



UI Specification of League of Legends spectator mode for Smart TV

Mikheev Konstantin

Czech University of Life Sciences Prague

Faculty of Economics and Management

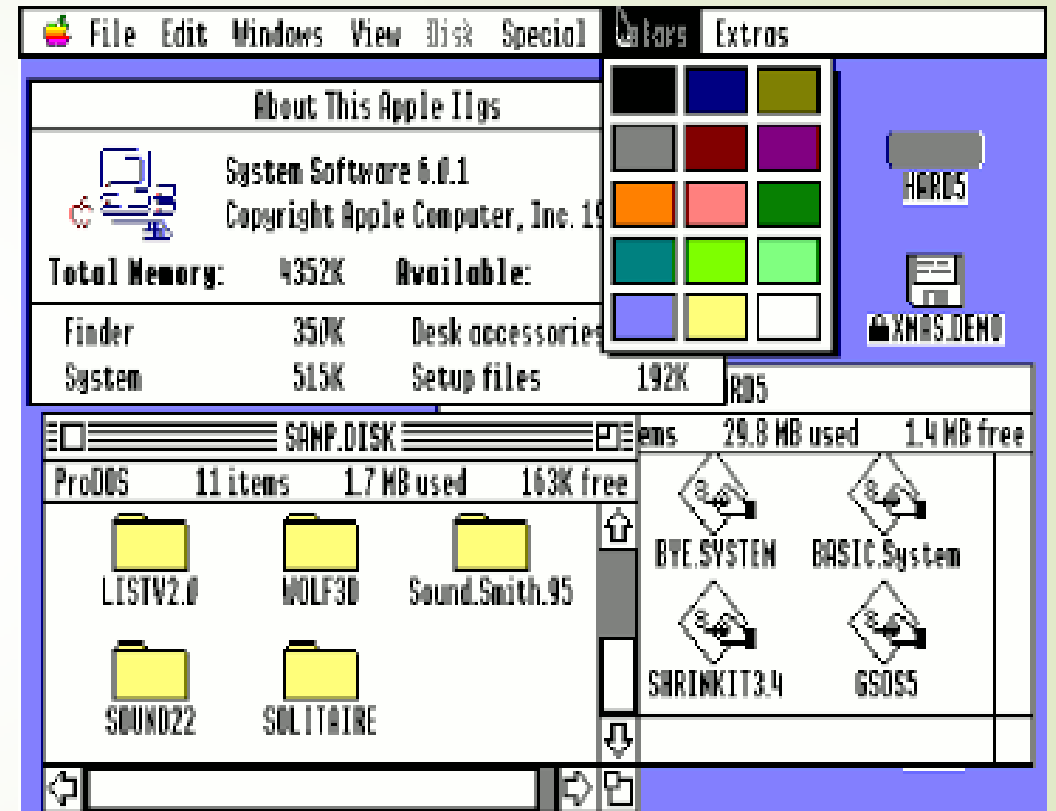
