

Visualizing Player Interactivity in Shared Virtual Environments

You can discover more about
person in an hour of play than
in a year of conversation.

– PLATO

t has been recently reported that around 40% of Internet users play some form of an online game perhaps the most sophisticated and complex, are known to be enjoyed by a dedicated base composed of no less than 20 million people worldwid.

An MMOPRG typically features a real world-like arena set in a fantastical age in which gamers engage in a variety of interactions with other players through battles and commerce (e.g., exchange or sales of valuable items), or purely recreational activities. The existence of a large dedicated fan base is attributed to the engrossing and persistent nature of MMORPGs, the players being able to groom their characters over a time span of many months or years. (Korean Paper...)

An MMOPRG typically features a real world-like arena set in a fantastical age in which gamers engage in a variety of interactions with other players through battles and commerce (e.g., exchange or sales of valuable items), or purely recreational activities.



My goal is to design and build a data visualization piece about player interactions in massive multiplayer online role playing games (MMORPGs).



Looking at interaction through
three different categories:

- Player communication
- Player avatar activity
- Player finance and commerce

The communication category will look at the number of times a player sends and receives messages in the game

- No. of Incoming and Outgoing Private whispers
- No. of Incoming and Outgoing Group Chat
- No. of Incoming and Outgoing Legion Chat

Player Character Activity

Login Activity

Combat Information

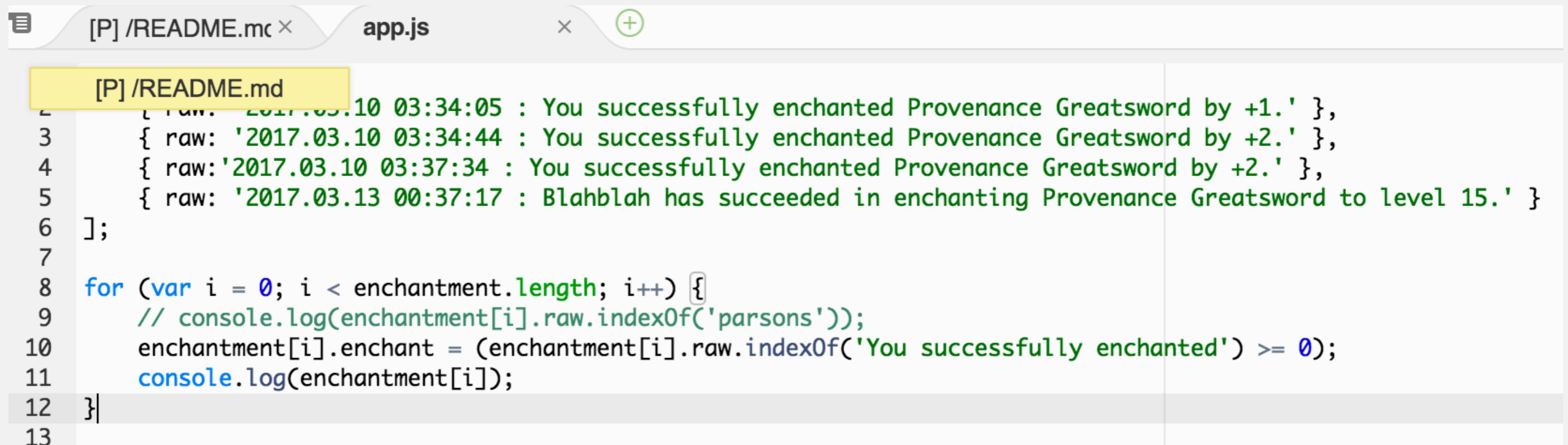
Item Upgrading Information (success/failure)

