



INTERVIEW

Mike Battilana

■ Interview: Tomxx



Mike Battilana of Cloanto is a well-known figure within the Commodore community for his Amiga Forever and C64 Forever projects. A man of many talents: developer, organizer, entrepreneur, retro enthusiast with a goal to preserve the CBM legacy for younger generations. This interview tells a lot about Mike's endeavours, but most importantly, we get a unique chance to know him personally. At the end of the day this is what truly matters...

Hey Mike, it's a pleasure to finally host you on our K&A+ pages! How did your adventure with CBM start and what does classic Commodore hardware mean to you today?

I must have been 12 years old when a PET/CBM 8032 arrived at my dad's home office. I remember how the technician from the local Commodore distributor asked "Where do I put the machine?" He didn't say "computer"... he called it "machine". For some reason, that unexpected choice of words made this highly anticipated first contact

with something I had only read about in magazines even cooler.

That's how the adventure started.

The Machine sat there untouched for weeks, too fragile, precious and mysterious to be experimented with. It wasn't doing any of the magic work it was supposed to do in order to pay itself off. But, unlike the computers you buy today, it came with a programming manual, and a couple of demo floppy disks with some games written in BASIC. Armed with that, and without a World Wide Web, you could explore a new world of construction, problem solving and logic, and get a feeling of whether that was something for you or not.

At the time, my parents were car-pooling with other families to drive us to school. One of the designated drivers was a civil engineer who knew a thing or two about computers. He mentioned a command called LIST. And that opened Pandora's box to me. Once I was able to see how the sample programs worked, I started writing my own code, including the software that my dad needed.

More school rides brought more excitement, like PEEKs and POKEs to access the screen memory. The rest came via precious visits to large-town bookshops. Munich

was fairly close to my grandparents, and it was worth a two-hour train ride to spend half a day at bookstores like Hugendubel, an institution at the time. You could sit down and read their books like in a library. Something unheard of elsewhere.

At some point, seeing new home computers in magazines, I was literally dreaming in color (screens), until a VIC 20 finally came to the rescue. But after a while I went back to programming on the PET because I missed the extra RAM and the better display. My parents had a feeling that the long hours spent in front of the small TV attached to the VIC 20 must not have been good for my eyes (I was changing glasses every year), and I did not show much interest in other school matters, so every excuse was good to ban that activity.

That's quite unique, I must say! The vast majority of us in the early years mostly focused on gaming, and programming eventually kicked in few years later. Do I understand correctly that games were never your priority?

Ha! No, even in the Amiga days I called editors, compilers, paint and other productivity applications mine, but I never had a single game disk.

Not that I wasn't impressed by the novelty of titles like Marble Mad-

▼ Mike at Amiga 30th anniversary in Neuss (2015)



ness or Little Computer People, when I first saw them, but I never played more than a couple of rounds. It was more of an exploration, than gameplay.

Imagine this, my computer time was restricted, and I wasn't even playing games! All I wanted to do was to write code, applying things I had read about, and solving new challenges. It felt like Lego, but without being limited in the number of bricks. That whole creative process, that was my favorite "genre". The labyrinth game and the game of cards that came with the PET were not exciting as games, but because I could use that LIST command to see how they worked.

Still, there is a game angle to the "adventure". One of the things that cut through the technological small-town isolation of those days was the yearly "Luna Park", a traveling funfair. Every October, I would eagerly await the opening of their arcade room. The most exciting thing was to go around all the cabinets, and find out what was new. Year after year, titles were getting more sophisticated, and I was always trying to understand how they worked. Monochrome displays covered with colored plastic strips were increasingly being replaced by real color displays. Then there were vector graphics, trackballs and other truly unexpected new developments. I tried to recreate some of that in the PET and the VIC 20, even building my own controller hardware, but after having written the code it always felt boring to actually play that game. So, to me, computers always were about individual empowerment and productivity, more than for games.

When did you get your first Amiga and which model was it? Following your story I assume you also used it for programming?

My first Amiga was a virtual one. It came as the August 1985 cover story of Byte Magazine, about a full year before I could put my hands on the real hardware. Still, it was love at first sight. It seemed like the

best hardware with the best software, delivered by Commodore, the company that had already shaped my computing days.

During that first year, I learned to program in C, and studied the Amiga books by Bantam and Addison Wesley. It was all only in theory, until the first Amiga 1000 units came to Europe in 1986. I was lucky enough to be able to get one.

