL 33181
 (305) 947-5611
 Owner: Mack Emerman
 Manager: Richard Lee



MASTERING ENGINEER
FUTURE DISC SYSTEMS

Future Disc receives no compensation for this endorsement.

After 16 years of technological leadership in one of the most demanding and ever-changing fields, you can depend on Saki's commitment to service your future needs long after the competition is gone.



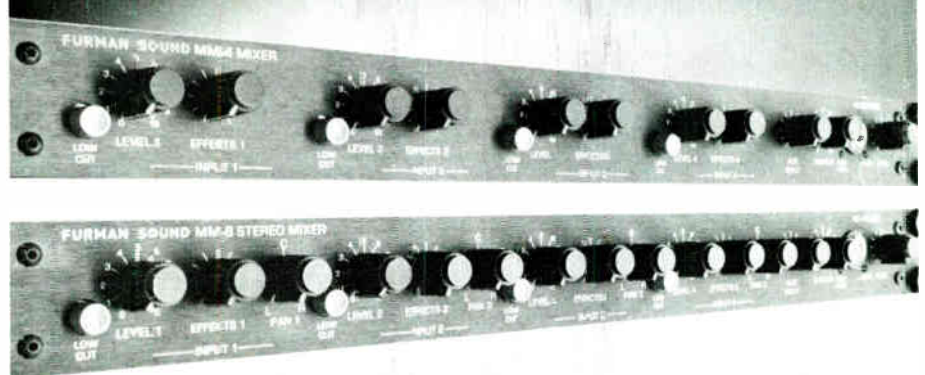
SAKI MAGNETICS, INC.

A California corporation since 1968

8650 Hayden Place, Culver City, CA 90230 213 / 559-6704 (TWX-910-328-6100)

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**New Multi-Purpose Mixers From Furman Sound
 Deliver the Performance Features You Need
 At A Price You Can Afford**



Introducing the MM-4 and MM-8 mixers from Furman Sound. Never before has so much versatility been built to such exacting standards of quality and been available at such a low price. With their four wide range inputs you can combine any signals from low level microphones to the sizzling hot levels of today's most advanced synthesizers clearly, evenly, and without distortion or noise. And there is more. The MM-series mixers are packed with useful features like: effects send/return loop with level controls for each channel, low cut EQ to combat low fre-

quency rumble and noise, a sophisticated over load detection system, ground lift switch, simultaneously available balanced and unbalanced outputs, a headphone amplifier with front panel jack and volume control, and pan pots on model MM-8. Options include balanced inputs and phantom powering. Our mixers are ideal for expansion mixers for stage or studio, small public address installations, audio-for-video production, multi-media presentations, keyboard system mixers, and more. The MM-4 and MM-8, truly mixers for all reasons!



Quality. Reliability. Guaranteed!

Furman Sound Inc.
 30 Rich Street
 Greenbrae, CA 94904
 (415) 927-1225
 Telex I72029 SPX SRLF

Circle #079 on Reader Service Card

CROSS-OVER RECORDING
APPV
8060 W. 21st Ave., Miami Lakes, FL 33016
(305) 822-9708
Owner: Carlos Oliva
Manager: Keith Morrison

DOPPLER STUDIOS INC.
APPV
1922 Piedmont Circle N.E., Atlanta, GA 30324
(404) 873-6941
Owner: Pete Caldwell
Manager: Patty Allison

FCI PRODUCTIONS
VFF, OLVP, VPP/E
3095-H Presidential Dr., Atlanta, GA 30340
(404) 458-0901
Owner: Ane Landrum, Vince Ziegenbein
Manager: Vince Ziegenbein

F & F PRODUCTION, INC.
VFF, OLVP, VPP/E, APPV
10393 Gandy Blvd., St. Petersburg, FL 33702
(813) 576-7676
Owner: Hubbard Broadcasting; George Orgera, President
Manager: George Orgera

FANTA PROFESSIONAL SERVICES
APPV
1213 16th Ave. S., Nashville, TN 37212
(615) 327-1731
Owner: Contact Johnny Rosen

FLORIDA PRODUCTION CENTER
VFF, OLVP, VPP/E, APPV
150 Riverside Ave., Jacksonville, FL 32202
(904) 354-7000
Owner: Ted S. Johnson

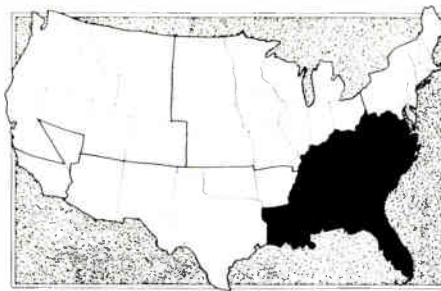
FLYING COLORS
VFF, VPP/E, APPV
Webster Ave., P.O. Box 2124, Muscle Shoals, AL 35662
(205) 381-1455
Owner: Lola Scobey, Terry Woodford
Manager: Lola Scobey

HAPPY FACES PRODUCTIONS
VFF, OLVP, VPP/E, APPV
419 Lanier Lane, Winter Haven, FL 33880
(813) 324-3487
Owner: Charlie Massey

HENDERSON CROWE PRODUCTIONS, INC.
VFF, OLVP, VPP/E, APPV
125 Simpson St. N.W., Atlanta, GA 30313
(404) 223-0021
Owner: Charles Henderson, Jerry Crowe
Manager: Bob Head
EQUIPMENT
Synchronizer: CVS Lightfinger Plus.
VTRs (1) HR-200 B; (3) NEC-TT-8000
VCRs: (1) BVU-820; (2) BVU-800
Switchers: Crosspoint Latch 6139
Cameras: Hitachi FP-22; Ikegami 730
Audio Recorders: Otari MTR-10 2 track
Audio Mixers: AudioArts 16x2, 44 series.
Other major equipment: (3) Microtime T-120 D, digital time base correctors with digital effects transition package; Arvin Echo digital frame stor; digital "squeezer" video compressor; Quanta Q-7-B character generator, CVS "Lightfinger Plus" computer editing.
Rates: Available on request
Direction: Completely redesigned facility specializing in video/music production, commercial production R&D for new video products.

IMAGE RESOURCES INC.
VFF, OLVP, VPP/E
801 S. Orlando Ave., Winter Park, FL 32790
(305) 645-4200
Owner: E. Robert Brook, President
Manager: D.L. Armstrong

JEFFERSON-PILOT TELEPRODUCTIONS
VFF, OLVP, VPP/E, APPV
One Julian Price Place, Charlotte, NC 28208
(704) 374-3823
Manager: Matthew Bass, Bailey Diggins; NY office Jim Turner (212) 980-3232.



SOUTHEAST

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VFF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

JOHN ST. JOHN AND HIS 27 TALENTED FRIENDS
VPP/E, APPV
1830 N.E. 153rd St., North Miami Beach, FL 33162
(305) 945-6444
Owner: John St. John
Manager: Lon Hope

KINDER MUSIC/RKM SOUND STUDIOS
APPV
1200 Spring Street. N.W., Atlanta, GA 30309
(404) 874-3667
Manager: Jeffrey T. Kinder

LEFTHAND PRODUCTIONS
OLVP, VPP/E, APPV
3352 B. So. Wakefield St., Arlington, VA 22206
(703) 998-7841
Owner: Malcolm E.L. Peplow

LIFE INTERNATIONAL PRODUCTIONS
VFF, OLVP, VPP/E, APPV
750 E. 25th St., Hialeah, FL 33013
(305) 940-9197
Owner: A.M.I. Corporation
Manager: Gary Burns
EQUIPMENT
Synchronizer: MCI JH-45
VTRs Hitachi HR-200's, HR 100
VCRs: Sony 2860's, 2260's, 2610, 4800
Switchers: Crosspoint Latch
Cameras: Hitachi SK-91's (3)
Audio Recorders: MCI 110-C 8 track; Otari 5050 B 2 track
Audio Mixers: Tapco C-12 II, 6201 B
Other major equipment: Chyron IV Character Generator, Videomedia Z6E computer editing
Rates: Base post-production \$275/hr; Audio \$75/hr (8 track).
Direction: 1) On location multiple camera shoots 2) Music television creative production (Todd Rundgren, Grand Funk Railroad, Blue Oyster Cult, etc) 3) Jingle writing and production 4) SMPTE locked audio sweetening for television 5) Broadcast post-production on I" type "C" format.

LI'L WALLY MUSIC PRODUCTION
VPP/E
35 N.E. 62nd St., Miami, FL 33138
(305) 758-0000
Owner: Walter Jagiello
Manager: Walter Jagiello

LOUISVILLE PRODUCTIONS
VFF, OLVP, VPP/E
520 W. Chestnut St., Louisville, KY 40202
(502) 582-7744
Manager: Ed Shadburne

MEGA SOUND
APPV
P.O. Box 189, Main St., Bailey, NC 27807
(919) 235-3362
Owner: Lam Recording Co., Inc.
Manager: Richard H. Royall



MOBILE AUDIO
Rome, GA

MOBILE AUDIO
APPV
P.O. Box 6115, 3rd Floor NCB Bldg., Rome, GA 30161
(404) 232-7844
Owner: Rick Norvell
Manager: Al Craig

MORNING SUN RECORDING STUDIO
OLVP, VPP/E, APPV
Box 935, Deland, FL 32720
(904) 736-0300
Owner: Greg Rike
Manager: Nancy Rike

MORRISOUND RECORDING INC.
APPV, On Location Audio Production
5121 N. Florida Ave., Tampa, FL 33603
(813) 238-0226
Owner: Morrisound Recording Inc.
Manager: Thomas C. Morris

MPL VIDEO/FILM POST PRODUCTION
VPP/E
781 So. Main St., Memphis, TN 38101
(901) 774-4944
Owner: Blaine Baker, President
Manager: W.A. Morgan

MULTIVISION PRODUCTIONS, INC.
VPP/E, OLVP, APP/E, APPV
7000 SW 59th Place., S. Miami, FL 33143
(305) 662-6011
Owner: Robert S. Berkowitz
Manager: Rick Lamas, Audio

NASHVILLE SPORTS CABLE
OLVP
513 Galesburg Ct., Nashville, TN 37217
(615) 367-0144
Owner: Travis Turk

NAUTILUS TELEVISION NETWORK
VFF, OLVP, VPP/E, APPV
305 E. Ohio, Lake Helen, FL 32744
(904) 228-2884
Owner: Arthur Jones
Manager: Bobi Koller, Production Office

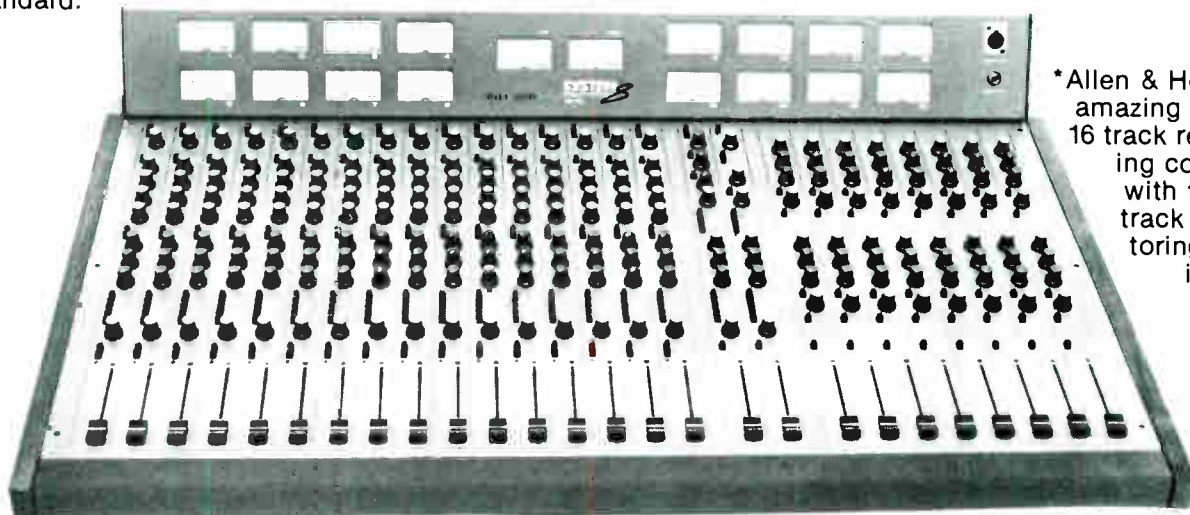
NEW RIVER STUDIOS
APPV
408 S. Andrews Ave., Fort Lauderdale, FL 33301
(305) 524-4000
Owner: New River Productions
Manager: Virginia Cayla

SYSTEMS OF THE 80'S

*ITAM model 1610
1" - 16
track, 7½,
15 & 30
ips, + 4
in/out, full
function
remote
standard.



Whether you're building an 8 or 16 track studio, these Professional Performers from Allen & Heath, Otari and Itam will give you master quality results for the price of a semi-pro - 10 dBm system.



*Allen & Heath's amazing #1616, 16 track recording console with full 16 track monitoring, + 4 in/out.

Both as shown above for under \$16,000

***Both Consoles Feature:**

- *External Power Supply with Phantom Power option.
- *3 Band EQ with Mid sweep and selectable shelving.
- *Long travel fader. * Peak LED on all inputs.
- *Insert points on inputs and outputs.



*Otari #MK III-8,
½"-8 track,
+ 4 in/out



*Allen & Heath #168, 8 track recording console with full 8 track monitoring, + 4 in/out.

Both as shown above for under \$9000

At Professional Audio, we sell quality recording systems to fit your budget and your needs. Stop by today for a FREE "Hands On" demonstration with a qualified professional.

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NOW IN VENTURA COUNTY
CALL 1-805-496-2969

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Production Music, Inc.

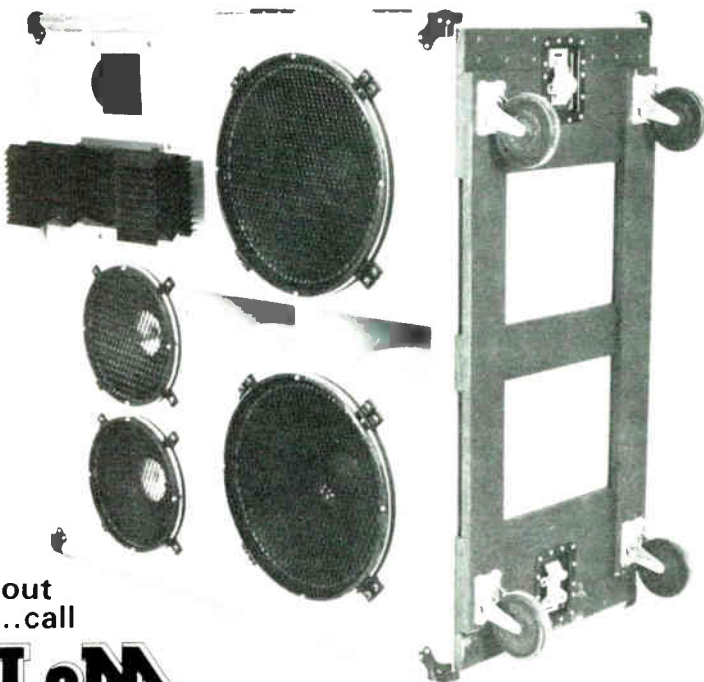
4429 Morena Boulevard, San Diego, California 92117

800-854-2075



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THE EDDY OFFORD STUDIO

THE EDDY OFFORD STUDIO
Atlanta, GA

THE EDDY OFFORD STUDIO
VPF

1493 Jefferson Ave., P.O. Box 90903, Atlanta, GA 30364
(404) 344-6868, (404) 766 5143

Owner: Eddy Offord
Manager: Valma Valle

EQUIPMENT

Audio Recorders: Studer A 800 24 track

Audio Mixers: Studer A80 4 & 12

Other major equipment: Seats 550 Stage Sound system

Rates: On request

Direction: Live Broadcast Live Recordings Live Videos

PAN AMERICAN FILM

VPF, OLVP, VPP/E, APPV

822 N. Rampart St., New Orleans, LA 70116

(504) 522-5364

Owner: Joan Delbert Milton LeBlanc

Manager: Lenny Delbert

THE PRODUCTION CENTER/ARTHUR YOUNG

VPF, OLVP, VPP/E, APPV

1950 Roland Clarke Place, Reston, VA 22091

(703) 620-4490

Manager: Robert Eider

QUADRADIAL CINEMA CORP.

APPV

14203 N.E. 18th Ave., North Miami, FL 33181

(305) 940-7971

Owner: Bob Inman

Manager: Mary Strahan

RKM SOUND STUDIOS

APPV

1200 Spring St. N.W., Atlanta, GA 30309

(404) 874-3667

Owner: Kinder Music Corp.

Manager: Jeff Kinder

ROXY TELEVISION PRODUCTIONS

VPF, OLVP, VPP/E, APPV

827 Meridian St., Nashville, TN 37207

(615) 227-0920

Owner: RRT, Inc.

Manager: Clark Strain

SANDCASTLE RECORDING STUDIO

APPV

Wade Hampton Mall, Suite 109, Greenville, SC 29609

(803) 235-1111

Owner: Christopher Cassels, Rick Sandidge, Rob Cassels

Manager: Christopher Cassels

SCENE THREE, INC.

VPF, OLVP, VPP/E, APPV

1813-8th Ave. South, Nashville, TN 37203

(615) 385-2820

EQUIPMENT

Synchronizer: CMX

VTRs Sony 1"

VCRs: VHS & Beta

Switchers: Ampex, Vital

Cameras: Ikegami

Audio Recorders: Studer

Audio Mixers: Harrison

Other major equipment: Dolby & dbx noise reduction, Lex

icon digital reverb
 Direction: TV and commercial production studio and remote for clients such as CBS Records, RCA Records, Polygram, Warner Bros., Capital/EMI, Word, CBS Television, Multimedia, HBO

SHOE PRODUCTIONS, INC.
 VPF, OLVP, VPP/E, APPV
 485 N. Hollywood, Memphis, TN 38112
 (901) 458-4496
 Owner: Wayne E. Crank, V.P.

SOUNDTRACK, INC.
 APPV
 1975 N.E. 149th St., North Miami, FL 33181
 (305) 945-4449, 945 4322
 Owner: G. Blackwell
 Manager: J. Blackwell

SOUTH COAST RECORDING
 APPV
 1975 N.E. 149th St., North Miami, FL 33181
 (305) 945-7272
 Owner: Paul Kaminsky
 Manager: Jerry Blackwell

SPECTRUM PRODUCTIONS
 VPF, OLVP, VPP/E, APPV
 536 Huffman Rd., Birmingham, AL 35215
 (205) 833-6906
 Manager: Rick Greenlee

SPIRE AUDIO VISUAL CO.
 VPF, OLVP, VPP/E, APPV
 2080 Peachtree Ind. Court, Chamblee, GA 30341
 (404) 458-7626
 Owner: Jack Spire
 Manager: Charles H. Allen



SOUTHEAST

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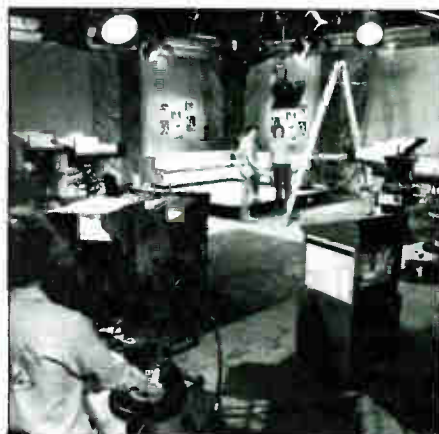
TAKE ONE PRODUCTION GROUP
 VPF, OLVP, VPP/E, APPV
 P.O. Box 3409, Longwood (Orlando), FL 32779
 (305) 869-1119

Owner: Will Cross
 Manager: Linda Varnhagen
EQUIPMENT
 VTRs: Sony BVA 1000A, RCA TR-000A (1/2" format)
 VCRs: 4" and 1/2" tape; JVC and Beta
 Switchers: Grass Valley 1600 7 F.W.F. MEM
 Cameras: RCA TK 40 (5 and 4 1/2"), Ikegami HL 770
 Audio Mixers: MCI 42 track auto-mated Neve 12x2 Taram 16 track
 Audio Recorders: Studer AK17 24 track, Otari MTR 90 Otari MTR 10 JVC DASS0 digital

Other major equipment: AYA graphic computer, Chyron IV CG and off-line editing, independent audio and video mobile units

Rates: Quoted on per project basis
Direction: In a time when "state of the art" becomes an overused phrase, it's nice to know Take One Production Group directors. Their key personnel come from strong music backgrounds, so it's no wonder they find music to be a source of pride and joy. Their creative staff are excited to nurture your concept and work within your budget to make your fantasies a visible reality.

TAKE ONE PRODUCTION GROUP
 Longwood, FL



TELE COLOR PRODUCTIONS, INC.
 VPF, OLVP, VPP/E
 150 South Gordon St., Alexandria, VA 22304
 (703) 823-2800
 Owner: Charles F. Riley, President
 Manager: Robert Swider

THE CASTLE RECORDING STUDIO, INC.

**OLD HILLSBORO ROAD • RT. 11
 FRANKLIN, TN 37064**
 For more information, please call
(615) 791-0810 or TELEX 750471

CONSOLE
 Solid State Logic 4000 F 1R 20/2

TAPE MACHINES
 3M Digital DMS 32 track & 4 track
 Studer A80 24 track MKIII 2
 Studer A80 2 track MK2
 Studer B67 2 track 2
 Studer B710 Cassette Machine

OUTBOARD
 Lexicon 24 Limiter (2)
 Lexicon Prime Time Digital Delay
 Lexicon Super Prime Time Digital Delay
 Koplex II 4
 Eventide Instant Phases
 Eventide Harmonizer
 ADR1769X R Vocal Stressors 2
 Scamp Mini Rack
 Scamp 526 Mini PSU
 Scamp 504 Para EQ (2)
 Scamp 52 Stereo Dresser
 Trident Stereo Limiter

ECHO
 Lexicon 224 and 224X Digital Reverb system with Lark Head
 Full Size Tele-Plate Chamber (2)

MICROPHONES
 Complete assortment Neumann, AK, Shure, Sennheiser, etc.

MONITOR SYSTEMS
 JBL 4400 R 8" Professional Monitors
 JBL 4x11
 Agipione and Yamaha NS 100 (monitors)
 Yamaha 2100 and 2701 Amps
 Wilson 4400 EQ

INSTRUMENTS
Keyboards
 Carl Friedrich Bösendorfer Concert Grand
 Jupiter B Synthesizer
 Prophet One Bass Synthesizer and Sequencer
 DX-1 and DX-7 Yamaha Digital Synthesizers
 Fender Rhodes
 Clavinet D6
 Fisk Piano
 Hammond B3 Organ

Drums
 Full Kit Pearl Drums
 Oberheim DMX Drum Machine
 Full Kit Simmons Drums
 SDS-6 Simmons Sequencer

Guitars
 Selection of Martin D28, Gibson, Gretsch
 Equipment out of our private collection

The Castle Recording Studio is equipped with a 3M digital DMS 32 track tape recorder. The studio's Studer 115-2000 tape lock system and V-30 MKIII 24 track analog machines give the facility a 33 track recording capability.

Interface of the extensive control room equipment is maximized by the Solid State Logic 4000 F console with Total Recall Computer.

The console has 38 microphone inputs with a 32 track buss assignment and the capacity of 104 line returns.

Other equipment includes Studer A80 and B67 mastering decks, JBL 4430 main monitors, biamped by Yamaha amplifiers, and a full assortment of outboard equipment as shown in the equipment list.

The Castle studio also offers a fine array of digital and analog synthesizer keyboard and drum technology, as well as our Bösendorfer full size grand piano.

The main studio and isolation rooms take full advantage of the natural stone and wood surfaces.

The Castle provides all accommodations for live-in clients. Upstairs living quarters, fully equipped kitchen with cook it requested, TV room.

Arrangements can be made to pick up clients at the airport, and hotel reservations can be made in advance if needed.

LIST OF EQUIPMENT

**MODERN RECORDING
 IN A HISTORICAL ATMOSPHERE**

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HAVE A RECORDING STUDIO PROBLEM?

Call **DataLine**
(213) 651-4944

The Society of Professional Audio Recording Studios, a non-profit organization, offers SPARS members, and non-members referred by a SPARS member, a national telephone 'hot-line.'

Questions regarding any area of recording studio operations including business practices, audio engineering, and technical maintenance will be answered by SPARS-approved sources at no charge.

Want a problem solved?
Call SPARS—
(213) 651-4944



SPARS Board of Directors and Consultants

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SOUTHEAST

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

TELEPRODUCTIONS, INC
VPP E
4140 Canal St., New Orleans, LA 70119
(504) 486-5556
Owner: William D. Hess

TLC PRODUCTIONS
VPF, OLVP, VPP E
6363 Taft St., Suite 309, Hollywood, FL 33024
(305) 920-1449
Owner: TeleLink Communications, Inc.
Manager: Barry Pastornak, President

TOTAL TAPE CO. LTD.
VPF, OLVP, VPP E, APPV
1311 N.E. 105th St., #1, Miami, FL 33138
(305) 893-1486
Owner: Craig Bulmer
Manager: Craig Bulmer

TREASURE ISLE RECORDERS
APPV
2808 Azalea Place, Nashville, TN 37204
(615) 327-2580
Owner: Fred Vail
Manager: Fred Vail

VIDEO ASSOCIATES, INC
VPF, OLVP, VPP E
21 S.W. 15 Rd., Miami, FL 33129
(305) 358-9000
Owner: Bruce Nield
Manager: Martin Palk

VIDEO IMAGE, INC
VPF, OLVP, VPP E
P.O. Box 11701, Ft. Lauderdale, FL 33339
(305) 561-1492
Owner: Barry Smith

THE VIDEO PRODUCTION CO. OF AMERICA INC
VPF, OLVP, VPP E, APPV
1201 Central Ave., Charlotte, NC 28204
(704) 376-1191
Owner: Mary W. Walter Knox
Manager: H. Walter Knox

VIDEO TAPE ASSOCIATES
VPF, OLVP, VPP E, APPV
1733 Clifton Rd. N.E., Atlanta, GA 30329
(800) 554-8273
Owner: W.K. Chambliss
Manager: Mike M. Nally

WCIX CHANNEL SIX PRODUCTIONS
VPF, OLVP, VPP E
1111 Brickell Ave., Miami, FL 33131
(305) 377-0811
Owner: Tit Broadcasting Company
Manager: Harvey Cohen, General Manager; William MacDonald, Production Manager

WISHBONE RECORDING STUDIO
APPV
Webster Ave., P.O. Box 2631, Muscle Shoals, AL 35662
(205) 381-1455
Owner: Terry Woodford
Manager: Terry Woodford

YES PRODUCTIONS
VPF, OLVP, VPP E, APPV
916 Navarre Ave., New Orleans, LA 70124
(504) 486-5511
Owner: YFS TV
Manager: Mike Labonia

NORTH CENTRAL

ACTIVE 8 PRODUCTIONS
VPF, OLVP, VPP E, APPV
3003 Park 16th St., Moline, IL 61265
(309) 764-9694
Owner: Quad Cities Comm. Corp.
Manager: Doug McWhorter
EQUIPMENT
Synchronizer: Harris HVS 640
VTRs: (2) BVH 2000 1" (2) TR 60 2"
VCRs: (4) BVU 800, (1) BVU 820
Switchers: American Data; Sony
Cameras: TK 46; Sony DXC 6000; TK 76
Audio Mixers: Pacific Recorders
Other major equipment: N.E.C. Flex; ADDA Still Store 12
: 3 camera Production truck
Rates: Upon request
Direction: J.W. Thompson; Ford Regional; Nancy Nehlsen; Karmel Korn; Nabona; Lucky Foods; Fagle Regional; Nancy Nehlsen; Trausch Baking Regional; Britt Airways Regional; Time & Space; Happy Joes National

ADVANCED AUDIO/VIDEO CORP./TAKE 1 STUDIOS
VPF, OLVP, VPP E, APPV
1730 E. 24th St., Cleveland, OH 44114
(216) 771-1315
Owner: Jeff Kassout
Manager: John Nebe

ADVANCED VIDEO COMMUNICATIONS
VPF, OLVP, VPP E
49 S. Washington, Hinsdale, IL 60521
(312) 323-7464
Manager: Bill Thermo

AMBIENCE RECORDING INC
APPV
27920 Orchard Lake Rd., Farmington Hills, MI 48018
(313) 851-9766
Owner: Charles Schenck
Manager: Charles Schenck

A.M.S. LOCATION RECORDING
OLVP, VPP E, APPV
P.O. Box 4354, St. Paul, MN 55104
(612) 645-9826
Owner: Jim Hrabee
Manager: Jim Hrabee

AUDIOCRAFT
APPV
915 W. 8th St., Cincinnati, OH 45203
(513) 241-4304
Owner: E.T. Herzog
Manager: E.T. Herzog

AZ VIDEO PRODUCTIONS
OLVP
4601 Lima Rd., Fort Wayne, IN 46808
(219) 484-3018
Owner: Steve Zwaga

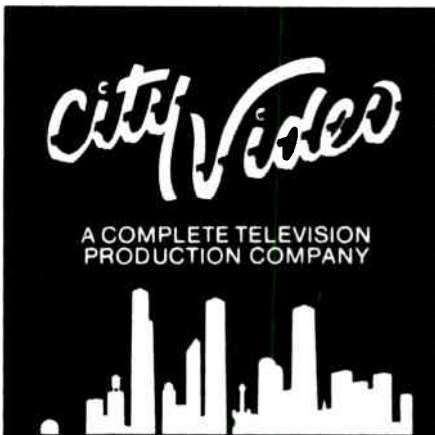
BALL TELEVISION GROUP
VPF, OLVP, VPP E
1101 N. Fulton Ave., Evansville, IN 47710
(812) 428-2300
Owner: Martin A. Ball
Manager: Martin A. Ball

BEACHWOOD STUDIOS
APPV
 23330 Commerce Park Rd., Beachwood, OH 44122
 (216) 292-7300
 Owner: EDH Corporation
 Manager: Keith A. Voigt

CHICAGO RECORDING COMPANY
APPV
 528 N. Michigan Ave., Chicago, IL 60611
 (312) 822-9333
 Owner: Alan S. Kubacka
 Manager: Hank Neuberger

EQUIPMENT
 Synchronizer: BTXs, MCI Auto Lock
 VTRs: 1" Sony
 VCRs: 1/4" Sony
 Audio Recorders: Studer MCI
 Audio Mixers: Neve, Cadac, MCI, Trident, Shere
 Other major equipment: Complete ancillary gear, EMT 251 digital reverb, mixdown automation, 48 track capability
 Rates: \$165/hr - \$210/hr
 Direction: Simply the best - most up to date audio for video production facility in the Midwest with the best engineers in the business

CITY ANIMATION COMPANY
 57 Park St., Troy, MI 48084
 (313) 589-0600
 Owner: Jacques E. Simon
 Manager: Larry A. Fiedler



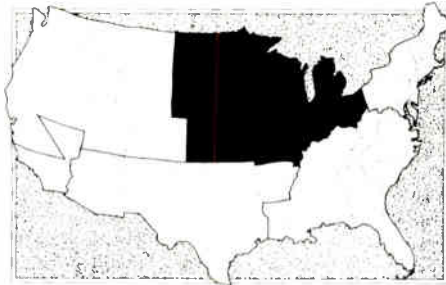
**A COMPLETE TELEVISION
 PRODUCTION COMPANY**

CITY VIDEO PRODUCTION, INC
 Berwyn, IL

CITY VIDEO PRODUCTION, INC.
VPF, OLVP, VPP/E, APPV
 1227 S. Harlem, Berwyn, IL 60402
 (312) 484-8818
 Owner: Alan Lusk
 Manager: Frank J. Koska

DELTAK, INC.
VPF, OLVP, VPP/E, APPV
 1751 Diehl Rd., Naperville, IL 60566
 (312) 369-3000
 Manager: Donald C. Olynyk, Television Dept. Mgr.

THE DISC LTD.
APPV
 14611 E. Nine Mile Rd., East Detroit, MI 48021
 (313) 779-1380
 Owner: Bob Dennis, Greg Reilly, Tom Gielera
 Manager: Greg Reilly
EQUIPMENT
 Synchronizer: BTX
 VCRs: Sony 1/4" 5800
 Audio Recorders: Ampex 24 track, Ampex 24 track on 1/2 track, Scully 4 track
 Audio Mixers: Automated Process 42 in 24 out w/Alison Research computer mix
 Other major equipment: Large selection of outboard gear and special effects
 Rates: Upon request
 Direction: Previously a music only studio with a solid record reputation, we have expanded our facilities for video post production audio. We have years of experience in music and commercial mixing and recording. After watching the video explosion over the past few years, we decided to make it a part of our operation. We are very service oriented and take pride helping our clients make their projects a success.



NORTH CENTRAL

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

E & C MEDIA
VPF, OLVP, VPP/E
 600 N. McClary Ct., Suite 1712, Chicago, IL 60611
 (312) 337-0902
 Owner: Burt Zurisky, Senior Partner

EDIT-CHICAGO
VPF, OLVP, VPP/E, APPV
 160 E. Grand Ave., Chicago, IL 60611
 (312) 280-2201
 Owner: Tony Lora
 Manager: David Cunningham

EDITEL-CHICAGO
VPF, OLVP, VPP/E, APPV
 301 E. Erie, Chicago, IL 60611
 (312) 440-2360
 Owner: Bell & Howell/Columbia Pictures
 Manager: David Mueller, VP Client Services, Lenard Pearlman, VP Technical Services, Suzanne Savage, VP Administrative Services

EDR/MEDIA
VPF, OLVP, VPP/E
 3592 Lee Rd., Shaker Heights, OH 44120
 (216) 751-7300
 Manager: Peter J. Vrettus, President; David H. Cockley, VP Marketing

ELECTRONIC FIELD PRODUCTIONS, INC.
VPF, OLVP, VPP/E
 11 W. College Dr., Suite K, Arlington Heights, IL 60004
 (312) 577-1811
 Owner: William K. Kloock, Gary Huett, Tom LeTourneau
 Manager: William K. Kloock

EYE & EAR TELEPRODUCTIONS, INC.
VPF, OLVP, VPP/E
 612 N. Michigan Ave., Suite 712, Chicago, IL 60611
 (312) 337-5050
 Owner: Tom Hilbe
 Manager: Tom Hilbe

GALAXY PRODUCTION, LTD.
VPF, OLVP, VPP/E, APPV
 1510 Midway Court, Elk Grove, IL 60007
 (312) 593-7030
 Owner: Dennis Galacher
 Manager: Dennis Galacher

HIGH FIDELITY RECORDING, INC.
VPF, OLVP, VPP/E, APPV
 1059 Porter, Wichita, KN 67203
 (316) 262-6456
 Owner: Corporation
 Manager: James Stratten

HUBBARD STREET STUDIOS
 11 E. Hubbard St., Chicago, IL 60611
 (312) 670-0110
 Owner: Jim Poulson, Fred Heynolds
 Manager: Jim Poulson, Fred Heynolds

Circle #085 on Reader Service Card

**The Affordable
 Digital Real Time
 Third-Octave
 Spectrum Analyzer**

- Full 30 Bands • Six Memories • Quartz Controlled "Switched Capacitive Filtering" to eliminate drift
- Ruggedized for Road Use • Microprocessor Controlled • Built-in Pink Noise Source • "Flat," "A," or "User Defined" Weighted Curves may be employed
- ROM User Curves Available.



GOLD LINE

Box 115mx • West Redding, CT 06896
(203) 938-2588

SEND FOR COMPLETE LITERATURE:

NAME _____
 COMPANY _____
 STREET _____
 CITY _____
 STATE _____ ZIP _____

Circle #086 on Reader Service Card **VS51**

On October 22, 1982, Todd Boeckelheide started sound production locked to video picture on a new movie called "Never Cry Wolf" at Russian Hill.

On May 6, 1983, Jay Boeckelheide started sound production locked to video picture on a new movie called "The Right Stuff" at Russian Hill.

On February 16, 1984, "Never Cry Wolf" and "The Right Stuff" were each nominated for Academy Awards for "Best Sound."

When are you going to start *your* sound production at Russian Hill?

Call for a brochure.



**Russian Hill Recording
Russian Hill Film-to-Tape**

1520 Pacific Ave. • San Francisco, CA 94109
(415) 474-4520

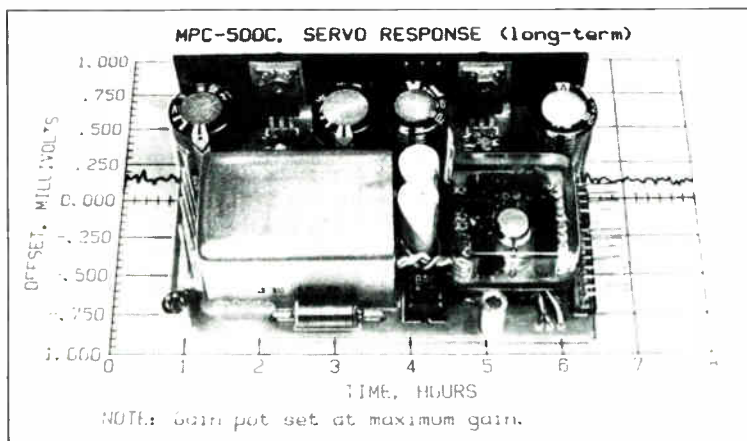
Audio for Film and Video • Scoring • ADR • SFX • Music Television

© 1984 RHR

Circle #087 on Reader Service Card

**ATTENTION MCI 500C/D OWNERS:
Your mic-inputs will sound much better with
the MPC-500C/MPC-500D mic-preamp cards!**

- **990 OP-AMP** offers higher slew rate and output current, lower noise and distortion, and better sound than stock 5534.
- **JE-16B MIC-INPUT TRANSFORMER** provides one-third the distortion, 15 dB higher input levels and better sound than stock JF-115-KE.
- **SERVO/DC COUPLING** eliminates coupling and gain-pot capacitors resulting in much better sound without DC offset problems.
- **ON-CARD REGULATION** eliminates the need for the MCI "swinging transistors." Reduces crosstalk and improves sound quality. And more!



THE HARDY CO. BOX AA631 EVANSTON, IL 60204 (312) 864-8060

Circle #088 on Reader Service Card

INDEPENDENT AV SERVICES
OLVP
2045 Jarvis, Chicago, IL 60645
(312) 338-7706
Owner: John Geier
Manager: John Geier



KARTES VIDEO COMMUNICATIONS
Indianapolis, IN

KARTES VIDEO COMMUNICATIONS
VFF, OLVP, VPP E, APPV
10 E 106th St., Indianapolis, IN 46280
(317) 844-7403
Owner: Jim Kartes
Manager: Dan Lawhorn
EQUIPMENT
Synchronizer: EECO MGS 100A
VTRs: 6) Ampex VTR 1B 1 7) Ampex AVB 2 2 8) Ampex VTR 201
VCRs: 1) Sony 3 4 2) Mats
Switchers: Ampex 4100 video switch for VTR 114 4A video switch
Cams: Ampex BHC 20 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
Audio Recorders: Ampex ATR 1 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
Audio Mixers: AudioTronics 30x24 audio console and two Stevenson 24x8 audio consoles.
Other major equipment: AIC (Ampex Digital Optics) Vital SquareZoom, Betk Camcorder, tape transfer, laser disc video duplication.
Rates: Available on request.
Direction: We're a full service film and videotape communications company with complete crews and production facilities for any video project. Staff includes over 100 full-time professional production personnel with years of experience producing some of the best, most cost-effective video in the country.

KEN EARL PRODUCTIONS INC
APPV
P O Box 6323, Broadview, IL 60153
(312) 935 6381
Owner: Ken Earl
Manager: Ken Earl

LANSING SOUND STUDIOS
VFF, APPV
2719 Mt. Hope Rd., Okemos, MI 48864
(517) 351-6444
Owner: R. Baldwin
Manager: Neil E. Gorov

MARITZ COMMUNICATIONS
VFF, OLVP, VPP E, APPV
4925 Cadieux, Detroit, MI 48224
(313) 882-9100
Owner: Maritz Inc., St. Louis
Manager: Jerry Smith, VP General Mgr., Howard English, Asst. Gen. Mgr., Detroit

MARK VIDEO ENTERPRISES, INC.
VFF, OLVP, VPP E, APPV
2715 Packard Rd., Ann Arbor, MI 48104
(313) 971-0031
Owner: George Markos
Manager: Kinky Thomas

MASTERSOURCE PRODUCTIONS
APPV
 704 North Wells, Chicago, IL 60610
 (312) 922-0375
 Owner: Charles Thomas, Gary Ginter
 Manager: Charles Thomas

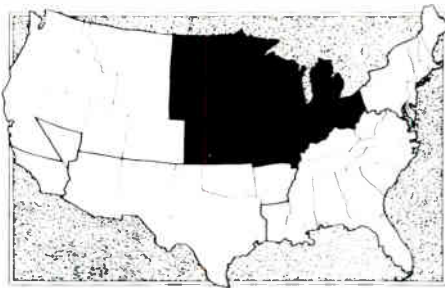
MIDWEST VIDEO TAPING SERVICE
OLVP
 1743 N. Nicholas St., Appleton, WI 54914
 (414) 731-9145
 Owner: Christine Hus
 Manager: Christine Hus

MONEY MARBLES & CHALK
VPF, OLVP, VPP/E, APPV
 1200 South Big Bend, St. Louis, MO 63117
 (314) 781-3530

Manager: Doug Smith, Audio Services Dir., Jack Fausher, Video Services Dir.
 Rates: Please Call
 Direction: Money Marble & Chalk is a total in-house creative communication group, from the initial idea conceptualization through the execution of print material, promotions & multi image presentations combining 35mm slides, videotape & 16mm film. The 20 member production team at MM&C has successfully designed and produced corporate profiles, sales promotion programs and commercials for most of the area's Fortune 500 companies. MM&C is one of the midwest's most complete in house production facilities with 17,000 sq. ft.

MOON KOCHIS PRODUCTIONS INC
VPF, OLVP, VPP/E, APPV
 23391 Lawson, Warren, MI 48087
 (313) 445-1700
 Owner: Moon Kochis Prod. Inc.
 Manager: Ben Moon

MORNINGSTAR VIDEO PRODUCTIONS, INC.
VPF, OLVP, VPP/E, APPV
 3360 Tremont Rd., Columbus, OH 43221
 (614) 459-1500
 Manager: Joel G. Nagy, President, Peter A. Stock, Sales Mgr.



NORTH CENTRAL

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

EQUIPMENT

Synchronizer: Audio Kinetics Q Lock in Post Production, Audio Kinetics Q Lock in Recording Studio
 VTRs: Ampex VPR 80 1" Master with TBC 80 in post-production
 VCRs: (3) Sony BVU 800's A-B-C Sync Holly in post production, Sony BVU 110 (3) Sony 5550's
 Switchers: Grass Valley 1600 in post production
 Cameras: (3) CEI 330's
 Audio Recorders: Tascam 85 16/Otan MX 5050 in post production, Nakamichi PCM Digital/Revox B 77 in field production, (2) Tascam 85 16/Studer A 80 in recording studio
 Audio Mixers: Tascam model 15 (16 in) in post-production, Tascam model 16 (24 in) in recording studio
 Other major equipment: Video Editing System CMX 340X editing system, Outboard, Lexicon 224X, Super Prime Line,

Eventide Harmonizer/Orban EQ & Sibil Controller, Dubner, CBG 2 graphics animation and character generator, (2) Harris 690 video synchronizers, Fairlight CMI/LinnDrum/Prophet 5
 Rates: By quotation Range \$65-\$150/hr
 Direction: Morningstar Video specializes in broadcast quality sales training and information programs for corporate and industrial clients. Pioneering the development of advanced production software. Morningstar has integrated software control of audio and video post-production for frame-accurate, repeatable, decision listed program assembly, editing, processing and mix down.

MUS-I-COL INC.
APPV
 780 Oakland Park Ave., Columbus, OH 43224
 (614) 267-3133
 Owner: John W. Hull, Boyd P. Niederlander

NEW LIFE COMMUNICATIONS
OLVP
 424 W. Minnesota Ave., P.O. Box 1075,
 Wilmar, MN 56201
 (612) 235-6404
 Manager: Larry Huisinga

EQUIPMENT
 VTRs: 3 Sony 1", 2" quad VTR
 VCRs: 4" and VHS
 Switchers: Grass Valley 1660 IL
 Cameras: 3 CEI 310
 Audio Recorders: MCI 16 track
 Audio Mixers: Yanisha M1510
 Other major equipment: 34' TV trailer is wired for 5 cameras, RTS intercom and IFB routing switcher of iso'd recording.
 Direction: Location video recording, single or multi camera switched or iso'd. Music production—"The Lundstroms," weekly syndicated TV program in 60 markets. Sports—ABC/NCAA football, U of Minn. hockey and basketball. Drama—"Minnesota Connection," 58 min. docu-drama, locations in Minneapolis and New York.

NORTHWEST TELEPRODUCTIONS, INC.
VPF, OLVP, VPP/E, APPV
 4455 West 77th St., Minneapolis, MN 55435
 (612) 835-4455
 Manager: Bob Mitchell, President, Bob Kerr, Director of Marketing

IT TAKES 33 1/3 • 33 1/3 VISION TO EDIT A MUSIC VIDEO.



Planet editors cut so many commercials to music they instinctively know what to look for—and what to listen to—before they start a project. The result is a picture that always plays off the track. If you'd like that same expertise working for you on your next music video, call us. We'll help it become a perfect vision.

DAILY PLANET

WE MAKE VIDEOS SING.