Number of Dungeons Entered

Area Travel

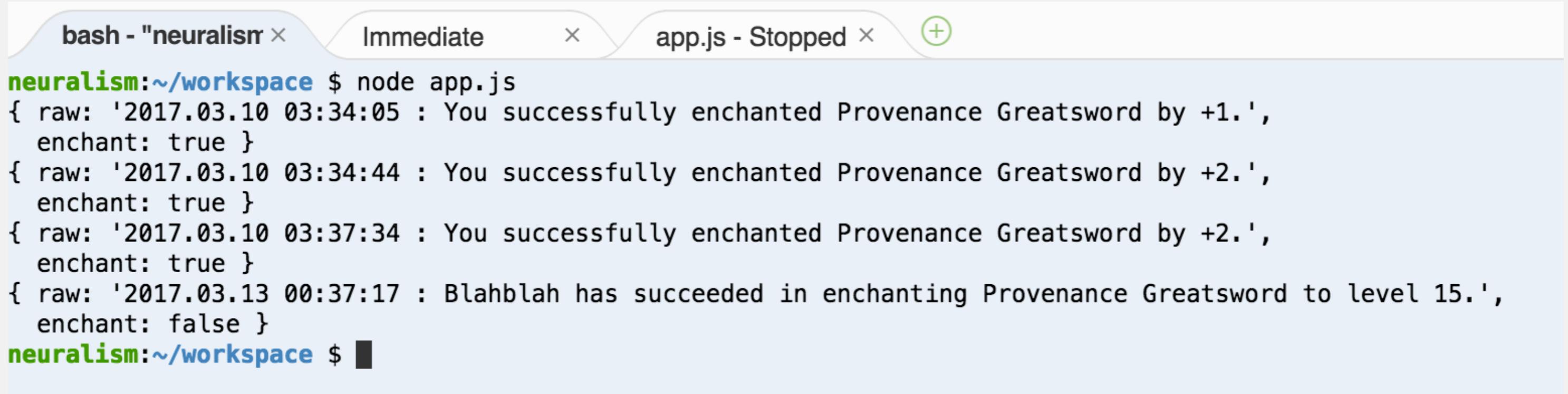
Player Finance

How much they earn and spend



[P] /README.md app.js

```
[P] /README.md
1 { raw: '2017.03.10 03:34:05 : You successfully enchanted Provenance Greatsword by +1.' },
2 { raw: '2017.03.10 03:34:44 : You successfully enchanted Provenance Greatsword by +2.' },
3 { raw: '2017.03.10 03:37:34 : You successfully enchanted Provenance Greatsword by +2.' },
4 { raw: '2017.03.13 00:37:17 : Blahblah has succeeded in enchanting Provenance Greatsword to level 15.' }
5 ];
6
7
8 for (var i = 0; i < enchantment.length; i++) {
9     // console.log(enchantment[i].raw.indexOf('parsons'));
10    enchantment[i].enchant = (enchantment[i].raw.indexOf('You successfully enchanted') >= 0);
11    console.log(enchantment[i]);
12 }
13
```



bash - "neuralism" × Immediate × app.js - Stopped ×

```
neuralism:~/workspace $ node app.js
{ raw: '2017.03.10 03:34:05 : You successfully enchanted Provenance Greatsword by +1.',
  enchant: true }
{ raw: '2017.03.10 03:34:44 : You successfully enchanted Provenance Greatsword by +2.',
  enchant: true }
{ raw: '2017.03.10 03:37:34 : You successfully enchanted Provenance Greatsword by +2.',
  enchant: true }
{ raw: '2017.03.13 00:37:17 : Blahblah has succeeded in enchanting Provenance Greatsword to level 15.',
  enchant: false }
neuralism:~/workspace $ █
```



DIRECT MESSAGES

Migu
Playing AioniKon
Playing Aion

Applied Last Friday at 11:43 PM
shit
nooo



iKon Last Friday at 11:44 PM
xD

April 2, 2017



Applied Last Sunday at 12:46 PM
Hey Goof! Sorry I forgot to mention something
In your Aion RainMeter, under: Settings > Main Settings > Main
There's a checkbox below the "Enable Chatlog" button called:
"Try to enable it automatically when it is turned off by the client"
Is it possible to keep that checked? Sorry for the trouble! Thanks!