Department of Information Technologies

INTRODUCTION

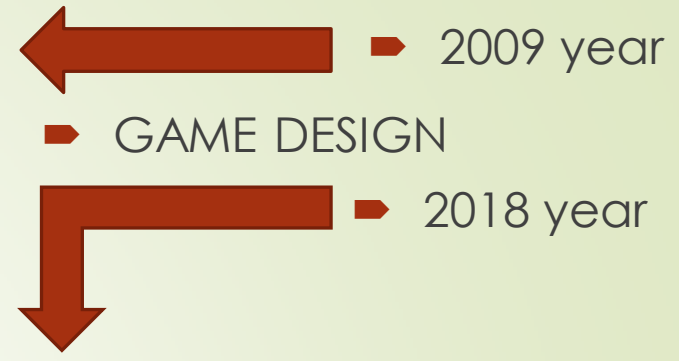
- Xerox Star first GUI operating system



- The Apple GS/OS desktop

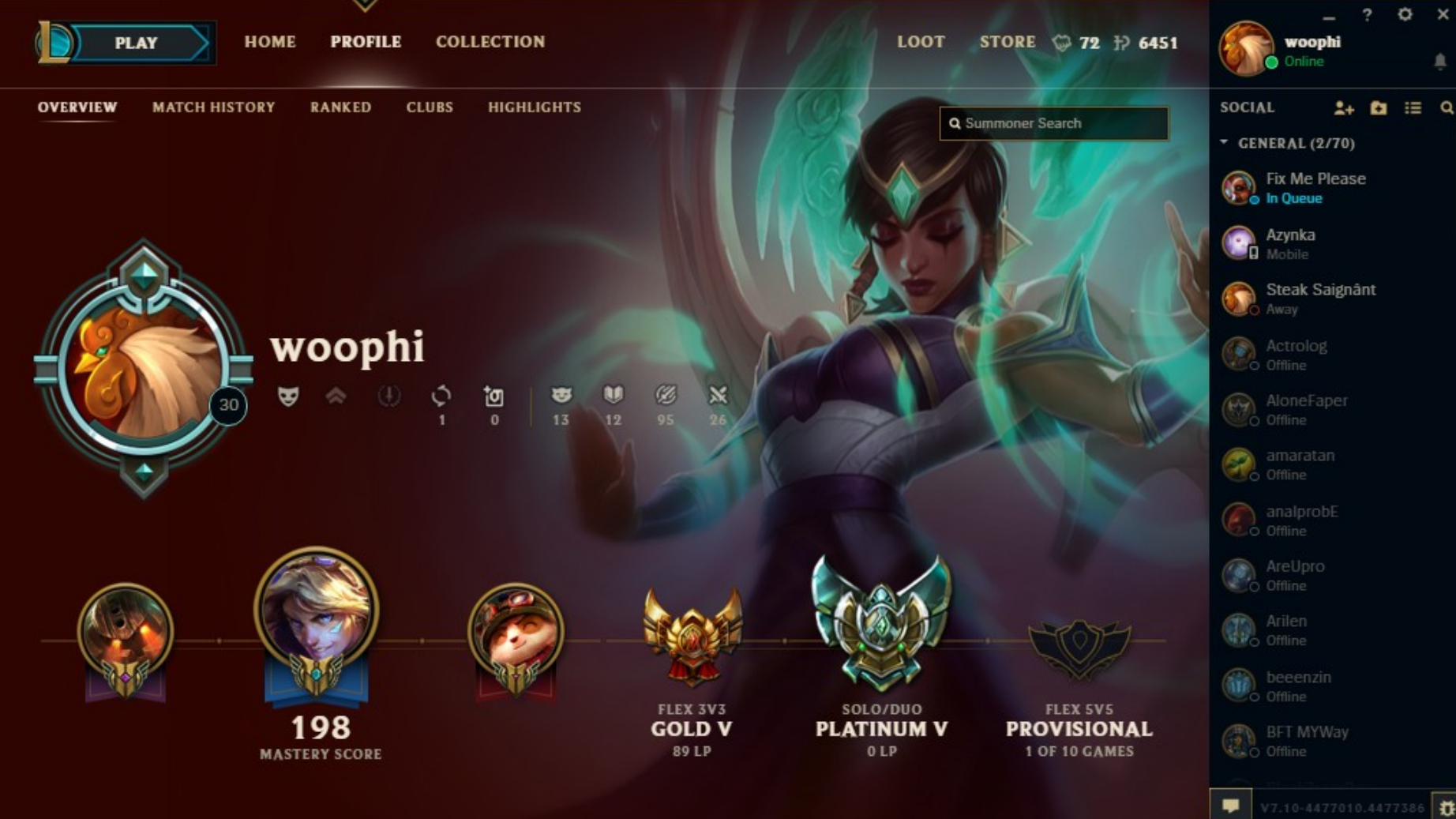
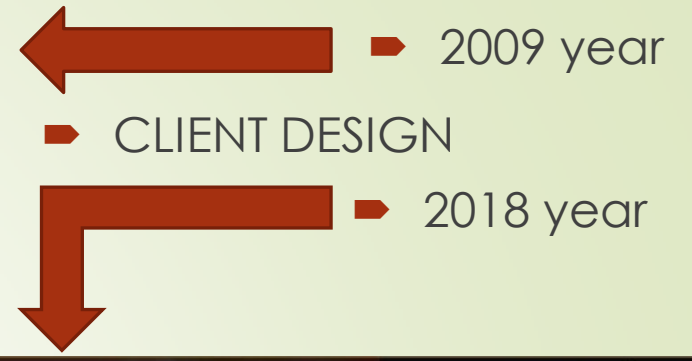


