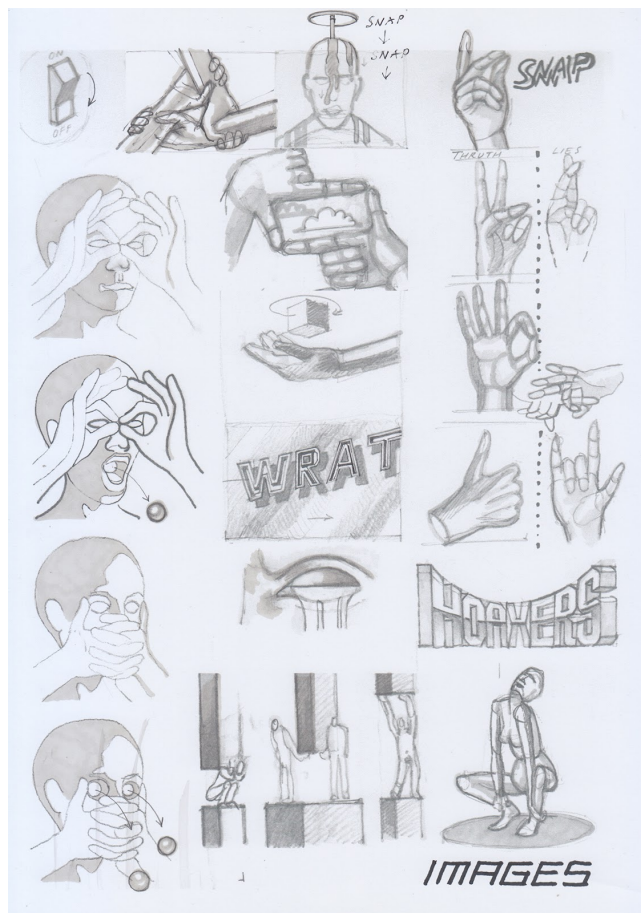


The creation of "**Submerged**" by **Hoaxers & Wrath Designs**.

Context is always important and demands its own time. It tells how a few starting points can really change completely during the development, as to become something else.

Let's set the clock back a few years, at a more specific time around the summer of **2019**. The heat from the previous summer of 2018, was a short reminder of how things could be. Hoping it wouldn't be over 30 degrees for more than 7 days in a row nor with yellow grass in late May. Days rolled by with a particular green and it didn't get as hot, luckily. The sound of waves coming from the sea and the blinds didn't have to go down as much. Just before the Corona-period we all will remember; life consisted of great, whole food, training, mental balance and a rich outgoing life and social contacts.

We had discussed trying to start a cooperation again, since it got canceled in 2018 just days before **BHF** passed away, with me leaving Hoaxers. This was perhaps amongst the darkest days experienced. Our work never really stopped there, it just took another turn and we kept in contact throughout the very sad times finalizing "**Frantic4BHF**" for X'2018 (the ghost-byte image with sprites of Baard).



The future team would only consist of me, **Joe**, **Firehawk** and **Møllpauk**. This opened for a completely different work than previous years and there was basically no given size or deadline.

We saw no reason to create a new group or add a new title to our work apart from the joint forces of our two groups (very much as we had started once), which basically meant very few active persons.. Loosely there was some thought about how to distribute our work, if it should be just for the large parties such as X or more often for any venue.

In July 2019 I had finished an impression of some kind of graphical oriented demo with a few screens which would come back into the demo at some intervals, like a story within a story strongly focused towards a tableau-format with clearly defined screens independent from each other.

A Chinese puzzle-box, with multiple openings and endings, opened just like Robbe-Grillet's novels, for the c64 with the infinite versions of play.

A general storyboard was made and so were different sketches for “demo-parts”. This was similar to the mock-ups I had made for **Censor Designs “Wonderland XIII”** and **Nah-Kolors “Multiverse”** previously and was a kind of guide-line to what I wanted to experience usually with a few key images. Like chapters in a book covered with an image or “Anfang”? Medieval storytelling with great capitals! Much of the content was very diverse and abstract and got a life in itself.