Also, if it's not too much trouble, when you have 5 mins today.
Could you send me a copy of your log file?
I need to show my professor something this week.
Thanks, Goof! You're the best!!!



iKon Last Sunday at 1:47 PM
 Chat.log
749.88 KB

April 3, 2017



Applied Last Monday at 12:11 PM
THANKS A MILLION <#



iKon Last Monday at 12:20 PM
npnp



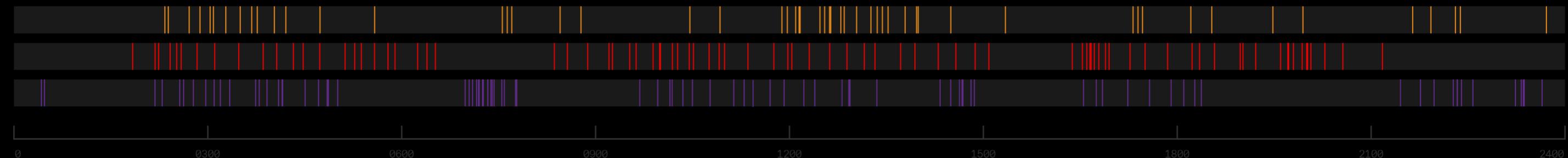
Message @iKon

Chat-170504a.txt * UNREGISTERED

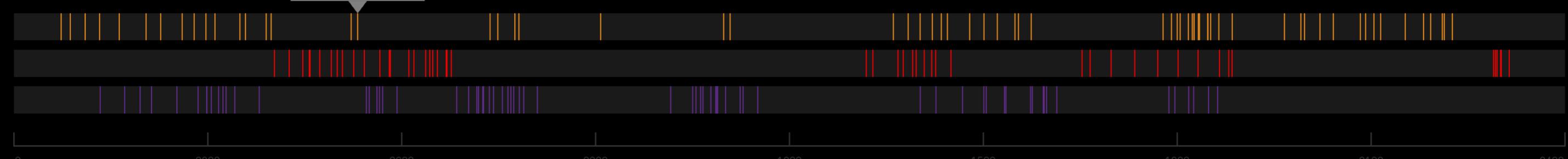
```
1 2017.03.31 21:49:59 : You changed the connection status to Online.
2 2017.03.31 21:49:59 : You changed the connection status to Online.
3 2017.03.31 21:50:03 : You may be unable to use certain skills or items in this area.
4 2017.03.31 21:50:03 : Legion Message: .
5
6 .
7 .
8 .
9
10 TS:< holeefuk.teamspeak3.com>
11 .
12 .
13 .
14 .
15 .
16 .
17 .
18 3/31/2017 12:21 AM
19 2017.03.31 21:50:03 : The Prestige Society Benefits effect will be over in 11 d 4 h 27 m.
20 2017.03.31 21:50:04 : You may be unable to use certain skills or items in this area.
21 2017.03.31 21:50:04 : You may be attacked by the enemy faction.
22 2017.03.31 21:50:04 : A one-way Rift into Elysea has appeared.
23 2017.03.31 21:50:05 : Helpful Legionnaire Trainee inflicted 6,772 damage on Training Dummy by using Ferocious Strike I.
24 2017.03.31 21:50:05 : You can receive the daily quest.
25 2017.03.31 21:50:05 : You can receive the weekly quest.
26 2017.03.31 21:50:05 : Helpful Legionnaire Trainee inflicted 3,670 damage on Training Dummy.
27 2017.03.31 21:50:05 : Critical Hit! Studious Legionnaire Trainee inflicted 9,174 damage on Training Dummy by using Wide Area Ferocious Strike.
28 2017.03.31 21:50:06 : Helpful Legionnaire Trainee inflicted 3,627 damage on Training Dummy.
29 2017.03.31 21:50:06 : Studious Legionnaire Trainee inflicted 6,193 damage on Training Dummy by using Wide Area Ferocious Strike.
30 2017.03.31 21:50:07 : Helpful Legionnaire Trainee inflicted 3,646 damage on Training Dummy.
31 2017.03.31 21:50:07 : Helpful Legionnaire Trainee inflicted 3,823 damage on Training Dummy.
32 2017.03.31 21:50:08 : Studious Legionnaire Trainee inflicted 3,763 damage on Training Dummy.
33 2017.03.31 21:50:08 : You summoned Amber.
34 2017.03.31 21:50:08 : Helpful Legionnaire Trainee inflicted 5,710 damage on Training Dummy.
35 2017.03.31 21:50:08 : Studious Legionnaire Trainee inflicted 3,713 damage on Training Dummy.
36 2017.03.31 21:50:09 : Helpful Legionnaire Trainee inflicted 3,723 damage on Training Dummy.
37 2017.03.31 21:50:09 : You have joined the Iluma region channel.
38 2017.03.31 21:50:09 : You have joined the Iluma trade channel.
39 2017.03.31 21:50:09 : You have joined the LFG Channel.
40 2017.03.31 21:50:09 : Helpful Legionnaire Trainee inflicted 3,809 damage on Training Dummy.
