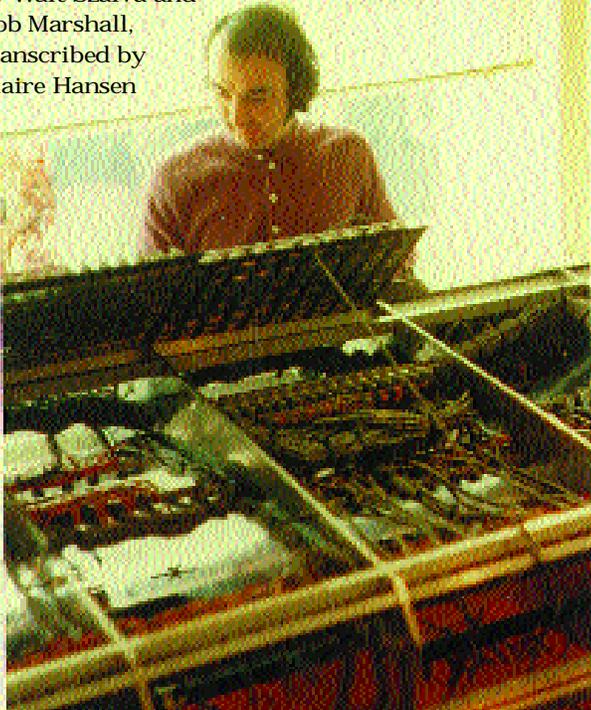


# Malcolm Toft

by Walt Szalva and  
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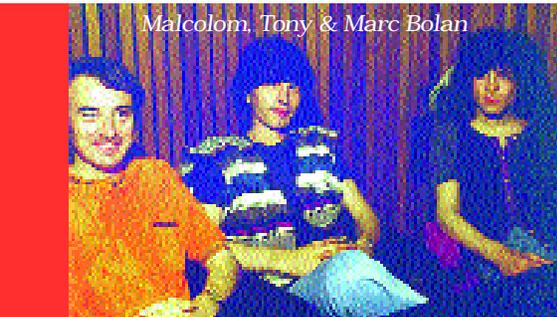


In terms of recognition, Malcolm Toft's name is not as familiar within the pro audio world as, say, Rupert Neve's. However, there is a rich history involving the man who is the co-designer of the Trident A Range, the Series 80 and, more recently, the Trident/MTA Series 980 recording consoles (among quite a few others). In addition to contributing to the "British Sound", all of these desks have been used in making countless records with artists ranging from David Bowie to Radiohead. We sat down at Planet-3 Audio in San Francisco and talked to Malcolm over some really strong coffee while he was in town to commission our recently installed Series 980 console.



**Walt: So, what is it that drew you into the mad, yet rewarding world of recording?**

I started off as an engineer in the mid-'60s and joined CBS studios in 1966 as an engineer working on 2 and 4-track - and joined Trident studios in 1968 when they opened their doors. I met the folks at Trident at a party they were having, and they offered me a job. At that time they had the only 8-track studio in England, in all of Europe actually, an Ampex AG440. And the kind of unique thing about that was the fact that since it had a 60 Hz American motor, we could only run on English 50 Hz so it ran on about twelve and a half, thirteen inches per second, which was kind of unusual. So we couldn't, of course, align the tape. But that really didn't matter because we were recording and mixing since nobody else had an 8-track recorder. I don't think any of us knew, when Trident opened the doors, that it was going to be, associated with so many famous artists. When I joined Trident I hooked up with a producer who'd just come over from New York called Tony Visconti, and he was kind of learning his craft, trying to make his way. He'd come over at the behest of a guy called Benny Cordell, from Essex Music Publishing Company in the UK. The first day we worked together he said to me, "What's your star sign" over the talk back, and I said, "I'm a Taurus", and he said, "I'm a Taurus too. Let's work together." And that's what we did for about three years. And we worked on all of the early T-Rex albums together before they went electric. The weird ones like *They Were Fair and Wore Stars in Their Hair*, *Seers, Prophets of the Ages*, things like that. And we also worked with David Bowie on his first album.