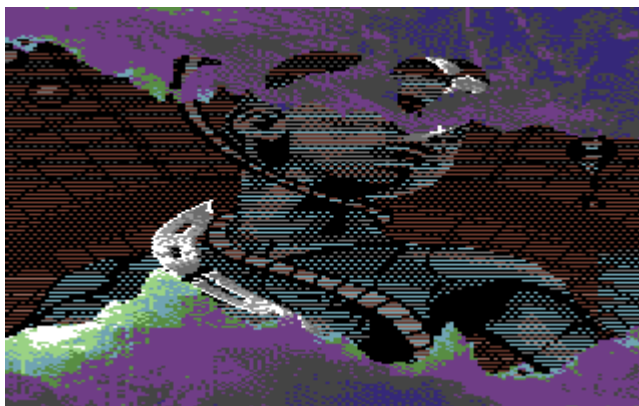


Containing a few gestures with hands, snapping, clapping, swiping, pinching things on the screen just at the start from basic. Some who saw it called it “Monty Python”-esque. I included a rotating and talking face of a doll going under the working-title “**Images**” and later “**Interim**”.
“Keeping, waking, sleeping, laughing, weeping.”

Above: opening-sequence from the unfinished work “Interim”

Large scenes of animated architectural spaces scrolling in different directions, should give the whole demo a kind of mechanical interior feeling along some balls jumping, scrolling, falling and the whole work had a kind of a non-linear, non-descriptive story. A big thanks goes to **Wacek/Arise** for helping me working with CSAM and how to set up files.

By August 2019 one of these “scenes” was practically finished (released later as “**Too long on disk**” in January 2021).



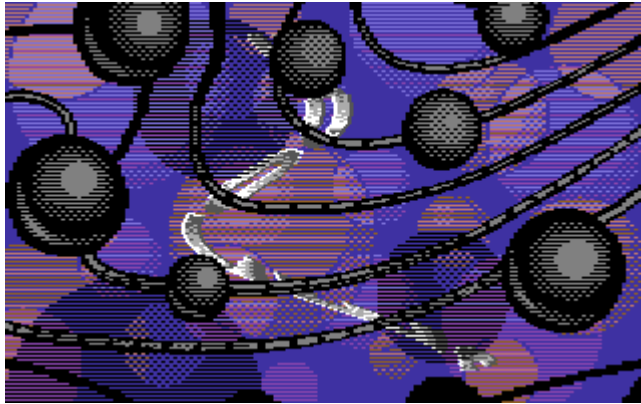
In mid-august 2019, Firehawk had just finished off a line-scroll and showed a full preview of it.

It contained the swinging and rotating scroller with mock-up graphics from “**Qi**” where 2 colors in the bitmap could be above the sprites.

He displayed how he could tear out things from the top-layer of the bitmap graphics and make that one irregular with

holes and other ways to give a sense of depth.

The 3rd color and d021 (background) were behind the sprites. I sketched freely and did a few mock-ups, one which had a more abstract motive and fitted what I already made. This line-scroll is what is later called the “**Fish Tank/ Knut-scroller**”.



The scroll was one of many sketches I saw, which could swing texts in several ways and sway the individual letters in a skew, rotating fashion. Others could use more or less the full screen and have a horizontal text waving in a pendulum.

The rotating or skewing letters were first seen in *Geggins* part for “*Wonderland VIII*” by **Censor Design**, 1991. In ours it is in real-time, 50 fps, what else?!

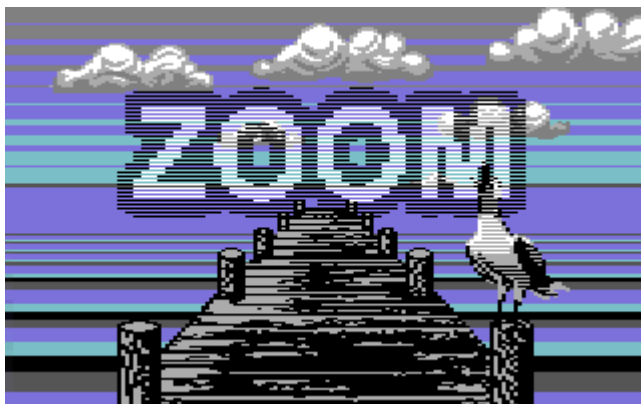
The result of my image wasn’t so convincing but left us with coding a rasterized background of two colors interleaved, similar to that of my border images, where the 3rd color in each charblock could either mask one of the rasterlines or show both. I have used this trick for some time, for my bitmap images in the border with pleasing results.