After all these years, do you recall you early computers with nostalgia? What makes your heart beat faster, a CBM-line or a classic Amiga?

Sure. Nowadays you take computers and software mostly for granted, and the things that already exist may seem intimidatingly complex. But back then, every yearly iteration felt like magic. Your computer possibly came with no software, but it always had a programming manual. That was enough to recreate that submarine game or that snake game you had seen at the Luna Park. It may have been boring to play at the end, but you would know that this creative process was something you enjoyed doing, and that could be the start of a career.

I never had a C64, but I remember how I would go to some friend's house to experiment with sprites. That was something new at the time. Looking back, the Amiga was more important to me, but I have fond memories of the 8-bit beginnings.

If I were to introduce a new generation to programming today, and I feel we have this obligation, I would still let them play with a real 8-bit system that feels as "naked" as the early PET, followed by a 16/32-bit system with an operating system you can fully understand, like the Amiga. If you want, you can get really intimate with these systems, knowing every bit and byte. I am not saying you should stick to them forever, but before you spend a life working with frameworks and complex systems that behave more like

black boxes, get some quality time with things you can actually understand quite well. Learn to do a lot with little. Trust that the solution is in your hands, without looking it up online.

Ok, let's move on to your first business. Could you tell us more about Cloanto - the company you have run for many years now? What were the reasons behind setting it up and what's your role in it today?

I founded Cloanto in 1987 because I was asked for an "invoice" for some software which I had written, which also came with hardware. You could do this only a couple of times as a private individual, before you had to set up a company, or else the tax authorities would object. That was HTX, a communication system for the blind and the physically handicapped (including, sadly, combinations of both). It used Amiga features like multiple inputs, graphics, and speech synthesis, at a cost that was a fraction of any existing alternative. The software work evolved into a general-use word processor, and after looking around for Amiga distributors I decided to do the publishing in-house. So that was another nice experience for a teenager, to combine the software creation with the manuals, the printing, the packaging, leading to a finished product, with sales and support.

“But back then, every yearly iteration felt like magic. Your computer possibly came with no software, but it always had a programming manual. That was enough to recreate that submarine game or that snake game you had seen at the Luna Park.”

Nowadays I am not that involved in code any longer, although I still maintain some of my older projects. I miss it, but I know that it tends to consume all of my time. Blame that LIST command. So, like the evolution from 8-bit to Amiga,

I am more active with the overall products and experience, and with other aspects of a more structured life.

How did the story of the Forever packs start? Legal emulation wasn't popular in the 90s, but hardware was getting more and more powerful, so this moment must have arrived one day.

That time arrived between 1996 and 1997, both in terms of technical feasibility, and in terms of a hopeless feeling of no market left for Amiga software. We had enjoyed some great Amiga years. Our Personal Paint, but also other Cloanto software, was bundled with Amiga systems sold by Commodore, and later by ESCOM. That had been a time of growth. But it came to a halt as Commodore went into liquidation and the various distributors and markets reacted to that. We were owed a lot of money at the time. Those were difficult years. So we decided to put most of our Amiga software for free distribution on channels like Aminet, and start something new for Windows, which would be some more boring business software. Apple's platform was felt as too big of a risk back then, we did not want to repeat the Amiga failure. Besides, looking for something as innovative as the Amiga I had already burned my fingers on both OS/2 and Taligent!

At the same time, in order to stay active with the Commodore/Amiga past and with the community, we started exploring, with other developers, and with the companies who had a say, what the options might be for a legal emulation solution. You are right, in those years emulation was associated with piracy, but that was only because it had not been done in the right way, by asking first. There had been legal actions and police raids in the context of other emulators.

Sadly, even today things aren't often approached in a constructive way, leading to companies like Apple (<https://www.quora.com/>

Why-does-the-App-Store-ban-emulators) and Microsoft (<https://www.theverge.com/2017/4/6/15204138/microsoft-bans-game-emulators-from-the-windows-store>) putting rules against emulation in their respective app stores. I wish there were clearer exceptions, for example for retro computing and for educational content.

But going back to 1996-1997, emulation was not only seen as possible, it was perceived as necessary, so that the work and culture of our generation could be preserved. My own Amiga hardware was beginning to fail. The companies that could have produced new systems had decided that that hardware and software would be referred to as "Classic Amiga", and in doing so they made it clear that it was going to be "unsupported". But all of a sudden, I could virtualize my Amiga 3000 and run it on a Pentium Pro system, and it would be more reliable and have more memory than the original. It definitely was felt as a personal need.