- Sources:
https://en.wikipedia.org/wiki/History_of_the_graphical_user_interface#/media/File:Xerox_Star_8010_workstations.jpg
- https://en.wikipedia.org/wiki/History_of_the_graphical_user_interface#/media/File:AppleIIGSOS.png



- Sources:
- <https://i.ytimg.com/vi/pmQ36GujkzU/maxresdefault.jpg>
- <https://i.ytimg.com/vi/JLtlpYPrI1/maxresdefault.jpg>





- Sources:
- <http://imgur.com/4jSsx6r>
- Print screen of client



1:25



1:38



1



7



83.3k

52



55



87.7k



7



3

38:31

FPS: 46

0 ms

BX3 TPL Tide

18

Who killed Teddy

18

LA Capl

17

imProve Golden

18

Rock Solid irl

18

Rock Solid irl

18



2496 / 2496
818 / 1002
391 416
16 82
0.8 139

5 5 3 3 178

Directed Camera [D]

Fog of War All

Who killed Teddy Furzy

18

Broxah

18

Jurek Owskiak

18

Inition

17

4GA TuTu

18

what are you yaa

18

38:30 LIVE / 38:30

Player	Champion	K/D/A	CS	Champion	K/D/A	CS
Player 1	[Champion Icon]	11/9/9	237	Player 2	[Champion Icon]	182
Player 2	[Champion Icon]	13/11/14	261	Player 3	[Champion Icon]	237
Player 3	[Champion Icon]	5/13/18	36	Player 4	[Champion Icon]	75
Player 4	[Champion Icon]	13/9/16	217	Player 5	[Champion Icon]	271
Player 5	[Champion Icon]	10/13/10	241	Player 6	[Champion Icon]	275



FPS: 45
0 ms

18

Inition EP\$

17

Jurek Owskiak PAPAJ

18

Rock Solid irl

18

are you yaa

18

Broxah

18

Who killed Teddy Furzy

18


18

LA Cap1

17



Goals

- ▶ To develop adaptive user interface system of “spectator mode in the game League of Legends”
 - ▶ It will be focused for Smart TV according to client’s version platform for personal computers.
- 




Methodology



- To make research of:
 - League of legends spectator modes needs
 - Smart TV control possibilities
 - Research of other Smart TV games
- To make the results from research.
- Implement UI Specification.
- Test UI Specification in Usability Study (10 participants).
- Define results from the test.
- Recommend gained knowledge and update UI Specification according to the results.



Test in Usability Study

- **Use case test**
 - 1. Login or register in application.
 - 2. Listen a message.
 - 3. Spectate a game.
 - 4. Observe statistics after a game.
 - 5. Log out from the application.
- 

Process of Testing and results

➤ **After testing, the following questions were asked to define and to identify the results:**

- Have you ever played in League of Legends?
- What is your Likes?
- What is your Dislikes?
- What is your Recommendations?

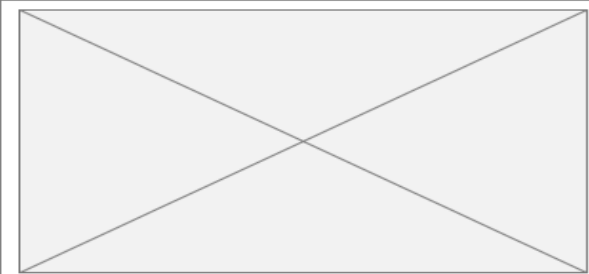
➤ **According to questions, the following answers were received:**

- Nobody has ever played in League of Legends.
- User-friendly interface. Large buttons and icons. The worked out functional. Easy-to-perceive in terms of cognitive testing.
- A difficult understanding of how to exit from the program.
- Make the button log out closer, in terms of intuitively clear, to user.

