

SWISS

VIEWS AND NEWS FROM SWITZERLAND



SOUND

1/1982

A PUBLICATION BY STUDER INTERNATIONAL AG

Eugen E. Spörri

Thoughts to the first issue

The first edition of our new magazine - SWISS SOUND - has finally become a reality. For quite a long time now it has been our intention to create this magazine. Other seemingly more important activities received priority, and so the project was put off time and again.

What are our intentions with SWISS SOUND?

Well, first and foremost, there is our sincere wish to inform the worldwide growing number of customers on all inside events of the Studer Revox group.

This has always been our aim in the past by personal contact, unfortunately, however, it has become less and less effective due to our ever increasing activities. Therefore, this magazine is an attempt to intensify communication with our representatives abroad, with our affiliated companies and with our customers and business friends, with all of whom we wish to further maintain a close relationship.

we would like to reflect the opinions of those within our organisation who are responsible for keeping our high standard. But even more important, we would like to have customers write to us about their activities and their special wishes in conjunction with Studer products. Information like this will surely make for interesting reading. To reach this goal, we depend on the assistance and the support of all readers of this magazine. Only by receiving contributions from different areas and different users can it be ensured that SWISS SOUND will become a multi-faceted medium for lively communication between Studer International and those out in the "field".

I would like to express my appreciation to those willing to assist, and ready to make SWISS SOUND a regular, interesting magazine worth looking forward to.

AES-Highlight:

Dr. h.c. Willi Studer receives Gold Medal



Swiss pioneers - hearty congratulations by Stefan Kudelsky (Nagra).

Precisely 6 years after the presentation of the Silver Medal Dr. Willi Studer was awarded the AES Gold Medal for his «lifelong outstanding contributions to the development and making of the highest quality recording equipment.»

This award represents an exceptional honor as it crowns a number of AES awards presented to Dr. Studer of which the first (Fellowship) was bestowed upon him back in 1970. 1975, Dr. Studer was elected AES Governor and in 1976 he received an AES Silver Medal and Life Fellowship.

The award ceremony took place during the traditional social highlight of every AES convention, the awards banquet. After accepting the award, Dr. Studer displayed characteristic modesty in his brief remarks to dignitaries attending the awards banquet:

"It is a great honor for me to be distinguished with this Gold Medal from the AES and I wish to express my heartfelt thanks. But really, I hardly know why I earned this medal. I've merely been pursuing my lifelong hobbies of electronics and precision mechanics - to be sure, in the area which seemed most sensible, that of audio electronics. Failures and successes followed each other and in looking back I am very happy that the positive predominates.

I feel fortunate to have been useful - as one wheel of the whole machinery - in helping our branch of engineering achieve ever higher levels of quality. We all hope to be able to keep on working successfully in the field of audio electronics for some time to come.

Once more, I would like to thank you."



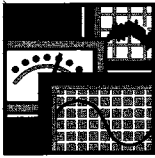
SWISS SOUND does not solely want to inform about new products and provide information on technical subjects but at the same time focus on people.

In the initial stage, all contributions to this magazine will mainly cover the professional range of Studer products. Revox will be included at a later date. Just as the success of a local radio station depends on the fact that it provides up-to-the-minute news of local interest, shall it be our intention to supply you with news "on the world around us", reporting about topics in the audio field which are of interest to you, the reader. In addition to writing about new products and providing information on technical subjects, we shall focus on people. We are of course interested to learn about the experience in working with our products, and

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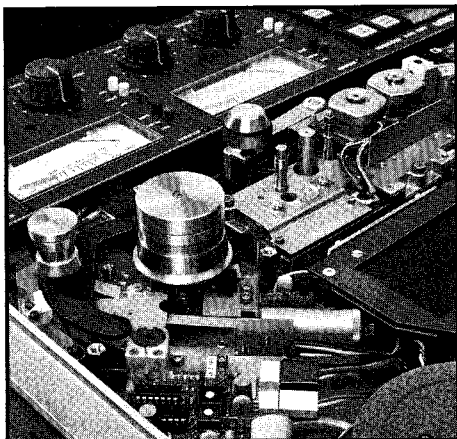
From the project manager of the new A810

On the philosophy of a new development project

"Perfect and professional even in the smallest details – a pleasure to work with – the new standard of the future" – these are the clichés commonly found in brochures, and thus the impression is created that the development team did not have to cope with constraints of any nature such as deadlines, limited financial and personnel resources. What a colorful world of paper fantasies!

But no-one really takes this sloganeering at face value: the targeted readers and the sales force interpret the brochures of competitive products with the necessary soberness: The creators of the previously mentioned perfection continue to devote themselves (without blushing) to even "more perfect" future developments, while the developing engineers must continuously reevaluate all recently taken decisions and strike a new balance (or imbalance) as part of the inevitable compromises.