2020 started off with two images being made for the **CSDb Compopop competition** and I tried to use an updated MUCSU Hires-mode (**Algorithm**, 2009; **Graffity**, 1996).

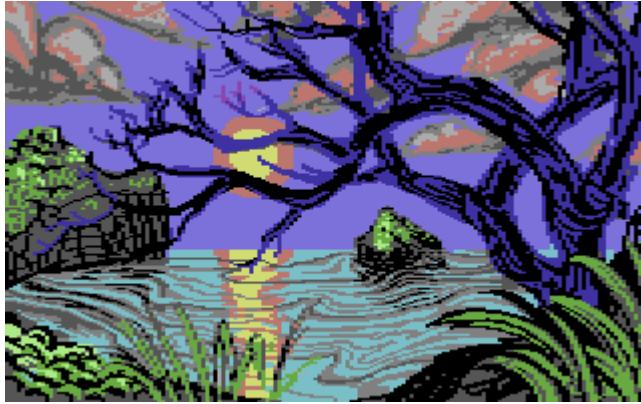
Unfortunately this first half-year changed a lot for both of us and real-life, demanding more time than that of the hobby. It had to do less with the outburst of COVID and the following restrictions and more to do with other things in life on both ends. This halted much of our project though and I returned to architectural projects, sketching in real-life for a while.

Much of my own work later that year was also focused towards other projects with *Elysium*, resulting in amongst others, the one-file demo “*Crow calling*”. This really manifested what I wanted out of demos; simplicity and elegance! I also made graphical covers for the tunes from *MultiStyle Labs* & *Flotsam* and one discontinued work for a game on the C128.

Firehawk was still doing a bunch of routines loosely held together as proof of concepts and described with images found on the internet. Many of which held a strong fantasy character of lost other-worldly beings and spaces. Him being occupied with cooperation with **Censor Design** and **Fairlight**.



I continued to work on the graphics for the demo during the summer and we had started to discuss a theme, which would have graphics of natural experiences through a “*vacation*”. Starting with an airplane on the basic screen, going to all sorts of fantastic environments: Forests, beaches, landscapes. I guess it’s here that the water motive came into the work with a few different demo-parts by me and Firehawk.



In May 2020, **Firehawk** had done a large scroll which could show the underneath graphics in a tinted coloring and we discussed if this one could be released as a one-filer for the upcoming year.

This one made us work on the first one-filer demo called **“Oblique”**, leaving some of the other work at the moment to release the demo at **Gubbddata 2020**.

The summer of 2020 was the most creative period of this year as a few more starting points grew to be strong candidates for future work. One image (above) became the starting point for a compo-picture at Arok 2021 for example. Firehawk finished his work in cooperation with The Sarge and Fairlight with the **“2600”**, working with large scrolling images.

In July 2020 Firehawk showed a very far reaching preview of what was going to be the large scrolling image inside the logo for the introduction of **“Submerged”**.

In this version there was only 1 large outline, hiding the image with black color as **“HOAXERS”** scrolled by. This was a reworked version of the sprite-trick used in **Offence & FLT & Noice** demo **“We Are Demo”**, 2016 (in the first part of the second disc-side).

There were also some more ideas about sprite-priority going over and under an image of a lake surface. One other part was playing with layers of multicolor graphics. Apart from these there were a few other routines of scrollers to be used in the future, rocking, bending, circling, pending. And lightsource materials of surfaces changing.

The work continued and there was eventually a fully working collection of parts with images from the internet and the title **“Submerged”** which gave away the common theme for the demo. Up to this point I had seen scattered sketches, animated .gifs and very loose previews not really knowing what anything was. Firehawk pretty much worked on his own just as I did and there was no general stress over anything.

By **2021** and the news of yet another postponed X-party I wanted to have a release ready by the end of the year for the **Transmission 64 Fall Edition 2021**. The reason was simple, as I gathered, many had an interest in the spring edition and might want to show off some things for the winter-months to come, despite some groups' views upon “offline”-streamed parties only I clearly see some benefits from these also. In retrospect I know this was the right choice!