Example of the latest version of logical design – main screen.



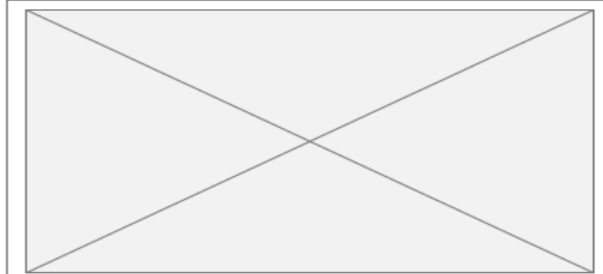
Nickname of user



CUSTOM GAMES

CURRENTLY PLAYING FRIENDS

1. Nickname	In game for 13:29 mins	SPECTATE
2. Nickname	In game for 13:29 mins	SPECTATE
3. Nickname	In game for 13:29 mins	SPECTATE
4. Nickname	In game for 13:29 mins	SPECTATE
5. Nickname	In game for 13:29 mins	SPECTATE



CHALLENGER PLAYERS

FRIENDS

Sort by:

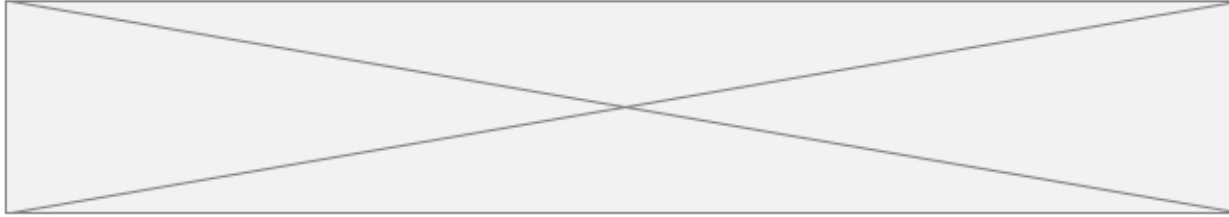
1. Nickname		in game
2. Nickname		online
3. Nickname		offline
4. Nickname		online
5. Nickname		offline

EXIT



VIDEO INSTRUCTIONS

WELCOME TO LEAGUE OF LEGENDS SPECTATER



[Forgot your username?](#)

[Forgot your password?](#)

Username

Password

Remember me

SIGN IN

Create an account

Sign in as shoutcaster

Language


English ▼


[INFO!!!](#)





RED
TEAM











 100% 
 Nickname

 100% 
 Nickname




 100% 
 Nickname




 100% 
 Nickname




 100% 
 Nickname


Delay: 2:59

BANS



Map: Summoner's rift
Team: 5x5

special button to continue
after "loading"

BANS




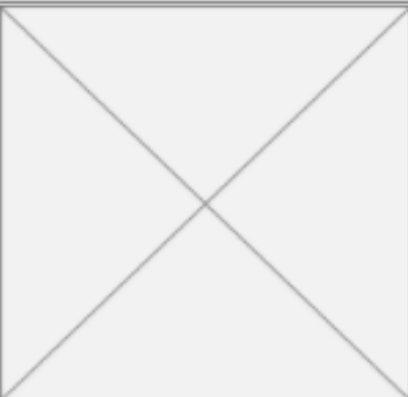






Pick: Draft Pick
Game: Ranked





BLUE
TEAM







 100% 
 Nickname




 100% 
 Nickname




 100% 
 Nickname




 100% 
 Nickname




 100% 
 Nickname


LOG OUT

EXIT



BLUE TEAM WON

Time: 29:26

Score: 32/28/49 vs 28/34/49

TABLE

DIAGRAM

Champion

	Nickname	Summons	Items	Gold	Minions
	Champion name	12/5/8		15,6k	270
	Champion name	12/5/8		15,6k	270
	Champion name	12/5/8		15,6k	270
	Champion name	12/5/8		15,6k	270
	Champion name	12/5/8		15,6k	270