SUITE 3260, 401 N. MICHIGAN, CHICAGO, IL 60611 (312) 670-3766

CALL PRODUCTION MANAGER, LIZ BERKOVER

Circle #089 on Reader Service Card

WHY SOMEONE IN YOUR SHOES

OR HOW OUR NEW DVE CAN IMPROVE YOUR NEXT 3/4-INCH TAPE PRODUCTION

The following amazing feats are made possible by a nifty piece of equipment known as a DVE. (DVE is shorthand for Digital Video Effects.)

Until now, these effects weren't always possible on 3/4-inch tape. (Remember the good old days of transferring to 1-inch for effects?)

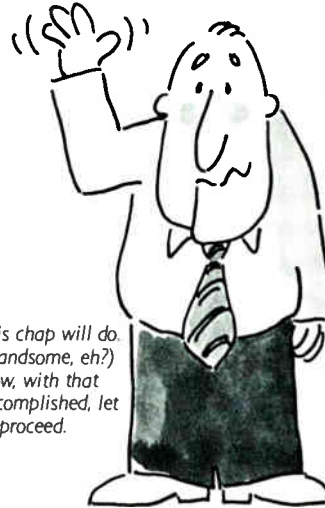
The only place in Chicago where you'll find these effects full-time on 3/4 is The Daily Planet.

So, if you'd like to make your 3/4-inch production a little more amazing, read on. We think you'll find our feats can help a creative person in your shoes.

Amazing, but true.

AMAZING FEAT #1

FIND A VOLUNTEER TO DEMONSTRATE OUR AMAZING FEATS



This chap will do. (Handsome, eh?) Now, with that accomplished, let us proceed.

AMAZING FEAT #2

THE FLIP AND TUMBLE

Affectionately referred to by us as "The Nadia Comaneci," this gem of an effect can automatically flip an image to its reverse side.

● Or make an image tumble through space in everchanging sizes and angles. (Nadia, eat your heart out.)

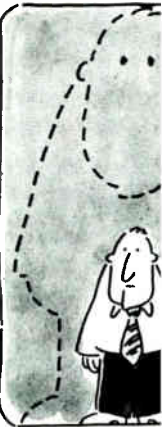


AMAZING FEAT #3

THE SHRINK

This move is usually real tough on the volunteer.

● As you can see, it's sort of like being shrunk down to half your body size (or less) and then being shuffled around the screen at the editor's will (and our editors will).



AMAZING FEAT #6

COMPUTERIZED POSTERIZATION AND CONTINUOUS MOSAIC RESOLUTION OR "THAT MOSAIC THING"

1. Start with an image. Like this dapper young fellow.



2. Posterize it. This looks a lot like squinting. Your image will be reduced to areas of bold color.



3. Square off your image into mosaic-like tiles. (Hence, "That Mosaic Thing.")



Now, many people call this the "shower door effect." However, if I ever saw something like this looking out at me from behind a shower door, I, for one, would run like a banshee.

AMAZING FEAT #8

THE LITTLE-BIG MAN

Or little-big logo.
Or little-big product.
Or little-big typeface.
Can condense or stretch any image.

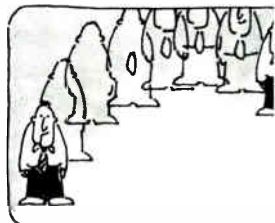
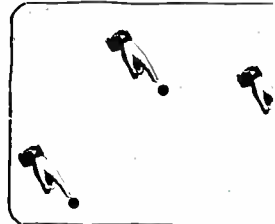


AMAZING FEAT #9

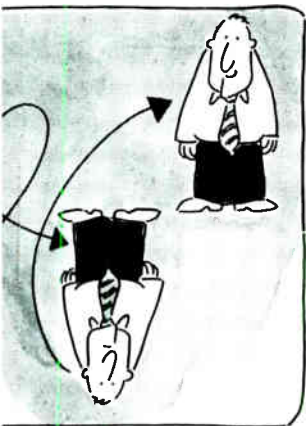
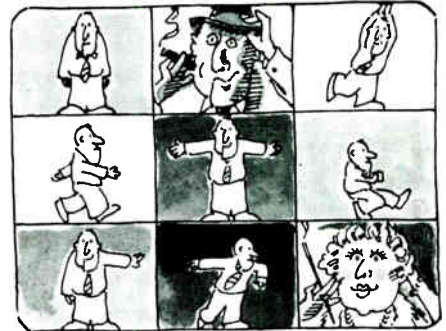
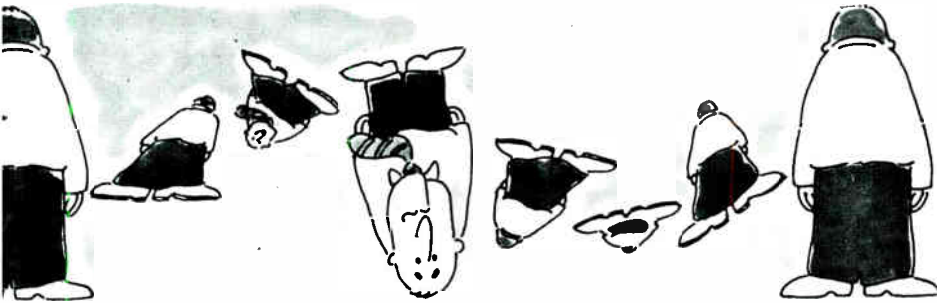
THE EASY RIDER

Take an image. Any image. Now pick 3 points on the screen. Or pick 100 points. And...

● Presto! The image rides along the curve created by those points. (Hold all applause, please.)



SHOULD HAVE OUR FEATS

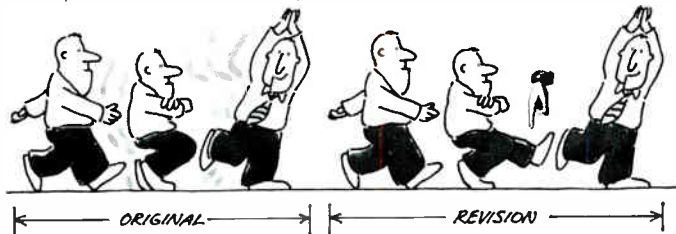


AMAZING FEAT #4

THE "PLAY IT AGAIN SAM BUT NOT LIKE YOU JUST PLAYED IT" EFFECT

Otherwise known as memory edit.

● This effect allows you to take a sequence of action, make any minor changes (see leg kick in visual aid below), then store the revised sequence in a bubble memory bank, to be summoned at your beckon call.



AMAZING FEAT #5

THE RUBIK'S CUBE OF VIDEO

Divide your screen into 4, 9 or 16 squares.

● Now put any image you want, in any size you want it, in any square you want.

● Repeat the same scene in each square. A different scene in each square. Random moments from a master scene.

Or create a collage of images by combining different scenes and sizes.



AMAZING FEAT #7

THE HORIZONTAL PUSH

Think of it as a traveling split-screen.

● With a sideways push, one image replaces another. Then, if you so desire, push in the opposite direction to bring back your original image.

● (The second version of this move, The Vertical Push, works exactly the same way. Except that everything moves the other way.)

ABOUT AMAZING FEATS #10 THRU 16

The artist tried real hard to draw these. And the writer tried real hard to explain these. Now we're not saying they missed the boat completely (you know how sensitive artists and writers can be).

● Let it suffice to say that to really appreciate the beauty of such editorial wonders as freeze frame, split images, film-style pixilation, multi-freeze, multi-move, chroma key tracking and border width/color control, well, you'll just have to stop by.



DAILY PLANET

VIDEOTAPE EDITORIAL, ANIMATICS AND PHOTOMATICS

SUITE 3260, 401 N. MICHIGAN, CHICAGO, IL 60611 (312) 670-3766

CALL PRODUCTION MANAGER, LIZ MANGANELLO

OPTIMUS, INC.
OLVP, VPP/E
161 E. Grand Ave., Chicago, IL 60611
(312) 321-0880
Owner: James Smyth
Manager: Ron Klyber, Bob Coleman Dir. of Marketing

PINEBROOK RECORDING STUDIOS, INC.
APPV
P.O. Box #146, State Rd. #9 So., Alexandria, IN 46001
(317) 724-7721
Manager: Randy Hammel

POLYCOM TELEPRODUCTIONS
VPF, OLVP, VPP/E
201 E. Erie St., Chicago, IL 60611
(312) 337-6000
Owner: Joseph Hassen
Manager: Richard Jablonsky

PRESENT PRODUCTIONS, INC.
VPF, OLVP, VPP/E, APPV
1947 N. Howe, Chicago, IL 60614
(312) 787-9771
Owner: Dan Manas
Manager: Dan Manas

RON ROSE PRODUCTIONS, LTD.
APPV
29277 Southfield Rd., Southfield, MI 48076
(313) 424-8400
Owner: Ron Rose
Manager: Don Wooster

S & R SERVICES
OLVP
6960 Angora Way, Dayton, OH 45424
(513) 236-1727
Owner: David Sheward
Manager: David Sheward

SOUND RECORDERS
APPV
206 So. 44th St., Omaha, NE 68131
(402) 553-1164
Owner: Don Sears
Manager: John Boyd

SOUND RECORDERS, INC.
APPV
3947 State Line, Kansas City, MO 64111
(816) 931-8642
Owner: Don Sears
Manager: Jim Wheeler

STANG VIDEO RECORDS LTD.
VPF, OLVP, VPP/E, APPV
P.O. Box 256577, Chicago, IL 60630
(312) 399-5535
Owner: Pete Stangs
Manager: George Peck

STOKES SOUND SERVICES
OLVP, APPV
100 Stokes Lane, P.O. Box 398, Hudson, OH 44326
(216) 650-1669
Owner: A.J. & Allan Stokes
Manager: A.J. Stokes

EQUIPMENT
Synchronizer: RTX Software Shadow Cypher
VCRs: 1/4" Sony 5800, IVC 47000 1/2" VHS, Beta
Cameras: Ikegami ITC 730
Audio Recorders: MCI JH114 24 JH110 R 4 2 Otari
5050R 2, B. Nagra 4 2 1
Audio Mixers: Soundcraft Sound Workshop Yamaha
Other major equipment: Limiters dbx, UREI, Valley People,
FO's UREI White Orban, Dynallex remote van
Rates: \$25-\$75/hr. or quote on a per project basis
Direction: Stokes Sound Services specializes in on location sound
for all types of projects from industrial training tapes to concert
and musical specials. Audio Post Production specialties include
audio editing and program assembly dialogue replacement and
foreign language over dubs. Also available for rental are audio
and video EFP systems.

STREETERVILLE RECORDING STUDIOS, INC.
APPV
161 East Grand Ave., Chicago, IL 60611
(312) 644-1666
Owner: Jim Dolan Jr.
Manager: Jim Dolan Jr.



NORTH CENTRAL

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

EQUIPMENT

Streeterville is equipped to provide state of the art multi-track audio post production for video sweetening and mixing. Our system optimizes the audio signal quality of any video project in any format. The system includes the following: Audio Kinetics Q Lock Synchronization System (2) MCI JH 24 multi track recorders, Sony BVU 800 Harrison 4032C automated console. Mastering is handled by the new Sony-MCI 110R 1" Layback machine (Type C format). An Otari MTR 10 4 track machine is available for back up.

Other major equipment: (2) Sony 11 Multi 5800 with remote, RTX Generator/Header model 4100A, (4) RTX 4500 Synchronizers & 4600 controller, Sony PVM 1900 Monitor, (2) Panasonic 1920 color video monitors, Sony 11 Multi VO 2860A, Sony VP2260 Audio and video Tie-Lines 1/2" 3/4" 1" 2", Video formats (Via Optumus)

SUMA RECORDING STUDIO

APPV
5706 Vrooman Rd., Cleveland, OH 44077
(216) 951-3955
Owner: Kenneth R. Hamann
Manager: Michael J. Bishop

TECHNISONIC STUDIOS INC.

VPF, OLVP, VPP/E, APPV
1201 South Brentwood Blvd., St. Louis, MO 63117
(314) 727-1055
Owner: Corporation
Manager: Edward H. Canter

TELEMAP MOBILE

OLVP
3210 W. Westlake Ave., Glenview, IL 60025
(312) 729-5215
Owner: Telemation Inc.
Manager: Steve Hillman

TELEMAP PRODUCTIONS

VPF, OLVP, VPP/E, APPV
3210 Westlake Ave., Glenview, IL 60025
(312) 729-5215
Owner: Telemation Inc.
Manager: Harry Tate

TELEPRO VIDEO PRODUCTIONS

VPF, OLVP, VPP/E, APPV
28140 Everett Dr., Southfield, MI 48076
(313) 552-1015
Owner: Oscar Pelnky

TRI-ART AUDIO/VIDEO

VPF, OLVP, VPP/E, APPV
P.O. Box 567, Bismarck, ND 58502
(701) 223-7316
Owner: Bill Townsend
Manager: David Swenson, audio, Dean Weisser, video

UAB PRODUCTIONS

VPF, OLVP, VPP/E
8443 Day Dr., Cleveland, OH 44129
(216) 845-6043
Manager: Karen A. Lepish, Sales Rep., Patrick Murray Prod. Mgr.

VIDEO DUB ILLINOIS, INC.
VPP/E
214 W. Ohio St., Chicago, IL 60610
(312) 337-4900
Manager: T. Martin Rennels

VIDEO IMPRESSIONS, INC.
VPP/E
110 River Rd., Des Plaines, IL 60016
(312) 297-4360
Manager: Bill Holtane

VIDEO PRODUCERS NETWORK

You. Us. Action! The Best Music Television complete state of the art Film/Video production equipment and services including mastering for video disc.

Detroit

VIDEO PRODUCERS NETWORK

Royal Oak, MI

VIDEO PRODUCERS NETWORK

VPF, OLVP, VPP/E, APPV
324 East 14 Mile Rd., Royal Oak, MI 48071
(313) 585-2616

Owner: Video Network Corp.

Manager: Tony Palmieri

EQUIPMENT

Synchronizer: SMPTE computer controller/editer
VTRs: Sony BRU 3/4" & 1" recorders and 1/2" Beta
Switchers: Special effects generator chroma key
Cameras: 32 Professional Broadcast color cameras
Audio Recorders: 16 track Tascam, 2 track Tascam
Audio Mixers: 16/2 2 track Tascam, Kelsey
Other major equipment: Comprehensive video production facilities with multi-camera mobile unit

Rates: On request

Direction: Several hundred videos for numerous rock bands including Stray Cats, Duran Duran, Motown groups such as the Spinners, recent video projects include the Heart Throbs, New York Express, Cadillac Kid, Natasha, Detroit Rockers. Other music video credits include music monitor entertainment spotlight, Detroit bandstand and over 100 hours of programming for cable television including videos for MTV. 1982 award from the National Federation of Local Television Programmers for the best community cable TV program.

VIDEO REMOTE SERVICES

OLVP
302 Marlborough Dr., Bloomfield Hills, MI 48013
(313) 335-6795
Owner: Karen Gleason, Ira Glass

ZENITH/db STUDIOS

APPV
676 N. LaSalle, Chicago, IL 60610
(312) 944-3600
Owner: Coken & Coken Inc.
Manager: Richard Coken

CORRECTION

In the March issue, the address and phone number for Stonebridge Recording were incorrectly listed. It should have been Rt. 15, Box 54, Maryville, TN 37801, (615) 983-7448.

FLANNER'S PRO AUDIO, INC.

2323C Bluemound Road • Waukesha, Wisconsin 53186

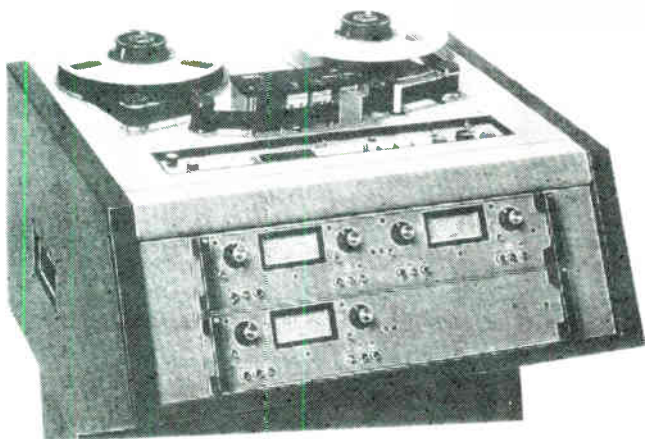
SALES • SERVICE • INSTALLATION • DESIGN
Over 120 Manufacturers Represented

New Products for 1984

CALL TOLL FREE 1-800-558-0880
IN WISCONSIN CALL COLLECT (414) 785-9166

MCI'S New Layback Machine

JH-110B-3-LB



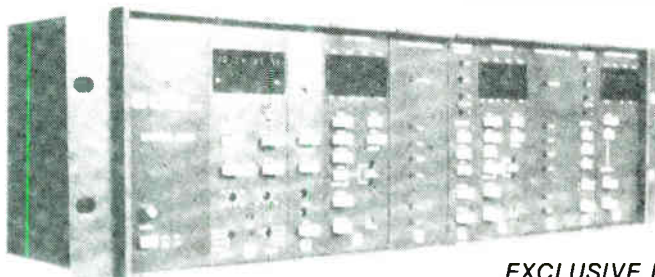
Today's broadcasters and audio/video production houses recognize that full range, dynamic, and quiet audio tracks can contribute a great deal to the impact of video production and customer satisfaction.

Now MCI/Sony introduces a new product/accessory group that will significantly enhance the quality of audio on video—with room for future improvements in audio quality from video equipment.

The new JH-110B-3-LB Audio Layback system from MCI, available in Variable Profile or High Profile cabinet, and unmounted.

MCI's Newest Midwest Full Line Dealer — Now Available — Call for Information

SYSTEM 2600 by ADAMS • SMITH TAPE SYNCHRONIZING AT AN AFFORDABLE PRICE



Time code tape synchronizing and transport control products for audio and video production, post-production, and studio production. The System 2600 has a family of modules for LTC and VITC generation and reading, video tape editing, audio/video tape synchronizing, TV sound editing, transport control, and computer interfacing. Flanner's Pro Audio can now help you in all of your audio post-production needs.

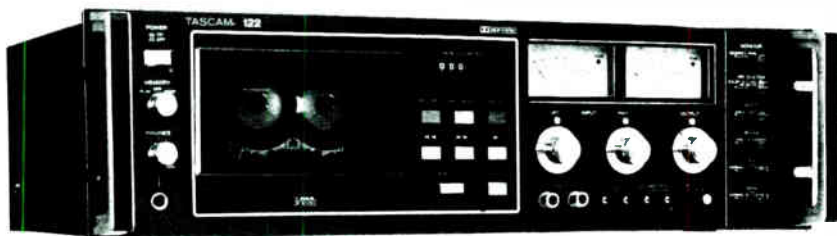
Call for Prices & Information

EXCLUSIVE DEALER IN:
Wisconsin, Minnesota, Iowa, Nebraska
Michigan, Missouri, and Kansas

TASCAM NEW BALANCED + 4 CASSETTE DECK

TEAC Production Products

122-B



The 122-B is a new version of the TASCAN 122 MASTER CASSETTE DECK which has enjoyed great popularity for its high performance, high 9.5 cm/sec. (3 3/4 ips) operating speed and extended headroom capabilities with Dolby*HX. Provided with an input select switch and balanced-type input/output terminals, the 122-B is connection-compatible with equipment which are equipped with these balanced-type terminals. Except for some slight changes to the rear panel, the basic functions, operations and even the smart design of the front panel are the same as the 122.

NOW IN STOCK UNDER \$800.00

Circle #091 on Reader Service Card

World Radio History

ASSOCIATED PRODUCTIONS OF TEXAS
VPF, OLVP
 218 College St., San Antonio, TX 78205
 (512) 227-3400, (713) 780-7227
 Owner: H W Lam
 Manager: D.I. Roberson

AUDIO-VIDEO RECORDERS
VPF, OLVP, VPP/E, APPV
 3830 N. 7th St., Phoenix, AZ 85014
 (602) 277-4723
 Owner: Floyd M. Ramsey, President
 Manager: Floyd M. Ramsey

BUCKBOARD RECORDING SERVICE
APPV
 904 Keller Ave., Fort Worth, TX 76126
 (817) 249-3092

Owner: Ron Di Iulio
 Manager: Mike Lawyer
EQUIPMENT
 Synchronizer: BTX Shadow system
 VTRs: Sony 3/4" and 1/2" players/recorders
 Audio Recorders: 1" 16 channel w/dbx, (2) 1/2 tracks.
 Audio Mixers: 24 in x 16 out board
 Other major equipment: Limiters, noise gates, parametric and graphic equalizers, digital and analog delay, Echoplex reverb, dbx noise reduction, JBL and Auratone monitoring systems, microphone snake with stage splits, the finest microphones including Neumann, AKG, Sennheiser, Crown PZM, Beyer, Countryman PPM, and Shure

Rates: Studio \$50/hr 1st hr \$35/hr next 2 hrs, \$25/hr after 3 hours. All charges plus tape. Block rates available. Remote: \$500/day plus tape (tape 150/hr-1" Ampex 456). Travel-no charge for first 50 miles from Fort Worth, TX, 50 cents/mile thereafter.

Direction: Buckboard's 25-ft travel trailer will quickly interface with any remote video facility for multi-track audio. Buckboard's studio provides a comfortable atmosphere for post-production sweetening, and includes a digital computer synthesizer for SFX production. An experienced staff of composers, arrangers, and musicians is available for turnkey audio production. Credits include Sesame Street, K Mart, CBS/Blackhawk Cable, IBM, Exxon, Nova (PBS), The Welk Group, NASA, Kawasaki, Louisiana Hayride.

BUFFALO SOUND STUDIOS
APPV
 910 Currie St., Ft. Worth, TX 76107
 (817) 335-7733
 Owner: Jim Hodges
 Manager: Buff Haskin

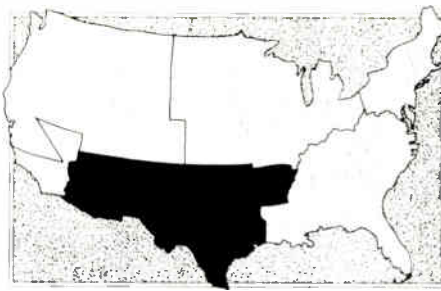
CINE/SOUTH
On Location Video (Lighting Equip. Rental)
 2404 Glenhaven, Houston, TX 77030
 (713) 668-2717
 Manager: Mark Pittman, President

CONTINENTAL PRODUCTIONS
VPF, OLVP, VPP/E, APPV
 3900 Harry Hines Blvd., Dallas, TX 75219
 (214) 521-3900
 Owner: Christian Broadcasting Network
 Manager: Michael E. Grant

DALLAS SOUND LAB
APPV
 Four Dallas Communications Complex, Suite 119,
 Irving, TX 75039
 (214) 869-1122
 Owner: Russell Whitaker
 Manager: Johnny Marshall
EQUIPMENT

Synchronizer: Audio Kinetics Q-lock 3 10
 VTRs: MCI 1" layback.
 VCRs: JVC 8200, IVC 8250
 Audio Recorders: MCI JH114-24 16 track, MCI JH110-B-4 track, Technics SV-100 digital, Sony F-1 digital, Otari MTR 90-24 track, Otari MTH 10-4 track; Otari MTR 10-2 track
 Audio Mixers: MCI 536 w/automaton, MCI 636
 Other major equipment: Multitrack-magnetics 16mm & 35mm high speed projectors & dubbers, film editing & screening facilities, computerized sound effects library

Direction: Dallas Sound Lab is the largest facility of its kind in the Southwestern United States. Studio A, a 48-track recording studio with video/film interlock capable of orchestra scoring to picture, video sweetening and mixing, and album/single production, with audio tie lines to the three sound stages at Las Colinas for live TV shows, concerts, etc. Studio B, a 24-track studio with video/film interlock design for video-sweetening, mixing, overdubbing, ADR & SFX assembling. Studio C, 1200 sq ft 100 seat capacity screening & film mixing theatre.



SOUTHWEST

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

Dallas Sound Lab is designed to meet the complete needs of clientele dealing with any aspect of audio for video or film production.

DALLAS SOUND LAB Irving, TX



DIGITAL SERVICES
OLVP
 2001 Kirby Dr. #1001, Houston, TX 77019
 (713) 520-0201
 Owner: John Moran



EDENWOOD RECORDING STUDIOS Dallas, TX

EDENWOOD RECORDING STUDIOS
APPV
 7319-C Hines Place, Suite 201, Dallas TX, 75235

(214) 630-6196
 Owner: Jerry W. Swafford
 Manager: Dave Scott
EQUIPMENT
 Synchronizer: BTX
 VCRs: JVC 3/4"
 Audio Recorders: Studer A 800 24 track, Otari MTR 10
 Audio Mixers: Tangent VCA (APPV modified)
 Other major equipment: SMPTE read, gen, jam, video display, 3 machine lock
Rates: Audio for video \$120/hr., Audio only \$95/hr.
Direction: Edenwood Recording Studios has provided audio services to major advertising/broadcast agencies for the past eleven years and has included audio post production for video for the past two years. Edenwood provides custom scoring or music from four music libraries plus many EFX libraries and Foley.

HADDEN, MANGANELLO & ASSOCIATES
OLVP, VPP/E, APPV
 3109 Carlisle, Dallas, TX 15204
 (817) 654-5533
 Owner: Scott Hadden, Joe Manganello

HAYES PRODUCTIONS, INC.
VPF, OLVP, VPP/E, APPV
 710 South Bowie, San Antonio, TX 78205
 (512) 224-9565
 Owner: President, Bill M. Hayes, VP Marketing, John Witherspoon, Direct Video Service, Don White

INERGI PRODUCTIONS
OLVP, APPV
 15825 Memorial, Houston, TX
 (713) 493-1533
 Owner: Vincent Kirkerillo
 Manager: David Kealey

JANUARY SOUND STUDIOS
APPV
 3341 Towerwood No. 206, Dallas, TX 75234
 (214) 243-3735
 Owner: January Sound Studios, Inc.
 Manager: Les Studdard
EQUIPMENT
 Synchronizer: MCI JH45 JH48
 VCRs: Sony BVU 800, Sony 3/4", Panasonic 1/2"
 Audio Recorders: (2) MCI 24 track
 Audio Mixers: (2) MCI 536 consoles
 Other major equipment: Dolby, dbx, Lexicon, 224
Rates: \$125/hr.
Direction: Two state-of-the-art 24 track studios with small production studio as support facility. Located 25 minutes from DFW airport.

JOHN CROWE PRODUCTIONS
OLVP
 Ten Greenway Plaza, Houston, TX 77046
 (713) 627-9270
 Three Dallas Communications Complex, Suite 102,
 Irving, TX 75039
 (214) 556-1816
 Owner: John Crowe (Houston office)
 Manager: Rusty Jones (Dallas office)

JONES PRODUCTIONS, INC.
VPF, OLVP, VPP/E
 517 Chester, Little Rock, AR 72201
 (501) 372-4285
 Owner: Gary W. Jones
 Manager: Gary W. Jones

LINCOLN FOUNDATION
VPF, OLVP, VPP/E, APPV
 7622 Louetta Rd., Spring, TX 77379
 (713) 376-9679
 Owner: Lincoln Foundation
 Manager: J.E. Lincoln, program director

LONE STAR RECORDING STUDIOS
APPV
 1204 North Lamar, Austin, TX 78703
 (512) 478-3141
 Owner: Ed Gunn, Stan Coppinger
 Manager: Sarah Light

midcom INCORPORATED

MIDCOM, INC.
Arlington, TX

MIDCOM, INC.
OLVP, APPV
2231 E. Division, Arlington, TX 76011
(817) 461-2211 metro
Owner: Mike Simpson

EQUIPMENT

Synchronizer: BXT Shadow/Cypher & Sottouch System
Audio Recorders: (2) MCI JH 24/24, Studer A810
Audio Mixers: Soundcraft Series 2400 2Bx24x2 auxiliary mixer
Soundcraft Series 400 26x26x4x2
Other major equipment: Lexicon 224X digital reverb, dbx 900 rack, JBL 4430 bi-radial monitors, White 1/6 octave equalizers
Lexicon model 1200B audio time compressor/expander
Rates: 48 track rate - \$2400/10 hr day 24 track rates - \$1800/10 hr day plus tape 2 track or video mix - \$1200 per day plus tape
Travel rate \$1.35/mile beyond 50 mile radius
Direction: Midcom's remote audio facility specializes in on location "audio for video." Equipped with state-of-the-art gear, Midcom offers the finest remote truck and crew to be found in the Southwest. Midcom's on board synchronization allows the client to have sweetening and audio post production at the post facility of his choice

MONTAGE

VPP/E
6736 E. Avalon Dr., Scottsdale, AZ 85251
(602) 994-4806
Owner: Phil Gessert
Manager Cathi Gessert



OMEGA AUDIO & PRODUCTIONS, INC.
Dallas, TX

OMEGA AUDIO & PRODUCTIONS, INC.
APPV
8036 Aviation Place, Box 71, Dallas, TX 75235
(214) 350-9066

Owner: Paul A. Christensen
Manager Michael N. Attar

EQUIPMENT

Synchronizer: BXT 4600/4700, 5 machines
VTRs RCA TH-200 (8)
VCRs: JVC CR6600U
Switchers: Grass Valley
Cameras: RCA/CEI
Audio Recorders: (2) Otari MTR-90 24 track recorder (48 tracks), Otari MTR 10-4 2/4 track

Audio Mixers: Anek M250C 36x24 w/automation
Other major equipment: Fuj Stamp rack, Harmonizer, DDL-1 digital delays, UREI Little Dipper, Audicon plates, Lexicon 224X, etc.

Rates: Interlock w/picture \$125/hr
Direction: Co-located with Video Post and Transfer at Dallas Love Field Recent video music specials with Johnny Cash, Bob Hope, Quarterflash, Cari Perkins, Jerry Jeff Walker, Joe Ely, Eddie Rabbit, Helen Reddy, PHS, etc Omega Audio also has a fully equipped 24/48 track remote truck with full SMPTE interface.

ON LOCATION VIDEO SERVICES

VPF, OLVP, VPP/E
Box 35657, Houston, TX 77035
(713) 728-1020
Owner: Mel Rainer
Manager Bob Andrews

PANTHEON STUDIOS, INC.

APPV
6325 N. Invergordon Rd., Scottsdale, AZ 85253
(602) 948-5883
Owner: Dennis Alexander
Manager Santo Bombaci

PREMIER PRODUCTIONS

VPF, APPV
2411 Karbach #2, Houston, TX 77092
(713) 681-9973
Owner: Rodney Piwetz

RICHARD KIDD PRODUCTIONS INC.

VPF, OLVP, VPP/E, APPV
5610 Maple, Dallas, TX 75235
(214) 638-5433
Owner: Richard Kidd

DONALD L. SMITH CO

VPF, OLVP, VPP/E, APPV
902 San Pedro, San Antonio, TX 78212
(512) 224-2255
Owner: Charles Wagner
Manager: Greg Wagner

SOUND ARTS/TELEVISION

OLVP, VPP/E, APPV
2036 Paskett, Houston, TX 77092
(713) 688-8067
Owner: Steve Long, Aton Christensen, Jeff Wells
Manager Steve Long, Aton Christensen, Jeff Wells

SOUTHWEST TELEPRODUCTIONS

VPF, OLVP, VPP/E
2649 Tarna Dr., Dallas, TX 75230
(214) 243-5719
Manager Bob Dauber

SPINDLETOP POST

VPF, OLVP, VPP/E, APPV
1328 Inwood, Dallas, TX 75247
(214) 634-7206
Manager: Jim Row, President

STAR TRACK RECORDING STUDIOS, INC.

VPF, OLVP, VPP/E, APPV
5840 S. Memorial Dr., Suite 210, Tulsa, OK 74145
(918) 622-6444
Owner: Rod and Sallie Slane
Manager Sally Bushong

SUNDANCE PRODUCTIONS INC.

VPF, OLVP, VPP/E, APPV
7141 Envoy Ct., Dallas, TX 75247
(214) 688-0081
Owner: President, Rush Beesley, VP, Lon Wilder

TELE-IMAGE, INC.

VPF
2225 Bellline Rd., Suite 321, Carrollton, TX 75006
(214) 245-3561
Owner: Robert I. Schiff
Manager Diane Barnard

TELE-IMAGE, INC.

VPF, OLVP, VPP/E
5630 Beverly Hill, Houston, TX 77057
(713) 977-2635
Owner: Robert Schiff, Chris Nicolau
Manager Margaret Mims

TELEVISION PRODUCTIONS

VPF, OLVP, VPP/E, APPV
834 N. 7th Ave., Phoenix, AZ 85007
(602) 254-1600
Owner: Television Inc
Manager Dave Roberts

TEXAS PACIFIC FILM VIDEO

VPF, OLVP, VPP/E, APPV
501 North IH-35, Austin, TX 78702
(512) 478-8585
Owner: Richard Koons
Manager Vicki Margolin

THIRD COAST VIDEO, INC.

VPF, OLVP, VPP/E, APPV
501 North IH-35, Austin, TX 78702
(512) 473-2020
Owner: Ben Y. Mason
Manager Jeff Van Pelt

TKO PRODUCTIONS

VPF, OLVP, VPP/E
2604 18th Street, Plano, TX 75074
(214) 578-9514
Owner: Tom Karges
Manager: Sabrina Karges

UNITED AUDIO-VIDEO RECORDING, INC.

aka UAR PRODUCTIONS
VPF, OLVP, VPP/E, APPV
One Studio Center, 8535 Fairhaven,
San Antonio, TX 78229
(512) 690-8888
Owner: Robert H. Bruce, Marus Perron III, Kenneth L. Ashe,
Michael Bowie
Manager John Whipple

U.S. VIDEO PRODUCTION CENTER

VPF, OLVP, VPP/E, APPV
1422 W. 23rd St., Tempe, AZ
(602) 829-8896
Owner: Scott Friesener, President

EQUIPMENT

VTRs JVC and Sony
Switchers: Crosspoint Latch
Cameras: Sharp SC-700 (3)
Audio Recorders: TEAC & Do
Audio Mixers: NEI
Other major equipment: Microtime TBC, Chyron Character Generator
Rates: \$75 to \$200/hr
Direction: U.S. is a small studio with a casual creative atmosphere. Credits include T.V. commercials, PSA's, training tapes, music videos, documentaries and special programs for cable T.V. We specialize in going the extra mile for the client and also offer scriptwriting, casting and shooting in our own studio, complete with lighting grid.

VERSATRONICS INC.

VPF, OLVP
1701 Linwood Rd., Temple, TX 76501
(817) 773-4000
Owner: Lester Boutwell
Manager Scott Watson

VICTOR DUNCAN, INC.

OLVP, VPP/E
6305 N. O'Connor Rd. #100, Irving, TX 75039
(214) 869-0200
Owner: Victor Duncan
Manager Lee A. Duncan, President

EQUIPMENT

Synchronizer: ADDA, Microtime, DVS, Quantel.
VTRs Ampex, Sony.
VCRs: Sony, JVC, Panasonic.
Switchers: Sony, Crosspoint Latch, Erho
Cameras: Hitachi, Ikegami, JVC, Sony.
Audio Recorders: TEAC, Nagra
Audio Mixers: TEAC, RTS, Shure
Other major equipment: Editing, DVE, Test Equipment
Rates: Call or write for catalog.
Direction: Largest professional film and video rental, sales, service company in the Midwest Branch offices in Chicago (312) 943-7300, Dallas (214) 869-0200, and Detroit (313) 589-1900. Offering a full line of video, film, lighting, grip and audio production and post-production equipment.

VIDEO IN PHOENIX

VPF, OLVP, VPP/E
2311 W. Royal Palm Rd. #111, Phoenix, AZ 85021
(602) 995-4448
Owner: Corporation
Manager Hamilton Wright, President

WESTWOOD RECORDING STUDIOS
APPV
964 West Grant, Tucson, AZ 85705
(602) 622-8012
Owner: Roger King, Fred Porter
Manager: Roger King

ZOLI TELEPRODUCTIONS
VPF, OLVP, VPP/E, APPV
6916 Lyrewood Ln., Suite 179, Oklahoma City, OK 73132
(405) 728-2070
Owner: Zoli Vajda
Manager: Zoli Vajda

Direction: Zoli Vajda has been, in 1982, director on the Rock 'N Roll Show for Somach/Nelson productions. The show was syndicated to 57 stations, and had features on Mick Jagger and the Rolling Stones, REO Speedwagon, AC/DC, Huey Lewis and the News, Loverboy, and others. In 1982 Zoli directed an Ann Murray segment for Country Comes Home on CBS Television. From 1980 through 1984 he has directed 63 live music concerts for the Houston livestock show and rodeo in the Houston Astrodome, which involved the first use of Super EidoPhors in the Astrodome for any event. From these concerts, footage was used for George Strait's "Amarillos by Morning" clip for MCA records, also, the Oak Ridge Boys concert footage was used by ABC's 20/20. Zoli Vajda has directed, produced shows, and produced animation for shows.



ZUMA GROUP, INC.
Phoenix, AZ

ZUMA GROUP, INC.
VPP/E
6733 N. Black Canyon Hwy., Phoenix, AZ 85015
(602) 246-4238
Manager: Copper Bittner
EQUIPMENT
Synchronizer: BTX Cypher
VCRs: Sony VO-5850 (2)
Switchers: Sony SEG 2000
Audio Recorders: Otari MC1
Other major equipment: Zuma Graphics Computer Sony CRK 2000 Chroma Key
Rates: Call

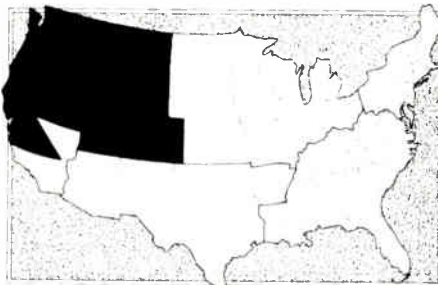
Direction: We specialize in computer image generation process ing, and special effects. Computer system supports interactive drawing program for the creation of computer images, video digitization and processor, pseudo-color image enhancement, real-time zoom and roam through image buffer, real-time color, object, and cel animation; and other special effects. Complete video editing facility. Zuma Group, Inc. also configures computer graphic systems and develops custom software for the video industry.

NORTHWEST

ADN PRODUCTIONS/NITELITES ENTERTAINMENT
VPF, OLVP, VPP/E, APPV
P.O. Box 358, Mercer Island, WA 98040
(206) 232-9747
Owner: Scott Morgan
Manager: Brant Herrell

AUDIO HAWAII, INC.
APPV
866 Iwilei Rd. #230, Honolulu, HI 96817
(808) 533-2657
Owner: Jim Perri
Manager: Jim Perri

VS60



NORTHWEST

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AUDIO PRODUCTION STUDIO
APPV
7404 Sand Lake Road, Anchorage, AL 99502
(907) 243-4115
Owner: Creative Productions Inc.
Manager: Bruce Graham, Ginni Davlin

AUDIO VIDEO RESOURCES
60 Broadway, San Francisco, CA 94111
(415) 781-2603
Owner: Ron Newdell
Manager: Video Dept. John Cremer, Audio Dept. Troy Alders

BAY AREA MOBILETAPE
VPF, OLVP, VPP/E, APPV
1019 E. San Carlos Ave., San Carlos, CA 94070
(415) 593-7124
Owner: Skip Long
Manager: Skip Long

BAY AREA VIDEO COALITION (BAVC)
VPP/E
1111 17th St., San Francisco, CA 94107
(415) 861-3282
Manager: Morrie Warshawski, Exec. Dir.

BEAR WEST STUDIOS
APPV
915 Howard St., San Francisco, CA 94103
(415) 543-2125
Owner: Ross J. Winelsky
Manager: Ross J. Winelsky

BECK-TECH/ELECTRON
Other Services
Claremont Hotel, 41 Tunnel Rd., Berkeley, CA 94705
(415) 548-4054; Telex 701082
Manager: Stephen Beck, President
Direction: Beck Tech/Electron offers a variety of services. Video software publishing (VHS, Beta, LaserDisk, C.F.D.), a visual entertainment library with both music videos (classical, jazz, new music) as well as visual art videos, video effects hardware (visual effects generators and mixing boards). Special and generic effects tapes available for licensing. An electronic visual orchestra (audio-responsive computer-generated visual art available for music events and festivals) and video games design.

Beck Tech/Electron believes the future of this rapidly expanding industry will be shaped by the companies with creative awareness, market-responsive vision, and the inventive collaboration of professionals working together to develop the new criterion in products and services. To this we are committed. Beck Tech/Electron invites you to join with us in the exciting endeavors the future of this industry has to offer.

ROBERT BERKE SOUND PRODUCTION & RECORDING
APPV
50 Mendell St. #11, San Francisco, CA 94124
(415) 661-6316
Owner: Robert Berke
Manager: Mark Fessolt
EQUIPMENT
Synchronizer: BTX Softouch, Shadow II
VCRs: Sony 800 (2)

Audio Recorders: Otari MTR 90 16 track MTR 10-4 track MTR 10-2 track (4)
Audio Mixers: Audionics 700
Other major equipment: Cypher Time Code system, digital reverb & effects
Rates: Please call for rates
Direction: Robert Berke Sound Production & Recording specializes in post production audio for TV, radio, and multi-image. Our new state of the art facility features one of the most versatile and sophisticated audio for video computer systems in Northern California and includes multi-machine synchronization, event control, and electronic audio editing. Our thousands of music and sound effects selections, digital reverb and effects devices, and our highly experienced and creative staff make us a valuable production resource.

BONNEVILLE PRODUCTIONS
APPV
130 Social Hall Ave., Salt Lake City, UT 84111
(801) 237-2400
Owner: Div. of Bonneville International Corp.
Manager: Dave Michelsen

CAMRAC STUDIOS
VPF, OLVP
1775 Kuenzli St., Reno, NV 89502
(702) 323-0965
Owner: A Nevada Corporation
Manager: Shirley A. Mitchell

CATALYST PRODUCTIONS
VPF, OLVP, VPP/E, APPV
1782 University Ave., Berkeley, CA 94703
(415) 848-7606
Owner: Joshua Reichel, Avi Starbenfeld
Manager: Ken White, Bill Camenga, Helene Schmidt

CINE RENT WEST
VPF, VPP/E, APPV
155 Fell St., San Francisco, CA 94102
(415) 431-5490
Owner: Greg Spazelle, President
Manager: Greg Spazelle

CLEAR-COM INTERCOM SYSTEMS
VPF, OLVP, VPP/E, APPV
1111-17th St., San Francisco, CA 94107
(415) 861-6666
Owner: Robert Cotton
Manager: Peter Gudings, Marketing Director

CIRCUIT RIDER VIDEO PRODUCTIONS
VPF, OLVP, VPP/E
9619 Old Redwood Highway, Windsor, CA 95492
(707) 838-6641
Owner: Circuit Rider Prod. Inc.
Manager: Jeff Berger

COUGAR RUN PRODUCTIONS
APPV
P.O. Box 5039, Incline Village, NV 89450
(702) 831-1766
Owner: Cougar Run/24 Track Music Studios Ltd.
Manager: Jody Everett Peterson, Sr.

GOLDEN BAY VIDEO
OLVP, VPP/E, APPV
61 Camino Alto #108, Mill Valley, CA 94941
(415) 381-2566
Owner: Vinton Medbury, L. Lee Buschel
Manager: Vinton Medbury

HALF-INCH VIDEO
OLVP, VPP/E
185 Berry St., Suite 467, San Francisco, CA 94107
(415) 495-3477
Owner: Mark Lamper
Manager: Rhonda Plank

HARRY DAWSON AND ASSOCIATES
VPF, OLVP, VPP/E, APPV
P.O. Box 10042, Portland, OR 97210
(503) 224-6407
Owner: Harry Dawson

NORTHERN CALIFORNIA
Post Production & Effects Specialists

The commitment to quality continues.



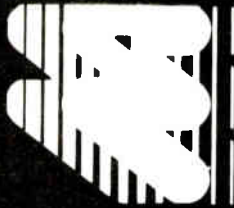
POSITIVE VIDEO
proudly announces
the opening of our
BOSCH Film-To-Tape
transfer suite.
For details, call (415) 254-3902

POSITIVE VIDEO®

15 Altarinda Road □ Orinda CA 94563

STUDIO D: VIDEO AT THE ANNEX

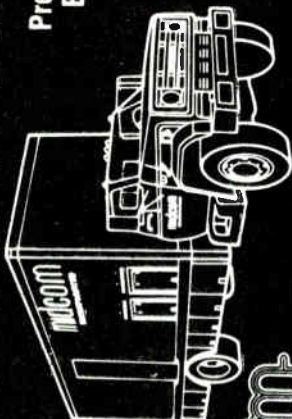
Music Annex Recording Studios
970 O'Brien Dr. Menlo Park, California 94025
(415) 328-8338



Circle #093 on Reader Service Card

AUDIO FOR VIDEO

Professional Audio
Equipment Sales
Walkie-Talkie &
Wireless Rental



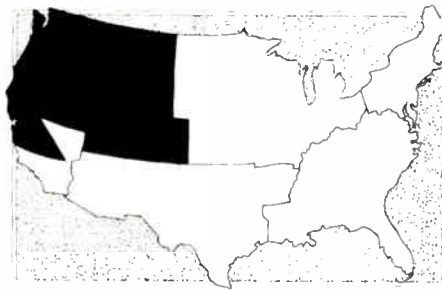
46 Track Remote
Recording Facility
SMPT E Time Code
Equipped

midcom
INCORPORATED

2231 E. Division
Arlington, Texas 76011

(817) 461-2211 metro

Circle #094 on Reader Service Card



NORTHWEST

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DIFFERENT FUR RECORDING

APPV
3470 Nineteenth St., San Francisco, CA 94110
(415) 864-1967
Owner: Pat Gleeson
Manager: Rachel Siegel
EQUIPMENT
Synchronizer: BTX Shadow
VTRs JVC 6600
Audio Recorders: Studer A80 Mark III 24 track 1/4 2 track 1/2 2 track
Audio Mixers: Harrison 4032 Automated
Other major equipment: Syncliner 32 voice digital synthesizer
Rates: Call for rates
Direction: We can link audio and video in a variety of formats for recording and sweetening. We have extensive experience with video to multitrack digital links. Recent credits: Fantasy Films Walt Disney Productions; Nepenthe Productions, CBS, etc.

