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### **Interview: Homebrew DS Developers AND-OR**

Dec. 18 10:34 PM by [Lynxara](#)

Back when I wrote this [post](#) about AND-OR's wardive and sniff\_jazzbox homebrew games, I found myself getting really curious about the people who made it, and the general process behind DS homebrew. Most people act like these games emerge spontaneously from the internet, but wardive and sniff\_jazzbox were clearly games that said *something* very specific. A few e-mails later, AND-OR agreed to a short interview, and here we are now! If you're curious about DS homebrew software, games as conceptual art, and programmers who make games just for fun, then just click behind the cut and be satisfied.

**OMGNINTENDO:** First, could you tell us a bit about And-Or and the type of software you develop?

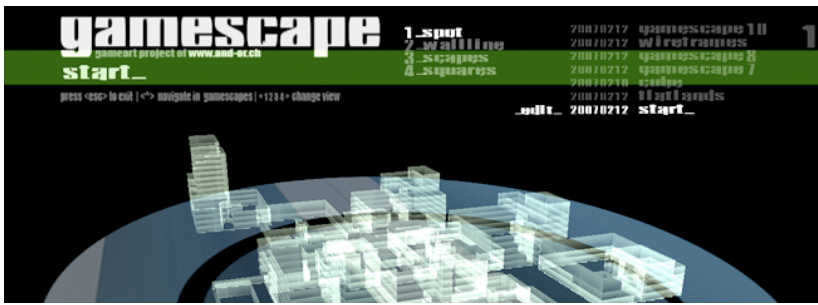
**AND-OR:** AND-OR is an art-group, based in zurich, switzerland. our goal is to create visible and playable surfaces for the hidden structure of today's technique streams. we try to transform data we encounter in our enviroment into something seizable and elevate it to another level.



In [Streamfishing](#) (2004) we began to work with search queries of searchengines like yahoo, google, lycos. The captured queries are transferred into an own application with a visual interface which is reminiscent of the intros of the demoscene at the end of the 1980ies. It shows a typical intro space scene, but instead of the stars, searchqueries fly through the sky. They represent the actual stream of conscious of the people sitting in front of their computers "googling" the net for answers and desires. In 2006 we won an honorable mention of ars electronica for the work streamfishing. After this we developed in cooperation with the German artist Johannes Auer a new type of conversion of these searchqueries in which a letter stands for a tune. A c stands for a c-tune, a d for d-tune and so on. The result is hearable in ["searchsongs"](#). It will be played next April on ORF's Kunstradio (Austrian Broadcasting) and by a professional cello player at the literature house in Stuttgart, Germany. This stream of words might be understood as an expression of collective desire, as the net's melody of yearning, which is played by thousands of people, who at any moment try to reach the desired by means of a search engine. This melody of yearning is made audible by SearchSongs. It is like listening to instant "zeitgeist" from google. sniff\_jazzbox for nintendo ds derives from searchsong. Here you can listen to the sound of your city. It is like listening to radio but more personal, locations get a new aura when hotspots like "Cindy", "Super Bat" and "WireLAN" play the music. And if there is no hotspot in the vicinity you are still able to listen to the passed hotspots.

But we are also part of the gamedesign scene. René Bauer is a developer of experimental games with [La1n](#). And both René Bauer and Beat Suter work as lecturers for game design at the university of arts in Zurich, Switzerland. Some of our professional work flows into experimental projects with AND-OR. Three examples: [darkPong](#) plays with visual representation and its loss (the ball begins to disappear). In [playgroundPong](#) you have to control the background of a pong game, not the playing objects. A bit more interesting for game designers might be the breakout-variation [imagoBreakout](#), in which you have to imagine the playing objects by reading the coordinates of the ball and the bricks.

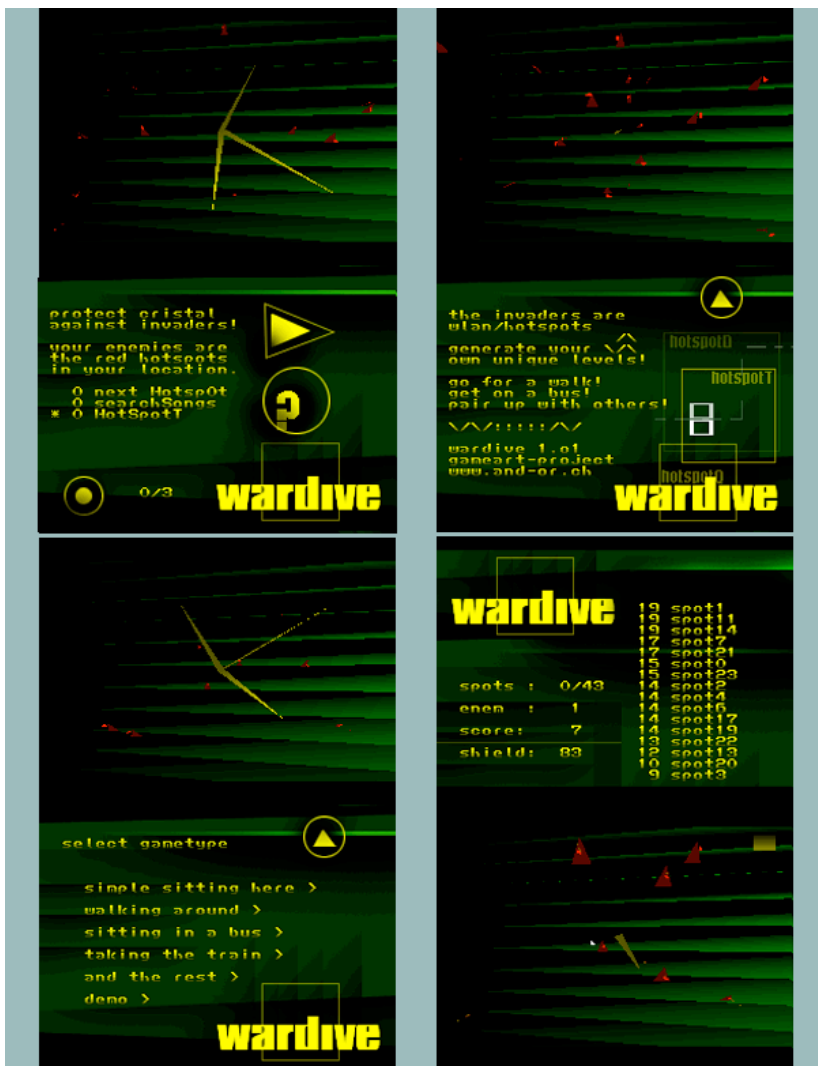
One of our most complex projects is a variation on the arcade games qix and volfied. It is called [l1neum](#) (only for mac). You have to cut off the enemy's territory piece by piece. The gameart add-on to Gamescape visualizes all playing movements in l1neum as 3D-sculptures. Then it stores the data to an internet database and creates a new city. A city consisting of structures which are created by all the gamers' movements. These cities are recorded and can be viewed over the internet at any time and in several different compositions. The game community of "l1neum"/ [gamescape](#) has so far built by playing more than 14,000 cities with 20-25 buildings over the last year. It's quite impressive to look at a world that exists just because people are playing, it's something like the subconscious of a game. ... and finally the gamescapes can be easily exported into 3d-software for further use. And the exported gamescapes then can be imported as city-scapes into any geographical location in google earth and alter design and aesthetics of a town, city or landscape.