We released the **“Too Long on Disc”** one-filer to start off the year 2021 with a sign of activity as this one was more or less finished already. I spent most of my time finishing the cover artwork for **SID-Spieler's “Commodore C64 VINYL TRIBUTE #2”** and a cover for **Linus/MSL** along with more projects with **Elysium, MultiStyle Labs & W4rp8** (and again some discontinued works of art in none-fruitful co-operations).

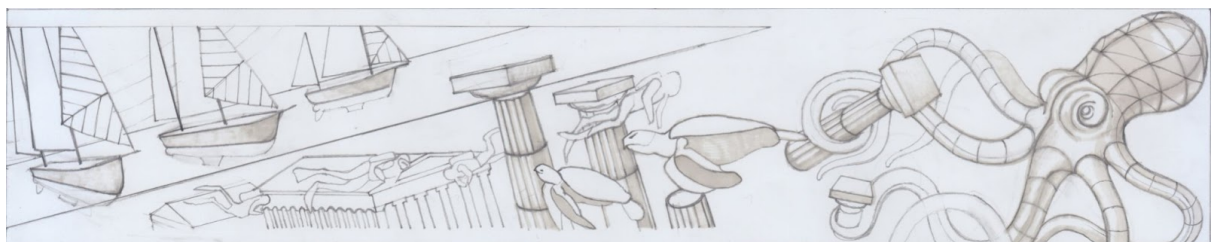
I pushed off some serious graphical entries for some parties using code by **Luke/Elysium^Arise** who reinterpreted the work **Firehawk** and **Bob** had done before with a full length image in the upper and lower border with sprites on top and rasters below. Since I hadn't competed in a stand-alone graphic compo for a very long time I really felt relieved in doing completely new stuff resulting in a few architectural one-point perspective sceneries.

By the late summer of 2021 there was a completed first working version of the demo loading each part with one template tune by **Møllpauk** running the full length of the demo. Actually the tune was made for the prolonged X-demo but used here. This (Submerged) demo was more or less finished with Firehawk working really quickly with his different routines and needed graphics for all parts except the one part we had done already back in 2019 (The fish tank). I started off the final graphics during a short period of September-October in one go after finishing off the compo-picture for **Arok** and **Xenium**. To crown the work which we understood would be finished way ahead in time for the **Transmission** party. I pushed myself to create a compo-picture for the Elysium cooperation with a beautiful winter setting.

Opening screen (basic). A wave routine was used to dive into the ocean. A prolog of what the demo would be about. There is a much more elaborate design around this, perhaps being released in the future.

The intro contains a large scroll showing a scrolling image inside of it. As mentioned earlier, a very refined idea from what **Offence** had done a few years earlier, but including 2 different scroll speeds for text and background. The inspiration was the Star Wars scroller from "**The Star Wars Demo**" by **Censor Design**, 2018. My [Firehawk] first thought was "how cool would it be if the background moved at a different speed?", and **Bob** stated, it was not possible.

Technical: 508x168 koala with sprite overlay mixing expanded and unexpanded sprites to cover all the parts outside of the letters. Sprites are moved around multiplexed to cover all required outsides. No koala layout/color changes are done (but could be possible, perhaps next time). The strange curve in the top-left R is a tradeoff, since the correct curve would amount to 9 sprites when the next letters are displayed.



Above: Pencil sketch of the scrolling image.

Firehawk asked me [Joe] eventually to try to draw the image tilted in an angle. He imagined it was a cut section along the sealine, looking at some things on top of the ocean and then heading underneath along the scrolling graphics to get the depth. I could use 10 degrees to cover the full span of the 508 pixels wide-screen. But since the screen is not showing the full height whilst scrolling the graphics in the logo up until the very end part. Here the scrolls stop. I had to use a 15 degree angle of the water-line up until the last screen.

From the first initial sketches I simply used 3 ships, imagining *me*, *Firehawk* and *Møllpauk*, each having one to go by the sea racing in the same direction. Also as three temporal directions.