FANTASY STUDIOS

APPV
10th & Parker St., Berkeley, CA 94710
(415) 549-2500
Owner: Fantasy Records
Manager: Nina Bombardier
EQUIPMENT
Synchronizer: Q Lock 4
VCRs: BVU 800
Audio Recorders: 4 track 8 track 16 track & 24 track
Audio Mixers: Neve 8108 Quad 8
Other major equipment: Large inventory of outboard gear
Rates: Call for information

HARBOR SOUND

APPV
301 Harbor Drive, Sausalito, CA 94965
(415) 332-0983
Owner: Nancy Evans, Pa il Stubblebine
Manager: Patty Gomez

HOT TRACKS RECORDING

APPV
2217A The Alameda, Santa Clara, CA 95050
(408) 554-1117
Owner: Phil Jamison Don Heinsen
Manager: Phil Jamison

KAYE SMITH PRODUCTIONS

VPF, OLVP, APPV
2212-4th Ave., Seattle, WA 98121
(206) 624-8651
Owner: Lester Smith Danny Kaye
Manager: Gary Norene

KVIE VIDEO

VPF, VPP/E
P.O. Box 6, Sacramento, CA 95801
(916) 929-5797
Owner: KVIE TV
Manager: Garth Harrington

LIVE OAK PRODUCTIONS

APPV
1300 Arch #2, Berkeley, CA 94708
(415) 540-0177
Owner: Priscilla & Jim Gardiner
Manager: Priscilla Gardiner
EQUIPMENT
VCRs: Sony 1/2", 1/4"
Audio Recorders: MCI JH 24/24 16 Otari: MTR 10-2
Audio Mixers: 636 automation ready
Other major equipment: Lexicon, 2.24X with Larc, Sony PCM F1 digital 2 track much more
Rates: On request
Direction: Studio designed for film scoring, syn-computer programming SMPT E inter lock to video. We have many years of experience in film scoring. Eddie Harris, our engineer, has mixed many film releases.

MINCEY PRODUCTIONS INC.

VPF, OLVP, VPP/E
116 N. Page, Portland, OR 97227
(503) 287-1931
Owner: John W. Mincey
Manager: Jack Santry

MOBILE VIDEO PRODUCTIONS

VPF, OLVP, VPP/E
888 Post St., San Francisco, CA 94109
(415) 474-0202
Owner: Dany B. Walker
Manager: Laura Abram

MOUNTAIN MOBILE RECORDING INC.

APPV
Rt. 1, Box 25, Tulelake, CA 96134
(916) 667-5508
Owner: Mountain Mobile Recording Inc.
Manager: Web Stanton



MUSIC ANNEX
Menlo Park, CA

MUSIC ANNEX

VPF, APP/E, APPV
970 O'Brien Dr., Menlo Park, CA 94025
(415) 328-8338
Owner: Music Annex, Inc.
Manager: David Porter

Direction: In our tenth year of providing a full service facility to the music and media community of Northern California, the Music Annex will now also provide a professional audio/video soundstage. This is the largest studio of its kind interlaced with a state-of-the-art 24 track control room. With design supervised by George Auaspurger Studio D and the audio/video soundstage provides the perfect location for video, audio, showcases, product debuts, MTV screenings and corporate presentations. As always, the staff will provide the best possible assistance with any project, large or small and tailor our services to your budget specifications.

NIGHTSPORE STUDIOS/PEERLESS VIDEO

VPF, OLVP, VPP/E, APPV
30 Berry St., San Francisco, CA 94107
(415) 543-2626
Owner: Jack Cutter, Brad Pearson
EQUIPMENT
Synchronizer: BTX 4600
VTRs: BVU 110, VO4800
VCRs: Sony
Cameras: Ikegami 79A, JVC KY2000
Audio Recorders: Otari 5050, TEAC 3440, Technics 1500
Audio Mixers: Speck 500, Biamp 1621
Other major equipment: Molo-Richardson lighting equip
Rates: Please call for rates. We welcome inquiries.

Direction: Having five years of experience in audio recording and four years of experience in video production between us, Nightspore Studios and Peerless Video have merged to form a comprehensive audio/video facility. We provide service from music video to industrial and commercial production in remote and studio situation. We are dedicated to the art of video and audio recording and maintain high professional standards regardless of budget and project size. We invite people to visit, view our previous work and discuss their project.

NIGHTSPORE STUDIOS/PEERLESS VIDEO
San Francisco, CA



OCEAN TELEVISION/OCEAN VIDEO
VFF, OLVP, APPV
9 Sacramento Patio, Stinson Beach, CA 94970
(415) 868-0763
Owner: Tim Tomke
Manager: Tim Tomke



ONE PASS FILM & VIDEO
San Francisco, CA

ONE PASS FILM AND VIDEO
VFF, OLVP, VPP/E, APPV
On+ China Basin Bldg., San Francisco, CA 94107
(415) 777-5777

Owner: A One Pass Company
Manager: Client Services

EQUIPMENT

Synchronizer: Adam Smith
VTRs: (6) BVH 1000, (4) VTR-2, (3) VTR 3
VCRs: BVU 800, BVU 110, VO 2860
Switchers: GVG 1680, 1600 II., 16003F
Cameras: Ikegami HL79E, DAI., HK357

Audio Recorders: MCI 8 track Otari, Nagra stereo
Audio Mixers: Audiotronics 710.

Other major equipment: CMX and Epic 1" editing suites, computer animation, Ultimate, satellite services distribution and syndication, mobile video production vehicles, sound stages, grip and lighting.

Rates: Upon request

Direction: One Pass continues to provide the finest personnel and hardware to clients such as HBO, Showtime, ABC, Metromedia, CBS, Rolling Stones Records, Joni Mitchell, Bill Graham Presents, Warner Bros. Records. One Pass has a creative staff dedicated to conceptual and concert videos.

PACIFIC VIDEO RESOURCES
VFF, OLVP, VPP/E
2339 Third St. M-4, San Francisco, CA 90025
(415) 864-5679
Owner: Jim Farney Steve Kotton, Witt Monts
Manager: Liz Inart Office Manager

PANORAMA PRODUCTIONS
VFF, OLVP
2353 De La Cruz Blvd., Santa Clara, CA 95050
(408) 727-7500
Owner: Dom Dulmage

PAPPAS TELEPRODUCTIONS
VFF, OLVP, VPP/E
5111 E. McKinley, Fresno, CA 93727
(209) 251-2600
Owner: Harry Pappas
Larry Gamble, Marketing Director

PEAK PRODUCTIONS, INC.
VFF, OLVP, VPP/E
P.O. Box 329, Winter Park, CO 80482
(303) 726-5881
Owner: Brooke C. Johnson, James R. Anderson

PF VIDEO
VFF, OLVP, VPP/E, APPV
2727 N. Grove Industrial Dr. #101, Fresno, CA 93727
(209) 255-1600
Manager: Frank Burk, Glen Merr

PILOT VIDEO
VFF, OLVP, VPP/E
425 Alabama St., San Francisco, CA 94110
(415) 863-3933
Owner: Allen Kessler, Grunbeck & Allen Partners
Manager: Mark Allen

THE PLANT STUDIOS
APPV
2200 Bridgeway, Sausalito, CA 94965
(415) 332-6100
Owner: Laurie Nervocnea
Manager: Paul Broucek

POSITIVE VIDEO
VFF, VPP/E, APPV
15 Altairinda Rd., Orinda, CA 94563
(415) 254-3902
Owner: Jim & Lindsay Lautz

PRODUCERS STUDIO
VFF, OLVP
86 E. Broadway, Suite 10, Eugene, OR 97401
(503) 683-1400
Owner: Michael S. Dille
Manager: Michael S. Dille

KELLY QUAN RECORDING
APPV
55 White Street, San Francisco, CA 94109
(415) 771-6716
Manager: Marie Davalos

REALTIME VIDEO PRODUCTIONS
VFF, OLVP, VPP/E, APPV
1717 17th Street, San Francisco, CA 94103
(415) 864-1444
Owner: Will Hoover
Manager: Will Hoover
EQUIPMENT
VTRs: BVH 500 VUH-500A BUH 2000 VBH-2500
VCRs: 1" editor w/animation capabilities BVU 110 1/4" VBH-800's
Switchers: Grass Valley 1000 1X switcher with E mem
Cameras: (3) BVP 330
Audio Recorders: Otari 1/4"
Audio Mixers: Hama
Other major equipment: CMX 340X editor, 1/2" VHS off line editor
Rates: Call for rates

Direction: We are a full service video production company and provide our clients with the full range of services from simple equipment rental, to full packages with crews, to original script writing, production, post production, full effects and national/international distribution. We do slide transfers, create SMPLE time coding and window dubs. Also do 35mm film. Our clients range from large industrials, to network broadcasters, to agencies, music and the media, the fashion industry, and advertising producers.



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Toll Free Ans. Serv (800) 824-7888 OP 751

RUSSIAN HILL RECORDING

APPV
1520 Pacific, San Francisco, CA 94109
(415) 474-4520
Owner: Jacky Leahy, Bob Shottland
Manager: Bob Shottland Gen. Mgr: Gayneli Toler, Studio Mgr
EQUIPMENT
Synchronizer: Q Lock CVC Intelligent Controller
VCRs: JVC B250 6650 6400 Sony SLO383
Cameras: Sharp XC600 (film transfer)
Audio Recorders: MCI 24 16, 4 2 mono
Audio Mixers: Helios 52x24 Neotek 28x24
Other major equipment: Film/tape suite
Direction: Russian Hill is making the latest advances in electronic cinema services available to all filmmakers and video producers including scoring, ADH, SFX assembly mixing to picture and 16 & 35mm film to tape transfer w double system and any code for mat

SAMFILM STUDIOS

VPF, OLVP, VPP/E
P.O. Box 6616, Carmel, CA 93921
(408) 394-3800
Owner: Sam Harrison
Manager: Judith Cole



SAN FRANCISCO PRODUCTION GROUP
San Francisco, CA

SAN FRANCISCO PRODUCTION GROUP

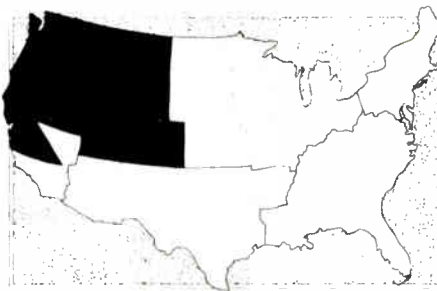
VPF, OLVP, VPP/E, APPV
550 Bryant St., San Francisco, CA 94107
(415) 495-5595
Owner: Joel Skrimore, Jeff Cretner
Manager: Peter Lakey
EQUIPMENT
Synchronizer: CMX 340X computerized audio/video editor
VTRs: 1 Sony BVH-2000 BVH-1100 BVH-1100
VCRs: 4 Sony BVU 820 and 1 BVU 800's
Switchers: Grass Valley 1600 1X
Cameras: Ikegami HI 79 DALIS
Audio Recorders: TEAC 1640 404 Otari MA 5050B 2 track
Audio Mixers: Yamaha PM 100 1x
Other major equipment: NEC Flex digital video effects generator 30 x 40 insert stage with hard copy
Direction: SFG is built around the employee join out room. As music business we bring a lot of creativity to our music video. This is our third year as a video production and production company with business and entertainment clients like Capital, Kangaroo and Computerland. Our music video clips have aired on MTV, Showtime and HBO. We offer complete production and post production services including shooting stage digital video effects and computer graphics.

RANDALL SCHILLER PRODUCTIONS

APPV
1207 5th Ave., San Francisco, CA 94122
(415) 661-7553
Owner: Randall Schiller
Manager: Randall Schiller

SEA WEST STUDIOS/HAWAII

APPV
P.O. Box 30186, Honolulu, HI 96820
(808) 293-1800
Owner: Corporation
Manager: Darius Anek



NORTHWEST

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

DAWN SHIFREEN VIDEO

OLVP
6927 Fairmont Ave., El Cerrito, CA 94530
(415) 526-9566
Owner: Dawn Shifreen
Manager: Dawn Shifreen

SHOTWELL IMAGE GROUP

VPF, OLVP, VPP/E, APPV
307 Shotwell St., San Francisco, CA 94110
(415) 621-7077

SKAGGS TELECOMMUNICATIONS SERVICE

VPF, OLVP, VPP/E, APPV
5181 Amelia Earhart, Salt Lake City, UT 84116
(801) 539-1427
Owner: Dan Skaggs
Manager: Dan Skaggs

THE SOUND SERVICE

VPP/E, APPV
860 Second St., San Francisco, CA 94107
(415) 433-3674
Owner: David Dorkin, Steve Hinsky
Manager: David Dorkin
EQUIPMENT
Synchronizer: Aud. Kinetix Q Lock 310
VCRs: JVC B250 Sony 6650 ultra high def.
Audio Recorders: Ampex MM 100 16 track M15 by C. Elysa x MCI 14 track MCI 2 track 16 track time code Ampex 440 2s
Audio Mixers: Neotek II
Other major equipment: Film water and other digital synthesizers
Rates: APPV \$1100/m. S. and to picture direct
Direction: We are entering our third year of professional post production audio services for video and our 14th year in business. We are presently outfitting system audio for video film to video audio transfer and digital music directly to picture and are the first facility in Northern California to have the MCI S by C. Elysa machines. Our client list includes KOED, KTVU, several TV management producers, Apple Computers, Computerland, Citibank, United Bank, and Citicorp.

SPECTRUM STUDIOS, INC

APPV
905 S.W. Alder St., Portland, OR 97205
(503) 248-0248
Owner: M. Carter, L. McCall
Manager: Michael Carter
EQUIPMENT
Synchronizer: AK Q Lock 310C with VAPP ADH SFX & Genlock & Kinetix
VTRs: Sony BVH 1100 I type-C with Dolby A
VCRs: JVC CR7500
Audio Recorders: Otari M16 90 24 track Ampex A16 2 104
Audio Mixers: Custom built API equipped transfer
Other major equipment: Dolby A NH Harris CU590 TBC
Rates: \$1100/m.
Direction: Spectrum is a full service audio studio with music recording, broadcast and multimedia production rooms, a turn of hand on every production's capability and an award winning staff.

SPEED OF LIGHT

VPF, OLVP, VPP/E, APPV
2430 Jones St., San Francisco, CA 94133
(415) 441-7806
Owner: Lou Casa Bianca, Joe Van Witsen
Manager: Joe Van Witsen
EQUIPMENT
VTRs: Ampex 110
VCRs: Panasonic & Sony 4
Switchers: 3M
Cameras: Ampex Diguam Sharp
Audio Recorders: Otari 8 track TEAC 4 track
Audio Mixers: TEAC 8 channel
Other major equipment: Ampex TBC, Alpha Syntaur, synthesizer
Rates: Upon request
Direction: Music video and long form programming. Creative direction and scripting. 16mm, 35mm, special effects and animating. Creative marketing and distribution.

STUDIO C

APPV
1338 Mission St., San Francisco, CA 94103
(415) 864-2825
Owner: Lutner Greene, Will Harvey
Manager: Ruby Yang

TELEMATION PRODUCTIONS

VPF, OLVP, VPP/E, APPV
1200 Stewart St., Seattle, WA 98101
(206) 623-5934
Owner: Telemation Productions Inc.
Manager: Lance Kyed

TELEMATION PRODUCTIONS/DENVER

VPF, OLVP, VPP/E, APPV
7700 E. Iliff, Suite H, Denver, CO 80231
(303) 751-6000
Manager: Michael Thiss, Gen. Mgr: Ron Anderson, Op. Mgr

TELESCENE, INC

VPF, OLVP, VPP/E, APPV
2185 So. 3600 W., Salt Lake City, UT 84119
(801) 973-3140
Owner: George Hatch
Manager: Fred Edwards

3RD RAIL MEDIA

OLVP
55 Sutter St., Suite 506, San Francisco, CA 94104
(415) 821-3623
Manager: Dan Wagner
Direction: 3rd Rail Media is a production company devoted exclusively to the creation of music video programs, employing audio video production techniques inside affordable packages. 3RM uses a professional media professionals who bring together their varied skills to sculpt a sensual and engaging broadcast product. 3RM also offers a distribution assistance service to enable the selected media professionals to the airwaves and clubs where the music video is shown.

TOTAL VIDEO

VPF, OLVP, VPP/E, APPV
220 E. Grand, Ste. B, South San Francisco, CA 94080
(415) 583-8236
Owner: Jerry Kalkot
Manager: Jerry Kalkot

TRANSPARENT RECORDINGS

VPF, OLVP, APPV
883 Golden Gate Ave., San Francisco, CA 94102
(415) 563-6164
Owner: Louy Lewis
Manager: Louy Lewis
Equipment: Neptun Audio 30 ips 16 with center track SMPLE, Studer 1600 2 mixing console
Direction: Transparent Recordings offers the highest quality in low rate recording.

TRES VIRGOS STUDIOS

APPV
1925 Francisco Blvd., San Rafael, CA 94901
(415) 456-7666
Owner: Bob Yeager, Jerry Jacob, Allen Hare, Mike Stevens
Manager: Bob Yeager

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World Radio History

TRIAD RECORDERS
VPF, OLVP, VPP/E, APPV
 2727 N. Grove Industrial Dr. #111, Fresno, CA 93727
 (209) 255-1668

Manager: Dave Schroyer
EQUIPMENT

Synchronizer: Audio Kinetics Q-Lock 3 10
 VTRs: Sony 1100 1" w/still frame & slo-mo; Sony 3/4"
 VCRs: All models VCRs
 Switchers: Grass Valley, ISI, ADC
 Cameras: (3) Hitachi SK70's, (2) CFI 310's
 Audio Recorders: Studer A80's 1/4" & 1/2"; A800 24 16, A710
 A810 1/4" Revox PR99 2 track
 Audio Mixers: Harrison MR 3 (48x24 w/autoset & 6bx.24).
 Sound Workshop "Logex"
 Other major equipment: Computerized editing (12x8) Full
 video & audio studios. Digital & Quantal reverb, Time squeeze,
 Aural Exciter
Rates: Available upon request
Direction: Specializing in full studio & remote video production &
 post-production. Video music a specialty. Up to 7 camera remote
 teleproduction van for location videotaping combined w/high-
 quality audio. Three audio studios. Located at airport complex for
 convenience

TRIPLE AAA VIDEO
VPF, OLVP, VPP/E, APPV
 3650 North Government Way, Suite J, Box 9,
 Coeur D'Alene, ID 83814
 (208) 667-6822; 772-4827

VARITEL VIDEO
VPF, OLVP, VPP/E, APPV
 350 Townsend St., San Francisco, CA 94107
 (415) 495-3328
 Manager: Michael Cunningham, General Manager.

VERSATILE VIDEO INC.
VPF, OLVP, VPP/E
 151 Gibraltar Court, Sunnyvale, CA 94086
 (408) 734-5550
 Manager: Larry Johnson

VIA VIDEO INC./
THE ELECTRONIC PICTURE PROCESSING COMPANY
VPF
 5515 Old Ironsides Dr., Santa Clara, CA 95050
 (408) 980-8009
 Manager: Larry Puppo

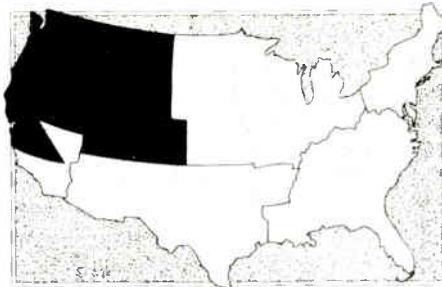
VIDEO ARTS
VPF, OLVP, VPP/E
 185 Berry, Bldg. 3, Ste. 465, San Francisco, CA 94107
 (415) 546-0331
 Owner: Kim Salyer, President
 Manager: Ed Rudolph

VIDEO IMAGES
VPF, OLVP
 2111 Research Dr. #2, Livermore, CA 94550
 (415) 443-3875
 Manager: Mark Trujillo

VIDEO PRODUCTIONS
VPF, OLVP, VPP/E
 824 N.W. 18th Ave., Portland, OR 97209
 (503) 243-6712
 Owner: Lee Enterprises/KOIN-TV
 Manager: Frank Taylor

VIDEO WEST
VPF, OLVP, VPP/E, APPV
 Broadcast House, Salt Lake City, UT 84180
 (801) 575-7400
 Manager: Marshall Larson

VIDEOWEST PRODUCTIONS
VPF, OLVP, VPP/E, APPV
 735 Harrison St., San Francisco, CA 94107
 (415) 957-9080
 Owner: Fabrice Florin, President
 Manager: Robin Acker, Technical Services Manager
EQUIPMENT
 VCRs: Sony BVU-110 BVU 800 BVU 820
 Switchers: Crosspoint Latch 6112
 Cameras: Ikegami HL-79DA, Sharp XL-700
 Audio Recorders: Otari 1/4"
 Audio Mixers: TEAC 8x4
 Other major equipment: Convergence 104, Chyron VP 1
Rates: Inquire for rate card
Direction: Videowest has produced music videos for Grease Kinn
 (Elektra/Asylum), David Johansen (Epic) the Scorpions
 (Polygram), Richard Thompson and Commander Cody to name

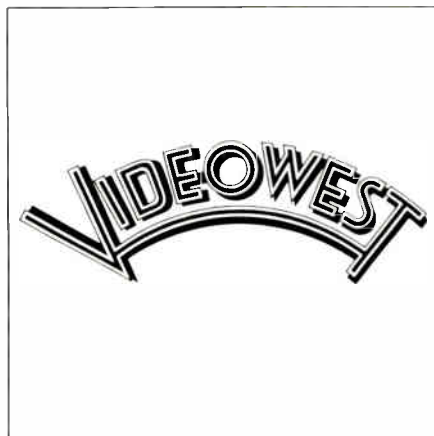


NORTHWEST

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a few. In addition, Videowest has produced over 750 music news reports for MTV and dozens more for Entertainment Tonight. Most significantly, Videowest has produced its own music series for broadcast and cable TV, including Backstage Pass, Take Off! and Rock On TV. Along the way, Videowest has won numerous industry awards including three Emmys.

VIDEOWEST PRODUCTIONS
 San Francisco, CA



WESTERN NATIONAL STUDIOS
 (Formerly the Osmond Complex)
VPF, OLVP, VPP/E, APPV
 1420 East 800 North, Orem, UT 84059
 (801) 224-4444
 Owner: Paul Jensen
 Manager: Carol Miller

WESTERN VIDEOTAPE PRODUCTIONS
VPF, OLVP, VPP/E
 101 Howard St., Suite B, San Francisco, CA 94105
 (415) 543-2810
 Owner: Willis Skj. Brown
 Manager VP: Lucia Hannun, Marketing: Kris McGinnis

SOUTHERN CALIFORNIA

AKO PRODUCTIONS
VPF
 20531 Plummer St., Chatsworth, CA 91311
 (818) 998-0443
 Owner: A. E. Sullivan

AMERICAN MANDALA VIDEO PRODUCTIONS
VPF, OLVP, VPP/E, APPV
 74-155 Candlewood, Palm Desert, CA 92260
 (619) 568-1938
 Owner: John Mandola
 Manager: Nick Mancola

ASTIN VIDEO
VPP/E, APPV
 3501 Cahuenga Blvd. West, Los Angeles, CA 90068
 (213) 876-8008
 Manager: Martin Soloway, Rob Levy

EQUIPMENT
 Synchronizer: Q Lock
 VTRs: Ampex VPH2B, Sony 1100, Bosch HCN50
 VCRs: Sony BVU800, Sony 2860
 Switchers: Grass Valley
 Cameras: 3 Hi8W and 1 color title camera
 Audio Recorders: MCI 16/24 1-2 4-track ATR, plus car
 tridacs
 Audio Mixers: MCI 28x.4
 Other major equipment: Various signal processors, Dolby, also
 Mach, CMX & convergence editors, Quantel & E-Flex DVE's,
 Rank Cintel film-to-tape transfers
Rates: Call for quotation
Direction: Staff mixer Bill Lazarus is recognized as one of
 Hollywood's top recording engineers. He has sweetened a full
 range of the projects being edited at Astin Video. In addition to
 audio post production, Astin Video offers on-line and on-line
 editing and film-to-tape transfers. Clientele includes producers of
 music videos, commercials, features, cable & network specials
 and sitcoms

ATV VIDEO PRODUCTION SERVICES
OLVP, VPP/E
 138-30th Street, Hermosa Beach, CA 90254
 (213) 374-3245
 Owner: Andrew McGinty
 Manager: Andrew McGinty

AUDIBLE SYSTEMS
VPF
 1631 Maria St., Burbank, CA 91504
 (213) 843-2121
 Owner: R. Haro & George Castleberry
 Manager: Graham Thornton

AUDIO-VIDEO CRAFT, INC.
VPF, OLVP, VPP/E, APPV
 7710 Melrose Ave., Los Angeles, CA 90046
 (213) 655-3511
 Owner: Dan O'Dowd
 Manager: Andrew Overton

BEST AUDIO
APPV
 5422 Fair Ave., N. Hollywood, CA 91601
 (213) 763-2378
 Owner: Lawrence Estrin
 Manager: Bob Huntley

BLUTH VIDEO SYSTEMS
APPV
 2660 W. Olive Ave., Burbank, CA 91505
 (213) 840-8060
 Owner: Joseph Bluth, Melvin Simon
 Manager: Joseph Bluth

BOSUSTOW VIDEO
VPP/E
 1649 Eleventh Street, Santa Monica, CA 90404
 (213) 450-6276
 Owner: Tee Bosustow
 Manager: Tee Bosustow

BRITANNIA SCORING SERVICE
APPV
 3249 Cahuenga Blvd. West, Hollywood, CA 90068
 (213) 851-1244
 Owner: Gordon Mills
 Manager: Greg Venarone

EQUIPMENT
 Synchronizer: RTX Shadow
 VCRs: Sony 5800 4"
 Audio Recorders: MCI 24 track, MCI 4 track
 Other major equipment: Large screen video projection
 10'x10' V-Star 4 system
Rates: \$180/hr non IATSE, \$300/hr IATSE
Direction: TV scoring: 1) Sudden Impact, 2) Executioner's Song,
 3) Honky Tonk Man, movie 4) Linda Carter Special, TV: 5) Every
 Which Way But Loose, 6) Sharky's Machine, 7) Any Which Way
 You Can

THE BURBANK STUDIOS
VFP, OLVP, VPP/E, APPV
 4000 Warner Blvd., Burbank, CA 91522
 (213) 954-6000
 Manager: Director Prod. Serv., Ron Stein, Mgr. Post-Prod
 Tom McCormack

CAL-COAST VIDEO TRUCK
OLVP
 4091 E. LaPalma, Suite 5, Anaheim, CA 92807
 (714) 632-9452

Owner: Clyde L. Davis, Shirley J. Davis
 Manager: Lester Claypool

EQUIPMENT
 Synchronizer: Quantel
 VTRs (2) Sony 5850 for edit and mobile systems
 VCRs: JVC VHS 1/2" video re-order w/Dolby and stereo, Sony 2860's, JVC HR 2200 VTR, portable for editing
 Cameras: Vohsci 1900 color key, (3) JVC 1900
 Audio Mixers: Cerwin-Vega MX8
 Other major equipment: Panasonic 5500 special effects generator, Hitachi E08999 wave form vector scope set, complete Columbia intercom system
 Rates: Call for rates

CFI VIDEO
APPV
 959 Seward St., Hollywood, CA 90038
 (213) 462-3161

Owner: Republic Corp
 Manager: Tom Ellington, Pres., Jerry Virnig, V.P. marketing

CINETRONICS
VFP, OLVP, VPP/E, APPV
 13427 Saticoy, North Hollywood, CA 91605
 (213) 461-3770

Owner: Humberto Rivera, Heather Howell
 Manager: Humberto Rivera

EQUIPMENT
 Synchronizer: (Video Editor) Convergence 104 Superstick with dual disk drive (CMX compatible)
 VTRs Sony BVH 1100 1" Type C VTR
 VCRs: (2) Sony Betacam players with TBC (2) Sony BVU800 BTRs with TBC
 Switchers: Crosspoint latch double re-entry switcher w/down stream keyer, E-MEM
 Cameras: (2) three tube Sony Betacam EFP production packages, (2) Ikegami HL79 EAL
 Audio Recorders: Otari, 8 track
 Audio Mixers: Sony, MCI
 Other major equipment: All 3/4" and 1" VTRs equipped with Dolby "A"
 Rates: Online Betacam to 1" video editing with editor, \$225/hr, 3/4" BVU to 1" with editor, \$175/hr, 3/4" to 3/4" off-line, \$30/hr, 3-tube Betacam EFP package, \$400/day production rates quoted per job basis
 Direction: Production. New 3-tube Betacam EFP packages live concert production for broadcast, screen magazine field production, national television series production and syndication, features and specials production. Post Production. Music videos, on-line editing (3/4" to 1" and Betacam to 1"), bump-ups and window dubs (with time code burned in), feature film pre visualization, animations/test commercials



COMPACT VIDEO SERVICES
 Burbank, CA

COMPACT VIDEO SERVICES
VFP, OLVP, VPP/E, APPV
 2813 W. Alameda Ave., Burbank, CA 91505
 (213) 840-7000
EQUIPMENT
 Synchronizer: EECO-MQS
 VTRs Ampex VPR 2-B's



AUDIO VIDEO INNOVATIONS

SOUTHERN CALIFORNIA'S NEWEST AUDIO/VIDEO PRODUCTION CENTER

AUDIO

AMEK ANGELA
 OTARI 24 track
 ORBAN
 UREI
 LEXICON
 EVI NITUDE
 ALTEC
 JBL
 NEUMANN
 SENNHEISER
 AKG
 SHURE

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AIR COND
 2,000 SQ FT STAGE
 INSERT STAGES
 REHEARSAL ROOMS
 DRESSING ROOMS
 ISOLATION BOOTHS
 NATURAL ECHO CHAMBER
 KITCHEN & LOUNGE
 LIMO SERVICE
 40 CAR PARKING
 15,000 SQ FT
 SET & PROP STORAGE

VIDEO

MULTIPLE CAMERA
 REMOTE SERVICES
 3/4" ON-LINE/OFF-LINE
 SIGNAL PROCESSING
 CASSETTE DUPLICATION
 IKEGAMI
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**IDEALLY LOCATED FOR THE 1984 OLYMPICS
 PRODUCTION COMPANY USAGE**

We work to provide you with the best technical and creative services

SVS 818-353-7121 8134 FOOTHILL BLVD. SUNLAND, CA 91040 AVI 818-352-2002

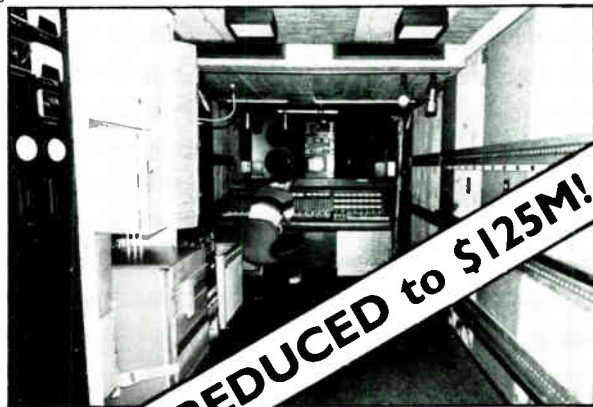
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TRUCK FOR SALE

FHR MU 2

This is the famous Wally Heider Mobile Unit 2. Its credits include: "Miles of Aisles", Joni Mitchell; "Richard Pryor Live"; Bob Dylan's "Before the Flood" and "Street Legal" as well as Live LP's by Devo and Elvis Costello. This legendary truck is equipped and ready to roll.



REDUCED to \$125M!

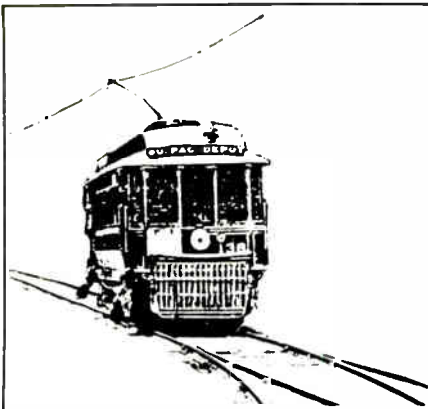
1978 GMC 6500 chassis
 Custom box
 Sleeper
 Waltco lift gate
 Full A/C
 240V power system
 A/C and technical power on separate breaker panels
 L: 30' (add 5' for lift gate)
 H: 11' 9"
 W: 8'

API 2098 32x24 console with power supply and spares kit
 Wired patch bay with cables
 UREI 813 time align monitors
 Yamaha P2200 power amplifiers w/crossovers
 12" Trinitron color monitor
 Full RTS P.L. system, w/biscuit, belt pack and headset
 B/W video camera
 Splitter system
 Limiters, equalizers
 Technics M85 cassette deck
 Technics FM tuner
 Mic stands, cables

Truck available with equipment, or to your specifications.

For Information Call (213) 653-0240

Circle #098 on Reader Service Card



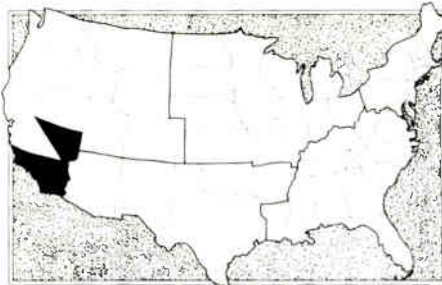
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**MUSIC VIDEOS
 COMMERCIALS
 SPECIALS**

Larry Bridges

Red Car

Film & Videotape Editing
 1029 North Cole Avenue
 Hollywood, Ca. 90038. 213 466-4467

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SOUTHERN CALIFORNIA

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

VCRs: Sony BVU 800's
 Switchers: Grass Valley 300's w/E MEM
 Cameras: Ikegami HL79's, Bosch Fernseh KCK-40's, Hitachi SK70's
 Audio Recorders: Ampex 24 track
 Audio Mixers: A.P.I.
 Other major equipment: ADO's: 4-channel DVE's, fully stereo, Sony 2000 slow motion, Dolby "A" encoding, telecine, screening room; film audio services, Lexicon time compression
 Direction: Compact Video Services, (production trucks, film to tape transfers -offline and online editing, film and tape audio post production, satellite services), provides the latest equipment and aware winning editors for music videos and specials. Some of our recent credits include: "The Making of Thriller", "ZZ Top", "The Police" "Randy Newman", "X", "Styx" "John Cougar Mellencamp", "Diana Ross", "DEVO", "Phil Collins" and "Frank Zappa"

COMPLETE POST, INC.
 APPV, VPP
 6087 Sunset, Hollywood, CA 90028
 (213) 467-1244
 Owner: Nick Vanoff
 Manager: Neal Rydeil

THE COMPLEX
 VPF, OLVP, VPP/E, APPV
 2323 Corinth St., Los Angeles, CA 90064
 (213) 477-1938; TWX 910-342-7581
 Owner: Complex, Inc.
 Manager: Harry Grossman

CREATIVE MEDIA
 VPF, OLVP, VPP/E, APPV
 7271 Garden Grove Blvd., Ste. E, Garden Grove, CA 92641
 (714) 892-9469
 Owner: Tim Keenan
 Manager: Steve Grimm, Chief Engineer-Video

CUSTOM DUPLICATION INC.
 VPF
 3404 Century Blvd., Inglewood, CA 90303
 (213) 670-5575
 Owner: Leonard Gross
 Manager: Lester Edwards

DSR PRODUCTIONS
 OLVP, VPP/E, APPV
 607 N. Ave., 64, Los Angeles, CA 90042
 (213) 258-6741
 Owner: Van Webster
 Manager: Manellen Urban
 EQUIPMENT
 Synchronizer: BTX Shadow
 VTRs: Sony
 VCRs: Sony
 Cameras: GBC
 Audio Recorders: 3M, Ampex, Sony
 Audio Mixers: MCI
 Other major equipment: Sony digital audio, full multi-media production capacity
 Rates: Call for rates. We offer computerized budgeting for your project

Direction: DSR Production, a division of Digital Sound Recording, is a one stop media service for video, audio, multimedia, and film. Our major clients include production boutiques, ad agencies and corporation. We are especially effective in creating dramatic effects at low cost.

EEC VIDEO GROUP
 VPP/E
 213 N. Cedar Ave., Inglewood, CA 90301
 (213) 677-8167
 Owner: B.C. Keach
 Manager: Leigh Greenberg
 EQUIPMENT
 Synchronizer: Microtime
 VTRs: Sony
 VCRs: Sony
 Switchers: Echo Lab
 Cameras: Ikegami, Sony, Hitachi
 Audio Recorders: TEAC
 Audio Mixers: Tascam
 Other major equipment: DVE capabilities
 Rates: Varies
 Direction: We work with independent producers in order to keep the cost of equipment rentals down. We never bid on jobs to end users. We send jobs to the independents

EFX SYSTEMS
 APPV
 919 N. Victory Blvd., Burbank, CA 91502
 (213) 842-3954
 Owner: George Johnsen
 Manager: Debra A. Knetz
 EQUIPMENT
 Synchronizer: BTX Shadow, BTX Soltouch
 VTRs: Sony/MCI
 VCRs: JVC, Sony
 Audio Recorders: Ampex, Brennel, MCI, MTM, Scully, Stevens, Studer, Revox
 Audio Mixers: Amek 2500, Ramsa
 Other major equipment: Full line esoteric synthesizer including digital emulator. 9 digital delay lines including Lexicon Super Prime Time 8 reverb including Ursa Major, Lexicon digital emulator and EMI. Fully sound effects library, full loop/background library.
 Rates: On request
 Direction: We specialize in total audio packages for film and television productions. Two fully independent facilities, that can also function in tandem. Simultaneous daily transfer, dialogue replacement, Foley. Sync sound effects, special sound effects, special audio processing, scoring, electronic music production, sweetening mixing and/or dubbing. Our modern production techniques and equipment allow our people to consistently come in on time and on budget! The facility was designed to serve the independent production company, but our client list includes major studios, networks, cable systems, record labels and advertising agencies. (Please call for our latest credit list.)

EVERGREEN RECORDING STUDIOS
 APPV
 4403 W. Magnolia Blvd., Burbank, CA 91505
 (213) 841-6800
 Owner: Artie Butler, Charles Fox
 Manager: Sandra Smart, Studio Director

FILMCORE
 VPP/E
 849 N. Seward St., Hollywood, CA 90038
 (213) 464-7303
 Owner: Larry Chernoff, Steve McCay, Charlie Chudak
 Manager: Larry Chernoff, Sandy Phillips, Sales

FLATTERY HALPERIN COLE
 VPF
 8258 Fountain Ave., Los Angeles, CA 90068
 (213) 650-6388
 Owner: Partners

FOTO-TRONICS
 VPP/E
 2800 West Olive, Burbank, CA 91505
 (213) 846-9350
 Owner: Gerry Brodersen
 Manager: Lloyd Martin
 EQUIPMENT
 VTRs: Ampex 1" VPR-2B's, Bosch 1" B, Ampex Quad
 VCRs: Sony BVU 800's, 1/2" VHS and Beta
 Switchers: Ross 2140
 Other major equipment: 3 Rank Cintel Mark IIIC flying spot scanners for film-to-tape transfers—with XY zoom, image enlargement, noise reduction, Dubner and Amigo scene-to-scene computer color correctors and 16mm wet-gate film scratch eliminators.
 Direction: We major in transferring film to tape for Rock Videos with two of the best acoustically-designed telecine rooms in town. The rooms feature 16-channel multi-track record, laydown/lay-

"From One Serious Music Maker To Another"

TAPE IT EASY

- PROFESSIONAL BLANK AUDIO AND VIDEO TAPE SUPPLIES AT VERY LAID BACK PRICES
- FINE CASSETTE AND TAPE TRANSFERS
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PROJECT ONE A/V
 AUDIO/VIDEO VISIONARIES
 ANALOG/DIGITAL DUPLICATION

from one of L.A.'s
 major wholesale
 distributors



AMPEX

Scotch 3M

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 For Catalog

Project One A/V
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 Hollywood, California, 90028

Circle #100 on Reader Service Card

back mixers, UREI Graphic Equalizers, Lexicon time-compression/extension, and parametric equalization. If service and quality are your priorities, then welcome to Foto-Tronics.

FRED JONES RECORDING SERVICES
APPV
6515 Sunset Blvd. #205, Hollywood, CA 90028
(213) 467-4122
Owner: Fred Jones
Manager: Fred Jones

GLEN GLENN SOUND
APPV
900 N. Seward St., Hollywood, CA 90038
(213) 469-7221
Owner: Republic Corp., Tom Kobayashi, Pres
Manager: Richard Larson, V P Operations

GOLD STAR RECORDING STUDIOS
APPV
6252 Santa Monica Blvd, Hollywood, CA 90038
(213) 469-1173
Owner: Dave Gold, Stan Ross

GOLDEN WEST VIDEOTAPE
VPF
5800 Sunset Blvd., Los Angeles, CA 90028
(213) 460-5866
Owner: Golden West Television, Inc
Manager: Don Patton, V P /G M

GREAT AMERICAN CINEMA COMPANY
VPF, OLVP, VPP/E, APPV
10711 Wellworth Ave., Los Angeles, CA 90024
(213) 475-0937
Owner: Glenn Roland, Jr
Manager: Glenn Roland, Jr

CRAIG HARRIS MUSIC
VPP/E, APPV
P.O. Box 36A45, Los Angeles, CA 90036
(818) 508-8000
Owner: Craig Harris
Manager: Mark LaPointe

HAWAII PRODUCTION CENTER
VPF, OLVP, VPP/E, APPV
1534 Kapiolani Blvd., Honolulu, HI 96814
(808) 944-5200
Owner: Lee Enterprises
Manager: Sherel Gallagher

HITSVILLE RECORDING STUDIOS
APPV
7317 Romaine St., Los Angeles, CA 90046
(213) 850-1510
Owner: Motown Records
Manager: Guy Costa
EQUIPMENT
Synchronizer: Audio Kinetics
VTRs: Sony BVU800, 2850, JVC 6600
VCRs: Panasonic, Sony
Switchers: misc
Cameras: Ikegami (Telecine)
Audio Recorders: ATH 3M Telefunken
Audio Mixers: Neve 807H (Neveam II)
Other major equipment: 16 35 mm interlock, Telecine TFH (16 and 35)
Rates: Variable on request for quote
Direction: Hitsville studios is equipped to handle all aspects of video and film production from scoring through dubbing transfer and layback

HORIZONTAL EDITING STUDIOS
VPP/E, APPV
2625 West Olive Ave., Burbank, CA 91505
(213) 841-6750
Owner: William Carlquist

IMAGE TRANSFORM, INC.
VPF
4142 Lankershim Blvd., North Hollywood, CA 91602
(213) 985-7566
Manager: Duane Clark Marketing Sales

LAGUNA SOUND STAGE
VPF, APPV
2147 Laguna Canyon Rd., Laguna Beach, CA 92651
(714) 497-5530
Owner: Dennis Keany Don Whitlatch
Manager: Michael Canipe

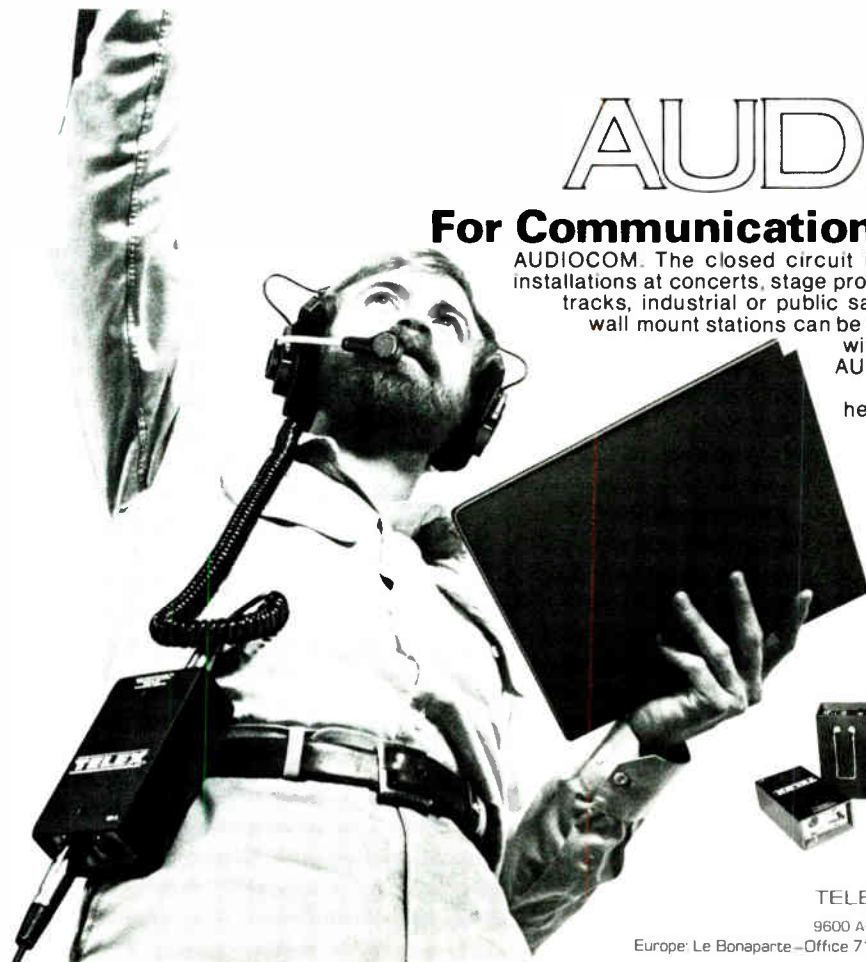
L.A. TRAX, INC.
APPV
8033 Sunset Blvd. #1010, Los Angeles, CA 90046
(213) 852-1980
Owner: Joe Klein

LION'S GATE FILMS
VPP/E, APPV
1861 South Bundy Dr., Los Angeles, CA 90025
(213) 820-7751
Owner: Robert Chester
Manager: Sonja Nelson

LION SHARE RECORDING STUDIO
APPV
8255 Beverly Blvd., Los Angeles, CA 90048
(213) 658-5990
Owner: Kenny Rogers
Manager: Terry Williams
EQUIPMENT
Synchronizer: Studio B Adams Smith Studio A Studer TLS 2000
VTRs: Ampex VPR2B
VCRs: Sony BVU200, 2850, Beta & VHS
Audio Recorders: Studer A800, 3M79 Ampex ATR102
Audio Mixers: Neve 8108 with Necam Harrison 3624
Other major equipment: Large outboard equipment list Large sound effect library
Rates: Please call for rates

MAGNOLIA SOUND
APPV
5102 Vineland Ave., North Hollywood, CA 91601
(818) 761-0511
Owner: Brian Ahern
Manager: Stuart Taylor

MAMA JO'S RECORDING STUDIO
APPV
8321 Lankershim Blvd., North Hollywood, CA 91605
(213) 982-0305
Manager: Teri Pro



TELEX

AUDIOCOM

For Communications Behind The Scene

AUDIOCOM. The closed circuit intercom for small, large, portable or fixed installations at concerts, stage productions, film or TV studios, stadiums or race tracks, industrial or public safety applications. AUDIOCOM belt packs or wall mount stations can be "daisy-chained" by the dozens over five miles without degradation in signal quality or strength. AUDIOCOM interfaces with other sound systems and telephone circuits. AUDIOCOM includes headsets, mics, cables, switchboards, signalling kits, even battery packs for remote locations; the complete intercom system for communications behind the scene.

