## Analysis of the Top 3 Painted Pixels in /rplace 2022

**Problem Statement:** Investigate which three positions in the /rplace2022 dataset was placed most often and form hypotheses on why those positions were frequently placed.

In order to analyze this data, I have queried for the most placed coordinate pairs and created snapshots of the end of each day containing only the box bound by 50 pixels in every direction. This allowed me to paint a picture of the changes occurring and ensure the same images were being maintained over the timeframe, so that a change in image or community goal would not affect this investigation negatively.

In the /rplace dataset the three most placed coordinate pairs were at (0,0), (359,564), and (349, 564). These take place in two different images, a runescape reference and the one piece flag for the straw hat pirates. The coordinate (0,0) was most commonly placed colors were white, black, and orange-red. For both (359,564) and (349, 564) the most commonly placed colors were black, light blue, and orange-red. These coordinates were important to two large gaming communities, runescape and undertale, which I will expand upon below.

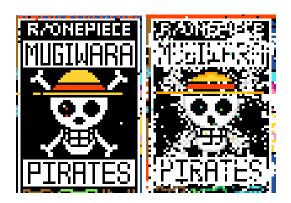
(0,0):

# 

(0,0) was the corner of the message box received when connection was lost in Runescape. Runescape is a popular MMORPG released in 2001 where a player is able to grind their abilities through repeated actions. Due to this, the community has commonly had to deal with bots performing these actions, with respected members manually performing the same repeated actions. This positioned the runescape community for success with /rplace as repeated actions are rewarded.

Additionally, /rplace had a large bot problem which typically would interfere with a community's attempts to maintain a portion of the board. Since the runescape community was aiming for (0,0), the origin point of /rplace, it was likely to have a lot of competition due to the value held around the "first" pixel. Since the bounding box was white, the Runescape community placed the white pixel enough to rank as one of the most placed pixel locations.

(349, 564) and (359, 564):



The coordinates (349, 564) and (359, 564) are the left and right eye of the One Piece skull. One Piece is one of the longest running and currently most popular manga in the world with approximately 516.6 million sales. The flag of the main character's, Luffy, ship is a skull and crossbones wearing his signature straw hat. The Straw Hat Pirates flag is being used to represent the r/onepiece community, which is in the shape of the bounty posters used in One Piece to show character growth at the end of arcs and elevate threat levels.

While the context around coordinates (349, 564) and (359, 564) are related to One Piece, the exact coordinates themselves are actually a reference to the extremely popular game Undertale. Undertale is a game created by Toby Fox, with between 5 and 10 million steam sales. Two fan favorite characters are the skeletons Sans and Papyrus, especially Sans. During the Sans boss fight, the character's eyes turn from black to blue in one eye. Papyrus, who is Sans' brother, has an orange-red cape. These characters' eyes have the colors of black, blue, and orange-red which correlates to the most placed colors at (349, 564) and (359, 564). One of the things the undertale community is known for is representing Sans with his signature cyan flame in the eyes, which is what took place here in the One Piece flag.

## Conclusions:

The most popular pixel positions to place at were all cores of multiple large gaming communities. With Runescape players passionately protecting the origin of /rplace from bots and non-community members, (0,0) was kept white for the majority of the event. The Undertale and One Piece communities both worked to create a skull representing two different communities at the same time, symbolizing a total of three characters.

## Bibliography:

## Runescape:

- <a href="https://runescape.wiki/">https://runescape.wiki/</a>
- https://oldschool.runescape.wiki/w/Botting
- Example of Runescape creating this box in /rplace 2023

### One Piece:

- https://onepiece.fandom.com/wiki/One Piece Wiki
- <a href="https://onepiece.fandom.com/wiki/Straw">https://onepiece.fandom.com/wiki/Straw</a> Hat Pirates
- https://onepiece.fandom.com/wiki/Bounties/Gallery
- Personal Understanding from reading the manga

### Undertale:

- <a href="https://en.wikipedia.org/wiki/Undertale">https://en.wikipedia.org/wiki/Undertale</a>
- https://undertale.fandom.com/wiki/Sans
- <a href="https://www.reddit.com/r/Undertale/comments/1cyr9p7/why\_does\_sans\_have\_so\_many">https://www.reddit.com/r/Undertale/comments/1cyr9p7/why\_does\_sans\_have\_so\_many</a> fans simps and/