There are surely some readers who never had a chance to use the Forever packs. How would you recommend them for fresh starters and what are the key feature they should focus on?

Anyone can download C64 Forever and use it for free in Express Edition mode, and explore not just "click to play", which doesn't take much learning, but also features like right-clicking a title and selecting Edit. This opens the door to curating your own content in a way that is meant to last across host systems and emulation engines (<http://www.retroplatform.com/kb/15-122>). These features are largely similar between the CBM 8-bit and the Amiga emulation platforms.

If you are after something less obvious, you could explore the sophisticated ways you can map your PC game controllers and keyboards to emulated joysticks and buttons. The general settings for that are under Tools/Options/Input, while the title-specific settings are in the

Input tab after you select Edit.

In one of your interviews you mentioned that you'd like to see some additions to your Forever packs. Expanding this software by adding proper documentation for education purposes indeed sounds great. Also, upgrading the tools to be able to edit sounds and graphics sounds tempting. Did you take any actions in this direction yet? What's your vision for the future?

I always had a long wish list, and we never stopped working to improve the software and the vision. But whenever you use words like "expanding" and "adding", it involves time and/or money. Unlike some other preservation and long-term access efforts we never received a cent in public funding. Everything we did so far was made possible because so many generous people donated their time or supported the project by buying the software, or because we dedicated our internal resources and free time to do something fun rather than something on the B2B side of our software profession, which is where we are experiencing more margin for quality and growth.

I try to make sure that Amiga Forever and C64 Forever break even in terms of finances, but this is not always possible, so we have to subsidize it a little bit. And it certainly would not be possible if we counted the hours which I and so many others put into this effort. A few years ago we started exploring a possible alternative or complementary model, namely that of a foundation or nonprofit (<http://cloanto.org>). That led to many interesting exchanges, and it is an ongoing discourse.

Yes, I'd love to do something specific for educational purposes. I believe that the 8-bit and Amiga experiences could be precious for children and college students alike, right besides learning about office applications and complex programming frameworks. That's the context in which I mentioned the idea of a tablet with some polished

development tools, documentation and classroom options.

But I also feel how inadequate our general support for platforms other than Windows is. It is a goal to do more work on macOS and Linux. Certain hardware platforms are also quite intriguing. But again, this is a niche, and we must choose carefully.

Either way, the future for me is also synonymous with "commitment". It is an extra dose of effort on top of the daily work, which makes you go on in spite of the bad years, and the things that may happen, which may briefly, but only briefly, make you want to give up.

You're clear that you always wanted to keep the memories alive in the legal way. How difficult was it to acquire copyrights and various patents used in your products?

Maybe it seems less "difficult" when you feel like there is no alternative.

Having a previous relationship with Commodore/Amiga helped. Probably, investing in emulation and preservation back in 1997, when after all we were supposed to be risk adverse, was the most defining choice.

One thing I didn't quite expect was the backlash that would come later, from other currents of thought. You try to do the right thing, but then, for that same reason, you are seen as "evil" by some, while you are facing a competition that appropriates without even asking. It's a complex world.

The Forever packs come loaded with multiple games. Are they all free to use in general or did you also have to acquire licenses from the respective IP holders?

The focus of Amiga Forever and C64 Forever never was on their game content, but more on the platforms, to keep game and non-game content accessible virtually forever.

Even for games that were released "for free", we always asked, and due credit is given in the player interface and documentation. Some licenses were time-limited, so content was rotated. A couple of times people changed their mind, or the relationship between the developers and their publishers changed, and for that type of content it's not a problem, there are thousands of games, it's easy to replace a title with another one.

If this wasn't the niche that it is, we would be able to get more "best of" games, which right now are not included in any of our packages. Luckily, some preservation sites were able to get permissions, or some publishers offer them for download, and people can run them in Amiga Forever or C64 Forever. In my opinion there is still a lot of potential for creating a legal ecosystem for quality content. But we would probably need to cover more platforms than Amiga and CBM to justify the investment in infrastructure, marketing and legal. Or get more external help.

The preservation of the Commodore/Amiga legacy was one of the original premises of this project. It looks like you were one of the pioneers in trying to secure as much as possible from the Commodore Amiga history. Do you think you succeeded after all those years?