Which of the basic ideas have been incorporated into the concept and the detail design of the A810 project and which aspects have been given top priority?



Highly accurate tape sensor assembly forming a separate functional unit.



STUDER A810: analogue on its highest level combined with digital system control.

A fairly precise answer can be given by reviewing the characteristics of the smaller studio recorders that STUDER has built in the past (A62, B62, B67):

- High reliability of the electronics and the mechanical assemblies.
- Catering to the technological requirements of the users and a high degree of flexibility in providing custom features that as a rule are highly unpopular with equipment manufactures.

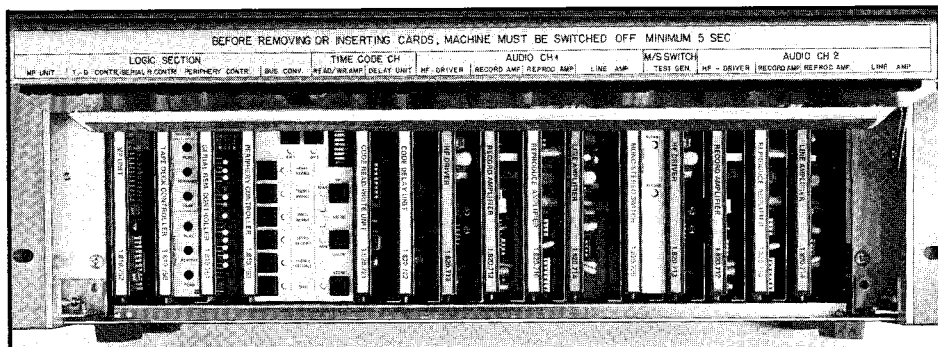
As far as technical innovations are concerned, the development engineers must always be aware of their consequences:

- Changes in the operating philosophy are risky, because the work procedures followed by the users are not always fully known. For this reason, developments have to concentrate on enhancements and optimization.
- By maintaining a continuity in respect to mechanical and electrical concepts, it is not only possible to reduce the costs and manufacturing problems but also the risks that are inherent to a complete new design.

To ensure that a machine with the desired characteristics can be manufactured in Switzerland and compete in the world market, certain manufacturing parameters must receive close attention:

- The series produced should be as large as possible
- Through the modularity of the system, standard configurations should be able to cope with as many user-specific technical arrangements as possible and to open new market segments.

However, to keep the price of the standard model of the A810 within reason, the following concept had to be taken into account:



Directly accessible card rack housing complete control and audio-electronics.

- The structures of the assemblies are based on the electrical function diagram; each assembly thus forms a functional unit that provides its own electrical connections to the other elements of the machine.
- For this reason, the A810 does not feature a central (expensive) cable harness. The interconnections are established on a distributor PCB.
- The electrical interfaces are designed for flat cable connections (bus system) and the parameters of each assembly are clearly defined.

The full-scale implementation of this concept has the effect that the user only pays for what he really needs. It also provides additional advantages:

- Testing and maintenance of the assemblies is greatly simplified, full interchangeability is achieved without readjusting the machine.
- Spare capacity for subsequent currently not yet definable enhancements is easier to provide than with conventional technologies based on a central cable harness.
- The retrofits and modifications desired by the customer can also be installed by the distributors.

One of the key problems that needs to be solved in the development of a tape recorder this size is the physical acco-

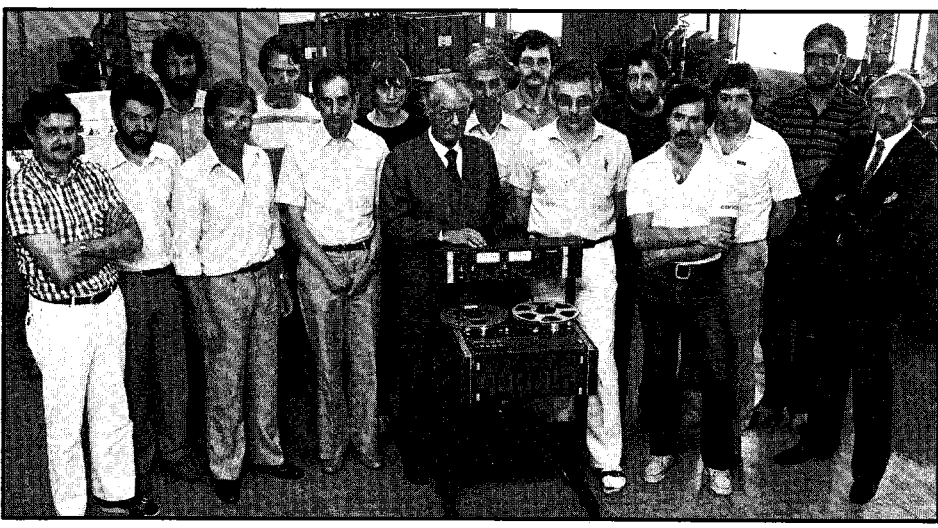
modation of the modules. Although modern semiconductor technology and the respective connector systems ensure extremely low failure rates, the accessibility of the individual assemblies and units is still of great importance. As Murphy's Law stipulates, failures tend to occur when you can least afford them, i.e. when the equipment is urgently needed. The problem is compounded if recorders are inaccessibly built in, thus, only the front-panel access can be considered as ideal. In our proven design that features a hinged front panel and a directly accessible card rack that houses the complete control and audio electronics, these problems have been given full consideration.

