

# 30 Years Ago...

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Before AOS Studio, 30 years ago, AMOS Basic was published on the Amiga computer in the UK by Mandarin Software Ltd...

AMOS Basic was the Amiga adaptation of the highly succesful STOS Basic published 2 years before on the Atari ST. STOS can be considered as the very first 'game-engine' ever created on a computer.

For the first time, users could create their own games, within a simple and complete development environment, using a simple programming language, Basic.

## STOS and AMOS Basic consisted of:

- A user friendly source editor, with line-numbers for STOS and procedural for AMOS
- A complete set of Basic instructions aimed at displaying graphics, making sounds, handling animations. A whole toolbox to make games
- An image and animation editor to create the graphics of the games
- A sound and music editor
- A set of tools to pack images, create game maps, create animations etc.
- A set of extensions, adding more instructions to the language. Extensions like STOS Maestro or AMOS 3D that were published by Europress Software, and several extensions written by the user themselves

## STOS range of products

- STOS The Game Creator (1987)
- STOS Compiler (1988)
- STOS Game Galore (1988)
- STOS Maestro (1988)

## AMOS range of products

- AMOS The Game Creator (1989)
- AMOS Compiler (1990)
- AMOS 3D (1990)
- Easy AMOS (1991)
- AMOS Professional (1992)
- AMOS Professional Compiler (1993)

## Sales figures

STOS and AMOS were both hits, first on the English market, then in Europe. They were filling a huge gap: users wanted to create and use their computers to do more than just play games.

STOS and AMOS were not utilised much in the US market.

Here is an estimation on the number of sales of the various products throughtout the years (original figures being lost).

- STOS The Games Creator: 50000 copies
- STOS Compiler: 25000 copies

- AMOS The Game Creator: 75000 copies
- AMOS Compiler: 35000 copies
- Easy AMOS: 25000 copies
- AMOS Professional: 50000 copies
- AMOS Professional Compiler: 25000 copies

At the end of the lives of the Atari ST and Amiga computers, STOS and AMOS were massively distributed on the cover discs of many european magazines, it was also a pack-in with the Atari ST 'Discovery Pack' so it is safe to say that the total commercial distribution of AMOS and STOS has reached 10 million plus!

## **The story behind our success**

STOS was launched at a computer show in England in the fall of 1987, after being advertised in magazines. Users were queuing at the booth of the publisher to be the first to get a copy. Later that day, one could see kids sitting against the walls in the corridors of the show avidly reading the STOS user manual, anxious to get home and start making their own games!

STOS and AMOS were filling a huge gap in the market: there was no simple programming tool. Like we see today, programming was reserved to a specific category of people, 'nerds', 'egg heads', 'anoraks' you name them. Programming was seen as difficult and unreachable to many.

By providing a complete and simple environment, STOS and AMOS allowed users to learn to program and at the same time unleash their creativity. The dream of 'getting rich by making a video game' was now becoming a reality. Finally.

Thousands of games of various quality, from the worst to the best were created between 1987 and 1993. Thousands of kids learned to program by themselves, motivated by the idea of making their dreams come true. Many of them chose to continue in computing and have a successful career in IT.

User clubs appeared in England and all accross the world (as far as New Zealand!). Games were made public through a massive public-domain library, AMOSPD.

## **STOS and AMOS are still alive today!**

The users of STOS and AMOS in the 80s are now adults, and like many of us who were fortunate enough to have lived during the early years of computers; we miss the simplicity of programming in those times. The phenomenon of 'retro-computing' is getting bigger and bigger each year, with the apparition of retro-computer clubs in every country - hosting game-jams, demo making competitions and parties.

People regroup on social networks. STOS and AMOS are also present on Facebook:

- STOS Coders group (750+ members): <https://www.facebook.com/groups/598514873840392/>
- AMOSPro Coding group (1500+ members): <https://www.facebook.com/groups/AmosPro>

The two groups are very active, with people exchanging tips, creating new games or re-publishing old ones. You are very welcomed to join and participate!

## **Why AOZ?**

My name is Francois Lionet, and I wrote STOS and AMOS in the 80s.

STOS and AMOS were the foundation of my career as a Software Author, and after AMOS I went on to PC to create 'Klik and Play' with my partner Yves Lamoureux. As the years went by, I saw the Atari ST and Amiga communities persist until the celebration of '30 years of the Amiga' and its renewed interest.

I started to receive letters from ex-users of STOS and AMOS (that were kids at the time,) thanking me for having written the products that changed their lives. All of them explained to me that they learned to program with STOS or AMOS, and if they chose to work in IT later, it was because of the knowledge that they gained by making games. It seemed that they learned to program the proper way, by practice and experiment. Now they ALL have successful careers today.

I must have received several dozens of such letters, and each time they make me immensely happy. I programmed AMOS during my military service in France, inside a closet in the back of a barrack, and at the time, I could never imagine that 30 years later, I would receive such letters.

Then slowly, the idea of creating a new and modern version of the tool imposed itself on me. Just like in the 80s, learning to program, is today, not for everyone. The Basic language has disappeared, as professional programmers preferred to use faster languages like C. The closest equivalent to Basic today is Python, yet the syntax of Python is far from being simple and as an interpreter, it is very slow.

Javascript could be seen as 'simple', but in order to learn Javascript you have to first learn HTML, understand how the Internet works etc... A lot to learn when you just 'want to program'...

The syntax of today's programming languages all contain repulsive and scary structure elements like accolades {}, dots, semi-columns, you name it. Making a 'Hello world' program (the very first program that everyone writes) takes pages of code just to initialize the windowing system and create a place from where to print those two words.

In Basic, it is just one line of code:

```
Print "Hello word"
```

The same gap exists today as it did in the 80s. Computers have become an essential part of our lives, yet the majority do not really understand how to use them, *really* use them to create and make.

If you do not understand a tool, then the tool and its makers become your master.

It was time to act.

## A modern version

AOZ is designed to be:

- Universal - It should work on every platform, including phones and tablets
- Fast - It should use the incredible power of today's machines
- Simple - It should be as simple to use as the original versions
- Compatible - It should understand and play ALL of the original programs written in the 80s

AOZ is a transpiler. It takes, at entry, any AMOS program ( \* ) and converts it into HTML 5 / Javascript code. The code produced, works in any browser, can be uploaded to any web-server, and (in future versions of the tool) will be exportable as a native executable for Windows, MacOS, Linux, Android and iOS.

AOZ is much faster than the original STOS or AMOS. For example: One of the demos you will find in the distribution, displays up to 7000 bobs at the same time while keeping a display rate of 50 FPS. Compare this to the Amiga, where the same demo would have slowed down after 40 or 50 bobs.

AOZ is as simple as the original. It supports the same instruction set as the original, nothing has changed. A screen is created automatically for you, and you can immediately print text to it. The 'Hello-world-in-one-line' is possible again.

AOZ is as compatible as possible. The display of the Amiga is emulated as best as possible, including color animation and copper list effects like rainbows ( \*\* ). The file system of the Amiga is also emulated. AOZ can be considered as a kind of Amiga emulator (like WinUAE), yet rather an 'Amiga-under-AMOS emulator' as it does not emulate the Workbench and the whole Amiga system.

Yet, AOZ is not "only" that. It offers modern graphical modes, from Full HD to 4K, it will handle 3D, VR and AR, and all the amazing technologies of today, like Rest APIs (easy access to all Google, Amazon technologies), include AI mechanisms, physical engine, allow shaders etc...

A real, practical, simple, fast and modern game-development environment.

So stay with us, the future is bright, colorful and animated!

( \*\* ) Soon to come! :)