Underneath the sea I wanted a kind of story about the old myth about *Atlantis*, also pinching a kind of special greeting there for this group which really put demos after *Offence* in a new graphical conception. And the last is that geometrical architectural space of bubbles coming out of the ground, referring back to my first sketches for *"Interim"*. And there has to be some sea animal which is pissed off, what could be better than an octopus?

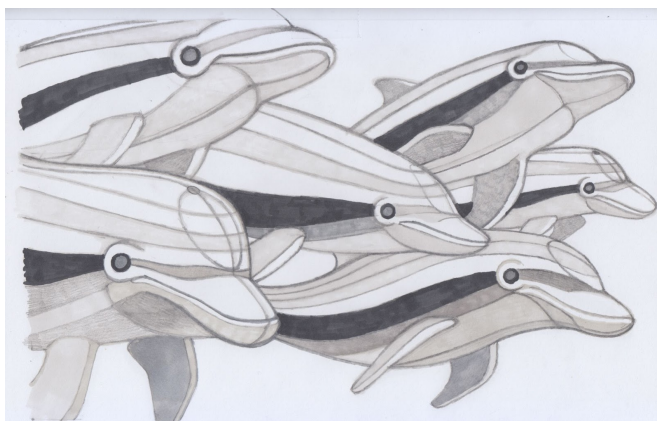
Fish Tank: Inspiration: I [Firehawk] have had fish-tanks for many years (until recently).

Technical: Koala with rasters and sprite multiplexer using priority.

Knut-scroller: Inspiration: Knut's wobble-scroller of course (although *remains* came before this was released). Technical: Animation created offscreen during display (in real time). 11 frames for each letter. Angle calculations using derivatives of the sinus curve. Both are calculated realtime using sinus lookup tables. In 2020.

Background: **Knut/Fossils "Space Beer", Fjälldata 2019. Booze Design** really hit the **DataStorm 2020** with a complete demo *"Remains"*, based on this which really made it incredibly big and with lots of variations. Shortly after *"Stacked"* by **Padua** was released at **BCC Party #14** with a similar scroll. **Censor** also used a similar one in *"The Magic of Ben Daglish"*, 2020. When finalizing the demo around september-october of 2021 we added a few fishes drawn by both me and Firehawk to introduce the screen. A request from **Grasstust /Hoaxers** was to have a small submarine going by, which was a fun little thing. Some things like \$d016 wobble effects were left out due to timing.

Sprite-merge-scroller: I [Joe] don't think I have seen this routine before? The bitmap image in the background came rather quick as we had the under-water theme. I drew a bunch of dolphins swimming together in the ocean with lights from above the surface and below.



Inspiration: I've [Firehawk] been working on a lot of different effects using sprite cookie cutter technique - don't be surprised if other variants are found in Hoaxers demos to come.

Technical: Expanded X/Y sprite multiplexer (hires), 2 sprites each for each letter. Color inside has higher priority than the color outline (using sprite 0-3) and is behind the koala.

I [Joe] could only use 2 colors per charblock with 1 common background color in order for the sprite-tricks to work. It always sounds easy with restrictions, but it does take some time to draw. Firehawk had coded a routine to count the faulty blocks resulting in a miniature 40x25 pixel image of red and green dots. I had to blow up to check exactly where I had made faults. We have been working like this previously with for example my raster+sprite

images so this was nothing new and really helpful. One can be very precise and count up, but there are always errors regardless of how careful one is!

On the screen there is a multiplexed sprites-movement scrolling making the sprites look as if they are merged when touching each other and also changing the underneath colors from gray to cyan, within their “blank” area.

Koala-in-border: Swinging char logos in the side border is nothing new, but making it with a full koala-image is quite demanding. Of course we have seen a lot of groups using VSP for swinging graphics, thinking of Censor (FLI + sampled music), Blackmail etc.