Other aspects such as magnetic stray pick-up, ventilation, etc. make it impossible to apply this philosophy to all assemblies.

From the foregoing problems we may rightfully deduce that the development of a new machine is not simply the sole and unrestricted result of the frequently advertised technical perfection but rather that it represents a "perfect" compromise that optimally satisfies all requirements and essential factors.

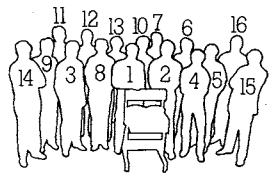
Peter Fiala

"It needs so many people to make such a small machine as smart as it is."
(Peter Fiala)



The A810 Team

1. Dr.h.c. Willi Studer
- Audio:**
- Peter Fiala
 - Peter Buchegger
 - Bruno Bernet
 - Jean-Marco Egli
 - Eduard Gämperle
 - Robert Schrott
- Tape transport:**
- Arturo F. Stosberg



- Peter Staub
 - Herbert Romagna
- Software:**
- Dr. Alain Junod
 - Alain Saxer
 - Daniel Schmid
 - Bruno Wacker
- Documentation:**
- Marcel Siegenthaler
 - Kurt Müller

A810 spooling motor control Cool control saves energy

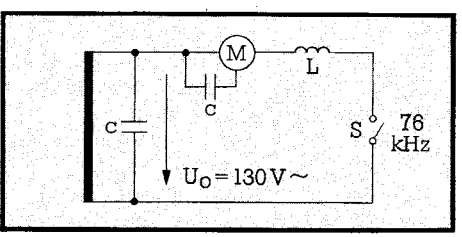
The traditional controls for AC spooling motors in Studer Revox recorders feature a regulating unit that consists of some sort of a variable dropping resistor which in this case is implemented by a power transistor. As far as efficiency is concerned, this proven design, however, has the disadvantage that at half load as much electrical energy is dissipated by the series resistors in the form of waste heat as is consumed by the motors for useful energy.

If we look at the energy balance of the spooling motors in a tape recorder, e.g. the model B67, we find that the conversion of 50 W into heat can be avoided.

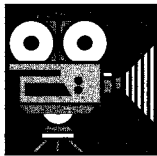
Operating-mode	Power			
	PM1	PR1	PM2	PR2
Spooling mode	100 W	0	small	small
Play	25 W	25 W	25 W	25 W
	└ avoidable ─┘			

The new studio recorder A810 features two low-loss switched regulating units for the two spooling motors. The 50/60 Hz AC voltage is chopped directly at the transformer output. The energy balance achieved with this design is excellent because no loss occurs from an intermediate DC voltage.

However, direct sampling of the AC voltage places higher demands on the electronic switch S, since in our case it must be able to handle higher voltages and process currents in either direction.



Capacitors C keep the switching frequency away from the motor and the transformer while the inductor L limits the switching current. The elementary diagram does not show the commutation elements which return the energy stored in inductor L. The power supplied (continued on page 6)



71st AES Convention in Montreux

Switzerland welcomes the world of audio

In the beginning of March, the second AES was held in Switzerland, the one in 1976 (Zurich) having been the first. Montreux, the renowned convention and cultural center located on the shores of Lake Geneva provided an ideal setting for an event of this type. It thus comes as no surprise that the 71st AES broke all European records as far as the number of visitors and exhibitors are concerned.



Technical talk over the 902 (Bruno Hochstrasser, SRAI/Peter Frigo, development)

The significance of this event was well worth it to us to build the largest Studer-exhibition stand that has ever been found on an AES. The planners were able to work with 108 m² of floor space which was subdivided into an exhibition area (72 m²) and a demonstration room (36 m²). Approximately 8 tons of equipment and documentation had to be transported to Montreux.

