

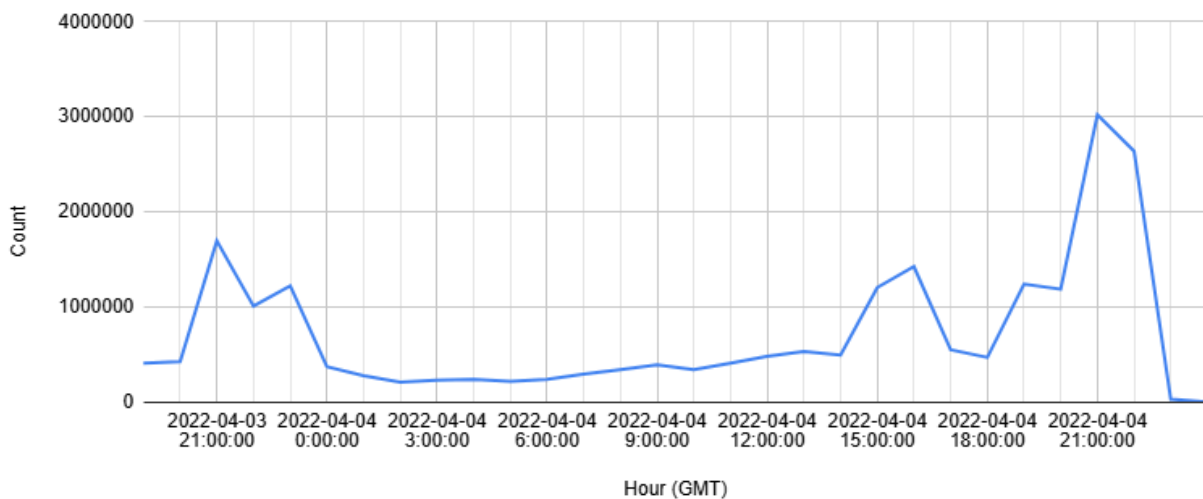
r/place 2022 French Flag

The French Flag, located at the bottom left corner, is one of the largest pixel art pieces on r/place 2022. According to [r/place Atlas](#), the 2nd expansion occurred around April 3 at 19:30 GMT and the general outline of the flag stayed there until the end of the event. During the course of ~28 hours, the flag went through a number of changes. Some of the most notable ones included the Eiffel Tower, nude pixel art, a man's face, and many more.

Timestamp

As a starting point for the analysis, we can take a look at the time these pixels were placed on the flag area.

Pixels Placed per Hour



Most of the pixels were placed during 21:00:00 on both April 3rd and April 4th. If we convert GMT to CET (French time zone), it was 10 PM when there was the most activity and 12 AM to 2 PM when there was the least activity. A screenshot of the area at 04-03 21:00:00 is shown on the left and one at 04-04 21:00:00 on the right.

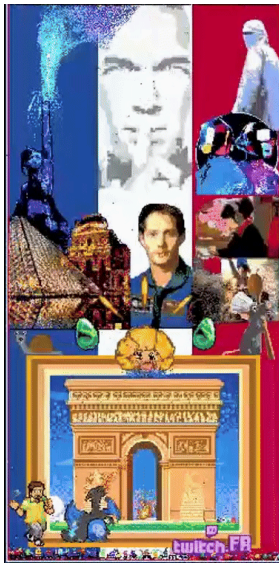
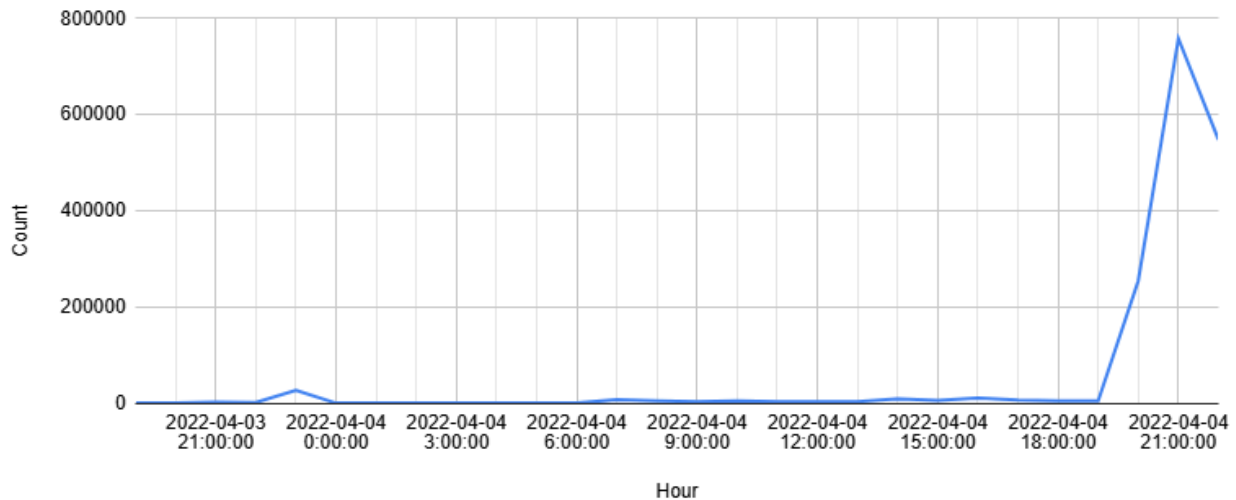
We can infer that it was mostly French users that were active during these times, since most people would be off of school/work at 10 PM. The art created around this time is also associated with French history and internet culture.



Colors Used

If we look at the top 5 colors used in the area, we might expect it to be mainly blue, white, and red. One of the top 5 colors was unexpectedly #811E9F (purple). If we look at a [timelapse](#) of the flag, purple isn't used for most of the time. We can instead use the r/place dataset to examine when purple pixels were placed:

Purple Pixels Placed per Hour



The purple pixels were used to paint the BTS logo (kpop group) repeatedly on top of the flag. Why?

According to [this article](#), a Spanish Twitch streamer named Ibai had “called upon” BTS fans to put their logo on the French flag in exchange for streaming the next BTS single. He claimed that there were “bots” placing pixels on the flag, so that other communities wouldn’t be able to take over the area.

However not all BTS fans may have participated in creating the logo, and it was not part of the official pixel art according to [this post](#):

We have been trying to stay low key for the last couple of days and focus on our work. The events that transpired in the end was unfortunate and we had nothing to do with it. Vandalizing others' art goes against our principles. Hope you like our artwork!

PySpark

My framework of choice was DuckDB. It was easier for me to use DuckDB than PySpark because I’m a lot more familiar with writing SQL queries than the functions used in PySpark to create and filter dataframes. Queries in PySpark were also slower than queries written in DuckDB. After doing some research, I found out that PySpark was good for processing very large amounts of data that is stored in different machines.