

# TIMELINE OF TECH

The SOS team choose some of their highlights from the history of modern music technology.



**Tascam Portastudio 144 (1979)**  
the world's first 4-track recorder based on a standard compact audio cassette tape



**MIDI (1983)**  
the communication protocol that changed everything!



**Fostex A8 (1981)**  
the world's first quarter-inch 8-track



**Fostex B16 (1983)**  
the world's first half-inch 16-track



**Sound On Sound launched (1985)**  
the world's best recording technology magazine



**Steinberg Pro 24 (1985)**  
the first widely adopted MIDI sequencer for Atari



**Atari ST (1985)**  
the first computer with a built-in MIDI interface



**AKG C1000 (1986)**  
affordable capacitor stage microphone with a convertible polar pattern and alternative phantom or battery power



**Akai S900 (1986)**  
12-bit multitimbral sampler with 11 seconds full-bandwidth sampling time

1979

1987



**Roland TR808 (1980)**  
popular programmable drum machine that sounded nothing like drums



**Linn LM-1 (1980)**  
the first drum machine to use digital samples



**Emu Emulator (1981)**  
8-bit keyboard sampler



**Fostex X-15 (1983)**  
the battery-powered 'portable studio'



**Digidesign Sound Designer (1985)**  
the precursor to Pro Tools



**C-Lab Creator (1986)**  
powerful, sophisticated MIDI sequencer for Atari



**Yamaha DX7 (1983)**  
a new palette of synth sounds via frequency modulation



**Yamaha DMP-7 (1987)**  
the first 'affordable' digital mixer — with motorised faders







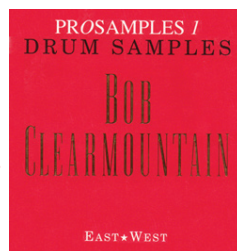
**Sony R-DAT (1987)**  
short-lived two-track  
digital cassette format



**Kawai K5 (1987)**  
digital additive synthesizer



**Focusrite Forté (1988)**  
arguably the pinnacle of analogue console design



**EastWest (1988)**  
high-quality  
commercial drum  
samples collection



**Korg M1 (1988)**  
keyboard workstation that  
became the top-selling  
digital synth of the era



**CD-R specification  
published (1988)**

1987



**Alesis HR16 (1987)**  
the first 16-bit drum machine



**Sony erasable,  
rewritable 5.25"  
optical drive (1987)**



**Akai MPC60 (1988)**  
MIDI sequencing and  
sampling hardware with  
performance pads —  
designed in conjunction  
with Roger Linn

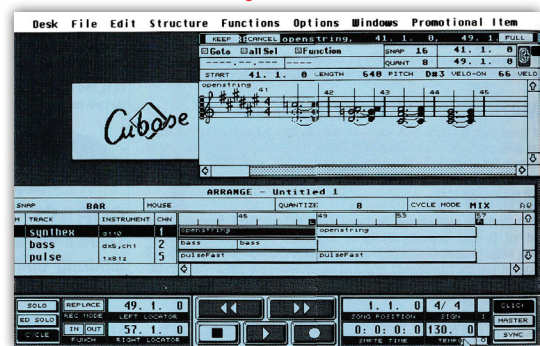
**Roland D50 (1987)**  
a new palette of synth sounds  
using sample playback combined  
with digital synthesis



**Tascam MSR24 (1989)**  
one-inch 24-track  
tape recorder



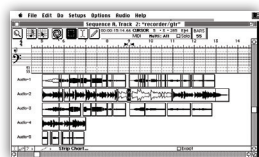
**Digidesign Sound Tools  
(1989)**  
computer-based  
stereo audio editor



**Steinberg Cubase 1.0 for Atari (1989)**  
a new paradigm that all sequencers/DAWs would follow







**Opcode Studio Vision (1990)**  
first integrated MIDI  
and audio recording software



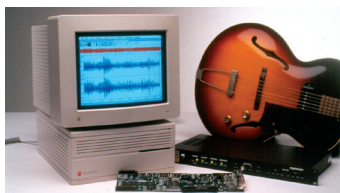
**Yamaha DMR-8 (1990)**  
integrated digital mixer  
and tape-based digital  
multitrack recorder