41 2017.03.31 21:50:10 : Studious Legionnaire Trainee inflicted 3,681 damage on Training Dummy.
42 2017.03.31 21:50:10 : : : Welcome to Aion.
43 2017.03.31 21:50:10 : : : 5.3 is now live!
44 2017.03.31 21:50:10 : : : Visit the website for more information.
45 2017.03.31 21:50:10 : Helpful Legionnaire Trainee inflicted 5,440 damage on Training Dummy.
46 2017.03.31 21:50:10 : Studious Legionnaire Trainee inflicted 5,575 damage on Training Dummy.
47 2017.03.31 21:50:11 : Helpful Legionnaire Trainee inflicted 3,733 damage on Training Dummy.
48 2017.03.31 21:50:11 : Helpful Legionnaire Trainee inflicted 3,571 damage on Training Dummy.
49 2017.03.31 21:50:12 : You have joined the Gladiator Channel.
50 2017.03.31 21:50:12 : Studious Legionnaire Trainee inflicted 5,476 damage on Training Dummy.
51 2017.03.31 21:50:12 : Helpful Legionnaire Trainee inflicted 5,730 damage on Training Dummy.
52 2017.03.31 21:50:12 : Studious Legionnaire Trainee inflicted 3,547 damage on Training Dummy.
53 2017.03.31 21:50:13 : Helpful Legionnaire Trainee inflicted 3,868 damage on Training Dummy.
54 2017.03.31 21:50:13 : Helpful Legionnaire Trainee inflicted 3,618 damage on Training Dummy.
55 2017.03.31 21:50:14 : Studious Legionnaire Trainee inflicted 3,842 damage on Training Dummy.
56 2017.03.31 21:50:14 : Helpful Legionnaire Trainee inflicted 3,609 damage on Training Dummy.
57 2017.03.31 21:50:14 : Studious Legionnaire Trainee inflicted 3,699 damage on Training Dummy.
58 2017.03.31 21:50:15 : Helpful Legionnaire Trainee inflicted 3,876 damage on Training Dummy.
59 2017.03.31 21:50:16 : Helpful Legionnaire Trainee inflicted 3,814 damage on Training Dummy.
60 2017.03.31 21:50:16 : Studious Legionnaire Trainee inflicted 3,558 damage on Training Dummy.
61 2017.03.31 21:50:18 : Studious Legionnaire Trainee inflicted 3,637 damage on Training Dummy.
62 2017.03.31 21:50:18 : [3.LFG] [charname:GladSevenDown;1.0000 0.6941 0.6941]: wts [item:188052496;ver8;;;;] [pos:Location;0 210100000 1414.8 1332.1 0.0 0]
63 2017.03.31 21:50:19 : Critical Hit! Helpful Legionnaire Trainee inflicted 9,961 damage on Training Dummy by using Ferocious Strike I.
64 2017.03.31 21:50:19 : Critical Hit! Studious Legionnaire Trainee inflicted 8,926 damage on Training Dummy by using Wide Area Ferocious Strike.
65 2017.03.31 21:50:20 : Helpful Legionnaire Trainee inflicted 7,126 damage on Training Dummy by using Ferocious Strike I.
66 2017.03.31 21:50:20 : Helpful Legionnaire Trainee inflicted 6,672 damage on Training Dummy by using Ferocious Strike I.
67 2017.03.31 21:50:21 : Studious Legionnaire Trainee inflicted 3,692 damage on Training Dummy.
68 2017.03.31 21:50:21 : Helpful Legionnaire Trainee inflicted 5,377 damage on Training Dummy.
69 2017.03.31 21:50:21 : Studious Legionnaire Trainee inflicted 3,723 damage on Training Dummy.
```