	Champion name	12/5/8		15,6k	270
	Champion name	12/5/8		15,6k	270
	Champion name	12/5/8		15,6k	270
	Champion name	12/5/8		15,6k	270
	Champion name	12/5/8		15,6k	270

MAIN MENU

LOG OUT

EXIT



Combat										
KDA	5/5/12	8/5/8	1/4/18	18/3/5	5/4/11	0/6/8	6/7/4	5/8/4	2/7/9	8/9/3
Largest Killing Spree	2	3	1	11	2	0	2	2	2	4
Largest Multi Kill	1	1	1	3	1	0	1	1	1	1
First Blood	o	o	o	*	o	o	o	o	o	o
Damage Dealt										
Total Damage to Champions	31.7k	17.7k	19.4k	29.1k	22.0k	1.5k	21.4k	17.0k	9.6k	12.1k
Physical Damage to Champions	24.9k	2.4k	1.5k	24.0k	1.2k	0.6k	16.4k	0.2k	4.1k	10.9k
Magic Damage to Champions	6.8k	13.8k	17.8k	4.7k	15.1k	0.9k	1.0k	16.7k	4.2k	1.2k
True Damage to Champions	0.0k	1.5k	0.1k	0.4k	5.7k	0.0k	4.0k	0.0k	1.2k	0.0k
Damage Dealt	95.9k	137.1k	69.4k	132.4k	130.8k	4.1k	127.1k	165.7k	97.7k	84.1k
Physical Damage Dealt	86.7k	28.6k	13.5k	124.0k	17.7k	1.9k	91.1k	9.7k	50.4k	73.3k
Magic Damage Dealt	8.9k	99.8k	54.8k	7.0k	82.1k	2.2k	25.0k	155.5k	38.2k	10.8k
True Damage Dealt	0.2k	8.7k	1.1k	1.4k	30.8k	0.0k	11.1k	0.5k	9.0k	0.0k
Largest Critical Strike	-	470	-	956	-	-	737	-	-	-
Damage Taken & Healed										
Damage Healed	2.0k	12.1k	2.4k	1.4k	3.1k	5.3k	2.4k	2.7k	6.7k	2.8k
Damage Taken	14.7k	31.8k	11.8k	21.1k	17.0k	20.3k	21.8k	23.7k	42.2k	31.5k
Physical Damage Taken	10.6k	23.8k	8.1k	15.9k	8.6k	7.2k	11.2k	9.7k	26.4k	19.0k
Magic Damage Taken	3.0k	5.4k	3.4k	4.3k	7.8k	12.0k	9.6k	12.1k	13.8k	10.7k
True Damage Taken	1.0k	2.6k	0.3k	0.9k	0.6k	1.0k	0.9k	1.9k	2.0k	1.8k
Wards										
Wards Placed	5	3	22	6	7	15	10	12	7	14
Wards Destroyed	2	2	3	2	1	1	-	-	-	2
Stealth Wards Purchased	-	-	-	-	-	-	-	-	-	-
Vision Wards Purchased	1	-	1	-	1	1	-	-	-	4
Income										
Gold Earned	11.9k	12.7k	11.5k	15.1k	11.8k	7.8k	11.9k	11.0k	9.0k	10.3k
Gold Spent	10.4k	10.8k	10.0k	14.9k	10.1k	6.9k	10.7k	10.4k	8.0k	10.7k
Minions Killed	137	41	58	148	168	2	159	184	14	125
Neutral Minions Killed	4	76	-	8	2	-	9	12	72	3
Neutral Minions Killed Team's Jungle	4	70	-	2	1	-	9	10	70	3
Neutral Minions Killed in Enemy Jungle	-	6	-	6	1	-	-	2	2	-



Conclusion

List of possibilities of developed UI

- ▶ Log in into application using registered account for game.
- ▶ Log in as a Riot Games worker (for professional shoutcasters).
- ▶ Register without redirecting to official site.
- ▶ List of connected friends.
- ▶ Interactive instructions.
- ▶ Spectating a game of your friends.
- ▶ Choose the server to spectate challenger players (professional players).
- ▶ List of custom games, where user is also able to connect and spectate.
- ▶ Chatting with friends by voice.