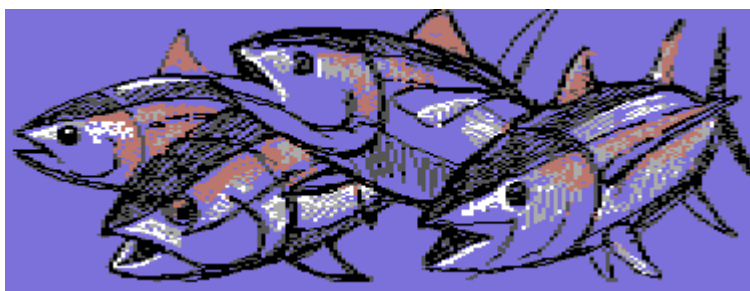
Firehawk had this part finished for quite some time before he included it in the demo. At that time there was a large image of an eye with some cybernetic robotic features to it.

I was given the task of using at least 6 common colors per line for the first 6 chars on the left hand side of the image. And I could use completely other colors which passed through the border on the right side. Well, to be honest it was practically impossible to count more than keeping a few graphical elements of the ocean bottom sea simple enough in color-scale. Firehawk later coded a routine for showing clashes and fixed all possible graphical problems and defects with my blessing and happiness. A manual work he did with ease. A happy crab sits in the ocean bottom and tries to clap his claws. The color bugs are not noticeable.

Inspiration: I've [Firehawk] always wanted to do this effect, but never came around to doing it because it needs a highly skilled graphician that can draw with the limitations (and still use lots of colors).

Technical: 16 color koala using 4 sprites on each side with color changes to allow for the full 16 colors. Only 6 colors are allowed on a line, but the left and right side can have different palettes. Sprites are displayed on the left or right side depending on which side is in the border.

Koala Tech-tech: **Crest** held the record of tech-tech'n the largest bitmap for quite sometime in *“Red Hot Chili Peppers”*, 1989 having 32 pixels move. (Many others, like **Camelot**, pushes the record still in 3 colored char graphics in *“Te-Te-Te-TechTech It Out”*, 2013. The difficulty is not the swing, but the memory and the amount of color, serving some of the different horizontal bands with the same colors making it look as if it was “bitmap” surely opens up for a larger span of graphical distortion. **Edhellon /Censor Design** did a really good version in *“Hello, Weenies!”*, 2020 for example with a vertically larger area to swing Crest had 31 years earlier.



In this part I [Joe] had to draw the image with the restriction of using one common \$d800 color for the whole image and one common \$d021 color so I used black and light blue. Since I had made the dolphin image I wanted a similar image with

colorful fishes lined up in a fish shoal. Firehawk did the charsets of not only this part but of all of them in this demo.

Inspiration: The Amiga **“techtech”** (made by **Sodan + Magician 42** for the Venlo meeting November 1987).

Technical: Real-time hard-update of bitmaps. Possible by not using time to update bitmap lines that do not change anyway. 80 pixel wave (more is technically possible, but would require a different code-base). FLI-bug because layout needs to be split to allow for koala graphics. \$d800 is fixed for each character line.

The End (greetings part):

Inspiration: None.

Technical: Simple sprite multiplexer, max 8 sprites wide. Not quite noticeable, each text line has an amplitude that depends on the width of the text. Sprites can be tight together (vertically) since the first and last line of the sprites are blank, allowing flexibility with the sprite index changes and sprite X-movements (9 updates each time). This trick also fixes the problem with bad-lines tearing the sprites.



Really just as the end of the project was emerging and I [Joe] was finishing the graphical work for Elysium and Shogoon for Transmission we needed a greetings/end-part. I made a simple perspective logo, thinking of the Superman intro from 1978 of the logos there. But since the sprite-overlay chars needed a more flat screen. It was changed to a blueish water color to become more of a discreet background and works better this way.

Of course with greetings to the whole scene is practically impossible, we had to use quite some time revising the texts here and hope we haven't missed all too many people.

Last but not least was the work of drawing a few different fishes which could swing over the screen while loading and Firehawk finished a few timings to the music. We accidentally drew a sweet water fish into the salt water scenario, oh dear. It did turn out quite nice after all.

Stuff dropped: Vector cube multiplexer with liquid effect when submerged in water, "sunset rotating" scroller with proper graphics (not blocks), fullscreen koala-sidescroller with dynamic water reflection - plus some other parts that will most likely be used elsewhere. The other dropped stuff had some technical challenges that may or may not be possible to overcome (if possible, they need major rework).

Amount of work to complete - way to much :-P /Firehawk & Joe