**CEDAR system (1990)**  
digital de-noise processor



**Mackie CR1604 (1991)**  
rackable high-  
quality analogue  
mixer



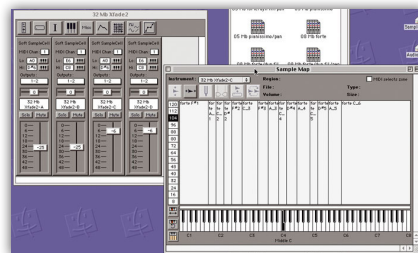
**Digidesign Pro Tools version 1 (1991)**  
4-track computer-based digital  
recorder/editor



**Sony release MiniDisc format (1992)**



**Fraunhofer Institute  
releases first MP3  
encoder (1994)**



**Digidesign SampleCell (1994)**  
first computer-based sampler



**Waves L1**  
look-ahead limiter plug-in (1994)

1990

1995



**General MIDI standard  
(GM) established (1991)**



**Roland JD800 (1991)**  
a synth with knobs  
and sliders once  
again!



**Roland SC55 (1991)**  
first General MIDI 'Sound Canvas' module



**Genelec 1031A (1991)**  
compact active  
monitors



**Alesis SR16 (1991)**  
the world's best-selling  
drum machine



**Alesis ADAT (1992)**  
16-bit 8-track digital recorder using  
Super VHS video cassettes



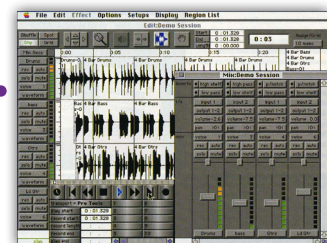
**Novation Bass Station (1993)**  
compact monophonic bass synthesizer



**CEDAR CR-1 Decrackler (1993)**



**Studio Electronics SE-1 (1993)**  
first new analogue synth since 1984



**Pro Tools III (1994)**  
with 888 interfaces and TDM plug-ins



**Creamware TripleDAT (1995)**  
computer-based recording system







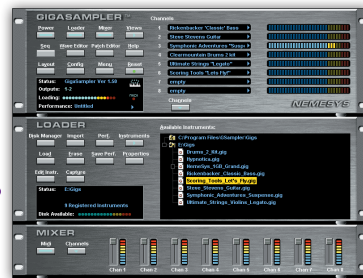
**Yamaha 02R (1995)**  
high-performance compact digital mixer



**TC Electronic Finalizer (1996)**  
multi-band digital compressor



**Steinberg VST Software Development Kit (1996)**  
for VST plug-ins



**Nemesys Gigasampler (1998)**  
first software sampler to stream from hard drive



**EastWest Ultimate Piano Collection (1995)**  
the first multi-velocity sampled pianos



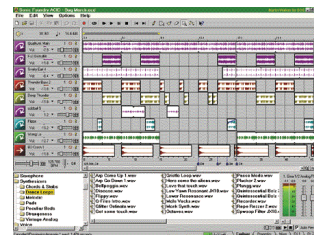
**USB developed (1996)**  
by Compaq, DEC, IBM, Intel, Microsoft, NEC and Nortel



**Native Instruments Generator (1997)**  
modular software synth



**SOS web site & forum go live (1998)**



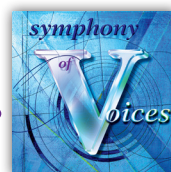
**Sonic Foundry ACID (1998)**  
Audio loops containing tempo and key information for pitch transposition and time-stretch/compression