Malcolm, Tony & Marc Bolan

**Walt: Space Oddity?**

Yes, *Space Oddity*. The single was done at Trident Studios. I didn't record that. Barry Sheffield engineered that. But I did one side of the album and Barry did the other side of the album with David Bowie. After that I worked with Peter Asher producing James Taylor's first album, the one he did for Apple. Paul played bass on that, so I got to meet Paul McCartney. I also engineered a record called "Those Were the Days" by Mary Hopkin. I don't know if anybody remembers that, but it was a major hit in England, and again, it was produced by Paul McCartney. Later on we were very fortunate when Trident was the studio the Beatles chose to record "Hey Jude" in, and the reason for that was they had just come out of doing *Sergeant*

*Pepper's...* which was done on two 4-track machines which they had to hand slave together, which was quite a difficult task. Since we had 8-track and by this time we were earning ourselves quite a reputation, the Beatles came to Trident and recorded "Hey Jude". I was fortunate enough to be the mixing engineer on that. Later on Trident got into doing Elton John's first album. They also discovered and managed Queen. I mean, it was just, you know, the Midas touch. We did just about every major act in the UK at Trident studios, apart from, possibly, the Rolling Stones.

**Bob: So Trident actually managed and discovered Queen?**

Yeah, Trident managed and discovered Queen. The deal was that Roy Thomas Baker and Ken Scott, two of the engineers there, wanted to get into production. In 1971 I became manager of the studios, and Roy took over engineering from me and I was a bit miffed because the first session Roy did was "Ride a White Swan" by T-Rex, and I missed engineering it by about two months.

**Walt: That song was a big hit, wasn't it?**

That was really T-Rex's first major hit that broke them.

It was when Mark went electric, went into electric guitar. I mean Tony Visconti had been trying to get Mark to go electric for two years when I was engineering, and it was all this weird, eclectic, you know - tabla drums, finger cymbals and weird sort of stuff sitting cross legged on the floor. Anyway, Roy Thomas Baker came on board and he had been there about a year and it was Ken Scott who was engineering. He had taken over from Barry Sheffield, one of the original owners who'd been engineering, and they both wanted to get into record production. They both wanted to move on from being engineers to being producers.

**Walt: Don't we all?**

Well, that's right. And so they set up a company called Trident Audio Productions, or TAP which was to be the vehicle for these guys to get into producing, and the next thing, of course, was to find suitable acts to produce. I remember very clearly Barry Sheffield coming up to me and saying, "Hey, come up and look at this band we've just signed to TAP." And we jumped into a cab and drove over a theater and there was Queen on stage, you know, sort of going through their paces at about 110 decibels.

**Bob: What year was this?**

It might have been about 1972 or 1973. They were signed to Trident, and they basically hung around the place for the next year or so recording their first album. Every time we had a Trident Christmas party for all the staff, they'd wheel out Queen, do a couple of numbers and then disappear off. In fact, when I started building consoles, we were in a factory in North London, which was part of the Trident group, and Queen used our factory to rehearse in the evening after we'd finished. About 6 o'clock Queen would come up with their amps and everything. Once they started to get big they were too much for Trident to handle, and the

management was sold to John Reed, Elton John's manager, and the publishing rights were sold to EMI, which was a pretty good deal for Trident in those days. Pretty much all of the producers that were around at that time used Trident Studios. Glyn Johns used Trident Studio an awful lot, so did Eddie Kramer.

