
DJing Beyond the Turntable

André Pang

`ozone@algorithm.com.au`

January 12, 2004

(this presentation's resemblance to chaksem is strictly not coincidental) — that one's for you, jaq

Traditional DJing



... but records suck

Disadvantages:

- Big
- Heavy
- Not durable
- Big
- Heavy
- **BIG**
- **HEAVY**



Modern DJing



Really Modern DJing



(and maybe)



Why are Turntables better?

User Interface:

- Fast, precise, easily accessible: *seeking, pause, unpause, pitch control*

Really Really Modern DJing



Upping the Ante

Improving on Turntables:

- What if we can achieve faster, more preciser, more easilier accessibler *seeking, pause, unpause, and pitch control?*

Learn a lesson from compilers:

- Ahead-of-time is usually less complex than just-in-time
- i.e. Plan the next mix while the current song is playing
Non-scary term = “Timeshifting”
- Impossible with turntables

User Interfaces for DJing

“Real-world” interfaces:

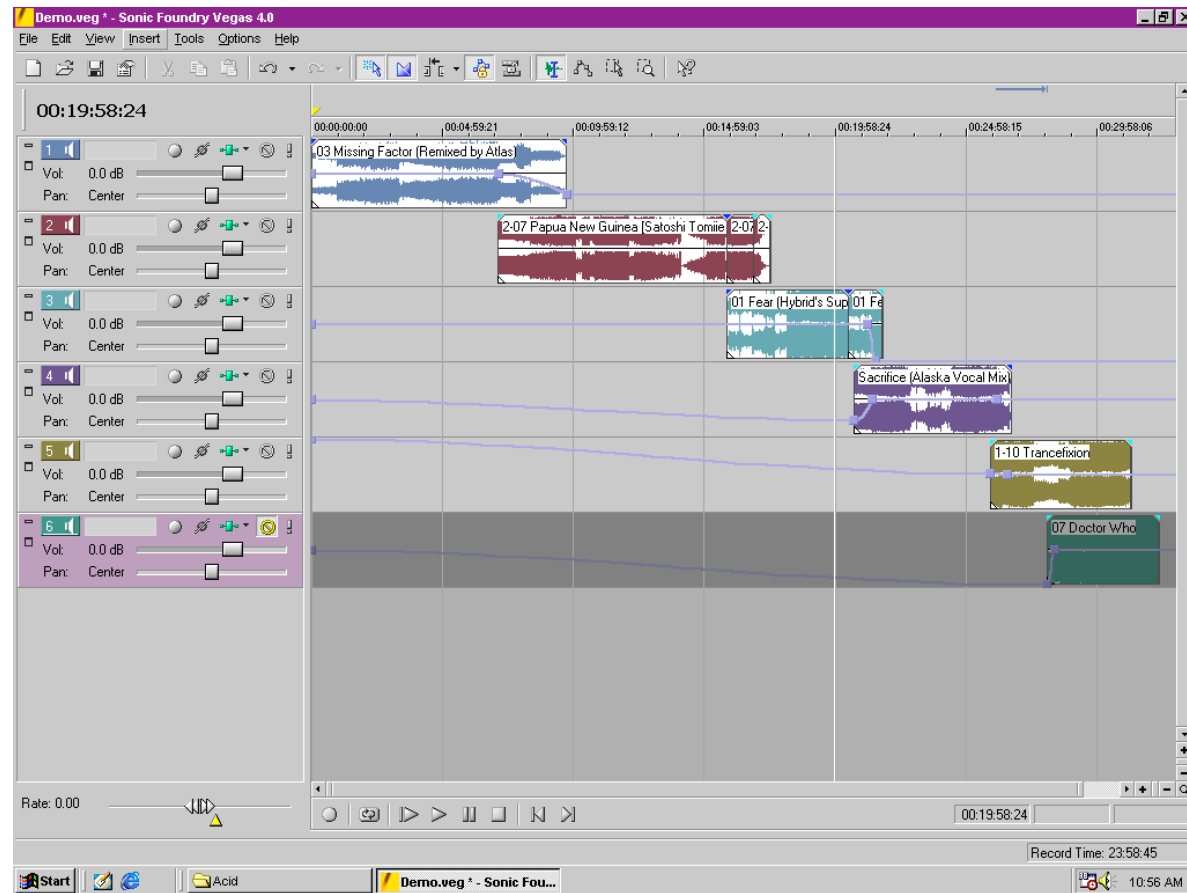
- Traditional vinyl-spinning decks
- Traditional decks + EQ, looping
- CD turntables with looping, auto-BPM detection

Computer interfaces:

- Turntable/CD turntable paradigm
... maybe with some waveform display if you're lucky



UI Proposal: Multitrack Editor



Multitrack Editors

Properties:

- Interface is streamlined for editing
- e.g. Protools, Vegas, Ardour
- i.e. streamlined for seeking, cutting, pasting, splicing, dicing, and mixing audio tracks
 - ... splicing, dicing, mixing? Isn't that DJing?

Multitrack editing interface for DJing

- Need easily accessible time/pitch adjustment
 - ... not necessarily timestretching (pitch doesn't need to stay the same with varying time)
- That's it!

Not Quite There Yet

Realtime DJing:

- Requires separate *performance* (master) and *monitor* audio outputs
- Requires independent and *simultaneous* playback of performance/monitor outputs

So this was where I was
meant to show you my totally
mindblowing demo (dude).

Alas, I got sidetracked by skiing and midori & cranberry.
So you'll have to watch a slightly less mindblowing demo instead.

The Wish List

Proper realtime DJing support

- Simultaneous playback of performance/monitor outputs

DJ-oriented editing accoutrements

- (I always wanted to use that word in a presentation ...
ahhh, accoutrements, so schweet)
- Stretching samples at any point instead of endpoints
- Automagic time-alignment and stretching of markers/
regions
- Looping facilities like CD DJ consoles
- Saved 'crates' of pre-mixed songs

Exploring the DJ Space

Enables new DJ techniques

- Focus taken away from mixing skill
... mixing is easy now!
- Instead, focus on splicing tracks, looping, and on-the-fly re-editing of songs to tailor to audience/crowd
- Put an end to all those goddamn chillout CDs having exactly the same tracks (though they'll still sound the same anyway) Behold ozone beatz vol 3!!

Now it's just a simple matter of coding :-)



\hat{D}