**Yamaha CD-R100 (1995)**  
first affordable (4x speed) CD burner



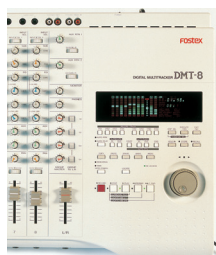
**ASIO low-latency driver (1997)**  
format established



**Spectrasonics Symphony of Voices & Vocal Planet (1998)**  
the world's largest compilation of vocal samples

1995

1999



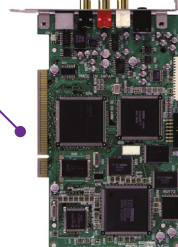
**Fostex DMT8 (1995)**  
hard-disk-based digital multitracker



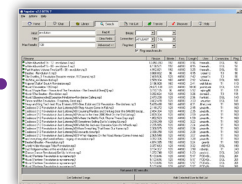
**Propellerhead Rebirth RB338 (1997)**



**Antares Auto-Tune (1997)**  
digital pitch correction software



**Yamaha DSP Factory & SW1000XG (1998)**  
02R digital mixer & AWM synths ported to PCI card format



**Napster launched (1999)**



**Focusrite d2 equaliser & d3 comp/limiter (1995)**  
the first software plug-ins to emulate both the processing and look and feel of a piece of hardware

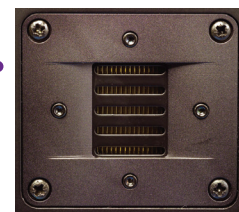


**Mackie HUI (1997)**  
control-surface protocol established by Mackie & Digidesign

**Royer R-121 (1997)**  
spearheaded the revival of the ribbon mic



**Line 6 Pod (1998)**  
guitar-amp and speaker modelling hardware



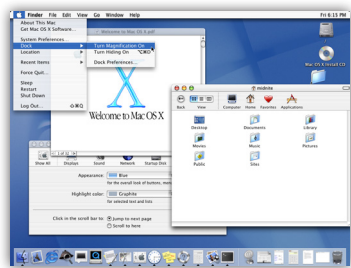
**ADAM Audio (1999)**  
first studio monitors to use Air Motion Transformer tweeter



**Sony DRE-777 (1999)** convolution reverb







**Mac OS 10 (2001)**  
Apple operating system launched



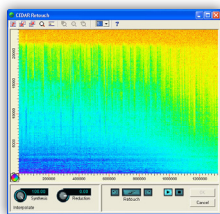
**Ableton Live (2001)**  
a DAW with a different approach



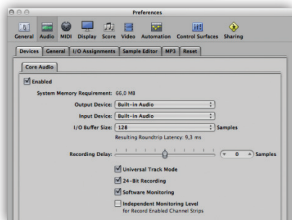
**MOTU 828 (2001)**  
first FireWire multi-channel audio interface



**Spectrasonics Trilogy (2002)**  
the first virtual instrument dedicated to basses



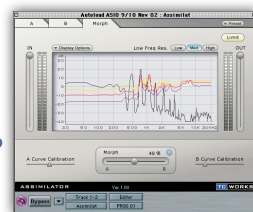
**CEDAR ReTouch (2002)**  
spectral editing software