Player Activity

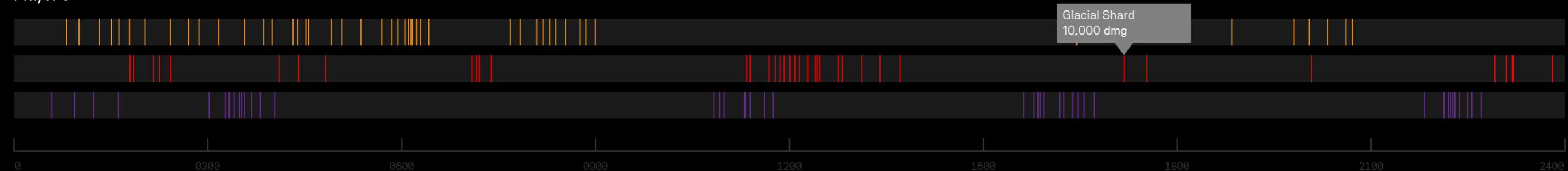
Player 1



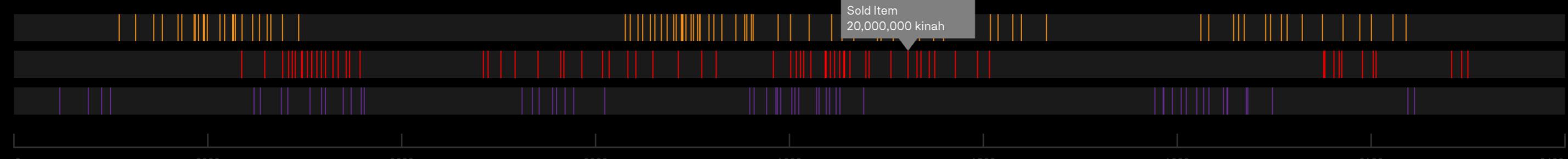
Player 2



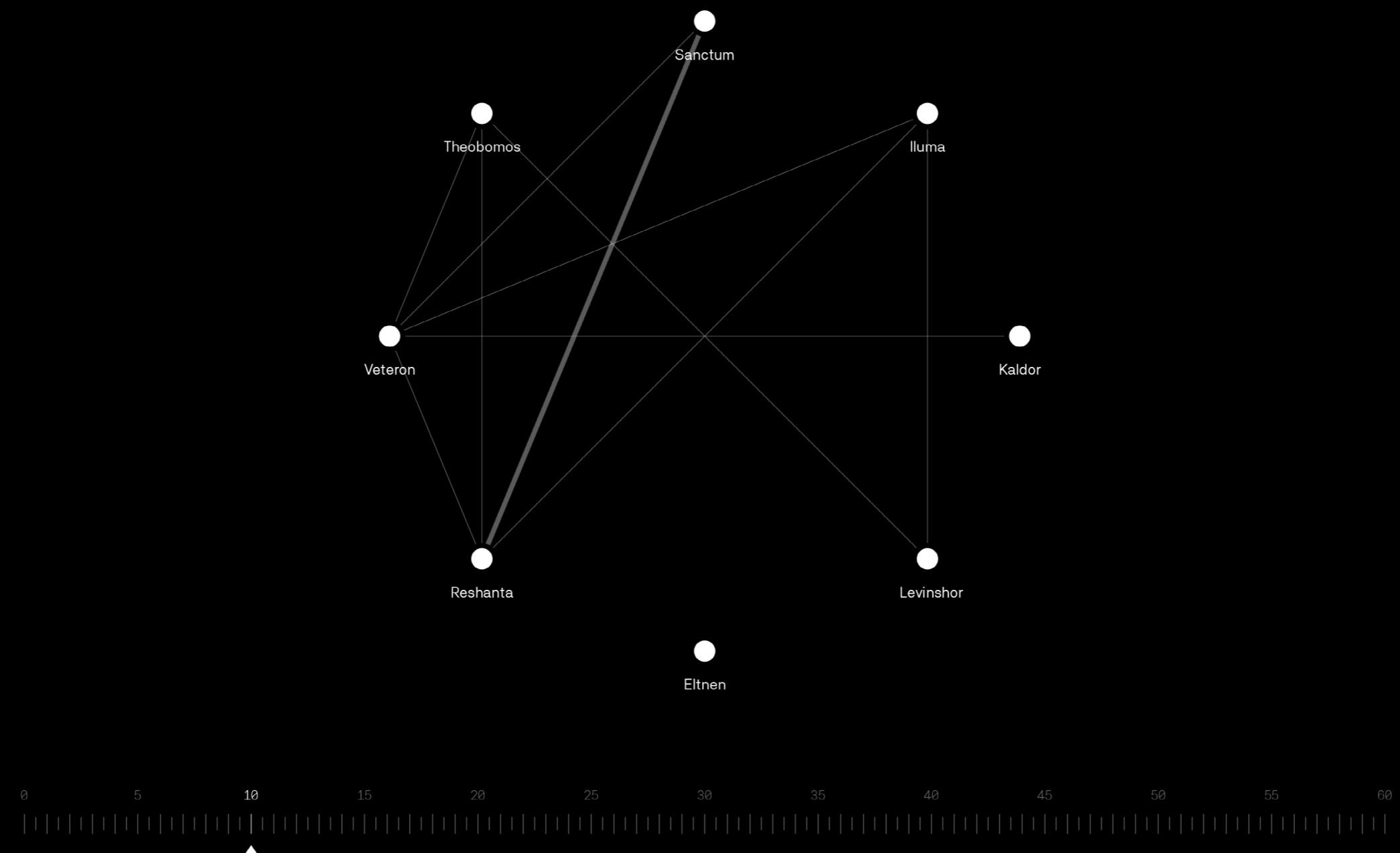
Player 3



Player 4