The stand which had been constructed in record time according to the plans and under the supervision of our public relations manager, Marcel Siegenthaler, finally took on a satisfactory look by midnight before the opening. However, not everything was going well in the demonstration room where the brand new PCM recorder objected to being transplanted to the Lake Geneva region. But after a night-shift of the PCM crew, everybody was happy by the time the exhibition opened.

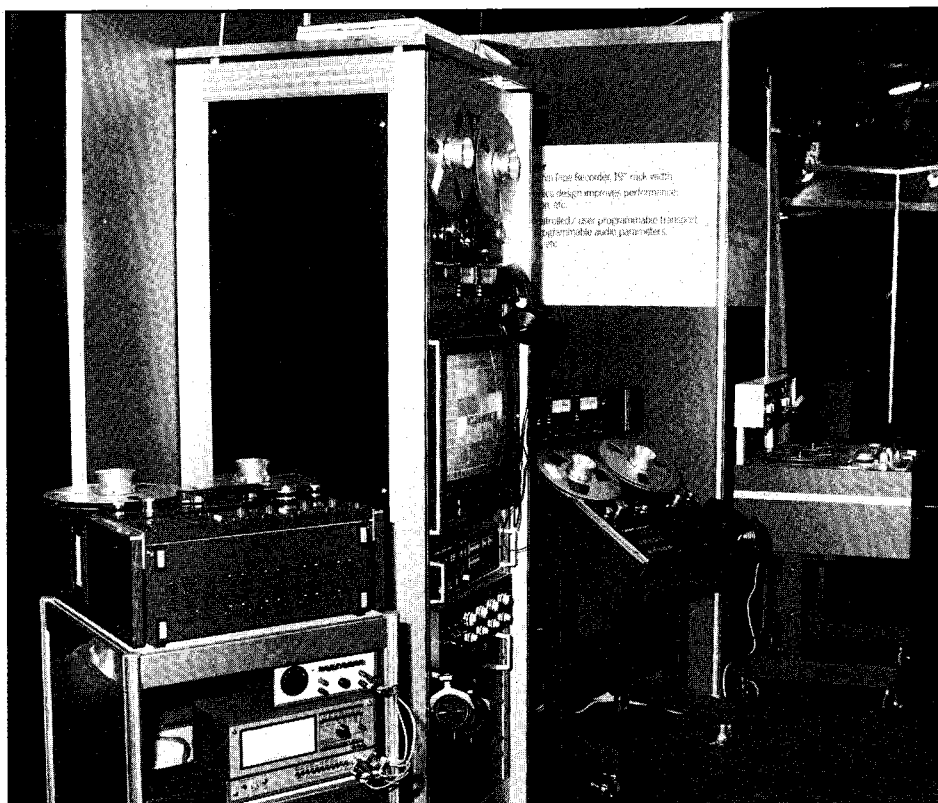
After the formal opening of the 71st AES, the numerous visitors were able to visit a Studer stand that presented not only proven products but also equipment for which this exhibition was a world premiere. In addition to the previously mentioned PCM recorder, the various versions of the A810 received strong attention. The Studer local studio in the new, elegant design was very well received. The success of the control desk 902 and its smaller version, the 901, which was also used in the demo room for mixing down the digital presentation, also contributed to the success of the exhibition. Jules Limon who was in charge of the CAMOS system, was rather optimistic about the market potential of the new automated broadcasting system which is based on the BASF Uniset® cassette. Especially the American visitors seemed to be highly interested. This comes as no surprise since the US has made the greatest progress in broadcast automation.

Eugen Spörri, managing director of Studer International, was well pleased with the excellent contacts that had been established, especially with repre-

sentatives from Far Eastern countries. The Chinese buyers are very quality-conscious; no contracts will be concluded without a fully backed after-sales service. Studer equipment has been in use in Chinese broadcasting and television studios before the doors to the West were opened.



China, USA and Switzerland at the same table: Eugen E. Spörri delivers information.



Shown at the first time the STUDER A810 was presented in operation in three different versions.

Concerning the market in the Far East, Eugen Spörri commented: "Even in the stronghold of audio technology, Japan, the market for Studer equipment is growing. In this market, the developments in the digital audio sector will certainly be the decisive factor in capturing future market shares."

In looking back at this exhibition we can conclude that our efforts were well worth it, because Studer was again able to strongly demonstrate its commitment to the future.

P.S. The fact that Studer equipment was also used on stands of many other manufacturers enhanced our presence and emphasized the confidence that is placed in our equipment.



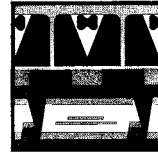
Sales symposium

In preparation for the AES Montreux, Studer International AG again conducted a sales symposium. More than 50 representatives from 26 countries on 4 continents accepted our invitation.