**Core Audio (2003)**  
introduced in Mac OS 10.3



**EastWest Symphonic Orchestra (2003)**  
first surround-sound virtual orchestra



**TC Electronic Assimilator (2003)**  
'match EQ' plug-in for TC's Powercore DSP platform



**SSL AWS 9000 (2004)**  
integrated analogue mixing console and DAW controller

2000

2005



**iPod & iTunes launched (2001)**



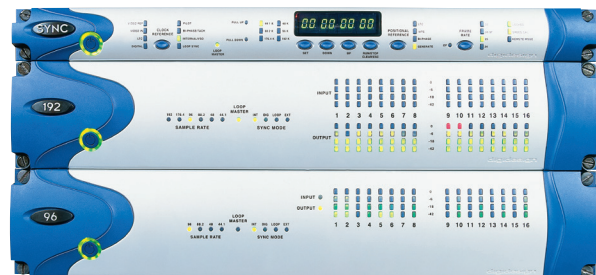
**Apple acquire eMag (2002)**



**Toontrack Drum Kit From Hell (2002)**  
multisampled software drum instrument



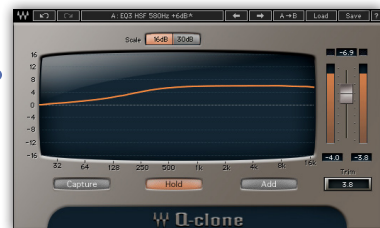
**MySpace (2003)**



**Digidesign Pro Tools HD hardware (2002)**  
Pro Tools HD took advantage of the continuing advances in DSP technology, better converters, higher sampling rates and improved clocking techniques to become the most widely used hard-disk-based digital audio workstation in music and post-production



**Focusrite Liquid Channel (2004)**  
a combination of analogue and digital technologies to emulate classic mic pre and compressor designs



**2005 Waves Q-Clone (2005)**  
plug-in to capture/impose the EQ response of outboard gear



**Acustica Audio Nebula (2005)**  
native-powered 'dynamic convolution' processor







**Focusrite Liquid Mix (2006)**  
convolution-based computer  
add-on for hosting compressor  
and equaliser plug-ins



**Apple introduce the iPad (2010)**



**Behringer X32 (2012)**  
affordable 32-channel  
digital mixer



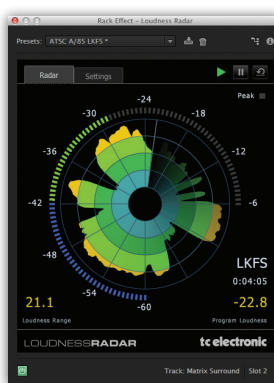
**Avid HDX (2012)**  
Avid's Pro Tools HDX cards offered a  
huge performance boost compared  
with the previous generation of DSP



**sE Electronics Reflexion Filter  
(2006)**  
standmounting acoustic  
screen for microphones



**Sound On Sound Brazil  
Edition launched (2010)**



**ITU-R BS.1770-3 (2012)**  
loudness standard published



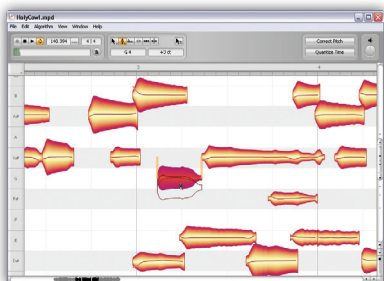
**Slate Digital's Virtual Tape  
Machines (2012)**  
analogue tape simulation  
plug-in

2006

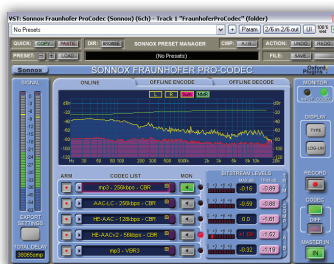
2015



**Slate FG-X Virtual Mastering Processor (2009)**  
loud mastering plug-in that retains transients



**Celemony Melodyne DNA (2009)**  
independent editing of individual notes  
within chords and polyphonic recordings



**Sonnox Fraunhofer Pro-Codec (2011)**  
plug-in to monitor the effect of audio  
data compression



**Thunderbolt (2011)**  
connectors appear on Apple computers



**SOS India web site goes live (2013)**



**Audiomix ADX Trax Pro (2014)**  
vocal extraction software



**Microsoft Windows 10 (2015)**  
updates the OS's MIDI and audio support

These are some of the SOS editorial team's personal highlights from the last 35 years or so. Of course, home recording existed before the Portastudio came along, but in terms of wider participation in the activity, that's not an unreasonable place to start.

The list is not intended to be, and in practice could not be, exhaustive, and we acknowledge that many other manufacturers and products made a significant contribution to the world of music technology. A big 'thank you' is due from us to all of you.