**Walt: So when did you begin to get into designing consoles?**

Well, I engineered till '71 and I became manager of the studios. We made the transition up to 16-track, and wanted to go from 16 to 24 and needed a fully featured 24 channel console. I'd always been interested in the electronics side of things, I'd always had this Holy Grail of building my own mixer. We had a technician at Trident Studios who I hung around with, and he'd help me on my little project of trying to build a mixer. His name was Barry Porter. Barry Sheffield and I went to a meeting with Neve to discuss a new console for the studios, and we sat around with all their engineers. We were telling them what we wanted, like equalization on the monitor section, and the frequencies we wanted for EQ and everything else. These were sort of unusual features for the time, and nobody at the meeting questioned why we wanted these things. We didn't come away from the meeting with a really buoyant feeling, and I said to Barry afterwards, "I don't think we're going to get from Neve what we really want." And he said, "No, I think you're right. A) I think they're not really understanding what we want as recording engineers, and B) I think the console's going to be pretty expensive, and C) I think it's going to be physically too big." One of the problems we had at Trident was the control room was very small. It was, I guess, about 16 foot wide by only about 16 foot deep. It was not very big, and in fact the console was up on a riser. So when we were looking for the 24 channel board we really had to cram an awful lot into a small space, and we just felt that Neve weren't going to come up with anything that would work in such a small amount of space. And sure enough, when the drawing came back the thing was humongous, so it really made it a non-starter. Plus it was only 16 busses because Neve had never done a 24 bus console before, they didn't have the monitoring we wanted, etc. We really were left with very few choices. So I thought about it and I said to the management, "Why don't we look at building our own console?" We had all of the in-house knowledge and I'd already done some electronics from a design on a little mixer for myself. I felt Barry Porter had the necessary technical ability to design a console. If they felt it was a good idea, I would oversee the systems design and management of the project. After a lot of discussion and heavy lunches we decided that would be a route to go. Barry and Norman Sheffield, the owners of the studio, said okay, you can virtually take a year out of what you're doing, take a room up on the top floor and you can design

this console for Trident Studios, and that was how the Trident A Range came about. It was not a console built for mass production or mass sale, it was built as a one-off purely for Trident Recording studios. Of course what happened was that whilst we were building it, being a studio of some note, clients were very interested in what we were doing.

me laying out the systems and designs and Barry coming with an equalizer based around the frequencies that were chosen by myself, by Roy Thomas Baker, by Ken Scott, by Barry Sheffield. What we would do is build a bread board of that equalizer, take it down to the studios, maybe plug it in to a channel during a session so that Roy could

the father of British EQ. I mean, if anybody is the father of British EQ, it's Rupert Neve. I think British EQ has got its name because of the manufacturers who are around. If you look back historically, most of the major desk manufacturers who have enjoyed a long life have been British. You've had Soundcraft, Amek, Solid State Logic, Trident, DDA, Neve of course, Calrec, Helios... you've got Allen and Heath, Studio Master. API's about the only American company that I know of who's been going on as long as, say, Trident have been. And it's just a factor. I don't know what makes British EQ other than what makes the fact that there have been more British manufacturers - ergo, if there are more British manufacturers of consoles and therefore people must have liked the EQ - otherwise the console manufacturers wouldn't have been in business. A lot of the American manufacturers like Sphere or MCI, for whatever reason have come and gone. British EQ comes out of British music. I'm sure of that. I really think it does. You've got all these artists around in the '60s and '70s, which is where the British EQ thing all started, and we were all sort of making do with what we got. The Glyn Johns of this world, the Eddie Kramers of this world - a lot of good engineers. But they seemed somehow to have more input to the manufacturers than maybe the Bruce Swedens, the Bruce Botnicks, the Tom Dowds seemed to have. Geoff Emerick talked to Rupert Neve at Abbey Road a lot. Did Tom Dowd ever talk to Jeep Harned at MCI? It was a different kind of mentality and a different way of being driven.

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*“Then he'd come back, and in typical Roy fashion, say it was either too scrunchy or too scratchy or something like this, and it needed changing. We'd modify it and listen to it again. It was all designed around our ears - it wasn't designed around test instruments and everything else.”*