During the course of this meeting, a number of colleagues from WST and STI reported on various subjects. This symposium again demonstrated that a balanced combination of social events and of sessions of hard work is highly beneficial for the intensification of the communication between the staff of the parent company and the men "at the front".

STI's general manager, Eugen Spörri, commented: "One of the key advantages of a company of our size is the fact that the representatives throughout the world still have a clear grasp of the total situation. A sales symposium thus provides an informal forum at which successful and unsuccessful experiences in the various markets can be exchanged.

"However" so Spörri, "the Montreux symposium also showed that the present framework for such a convention no longer satisfies all requirements. Our product line has become to diversified for presenting the applicable information in such a concentrated form. For this reason, product related training will be required in addition to the regular courses. Our staff in the field should know that we are interested in their professional progress and success, and that we plan to do the utmost in preparing them for their work."



Guests



Paul Zwicky, WST, explains the CAMOS system.

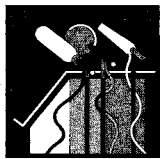
Within the framework of the AES workshops, a tour of the Studer headquarters in Regensdorf was offered. No less than 70 AES attendants from Europe, America, Asia, and Africa signed up for this visit. Two buses brought the guests to Regensdorf, located 220 km northeast of Montreux.

The visitors made their first contact with our company in the canteen where they were served Studer quality from its own kitchen. The tour of the factory got under way towards noon. After an introductory slide show, the visitors had a chance to tour mechanical production facilities, the tape recorder assembly operations, the test bays and the studio engineering department. At the end of the tour, at around 3.30 p.m. a refreshment was served to the visitors.

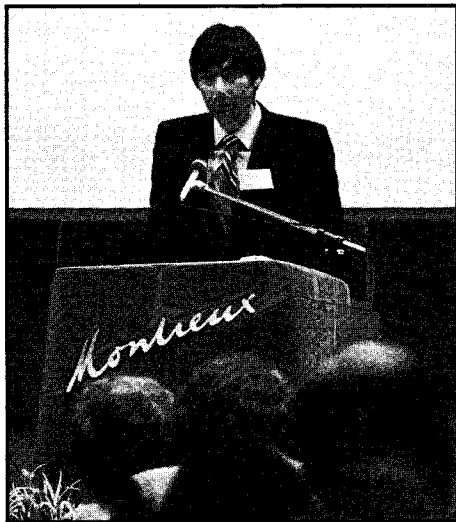
Many of the visitors who joined this tour found a confirmation of what they had only suspected when looking at or working with our equipment. The high quality image of Studer equipment is the result of serious development work over many years, high-precision manufacturing facilities, and testing bays – and a dedicated team of quality-conscious employees.

Our Italian distributor, Roberto Bepato, took the opportunity to introduce the Studer Company to his customers. On their way back from Montreux 45 guests took a considerable detour and also visited our headquarters in Regensdorf. Judging from the positive response, this group was also very impressed by what they saw.

Werner Schuler



Technical Meeting



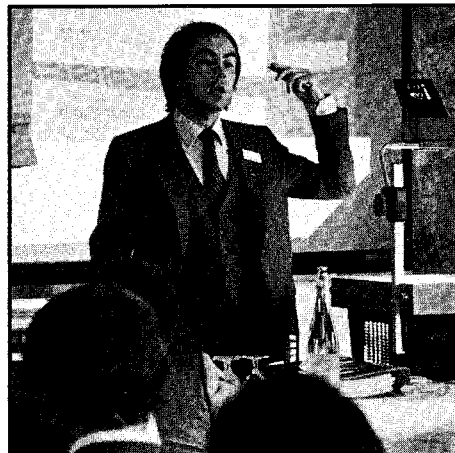
Peter Joss, STI, chairman of session B opens the technical meeting on studio techniques.

A number of Studer Revox employees also contributed to the AES symposium in Montreux.

André Bourget, for example, talked about new developments in audio recording and reproduction technologies based on the electronic circuits for analog recorders. In a second presentation concerning the recording of SMPTE time codes on 1/4" tape he covered technical aspects and applications.

In his presentation, Dr. Roger Lagadec discussed the professional 2-channel digital audio-sampling frequency converter SFC-16 and a digital (serial) interface for the connection of professional digital audio equipment.

With more than 300 interested listeners at this last presentation, a new attendance record was established.



Dr. Roger Lagadec: "Digital Audio is on its way but analogue isn't dead and buried yet".

Looking back:

NAB Convention in Dallas



The Studer Revox NAB crew, left to right: Chris Ware, Douglas Beard, Fred Layn, Renaud Delapraz, Thomas Jenny, Hans Batschelet, Joe Bean, Bruno Hochstrasser, William van Doren, Tom Mintner and André Bourget, who took the picture.