The work is never finished. You can always preserve or make accessible more, or better, especially if your bar is high.

A lot of this work is silent. Maybe

we don't talk enough about this. I actually covered this part several times in my presentations (see audio/video links at <https://mike.pub>), but probably the legal side of things, while necessary, isn't sexy enough.

The reality is that we never stopped worrying about the legal side, to make sure that no matter what happens to the various companies behind all things Commodore and Amiga, it would not be all lost if more companies went down. One of the thoughts behind the foundation/nonprofit is also to expose in a more formal and transparent way what would happen if Cloanto disappeared, if something happened to me, etc., while encouraging more forms of contribution.

Do you get feedback from the users? What are they happy about and what's worth to improve?

Yes, that has always been a very important and enjoyable part of my work, to meet fellow developers

▼ **Mike with Jay Miner at Commodore's Paris DevCon (1990) dressed in "Amiga Syndrome" costume**



▼ **Mike between Trevor Dickinson and the Frieden brothers at Amiga 30th anniversary in Neuss (2015)**



Our "Forever" customers are more diverse and demanding than our B2B customers. You have to cover a lot of emulated platforms, different host platforms, and a very long series of application scenarios, from gaming to MIDI to SCSI to everything in-between. Some users are having their first experience with an Amiga, others are not so good with Windows.

With the main applications, we are trying to appeal both to the "one click to play" audience, and to the more sophisticated "right-click to create" group of power users. The challenge is to make the two worlds fit elegantly together.

Our Windows users are quite pleased with the current results I think, while macOS users are still waiting for something big coming their way. As for our own wish list, it goes on for hundreds of pages, and there is somebody working on this every single day.

Do you plan to expand your emulation projects for mobile devices (Android and iOS)? Or maybe you prefer to expand it to other platforms, like Atari or Spectrum?

iOS would be a top choice, had it not multiple app store limitations, including restrictions on emulation, apparent conflicts with the GPL

license, and limitations on adding content like games outside of the app store itself. Some, we could overcome, by artificially limiting the result. Others, might not be worth an investment. It would be nice to be able to talk with Apple about this.

On Android, we did some limited work with the "Essentials" offering, and more is in the works.

As for emulated platforms, yes, there are more planned.

Are you active within Amiga NG communities? Is there any modern OS that you use?

I enjoy meeting people in person, and have been attending Amiga events every year for 32 years now, from the days when Jay Miner used to attend, to the latest anniversary events, to more improvised, local meetups. This includes a lot of NG-oriented friends. I probably am more of a "Classic" person.

I still use my Amiga development environments. I would never have touched DOS during the Amiga days (and maybe this was a mistake), but since the release of Windows NT 4 I decided that Windows was getting good enough for my needs. I also use macOS. During my student days we had Unix/Linux,

and I explored quite a few alternative systems, some of which you may have not heard of. For mobile devices, I try to be exposed every day to Android, iOS, and even Windows Phone.

What do you think the future of Amiga look like? The raise of Vampire changed a lot in my opinion, do you foresee the classic line to get stronger with time? Or do you believe in the NG lines?

The Amiga has always been defined by multiple identities. Diversity is a unique part of the Amiga's DNA. How many computers do you know where nobody could even agree on a logo, whether that be an "A" or a red and white ball, or a rainbow-colored checkmark? Already during its early development days, some envisioned a game machine, while others wanted it to be more of a computer. After Commodore bought Amiga, some of the original team celebrated an "Amiga wake" party, for it was the end of how they saw it. When Commodore in West Chester closed, there was another "death-bed vigil".

For most of us who are still celebrating the Amiga today, the Amiga never died. When I first read about the Amiga, for me it was a Commodore product. All of the events that I had attended, the developer support, the sales, it all was organized by Commodore. But later on I learned more about Amiga as a Silicon Valley startup, and getting to know their people. And I think this too is a unique perspective which needs to be understood and preserved.

Thanks a lot for the interview and for sharing many of your private memories! We've covered quite a chunk of your personal and business life, but we both know there is still a lot to discuss. I'm sure you'd have a lot to tell about Commodore IP, Workbench development and the general future of Amiga...

Sure, let's do a Level 2!

▼ Mike with Timothy De Groote (CEO of Hyperion) at Amiga 32 in Neuss (2017)