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They'd heard about it, we obviously told people we were going to be building a new console, so there was a lot of interest in it. A couple of people came up to see the console with a genuine interest in perhaps having one built for them. Before long we had several people who wanted to buy consoles from us. So I went back to Trident management and I said, "Why don't we think about setting up a company to produce consoles?" So they thought about it and said, "Well, if it keeps you busy and there's some potential in it, yeah, we'll do it." So we set up Trident Audio Development, Ltd. as an offshoot from Trident Studios. We installed the console in the main studios, not, obviously without some problems and teething troubles and everything else, but I think all things considered, we did a reasonable job. It took us just over a year to design and install the console, probably another three or four months to debug it, but we kept everything going, and that was the birth, really, of the A Range. Things just went on from there - we never stopped. It wasn't a question of having to market or sell the company - people knew the Trident reputation, the Trident name, and it just took off from there. One of the things that actually happened very early on was that we got taken very much to the hearts of the American studios. I went out to an AES convention in New York in 1974, I believe it was, armed with a Trident A Range module. I took it in my suitcase - we weren't exhibiting or anything else and literally went around to booths. I didn't know quite how to handle it - I was looking for somebody to maybe handle the products in America. Before long I had people actually banging on my hotel door saying are you really from Trident Studios, how'd you get the Elton John drum sound, is this a module from the console? Later on, we sold our first B Range to a studio in Los Angeles called Davlen, which I think is now Larabee, and it just took off from there. I would say that the history of Trident is based on the fact that we were recording engineers, we weren't really electronic engineers. The whole thing we designed primarily using our ears. We designed the equalizer for the A Range. It wasn't designed solely by me, and it wasn't designed solely by Barry Porter. It was

try it out and listen to the sound of the EQ. Then he'd come back, and in typical Roy fashion, say it was either too scrunchy or too scratchy or something like this, and it needed changing. We'd modify it and listen to it again. It was all designed around our ears - it wasn't designed around test instruments and everything else. Although we took that into account, and Barry was very careful to make sure that distortion was as low as possible, that was his Holy Grail. We did get good frequency response from the console. But in those days we didn't have the equipment to actually look at EQ curves. We could try and plot them by hand, but it would be very laborious. Of course we had no ways of measuring phase shift, the effects that inductors and transformers had on the curves. It was done again by listening tests mostly, and it was only many years later that we learned that the EQ has quite horrendous phase shift and coloration. Of course it doesn't matter, and it still doesn't matter to this day because it's what imparts the sound. To that end the A Range was a totally unique piece of equipment. It's kind of a cross between a Pultec and a Neve module, really. It was all discrete circuitry of course. In those days, that was the only way you could do it. Parametric EQ hadn't been invented - it wasn't possible with the devices that were available and the circuits that were available then to actually do a sweep-able EQ. Everything had to be switched. That's what made that type of product quite unique. We didn't know at that time that we were designing a product that would end up as being "legendary". It originally just started off as being for our own studio. Our slogan in the early days when we launched Trident Audio was "Recording equipment designed by engineers for engineers." Then the next console to be revamped was the B series console, and the series 80 was a replacement for that. That was designed in 1979. And we called it series 80 because it was a console for the '80s.

**Walt: So, let's cut to the chase: Are you the father of "British EQ", and what would you define as "British EQ"?**

Well, to tell the truth, I think that the term "British EQ" was thought up by some marketing wonk or something. I definitely wouldn't begin to call myself

**Walt: So, how did Trident evolve into Trident MIA?**

Just giving a lineage. I mean, we've talked about the A series, the TSM, the series 80. Trident also developed a lower range of products. We started off in '76 with the FlexiMix range which was aimed at, I guess you wouldn't have called it then, but I guess it was a project studio range. That was our first low-cost console, and it was born out of a requirement that Queen had for a live theater console, a live console. One thing they said is that they wanted to be able to sort of expand the console and also be able to handle sub-grouping a lot better than the available consoles did at that time. We developed the FlexiMix with them in mind - and it was called FlexiMix because it had a very flexible input structure. From there we changed it completely into the TriMix, which was more of a serious console. It had the nice ash sides, and the connectors were on the back, and it looked very nice, a nice looking little console. It was a brilliant mini version of the series 80. Then that evolved into the series 65. That again was an evolution of the TriMix. It was a smaller module, more of a studio type thing. It had 8, 16, even 24 busses. We developed that into the series 24, which was a dedicated 24-bus version of the series 65 module. You could buy that in a frame with a patch bay, and that was quite a nice little studio desk. Well, eventually I decided to get out. The company got