"I think it was absolutely excellent!" says Bruno Hochstrasser of Studer Revox America Inc. (SRAI), "This was our best NAB (National Association of Broadcasters) show so far, and we attracted more interest than ever before. During the entire convention our booth was crowded, even when other audio suppliers had relatively little attendance."

Studer Revox America was one of more than 460 exhibitors that were represented at the Dallas Convention Center from April 4 to April 7. According to the figures released by the NAB, more than 28 000 visitors were able to see the latest in radio and television engineering.

Despite space restrictions, the full range of Studer and Revox broadcast products were on display. Tape recorders were represented by the new A810, A800 24-track, A80 VU 4-track, A80 RC-2-PFMN-VU, PR99 console version, PR99 Reproduce-Only, B67 MKII, B77 super low speed logger, and the B710 cassette deck. A CAMOS System transport with controller, mixing consoles Series 900 and 269 and the Studer Telephone Hybrid with the new remote operating module were also exhibited.

"The new technology of the A810 had a tremendous impact", reports Hochstrasser. "The demonstration of the CAMOS system also generated far more interest than we had expected." Both products were shown for the first time in America at the NAB. Thomas Mintner, Broadcast Products Manager, found a very positive response to the A810's ability to put stereo and SMPTE time code on 1/4" tape. "AM Stereo broadcasts have been approved and stereo TV is on the

way," says Mintner, "so the A810's time code capability will prove very important in the coming months."

Studer and Revox products were also very much in evidence throughout the exhibit hall, with more than a dozen other manufacturers using our tape machines as part of their exhibits.

Summing up the NAB show, Hochstrasser stated that "our future is very, very bright in broadcast." He is optimistic despite the intense marketing efforts by competing firms in the audio field. "The competition is getting very stiff in the broadcast market," he says, "because the recording studio market has virtually dried up. At least that's the case for other suppliers, though it's not true for us. It seems there are still plenty of people who want to buy the best!"

Sam Borgerson

Cool control ...

(continued from page 3)

by switch S to the motor varies as a function of the mark-to-space ratio. For our application, a relatively high frequency of 76 kHz has been chosen in order to obtain sufficient separation from the audio range.

The only type of switching element that can achieve this frequency are FET transistors, especially in view of the fact that their switching time may only be a fraction of the 13.3 μ s that make up one switching period.

Arturo F. Stosberg



Enhanced for
automated broadcasting

PR99 Reproduce only

Our line of semiprofessional tape recorders PR99 has been extended by three 2-channel-reproduce-only models. The built-in "end-of-message" electronics (EOM) in conjunction with the proven design features of the PR99 family make these recorders eminently suitable for automated broadcasting applications.

The EOM electronics decodes inaudible 25 Hz modulation packets that are superimposed on the program. For the duration of these control signals, a relay and the EOM pilot lamp are activated. At the end of the signal, an additional relay is energized after an externally adjustable delay. The change-over contacts of these relays are taken to the interface connector. This connector is the key to highly flexible solutions for control functions.

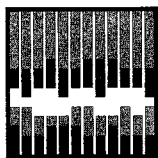
Depending on the model, the reproduce amplifiers are designed either for CCIR or NAB equalization. The treble equalization can also be adjusted on the front panel. Internal connectors are available for looping in 25 Hz band rejection filters for eliminating the EOM signals in the program to be played. Accurate external calibration of these filters is possible.

The line amplifier supplies the XLR line outputs and the interface connector with the required output level. Numerous signals are available at the same connector which continuously indicate the current status of the tape transport control.

With these features, the new recorders achieve a high applicational flexibility and thus can easily be integrated into any type of automated system.



Adjustable on the front panel: treble equalization and 25 Hz-filter circuits.



From the desk of Dr. Roger Lagadec

The long, long way to standards

The beginning of the era of digital audio suffers, as we all know, from either too many, or too few standards. Until recently, there seemed to be no clear trend towards any general agreement, but 1982 has already brought good news to the digital audio community.