Quality products for the audio professional.



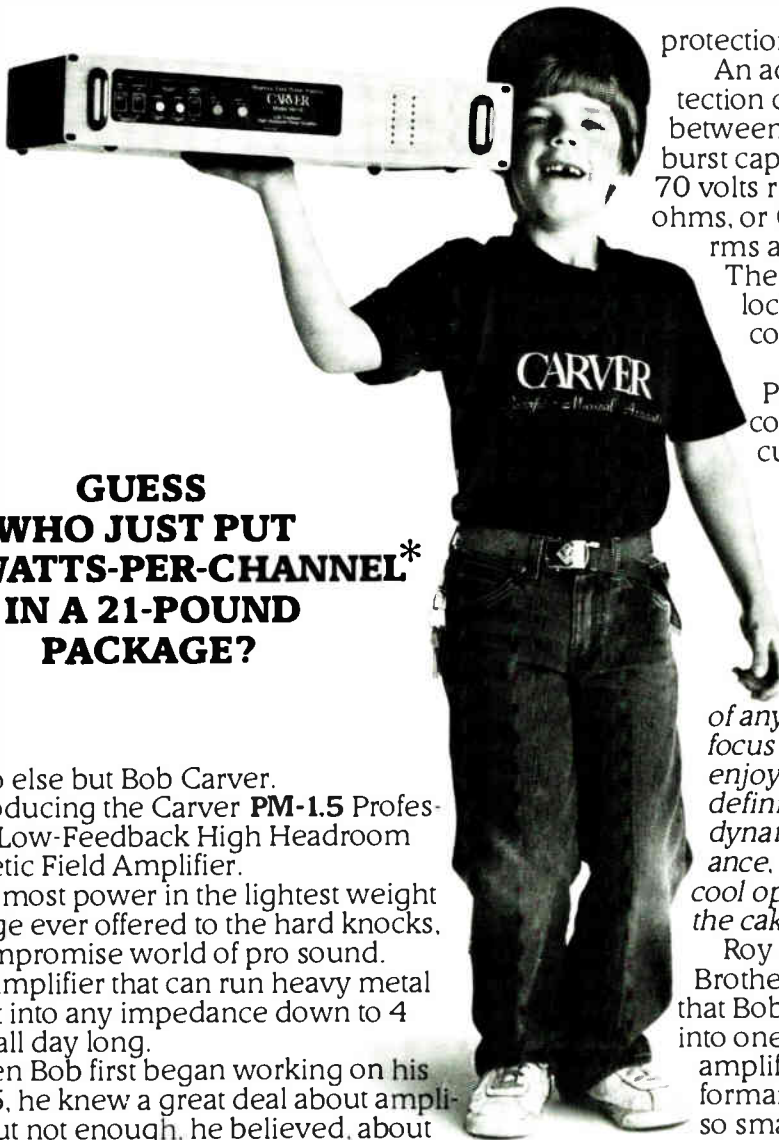
TELEX

TELEX COMMUNICATIONS, INC.

9600 Aldrich Ave. So. Minneapolis MN 55420 U.S.A.

Europe: Le Bonaparte—Office Le Blanc-Mesnil, France

Circle #101 on Reader Service Card



**GUESS
WHO JUST PUT
450 WATTS-PER-CHANNEL*
IN A 21-POUND
PACKAGE?**

Who else but Bob Carver. Introducing the Carver **PM-1.5** Professional Low-Feedback High Headroom Magnetic Field Amplifier.

The most power in the lightest weight package ever offered to the hard knocks, no-compromise world of pro sound.

An amplifier that can run heavy metal flat-out into any impedance down to 4 ohms all day long.

When Bob first began working on his PM-1.5, he knew a great deal about amplifiers but not enough, he believed, about the night-in night-out requirements (and wish dreams) of the pro sound world. And so he spent much time consulting with a large number of sound reinforcement professionals, including the "pros' pro," Clair Brothers.

Clair Brothers asked for lower input ac line current, greater transformer thermal capacity, dual modes of precision balanced inputs with 1% resistors, back-to-front cooling with a fully proportional fan system that can just tick over at idle or blast 1000 ft/min. to keep output transistor temperatures constant. They wanted greater noise immunity and unbelievable long-term, high-power operation, as well as a 3/16" front panel with deep-recessed controls.

Others wanted rear rack-mounts, adjustable protection circuit thresholds, front panel selectable clipping eliminator, and even a sequential, soft-start power-up mode.

Now that the PM-1.5 has undergone thousands of lab test hours and seven months of hard road testing, Clair Brothers, Bob, and you get all that and more.

The PM-1.5 is designed to run balls-to-the-wall, even into 4 ohms day and night without compromising itself or your drivers. Because the PM-1.5 has three special adjustable speaker

protection circuits.

An adjustable Short-Term Speaker Protection circuit adjusts dynamic headroom between 60 and 77 volts with a short term burst capability of 70 volts rms at 8 ohms, or 60 volts rms at 4 ohms.



Front-panel-adjustable protection circuits.

The circuit

locks-in to the

control setting after 0.5 seconds.

An adjustable Long-Term Speaker Protection circuit matches the time constant of the output shutdown circuit to your PA or monitor system.

Finally, the Clipping Eliminator detects clipping lasting longer than 30 milliseconds and attenuates the input signal just enough to pull the PM-1.5 out of clipping.

As for sound quality, consider this quote from **The Audio**

Critic Magazine, "...the equal

of any power amplifier in transparency, focus and smoothness. We especially enjoy hearing spatial detail, instrumental definition and completely natural dynamics. At this level of sonic performance, the astoundingly small size and cool operation become icing on the cake..."

Roy Clair and Ron Borthwick of Clair Brothers said it this way. "We are amazed that Bob was able to put the same wattage into one-fourth the volume of conventional amplifiers without sacrificing audio performance. It's hard to believe that an amp so small and lightweight can put out so much clean power. But it does!"

Whether you run a megawatt sound company, a struggling bar band, or a recording studio gearing up for digital, the PM-1.5 will pay you. In increased portability and reduced freight costs. In freedom from expensive blown drivers. In sheer sonic excellence.

Write for a detailed brochure today or give your local pro store no peace until they order you 21 pounds of pure power.

*Power: 8 ohms, 450 watts/chan 20 Hz-20 kHz both channels driven with less than 0.1% THD. 4 ohms, 600 watts/chan rms 20 Hz-20 kHz both channels driven with less than 0.1% THD. 16 ohms, 300 watts/chan 20 Hz-20 kHz both channels driven with less than 0.1% THD. 2 ohms, 525 watts/chan, at clipping, 1 kHz, with less than 0.2% THD. Note: 2-ohm specification for information purposes only. Operation at 2 ohms is permissible but not recommended. **IM Distortion:** Less than 0.1% SMPTE. **Frequency Response:** -3 dB at 3 Hz, -3 dB at 80 kHz **Damping:** 200 at 1 kHz **Gain:** 26 dB **Noise:** Better than 115 dB below 450W A-weighted **Input:** Balanced to ground, XLR or phone **Impedance:** 15k-ohm each leg, balanced to ground **Bridging:** 1200W into 8 ohms, 1000W into 16 ohms, accessed through rear-panel recessed switch **Dimensions:** 19 in wide, 3 1/2 in high 10 1/2 in deep Weight: 21 lbs



CARVER

(206) 775-1202 P.O. Box 1237 Lynnwood, WA 98036

MASTER DIGITAL
OLVP, VPP/E, APPV
202 Main St., Venice, CA 90291
(213) 399-7764
Owner: Corporation
Manager: Paul Addis

MEDIA MASTERS
VPF, OLVP, VPP/E, APPV
3015 Ocean Park Blvd., Santa Monica, CA 90405
(213) 450-2288
Owner: Media Masters, Inc
Manager: M. Shepherd

MOTION PICTURE MUSIC INC.
APPV
2770 LaCuesta Dr., Los Angeles, CA 90046
(213) 850-5000
Owner: Nathan Sassoover
Manager: N. Benson

MOTION PICTURE RECORDING INC.
VPF, VPP/E, APPV
7060 Hollywood Blvd., Hollywood, CA 90028
(213) 462-6897
Owner: Garry Ulmer
Manager: Arlene Simke

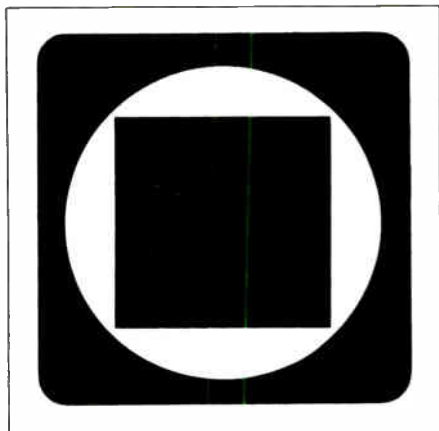
MUSIC LAB INC.
VPF, OLVP, VPP/E, APPV
1831 Hyperion Ave., Hollywood, CA 90027
(213) 666-3003
Owner: Chaba Mehes

MUSICIANS CONTACT SERVICE
VPF, OLVP, VPP/E, APPV
6605 Sunset Blvd., Hollywood, CA 90028
(213) 467-2191
Owner: Sterling Haug
Manager: Tony Nirkoloff

NEW WORLD RECORDING
APPV
4877 Mercury St., San Diego, CA 92111
(619) 569-1944
Owner: New World Audio, Inc
Manager: Charles DeFazio

ODD•E•O ENGINEERING
APPV
1740 North Gramercy Place #101, Hollywood, CA 90028
(213) 465-1762
Owner: J. McLane
Manager: D. Moody

ONE INCH VIDEO PRODUCTIONS, INC.
VPF, VPP/E
4710 W. Magnolia Blvd., Burbank, CA 91505
(213) 760-6900
Owner: Mr. Eiji Katayama
Manager: Penny Johnson



PACIFIC VIDEO
Hollywood, CA

PACIFIC VIDEO
VPF, VPP/E, APPV
809 North Cahuenga Blvd., Hollywood, CA 90038
(213) 462-6266
Owner: Robert Seidenanz
Manager: Steve Schrlin



SOUTHERN CALIFORNIA

Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production Editing); APPV (Audio Post-Production for Video).

PARAMOUNT RECORDING STUDIOS
APPV
6245 Santa Monica Blvd., Hollywood, CA 90038
(213) 461-3717
Owner: Brian Bruderlin
Manager: Barry Quat, Dan McIntire

PICTURE MUSIC, INC.
VPF, OLVP, VPP/E, APPV
1800 N. Vine, Hollywood, CA 90028
(213) 461-0380
Manager: Cynthia Bidermann

POSITIVE IMAGES
VPF, OLVP, VPP/E
6525 Sunset Blvd. G.S. #11, Hollywood, CA 90028
(213) 462-1810
Owner: Haine Paul, Jerry Feldman
Manager: Jerry Feldman

THE POST GROUP
VPP/E
6335 Homewood Ave., Hollywood, CA 90028
(213) 462-2300
Manager: John Williams, Gen. Mgr., Meryl Lippman-Perutz,
V P. Marketing

WE DID IT FOR THEM:

- Grammys, Oscars, Emmys, Personal Footage for Major Artists at These Events
- Michael Jackson, behind the scenes at the Grammys
- Major Network Rentals
- Rock Videos for Tom Waits, Sweet Rage, Terry Strickland, Michael Hamilton for Scotti Brothers
- Major Trade Convention Rentals
- Billboard Music Video Convention Rentals

WE CAN DO IT FOR YOU:

- Video Rentals
- Complete Music/Video Production
- Video Editing
- Video Duplicating
- Video Sales & Service
- 39 Years of Experience
- We've built our reputation on serving the customer's need with a personal touch.

Audio Video Craft, inc.

7710 Melrose Avenue, Los Angeles, CA
(213) 655-3511

Circle #103 on Reader Service Card

EQUIPMENT

Synchronizer: CMX 340X computer editing
 VTRs Sony BVH 1000, 1100, 1100A, 2000, Ampex VPR2
 VCRs: Sony BVU 800 820, 1/2" Beta & VHS
 Switchers: Grass Valley 1600 300 CDL
 Cameras: Color Graphics, B&W Matte
 Audio Recorders: Ampex
 Audio Mixers: Quantum
 Other major equipment: 4 Ampex Digital Optics (ADO), (2) Quantel, GVG Mark II Aurora Bosch FGS 4000 computer graphics & animation, Rank Cintel film-to-tape transfer
 Rates: Call for rate card
 Direction: The Post Group is a full service post production facility serving music, commercial, network cable and industrial/educational video users. We have the only 4 channel ADO, the first Aurora and Bosch FGS 4000 computer graphics and animation systems on the West coast. We edit in 1" 3/4" to 1" 3/4" to 3/4" and 1/2" Beta & 1/4" VHS to 1" formats. All equipment is assignable (digital effects and VTRs) and available in any editing format. Digital facilities will be completed in January '84 and will be extensive.

THE POST GROUP
 Hollywood, CA



POST SOUND APPV

6500 Sunset Blvd., Hollywood, CA 90028
 (213) 462-0000
 Manager: Janja Vujovich

EQUIPMENT

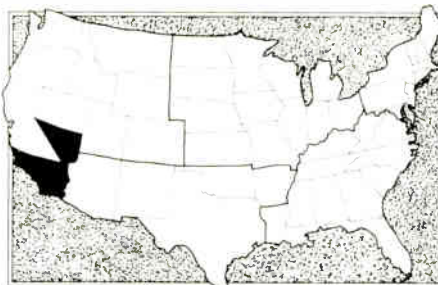
Synchronizer: Adams Smith/Compupro Custom
 VTRs Ampex 1" C format VPR2, Film KEM custom 16:35mm multiformat
 VCRs: Sony BVU 800
 Audio Recorders: Otari 48 24 4 track MTR
 Audio Mixers: Amek Automated 48x24+6
 Other major equipment: dbx, Dolby, Orban, Debalabs, Lexicon, Mic Mix, Burwin, etc.
 Rates: On request
 Direction: Frisco Tale Theatre series, Barbara Walters' specials, Perry Como specials, Real People series & specials, Kent State TV movie, Hot series, Children of the Corn feature film, numerous commercials and trailers. Specializing in stereo dramatics, scoring, dubbing, ADR & video sound mixing.

POST SOUND
 Hollywood, CA



POST-TRANSFER SERVICES

VPF, OLVP, VPP/E, APPV
 712 N. Seward, Hollywood, CA 90038
 (213) 462-5330
 Manager: Jim Watt or Roger Parker



SOUTHERN CALIFORNIA

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PREMORE, INC. VPF, VPP/E, APPV

5130 Klump Ave., North Hollywood, CA 91601
 (213) 506-7714

RECORD PLANT, INC.

APPV
 8456 West 3rd St., Los Angeles, CA 90048
 (213) 653-0240
 Owner: Christopher Stone
 Manager: Rose Mann

RECORDING SERVICES COMPANY

APPV
 2414 West Olive Ave., Burbank, CA 91506
 (213) 843-8640; (800) 451-4614 outside California
 Owner: Tom Harvey
 EQUIPMENT
 Synchronizer: Adams Smith Q Lock BTX Shadow
 VTRs 1" C format
 VCRs: Sony BVU 800s JVC CR6650
 Audio Recorders: (2) Ampex MM 1200 w/8 16 24 track heads
 Audio Mixers: 26 in x 24 out main console, additional inputs available if required
 Other major equipment: 32 channels of Dolby noise reduction, Lexicon 224X, normal complement of outboard equipment
 Rates: Separate rates for laydowns, sweetening and laybacks dependent upon length and formats

RED CAR EDITING

VPP/E
 1029 N. Cole Ave., Los Angeles, CA 90038
 (213) 466-4467
 Owner: Larry Bridges

ROCK SOLID PRODUCTIONS

VPF, OLVP, VPP/E, APPV
 1907 West Burbank Blvd., Burbank, CA 91506
 (818) 841-8220
 Owner: David Griffin, Geoffrey Leighton
 Manager: Geoffrey Leighton

RUSK SOUND STUDIOS

APPV
 1556 N. La Brea, Hollywood, CA 90028
 (213) 462-6477
 Manager: Ganapati

SANTA BARBARA SOUND RECORDING, INC.

APPV
 33 West Haley St., Santa Barbara, CA 93101
 (805) 963-4425
 Owner: SBSR Inc.
 Manager: Kathy Fuller

SCHULMAN VIDEO

VPF, OLVP, VPP/E, APPV
 861 Seward St., Hollywood, CA 90038
 (213) 465-8110
 Owner: Benjamin D. Schulman

SKYLINE PRODUCTIONS, INC.

VPF, OLVP
 6309 Eleanor Ave., Hollywood, CA 90038
 (213) 856-0033
 Owner: Dean Gilmore, Blake Wilcox
 Manager: Phil Silver

SOUNDMASTER AUDIO/VIDEO RECORDING

VPF, OLVP, VPP/E, APPV
 10747 Magnolia Blvd., North Hollywood, CA 91601
 (213) 650-8000
 Owner: Brian & Barbara Ingoldsbey
 Manager: Sue Ingoldsbey

EQUIPMENT

Synchronizer: Audio Kinetics SMPTE
 VCRs: Sony, JVC
 Switchers: 6112 Crosspoint Latch
 Cameras: FP21, KY2000, KY1900
 Audio Recorders: MCI 24 track, 4 track, 2 track
 Audio Mixers: Quad Eight 24 track
 Other major equipment: 5 ton video truck, 5 ton audio truck, marine video unit
 Direction: SoundMaster houses a complete video production facility with a 24 track fully equipped automated recording studio with disk mastering facilities to take your project from beginning to end. Fully equipped 5-ton mobile trucks are available to meet any location recording or location video needs. Also available is a marine video unit for all underwater videography. Our aim is to provide you with technical sophistication as well as personal attention in any and all of recording, live sound, and video production.

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 17422 Murphy Ave., Irvine, CA 92714
 (714) 474-2015
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 Manager: Richard Donaldson

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VPF, OLVP, VPP/E, APPV
 8134 Foothill Blvd., Sunland, CA 91040
 (818) 353-7121
 Owner: John Jaidar
 Manager: William Hawkins

STARFAX, INC.

VPF, OLVP
 8156 Lankershim Blvd., North Hollywood, CA 91605
 (818) 768-2905
 Owner: Ron Stutzman, Tom Harvey

STUDIO 55

APPV
 5505 Melrose Ave., Los Angeles, CA 90038
 (213) 467-5505
 Manager: David Dubow

STUDIO WEST

APPV
 5042 Ruffner, San Diego, CA 92111
 (619) 277-4714
 Owner: LeRoy Carroll, David Johnson
 Manager: Dan Milner

SUNRISE CANYON VIDEO
VPF, OLVP
 727 N. Victory Blvd., Burbank, CA 91502
 (213) 845-7473
 Owner: William Hughes

SUNSET SOUND
APPV
 6650 Sunset Blvd., Hollywood, CA 90028
 (213) 469-1186
 Owner: Paul Camarata
 Manager: Craig Hubler

SUNWEST RECORDING STUDIO
APPV
 5533 Sunset Blvd., Hollywood, CA 90028
 (213) 463-5631
 Owner: Robert Williams, President
 Manager: Rena Winters

TAJ SOUNDWORKS
APPV
 8207 West Third St., Los Angeles, CA 90048
 (213) 655-2775
 Owner: Hugh Benjamin Corporation & The Beltare Group
 Manager: Martha Lipscomb

TIM PINCH RECORDING
Location Audio For Video
 6600 San Fernando Rd., Glendale, CA 91201
 (213) 507-9537

Owner: Tim Pinch
 Manager: Tim Pinch
EQUIPMENT
 Cameras: CCTV camera/monitoring system
 Audio Recorders: Ampex MM1200's (24 tracks), AG 440C (4 track)
 Audio Mixers: AMEK 28x24 (up to 44 mike inputs with outboard mixers)
 Other major equipment: 1500' of snake lines, multiple audio/video tie lines, complete RTS and Clear Com intercom systems
 Direction: An audio truck should provide one thing. A clean, great sounding mix. With the advent of large complex shows in-

volving huge numbers of inputs, VTR playbacks, satellite feeds, etc., the ability of an audio crew to adapt to many different situations is a specialized ability indeed. We are dedicated to simplifying the complex interfacing of house sound, video facilities, and our sound truck to provide you with a show that sounds as good as it looks. Clients include: The Police, Jacksons, Men At Work, BBC Rock Hour, Alabama, American Music Awards, etc.

TRACK RECORD
APPV
 5249 Melrose Ave., Los Angeles, CA 90038
 (213) 467-9432
 Owner: Tom Murphy
 Manager: John Carter

TRITRONICS RENTAL & FACILITIES
VPF, OLVP, VPP/E, APPV
 733 N. Victory Blvd., Burbank, CA 91502
 (213) 843-2288
 Manager: Ernest Rinaldi

VARITEL VIDEO
VPF, OLVP, VPP/E, APPV
 3575 Cahuenga Blvd. W., Los Angeles, CA 90068
 (213) 850-1165
 Manager: Michael Cunningham, General Manager

VIDCOM
VPF, OLVP, VPP/E
 2426 Townsgate Rd., Suite K, Westlake Village, CA 91361
 (213) 991-1974
 Manager: Robin Green

VIDEOTAPE EDITING
VPP/E, APPV
 801 N. La Brea Ave., Hollywood, CA 90038
 (213) 934-8840
 Owner: Joel Webb, President

VIDEO CRAFTSMEN, INC.
VPP/E
 6311 Romaine, Hollywood, CA 90038
 (213) 464-4351
 Manager: Henry Ball, President

THE VIDEO HOUSE INC
OLVP, VPP/E
 201 N. Hollywood Way, Suite 202, Burbank, CA 91505
 (818) 954-9559
 Owner: Walter A. Segalo
 Manager: Steven C. VanSingenl

VIDEO TRANSITIONS
VPP/E
 910 N. Citrus Ave., Hollywood, CA 90038
 (213) 465-3333
 Owner: Bernard Maduff
 Manager: Michael Levy, V.P. G.M. Richard Ellis, Sales Mgr

VIDTRONICS, INC.
VPP/E, APPV
 855 N. Cahuenga Blvd., Hollywood, CA 90038
 (213) 856-8200

Owner: Compact Video
 Manager: Larry Kingen, Pres./Gen. Mgr
EQUIPMENT
 Synchronizer: EECO Synchronizer MOS100 and Q-Lock synchronization 3 1/2
 VTRs: Sony 2000, Ampex VPR2B
 VCRs: 3/4", VHS, Beta
 Switchers: Grass Valley 300 & 1600 7k
 Audio Recorders: Ampex 1600 16 track & 24 track
 Audio Mixers: MCI JH500
 Other major equipment: Film-to-tape transfer Telecine system Rank Cintel Mark III, Mark III-B, (2) Mark III-C's
 Direction: Vidtronics is the largest complete videotape post production facility in the U.S. along with our award-winning editing staff and state-of-the-art electronics. We offer Time Compression (Rank Cintel); 3/4" to 1" editing, 7 off-line editing lounges (CMS-ISC), 5 on-line editing lounges with DVE, audio rerecording with



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Hollywood, CA



VILLAGE RECORDER VILLAGE VIDEO VILLAGE MRI
VPP/E, APPV
1616 Butler Ave., Los Angeles, CA 90025
(213) 478-8227

Owner: George Hormel
Manager: Jeff Harris (Video)

EQUIPMENT

Synchronizer: Studer T.S. Clock BTX Soft touch; Shawk
VCRs: Sony BVU 200, 3; Sony 5850
Switchers: Convergence 104 B

Audio Recorders: Studer Ampex

Audio Mixers: Neve 3 API Neotek

Other major equipment: Foley ADP Studio 45mm printer
non; MAG; 24 track film post production

Direction: 1) Video production; Ed. Bay 2) source 2 TFC
with digital freeze-frame punch tape edit lat. A/B roll offset
3) Audio post production 4) New Studer 24 track studios with
video lock. Foley ADP studio with video projection.

WESTLAKE STUDIOS

APPV
8447 W. Beverly Blvd., Los Angeles, CA 90048
(213) 654-2155
Owner: Glenn Phoenix
Manager: Denu King

WHITE FIELD STUDIOS

VPF, OLVP, VPP/E
2902 W. Garry, Santa Ana, CA 92704
(714) 546-9210

Owner: White Field Studios, Inc.

Manager: Thom Roy

EQUIPMENT

VCRs: JVC R250

Switchers: Crosspoint

Cameras: Sony M4

Audio Recorders: 24 track audio studio

Other major equipment: Convergence 203 editor, Fortel
Y 688 TBC

Rates: Call for rates

Direction: 40x45x22 ft wall hard eye, Chroma Key (40x18)
blue lights 17 prop shop, A/B roll editing suite, 1000 sq ft
request Remote truck (28) available

WESTERN VIDEO

VPF, OLVP, VPP/E
8050 Ronson Rd., San Diego, CA 92111
(619) 292-0337

Owner: Robert B. Sommer

Manager: Rob Day

OUTSIDE U.S.

AUDIBLE EYE PRODUCTIONS INC.

OLVP, VPP/E, APPV
104 Penny Cres., Markham, Ontario L30 4T8
(416) 471-4844

Owner: Brian Cohen, Ron Dixon

Manager: Brian Cohen, Ron Dixon

EQUIPMENT

Major equipment: Equipment available as per requirements and
include 3" U-Matic, 1" C" format, & 1/2" Betacam video, 16mm
film Location shooting truck
Rates: Available on request
Direction: Company has full feature creative staff that designs
productions scripts casts shoots & post produces. Additional
facilities include in-house graphic arts department and in June/84
complete audio production suite. Company available for full
feature productions and second unit back up work. Company
brochure available on request

CARLETON PRODUCTIONS LTD.

VPF, OLVP, VPP/E, APPV
1500 Merivale Rd., Ottawa, Canada K2E 6Z5
(613) 224-1313

Owner: Standard Broadcasting

Manager: P. Wayne Hicks V.P. Sales

CHAMPLAIN PRODUCTIONS INC.

VPF, OLVP, VPP/E
405 Ogilvy Ave., Montreal, Canada H3N 1M4
(514) 273-2865

Owner: M. Jean Pouliot

Manager: M. Vince Pons

EQUIPMENT

Synchronizer: Ampex ACE CES Touch screen

VTRs (4) Ampex VPR 2B 1"

VCRs: JVC

Switchers: Ampex AVC 21 2 ME

Cameras: Ikegami HI.79

Audio Recorders: Ampex ATR-104 (4 ch) 1"

Other major equipment: Parametrix Graphic equalization,
Ampex ADO Tiling trim & Gr system Cytro IV dual channel
color correction

DIGI-SOUND

VPF, OLVP
Herrangsvagen 24, S-19452 Uppland's Vasby, Sweden
0760-86760

Owner: B. Westin

Manager: S. Westin

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JPL PRODUCTIONS INC.
VPF, OLVP, VPP/E, APPV
 1600 De Maisonneuve Blvd. E.,
 Montreal (Quebec), Canada H2L 2P2
 (514) 526-2881
 Manager: Jean J. Poliquin, President

LE STUDIO MORIN HEIGHTS/ANDRE PERRY VIDEO
VPF, VPP/E
 201 Perry, Morin Heights, Quebec JOR-1H0
 (514) 226-2419
 Owner: Andre Perry, Yael Brandeis
 Manager: Yael Brandeis
EQUIPMENT
 Synchronizer: ISC 41
 VTRs: 4x Ampex
 Switchers: Ross 517 20
 Cameras: Hitachi
 Audio Recorders: Studer
 Audio Mixers: Studer
 Other major equipment: ADO, NEC F, Fl-x
 Rates: \$500/hr
 Direction: TV specials, music, commercials, electronic, PGM, openings, electronic, special effects, industrial films

THE LITTLE MOUNTAIN SOUND STUDIOS LTD.
APPV
 201 West 7th Ave., Vancouver, B.C. V5Y 1L9
 (604) 873-4711
 Owner: Bob Brooks, President
 Manager: Rouer Monk, Operations Mgr.

MARTOONS
APPV
 937 Succursale 'H', Montreal, Quebec H3G 2M9
 (514) 728-5907
 Owner: Marti Garauquy
 Manager: D. Reuss

MASTER'S WORKSHOP CORPORATION
APPV
 306 Rexdale Blvd. #7, Rexdale, Ontario M9W 1R6
 (416) 741-1312
 Owner: Doug J. McKenzie
 Manager: Doug J. McKenzie

McLEAN HANNAH STUDIOS, LTD.
VPF, OLVP, APPV
 154 Sanford Ave. No., Hamilton, Ontario
 (416) 526-0690
 Owner: Dan McLean, Paul Hannah
 Manager: Yee Hannah

McCLEAR PLACE STUDIOS LTD.
APPV
 225 Mutual St., Toronto, Ontario M5B 2B4
 (416) 977-9740
 Manager: Phil Sheridan, Bob Richards

MUSHROOM STUDIOS
APPV
 1234 West 6th Ave., Vancouver, B.C. V6H 1A5
 (604) 734-1217
 Owner: Charlie Richmond
 Manager: Linda Nicol

NORTHWEST COMMUNICATIONS LTD.
VPF, OLVP
 5381 48th Ave., Delta, British Columbia V4K 1W7
 (604) 946-1146
 Owner: Mr. W.S. Thomas, President
 Manager: Mr. John Thomas, V.P. and Gen. Mgr.

SOUNDS INTERCHANGE LTD.
APPV
 506 Adelaide St. E., Toronto, Canada M5A 1N6
 (416) 364-8512
 Owner: Syd Kessler, Salim Sabedina
 Manager: Karen Guluch

STUDIO PLACE ROYALE INC.
APPV
 141 St. Paul St. W., Montreal, Canada H2Y 1Z5
 (514) 844-3452
 Owner: Stanley Brown, Normand Rodrigue

TEO VERAS S.A.
APPV
 G.M. Ricart #79, P.O. Box 1610,
 Santo Domingo, Dominican Republic
 (809) 567-2231
 Owner: Teo Veras
 Manager: Teo Veras



OUTSIDE U.S.

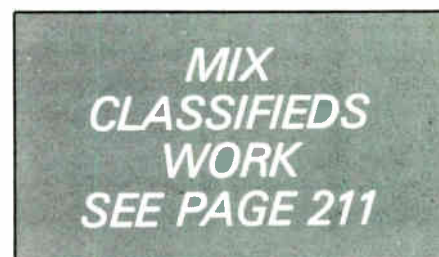
Please Note: In the following listings each facility's particular capabilities are indicated below its name using the following initials: VPF (Video Production Facility); OLVP (On Location Video Production); VPP/E (Video Post-Production/Editing); APPV (Audio Post-Production for Video).

VIDEOSONICS
APPV
 13 Hawley Crescent, London NW1, England
 01-482-2855
 Owner: D. Winstanley
 Manager: Dennis Westwood

VTR PRODUCTIONS LTD.
VPF, OLVP, VPP/E, APPV
 47 Scollard St., Toronto, Ontario M5R 1G1
 (416) 968-1822
 Manager: Jerry Zaludek

WATER STREET SOUND & FILMWORKS INC.
VPF, APPV
 Penthouse-342 Water St., Vancouver, B.C. V6B 1B6
 (604) 689-4333
 Owner: Mr. George McNeill
 Manager: Mr. Marty Hasselbach
EQUIPMENT
 Synchronizer: EFCO MQS 100
 VTRs: JVC 3",
 VCRs: JVC 1",
 Audio Recorders: 2 Ampex MM1200 1/4 track, 2 Ampex ATH100 2 track, 1 Ampex ATH 104 4 track
 Audio Mixers: NEVE, 8068 40 channel w/hi. NECA/M, NEVE 8048 24 channel
 Other major equipment: Full complement of outboard gear and microphones
 Rates: For custom rates in Canadian dollars, contact Marty Hasselbach
 Direction: The penthouse recording complex is located in the scenic Gastown area of Vancouver, British Columbia with state of the art equipment including the EFCO synchronizer. The facility is set up for the latest audio for video post production sound tracks and film scores. Recent projects include TV specials—Night Vision, Midnight Music and a live concert by Loverboy. Custom rates scheduled upon request.

WESTERN VIDEO LTD.
VPF, OLVP
 1345 Burrard Street, Vancouver, B.C. V6Z 2A2
 (604) 682-8544
 Owner: Bob Rose, President
 Manager: Brad McConnell



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Red Car:

EDITING IN THE FAST LANE

by Lou CasaBianca

They say it all comes together in the editing. In this month's MVP interview with Red Car Film & Videotape Editing's owner and creative director Larry Bridges, we review the editing of music videos in general, and in particular his work with Bob Giraldi.

Mix: Our readers want to know more about the personal background of "the people behind the scenes."

Where did you grow up and how did you get your start in production?

LB: I was born in Burbank across the street from Disney Studios.

Mix: Was your mother a Mickey Mouse fan?

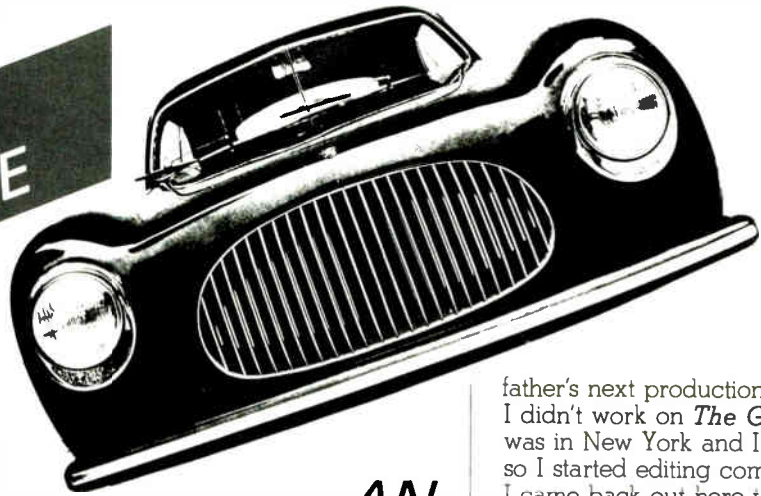
LB: Yes, she loved Mickey Mouse. In fact, he came to visit the day I was born, and ever since I've been infatuated with films. I'm a second generation native of Burbank. I went to school in North Hollywood, grew up in the San Fernando Valley, and went off to Stanford for four years.

Mix: When did you graduate from Stanford?

LB: In 1971. Hey, I'm a late '60s kind of guy! Then I worked in commercials and TV. Took two years off; went to Dartmouth and got a masters in business administration.

Mix: What was the Stanford degree in?

LB: English. I never studied film. I've always been interested in film from an oral or verbal viewpoint. My first job in film was with Francis Coppola, on the feature film *The Conversation*; I was second assistant director. I went to New York, I followed the God-



AN INTERVIEW WITH LARRY BRIDGES



Larry Bridges (r) and director Bob Giraldi reviewing the finished edit at Red Car Film and Video Tape Editing.

father's next production to New York. I didn't work on *The Godfather*, but I was in New York and I needed a job, so I started editing commercials. Then I came back out here to pursue what I thought would be a broader base of filmmaking in Los Angeles. So it was a return home, what I thought was a continuation or an extension of New York.

Mix: How did you get involved in *The Conversation*, since that was your first real shot?

LB: I was working production. And I got that job by not taking "no" for an answer. Films in San Francisco are like earthquakes: they come once every fifty years. So everybody in town wanted to work on it. They let out the word at the time that there were three apprentice positions on it. It turned out that those positions were filled by friends of the producer and people who had worked with Francis before, and somebody who had worked with George Lucas on *American Graffiti*, so everything was kind of sealed-up.

They had these college observers from UCLA. So, I found that out and I said, "Well, hell, I'm just out of college, I'm a Stanford observer." So I called and said, "Listen, can I just observe?" Luckily for me, I just badgered the producer until he would see me, and he said, "Come on in." That same day, one of the UCLA people had to go back to school for one reason or another, and the producer said, "OK, come down to the set. I'll tell you where we are today. You can be an observer." Bang! I was on! And I'm a handy guy, so I made myself indispensable in five minutes. And suddenly they gave me a radio and I was an assistant director. And that was that. Wonderful!



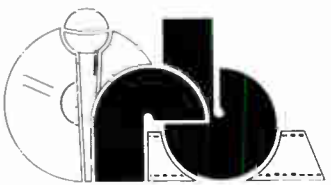
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World Radio History



Mix: How do you see your educational background applying to your career as an editor?

LB: Putting my own business together is the advantage of having an MBA. The advantage of having an English degree is understanding communica-



On location during the shooting of "Running with the Night." (left to right) Antony Payne (producer) and Lionel Richie.

tion and syntax, vocabulary and grammar. What I think is the strength of the editor is being an objective person who can convince the director that there's nothing sacrosanct about any shot, about the money anybody's spent on a shot or the effort that went into getting it. When they get it in the editing room, it's all new material, new agenda, and you start from there. So, you try to create a sense of visual objectivity while you really don't have any prejudice against what you see. You don't say, "Wow, because we almost died for this shot, we've got to use it." Instead, the shots work if they work on the KEM [flatbed editor] and that's the litmus test. Nothing else will suffice other than running it and looking at it and saying, "Yes" or "No." That's what the English degree has done. It's the power of prose, of knowing and creating and recommending elements of style.

Mix: Outside of your work with Bob Giraldi Productions, what other music video projects have you done?

LB: We've done a lot of stuff with Bob, but we've done good things with other companies as well. We've done Rod Stewart, "Baby Jane"; we've done "Telephone", Sheera Easton; we did both of the current John Cougar Mellencamp videos, "Tumblin' Down" and "Pink Houses"; those are very good, and they're on right now, directed by Chris Gabrin. Bryan

Adams on "This Time". Philip Bailey, that was done with CBS; Chad & Jeremy; Loverboy; Payolas; Michael Jackson; Mitch Rider; Andre Cymone; and Martin Briley. There are so many out now and we have been lucky to be in the center of a lot of good videos. I'm proud of our record and hope we get to do more. It looks like we'll be doing the next Lionel Richie with Bob Giraldi.

Mix: One of the things that is really different about the work you've done with Giraldi is the use of sound effects and dialogue to supplement the original music tracks.

LB: I think it's a comment on our mutual experience from the commercial world. In these videos that Bob and I have done, they really have a sound emphasis—in some ways they're like "illustrated radio," which is sort of the buzz word that we use to describe spots. You're looking at something but you're also hearing something that's skewed toward attention-getting. It makes you notice the way something is shot in a commercial. Audio helps you to condense, select, amplify and make you take notice. We've found that the visual condensation that we do in commercials we can do with sound as well. That's what we've done in "Beat It" and in Lionel Richie's "Running with the Night". It comes from having a strong background in commercials. That's why I like working with Antony [Payne, video producer; see *Mix* Feb. '84] and Bob: we're on the same wavelength. We're filmmakers, but we're making films specifically for television viewing. We're not shooting video; we're shooting film and I don't care about the misnomer of music "video." I just think of it as a generic term for visual music.

Mix: Most so-called "videos" are in fact shot on film and edited or delivered on video.

LB: They would probably be better described as promos. What we do actually is to really do more. It resembles the approach to producing feature film title sequences more than anything else. In films, we see a great title sequence that is usually better than the film, and often the best title sequence in a feature film is like a great overture in opera. It gives you clues and hints at all the upcoming and exciting events, and it keeps you there while you're waiting for the plot to unfold. In music video, you're really responding to music and lyrics, the same way you would with a good title

sequence. That professional skill that we've all developed in working in commercials—despite the naysaying of people not working in commercials, who say that we're strangers from a strange land coming into the music video world—is a real strength. And this is true from Bob's point of view as well. He's the best commercial director in the world. Visually it's all there. "Beat It" is an example. "Beat It" made MTV. "Beat It" gave people a reason to watch MTV—the way commercials give people a reason to watch primetime. The sound, that is a basic requirement to the form in doing commercials, is something we do off the cuff. We approach it just like we would a major commercial.

Mix: What is the technical set-up at Red Car in terms of layout and equipment?

LB: We have three KEM rooms, a videotape off-line room, and we have a Moviola room. We have a sound department that just does sound effects. I don't want to give you the impression that we are a gigantic post-production house. We just have what's necessary to do the job in a modest space.

Mix: Do you do your tape transfer somewhere else?

LB: Yes, code numbers right to tape numbers. I'm able to convert from SMPTE timecode back to film counts, so I'm able to cut film on tape and reconstruct the film. I've done a feature that way here, called *Double Exposure*. We have a lot of really unique, productive tools, the KEM being the one we use for editing, the computer the one we use for conversion, and we also use it for accounting and other business functions.

Mix: Which KEM do you work with?

LB: The KEM eight plate with all the extensions and modules. I can do three picture and three audio. I can link them up and do symphonic editing. My production system depends on good solid equipment. It's a talent-intensive thing here, and then a good chain of suppliers, like Mix Magic, Image Transform, and Pacific Video.

Mix: In the context of your "typical" project, can you give us an idea of what the process is like when the director or producer comes in and is ready to start editing?

LB: If it comes in with sync sound, with playback sound, we sync it up and we code it. In fact, before the



thing is shot, I get together with the record company.

Mix: I think that's one of the most important things that you've said relative to opening up peoples minds as to how critical the editor is in the pre-production process.

LB: We get together with the record company to make sure that the track that they are giving us is something that we can go back to. We've found that a lot of times they give us a track that comes off a 15 ips nonsynchronous master. Then we make a quarter inch or a 35mm, all of which may be in sync with each other, but if they ever go back and remix that song, the new master won't sync with what we're shooting or editing to. With the Lionel Richie piece, we went back and re-recorded a line in the music at the end which we shot playback to. To button it up there is a long guitar solo which comprises the dance number. And then we find him again at the very end when he repeats the main line of the song.

This is typical: they were giving us these masters with nonsynchronous

sources. We've changed their ways, and we have to develop this interface between the record sound side and the film sound. They're not only putting the mastering on the 4-track, at least in terms of Motown, but they're mastering on 4-track with timecode and sync pulse. So that if they re-master, they can lay it down again right against the track, and then come from that through a timecode system. If there is a remix around the time that you're shooting, the track comes off in sync with the film you shoot.

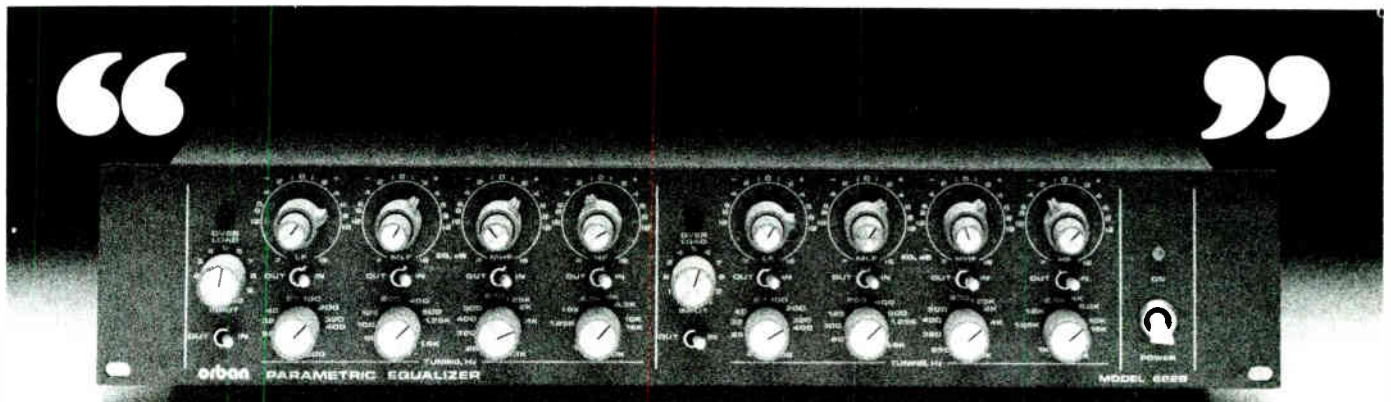
So now it's a 30 ips 4-track from the record company. We take it to a sound house like Mix Magic, and they make me at the same time a 1/4-inch playback, a stereo 35mm master and a 35mm single stripe to cut to on the KEM. Eventually, when I go back and mix the thing, I mix from that 30 ips master. In the case of Lionel Richie, we are working with an audio track that is first generation. We're not down three generations from the master; we are actually working with the very item that they used for mastering. They take that

4-track and run it up to the mix, and mix with that. Antony and I have developed a way to go around some of the bureaucracy of MTV and send them a track that's one generation from that 4-track. We get on MTV negative four to five generations from what your average video will be in terms of sound. That's something that we're very proud of. The key is to get a master from the record company that's verifiable in terms of sync.

