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YM Sound

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M@ilbox

News

Thomas Raukamp interviews Tao of Cream



Thomas: Frank, in the scene you are known by the nickname, "Tao". Please introduce yourself to our readers.

Tao: Hello, I'm Frank Seemann, 34 years old and living in Hamburg, Germany. Today I'm earning my money developing web applications. In the scene I'm known as chip musician of the German group Cream and as guest musician in disk magazines and various demo productions. Our most popular productions are the music demo "...do things" and the multi-format music player "Jam", which is able to replay standard music formats from Atari ST, XL, Amiga and C64 on Atari STE and Falcon.

Thomas: How did you get into Atari computers? What is your personal "Atari story"?

Tao: I got my first computer, an Atari XL, at the end of 1985. Apart from a little programming in BASIC and simple attempts at composing songs using sound editors, I mainly pushed my Competition Pro joystick to its limits. Two years later I bought my Atari ST. In those days I met Olaf ("Ultra" of Cream) for the first time. He introduced me to assembler and demo programming. I started coding typical effects like scrollers and sprites before a legendary news article of Jochen Hippel made me start programming the YM2149 sound chip. In the final days of 1991 I joined the ACF Design Team and composed the chip songs for the Just Buggin' demo. Meanwhile I lost interest in computing. In 1996 we had our comeback as Cream with two older demos, "STMYGM 2" and "Steps". After that we released mainly music-based productions (PlaySid, ...do things, Jam). MC Laser initiated my personal comeback as a chip musician in tSCc's ModComp 14. Now I'm chipping regularly, mainly for disk magazines.

Thomas: In the most successful days of 16-bit computers, the Amiga was considered to be the system with better internal sound capabilities. Even SID of the C64 is regarded to be more powerful than the YM of the ST. How did it happen that you used the Atari for making music anyway?

Tao: Buying the Atari ST was more a matter of belief than a question of reason. Although I already adored SID songs, they weren't the reason for buying Atari. It was some kind of religion, that XL users bought an ST, while C64 people went after the Amiga. It was all about keeping our rivalry. My decision to make chip sound came up later when I learned coding.

Thomas: What is, in your opinion, special about YM sound?

Tao: Basically YM sound is nothing but pulse waveform and noise. It couldn't be worse than that. The YM sound we learned to love is the work of

enthusiasts, who face the challenge and push this chip a bit. That's exciting.

YM2149 is a simple chip and despite its limitations there is always a chance to find a way of creating new noises. That's how beautiful effects like "buzzer", and later, "syncbuzzer" were created. Effects you don't have on chips like, for example, SID. And so YM chip sound gets its typical sound, its identity.

Thomas: Do you also work on other sound chips, for example POKEY in the Atari XL?

Tao: So far only indirectly. I have written emulations of SID and POKEY on Atari ST and I think I know their capabilities. Our demo "...do things" contains a compilation of songs based on a SID emulation. I combined a modified version of my chip sound player with the DMA chip based SID emulation and am now able to use the typical SID features (apart from filters). A POKEY feature, the polycounter noise, is included in my chip sound player to create the typical "metallic" noise of XL music.

Thomas: Chip music seems to be trendy these days, even in "Electronic Beats" on "VIVA" you can hear it from time to time. There's also a manufacturer producing synthesizers based on the SID. Why, in your opinion, is it that hip to use chip music in electronic music today?

Tao: I fear, that it is really a part of the current eighties retro trend. It would be too bad, if chip sounds were used just for the fashion. But probably some just remember their roots. A quite large amount of musicians had their first steps on home computers, mainly on C64. For many people, under the variety of available synthesizers today, chip sound has got a face. It represents an era in one's personal biography, mainly free of worries and crazy, in a positive way.

And it's got a message: Listen, less could be more.

Thomas: In the production of your current songs, you're using Magic Synth, your new sound editor and tracker. What are the capabilities of that new software?