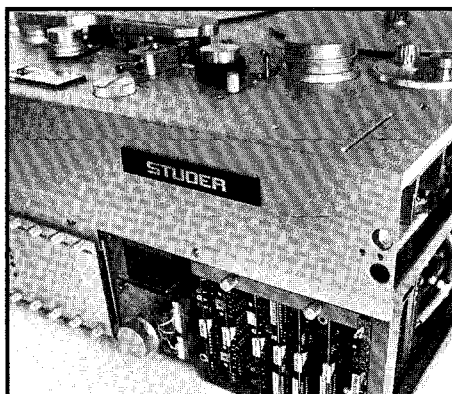
The issue of sampling frequencies – the very first, essential item to be standardized – had been the major stumbling block in all attempts at defining recommendations for future standards. After much behind-the-scenes activity, a consensus of sorts has emerged. Along with 32 kHz, the uncontested sampling frequency for broadcast program transmission, both 44.1 kHz (for applications directly related to the Compact Disc and other consumer products) and – good news – 48 kHz for professional applications will now have the support of almost all the major manufacturers and professional institutions. Incidentally, an essential reason for moving away from 50.4 kHz and adopting 48 kHz was the development by Studer of the digital Sampling Frequency Converter, for which the “simple” ratio of 7 to 8 between 44.1 and 50.4 kHz is of no interest whatsoever, as it can cope with any arbitrary value of the sampling frequencies.

Accordingly, the format for digital audio recording on stationary-head recorders supported jointly by Studer and Sony-MCI has received the slight, and welcome, modification of supporting 48 kHz instead of 50.4 kHz for professional applications. The digital recorder prototype introduced by Studer at the Montreux AES in March 1982 already demonstrated the – hopefully final – sampling frequencies of 44.1 and 48. Any news of more companies joining the Studer-Sony-MCI format? Not yet, but some large manufacturers have not yet publicly made up their minds on which format they will support. Come what may, it seems that a general agreement among the majority of professional manufacturers is just not yet possible, and that the market will decide.

In another area, that of the digital interface (the digital audio cable, to put it simply), the prospects are far more encouraging. A Studer proposal was presented with Sony at the New York AES fall 81, and also submitted to the European Broadcasting Union (EBU). At Montreux, a streamlined proposal by Studer and Sony emerged which incorporates

the amendments suggested by the EBU. Merging as it does the requirements of the recording industry and of the broadcasting community, the new interface proposal seems to have a very bright future indeed. The nightmare of building interfaces everytime different digital audio products have to be connected may some day disappear.

A forward-looking format for recording, the breakthrough of sampling-frequency conversion with a direct impact on the newly-formed consensus on sampling frequencies, and the leading role in working towards a future standard in digital interfacing; it all goes to illustrate that both the development of digital audio technology and its support via arduous but necessary standardization efforts have a high priority at Studer.

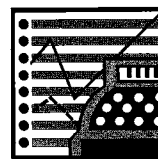


A80 RC special version for the BBC.

Morocco

As part of a development project financed by the Friedrich Naumann Foundation of Bonn/Germany, more than 3 tons of material have been supplied and installed in the new training center of the “Institut Supérieur du Journalisme” in Rabat/Morocco. This order included a number of studios (radio/TV broadcasting, recording, newsrooms, etc.) as well as mobile program units.

This center, built in cooperation with Philips (video) and in coordination with Studio Hamburg/Media Consult International (MCI) GmbH, is now open for training radio and television journalists in the handling of video and audio equipment. Since this center features a full complement of equipment, all functions encountered in practical operations can be taught.



Right on success

Studer worldwide

Italy

In the face of strong local competition, an order worth more than SFr. 3 Mio. was secured from RAI (Italian Broadcasting and Television). The predictable quality as well as Studer's responsiveness to the special features requested by the customer, were the main factors that spoke in our favor.

This order which includes 96 tape recorders A80 RC, 28 x B67, 4 x A80 VU 2/2, 4 x A80 VU-16 and 25 control desks type 169, 1 x 269, 1 x 369 with 32 inputs supplements the extensive range of Studer equipment already installed in the RAI studios (a large number of A80 RC and mixers).

Italy

Our representative, Audio International SRL (Roberto Beppato) again reports excellent orders from recording studios. Since Italy has its own, highly active music scene, private recording studios are normally fully booked. Adriano Celementano, for example, is one of our customers. He owns two STUDER A800 recorders with TLS 2000.

Great Britain

For the new short-wave broadcasting center of the BBC in the Bush House building in London, 56 special versions of the STUDER A80 RC were delivered in March 1982. These mono recorders, destined for the world-wide BBC Overseas Service, differ from the standard machines in that they are equipped with an additional fader. This modification makes it possible to cut the recorders directly into the program.

Chile

The University of Santiago will equip its new radio program studio exclusively with Studer products. Hans Schnetzer, a Swiss, who is our exclusive distributor in Chile, worked hard to convince the technical director of the University, Mr. Pacheco, of our superior quality (and fair prices).

The order, valued at SFr. 200,000 covers 1 STUDER A80 VU-8 (16), a control desk STUDER 269 16/8/2 and various accessories such as racks, amplifiers, autolocator, etc.