Mix: What is your approach to the audio mix?

LB: We are automatically on a feature film scale in terms of mixing. You know, 10 sound effects tracks—with two selects and eight alternates for everything. And getting a great television mixer or feature mixer involved in the project; in both cases we've used Jim Corbett, who is at Mix Magic. He, to me, is the best commercial mixer I've ever known. He really knows how to do it. He'll give you that perfect balance between music and speech, ambience and effects, that communicates without one

—page 208



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Still from "Perfect Leader," 1983

MAX ALMY'S TIGHTROPE ACT

by Steve Seid

The tightrope between art and commercial creation maintains a precarious tension. Many artists have tried to navigate that tightrope, using good aesthetic instinct as their balancing pole. Max Almy, a San Francisco-based video artist, is one such well-balanced purveyor of the video medium. During the past five years, she has assembled a body of adventurous, innovative works that display techniques often described as futurist. A new graphic or narrative form appearing in a videotape by Almy today will most certainly find itself in the commercial vocabulary of tomorrow. This is most blatant in her recent works like the trilogy *Leaving the Twentieth Century* and *Perfect Leader*.

As a fledgling video artist, Almy gained employment at One Pass Video and Film, the San Francisco production house. She soon gained the tacit (and honored) status of artist-in-residence, also gaining unrestricted access to sophisticated equipment. With the time to experiment and freedom from sponsor-oriented demands common to all commercial projects, Almy was able to incorporate unique

technological strokes into her own work, work she says is "broadcastable, not gallery bound."

The first whisper of high-end pyrotechnics can be seen in an early videotape entitled *Modern Times* (1979). Here a frame is filled with four digitally squeezed images of lips. The audio related to one set of lips is brought to the forefront and we hear a short, maudlin tale of romance. When the story reaches its terminus, the audio track switches to the next appropriate lips. It is an interesting narrative device that keeps the gossipy nature of the stories visible and obvious.

In *Modern Times* Almy used digital video effects as a curious, but straightforward narrative tool; with *Deadline* (1981) this tool was transformed into metaphor. *Deadline* is a crystalline gem about the pressures of contemporary society. A man is jogging, face front, in a small squeeze-zoom frame. Behind him, corporate architecture looms ominously. A female voice-over begins an inexorable drone "You can make it. I know you can make it. You have to make it." Subtly rhythmic, the man's jogging image begins to warp at the edges as the DVE

is manipulated. This effect is further accentuated by imposing digital mosaics that obfuscate the man's identity. Here, the hardware capabilities realize themselves not as effects, but as intrinsic metaphors.

By 1982, video manipulation was finally catching up with Max Almy's desires. A triad of videotapes, *Leaving the Twentieth Century* (1982), took image enhancement and textural style to its obvious aesthetic limit. Briefly, the tapes describe a certain frustration with today's social possibilities and go through a listing of grievances, the departure from this world, and the arrival in a new speculative landscape. Regardless of its trim storytelling, *Leaving the Twentieth Century's* real concern is a new far-reaching aesthetic. Multi-layered effects—Dubner animation, DVE, digital feedback, posterization—create a seamless, artificial environment for Almy's characters. Most interesting are the geometric shapes, created on the Dubner and rotated through DVE, that impose a hard-edged graphic presence. *Leaving the Twentieth Century* is a self-examining work. It discusses its own technological content, telling the viewer that this is what the future holds in store, a crisp electronic landscape, beautiful when taken on its own terms.

Looking forward to an election year, Almy created *Perfect Leader*, a provocative look at image-making and the media. The sleek style of this extraordinary videotape is, in itself, an expression of television's uncanny power to impress and modify information. Again using Dubner animation, ADO and dense layers of graphics and text, Almy envelops her "Perfect Leader" in an electronic atmosphere. He becomes inseparable from the surrounding effects. The ultimate effect being a complete character generation—the "Leader" having his character generated through a series of digital manipulations. Further enhanced by a synthesized sound track, *Perfect Leader* stuns with energy and ingenuity.

With *Perfect Leader* in the collection of the Museum of Modern Art and her first assignment finished for Levi's jeans, Max Almy continues to walk that tightrope. "It's like two worlds colliding. I don't want to get them confused," Almy declares. Perhaps this potential collision is a test of her keen aesthetic balance.

Steve Seid has reported on San Francisco's video art scene for a number of years and currently works at 415 Records.

RALPH RECORDS DARES TO BE WEIRD

by Chip Lord

Ralph Records is an independent record company that produces and distributes the work of The Residents and a few other artists, primarily by mail order. Their compilation video tape, *Ralph Video Vol. 1*, has sold quite briskly in the twelve months that it has been in release. The tape contains video music by Tuxedo Moon and Renaldo and the Loaf as well as seven cuts by The Residents. Directed by Graeme Wifler, it is shot on 16 mm film, edited in film, and then transferred to video for distribution. This produces a murky sort of color resolution that sometimes works in support of the obscure quality The Residents love to project.

Ralph Video contains four one minute songs from The Residents' *Commercial Album*: "Moisture," "Act of Being Polite," "Perfect Love," and "Simple Song." These succeed because they use simple, straightforward imagery to set a mood—for example titles shot through an aquarium preceded "Moisture." "Perfect Love," the most narrative piece shows a man alone in a hotel room with memories of a long gone love so strong they seem to overcome gravity. "Simple Song" uses murky visuals of a dance ritual to back up the lyrics: "We are simple, you are simple. Life is simple too." It's a one minute voyage to a strange, neo-primitive place.

The other cuts on *Volume 1* are more predictable music video fare: Tuxedomoon's "Jinx," for example, uses a wide angle lens to portray the behavior of a likely sociopath. Like much MTV-type video it applies very specific images to abstract lyrics. We hear an apocryphal vision but we see lip-sync star shots; mild S&M and a TV set bursting into flames. MX-80's "Why Are We Here?" places the band members in a 'typical' captive dream space, matching the song's dream lyrics. "Songs for Swinging Larvae" by Renaldo and the Loaf is the most accomplished piece on the tape. It tells a kidnapping story with humor, benevolence and precision, and it is well directed and cleverly art-directed (see October *Mix*).

The Residents were working on a feature length video-film called *Vileness Fats* back in the mid-1970s, before their music became so popular

that they had to devote their full time to it. Now, Ralph's Homer Flynn is editing—salvaging might be a better word—footage from *Vileness Fats* for release this spring. The 30 minute tape, titled *Whatever Happened to Vileness Fats*, will feature an all-new

¾-inch cassette format and the One Pass machines weren't happy with the quality of the garage video. Eventually he colorized the black & white material at Video Free America, a small San Francisco production outfit experienced in the ways of early, half-inch video. Ultimately though, the low-resolution technology might work in favor of *Vileness Fats*—projecting that elusive quality of obscurity with sincerity.

A "Vile" preview of sorts exists



soundtrack by The Residents, mixed with dialogue from the original footage. Flynn says it will be "The weirdest silent movie you've ever seen" with title cards, in the style of silent films, created on the Commodore computer's Koala pad by Pore Know Graphics, the art arm of Ralph Records. From what I've seen, he might be right.

The Residents originally shot *Vileness Fats* on half-inch, reel-to-reel, black & white video in their San Francisco Mission district garage. They would design and construct one set at a time, and then shoot that particular scene. *Vileness Fats* was intended as a theatrical feature with a script, story, and characters (such as a schizophrenic mayor with a body like a tomato and Siamese twin gladiators who are constantly fighting with each other). It's unlikely that plot will be the strong element in the 1984 version.

Flynn is discovering the technical agonies of working from low-grade video originals. He had to carry his own Panasonic half-inch VTR over to One Pass Video to make transfers to

on the *Ralph Video Volume 1* tape. It's a spot ad for The Residents that uses animated grocery cart androids shot on the *Vileness Fats* nightclub set, followed by the Residents' "Land of a Thousand Dances." In this set piece, The Residents are clad in newspaper costumes on a newspapered stage. Shot in low grade film, circa 1971, this piece is the strongest song on the tape—a relic of some distant, obscure culture, that could have easily been discovered by a giant dish antenna scanning the skys for signs of extra-terrestrial life. Unlike the slick drone of megabucks, capitalist rock video, it has artistic vision. *Ralph Records Video Volume 1* (\$29.95) is available mail order from: Ralph Mail Order, 109 Minna St., #391, San Francisco, CA 94105. ■

Chip Lord is an artist who has worked in video since 1971. He has shown at The Museum of Modern Art, The Whitney Museum, and in Europe. His videotapes are distributed by Electronic Arts Inter-mix, New York.



VIDEO EVENTS CALENDAR

APRIL 1984

- 5-6 **International Radio and Television Society "Minority Jobs Fair."** Viacom Conference New York City.
- 6-14 **IMAGFIC** (sci-fi and fantasy). Madrid, Spain.
- 24-29 20th annual **MIP-TV** (Marche International des Programmes) international TV program market. Palais des Festivals. Cannes, France.
- 29-May 2 **National Association of Broadcasters** annual convention. Las Vegas Convention Center. Las Vegas, Nevada.

MAY 1984

- 5-9 **Eurocast '84** cable and satellite television exhibition. Swiss Industries Fair. Basel, Switzerland. Information: Michael Hyams, Cable & Satellite Television Exhibitions Ltd., 100 Gloucester Place, London, W1H3DA; telephone: 01-487-4397.
- 6-9 **National Association of Video Distributors.** San Diego, California.
- 11-23 **Cannes Film Festival.** Cannes, France.
- 13-17 **International Music Industry Conference.** Killarney, Ireland.
- 28-JUNE 2 **American Film Festival.** New York.
- 30-JUNE 2 **American Women in Radio and Television** annual convention. Palmer House, Chicago, Illinois.
- 31-JUNE 3 **Television Critics Association "Cable Day"**, sponsored by Women in Cable. Phoenix, Arizona. Information: (202) 296-7245.

JUNE 1984

- 2-6 **American Advertising Federation** national convention. Fairmont Hotel. Denver, Colorado.
- 3-6 **National Cable Television Association** annual convention. Theme: "Cable: The Consumer's Choice." Las Vegas Convention Center. Las Vegas, Nevada.

- 10-15 **Broadcasters Promotion Association/Broadcast Designers Association** annual seminar. Caesars Palace, Las Vegas, Nevada.
- 11-15 **Zagreb Tournee Internationale de Animation.** Zagreb, Yugoslavia.

JULY 1984

- 5-20 **FILMEX** feature film market. Los Angeles, California.
- 10-12 **Cable '84** conference and exhibition, sponsored by Online Conferences Ltd. Wembley Conference Center. London, England.

AUGUST 1984

- 10 **Rock America Video Music Seminar.** New York City.
- 13-18 **Toronto** (animation).
- 26-30 **Video Software Dealers Association** convention. MGM Grand. Las Vegas, Nevada.

SEPTEMBER 1984

- 21-25 **10th International Broadcasting Convention.** Metropole Conference and Exhibition Center. Brighton, England.

OCTOBER 1984

- 1-5 **London Multi-Media Market.** London, England.
- 15-19 **VIDCOM.** Cannes, France.
- 28-NOV 2 **Society of Motion Picture and Television Engineers** 126th technical conference and equipment exhibit. New York Hilton.

NOVEMBER 1984

- 7-9 **Television Bureau of Advertising** 30th annual meeting. Hyatt Regency. Chicago.
- 18-21 **AMIP '84. American Market for International Programs** second annual program marketplace, organized by Perard Associates with MIDEM and national Video Clearinghouse. Fontainebleau Hilton. Miami Beach.

Video Product News™

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Movie Moguls



by Neal Weinstock

Suddenly pop music is big business again. You can see it in higher music magazines—some old names in rock rags are reappearing on the newsstands for the first time in years, fat and sassy with the pure sugar shot to the blood that is advertising. You can see it in record sales and booming studio business, certainly. It all is visible (at least arguably) because you can see it on TV.

So can the TV and movie production industry that stands outside of and existed before the burgeoning music vid biz. "Where's our piece of the action?" ask the proverbial big men behind the big desks with the big cigars who take the meetings, make the deals, and buy and sell the stars. The movies are going music video.

"The proverbial big men," uttered Video Interface. What is wrong with this locution hints at a most ironical turn of history. True, the movies move to the beat of any current fad, and always have. Remember videogame movies? Or, how about the rock and roll epics of the '50s and '60s? This gets us more to the point. The movie musical changed in the '50s, coincidentally with the beginning of rock and roll. The reason for the change was competition from TV. Previously, a movie musical showed you an image of a singer singing. But TV could suddenly do that just as well. What TV could not do was show you big, colorful, imaginative images, often employing special effects, often not immediately associated with the song being sung. The choreography of Gene Kelly was an early highway entrance on a long road to music video as we see it now. But it was very much a winding road. The last gasp of the old Hollywood of the fat cigars and the contract system spent itself in the late '60s, exhaling nothing other than overbudgeted, inflated imitations of Kelly's work in the '50s.

At the same time, rock videos (chiefly in Britain) were already born in Kelly's image, counterpointing unsynched images and sound. And the guys who were making them were a new generation of filmmakers. They'd gone to school to learn how, but the



Menachem Golan

gates to the studios were closed. The elders of the first film-school generation worked in Roger Corman's and Samuel Z. Arkoff's exploitation factories, and only exploded into public consciousness in the '70s as Coppola, Spielberg, Lucas, and all their helping elves. And now the real studio powers themselves are also part of the generation that began by making little pop

music movies in film school, and progressed through the beach blanket Grade Zs of the '60s. It's a very easy step for the new Hollywood to rediscover pop music.

How big of a fad is it this time? How long will it last? Right now probably every feature producer with the wherewithal has got a *Flashdance* clone or a breakdancing title on his or



Face the Music

her production slate. Of course, how many of these we in the USA wind up ever seeing depends on just how strong and long-lasting a fad we've got here. On just such a variable rests the value of this column to the recording industry reader, too: Around the time you are presumably perusing this, the first wave of Easter music movies is coming out; their box office is determining just how marketable your services are to the producers of the second wave.

* * * *

Looking to break into feature film music? We conversed recently with the man who, more than anybody else in Hollywood right now, is THE MAN. Menachem Golan's the name, The Cannon Group is the company he chairs. In many ways he personifies the history lesson we just force-fed: he studied at New York's City College film school in the early '60s, hacked away at exploitation films for Roger Corman, sweating out screenplays with Francis Coppola and Robert Towne (*Chinatown*, etc.) And he had lots and lots of problems breaking into the high ground, none the least because he is Israeli. In partnership with his cousin Yoram Globus, Golan took the world of exploitation movies by storm, and along the way has directed a few lovely and lyrical low-budget films. And produced a lot of trash.

When he first came to Hollywood to finance a measly \$75,000 film, he says he waited alone in a motel room for two weeks while no one returned his calls. Then a friend suggested he give the script to Samuel Z. Arkoff at American International Pictures. "A fat big man with a cigar, behind a big desk, I come there with my *chutzpah* and I say, 'Mr. Arkoff, I'm sick and tired of this city. There's my script, you can look at it or not look at it and send it to your ten committees, I'm going back to Israel tomorrow,'" says Menachem Golan.

"He looked at me and he smiled. He said, 'Let me show you something.' It was a big office. He said, 'You see that door on the side? Open that door.' I go over and open that door and it was a toilet, with two large French pissoirs. And there was another door at the end of the toilet. He said,

'Open the other door.' So I opened the other door, and there was another big man with another big cigar behind another big desk. He said, 'Okay, this is Mr. Jim Nicholson, my partner. And every morning we stand here and pee at ten o'clock. And by five past ten, we've made all our decisions, on any movie we want to do.'"

Arkoff financed Golan's movie, a little gem called *Salah* that was nominated for a Best Foreign Film Oscar in 1964. And Golan learned to make decisions standing up, too. One of those decisions was the purchase of the money-losing Cannon four years ago. For the first year, that looked to be Golan and Globus' worst decision, along with coming to Los Angeles to run the American-based operation. "We didn't understand the American market, so we trusted other people to tell us what will sell here," says Golan.

The irony is that the two Israelis had achieved success through a two part formula: 1) the rest of the world is starving for formula Hollywood product of the sort that used to dominate screens for decades—so if Golan and Globus could create a reasonable, American-looking facsimile, they were in. 2) They would take advantage of the emerging "pre-sale" opportunities for video markets as well as theatrical distribution that have sprung up with new technologies; and if a film's budget could be held to "five to six million or less," says Golan, "we take no risk at all . . . we have sold 90 to 95 percent of its cost before it is made."

Taking little risk means not making quite the profits that might accrue if a film is not presold. But then, Golan and Globus are not in the get-rich-quick game that consumes most Hollywood minds. However, a little bit of getting rich quick never hurt anybody; in the second year that they owned Cannon, they reasserted their formulae, had a string of moderate but quite adequate Grade B hits, and brought their company's stock from 20 cents a share to over \$20. They bought a couple of theater chains and signed a distribution deal for the U.S. with MGM/UA. All of which prepared these new kids on the block for a very risky venture: going legitimate.

Cannon equally manages to

cover the costs of its higher quality product (such as *That Championship Season*, the coming *Ultimate Solution of Grace Quigley* with Katherine Hepburn, and a new John Cassavetes film) in the presale market. But so far, most of the high class stuff has been critically successful and box office bombs. Golan remains unworried: with his investment covered, there is a long time to earn it back on TV sales; and that investment has hardly escalated from the exploitation arena. Sub-million dollar wages are possible when artists are allowed to develop their own pet projects.

Talk of Cannon's new "A" movies may seem beside the point in a column about music movies (at least to the cynical). It is important to the extent that we have here a classic demonstration of the whore buying a house on the hill. But memories are short in Hollywood. As long as it continues having years like this one, with a 21 film production slate, the establishment will beat a path to Cannon's door. Between three and six of those '84 films have pop music as their reason to be—exactly how many depends on the strength of this current music boom.

But, says Golan, "The *Lemon Popsicle* movies were our most successful. And I think there will always be this market for youth movies." There were four *Lemon Popsicle* movies over the last few years, all American-style dumb youth sagas made in Europe for world-wide audiences, but not even released here. The difference now in Golan's youth movie planning is that *Lemon Pop's* successors can be made for American release, too. In fact, to serve as the relatively glamourless base for Cannon's Class A movie excursions, they will probably have to be. Making a youth movie for the U.S.A. entails more and better music, perhaps original, and somewhat better production values all around.

Cannon's sudden emergence as a major production company bemuses the peripatetic (and the long out of the Hollywood limelight) Golan. Our hour-long conversation one day was interrupted by several calls and visits from job-seekers. He says, "But if they can do something for me, right now I need it." A clearer invitation was never spoken. ■



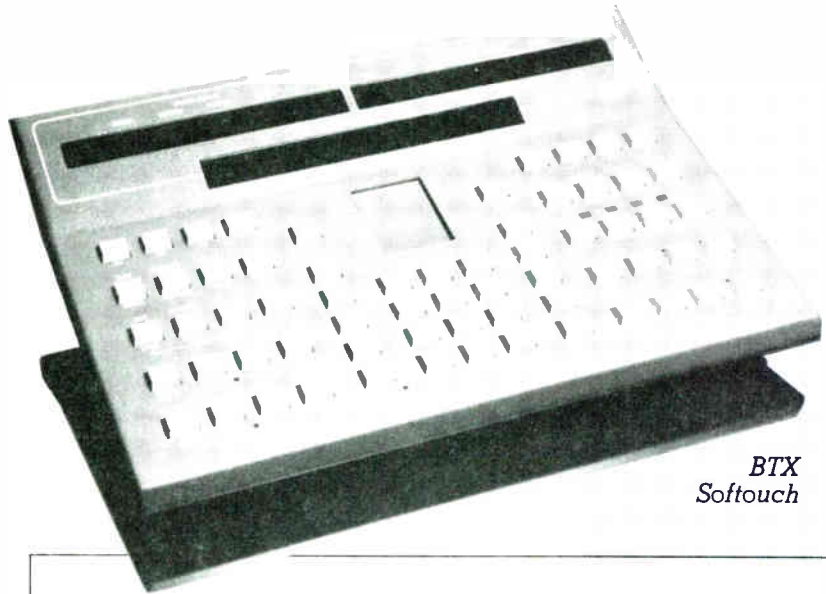
TIME CODE

A Technical Update

by Lou CasaBianca and Joe Van Witsen

Time code is on the move. It is showing up in editing facilities that previously could not be more accurate than the 60 Hz power line that ran them. But thanks to the now ubiquitous microprocessor, nanosecond accuracy and synchronicity are now accessible in the home and in the studio. The application of computers includes the control of audio and video tape recorders. Just a few years ago, all tape recorders were solenoid controlled by AC relays with little or no logic behind a lot of brute force. You had to be a tactician to operate them because the machines did not know that "stop" meant: slow down, then stop. The procedure to stop a tape from fast forwarding was to hit rewind to stall it out, then stop when it coasted down from rewind. Virtually all professional tape recorders today are microprocessor controlled using an 8080 or similar chip to do the work of coordinating the mechanism of the tape transport so it doesn't permanently damage your master tape. The other advantage of the microprocessor is its ability to listen. It can take commands from a host computer and, in conjunction with a time code track, provide automated control and synchronization.

Audio recorder manufacturers resisted. Audio tape could still be physically spliced and sound great. But finally around the early 1980s audio recorders became microprocessor con-

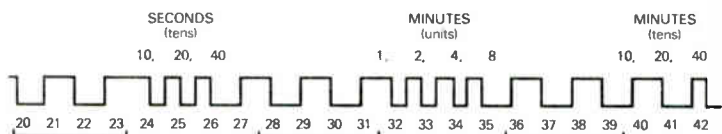


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TIME CODE NUMBERS



Time code identifies every single video frame by hour, minute, second and frame.



USER BITS

Interspersed through each 80-bit frame of time code are eight groups of four bits each. These 32 bits are referred to as user bits. The user bits are essentially leftovers; the time code can meet all of the indexing requirements imposed on it without filling these bits with data. This leaves the user bits available for any auxiliary function the user may have in mind.



trolled complete with that umbilical cord of digital maternity, the RS 232 port. Now computers and tape recorders can whisper sweet nothings into each other's ears, keeping one another updated and in sync with their fellow machines and processing devices. The time code revolution has just started. Soon many external devices like delay, EQ, etc., will be SMPTE controlled and able to change parameters with frame accuracy in sync with other devices or images on video tape. Synthesizers are becoming SMPTE compatible, which greatly enhances their use in scoring films and TV shows, and in keeping a soundtrack in sync with a VCR.

Film technology is about to undergo a renaissance as it becomes SMPTE-fied. Datakode™, is a key step in that direction. Developed by Kodak, this revolutionary film uses a magnetic coating that is transparent and can be applied to the back of photographic film and provide time code along with other instructions for specific functions. This allows for complete automatic control of all film handling equipment from cameras, to film processors, projectors, editors, telecines, optical printers, cleaners, loaders. Beside allowing computer control of these devices, Datakode would provide full synchronization with all time code controlled audio and video equipment making film equipment another user friendly peripheral which can be synched, off-set, previewed, printed out and saved to disk.

The man-machine interface objective is for every audio and video device to be fully controllable by a host computer so that complex sequences of effects can be previewed and stored. However, the standardization of a time code format by SMPTE is only the first step. Two other areas of computer interface must still be standardized: machine protocol and edit decision lists. Protocol is the language and chain of commands which a computer uses to talk to a peripheral device. An "edit decision list" is a print out of all the times and commands to the editor and various devices. These two areas of incompatibility are the focus of two SMPTE working committees.

The problem with developing a standard protocol for machines is that each manufacturer had devised a different way to communicate with its product's logic system. Some equipment had a parallel interface, some had RS 232 digital interface and, more recently, some manufacturers started using the RS 422 port. For the past several years, CMX has dominated the computer editor market and the CMX General Purpose Interface has become

the de facto standard for machine protocol. Recently, many new devices have taken their place in the video editing environment alongside the editor and the switcher: digital video effects, film to tape transfer equipment, color correctors, digital art systems, still stores, and each of these devices has more functions than the General Purpose Interface (or GPI) can control. Even with the GPI, the host computer of the CMX system can not talk directly to any of these devices. CMX uses a system called Intelligent Interface to allow the GPI to control external devices. An Intelligent Interface is a micro-computer in itself which listens to the GPI but speak in the protocol of the particular device it is controlling. Because there are so many products on the market that need to be controlled by a computer editor, CMX currently offers over 100 different interfaces for VTRs, ATRs, switchers, etc.

CMX engineers spend considerable time obtaining new products from various hardware manufacturers, studying their operational personalities and developing these interfaces. The cost of all this redundant R&D of course gets passed on to the purchaser. However CMX, through its customized Intelligent Interfaces can

right now do more with more devices than any other controller. A Sony editor, for example can only talk to a Sony VTR. Originally, manufacturers resisted working with SMPTE on developing a common protocol. A lot of effort and resources were spent developing proprietary software for controlling their machines, each believing that their system was the best and the rest of the industry would later have to license that system. Now, however, most manufacturers seem willing to adopt a SMPTE standard machine interface protocol.

The second area of standardization which SMPTE is working on is the Edit Decision List. Again, the CMX Edit Decision List has become the industry standard because it is so popular and has been around the longest. But the CMX list is only partially compatible with some manufacturers and totally incompatible with others. The SMPTE proposed EDL standard most closely resembles the CMX standard but with several important additions like the ability to list an event by words as well as numbers and the control of a much broader range of equipment functions.

SMPTE has recently standardized a new form of time code specifically designed for video tape. It is called



Time in your hands

AUDIO & DESIGN announces a unique new SMPTE/EBU time code reader. This highly portable unit can be powered by AC or 4 AA batteries; CMOS circuitry and the LCD display allow a battery life of up to 2000 hours. User bits can be displayed at the flip of a switch, plus drop frame and color frame indicators are provided. A rear panel jack supplies regenerated time code at 0 dBv level. Where else can you find all these features in such a compact package (at a very compact price)? Only from Audio & Design.

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FOR THE DIGITAL ERA

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Circle #110 on Reader Service Card



Vertical Interval Time Code. The difference between Vertical Interval Time Code (VITC) and regular Longitudinal Time Code (LTC) is that VITC is recorded in the video picture information while LTC is recorded on an unused audio track. VITC was designed to overcome some of the inherent limitations of LTC. One of these limitations of LTC is its inability to be read at slow speeds or still frame. All LTC video tape editing systems switch over to control track counting when in slow or still mode, because of the inaccuracy of control track counting, so-called frame accurate LTC editing systems are really accurate to plus or minus 2 frames. VITC is recorded in the vertical blank-

ing part of the video picture. This is the black bar seen at the top of your picture when it is vertically rolling. Because this code information is read by the spinning helical scan video heads, accurate frame counting is accomplished at any speed.

A second advantage of VITC is that it frees up an audio track on the video tape so that it can be used for soundtracks such as a second language or a rough mix. A third major advantage is that it allows recording edit decision information in the user bits part of the VITC on the edit master tape. User bits are extra memory digits in addition to the primary code. This allows the notation of reel and take number, for

example, or the time code addresses of all the shots selected for the master edit. When VITC was first introduced, it could not be read any faster than play speeds and LTC was used to count frames at higher winding speeds.

Adams-Smith, BTX, EECO and several other major manufacturers of tape synchronizing systems have developed the ability to read VITC at all speeds and translate it at all speeds to LTC, which can be read by existing edit controllers. The Adams-Smith 2600 modular tape synchronizer was designed to synchronize VTRs using VITC with ATRs using LTC.

By using a module called the Translator Interface, VITC can be translated into LTC for conventional VTR edit controllers or recording as a track on an audio tape. When the VTR is playing at under half speed, where LTC readers begin to become inaccurate, the translator interface outputs LTC at half speed so normal readers and controllers will be frame accurate without having to directly switch over to control track updating. Control track pulses read by the Translator Interface are used only to correctly phase the regenerated LTC to the video frame edge.

In LTC editing, the edit master reel is pre-stripped with SMPTE time code on an audio track of the master VTR. This set of sequential frame numbers act as the address for the computer to locate shots. In VITC editing, the edit master is pre-stripped with color black including VITC in the vertical blanking. During picture editing, new picture information is being laid in over the previously laid black with VITC. A process called jam-synching is performed by the 2600 system where the module counts along with the frame numbers on the master tape and at the point of the video edit, continues counting and laying-in new sequential VITC in with the video insert.

This process is re-recording the exact same numbers at the edit points with each video insert gives the master tape the store in the picture information in the user bits of the VITC, a time code address of that particular source shot, making the master tape a storage medium for the edit decision list. Conventional computer video editors using LTC store the edit decision list in the computer's memory, requiring a program to clean up the left-over pieces of code from a trim or re-edit. The final cleaned up list is then stored off line on a diskette.

By assembling an edit decision list in the user bits of the VITC of the edit master, any dub of that master also becomes an off line list storage medium

—page 156, TIME CODE

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Q·LOCK's control of video, audio or film machines allows the engineer to concentrate on the performance, not on the equipment. Easy to operate, with interfaces to virtually all tape transports, Q·LOCK can handle all the routine tasks of machine control, and offer precise synchronisation. New Options control software permits the operator to configure operational routines to his own requirements through the Q·LOCK control keyboard.



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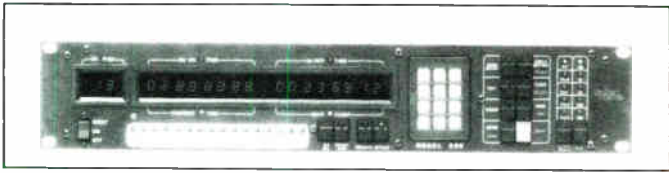
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AUDIO KINETICS



HARDWARE | SOFTWARE



United Media Model 500 Sequencer

The Model 500 is an electronic digital programmer that can activate up to 16 other pieces of equipment, specifically television post production equipment. The sequencer will sort and store up to 320 commands in internal memory. A built-in time code reader enables the selection of either 24, 25, 30 drop frame or 30 non-drop frame. The sequencer also works on a real time clock at .01 second intervals and has built-in registers for start time, stop time, event channel, tape time display and frame indicators. Timing accuracy is 1/100 of a second in real time and to the frame in other modes. The 3½" rack-height sequencer also features events stacking, editing look ahead where any deck not being used for editing at the moment is cueing for its next shot. The sequencer offers a full range of controls for external devices. Programming commands can be entered from the front panel, paper tape, RS 232 input equipment, or from United Media's commander II video editing system. Each command can then be recalled via the front panel scroll controls, a printer, or an RS 232 disk drive with 5¼" diskette.

Circle #158 on Reader Service Card

The Associate Producer—Software

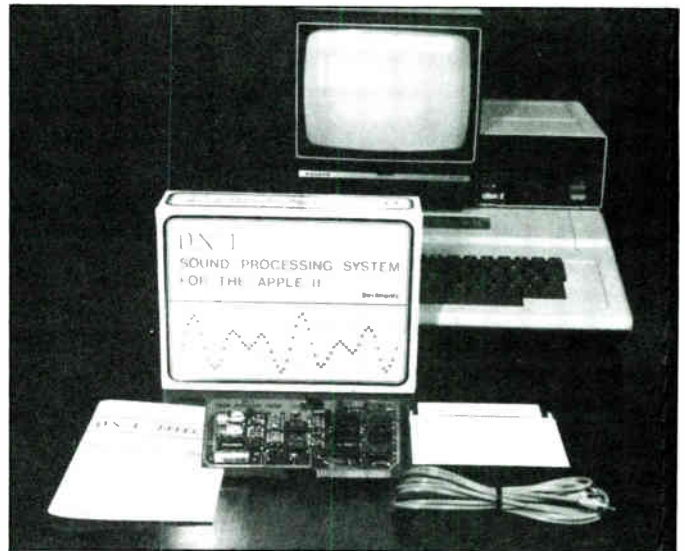
Comprehensive Video Supply Corporation is publishing "THE ASSOCIATE PRODUCER" as part of its new line of Computer Aided Video software. The ASSOCIATE PRODUCER is a television and film Production Management System for the Apple II+ or IIe computer and soon for the IBM PC. The software requires no computer knowledge to operate. A series of clear interactive menus prompt the user through the process of entering or retrieving data from the system. The system provides a budgeting program, a budget tracking program, a production schedule program and a program rundown.

The BUDGET has every category needed to do a film or TV production. Defaulting past unused categories of job or facilities deletes them from the list. The program does all of the arithmetic once name, cost, rate and time factor are entered. It includes 134 categories, divided into three major sections of Above the Line, Production, and Post Production. The latter two are also combined to give a Below the Line subtotal. The companion Budget Tracker program is designed for budget cost-accounting. Once a completed and approved budget has been established, the Budget tracker will load a budget file, and allow the user to enter expenditures to be listed against the budgeted amounts. The Budget Tracker will display and print out reports showing current budget status, with any items that have gone over budget pointed out on the report. The program can also be used to figure net profit/loss on a production. The PROGRAM RUNDOWN assembles a schedule of show segments for a production. Each segment is entered with a description and a segment time. The program's running time is calculated for each segment along with total running time. The system allows notations to be entered for each segment as well.

The PRODUCTION SCHEDULE is designed to

assemble a production schedule designed for productions shot film style. The schedule has a capacity of 15 days with ten scene entries per day. Longer schedules can be accommodated by using a continuation option. Each entry includes the basic information for scheduling: scene numbers, day, night, interior, exterior, location, description or action, and cast. All of the programs have simple uncluttered menu screens and each entry has a dedicated full screen field to work with. The programs allow the producer to explore creative and business alternatives in budgeting, production scheduling, and program assembly with a new sense of freedom and precision.

Circle #159 on Reader Service Card



Decillionix Sound Processing System For Apple II

Decillionix, of Sunnyvale, CA has introduced the DX-1, a sound recording and processing system compatible with the Apple II personal computer. The system is comprised of a circuit card that fits into a slot on the Apple motherboard and software on a 5¼" diskette along with documentation. Real sound from a microphone or line level signal can be entered, saved, processed, sequenced, played, and modified under computer control. Two software programs are available. The first is DX-1 EFFECTS, a sophisticated sound effects program, capable of recording sound as well as controlling pitch, volume, direction and sequence, and includes 22 preprogrammed sounds. The second program is DX-1 ECHO which adds echo, reverb and other real time sound processing features. Direct control of all parameters can be joystick controlled.

The system uses an eight bit sampling technique, 24k of Apple memory dedicated to sound recordings, completely variable sample rate from .78kHz to 30kHz, completely variable play times from 1 to 10 seconds, independently variable play and record rates, and programmable control over output volume in 15 or 250 steps. Also available are four additional volumes of prerecorded sound for the DX-1. Library includes real drum set sounds, electronic sounds, explosions and zaps, hand claps, finger pops, acoustic instruments, barking dogs, police siren and many more. Complete control of all parameters of echoing is pro-



vided including echo loop time, sample rate, length, loop start and end locations.

Circle #160 on Reader Service Card

RCA Low Cost One Inch Editor

The RCA TH-400 is the company's new low cost full function type C editor. The machine is manufactured by Ampex and marketed by RCA. The TH-400 is available in NTSC, PAL and SECAM standards. The VTR has many sophisticated features not found on previous generations of 1 inch decks, such as a dual microprocessor command system.

One microcomputer manages the VTR control system; the other controls all servo subsystems. A frame accurate automatic editor is standard allowing entry and exit points marked, via soft loading (pressing enter or exit where machine is parked) or hard loading (keypad entry of Time Code numbers), automatic preview, edit, review, trim, auto-

tag. The computer has power down memory which includes a battery backup in case of power failure, tape time and control panel set up information returns when power is restored. The diagnostic probe system provides user interactive fault tracing. The AST automatic scan tracking feature produces smooth clear broadcast pictures from still frame to 1½ times play speed (continuously variable). The advanced transport design provides superior tape handling of all reel sizes from 6½ inch "spot" to 2 hour, 1 1¼ inch reels. Automatic status verification and diagnostic routines are performed as part of the power-up sequence. The microprocessors and system communicators permit the operator to call up special setup modes from the control panel. The SMPTE serial RS 422 control interface offers the added convenience of greater remote control distances and integration into an asynchronous data communications network. Also included is a multi-function VTR control for simple two machine inter-connection.

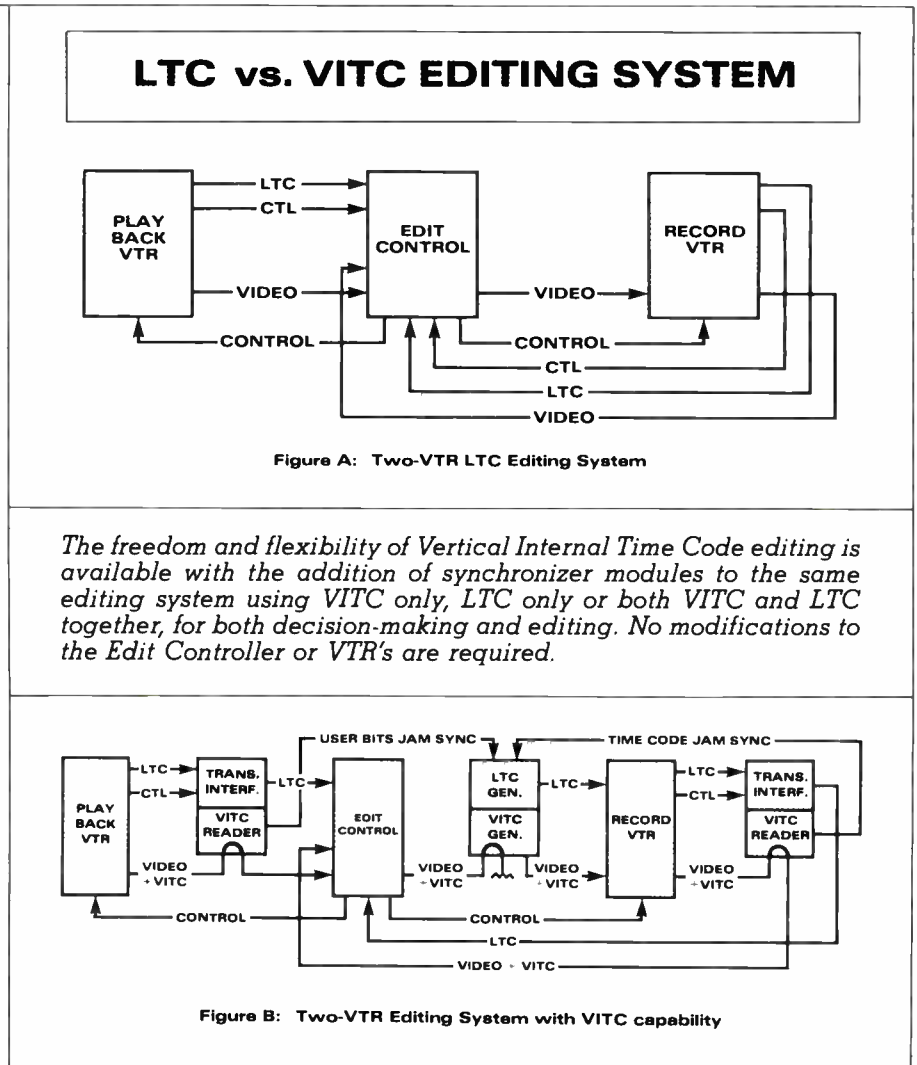
Circle #161 on Reader Service Card

—from page 154, TIME CODE

along with picture and sound for reference. This permits a new breed of less expensive tape synchronizers such as the Adams-Smith 2600 to do what a system like a CMX can do but not needing all the list cleaning software. The VITC 2600 system is perfectly frame accurate for VTRs; conventionally recorded LTC is not. But the 2600 can synchronize and step to increments as small as one hundredth of a video frame.

This is important with audio post work on video. Standard video edit systems have an address resolution the same as the frame rate: 1/30 of a second, one TV frame. But for sound, 1/30 second is a long time and if you tell two ATRs to lock up to the same frame of video and you mix both sound tracks in a mixer, the chances are more than likely you will hear some phasing. So 1/30 second actually leaves some room for slop in synching up sound. The finer resolution of 1/100 frame advance and retard for ATRs when locking to frame accurate VITC controlled VTRs presents a new level of sophistication and control for audio-video editing systems. Editing systems, like the Adams Smith 2600 with a RS 232 port, allow a personal computer such as an IBM PC to be the host computer of an off-line edit system using the 2600 to generate and read VITC and LTC, and to cue and command the tape machines. The PC providing list management and print outs of edit decision lists as well as off line storage of audio and video editing on a diskette.

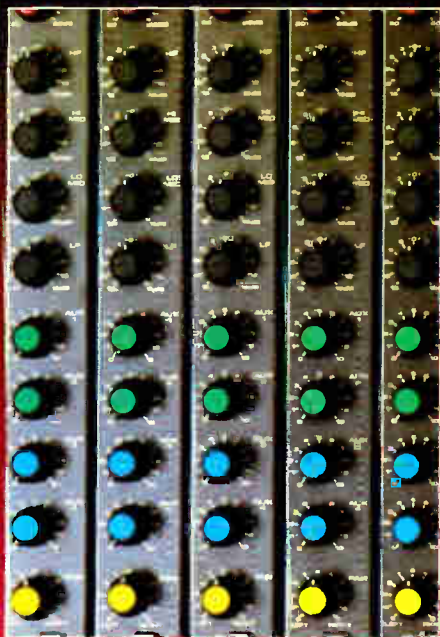
This new link between time code synchronizers and personal computers is an important evolutionary change in the technology of this industry where specialized computers are no longer needed to do computer editing of audio and video. A personal



computer which has the ability to be used for scripting, bidding, billing, cash flow and production schedule management, title generation, graphics, sound effects and synthesizer control, as well as editing video tape is a more cost effective investment than a computer that can only edit video tape. The personal

computer is becoming the heart and brain of many new studios with its ability to monitor all aspects of a project including synchronizing ATRs and VTRs for post production. In next month's *Mix* we will continue to examine the impact of computers in the studio and postproduction. ■

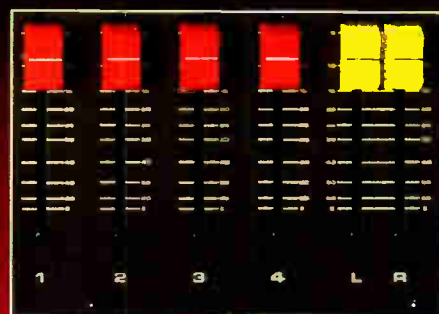
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LUNCHING WITH BONZAI

by Mr. Bonzai

"He's an artist in the true sense of the word. He's emotional and I think he puts a lot of that into his work. Some of his stuff is pretty avant garde; I don't understand some of it. I think he knows what it means more than anybody else. That's what's good about art—you leave it up to your imagination."

This is what Stephen Bishop had to say about an old friend of his, the painter Charles Villiers. When we describe others, we often reveal our preoccupations. In this particular case, he is talking about the role of the artist, the emotions of the artist, and being understood.

"People have a tendency to slot artists," he continued. "People know me most from 'On and On,' and from *Tootsie*, which has sunk me deeper into the MOR well."

Maybe we can de-slot Stephen Bishop. He is most recently known for his singing the *Tootsie* theme song, "It Might Be You." He owns a pith helmet with a built-in solar powered fan. He composed the theme song from *Animal House* and made a cameo appearance in the film as "Charming Guy with Guitar." Remember when Belushi grabbed the folksinger's guitar and smashed it?

He has life-size cardboard cut-outs of Margaret Thatcher and Marilyn Monroe sitting in his living room. His songs have been covered by such diverse artists as Art Garfunkel, Barbra Streisand, Cleo Laine, the Four Tops, Kenny Loggins and Phoebe Snow. He has a dog named Flaybeez and plans to get him a girlfriend to be named Vaxine.

Stephen Bishop's home is an eccentric emporium of modern art, video gadgetry, British memorabilia, and state-of-the-art toys.

"I grew up very poor in San Diego. I was a slave around the house and had to go to bed at 9:30. Imagine missing the second half of *Bonanza*! That's probably why I stay up all night now writing songs and playing video games."

There is definitely something boyish and driven about Stephen Bishop. He doesn't want to go to bed



PHOTO MR BONZAI

Stephen Bishop

BEYOND "ON AND ON"

before the party's over

His latest album, *Sleeping with Girls* was four years in the making. It's a long play epic that started with Gus Dudgeon producing in London and was completed with Greg Matheson producing in Los Angeles. At the same time, Stephen was preparing to launch a new company.

"I'm coming out with a line of popcorn called 'Bish's New World Popcorn.' It's an unusual popcorn that I make with no salt and a special blend of vegetable ingredients. Very tasty. If Paul Newman can do it, why can't I? He makes a pretty good salad dressing. The slogan for my popcorn is 'You haven't lived until you've

tasted Bish's New World Popcorn'."

Bonzai: You've got such a strong-willed sense of humor—why is this underplayed in your songs?