Tao: I'm using three different editors, and they're not that new. I've got a pure chip editor that I'm mainly using. Another one based on a DMA SID emulation and a third one, combining both of them and offering some additional features.

The chip editor has got a Soundtracker-like pattern editor, separate sequence tables for the single channels, as well as an instrument editor. The instrument editor offers commands for effects like vibrato, arpeggio, noise, buzztone, Sidvoice and syncbuzzer. Sidvoice can be adjusted in strength and create an echo effect on a single channel. There's also a simple editor for small waveforms for creating effects like polycounter noise from Atari XL. I'm using only two timers for Sidvoice, samples are not supported in my current version. To achieve a higher resolution in effects, it's able to replay songs at frequencies from 50-500 Hz.



The DMA SID editor mainly differs from the chip editor in its effects, which are based on SID features, as there are pulse-width modulation, hard sync or ring modulation. The most interesting is probably the six-voice DMA/PSG editor. It combines the first two editors, upgraded by some real-time synthesis effects in the DMA part.

The three DMA-based channels replay waveforms of 128 bytes length. Each channel can be modified by effects like ring modulation, hard sync, wave-shaping or overmodulation.

Thomas: I have to say that Magic Synth produces the best sound I've ever heard from the YM chip in the Atari ST. The development of the program is still in progress. Can we expect more improvements in the future?

Tao: Yes. There are at least two effects I'm working on. A buzzer effect, which I haven't used yet and a SID effect, which I'm checking out, whether it is possible to realise. I'm spending a lot of time listening to "Kohina" or "Nectarine" scene radio, so that there's probably more to come. It's a great resource of inspiration for new effects on ST.

Thomas: Will it end up as a pure YM editor, or are you planning to use the extended sound capabilities of the STE, TT and Falcon?

Tao: I'm not going to code a sample-based editor like Soundtracker. Two of the editors described above, the SID emulation and the six-voice tracker are based on the DMA chip of later Ataris. I don't know whether I will use the features of the Falcon, but I'm probably going to buy one.

Thomas: When can we expect a first public version?

Tao: A public release has never been the primary aim of developing the editor. It changes constantly, is still not documented, partly of trashy code and buggy, because I have so far just used it as my personal tool. Some time ago there had been the idea of finishing a version for a public release. Short of time, I haven't been able to motivate myself to do this. But I can imagine doing a public version some day.

Thomas: The direct use of computer sounds is getting more and more popular. On PC and Macintosh there is already a countless amount of software synthesizers and virtual instruments available. Also on Falcon there's ACE MIDI, an extraordinary virtual synthesizer. Does the use of these instruments appeal to you?

Tao: Indeed I'd be interested to listen to my songs replayed by modern synths and I'm going to spend some more time on them in the future. To me the main challenge would be not to get lost in the endless capabilities of these synths and concentrate on the basics. In my opinion, most of the current conversions of chip songs are crap. Constructed of typical techno or dance elements, ignoring the original spirit of the song. Last Ninja as a dance version! I've recently listened to a song, "Delta on Spanish Guitar", a

fantastic example of a great variation. Creating something similar, that could be a motivation.

Thomas: What is your general opinion about the trend in music that hardware is increasingly substituted by software? Hardware synthesizers, for example, step back and don't reach high sales rates any more.

Tao: I don't know much about that, but I think it's mainly simple reasons like money or space at home. With a PC it is possible to install a studio in your living room, where one usually doesn't have enough space for the required hardware. In combination with high quality PC hardware, soft-synths are regarded as competitive. Only the interfaces still lack usability. It seems a bit optimistic to let people handle controllers with a mouse pointer, which is initially constructed for fingers. But the rising market of home users is obviously not that demanding.

Thomas: Are you making other kinds of music than chip music? Are you using the Atari for MIDI?

Tao: No. Not yet.

Thomas: Before you were creating chip music, had you been dealing with music in some way before?

Tao: Although I have always had an affection for music, I unfortunately missed learning to play an instrument intensively. So now YM2149 is my instrument.