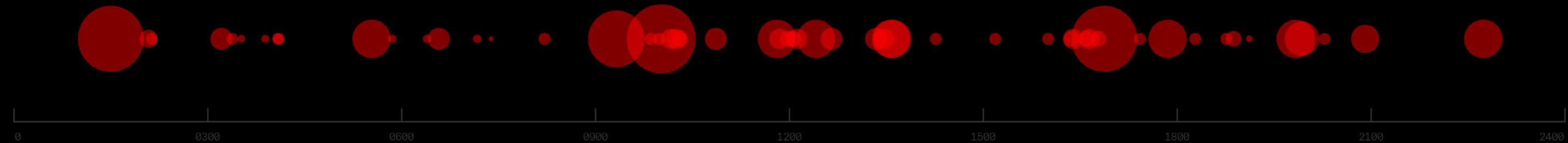


Area Travel

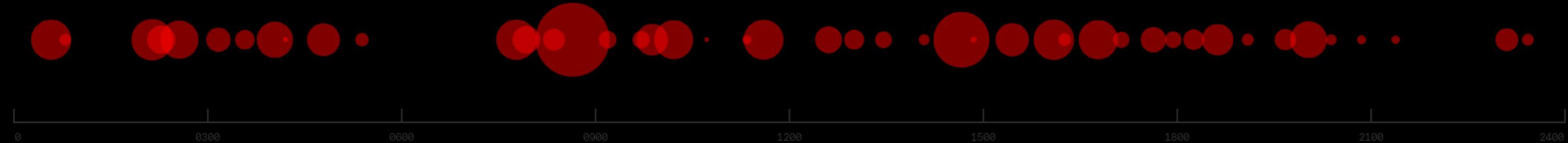


Damage Over Time

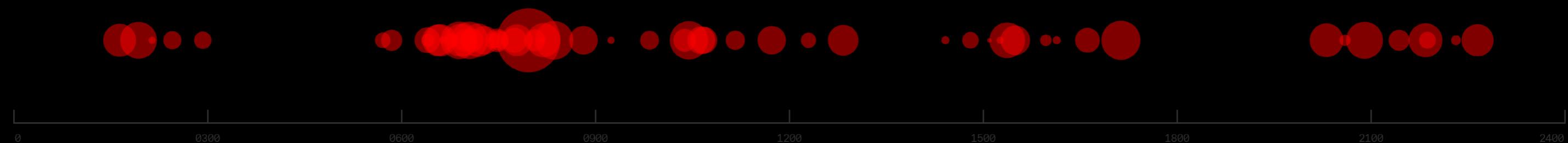
Player 1



Player 2



Player 3



Player 4