Bishop: It's not! "... puts on Sinatra and starts to cry" is funny. What about

take a look at *Playboy*. It's what I like to explore in my writing.

Bonzai: What's the difference between animals and humans?

Bishop: Animals don't make porno movies.



PHOTO MR BONZAI

"Sex Kittens Go to College," a cut that has Eric Clapton and Phil Collins playing rock Beethoven? There's humor in my albums, but I've always felt that humor is a touchy thing. If you put it on a record, it's gotta wear well. How many people do you know who are still playing *The First Family* by Vaughn Meader?

Bonzai: Why didn't your third album do as well as the first two?

Bishop: People thought it was odd—it was eclectic. I'm proud of it—it's somewhat bizarre.

Bonzai: Is there any one person who has had a big musical influence on you?

Bishop: The first name that pops up is Randy Newman.

Bonzai: As a friend, or as someone you listen to?

Bishop: Well, we don't go bowling, but I've chatted with him and I think he's a brilliant writer. I don't think anybody's ever come close to him. Paul Simon is a very good songwriter and an excellent musician and a word craftsman, but Newman gets more heart across. Paul Simon has a tendency to distance himself in his lyrics, whereas Randy lets his heart out on the line. There is something that is very hip about innocence. We live in an age of no innocence; kids don't have to sneak into the market to

Bonzai: How did you make the big leap from San Diego to Hollywood?

Bishop: It was a very big leap. I first moved to Hollywood when I was 18, in 1969. The first time I had actually been here was in 1966 with my group The Weeds. We were a combination of the Beatles, the Stones, and the Buffalo Springfield, all rolled into one. I started writing when I was 13 and had amassed about 26 songs by the time I was 15. We came up to record in this guy's living room. He had special recording tape and it cost us \$50 for the session. We recorded all day and night. Some recording studio this guy had—he was in another room and he'd come out and say, "OK, go!" and then he'd run back to his room and press the button. I was just thrilled.

Bonzai: Who are your favorite composers?

Bishop: Lennon and McCartney. They had a tremendous effect on my life and my music. You know, I had a dream when I was 16. It was such a vivid dream—one of those dreams where you wake up and you think it's real. John and Paul came to my house during the Sgt. Pepper period. They knocked on the door and when I opened it, John said, "Hey, Steve, what ya doin'?" I said, "What are you guys doing here?" They said they were just in the neighborhood and thought they'd drop in. I said, "Well,

c'mon in!" They came in and we all sat there and wrote a song. It had a melody—it was a real song. Then they said they were thinking of adding a fifth member. "Like the Dave Clark Five—what d'ya think?" They wanted me to join the group and I said, "Well ... I don't know—I'm only 16 and I gotta clean up the backyard today." They were inviting me to come along to a gig when I woke up and heard my stepfather say, "OK, bub, wake up—you got work to do outside and furniture to polish."

Bonzai: What was your first thought when you discovered puberty?

Bishop: Well, it was in the shower for me and I bumped into it by mistake—I've been bumping into it ever since.

Bonzai: When you die would you like to be burned, buried, or sunk?

Bishop: Stuffed. I've always wanted to be stuffed, or freeze-dried. People think I'm kidding, but I think famous figures shouldn't die. They should be stuffed if they want to be, and put in a museum.

Bonzai: What comes to mind when I mention Barbra Streisand?

Bishop: I met her very early in my career. She was looking for songs for *A Star Is Born* and I was invited up to her house. I sang in the living room for Jon Peters and she appeared on the balcony wearing this incredible robe. She was tanned; she looked like a total star. She took my breath away. And she said, "Stephen, was that you? I thought the record player was on—you have the most incredible voice." She sat there with me and I played over 30 songs. She was so complimentary and the big living room made my voice sound great. I drove home in my little Volkswagen that night thinking, "Boy, am I hot shit!" Through the years, she's always been nice to me.

Bonzai: John Belushi?

Bishop: Asshole ... little kid, apologetic. Great guy, and I miss him. I really do miss him—it's sad.

Bonzai: Stevie Wonder?

Bishop: God messed up and gave him the talent of a hundred people.

Bonzai: Eric Clapton?

Bishop: Great, incredible human being. Stopped drinking; off the booze for two years. Probably one of the best people I've ever known. A good-hearted human being. Playing great.

—page 162

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Ask any band what their "dream" PA system is, and you'll probably hear about separate mixers, outboard effects, and power amps.

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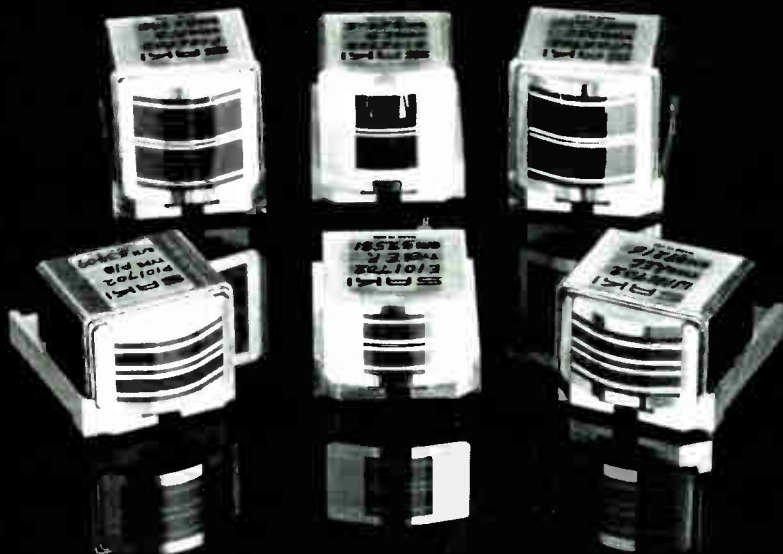
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—from page 160, *BONZAI*

Bonzai: What makes a great recording engineer?

Bishop: I've worked with some good engineers: Scott Litt—Graham Dixon, who I just worked with in London at Maison Rouge Studios. I worked with one guy named Pat McDonald. I asked him how he got this great sound with the bass drum and he showed me how he'd taped a pencil against the drum. It created this "thwok" sound. I like that. Most engineers that I've worked with aren't very inventive. It's like any profession, like being a sushi chef. If the guy is inventive, you want to come back. In the studio you have to be innovative.

Bonzai: What was your worst experience in a recording studio?

Bishop: I was doing a string date for "Looking for the Right One" on the second album. I get nervous when I do string dates because they're so expensive—\$6,000 an hour, or something like that. Thirty musicians are out there with Marty Paich conducting and we're just about to roll when someone spilled a nice sticky Coca-Cola into the board. We were delayed while they cleaned up and dried the console with hair dryers. So if anyone says the song turned out kinda sugary, they'll know why.

Bonzai: If you could be any woman from history, who would it be?

Bishop: Annie Oakley.

Bonzai: Who is the most amazing talent you've worked with?

Bishop: Art Garfunkel. He is written off as an MOR type of guy and ballad singer. He is one of the finest record makers, as far as innovative records go. All his records have new little things. He's a very underrated guy.

A few weeks after our lunching we met up at The Sunset Sound Factory (Tchad Blake engineering) where Stephen was putting some last vocal touches on "Look to the Positive." Then we rushed over to Capitol Recording Studios (David Leonard engineering) where Lee Sklar, Carlos Vega, and Greg Matheson were set up for Stephen to sing on "Slow Breakup." Additional musicians on the album include Pete Wingfield, Maxine Andrews (of the Andrews Sisters), Tower of Power, Phil Collins, The Hollies, Steve Lukather, and Michael Boddicker.

The fourth album is rich in rhythm and laced with little Bish trademarks. He has a friendly voice, sidles up, spins his yarns, and strives to find some slots we haven't heard yet. His parting words were "Neem Nom."

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SOUND ON STAGE

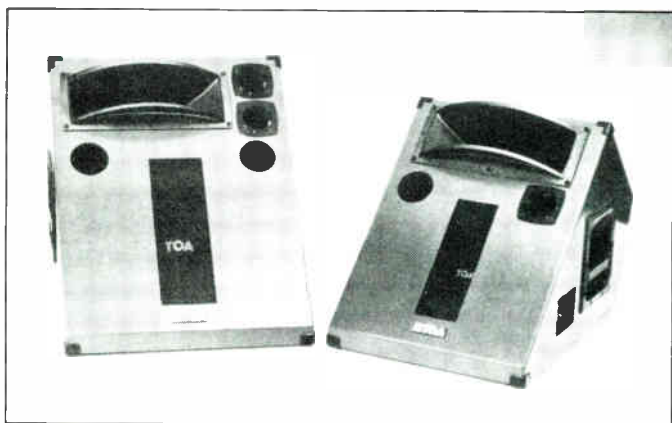
Manufacturers Sponsor Bands

The Miller Brewing Company and four audio manufacturers will be sponsoring an artist support package to showcase 15 regional bands in the second annual Miller High Life Rock Network program. The participating bands will receive support on their tours through radio and print advertising as well as promotional merchandise.

Audio-Technica, Gauss, MXR, and QSC Audio will provide all fifteen bands with microphones, speakers, signal processing equipment and amplifiers respectively.

"Miller's involvement with the Rock Network program includes providing the bands with the type of support that will eventually propel them to stardom and a national following," says Kevin Wulff, Miller's manager for young adult marketing. "The Pro-Audio companies' involvement will also enhance the performance and sound quality of the groups."

Rock Network is being coordinated by the Milwaukee based promotion and marketing firm Gary M. Reynolds & Associates, Inc.



New TOA Speakers

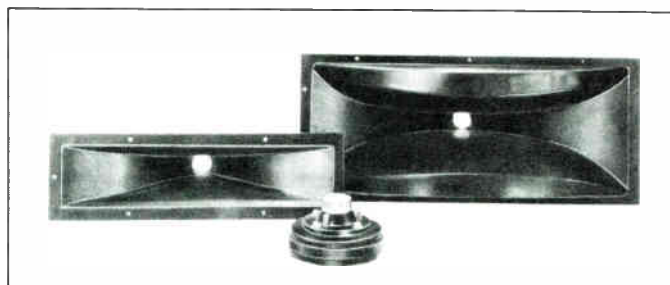
The SD series of four professional speaker systems for high-quality, live performance applications or permanent installations has been introduced by TOA.

The three-way SD System incorporates a moving coil tweeter. The speaker features a high-frequency attenuator for tailoring its output to performance requirements and room acoustics. Other features include bi-amp and bridging connectors, recessed handles; interlocking corners; a stand-mounting adapter; and a compact and extra-rugged enclosure.

The SD is designed for ultra-low distortion throughout the tonal spectrum over a wide range of sound pressure levels. The systems incorporate a Thiele-Small aligned bass reflex design to provide a greater bass range and efficiency, and its front panel slotting functions as an acoustic low pass filter.

TOA's SD Speaker is designed to provide extended frequency response [50Hz to 20kHz, Model 38SD] and high power capacity (360 watts continuous program), with a high efficiency rating.

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MTX Lenses and Drivers

MTX, of Winslow, IL, has introduced its new Pro Lenses and Compression Driver combinations for professional applications. The new units are constant directivity horns made from non-resonant polyurethane. Designed with MTX's fast fourier transform analyzer, MTX's horns are designed to eliminate high frequency beaming and irregular frequency coverage.

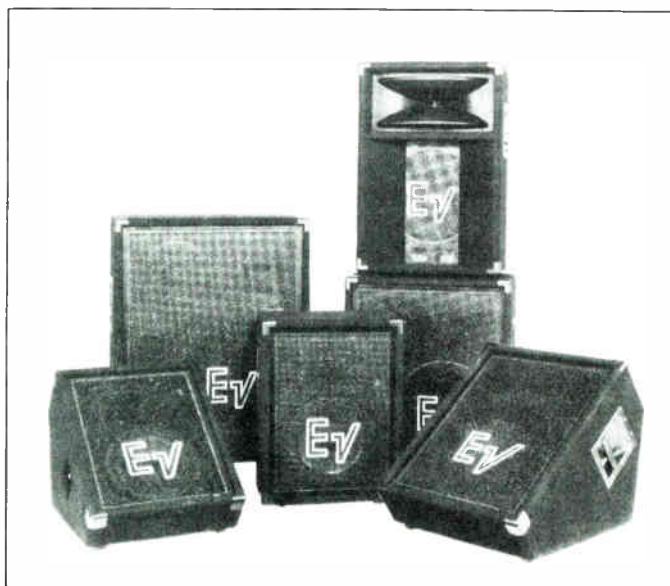
Measuring 4 3/8" x 15" x 7 3/4", MTX's 14-4-100 horn has a 100-degree dispersion pattern. The MTX 18-8-120 horn, which measures 18 1/8" x 7 3/4" x 8 1/2", has a 120-degree dispersion pattern.

MTX also offers its new CD-60W-8 compression driver to use in combination with its new constant directivity horns. The MTX compression driver features a field replaceable diaphragm made from high-temperature phenolic impregnated linen to eliminate crackling and shattering. The computer-designed compression driver also uses pure silver leads laminated to a high-temperature aluminum voice coil for high-power handling with optimized transient response.

With a power handling capacity of 60 watts RMS, the MTX CD-60W-8 compression driver has a 25-ounce magnet and a 1 1/2-inch aluminum voice coil.

Nominal impedance of the compression driver is 8 ohms, frequency response is 600-17,000 Hz, and sensitivity of 108 dB-spl with a 1 watt 1 meter input. The MTX compression driver threads measure 1 3/8" x 18.

Circle #164 on Reader Service Card



Electro-Voice New Stage Speakers

Six new speakers were introduced by Electro-Voice at Anaheim's winter NAMM convention. The new models feature redesigned enclosures constructed of a high-density aligned-fiber, waterproof hardwood material called Road-Wood™. With the strength of plywood but offering superior

acoustical properties, the new enclosures are covered with a special black high-density carpet material and protected with heavy-gauge steel corners. Other cabinet details include removable expanded metal grilles, recessed input panes and handles, and oversized rubber feet.

Among these new components are a new die-cast constant directivity horn, new extended-coil high power woofers and a new 1-inch pro-music titanium driver. The EV-exclusive VMR™ (vented mid-range) cone driver has been improved with a new edge-wound flat-wire voice coil and is now constructed with high temperature adhesives.

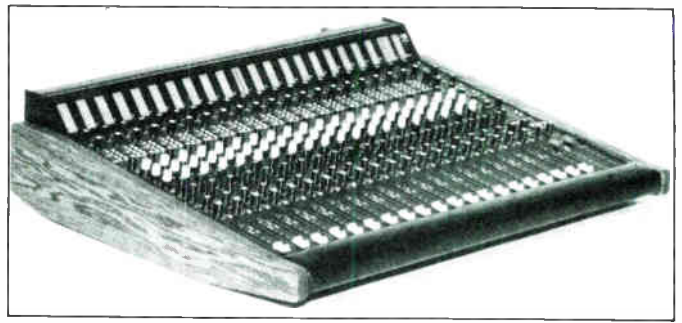
The all-new compact S-1202 is a two-way, 300 watt, time coherent, constant directivity sound reinforcement system featuring the 1-inch pro-music titanium driver coupled to an EVM Pro-Line 12S woofer.

Two all-new monitor systems, the FM-1202 and FM-1502 are each two-way 300 watt constant directivity floor monitors. Both feature the new pro-music high frequency driver while the FM-1202 offers an EVM Pro-Line 12S woofer and the FM-1502 is supplied with an extended coil 15-inch proprietary woofer.

The S15-3 sound reinforcement system and S18-3 keyboard system were redesigned to increase power handling to 200 watts continuous and upgraded with the new high-power VMR™ and special long-coil 400 watt woofer design. The new models are designated S-1503 and S-1803.

The SH15-2 club sound reinforcement speaker has been renamed the SH-1502. Power handling has been increased to 200 watts by applying EV proprietary high-temperature technology to the woofer and adding the new pro-music 1-inch titanium high-frequency driver to the system.

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Biamp Intros Modular 'Bimix'

Biamp Systems has announced its new Bimix series of multi-track recording mixers that can be switched into rugged live-performance road mixers by pushing buttons and repatching.

The Bimix features fully modular inputs/outputs, making possible any combination of 1 to 24 outs and from 8 to 40 inputs. An input and output mixer and stereo monitor is built into each I/O module. The output section can be assigned internally to create the desired configuration.

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MM-8 Matrix Switcher

Sound Stage's MM-8 is designed as a matrix switcher for the monitor engineer who must hear the mixes after the equalizers. The MM-8 has electronically balanced inputs, outputs (with variable gain) and a variety of other switching functions. The unit takes one E.I.A. rack space, 12" deep, and weighs 21 pounds. \$450.00 list.

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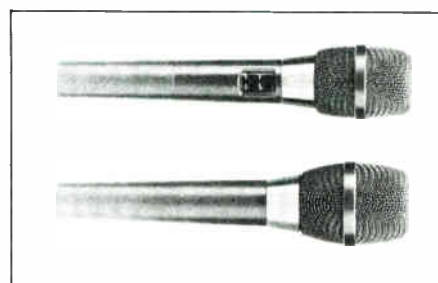
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New Fender Condenser Microphones

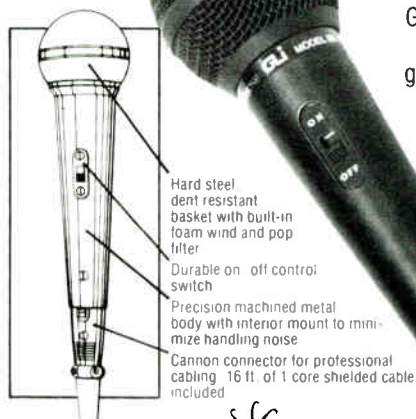
Fender's Pro Sound Division has developed its P-Series of condenser microphones, designed for studio level performance and rugged live action handling. Fender includes a 1-year Road Hazard (TM) warranty with both models.

According to Fender, the P-1 can withstand 152dB for 1% distortion. The P-2 includes a switchable low frequency rolloff which may be used to compensate for excessive bass proximity effect. The P-1 incorporates a presence lift switch which adds a gently rising HF response for vocal applications and a high pass/low cut switch for controlling bass response where desired. Both models may be powered by internal batteries, while the P-1 may also be phantom powered. The mikes are finished in satin gunmetal cases, with replaceable breath blast filters.

The P-1 carries a suggested retail of \$220, while the P-2 is priced at \$99, including case and swivel stand adaptor.

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WHAT GOES IN IS WHAT COMES OUT!

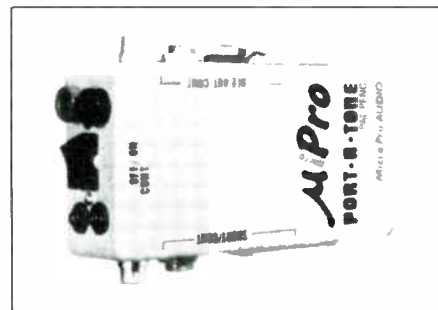


GLI's model 55 is a high performance, fessional microphone that combines good looks with a budget price. Absolute clarity of reproduction makes the model 55 one of the best buys in the market today. Compare its unidirectional polar pattern, frequency range 100-15,000 HZ and sensitivity (-76 dB at 1 KHZ) to any other performing mic in the field... there's no comparison! Black matte finish.

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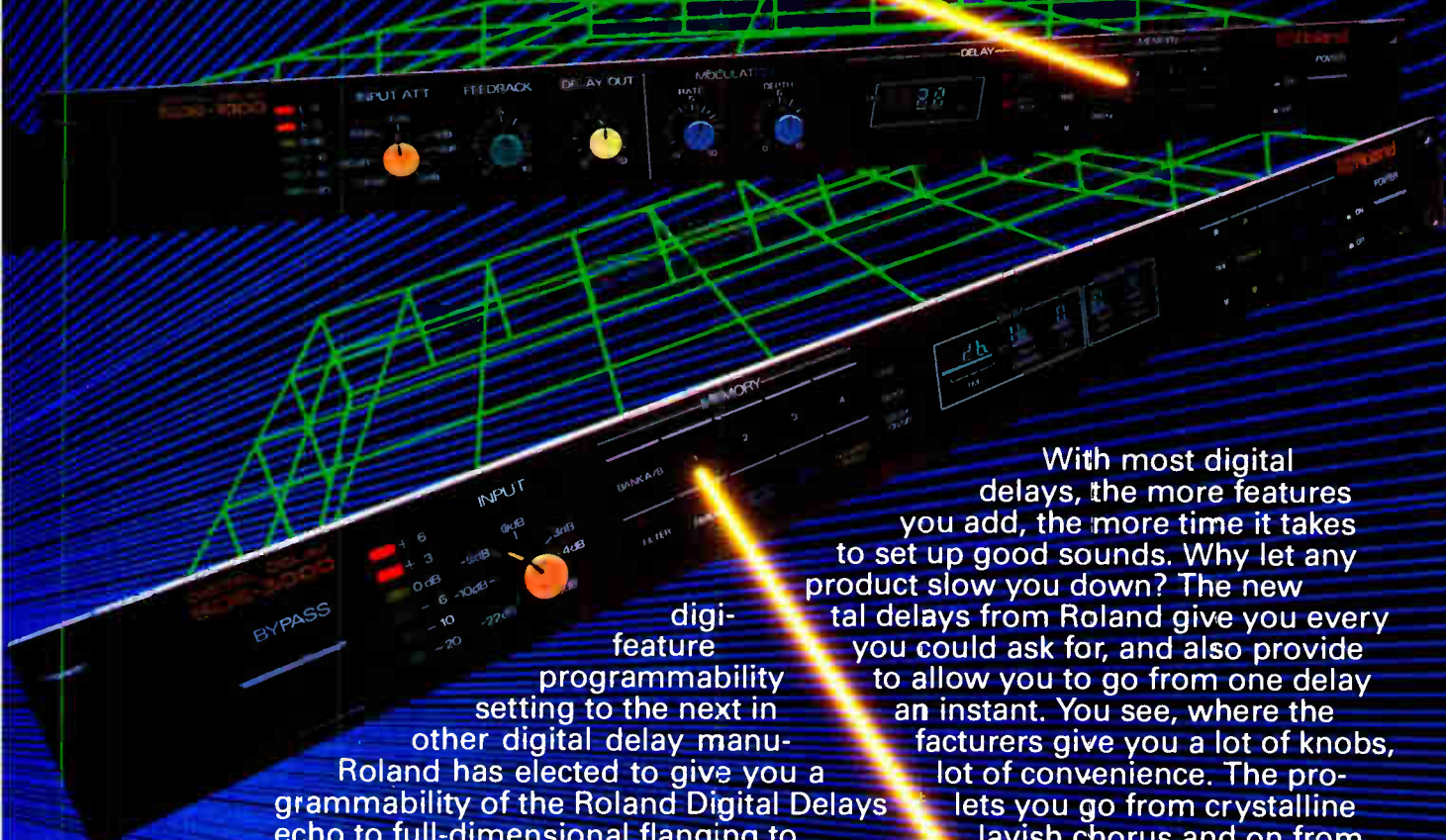
Micro Pro's Port-a-Tone

The Port-a-Tone acts as a 1kHz tone source with -40dB (mike), -10dB (line) and a 1w speaker level output. In addition, the Port-a-Tone tests phono and 1/4" phone cables for shorts and opens, and 3-conductor mike cables for shorts, opens and phasing (pin polarity).

The unit measures 4" x 2 1/2" x 1" and comes encased in cast aluminum. At \$129.95 the Port-a-Tone is designed for stage and studio applications.

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INSTANT



digital feature programmability setting to the next in other digital delay manu-
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DELAY

DEKE RICHARDS

THE HITS KEEP ON COMIN'

"There is so much magic that happens in the studio and there are just as many problems that happen as well. You've got to be prepared for both."

Deke Richards with the Jackson 5, early '70s.



PHOTO SHERRY RAYN BARNETT

by James Riordan

Deke Richards is a classic example of the producer/songwriter. Established and highly regarded in both fields, he's provided this double firepower for artists such as Diana Ross, Michael Jackson, Smokey Robinson, The Four Seasons, The Jackson Five, Martha & The Vandellas, Black Oak Arkansas, The Temptations, and Bobby Darin. Starting out as a guitar player in a white band from L.A. is about as far as you can get from producing the top black acts in Detroit, but that was how it all began.

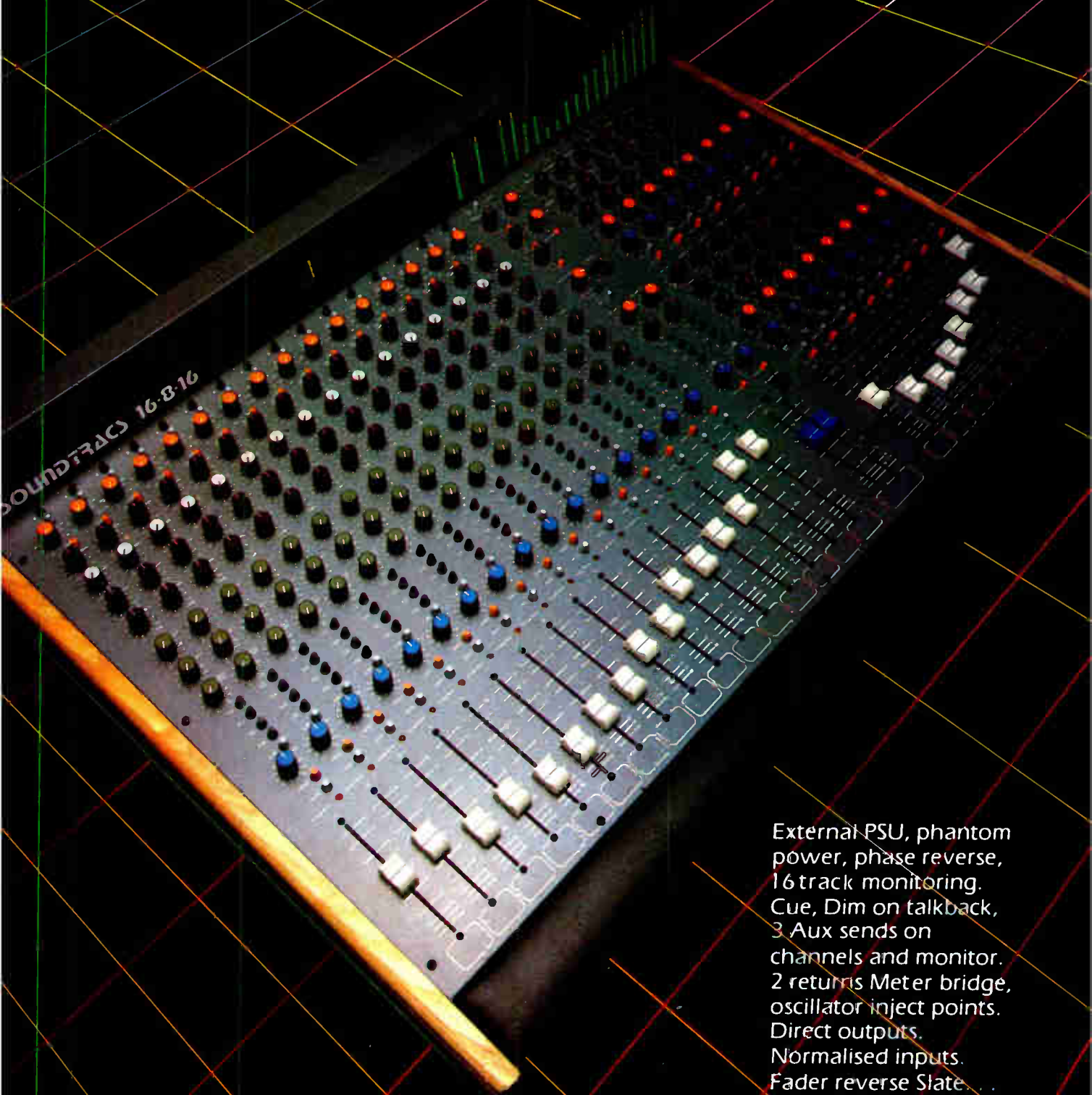
"I had my own group in L.A. and one of the clubs I was playing at had a guest artist night," he remembers. "I really liked one of the artists and decided to write some songs for her. I wrote the songs, did the charts, lined up all the musicians, and recorded a couple of sides. The artist I was working with, Debbie Dean, was once signed to Motown, so when Berry [Motown founder Berry Gordy] came to town with The Supremes, she called him and set up a meeting.

"I loved Motown Records and I wanted to get that famous drum sound on the things we cut. So I used two drummers. I didn't know how they got that huge sound, but I figured that two drummers was the key. I had them battling away at this backbeat and I had the drums real loud. So we went over to the hotel and played the songs for him. I didn't have enough money left to do the vocals so she had to sing along with the tracks. And he really liked it. He said

—page 170

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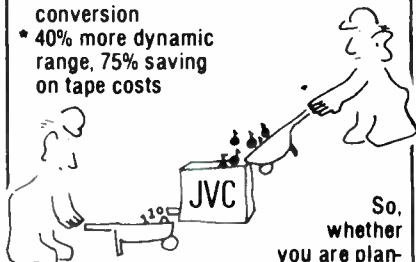
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—from page 168, RICHARDS

the only thing that he didn't like about it was that there wasn't enough drums. I told him he was absolutely right."

A few days later, Gordy offered Richards a producer's and writer's contract with Motown. He went to Detroit to record the masters on Debbie Dean who had also been signed to Motown. Richards then helped run the label's West Coast office. "It was very small at that time," he says. "The only real action the staff on the Coast got was when the acts came through on tour. When Motown artists came into L.A. to play the Whiskey or some place like that, we'd take them into the studio and cut three or four songs. We'd find out someone was coming through a few weeks in advance and cut the tracks before they got there. Once they got to town we'd record the vocals. A lot of times they didn't know what they were going to be singing until they got to the studio."

Motown often used their Los Angeles organization as a testing ground at that time. Often, a new artist would be recorded in L.A. first. The tapes would then be sent back to Detroit where the next step would be decided. This situation resulted in Richards cutting the first sides on Gladys Knight and other stars.

After about a year, Richards contacted Gordy and said that he was unhappy because the opportunities for Motown staff producers and writers in Los Angeles were not comparable to those in Detroit. Richards and Frank Wilson, another West Coast staffer, were invited to come back to Detroit to work on a special project.

"They gave us a shot to come up with a record for Diana Ross & The Supremes," he recalls. Frank and I both wrote tunes. We ended up producing them and they both went into the album. At this time Diana Ross was the queen of Motown and, when she was happening, everybody was happening. To get a song or produce one for a Diana Ross album was like insurance. You were guaranteed to make some good money."

Not too long after this, a new concept in songwriting was tried. Diana Ross had a couple of records that didn't do that well and she was getting ready to totally split off from The Supremes. To insure that her next record would be a smash, Berry Gordy put together five of his strongest writers to come up with an undisputable hit. Richards, Frank Wilson, R. Dean Taylor, Henry Cosby, and Pam Sawyer were locked into a hotel room for a week.

"The food was sent in, we took turns sleeping, and we kept working on songs. I played guitar and piano and the others played some instruments. We'd bounce concepts and tunes off of

each other and keep trying to make it better. Berry would come in every once in awhile to check on us and give us his input. That was how 'Love Child' was born. It took us five or six days of coming up with ideas and tailoring them down to the ones we liked the best. Berry would come in and give us his thoughts about what ones we should concentrate on and so on. Later we produced the track in the studio. In fact I played guitar on the final record."

This group of writers and producers was called "The Clan". After the same group created the followup, "I'm Living in Shame," they broke up.

"Unfortunately, because of personality conflicts within the group we disbanded," Richards says. I still believed in the concept of team writing. I felt that you just had to have the right group of people to make a thing like that work. Berry was very busy with other projects but he agreed to let me try it on my own. I was Creative Director for the West Coast which was an A&R position. I'd found these two young guys who I really believed in, not only as songwriters but also as people. They were Freddie Perren and Fonce Mizell.

"I decided that I wanted to take two unknown people and work with them. I could cut out all the red tape for them that I had to go through when I started and let the three of us concentrate on being creative. I could teach them what I knew and save them having to pay dues. I was determined to try this and come up with a hit record the first time out. I worked with these two guys for three months solid in my apartment and then I got them on salary at Motown. I went to Berry and asked him to join our little group because his input and commercial sense was so valuable.

"I played him a song we were working on for Gladys Knight. He liked it and asked me to come down to the Daisy Club to see these young kids he was going to sign. I was knocked out by this little kid singing and Berry suggested we rework the song for them. The group was The Jackson Five and the song was 'I Want You Back.' After that, Berry became part of our team. We produced the record and called ourselves 'The Corporation', which also wrote 'ABC,' 'The Love You Save,' 'Mama's Pearl,' and other hits."

Richards kept producing the Jackson Five, and later, Michael and Jermaine's solo efforts. He sees the producer's role in the studio as "taking a rough stone and making it into a diamond. He must take a piece of raw material, in whatever form it might come to him, and make the decision on whether or not that tune is a possible hit record. If he believes in the song, he must take it from its raw form and turn it

—page 172

TRADE SECRET



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Studio-Hopping

by Carol Kaye

Looking across your music stand to see a youthful, physically fit Johnny Mathis reaching his high notes like a voice from heaven makes you feel good to be alive. Working every call with a young Quincy Jones and feeling the exuberance of his first days of writing, his quick sense of humor, deep feelings and the musicality of his craft makes one have a unique sense of importance just for being there. Or take the quizzical humor of George Tipton's arrangements like "Soap," Tom Scott's fledgling first LP, which introduced today's fusion, Cannonball Adderly's step into Broadway with *Big Man*, Joe Williams, and being there while a friendly, smiling Sam Cooke cut his hits by the score. I was blessed by getting to hear all this talent and doubly blessed by being able to play with them and to see their graciousness and inner beauty.

Mel Torme was funny on one date where the time (steady beat) fell down. I had to do a funk symphony on bass to pump up the whole band and Mel came in and sang, "La de dah, dah de dah" ("Games People Play") lightly to it. I thought I ruined the whole feel of the record and apologized profusely—wouldn't you know that darn thing became a No. 1 hit for weeks on the chart. We also had a nice hit in "Comin' Home" with Mel which was recorded at Columbia "D" (16 track), the same studio as the hits we did with O.C. Smith ("Hickory Hollar," "Little Green Apples," etc.), all of Andy Williams' recordings, the Doodletown Pipers, Young Americans, George Burns, and Jim Nabors.

You can walk across the way to Columbia Studio "A" (we called it "the big barn") which of course was always 24-track. We cut Paul Revere & the Raiders' "Indian Reservation," "Bojangles," Simon & Garfunkel's "Homeward Bound," LP's by Don Ellis, Patty Page, Doris Day, Johnny Mathis, and even a gorgeous date with Montovani. Richard Perry got his start there and I worked for Jim Guercio on all The Buckingham's stuff there. So much was going on in those days that it is hard to include all the mountains of names that went in and out of these studios. Two recording dates was a *slow* day—usually I'd play three or four dates every day of the week, including Sundays.

RCA Studios saw the likes of

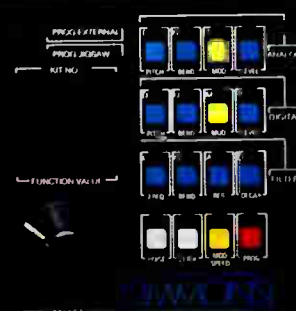
Ed Ames, The Monkees, Chipmunks, *The Muppet Show*, the Supremes, the Temptations and Henry Mancini, for starters. Their studios (A & B) are also very large—not quite as large as Columbia "A" and a lot of fences had to be put up. RCA "C" was better because it was a lot smaller—we cut all the big Don Ho records there. I remember a big Quincy Jones date in RCA "B" where we tried to record the *Ironsides* theme for an LP. We had all been working the show out at Universal Studios and Quincy just called the same guys—it was a huge orchestra. I felt like I was in a meat packing place! We settled down in our little cubicles of fenced-off spaces and tried for hours to record this theme. Even though we all played quietly, the sound leaked all over the place and we were all very disappointed with the results. Actually, the performances were spectacular, but the recording just didn't cut it, so Quincy went to New York and got what he wanted there. That was the start of the movement back to New York for big band recordings for Quincy and David Grusin. Sometimes, despite having a great studio to work in, an excellent engineer and all the baffles you could ask for, things just don't work out.

United and Western housed such singers and artists as the Beach Boys, Jerry Vale, Bobby Darin, Dick Dale, Jan & Dean, Frank and Nancy Sinatra, Jerry Butler, Kenny Rogers' First Edition, Gary Lewis & The Playboys, Pet Clark, Eartha Kitt, Mae West, and scores of others. We always liked recording at both these studios which Bill Putnam owned—his

Mel Tormé



the next step



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Gary Mullen, concert sound manager for McCune Audio/Visual says, "We tested the Hi-Energy Miking System for over a year, live, on tour, in all situations against every mic on the market. All of our sound engineers raved about the great sound, compactness, convenience and durability of the system. For drum miking, no other mics come close."

Chet McCracken, veteran drummer of hundreds of recording sessions with groups like the Doobie Brothers, America and Rare Earth says, "There are no phasing problems with the Hi-Energy System because all of the mics are the same. This eliminates a number of problems for the drummer and the sound engineers. And the kick sound is so solid I am truly impressed."

Rik Shannon, Sound Engineer for the Hollywood Palace, Tina Turner, Berlin and others says, "I can get a great drum sound in minutes instead of hours. If the drummer tunes his kit properly, the system does the rest, and every drummer has loved the fact that there are no mic stands to get in the way."

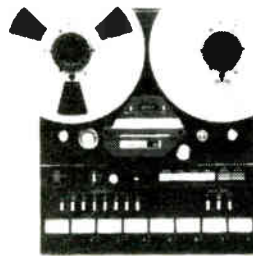


AQUARIAN

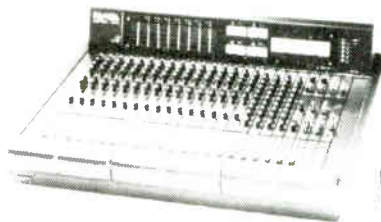
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engineers worked long hours, just like the musicians (even more for the mix-downs and final mastering stages) and we all got to know each other quite well. The floors were bare, the walls were bright but the working atmosphere was so alive and intense that we couldn't help but play well when the red light went on.

In the past I've joked that you had to be able to find a close parking place to be successful in the studios—and the alley in back of Western Recorders was a favored spot for all of us; that was *primo*. You should have heard all the moans if somebody broke into a Western record date to announce that everyone had to move their cars because one person in the middle of the pack had to get his car out—that was good for a 20-minute break.

Working at Mike Curb's studio with the Osmond Brothers was a lot of fun. I met and played on Paul Williams' first recording there, too. Paul was introspective, quiet and amazed at all that was going on. We instantly liked his music. He just sat in the booth and listened. Mike's studio was pleasant (pretty light, carpeted, plush booth, 24 tracks) without spoiling you, so we could still play well. Donny Osmond was just a tyke then. The Isleys were constantly recording there. We also recorded Lou Rawls' hit, "Natural Man," there. Lou was indeed a down-home natural man. Robert Goulet was another singer we recorded there who was a joy to work with.

These are just a few of the many brilliant talents I've had the privilege to work with and I still draw strength from those experiences.

People act surprised when I say that I never wanted to do studio work in the first place. As a budding and accepted jazz musician, I was afraid being a session player would ruin my musicianship and compromise my creativity. I had been doing some serious jazz work on guitar in Los Angeles with Curtis Counce, Billy Higgins, LeRoy Vinegar, Teddy Edwards, Frankie Butler, Scotty LaFaro, Harold Land, Jack Sheldon's band (in back of Lenny Bruce), Joe Mainie, Curtis Amy, and various great pianists including Hampton Hawes. But somehow the honor of working for and knowing all the great people I met in the studios over the years overshadows whatever personal career I might have had (or thought I lost). Helping create music that appeals to so many people was an enormous challenge, and being a part of that was tremendous fun *and* rewarding. You can't play a football game alone. It takes teamwork. And that's what music is all about, isn't it? You sure get a lot more back than what you give. ■



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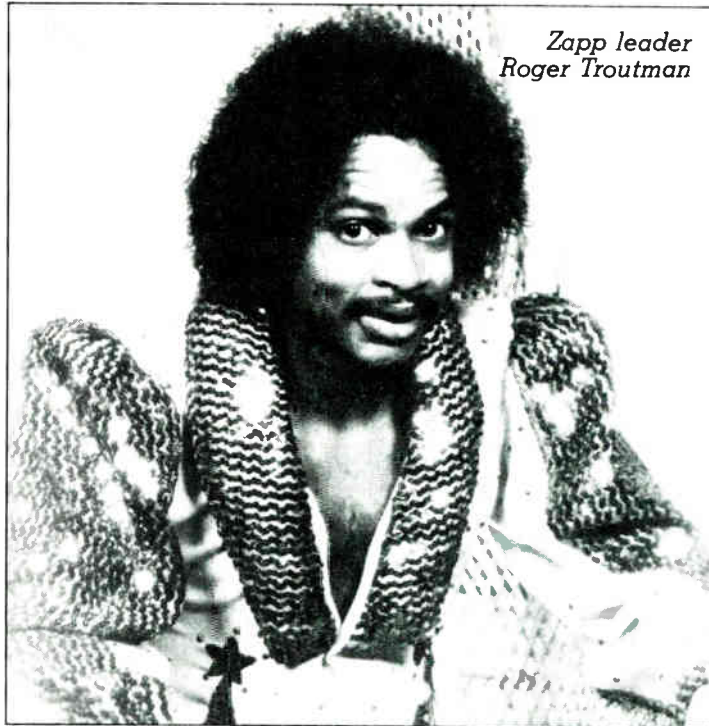
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by Cary Baker



Zapp leader
Roger Troutman

The Kings of Dayton

"When you consider that Dayton has seven groups with gold records," suggests Larry Troutman, combined business doyen and percussionist in Zapp, "You figure there has to be a phenomenal amount of money spent on making records. None of it has been collected by or rechanneled into this community."

Troutman, who speaks with the sagacity of an economics professor and the fervor of a Baptist minister, has predicated his family's Troutman Enterprises on an amazingly on-target pairing of energies and timing. Bearers of three hit albums, Zapp and its frontman, Roger Troutman, have silently amassed a multi-million dollar family enterprise based in Dayton and wholly staffed by Daytonites. It includes Troutman Sound Labs, a four-studio recording complex. But that's merely the iceberg's tip. The studios were built by Troutman Construction, which remains active in tandem with the family's Troutman Commercial Real Estate. Visiting

dignitaries are ferried by Troutman Limousine Service. The provisions for a Troutman concert sound reinforcement, tour lighting and trucking concern are in the works.

"We'd like to make our catalog of services so extensive that we can have groups migrate to us," says Larry. "We intend to make Dayton the mecca for black music. There's no reason there isn't one like Nashville is for country. I think it's awful to think of the contribution of blacks to the industry and then not be able to point to a centralized place where people can be picked up at the airport and have hotel accommodations."

"In fact, we're going to learn to build hotels down the street—one designed for musicians so that they can monitor what they've cut all day."

Zapp and its nucleus of Troutmans (Larry, Roger, Lester and Zapp) didn't just build themselves a studio. They built four of them from the ground up, then expedited their construction company (under the auspices of sibling Rufus Troutman, Jr.) as an entity that's so far built or renovated more than 35

homes in Dayton's inner city. Next, they'll apply their expertise to building an entire subdivision within city limits, plus hotels, hospitals and shopping centers to spark inner city commerce and create jobs. So far, it's proven far more than a prudent means of investing proceeds from hit records like "More Bounce To The Ounce," "Do It Roger Do It," "Heartbreaker," "I Can Make You Dance" and their acclaimed remake of "I Heard It Through the Grapevine." No, this isn't your average band. It's black capitalism's finest hour.

All of this enterprise—and creativity—is housed within three fully-rehabbed beige cement buildings in the Lower Daytonview neighborhood, where, according to Larry, "empty houses were once as easy to find as wine bottles." Now, thanks to the facelift, he reports 100% occupancy in the surrounding blocks, with Troutman homes beginning to boost property values for miles around.

The Troutman complex contains no fewer than four studios, one of them (Roger's own Studio D) still under construction. A soundstage/rehearsal/video room (Studio C) was just built across the street from Zapp's main studio (A), where the group has recorded ever since their first and only out-of-house experience. "I could never figure why it took them 15 minutes to change the tape," says Larry, "It's against everything I stand for." Their studio, they claim, is the first album-quality studio in Dayton, a city that despite its high per capita registry of recording artists (Zapp/Roger, Slave, Heatwave, Faze-O and Lakeside) has no musical history to speak of prior to the emergence of the patriarchal Ohio Players.

Studio A is an airtight, oblong room sculpted from an empty warehouse shell. The ceiling was brought down two feet, the walls slanted inward an average of two feet, the floors floating five inches. It's equipped with a computer automated Neve console, JBL 4312 and 5324A reference monitors, Studer A-800 24-track recorder, Studer A-80 master tape recorder, Lexicon 224 digital reverb and much additional outboard gear. The control room is set up for near-field monitoring. "Most engineers need their distance to distinguish what is from what isn't," explains Roger Troutman, Zapp's flamboyant frontman, producer and burgeoning solo artist. "I like them close because I know exactly

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what's on every track. If it's a control room, you should be in control, right?"