for our latest game wardive we changed the game design focus. we decided to invert the normal process of creating levels & games and used what we learned from sniff\_jazzbox: the game can be built out of the environment. This of course changes the whole gameplay. usually game design tries to minimize the influence of the environment to control the flow. but here the surrounding area is part of the game. you have to fight the electrosmog in your area. if you sit on a bus you may experience the changing hotspots very intensely. therefore we introduced level-types: stationary, strolling, ride a bus. and we think there are lots of other possibilities to "defeat" electrosmog.

**OMGNINTENDO:** Why did you decide to develop games for the Nintendo DS hardware?

**AND-OR:** Nintendo DS is a very popular platform for games. People of all ages use it for playing fun games. The keys are specifically designed for easy playing. We like this and the touch screen a lot better than most cellphones with their awkward interfaces. It is also important to us that there are interesting experiments in the DS homebrew scene happening. And even the "professional" developer scene has made some innovative experiments for the DS like electroplankton or hopefully one day linerider. For Innovation it is important that everyone can buy a homebrew-card, load games on it and try them out. Developers like this fact and the fact that there is no downgrading firmware or anything else needed. And last but not least: You can hold the console with one hand and play with the other - just the right thing for a level through a restaurant or a shopping-mall.



**OMGNINTENDO:** Can you tell us a bit about how Wardive and sniff\_jazzbox turn wlan signals into in-game objects?

**AND-OR:** In sniff\_jazzbox there are two tunes. the first represents the actual active hotspots, the second tune represents the past passed hotspots. a tune is generated by the names of the hotspots. a c-char generates a c-tune, a d-char a d-tune and so on. the uppercase chars are an octave higher. we have used the same type of conversion in searchsongs.

wardive is a little simpler. every hotspot you are in spawns enemies as triangles. this triangles are bigger if the hotspot is stronger. the bigger the triangle is the stronger you have to fight it. depending on the chosen type of level the hotspots are faster or slower. the cristal is also built according to the intensity of the hotspots. in the future we will generically generate the 3d-structure of the enemy from names of hotspots in reach and use the names of the hotspots as a type of dna. the same could be done to generate music in sniff\_jazzbox.

**OMGNINTENDO:** Could you see a professional developer using the DS in a way similar to wardive or sniff\_jazzbox?

**AND-OR:** We developed wardive & sniff\_jazzbox as a proof of concept. And we think it works. There were also games that worked ingame with external sensors (light-sensor Boktai) or even wi-fi like Metal Gear: Portable Ops. But we are going one step further: we don't just use wi-fi signals in the game, we invert the gameplay and let our personal environment generate the game. This is a different approach of game design and it may not be understood at first. Each time a new game is created, not by the game designer but by the surrounding area of the player!



**OMGNINTENDO:** Could you see yourself trying to professionally publish titles for the Nintendo DS?

**AND-OR:** Why not. After all, we are working as lecturers for game design at a university of arts. However we do think "publishing" an experimental art game and making it available for everyone is a nice contribution to innovative game design as well. It carries the advantage that you don't have to make any compromises and you are able to push the limits much further.

**OMGNINTENDO:** Is AND-OR working on any DS projects now that you could tell us about?

**AND-OR:** At the moment we think about making another wi-fi game, in which the names of the hotspots can be directly included and inserted. We do sort through our ideas of a roleplay game in which for example you may have to flee the area of "Sigmund Freud", are asked to meet at the king of "Zyxel" to inquire about "Petra" the great which has a secret letter for you ... We could also imagine a game of a more strategic persuasion in which you may have to fight "Starbucks001" with the help of "Joda2" and "Luke1" while ... . In such a game you would be able to jump into the metaverse of symbolic spaces around you. we worked also with a befriended art-group (ludic society) on a game that works with wi-fi and rfid (over a serial card). but that's another story or let's say: another game.

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