Thomas: In your group "Cream" you are active as a musician. You are developing music for demo productions. What are the special demands to you as a musician, when you are composing songs for a demo?

Tao: First of all I need to know what's technically possible. How much CPU time is left for my player? From the view of a coder preferably close to none. Depending on the demo's CPU consumption I'll decide which effects to use. As much and as possible, because good music can highly upgrade a demo. When I'm getting a preview, I'm trying to express the atmosphere of the demo in the music, for example, happy, dark or futuristic. Depending on the time when I'm getting involved in the production of a demo, we can synchronise demo and music. For that I can offer information about the state of the song. In case I don't have any information about the production, I try to compose a typical demo song and impress alot.

Thomas: What is the precise course of a production? Are the other members coming to you with finished graphics and animations? Or are you working at the same time?

Tao: Usually I'm completely involved in developing our products, or at least I'm informed about the current state of our work. Most effects are created at the same time and we have meetings to discuss how to combine and design the effects. Based on the collected ideas the specialists, coder, graphic artist or musician continue their work. Together with our master programmer I check out the effects I can use or we plan synchronisation of code and music.



Thomas: Which trackers do you prefer for developing a demo?

Tao: I have coded my own trackers, so there's no need to use other ones. I have tested some editors and some are really good. But to me the sound chip is the instrument. I can only use its full capabilities when I'm coding it directly. I can discover its features and try to find ways to extend its limitations a bit. There's a motivation of "getting the best out of the chip". I can only reach that aim, when I'm not working under the restrictions of a tracker, even of a real good one.

Thomas: Have you been composing songs for games?

Tao: At the beginning of the '90s I converted the songs for Magic Marble and Lin Wu's Challenge. Unfortunately the ST version of Magic Marble has never been distributed, although it was a real good game conversion.

Thomas: What do you think about the current state of the Atari scene?

Tao: Of course it is not as alive as in its golden days. The periods between the releases are longer today, but when coders like Ultra/Cream, Defjam/Checkpoint or Evil/DHS strike, then they're setting standards. Demos are nowadays more complex and better styled. Most important is the fact that the scene has kept its kindness. Error In Line 3 will prove that for sure.

Thomas: Did LAN parties replace the big scene conventions? Do people prefer to "frag" anonymously in networks instead of being creative together?

Tao: I don't think so. There have always been more gaming home computer users than sceners. And if in the days of LAN these people organise their own parties, the events are comparably big. But there's also still a living PC scene having its big conventions. It's just natural that our Atari parties are smaller today, but they're still of good quality.

Thomas: You're also a member of YM Rockerz, a chip-sound band, which we presented in June last year. What can we expect next from the Rockerz?

Tao: The feedback to Spinning Wheels was surprisingly large and positive. The idea of installing a platform for YM chip musicians is fortunately accepted. In our next demo we will at least present four new Rockerz. It looks like YM chip sound has another comeback. We hope to be able to release Popstars in February. We will also have appearances by the known Rockerz like 505, Dma-Sc, MC Laser and Nemo. Friends of YM2149 can prepare for a nice chip song album.

Thomas: What kind of music are you listening to personally?

Tao: Usually classic rock/pop music like Tori Amos, Van Morrison, Red Hot Chili Peppers. Preferably to music of the '70s. Classic hard rock from Black Sabbath or Led Zeppelin as well as progressive rock from Pink Floyd to Yes, or Frank Zappa. Actually I'm discovering soul and funk of the early '70s like Curtis Mayfield or Marvin Gaye. And in first place I'm listening to chip music of any system.

Thomas: Thank you for this conversation!

Tao: It was also a pleasure for me...

This interview was originally published in German by st-computer magazine, February 2003, and is reproduced in English with kind permission.

Useful links

- The Cream Headquarter
<http://www.creamhq.de>
- Kohina
<http://www.kohina.com>
- Nectarine demo scene radio
<http://www.scenemusic.net>

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