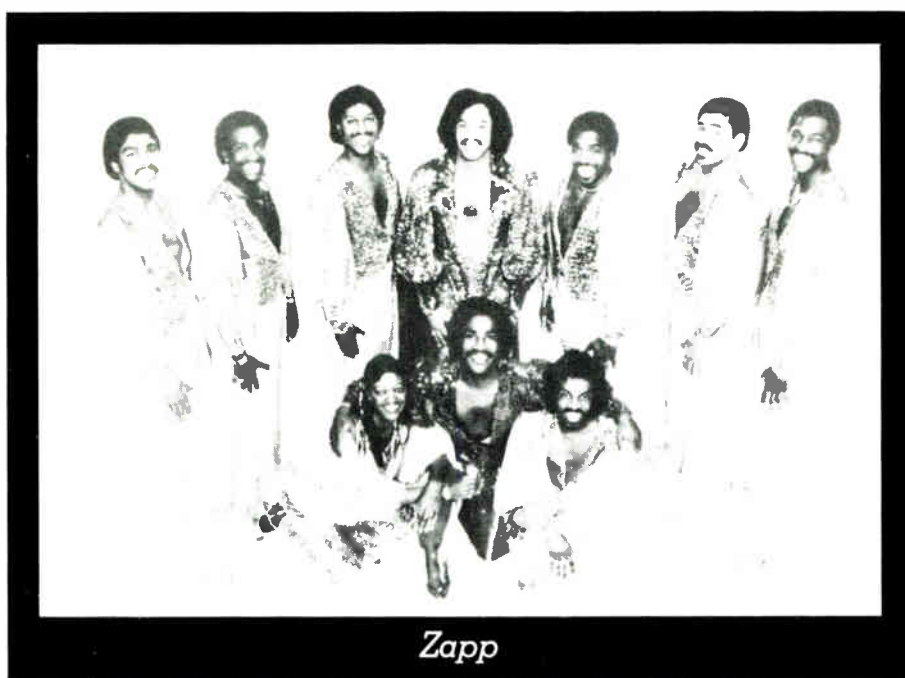
Adjacent to Studio A is an editing room. Zapp's drummer and chief engineer, Lester Troutman, has installed a duplicate of the facility in his Dayton home. The rehearsal and video studio directly across the street simulates a nightclub or concert hall, with its stage raised several feet above an audience pit/storage area, and directly across from a raised control area. A full complement of lights will make it possible for the Troutman's staging crew to prepare for tours, over which the band has assumed full control of every detail from booking to lighting. The 8-track Acoustic Model 890 mixer is a relic from Zapp's salad years during which they toured under the name Roger & the Human Body. Because they were shrewd even then, Larry reports an annual tour income of \$250,000 between 1973-80, before they became Zapp, inked to Warners and applied their savvy on a far grander scale.

Rehearsal Studio C should enable Zapp not only to tighten its live show but to make certain each player is thoroughly prepared to play his part on record. "Our goal is to get our people together *before* they get in the studio so we can get quality on tape," says Larry.

"One of the things we're doing here stems from my observation that in all the studios we've used, I've never seen a black engineer," says Larry, who acknowledges that they do exist. "When you consider that black music accounts for 25% of the income of most record companies, that's at best unfair. We have eight engineers. All are black. All have learned their craft exceptionally well."

Troutman Enterprises is presently worth multi-millions in assets, "although I can't put my finger on it," says Larry, who has a replica of a \$100 bill carved into the front of his wooden desk. "In sales, it may be \$3.5-million per year, retained earnings in excess of \$½-million per year. But our greatest asset is that everyone you see here trained to do a job that they did not know how to do when they started, and one that black people by and large don't do. It's a cash drain on our resources, sure, and we won't be able to cash in on them for years to come. But our greatest investment is in people."

How did such acumen stem from one musical family? Frontman Roger, who records under his own first name in addition to his role as Zapp's focal point, credits the brothers' father, Rufus Troutman, Sr., for instilling unity in the large family. "He insisted we stay together," says Roger. "And we were



told not to wait for someone to do things for us.

"So we made a pact: no more drugs, cigarettes or alcohol—just *biz*. Most groups don't see anything other than B-flats, G-minors and the show. Their manager takes a percentage of contracts, publishing and financing. Hey, that money comes from the black community. What we need to do is channel it back into the community so we could show our appreciation.

"It was always a thrill for me to see the kids in my class happy. I liked to entertain them, and I do today. The only trouble with that is that it lasted only as long as the song. To me, that was never enough. But there's nothing like seeing a couple in their forties or fifties, who aren't making the kind of money to live in a new apartment with new appliances. What I've observed is that something begins to die in poor people—their ability to dream. They want to achieve this or that, but bills and every day pressures mount. To rekindle this into the life of a couple by building them a new house they can afford is a great feeling."

The construction arm of Troutman Enterprises is presently building Roger a new studio for his own projects. The new one, according to Larry, will be "the lushest, plushest studio," containing a bar, recessed couches, "anything to make someone comfortable who's making music."

"In the last studio, we put a lot into the technical aspect of what's happening and I don't think we got a proper return on our dollar," Larry adds.

"The studio we're about to add is still speculation at this point," inserts Roger. "But once upon a time, where we're sitting now was just speculation. It'll be more conventional than this

room because if you want to rent it out to other musicians, *they* want it to be more like conventional studios. It'll have recliners and mike stands that come down to the chairs so that if we were to work with someone like Carl Carlton, or if we were blessed enough to work with Aretha Franklin, *they'd* be comfortable. It'll be a tighter room with tighter drum sounds. All we're taking from the drum playing, after all, is the actual energy. We want to control the sound of it—we have the ambience, gadgets and gadgets."

Roger likes to put an abundance of sound on his tracks. A modern rendering of "In The Midnight Hour" will be the next Roger dance record, and will feature the singer both straight and channeled through his signature Golden Throat Talk Box (of which he says, "it can bend notes like Rev. James Cleveland as opposed to that one-dimensional Vocoder"). Roger's voice will be fortified with tracks by baritone vocalist Ray Davis and the Mighty Clouds of Joy gospel troupe. Pit that against funk guitar riffs, blues guitar riffs, echoes of George Benson's guitar, and you have a track fat enough for Roger. "I seem to need to fill it," he says, "and people used to criticize me for putting too much on the tracks. But after 'Dancefloor,' 'Doo Wah Ditty' and 'Grapevine,' no one's come up to me and said, "Roger, I like this new song, *but . . .*"

The marketplace has enthusiastically embraced Roger and Zapp, in return the organization tries to put the fans above anything else they do. "If they're happy, nothing else matters," says Roger, sitting at a tarped grand piano in Studio A. "Joe Blow works all week, puts up with his wife and kids and his bills. And finally, Fri-

day! He's made his payment on his new stereo, has a bottle of wine, and a feeling of anxiousness. Or, a mother walks into a record store and should've taken the \$8 she spent on an album or a ticket and done something more domestic. But right now, that Zapp concert is more important than buying food."

He drops to a whisper for emphasis: "And I take that role extremely seriously. It was like that for me when I was growing up in the projects in Hamilton, Ohio—I *had* to have that Gary U.S. Bonds record."

Dayton, like most Northern industrial cities, has swayed the way of its economic bellwethers—in this case, parts plants for GM and Chrysler. Can Dayton—neither the best nor the worst city in a 300-mile radius of itself—turn its economy around with the Troutmans at the helm?

"Let's expand on that question," suggests Larry. "Let's ask not what Dayton should become but what the American cities used to be and are now. We need to demonstrate to each other, to America, and to the world, what we can do with these cities. These burned-out and dilapidated buildings belong to *us*. Decay can be checked. The inner city can support itself and again become a meaningful part of American society."

"Black people need to understand that for our better place in society, we gave up the farms. Whether dumb or smart, we moved to the cities. They don't belong to us because we're not urban pioneers and we don't know how to make real estate deals. But we're stuck there. Look at the progress of the Cubans in Southern Florida, the Chicanos in Southern California—and what better parallel is there than Israel?"

Troutman Enterprises is readying product after product—the new Roger LP, then productions of several black Dayton acts they've taken under their umbrella: Shelley Smith, New Horizons and Sugarfoot from the Ohio Players.

The construction company is planning its first subdivision—Doc Newton—named after the siblings' two grandfathers. They've invested \$1½-million and are starting to install pipes and sewers. Meanwhile, Troutman-rehabbed homes in the inner city are sold near the break-even point; and the neighborhoods are coming back.

"You have to learn a little bit about the entire cycle, and we're learning as we go," Larry says. "If we invest in the inner city—building houses or studios, managing our own touring and employing the black community—at least it's gone back to whence it came." ■

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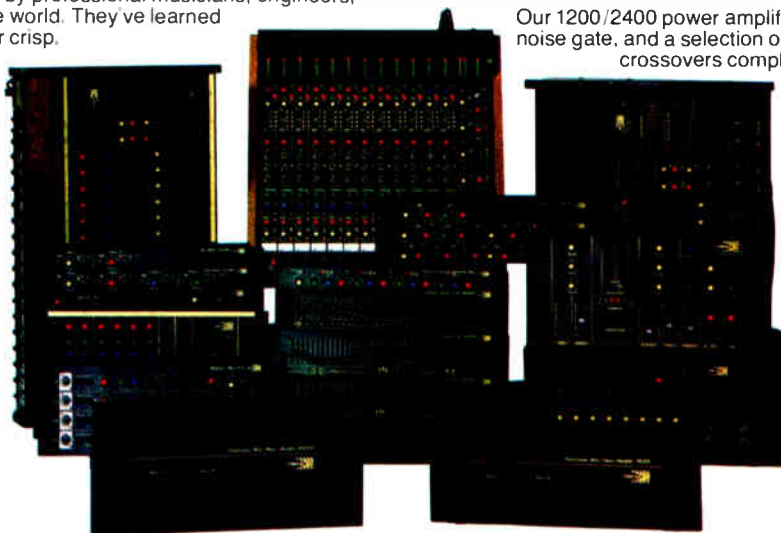
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CHRISTINE McVIE

Fleetwood Mac's Secret Treasure Steps Out

She's been a member of Fleetwood Mac since 1970, but Christine McVie has remained behind her keyboards, her soft presence upstaged by more flamboyant bandmates. She's been a consistent source of outstanding songs and performances, though, from "Show Me A Smile" (on 1971's *Future Games*) to "Hold Me," the hit single from Fleetwood Mac's 1982 LP *Mirage*.

When the "new" Fleetwood Mac—featuring guitarist Lindsey Buckingham and vocalist Stevie Nicks—brought its sound to the public with *Fleetwood Mac* in 1975, it was McVie's "Over My Head" that led off a string of hits that continued on 1977's *Rumours* and made the Mac the best-selling act in the record industry's biggest year ever.

Now Christine McVie has released a solo album, recorded in Montreux, Switzerland, with producer Russ Titelman and a band consisting of guitarist Todd Sharp and bassist George Hawkins (both nicked from Mick Fleetwood's band) and drummer Steve Ferrone, whose credits include the Average White Band and sessions with George Benson. Mac members Buckingham and Fleetwood contributed their talents to *Christine McVie*, as did Eric Clapton, Steve Winwood, percussionist Ray Cooper, and keyboardist Eddy Quintela—who, along with guitarist Billy Burnette, will join the band for live performance.

McVie released an album in 1970, but she'd just as soon treat the new one as her solo debut. "I had no idea what I was doing when I made that album," she says. "I hadn't written very many songs, and the ones I did write I didn't particularly like." She had left Chicken Shack, a well-known English blues band of the late '60s, to devote more time to her marriage to Fleetwood Mac bassist John McVie. "One of us had to give up something," she recalls, "because we never saw one another." But she was voted Number One British Female Singer in Melody Maker's 1969 Reader Poll (an honor she won again in 1970), and "my manager sort of pushed me into the studio to make a solo album."

She toured briefly with the band she'd used to record the album (which was released in the States as *The Legendary Christine Perfect Album* by Sire Records in 1976), then retired to wedded bliss—for awhile. After Peter Green left Fleetwood Mac, McVie—who had contributed vocals and keyboards to their records all along—was invited to join the group when it became evident that the quartet (Mick Fleetwood, John McVie, and guitarists Danny Kirwan and Jeremy Spencer) didn't have a full enough sound for live work. "I'd played and sung a bit on *Kiln House*, so I knew all the parts," McVie recalls. "One day they came out of the rehearsal room and

said, 'We need another guy in the band,' looked over at me and said, 'Chris you know all the songs—it's a natural.' And ten days later I was playing in New Orleans with Fleetwood Mac."

The band has gone through several upheavals in the years since Christine joined, and each change of personnel has broadened the band's musical horizons. On *Christine McVie*, she covers a lot of ground including some material that recalls some of that blues flavoring. "I think this record amalgamates fairly well a pop, R&B sort of feel—not *too* bluesy," she says. "The chords seem to be contemporary rock, and I do love to hear a good guitar sound."



BY DAVID GANS

Mix: How did you hook up with Russ Titelman?

McVie: I didn't want to produce myself, because that seemed like too much of a responsibility. I needed a shoulder to lean on—or someone to give the blame to [laughs]. Russ knew my lawyer, Mickey Shapiro, and we went to lunch one day. I instantly liked him—and vice versa. He really wanted to do this project.

Mix: Had you talked to any other producers?

McVie: I talked to Arif Mardin—he was the only other one. Russ had a commitment with Paul Simon, and I wanted to make my album sooner than I actually did end up making it. I was going to make it Christmas of '82, but that didn't work out.

I liked Arif Mardin very much, but I had this great rapport with Russ; I felt like he was my brother or something. As it happens, I think I picked the right guy. He squeezed the best out of me vocally and everything. He really made me perform. I'm not saying that Arif wouldn't have, but I just had a good feeling for Russ. So I ended up waiting for him to finish with Paul Simon.

That was when the idea to go to Montreux came up. We thought, "Let's go somewhere really nice. We might as well make it a fun experience, a good adventure, rather than just going to Van Nuys every day and going home every night," to take everyone out of their normal environment and do something a bit adventurous.

I got the idea from Mick, of course. I wasn't quite as adventurous as he, you know—Montreux's a bit safer than Ghana. But I really am glad that we went there, because we had such a great time. And like I say, it was *easy*.

Mix: Is it helpful to be so far out of your usual element that the usual distractions aren't around?

McVie: Yeah. And there are different kinds of distractions. The sheer beauty of the place was a little bit of a distraction—but not too much. There really wasn't much to do in Montreux.

It was a totally joyous experience. Everyone got on really well with one another. We did more than our fair share of laughing. It was a tremendously exhilarating experience. I'm not saying every solo project is going to be that easy, but I'm certainly hoping so. The material was strong, and we looked forward to going into the studio every day because the ambience was good. We didn't get crazy



PHOTO: DAVID GANS

Lindsey Buckingham (l), Christine McVie and Mick Fleetwood clown around after a 1982 interview.

drunk every night.

We started midday, where Fleetwood Mac sort of oozed in by dribs and drabs. We'd all be there by around 8:00 at night and stay til 5:00 in the morning.

Todd and I had prepared the songs really well. We made demos, and we knew *exactly* what we were going to do. They're the same arrangements that are on the record. We did them in my music room on a little TEAC 4-track. We had a week's rehearsal with the band—we didn't want to over-rehearse, because we wanted to keep the freshness for the recording. Everyone knew his part, and the engineer was great.

Mix: So the time was really spent getting the sounds in the room.

McVie: And just getting the right basic track. Take One, Take Two—and sometimes it was the first take that we kept. It was a painless operation. It was a joy to record that way. "What do we fancy doing next?" you know? Keep a little variety . . . a fast one or a slow one. It was just a dream to work that way.

"The Smile I Live For" I actually wrote in the studio—except that I had the chords already written. But I didn't have a melody or any words. I did that in the studio; that's the only one.

Mix: What was the studio like?

McVie: It's where they do the Montreux Jazz Festival. It's a big auditorium, with a partition in the middle. We used half of it.

Mix: Did you do your vocals in the big room?

McVie: Yeah, many of them. We had huge boom mikes all over the place. We had several choices of microphones, different kinds of live ambience. We did that with some of the vocals for natural echo.

Mix: Where did the engineer [David Richards] come from?

McVie: He lives in Montreux. He's the resident engineer for the studio, and he records the Montreux jazz festival.

Mix: How involved were you in the production end of things? How technically-oriented are you? Certainly after years of recording you're aware of all that stuff.

McVie: I'm aware of it, yes. I understand a little bit of the board, and I understand where sound comes from. I know what I'm listening to. I'm not as active on the board as Lindsey, for example, but it interests me.

At Montreux I made my own little mixing board up, you know, which was all little knobs that weren't working from around the studio. When they taped up for the night, I taped mine up. [laughs] It was completely non-functional, sort of like drawn on. I'd say, "A little more EQ there. Yeah, that's better." It didn't work—it was a dummy thing. But it was in the spirit of things.

Mix: Are these songs *about* anything, or anyone?

McVie: Some of them are

autobiographical. Some of them are written from other people's points of view. "Got a Hold on Me" might be the only fiction, 'cause at the time no one did have a hold on me. It was a happy-sounding song, so I put happy-sounding lyrics to it.

Mix: Almost everything on here is a collaboration.

McVie: And some of them aren't even mine. I didn't think it was important so much to have Me-Me-Me slapped all over the credits. I was doing a solo record, I could sing anybody's song I wanted to. That was half the fun of it. Collaborating was fun too.

Mix: And yet there's a consistency of style, which has to do with the performance, obviously.

McVie: I would never have recorded a Douma-Sharp song if it was a Fleetwood Mac record. It simply wouldn't be done. But I had ten or eleven songs to play with, and the only advantage to having McVie, McVie, McVie would have been that I would have made more money. But in the long run, if some of the songs had become repetitive or tedious, then the album wouldn't sell so much anyway. I wanted it to be a nice, varied package of songs. I think it is.

Mix: Was there any feeling of insecurity about having it be all yours?

McVie: Possibly. That might have entered into it slightly. I think a lot of solo records can become boring for that reason, though.

I felt I didn't want to and didn't have to have all my own songs. There are other people's songs coming in that I love so much, why not do those? It was fun for me to sing other people's songs. I think they suit my style of singing. I wouldn't have had songs that were out of my depth or beyond my limitations.

Mix: You ended up doing a very understated video [for "Got a Hold on Me"]. A nice idea, but very low-key compared to a lot of stuff that comes out.

McVie: I guess it was sort of low-key, but they didn't feel it had much of a story line in terms of doing something like "Thriller." The words pretty much spoke for themselves, and they felt that it needed more of a performance type of video. The next video I do I'd like to be a bit more adventurous, for sure. But it's gotten a lot of good reviews.

Mix: Is there a particular reason why [the video of "Got a Hold on Me"] is black and white and then breaks into

color for the instrumental bridge and then goes back to black and white?

McVie: Apparently it's quite a unique system they used. They filmed it all in color originally. The rose is the first thing you see change to color—everything else is black and white around it. It seemed like a nice "opening up" sort of scene. It's not the most innovative thing in the world, but I like it fine.

Mix: Do you want to have a little more to say about the next one?

McVie: Possibly. I'm not going to start leaping around dancing or anything like that, but I would like to have a bit more say in the next one.

Mix: Is that a field you're interested in developing ideas for?

McVie: It's very new to me at the moment. I don't write song with a video concept in mind.

Mix: That was going to be my next question.

McVie: But it's going to have to be considered for the next album, or the next songs that I write.

Mix: Some people—especially a lot of the younger artists—are beginning to work with that in mind, taking it into account when they're writing.

McVie: Which I haven't done. It's an interesting subject. You don't know whether it's the video that's selling the record, or the merits of the actual song itself. It's something that I'm going to have to spend a bit more time thinking about.

Mix: How is it going to affect artists who've been working in one tradition and suddenly find it yanked out from under them.

McVie: It would seem to be a problem. You'd run the risk of being a bit pretentious or phony, the "mutton-dressed-up-as-lamb" syndrome. It worries me a bit. I'm no teenager any more; I wouldn't want to jump into the punk scene simply because it's selling and because it's big news right now. One has to be true to oneself, be honest.

Mix: How do you deal with this shift in the way things are done? Fifteen years of playing music one way, and all of a sudden it's "Oh, we're not making records anymore—we're into video." Huey Lewis said, "It's a good thing I'm not baldheaded."

McVie: Then you just don't appear, do you? You have eighteen gorgeous, sexy blonde girls dancing around, and make sure that you're not in your own video. ■

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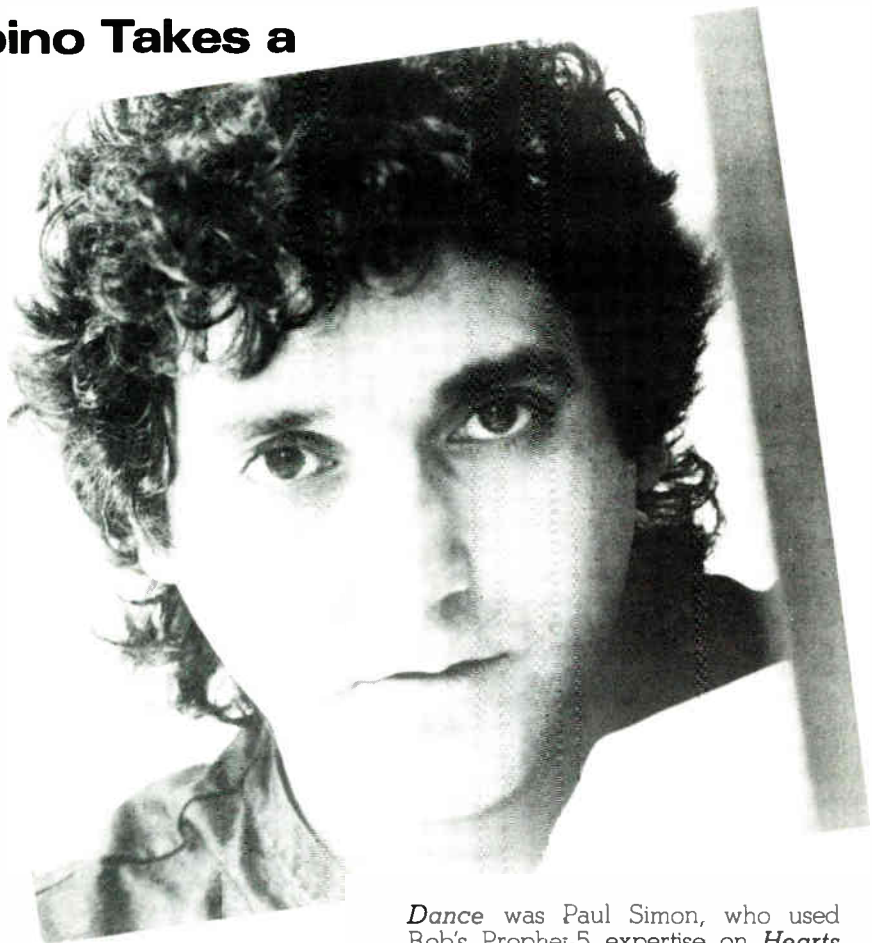
Keyboardist Rob Sabino Takes a Balanced Approach

For a guy who claims not to be a session player, keyboardist Rob Sabino has a very impressive list of credits. He's played on David Bowie's *Let's Dance* and Paul Simon's *Hearts and Bones*, Sister Sledge's dance classic "We Are Family," and works by names as diverse as Johnny Mathis, Diana Ross and Debbie Harry. More than half the projects he's been involved in are "Chic-related," including several Nile Rodgers-Bernard Edwards productions and all of Chic's albums.

Sabino played with Edwards and Rodgers in the Big Apple Band before Chic took the disco charts by storm, and his fortunes have been intertwined with theirs for years. But the connection almost never happened. As Sabino tells the story, Nile and 'Nard "heard me playing with a local band at Max's Kansas City years and years ago. They wanted me to join their group, the Big Apple Band. I gave them my number, but they lost it."

As it happened, a neighbor of Sabino's was an old school friend of Rodgers'. "I didn't know the guy, but he heard me playing because the windows were open in the summertime." One day the neighbor knocked on Sabino's door and invited him down to meet Rodgers. "I walked into the rehearsal space and he started jumping up and down and yelling, 'That's the guy!'"

The Big Apple Band played a lot of rock and roll, which Sabino



Dance was Paul Simon, who used Rob's Prophet-5 expertise on *Hearts and Bones* for effects like the asthmatic wheeze that closes "Allergies." Sabino also played keyboards on the Simon and Garfunkel tour last year.

—page 199

says confounded audiences expecting the all-black (save Sabino) outfit to conform more to stereotype. "We got so frustrated not being accepted doing funky rock and roll that we said, 'Why fight? Let's give 'em what they want. Let's write some hard-core disco tunes.'" And Chic was born.

"Dance, Dance, Dance" was recorded at six different studios, Sabino recalls, "because we had no money. Nile had a friend who was an engineer, and he'd take off-hours time instead of pay for a session. Almost the entire first album was done that way, going in at three a.m. and working for a couple of hours." And the rest, as they say, is history. Rodgers and Edwards are a highly respected production team, and Sabino is one of the players they call upon to realize their notions. "Chic is a very minimalist band—we've never rehearsed a minute for anything we've done," he notes. "We don't even have charts—just chord changes on a napkin—even on things like *Let's Dance* (which Rodgers co-produced with Bowie), where we'd never heard the songs before. We knocked that record out in three and a half weeks, including the mix."

One of the people who noticed Sabino's synthesizer textures on *Let's*

Commentary MIDI Off to a Shaky Start

By now, many people know what MIDI is supposed to do and maybe even what it stands for (Musical Instrument Digital Interface), and a few even know how it does it. Most manufacturers are equipping their polysynths and some drum boxes with two 5-pin DIN plugs, labeled MIDI IN and MIDI OUT. As of now there are even retrofits for the Prophet-5 Rev 3.3, Prophet-10, Memorymoog, JP-8, and the Juno 6 and 60. These connectors, however, are the least important part of the system.

In fact, MIDI is nothing more than a set of rules for communication. In a sense, it's like Esperanto, the artificial language developed in the '50s that was supposed to bring universal com-

THE FAR SIDE

By GARY LARSON



"I've had it, Doc! . . . I've come all the way from Alabama with this dangd thing on my knee!"

nunication and world peace. MIDI promises universal communication as well, but the reality falls far short of it at this time. We are regularly told to expect software and hardware packages that will turn your synth into a philharmonic and give you the powers of creation now reserved for people such as John Williams or Wendy Carlos.

Unfortunately, the only reliable use of MIDI now is the transfer of key depression data, and that's a little like fishing with dynamite.

One significant problem in

applying MIDI's inherent power lies in its structure. Since MIDI is a means of communication, each manufacturer has to write instructions into the software of their machines to tell the computer what information to translate into MIDI format and how to do it. That's not an easy task on the face of it, and the designers have to decide between trying to implement MIDI in the available memory or adding more memory and thereby increasing costs. In some cases, it may not be economical to implement all of a

—page 201

because the issues she confronts are quite close to home. Here, she most often finds herself singing to the already converted—her devoted following—and finds the most needing ears tuned to other voices. So Baez has altered the content of her show to include subject matter beyond her traditional issues. She's a proud and powerful human being, and she's done a graceful job of acknowledging that inside the public figure is an individual with a life of her own to comment upon in her music.

Baez is too savvy to "sell out," and she knows very well that showing up on vinyl with some trendy electronic noisemakers wouldn't serve her well. Her fans would hate it, it likely wouldn't bring her any new ones, and—most importantly—*she'd* hate it. *Quelle* pickle, eh?

So she put together a small band—piano, bass, drums, guitar—and added a few new cover tunes that show her exquisite voice to good advantage. After assuring the hometown crowd that the band would play quietly ("Even my *mother* likes them," she laughed), she began her set unaccompanied and eased the musicians on one at a time

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Baez in a Pickle

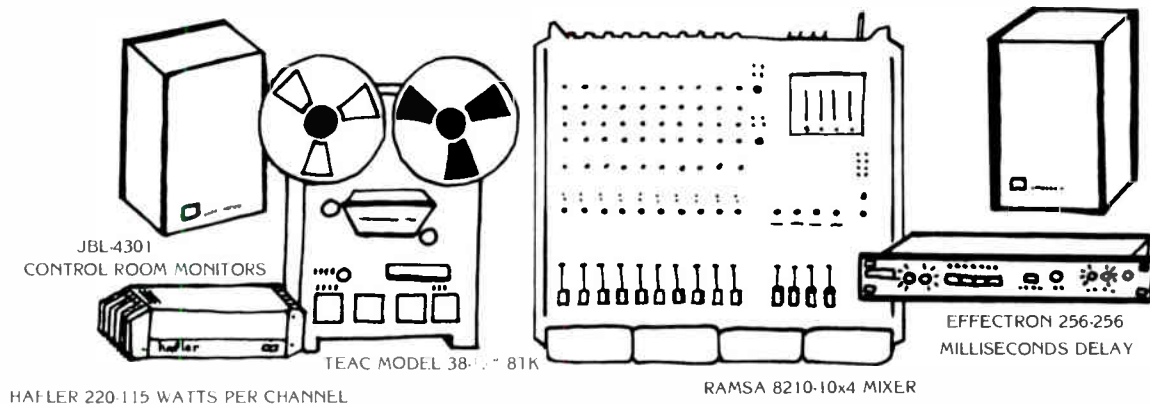
It must be painfully clear to Joan Baez how far out of fashion her music is in relation to the American music industry. She's been unable to land a domestic recording contract in recent years, and she's seen her folk-era peers picked off one by one as time, trends and exhaustible talent have taken their tolls.

But Baez also knows how time-

ly and urgent her message is here today. A committed campaigner for non-violence and human rights, she stands with the rest of humanity at the lip of the nuclear hellhole the world's political establishment has so gleefully dug and stoked, and she continues to mount her podium to sing and talk of peace.

In other countries, a Baez concert can be a politically dangerous act,

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—from page 187, *Baez*
through the first few songs.

The players backed the singer with an understatement that even *my* mother could handle. On songs like "Me and Bobby McGee," they enabled her to sing more dynamically without changing the basic nature of her presentation. She sang The Beatles' "Long and Winding Road"—a strange choice with a strange rhythm arrangement—and Billy Joel's "Good-night Saigon," giving it a nice, if delicate, rendition that still managed to put the point across.

The repertoire covered a lot of ground (and there's lots in her 20-year-plus career to cover), including "Farewell Angelina" with Baez's obligatory Dylan imitation, "Ave Maria," "The Rose," "Gracias a la Vida," "Love Is Just a Four-Letter Word," and "Diamonds and Rust," perhaps her finest composition. Cognizant of the makeup of her audience this night, she kept the politicking and preaching to a minimum. These people already knew what she has to say about planetary issues; she sang for us, and she sang very well indeed. —David Gans



PHOTO: PHIL MOLOTTIS

"The Curly Shuffle": The Anatomy of a Surprise Hit

Mike Rasfeld (photo above), owner of Acme Recording Studio



A miracle happened in Mike Rasfeld's Acme Recording Studio! In the midst of megabuck, state-of-the-art, 24-track, computerized technology, his meager 8-track operation produced a million seller called "The Curly Shuffle"!

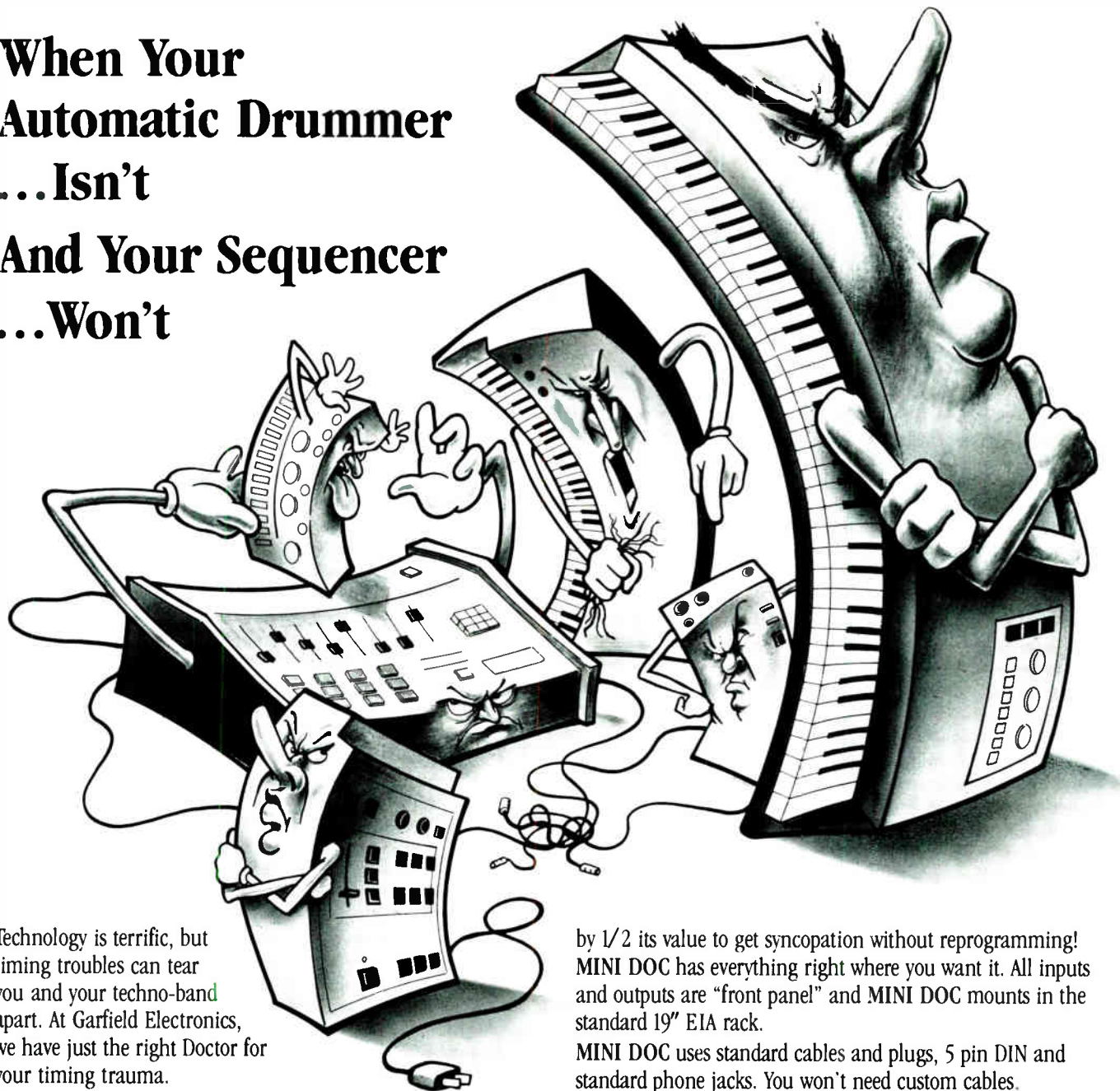
Acme studio was established about ten years ago when Rasfeld and two partners secured an SBA loan. Near an artist colony on Chicago's north side, Acme ironically was named after a fictitious company the Three Stooges worked for in many of their movies. Rasfeld, it turns out, is as big a Stooges fan as Peter Quinn, who wrote "The Curly Shuffle" for The Jump 'N the Saddle Band.

"We were turned down quite a few times by the SBA," says Rasfeld. "But we finally convinced them that there was a need for an 'artist-oriented' recording studio in Chicago."

—page 193

The Jump 'n the Saddle Band (clockwise from far left) Barney Schwartz, Tom "Shoes" Trinko, Rick Gorley, Vince Dee, T.C. Furlong, Peter Quinn.

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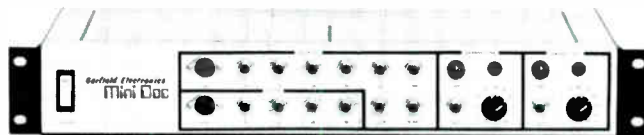
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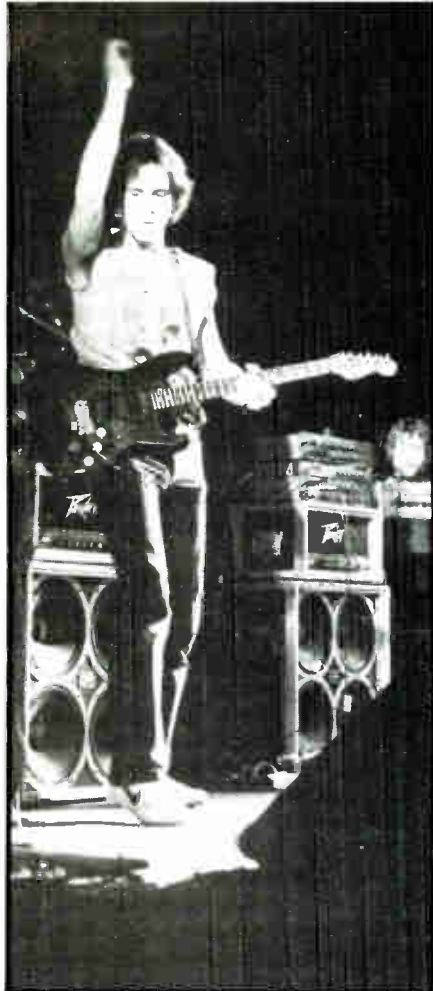
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NAMM Photo Highlights

The Winter NAMM Expo was held January 20-22 at the Anaheim Convention Center. Many players came to demonstrate the products they endorse, and lots more came just to walk around and see what's new. Here are a few of the familiar faces we encountered.



(Above) Four-fifths of Bobby & the Midnites, including Bob Weir and keyboardist Dave Garland, were joined by drummer Narada Michael Walden for a Saturday night jam.



Tommy Tedesco (below) indulges in a little pickin' and, uh, grinnin' for Fender.

Keith Knudsen (left) and guitar legend James Burton flank Penthouse model Heather Lynn, who greeted NAMM attendees on behalf of International Music Corporation. Knudsen, the former Doobie Brothers drummer, and Burton (whose resume includes work with Elvis, Ricky Nelson and Emmylou Harris) are working together in a band they call the *Tex Pistols*.



Devo's spud-in-chief, Mark Mothersbaugh (with an unidentified companion) paused to greet an Earthling in the Kurzweil booth.



(Right) Keyboardist Don Muro and guitarist Elliott Randall demonstrate Korg keyboards, Marshall amps and other Unicord products, accompanied by keyboardist Chuck Leavell and drummer Dom Famularo (not pictured).



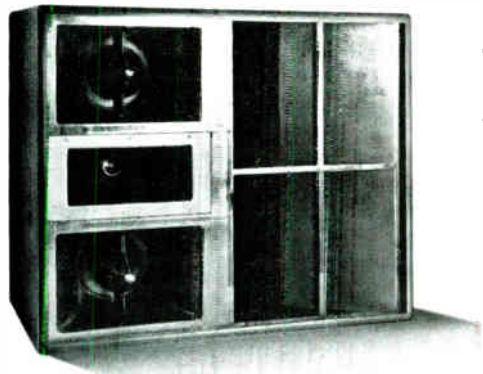
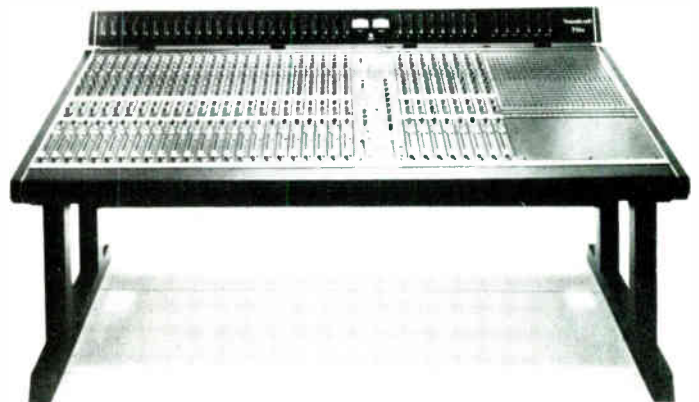
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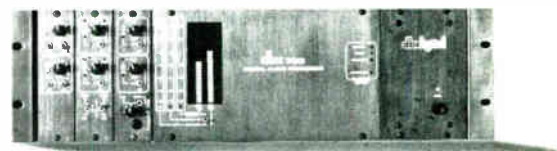


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—from page 64, *Stray Cats*
found Jim and Lee, eventually, and we put the band together.
Baxter: It's interesting because, as players, we all get into guitar playing at different levels. We've had the chance to do a lot of playing together recently, trying to get that Bob Wills & the Texas Playboys sound happening, right? So I know a little about your playing, and I'm really knocked out that you picked western swing to start playing guitar because that's the transition between bebop and popular music. The things that you've learned are much more

Brian Setzer of "Stray Cats"

sophisticated than most guitar players would normally learn to play.
Setzer: We went backwards, kind of.

Baxter: Actually, you're almost a jazzier, in the sense that you're going to the real roots of the music and getting your chops and your knowledge as opposed to getting a guitar that lights up, five-inch platform shoes and playing one chord—which is another interesting way to approach the guitar.
Setzer: Well, that's fun too, guitars that light up. I do that every night, by myself, for my own pleasure, but I don't tell anybody. Sometimes I don't like to call it rockabilly. It's rock n' roll.

Mix: It seems every three years the public re-discovers rockabilly, so it never really dies.
Setzer: Oh, no. I only feel bad about calling it that because it gives the critics something to tag. Then they can say, "Oh, this rockabilly trend has passed." I think rockabilly is a legit art form, like blues or jazz or country music. It hasn't gained the respect it should have.

Baxter: One of the reasons it didn't get a lot of respect is because you need some chops to play that stuff. Again, you have to know something about bebop, whether you like it or not or play it or even know who Charlie Parker is. All that jazz guitar stuff came from bebop. You like it when I play a lot of the sixth chord and the bop on the pedal steel, right?
Setzer: Oh yeah.

Baxter: It's one step removed from the jazzers you've sort of translated into a pop form. A lot of people can't play that. So they go for another version called "pounding it out."
Setzer: Yeah! A lot of that rockabilly stuff was just that style of playing.

You're saying a lot of it is just straight bop, like Charlie Christian swing. A lot of it comes from the country side, like the Chet Atkins fingerpicking style. For me that came later, because being from New York I wasn't exposed to country music that much. I got into the swing side; I discovered Django Reinhardt. Then the only rockabilly player that really transcended some of them were straight rockers like Chuck Berry; he



PHOTO: CLAYTON CALL

didn't do any country picking like Chet Atkins. There's a guy who played with the Gene Vincent band called Cliff Gallup who kind of did them both. And that's who I want to be like, people like him and James Burton.

Baxter: James Burton does a lot of work in the studios, and one of the reasons why you are here tonight is to put you to work. Also your bass player, Lee, cut a song with us three days ago, a little jazz tune that reminds me of a skyline in Manhattan. We need Lee because his tone is so nice. There are millions of standup bass players in this town, but Lee has the best tone I've ever heard. I've got a feeling you guys are going to get called more and more for studio work because you can do some things that other people can't do.

Mix: What's coming next for the Stray Cats?
Setzer: What I wanted to do with *Rant 'n' Rave* was to make a real good, '80s-sounding rockabilly album. Now I'm getting turned on—and Jeff's responsible for a bit of it. In the past, I wanted it to be very traditional. Now, I'm getting to the frame of mind where I want to experiment and try new things, new instruments, new sounds. But I don't want to stray too far from the original concept. ■

—from page 188, *Shuffle*

Rasfeld, who had previously worked in an "advertising-oriented" 16-track studio, eventually inherited Acme when his partners left to pursue other goals. Although he took on Chicago's recording industry with just a four-track Sony, Rasfeld gradually accumulated an impressive array of scarce equipment.

"We probably had the first transformerless mixing console in the country," he says. Neotek, the console company, had been founded by design engineer Craig Connely in an old storefront right next to Acme. Rasfeld and Connely used to have lunch together and eventually they created the plans for Acme's sixteen—transformerless—input mixing console. This was ten years ago!

In addition to a roomful of standard and not-so-standard accessories, Acme boasts a Kimball Bosendorfer grand piano and a rare tube Teletronics LA2A limiter that's paired up with a rebuilt tube-type Telefunken U47 microphone. Rasfeld notes that George Martin used this same mic/limiter combination to implement the Beatles' unique vocal sound.

An award-winning "jazz whistler" (first place at an International Whistle-Off in Carson City, Nevada), Rasfeld only hires engineers who play musical instruments. Acme prides itself on its ability to get a finished sound onto tape the first time it goes on. Many jazz and blues groups cut their albums live to two-track in this very hip studio. "It all goes to two tracks in the mix anyway," says Rasfeld.

Jump 'N the Saddle used eight tracks for "The Curly Shuffle," but the drums, guitar, bass, and piano were all cut live to two-track stereo. The session took two days and "was cut for under a thousand dollars. We only sound expensive," he says.

As the story goes, audiences had been going wild over Jump 'N the Saddle's live version of "The Curly Shuffle." After three months of this, Saddle's pedal steel player, T.C. Furlong, called his old "jamming friend," Rasfeld, and booked some studio time.

"The band knew their song was hot, but no one expected such a big reaction," says Rasfeld. "The guys originally wanted to press only a thousand copies and sell them during

breaks at their gigs. Some of the band members even thought that a thousand copies would be too many!"

The song eventually was pressed onto Rasfeld's Acme label. Thus, he was not only co-producer along with band members Barney Schwartz and T. C. Furlong, but he now found himself in the enviable position of record company president. However, since Acme was a small label, Rasfeld felt more like an "under-assistant Midwest promotion man."

Things exploded when Rasfeld took a copy to Chicago station WLS-FM's Steve Dahl, and Furlong simultaneously brought a handful to Roy Leonard at competitor WGN. "The switchboards lit up at both stations," says Rasfeld. "In fact they light up every time the song is played on any station, to this day! Anyway, since I used to work for a record store and did a little promo here and there, I knew how things worked. I did the most logical thing next."

Rasfeld took the tape to the closest competitors of the disc jockeys who were playing the record, and within a few weeks Rasfeld and the

—page 194

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—from page 193, *Shuffle*

band had eight stations playing the record. "We had a feeling that the record was going to be big when the Black stations followed the Country stations who were following the AOR, Progressive, and Top 40 stations," he says.