some outside investors and I was unhappy with the fact that the design direction was not utilizing some of the key characteristics of the Series 80. I had an agreement when I sold the company that I wouldn't compete for 3 years, which I held to. Then in 1992 I received a telephone call from somebody in America who'd worked for Trident as a distributor. He asked me what I was doing and happened to say in the conversation that they were not making the series 80 anymore. Trident, they weren't interested in it, but there was nevertheless a heavy demand for it and had I thought about making a replacement? I missed the actual manufacture and design side of things, being involved in a service company isn't quite as fulfilling as actually creating something. I wasn't creating. He asked me if I would consider doing a design for such a console, whereupon I said yes, I would look at it. On my computer I sketched out the front panel layout of a console I saw as a replacement for the series 80. I rather jokingly called it the series 980 because we were in the '90s now. I faxed him out this drawing and really didn't expect to hear much more of it. He kept phoning me and asking about features and facilities, and I said, well, I don't know, I've just done you some drawings. I have no idea how big it's going to be or what sort of metering it will have, but it will look pretty much like a series 80. Some 14 days later I got a call from him saying I've sold a console to somebody in Florida who is going to send you some money. And I said, well this is ridiculous - he doesn't know me. And he said, oh, he does, he knows your name and your reputation, and he's sending you over a deposit. Shortly after that another 2 weeks went by and another deposit came through for another one of these consoles. I said I guess I'd better start forming a company. So I stopped doing the finance and leasing and set up a company. That was really the story of the birth of the series 980 as a replacement for the Trident series 80. So anybody using the 980 will feel at home if they've used the series 80 because it's a split monitor console. But it benefits from modern day changes. I mean it would be no good in just reissuing the series 80 because nowadays the range of EQ is not sufficient for a lot of people. It's one of the few consoles, because it's a split monitor and because of these features, that you can use for both tracking and mixing perfectly well. I've been very gratified by the success and also extremely gratified by the fact that people are using it, and it sounds every bit as good as the series 80. In

most cases it actually sounds better because we've got the wider range of EQ, we've got more overlapping frequencies, we have full 4 band sweep over peaking EQ going right down to 40 Hz and up to

15 kHz. You know the 15 kHz extends up to over 30 kHz and a 40 Hz goes right down to sub harmonics. It gives a lot of air at the top end and a lot of real deep bass at the bottom end.

**Walt: Yeah, when I was researching the Series 980, I talked to Michael Deming of Studio 45 about his Series 980 and I didn't realize that he had one of the earliest consoles that you had built.**

It's about console number 3. He bought it from us after we showed it for the first time in New York in 1993. He's done a lot of records on it. He did the Lilys and a whole load of stuff on it. Then about 5 years ago Radiohead purchased two consoles from us. One for their own studios, Courtyard, which produces Supergrass and many other bands - and Radiohead bought one for themselves as well which they flight cased and they used for the recording of *OK Computer* and also for their latest albums [*Kid A* and *Amnesiac*]. It's now installed in their new studio.

**Walt: That's quite a bit of credit for the 980, things are definitely happening.**



About a year ago, we got speaking to the people at Joemeek. I've known Ted Fletcher for many years. Ted had also been a console designer in the past, and we were both looking to expand our businesses, basically. We possibly wanted to look at ways of increasing our market share, of increasing our marketing effort, etc. Not only with our consoles but also with the peripheral items that we made, such as the Intermix 16 channel mic pres and EQs, etc. So at an exhibition I started talking to Ted, and we followed that discussion up. Ted suggested that we actually become part of the Joemeek group. Since that time we've also looked back over the product range and decided what we wanted to do, and decided that an important part of my history is Trident. I was rummaging through old paperwork and realized that I still had all the original circuit information for the original Trident A range equalizer and input module. I took the drawings to Ted - and we had a look at it and decided that it was perfectly feasible to reissue the Trident A range equalizer, but using more modern construction techniques. I left Joemeek (very amicably) at the beginning of September to pursue my own interests, which are mainly my studio and various consultancy projects. ☺

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