Peter Joss:

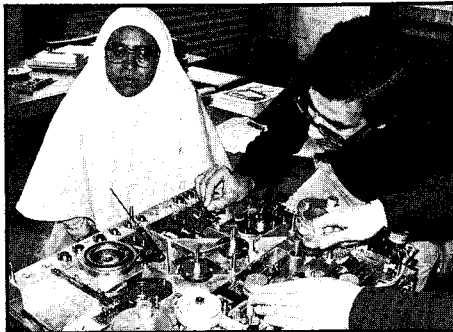
Customer training

Since the introduction of the famous Studer C37 tape recorder in 1960, the training program has been one of the key factors in maintaining close contact with our customers.

The goals of these training classes are the familiarization with the product and the dissemination of the technical knowledge required for correct maintenance. The expansion of our product line made it necessary to offer a broader choice and specialized classes. During 1981, Studer International AG conducted approximately 50 class weeks, of which 25% were offered in foreign countries.

Training at Studer has emphasized practical work from the beginning. A brief introduction of the design principles and step-by-step demonstrations are followed by "hands-on" work sessions. This "learning-while-doing" method is employed not only in our main facilities at Regensdorf, but throughout the world by the various subsidiaries.

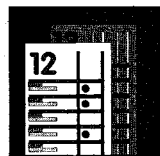
Our instructors are specialists who



To teach and to be taught – an investment for the future.

are at the hub of the information flow between the users, quality control, and development laboratory: the product engineers. They are qualified to pass on the latest technical information, from the customers' application requirements to quality assurance aspects. These product engineers are true partners, regardless of whether they are responsible for a new product or special features that are frequently developed during the long life of a machine.

By selecting instructors from among our responsible engineering team we aim to ensure that our customers will be well prepared for the successful use of their Studer equipment.



Coming events

1982 September 18-21: IBC Brighton, UK
International Broadcasting Convention
(F.W.O. Bauch Ltd/Studer International AG)

1982 October 23-27: 72nd AES Anaheim, California, USA

(Studer Revox America Inc., Nashville, USA)

1982 November 9-11: InterBEE'82, Tokyo, Japan
International Broadcast Equipment Exhibition
(Kawamura Electrical Laboratory, Tokyo, Japan)

1982 November: Symposia lasting several days introducing techniques and applications of new equipment will be held in the following cities: Seoul, Tokyo, Canton, Sydney und Singapore. (Studer International AG, P. Meisel/A. Bourget)

For Studer Service Engineers only:

Workshop/Seminar

We are intensifying the technical communication and coordination with our representatives and subsidiaries. For this purpose, at least one experienced field service engineer is expected to participate in a one week experience-sharing workshop at Regensdorf at the end of November. In direct contact with the product management they will have the opportunity to receive first-hand information about new technologies and products and to discuss technical questions of current interest.

Peter Joss

... in brief ...

★ We change residence: during september we will move to new and more appropriate premises at the Althardstrasse 10. The phone and telex numbers remain the same.

★ The winners of Pro Sound News' "4th Annual Recording & Sound Awards" in the categories of pop, country, and jazz all record on the STUDER A800. (PSN 3/82).

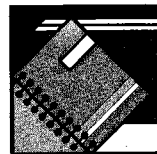
★ New products from Revox: B791 record player with quartz controlled vari-speed, Shure Tracer pick-up, and options for cueing and faderstart. B710 MKII cassette deck with Dolby® B/C. Speakers Forum B and Plenum B.

★ Right in front: at the "COPA DEL MUNDO DE FUTBOL ESPAÑA 82 Studer was in charge of sound. More on this in the next edition of Swiss Sound.

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Soccer-Worldcup in Spain – sound by Studer.



From the printers

18.196.282 **PR99**, Service Instructions (d/e/f)
18.492.882 **PR99**, Leaflet (e)
23.251.882 **TLS 2000**, Service Instructions (d/e)
23.262.482 **TLS 2000**, Operating Instruct. (d/e)
23.339.282 **A80 RC MKII**, Leaflet (e)
23.352.282 **A810**, Leaflet (e)
23.814.282 **SFC 16**, Prel. Product Information (e)



No sound without echo Feedback



This was the very first Swiss Sound ...!

A magazine can only succeed if it can effectively communicate with its readers. Communication, however, must not be understood as a one way street, i.e., the readers should actively participate.

Although it is possible to publish a magazine in a total vacuum (as evidenced by this first edition), it can easily miss its target and, in the long run, will hardly satisfy its readers. We therefore have reserved a section for your comments and criticism which we gladly accept in any form.

Last, but not least, "Swiss Sound" should also be a forum that is open for your problems and communications – to the extent that they are of interest to a wide circle of readers.

We look forward to responding promptly to your feedback.

Please mail your letters to:
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