In the meantime the half-dozen record stores that had stocked the record were cleaned out. "People were clamoring for the record," remembers Rasfeld. "WLS-AM went on it; together with WGN, they cover about fifteen states at night."

Rasfeld called a local record distributor and set up a "payment on previous order" invoice. This meant that he wouldn't have to wait the normal 60 to 90 days for payment. Then he ordered 5000 copies C.O.D. from a pressing plant in Ohio. Eventually the plant had to add an extra shift just to press "The Curly Shuffle" and Acme received 20,000 records on credit.

"It's perfect for your morning guy!" Rasfeld would say to out-of-town program directors. Acme's chief engineer/studio manager/label presi-

dent was turning into quite a promo man. The local record distributor had given him an extensive list of radio stations and program directors to contact. Everytime a new station played "The Curly Shuffle" the local stores were deluged with requests for the record and they, in turn, swarmed Acme's distributor for copies. "I think the distributor picked up a few new accounts," says Rasfeld.

Rasfeld then called an old friend, record promotion pro Howard Bedno, "the guy who got the Buckinghams airplay back in the '60s," Rasfeld says. Bedno suggested that Acme turn the record over to a major label for wider distribution and promotion. Atlantic was chosen because "they were very interested and they seemed like they'd have a lot of fun with the record."

"Atlantic promoted the record aggressively," Rasfeld says. "They moved real fast. Within four weeks they had the stores filled and 150,000 copies sold." When the record passed the 300,000 mark Atlantic picked up the option for an album.

As of this writing, the 45 has arrived in England, *Entertainment Tonight* is filming a "Curly Shuffle" feature, Jump 'N the Saddle has plunged itself into album sessions on Acme's new 16-track deck, and the record is number one on Chicago's WLS-AM, and in the Top 20 in *Billboard*.

"This record expressed something that needed to be said," Rasfeld says. "People need to laugh. We're all very happy with the way things turned out. And I would say that any prior misconceptions I had about the music industry have been dissolved."

Will Acme change as a result of its first big hit? "We feel we're doing things right already," Rasfeld says. "We've been doing it right all along. But . . . well, we can't really keep a low profile anymore, and we did go 16-track, and we're looking at a Quantec Room Simulator, and . . ." Rasfeld catches himself, regains his composure and says, "We never thought it would happen like this!"

—Bob Wallick

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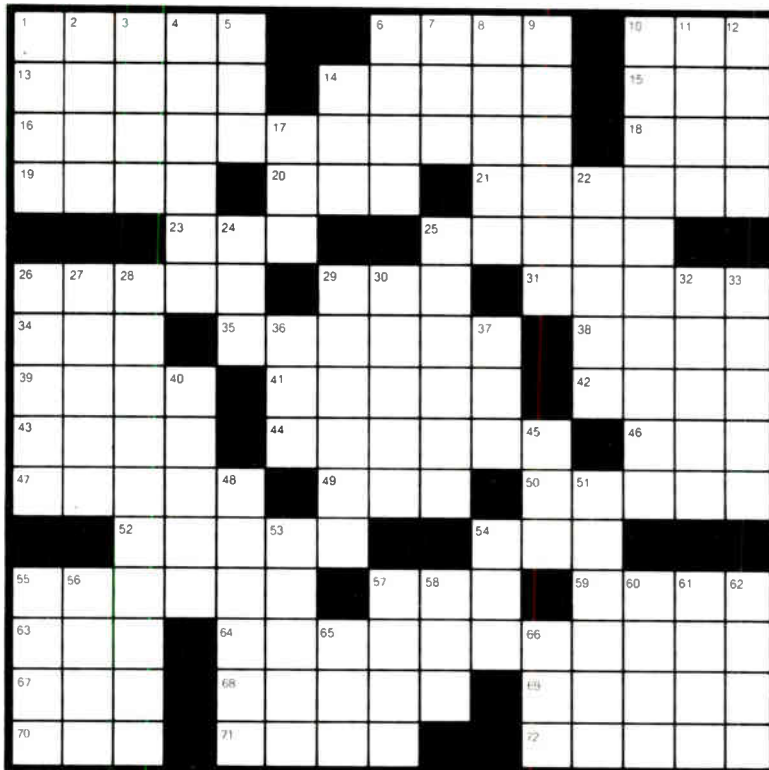


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MIX WORDS

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"TELEVAUDEVILLE"

ACROSS

1. Super City '84
6. Portent
10. Milit. award
13. Language within language
14. Man from Baghdad
15. Actress Hagen
16. Art and History study group, or rock band?
18. Operate
19. Sea weed
20. A Gershwin
21. Rub the wrong way
23. Noun ending
25. Girl's name, from the Greek "Greek"
26. Gives over
29. Entertaining boxes
31. "The _____ near"
34. Doc org.
35. Apparition
38. Continental Prefix
39. Super
41. The Gipper's helpers
42. Small bird
43. Seec cover
44. Warns
46. Collection of anecdotes
47. Girl's name
49. Dawn goddess
50. Word with vision or tube
52. Made hay
54. "Superfund" agency
55. Broom or clothes item
57. Bond maker
59. _____ fixe
63. Set-to
64. Mar. whose band has a biblical name
67. Roof adornment
68. Certain gem, to Renee
69. With "dust", a pesticide to count on
70. Small, to Burns
71. Cinnabar, et. al.
72. Commerce

5. Entertaining prefix
6. Killer whale
7. _____ de mer
8. On a par with (with "to")
9. Not quite a bite
10. Group on TV with exotic locations
11. Certain horse for hire
12. One kind of chair material
14. Comparative ending
17. Earthly brook, or lunar trench
22. Invigorate
24. The practice of finding and destroying enemy subs, for short
25. Some organic compounds
26. Panama or root
27. A certain University
28. Broadway's Elephant Man
29. Shadowed

30. I see, to Cicero
32. Goddess of Peace
33. Something for 24D
36. Stadium sound
37. Pres. for 1st A-drop
40. Nom-de-plume
45. Taste
48. Syrian burg
51. Ten-penny driver
53. The heavens, in arcana
54. Brian _____
55. Neck and cut
56. Gait
57. Problems
58. Top flier
60. Met notable
61. Oklahoma town
62. Feudal worker
65. Displeasure
66. WWII support ship

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Query to Engineers

When the number of inputs reached 64—and kept on going up—people started to wonder whether the Grateful Dead's recording session at Fantasy Studio D in Berkeley was some kind of record-breaker. The Dead had to bring in a 10-channel Neve mixer to augment Fantasy's 56-input console, and engineer Phil Kaffel notes that several mikes have been set up but

won't be plugged in until they're needed as the sessions progress.

What could they be using so many mikes for? Well, there are two complete trap kits—Bill Kreutzmann's and Mickey Hart's—as well as "The Beast," an iron frame upon which are mounted several more drums and related percussion devices; Hart has an array of hand percussion including exotic cymbals, gourds, one-of-a-kind noisemakers, etc., which will likely be put to musical use on the as-yet-untitled record. And let's not forget Brent Mydland's electronic keyboards, Phil

Lesh's bass (direct and miked), Bob Weir's stereo guitar setup, and one channel for Jerry Garcia's guitar.

So the question is, does anybody know of another recording session which used so many microphones and mixer channels? Get in touch with me in care of Mix—maybe somebody will end up in the Guinness Book of World Recording Records or something.

—David Gans

A Variety Show for Rockers

So you're in the Big Orange, laying over for a day between your last burger at Carney's and your next gig in San Francisco. Any plans? Wanna be a TV star?

Rock Palace is Hollywood's latest entry in the television music stakes, countering all those glossy videos with an hour a week of live rock and roll. Taped at the Palace and with a 35-week contract on NBC's O&O's (owned and operated stations) as well as a syndication deal, *Rock Palace* is looking for acts. And, like *In Concert* and *Midnight Special* of old, it presents those acts reasonably close to the way they like to come over onstage when there are no cameras present.

The show runs on Saturday night, following *Saturday Night Live* in most markets, and should be covering 80% of the country within a few months. The premiere featured Spandau Ballet, Tommy Tutone and Clarence Clemons & the Red Bank Rockers. Plus dancing girls in skimpy threads, guest host Jim Staahl, a young comic and about a ton of aircraft landing lights.

According to *Rock Palace* producer Randy Phillips, "most TV concerts are either on the MTV Saturday night concerts—which only has established acts with successful records—or HBO-type specials which use megastars like Diana Ross. Showtime's *Rock of the '80s* is all new music—but all these shows are limited in numbers because they're cable. Outside of *American Bandstand* and *Saturday Night Live*, this is it on network."

Phillips, who manages Josie Cotton, Tony Carey, Planet P and the new Elektra act Zot, says that his "record biz" mentality is what makes *Rock Palace* a tasty venue for the bands. "No band has to worry that they're going to cop a middle-of-the-

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road image by going on this show," he maintains, "and that's a fear that a lot of album-oriented rock bands have. This is not that kind of show." (The name *Solid Gold* apparently never passes Phillips' lips.) "Hip" is a terrible word, overused and cliched, but it's one way of describing something that isn't middle-of-the-road. This show is hip."

The executive producer of the program, Carolyn Raskin, comes to *Rock Palace* from the originator of off-the-wall hip: *Laugh-In*. She put in her time with Dinah Shore and Diana Ross and even Bob Hope, but she likes this rock and roll stuff.

"Rock is the only thing that's working now," she says. "It's the only kind of variety that gets ratings. And we are a variety show. We're looking to book acts that will blend well together but still offer a change of pace. If you do all heavy metal, that's the only audience you're going to get."

Acts taped so far (thanks to John Harrington, the talent buyer of the Palace nightclub) include Heart, Sparks, Y&T, Dio, Mick Fleetwood's

—page 198



The band X (l. to r.) Billy Zoom and lead singer Exene



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—from page 197, *Rockers*

Zoo, Night Ranger, Huey Lewis & the News, Eddie Money, X, John Hiatt and Kim Carnes.

Rock Palace is sponsored by Atari (coincidentally a division of the firm that owns MTV) and is aiming at viewers in the 15-25-year-old range. It's looking for simulcast outlets in order to avoid mediocre TV sound ("How come you can't get good sound out of TV?" Raskin wants to know.) and hopes to put together a package of shows for sale overseas.

But in the meantime, in between the Forum and the Cow Palace, it's one more venue for a band seeking greener pastures and higher profiles.

"That's the nice thing about having so many acts per show," says Phillips. "It gives us the opportunity to give a new group a chance for exposure. We could be in seven million homes shortly. What kind of tour could a young band do to reach that kind of audience?"

—*Ethlie Ann Vare*

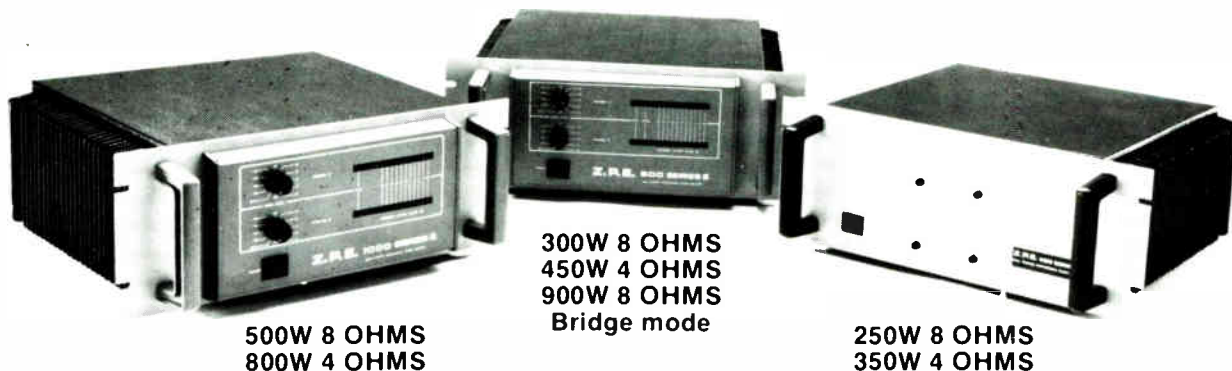
The Volunteer Jam

At this year's Volunteer Jam, host Charlie Daniels (right) attracted a typically impressive roster of stars, including Crystal Gayle, shown here being interviewed backstage, Emmylou Harris, B.J. Thomas and many others.



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—from page 186, Sabino

The interplay between Simon and Art Garfunkel was interesting to observe. Says Sabino, "Paul likes to play with top professional musicians, and sometimes they can't relate to someone like Artie who's an instinctual musician and says things like, 'Can I have it a little more . . . blue?' There was that artistic division, but the tour went really smoothly."

Working with Simon in the studio was "thrilling," he adds. "Paul's incredibly open, to even the most abstract ideas. He works very hard, long hours, and if anything it's tedious because of all the things he'll let you try. 'Let's do the same thing again, but open up the filter a little more,' or 'Let's try doing only half that part—cut out the middle.' It's hard work and it goes very slowly."

In contrast to Simon's meticulous method of recording was Sabino's duet with Steve Winwood on one track of Will Powers' (Lynn Goldsmith's) *Dancing for Mental Health*. "What a trip for a keyboard player. That might be the most fun I ever had in the studio," says Sabino. "We set up two Prophets in the studio, going through Twin Reverbs facing each other, with Nile [Rodgers] sitting in a chair playing rhythm guitar. We had a Linn drum pattern coming through the studio monitors, and we played to that, just dealing with the sound as it existed and letting it bleed all over the place."

Winwood, says Sabino, "has that instinctual thing where you never know what's going to happen next—but he's also cerebral. He can analyze and fix something that's wrong, but if it's good he'll ignore the problem and let it flow."

Sabino's appreciation for the well-balanced approach derives from the fact he's never had more than "attempts" at piano lessons. In fact, he admits he only started on the Farfisa because his high school band had too many guitar players. "I really have to struggle to handle some stuff," he reflects. "If I can't cut it I'll usually think of a simpler part—and simpler is often better. That's why I'm not a 'session player.' I've done a lot of records, but I don't fit the definition of a New York session player."

There are three attitudes for a session player to take, Sabino notes. "There's doing less than you're asked, in which case you won't be around very long. You can do exactly what you're asked and not bring any of your knowledge into it. Then there is overstepping your boundaries and getting into subjective decisions that should be left up to the artist and producer."

"I will put forth things that might change the entire track around, even involving other people's parts. But once it's shot down you have to be very disciplined and subjugate yourself to that person's artistic temperament, delve into their direction and try to make it happen without getting back to the thing you were trying to impose."

"I see so many session players who will ruin a record if they don't get their way, by just playing *exactly* the arrangement. Say there's a triad in a certain spot, and you wanted to make it a major 7th because you felt the triad was too obvious. You can soften the impact of the third—make it more of a root-five thing by delaying the third a little or voicing the chord so the third is buried. But some players will lean into the third in order to make the flaw really obvious and make that [producer and/or artist] really sweat. That's a pet peeve of mine."

College courses in composition, theory, harmony, arranging and conducting have contributed to Sabino's facility for blending into diverse musical situations, but he gives equal credit to lessons learned in his formative years. "Learning not to destroy the mood of a guitar-heavy tune with a Farfisa is probably how I became a 'synthesist,' he says. Sabino doesn't keep as much equipment as some of the more heavyweight players in New York. "I prefer to stay at home and work on composition rather than work enough gigs to buy equipment," he says.

Sabino's main synth is a Prophet-5, which he likes because of its similarity to his first synthesizer, the classic Minimoog. "I'll never sell my Minimoog," he says, "nor my Clavinet or my B-3. I use Clavinet for a lot of things; I love creating textures with it. I double bass lines a lot with the Clavinet through a Sam Ash fuzztone."

Sabino is currently working on a heavy metal album with longtime friend Ace Frehley (formerly of Kiss). He's also arranging Peter Frampton's next record and producing lesser-known acts such as Akron's Tin Huey. "I'm looking for something that clicks," he says of his speculative work. "I know that sounds like a Hollywood thing—I'm an actor now, but what I really want to do is direct."

Even though his producing career is still in its embryonic stages, Sabino is relaxed about his abilities and his achievements to date. "I pride myself on being very good at what I do," he says. "There are lots better and lots worse. I'm very secure in the fact that knowledge is cumulative."

—Chris Doering



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—from page 187, *MIDI*

unit's function in MIDI; perhaps this is why two Memorymoogs connected through MIDI won't work properly if either is in Mono mode. In addition, certain information (knob position, for example) may be more difficult to translate on one machine than on another, adding to the burden.

A hands-on trial of five keyboards illustrates some of these problems. I connected a Juno-60, JP-6 and IX-3P from Roland, a Prophet 600 and the T-8 from Sequential Circuits, in all possible pairs. Each unit was used as both a slave and a master to each of the others. All machines are Channel 1 except the Juno-60 and the JP-6. The Juno-60 was used with the accessory DCB (Digital Control Buss) to MIDI converter which can access all 16 MIDI channels. The JP-6 uses Channel 1 for the upper half of its split keyboard and Channel 2 for the lower half, and Channel 1 for Whole mode.

Used as the master, the Juno-60 transferred only key data and arpeggiation. Through the converter, it was able to access both the upper and lower halves of the JP-6 in Split mode. It

did not transfer either program changes or performance controls (pitch bend and LFO). Controlling the other synths from the 60 produced some interesting results. With the 60's arpeggiator on Hold, playing the IX-3P produced a very light arpeggiation, like a slight re-triggering, while the chord was held; on release, the chord continued to arpeggiate normally. The JP-6 produced a chord until the keys were released, and then it continued to arpeggiate normally. The Prophet 600 sounded the chord briefly on depression and then arpeggiated.

Used as the slave, the Juno-60 responded to key data from all the others. Playing both keyboards of a pair simultaneously into the 60's arpeggiator gave erratic results when listening to the second keyboard, although the Juno-60 always sounded smooth and normal. It would not accept arpeggiator data from the JP-6 but since it was the only other machine that would operate on Channel 2, it was impossible to tell whether that was because the data was not being sent or it wasn't being received. The 60 did accept sequencer data from the T-8 and

the 600; it accepted arpeggiator data from the 600 but it was necessary to set the converter for one-way communication from MIDI to DCB for proper operation.

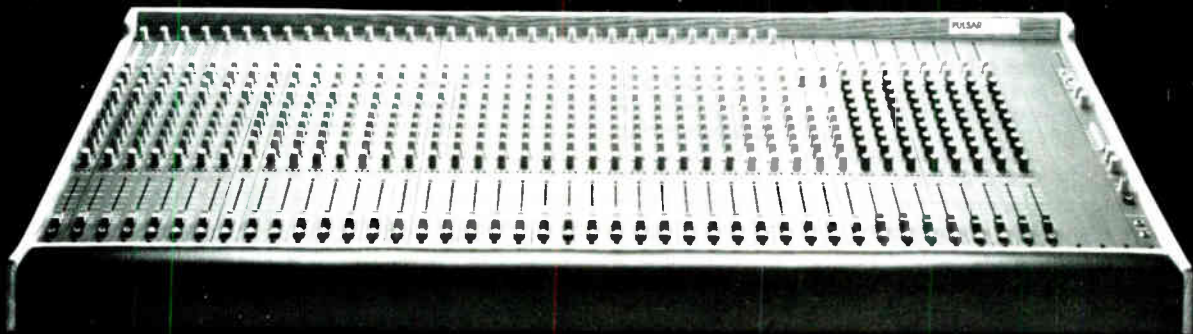
The IX-3P transferred only key data. This happened whether or not the back panel switch was set for MIDI operation. There was no transfer of program changes or performance controls. It was necessary to set the switch to MIDI Enable before it would accept data. It responded to key data from all the others as well as sequencer and arpeggiator data from the 600, arpeggiator data from the 60 and sequencer data from the T-8. The IX-3P's internal sequencer wouldn't run with MIDI enabled, although it would start while in the normal position and continue to run when the machine was switched into enable. This proved to be worthless, however, since the IX-3P reacted poorly to the other keyboard under these conditions. It was impossible to play a lead line against the other keyboard's sequencer.

The JP-6 also transmitted only key data, even in Mono mode. It played the Juno-60 arpeggiator and

—page 202

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—from page 201, *MIDI*

key data on either side of the split depending on the setting of the converter. It responded to the key data of the other keyboards on the Upper program when in Split mode. In both cases it would play above and below the split point, as if the JP-6 were in Whole mode. It also played the arpeggiator and sequencer of the 600 and the T-8 sequencer on Channel 1 but there was a definite anomaly in its response: If more than one note was played on the JP-6 while being driven by the 600's arpeggiator, it stopped. The same thing

happened when it was driven by either sequencer playing a mono line. If the sequencer was loaded with poly data, playing one note on the JP-6 would cause the loss of some voices in the sequence. Again, playing two or more notes simultaneously stopped the sequence.

The Prophet 600 transferred key, arpeggiator and sequencer data to all the others and responded to the arpeggiator of the JP-60 and the sequencer of the T-8. There was no transfer of program changes or performance data. It output poly key data in Mono mode.

The T-8 is easily the most powerful and complete MIDI machine in this small sample, but it has a peculiar problem. It was able to transfer sequencer and key data to all the others, and it was the only one to transfer program changes to the JX-3P, JP-6 and Prophet 600, as well as performance data to the JX-3P. The length of the keyboard in comparison to the others caused some overlap at both ends: The lowest three keys sounded notes an octave high, and the top octave (approximately, depending on the machine), played an octave too low. With the JP-6 in Whole mode, the T-8 responded to the entire keyboard. In Split mode it responded only to the upper half. Unlike the JP-6, the T-8 doesn't use different channels for its split; therefore, it's possible to play the split from any other keyboard. The T-8 outputs poly key data in mono mode. Unfortunately, the T-8 seemed to have difficulty following key data from the Roland machines, especially during quick keying. It was completely unable to follow the arpeggiator on the Juno-60 even at its slowest speed.

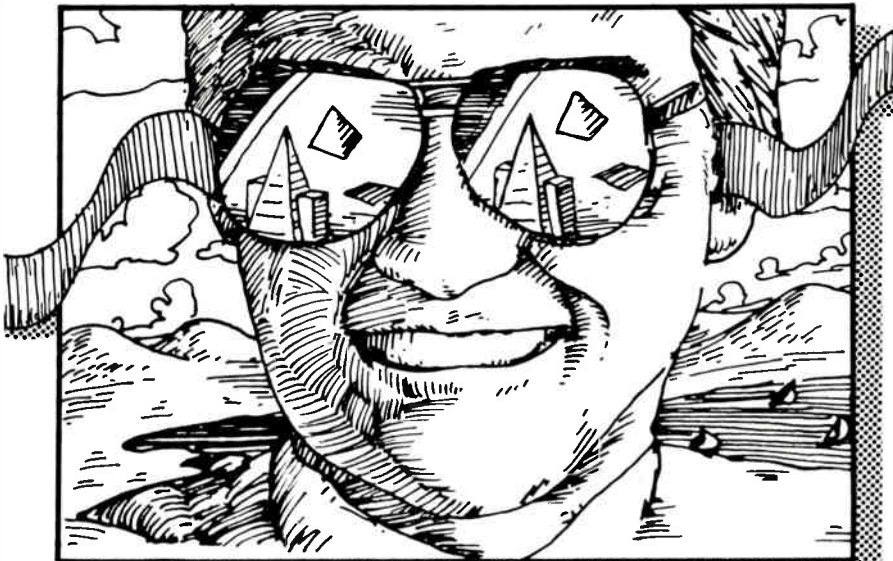
I followed the manuals as closely as possible but in some cases the literature was exceedingly sparse (The T-8 manual had a section marked MIDI which contained no pages at all). It may be possible that some of missing functions can be enabled in ways that are undocumented and not readily apparent. But even the published enable routine for the JX-3P and the Prophet 600 didn't seem to work. If there are solutions to these problems, the public would certainly be grateful for the information.

It is evident from these tests that MIDI is far from complete and that much work remains before its potential is achieved. Bugs will inevitably occur in any new system as flexible and powerful as MIDI. The possibility of communication between these diverse and complex instruments and the home computer is a tribute to those who have invested so much effort and creativity in its development. MIDI promises to be an excellent tool, although not a perfect one. Indeed, this industry is so fast-paced that some of the problems outlined in this article may be solved even before you read it. The initial confusion in finding effective applications for MIDI is normal, as engineers and programmers continue to refine the system. As with any tool, MIDI's effectiveness will ultimately depend upon the skill, talent and effort of those who use it.

—*Jack LeRoi*

(Jack LeRoi is a keyboard technician at Pi Keyboards in Columbus, Ohio.)

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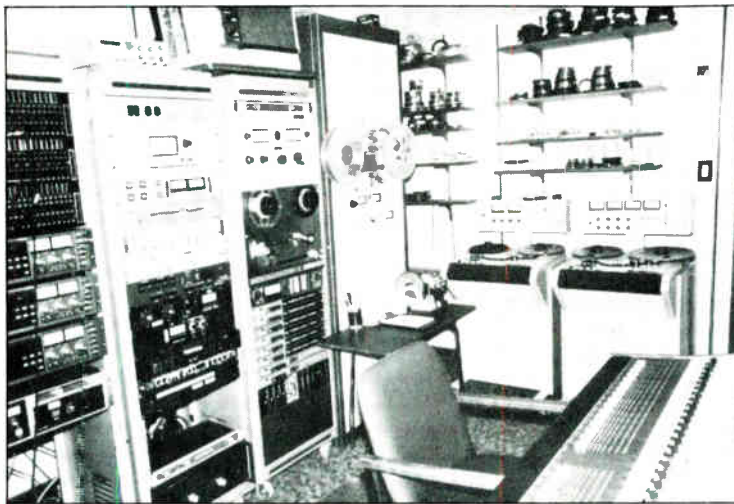
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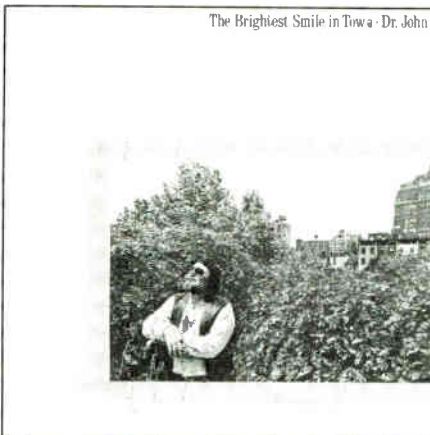
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A Look at the Doctor's Pearly Whites



DR. JOHN The Brightest Smile in Town Clean Cuts CC 707

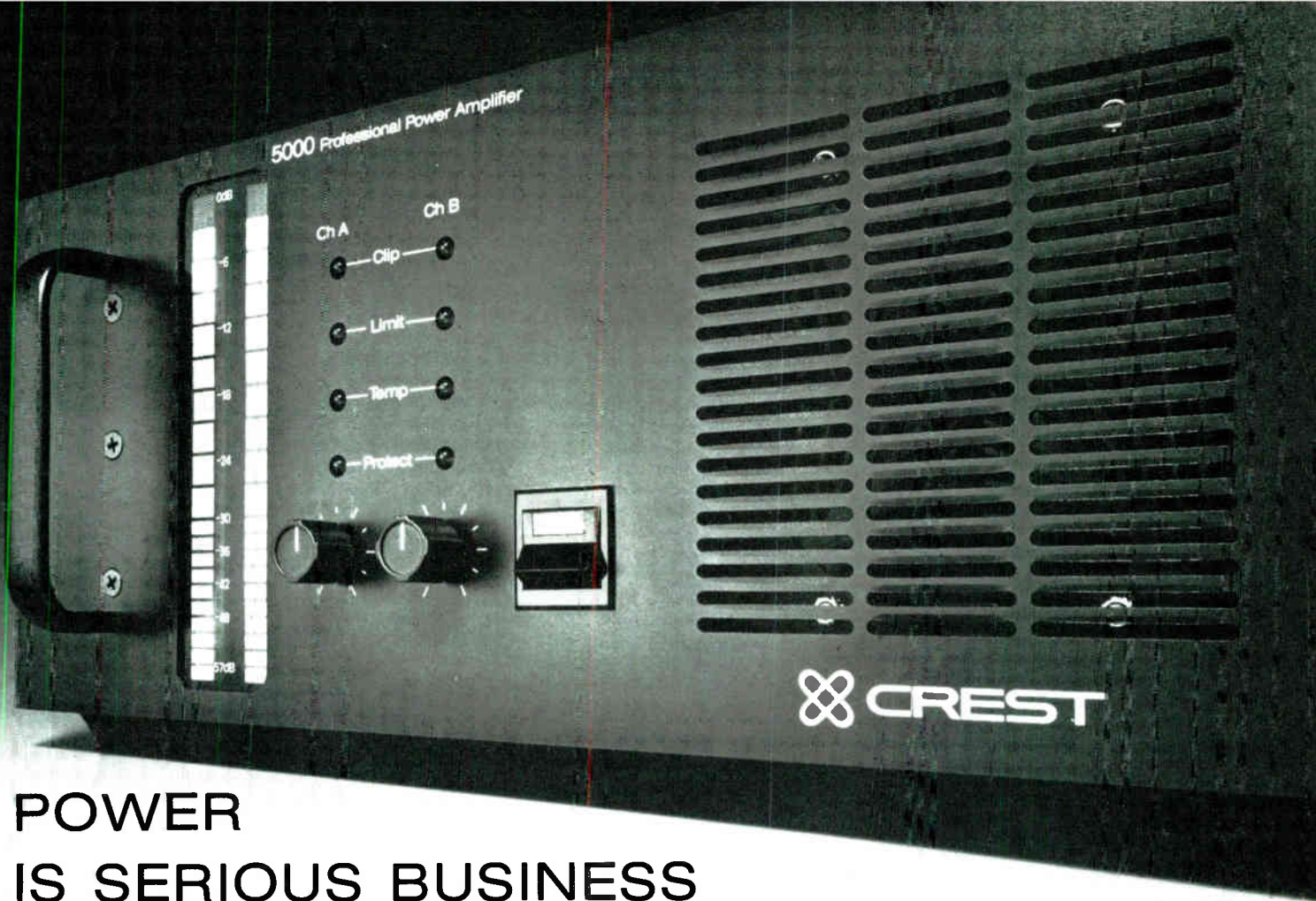
Produced by Jack Heyrman and Ed Levine; Direction by Tom Sittler; Recorded by Dean Roumanis using the Mark Levinson Audio System at Orpheus Music in New York City, November 1982; Mastered by Bob Ludwig at Masterdisk.

"So many people have heard Mac Rebennack over the years and not known it," says Jack Heyrman of Clean Cuts Records. "For once we wanted people to know it was him playing." That was the philosophy behind Rebennack's first album for Clean Cuts, *Dr. John Plays Mac Rebennack*, which featured the good doctor's piano playing and nothing more, except for a vocal on "The Nearness of You."

Now comes a second Clean Cuts release, *The Brightest Smile in*

Town, in which Dr. John offers a wider variety of musical styles and sings on several cuts. In addition to his own compositions (and the musky "Average Kind of Guy," which he wrote with the great Doc Pomus), *Brightest Smile* includes Jimmie Rodgers' "Waiting for a Train," the traditional "Marie La Veau," the Harold Arlen-Johnny Mercer classic "Come Rain or Come Shine," and other sparklers from all over the musical firmament.

"When I first met Mac, I said, 'I'm pleased to meet you,'" Heyrman recalls. "And he said, 'Well, without my piano I don't know what you're meeting.' That tells you how attached he is to the piano and how fully at home he feels with it." *Dr. John Plays Mac Rebennack* featured the piano and downplayed the vocals for a specific reason, Heyrman adds. "Playing solo piano was a very new and different idea for him, and I felt it was best to keep it



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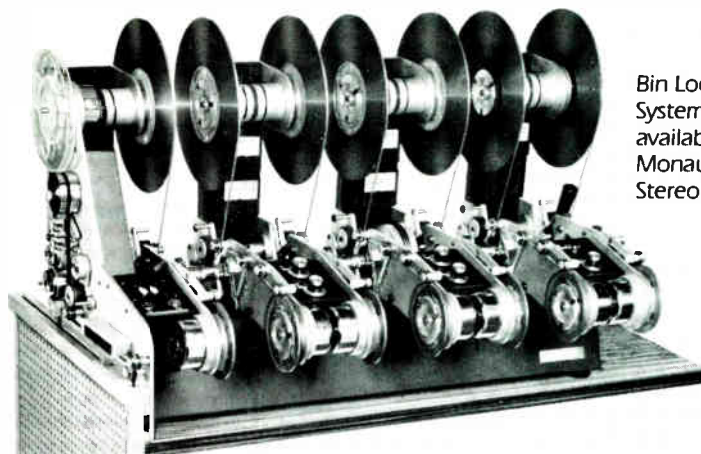
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simple and focus on that for once. There are some odd cases in Mac's career, too; on *In the Right Place*, for example, Allen Toussaint played all the piano! Mac Rebennack played no piano on his own album, and that struck me as slightly strange."

Both albums were recorded at Orpheus Music, a small loft in New York which serves primarily as a rehearsal space. The Kawai 7-foot grand piano suited both the acoustic needs and Rebennack's playing well, according to recording engineer Dean Roumanis. "It's a nice, intimate space that made it easy for us to create the feeling where Mac was sitting in your living room. We didn't want a real concert-hall sound, because I don't think that would have been appropriate, nor did we want something where the piano was right in the listener's face. This setup let us achieve a nice balance, getting a little bit of space around the instrument so we could create the feeling of the guy sitting maybe eight or ten feet from you as you listen to your system."

The Brightest Smile in Town took only one day to record. "I knew he could do it with great ease," says Heyrman. "For the first album, we just sat down two times and ran through a whole lot of material. It seemed that the best way to go about this was to try to catch as much as possible, because Mac is so easy to work with. He has very few requests and doesn't need much time out."

The session for *Brightest Smile* lasted about 12 hours, says Roumanis. "We took maybe a total of an hour's worth of breaks in that time. There were a few tunes that we did two or three takes of; I think he covered 16 reels of tape. We'd just put 'em up, spin 'em, and take 'em off. It was unbelievable—the guy is the most prolific player I've ever worked with.

"We probably had close to 50 takes overall, of 30 or 35 tunes. There are some great outtakes, including a version of 'Silent Night' that I think is wonderful but for one reason or another that didn't get on the album."

Like the first album, *Brightest Smile* was recorded by Roumanis using the Mark Levinson Audio System. "Levinson makes very sophisticated and expensive home audio equipment—amplifiers, preamps and so forth," says Roumanis. "I worked there for six years, and we developed a recording system that utilized Bruel and Kjaer calibration mikes. Because they're not standard studio microphones, we needed to make our own interfaces to

use them for recording.

"The recorder is a Studer A-80 RC transport with the Levinson audio electronics replacing what Studer makes. It's a very, very simple system that has only two gain stages between the microphone and the recorder. No other signal processing, noise reduction, equalization or compression was used." The system uses either quarter- or half-inch tape, and in this case was used at 30 ips. "The dynamic range is such that you don't need any kind of noise reduction or compression or anything," Roumanis notes. "That's Levinson in a nutshell—as simple as possible."

For these sessions Roumanis used three B&K 4133 mikes, one for the vocal and two for the piano. "That's the calibration version that we used at Levinson for years," says Roumanis. "It's since been replaced—for my use—by the 4004 or 4003. Normally the system only uses two mikes, but we have a little mix stage [the LNP-2] that incorporates the mike preamps as well as the mixer."

Because of his forceful playing style, says Roumanis, Rebennack proved somewhat difficult to record. "He has such a strong left hand that I had problems getting that to come out cleanly and in balance with the top of the piano—to make it clean but not too thin. So what I ended up doing was something I'd never done before: The microphones were placed at the end of the piano, pointing almost straight in at Mac from the heel of the instrument."

"What I found was that by not being in the field created by the chamber of the top and the sounding board I didn't get a lot of that really heavy low-frequency stuff that he was generating. I got all the fundamentals cleanly; I got the sound and the notes cleanly; but I didn't get all that blown-up feeling that the piano can get when you're playing so much low-frequency stuff." The mikes ended up a couple of feet outside the piano and about eight inches above the case.

Once the tracks were recorded, Heyrman and co-producer Levine went to work programming the album. "We had to make some tough decisions and leave out some good stuff," Heyrman recalls. "The main thing you have to think about in putting together a record is the pacing of it. We didn't need to make any points about how Mac could play in this style or that style, because there was such a diversity already present. So we tried to go with what programmed best."

"So many solo piano records

tend to sound alike from cut to cut, usually because the pianist is locked into one style," he continues. Luckily, Mac performs in such a diversity of styles—there's everything from big band to boogie-woogie to blues in his repertoire. All we really did was program it to pick you up and then calm you down—so you wouldn't get bored."

Roumanis sent the tapes to Bob Ludwig at Masterdisk for mastering. "There's not a lot that you have to say to him, so we just chat about it a little bit and he goes to work. Basically it was cut flat. Bob has Levinson playback electronics there so he can cut my tapes using the same kind of equipment used to record them."

Heyrman offers "praise and plaudits" to Ludwig. "He's the best I've ever seen, and I know I'm only one of a lot of people who feel that way. He enjoys the music, and he gives me the feedback I need. That's so often a problem in mastering—getting the engineer to say what he's *really* thinking, what the possibilities really are."

"My lawyer says in the accounting world they have a saying,

to 'H&R Block' someone. That means the accountant gives you the standard, no-frills treatment. That's what I feel like I'm getting from engineers sometimes," Heyrman says with a laugh. "I really have to feel they're involved—and since I found Bob Ludwig, everything has been wonderful."

—David Gans

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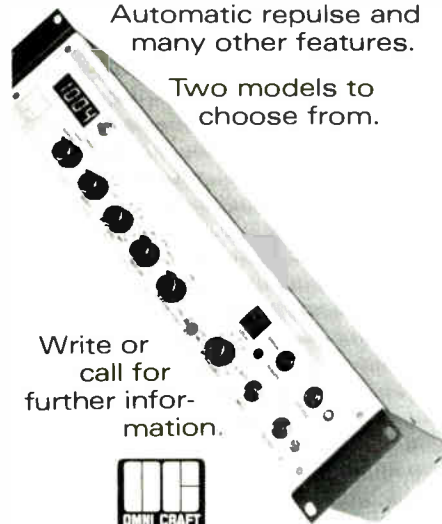
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succession of exceptional ex-blue-grassers have been hard at work for the past decade melding jazz, country and classical styles into a curious amalgam that combines virtuosity with down-home, foot-stompin' drive. Grisman and the various talented alumni of his groups such as Darol Anger, Mike Marshall, Rob Wasserman, and Tony Rice have built well-deserved national reputations in new acoustic music circles, and with very good reason—they are exceptional players breaking ground in a style which is still in its relative infancy. New acoustic music will never outsell Journey, but the contribution these players and others have made to contemporary music far outweighs the sales of their records.

To the list of names that belong in the pantheon of masters of the new acoustic music, we must now add Tim Ware. A Berkeley-based mandolinist and bandleader, Ware has put out two fine albums, the most recent of which, *Shelter from the Norm*, reveals its creator to be one of the genre's most courageous explorers. He doesn't quite have the knack for the snappy riff and cute turn of phrase that Grisman continually shows us, but there is depth to his compositions that is impressive indeed. On this album he manages to blend elements of bluegrass, Irish, Indian, modern classical and rock and roll into a marvelously eclectic but still coherent musical statement. His lighting, precise mandolin work gives the music its center, but like Grisman, the spotlight is passed around liberally to other bandmembers: guitarist Bob Alenko, bassist Ken Miller, cellist Sharon O'Conner and violinist David Balakrishnan, who is clearly a *major* find.

Shelter from the Norm is both highly accessible and complex enough in its arrangements to appeal to a broad range of music lovers. Listen to Ware's transformation of "Eleanor Rigby" closely and you'll come to appreciate how masterful an arranger of instruments he is—purely aside from the astounding technical mastery of the playing. "Bartok's Blues" is a multi-faceted piece that changes tempos and textures often over the course of its seven minutes; it moves from a springlike lilt to a roiling cauldron in the space of about 30 seconds at one point during the song. And "Dreaming of New Delhi" transports us into a world with an intriguing Asian feel, at once foreign sounding and familiar. It could be said, in fact, that this sort of apparent contradiction is what gives *all* of this music its power and its mystery.

—Blair Jackson

—from page VS-79, *Red Car*

jamming the other out of the envelope of sound on which you're focusing your attention. That's what a lot of feature mixers or people who mix documentaries can't do.

Again, it's just that condensation and selection if you're mixing for a small speaker that's going to be in someone's living room, that's going to be beside an image which is inadequate. The TV image is inadequate. The sound becomes a real hook. It's the first, primary fantasy-producing ingredient of this medium and now that it's combined with music, it makes the sound side even more important. In fact, it makes us pedal uphill to get the visuals up to the level of the music. That's why we go into these big stories, big productions, like the wedding-dance in Lionel Richie's "Running with the Night".

Mix: Where do you see the technical direction of sound and image going on broadcast television?

LB: I think that we are taking commercial mixing one step further. We're doing stereo mixes, swinging mixes, operating at the frontiers of the new system that will be a stereo product for a stereo broadcast system. I hope it's a stereo broadcast system with high resolution TV, on what I think will be basically the new Sony four-by-three with good, heavy signal-to-noise ratio sound reproduction. And you essentially have a little movie theatre in your home. You're looking at a little 1.85:1 screen with a 1000 or 1200 lines with a 100-to-1 signal-to-noise ratio. There won't be anything missing except for the smell of popcorn and the lack of a "boomy" room. It'll be a smaller scale, but I think we're going to achieve that level of information. That's what we're talking about here; we're talking about more information per second that you get in a theatre.

There's no match for sitting in a theatre looking at a 35mm print projected on the screen. You just get much more per second than you get at home on a TV. There are many more times the dots up there, but I think eventually home video will be like that. That's not far off, and anyway, the sound, when we get there, is going to have to be better—and I think we are doing that now, working with these music video tracks, because we're really concentrating on how it sounds in a stereo framework. It's fun, too. I haven't made any great creative discoveries. I can't tell you I am the world's expert on it because I'm still trying things. But, it does present a great challenge.

—from *VS12*, FITZHERBERT

ever heard the track at the proper speed, and of course we were lucky to have an artist like Sting who could lip-sync at double-speed.

Mix: Both Police videos are actually visually quite simple.

FF: Yes, they were relatively simple shoots, thanks to great crews and careful pre-production.

Mix: What are your feelings about pre-production?

FF: I really believe in it as much as possible. You need all those meetings to effectively organize your time and money, figure out your exact shooting schedule, shots, equipment, crew, etc. It's essential, and I believe that the more time you put into pre-production the more money gets put up on the screen in the end.

Mix: What about the production itself?

FF: Well, continuing from that, it's essential to also have all your shots properly sequenced, to have a beginning, middle and end, and to get your coverage of the star or artist. The last thing of the day is getting the pick-up shots, so often doing it chronologically

isn't right. And of course, having a strong assistant director is also a big key to a good production.

Mix: What about post-production?

FF: I always insist on doing the maximum amount of off-line editing possible, because that way you can do all your cuts and pick your shots and piece it together, so that by the time you do go on-line, which is very expensive, you're not wasting time and money.

Mix: What do you think are the necessary qualities for a good producer?

FF: I think you need the ability to organize, the respect of your crew, a great rapport with your director, and of course that rapport with the artist. Really, you have to keep everyone happy!

Mix: What directors are you currently working with?

FF: Besides Kenny Ortega, I'm also working with Jim Lenahan, who directed all the Tom Petty videos, and David Halpern, who directed *Something Short of Paradise* with Susan Sarandon. And I also produce for MediaLab, which consists of Godley & Creme and the Rich Kids.

Mix: What qualities do you look for in a director?

FF: First, you have to like and respect their work, and then know that they can work under the kind of pressure that's required in music video, and get a lot done in a little time. And obviously you have to be able to get on as people, especially as you live on top of each other for the duration of a production.

Mix: Finally, what do you see as the future of the music video field?

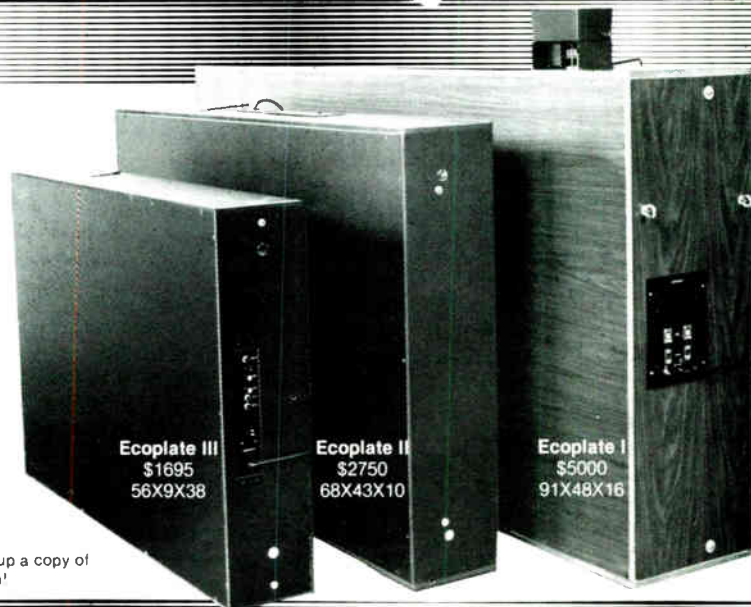
FF: I think there will be more and more long-form projects, such as films, etc. The demand is enormous, and the success of MTV and movies like *Flashdance* has proven the point. I also believe it's to the advantage of everyone in the business that Michael Jackson's "Beat It" and "Thriller" videos have done so well—they show that you do get what you pay for. And videos are an incredible training-ground for producers and directors, because they get the maximum production value. I think we can be very cost-effective in films because of that training—after all, what is a video but a 4-minute movie, done in a day or two. Just compare that with some 30 second commercials that take five days to shoot. ■

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