



SERGI SUBIRATS
GAME DESIGNER

Systems Designer with 9 years of experience in the videogames industry.
Passionate about game balance.

BOHEMIA INTERACTIVE, 21/02/2022

ARMA REFORGER

([ARMA REFORGER GAMEPLAY](#), [ARMA REFORGER TRAILER](#))

In February 2022, I had an interview with Bohemia Interactive for the position of Senior Game Designer specializing in Metagame systems and player statistics. The interview went really well, and I had the chance to chat with Zozo and Karel, two of their lead game designers.

Their enthusiasm and the engaging discussions we had convinced me that this was an opportunity I could not pass up. I happily accepted the offer to join their team and was excited about what lay ahead.



Bohemia Interactive wanted me to work on their flagship IP: Arma, a first- (and third-) person military tactical shooter series centered around realistic depictions of modern warfare from various perspectives.

After starting my new job in Prague, I had valuable discussions with the lead producer, Natasha, and with the lead game designer, Zozo. They both entrusted me with overseeing two key features (Laws of War and Career Profile) and with leading the transition towards a data-driven approach within the company. It was an exciting opportunity that I wholeheartedly embraced.

MY JOB AS SENIOR GAME DESIGNER AT BOHEMIA INTERACTIVE

At first, owning a feature felt overwhelming, especially because the engine was created in-house, which meant that everything was new to me. Because there was not enough time for a proper onboarding due to the tight schedule of the project, I had to learn the ropes by myself. Additionally, the documentation was lacking, leaving me without clear instructions on the functionalities and the life cycle of the engine.



Documentation and an onboarding process are crucial, particularly when dealing with projects of such big scale.

So, when it came to design tasks, I excelled right from the start. In less than two weeks I tackled a complex design challenge about parametrizing the player's behaviour, and created a deep performance evaluation system. However, facing scripting tasks was not simple and reverse-engineering the code was slow. Luckily, the main scripter, Vojta Matous, found time to assist me, and then in just two one-hour sessions I gained the necessary knowledge to push my features further. But time was running out now.



The Enfusion Engine is very powerful and effective for feature development. But it has a steep learning curve.

Despite the challenges, I pushed myself relentlessly, working long hours to meet all the deadlines. It was exhausting. But my efforts paid off. I delivered the features on time with the expected scope and quality.

- Career Profile: I designed and implemented a comprehensive system that evaluates player performance using various parameters, providing detailed information about their overall history, and also their session.
- Laws of War: I developed a moddable system to identify and penalize in-game war crimes, incorporating research on the Geneva Conventions and rules of war from the International Committee of the Red Cross.
- Data-driven approach: I architected and populated the database, established a streamlined process for requesting and analyzing new data, and provided informative lectures on data analysis and research principles.



In Arma Reforger, the tracking system and Career Profile employed complex calculations to reward diverse playstyles. Every role had significance on the battlefield, aiming for balance and recognition of each player's contributions.

Following that significant milestone, I sought feedback from my peers and received an average evaluation of 125% of performance, with three ratings of 140% and two ratings of 100%. They commended my expertise in design, my effective production approaches and principles, as well as our overall communication and cooperation.

While some of my colleagues appreciate my coding skills, I don't want to allocate more than 60% of my time to it. This is because even if I am fine coding, I also enjoy doing game and systems design, along with using effective communication and production considerations.

PART 2 OF BEING A SENIOR GAME DESIGNER AT BOHEMIA INTERACTIVE

I discussed my role with my lead, expressing concerns about its similarity to game scripters despite that not being the role we agreed on initially. Zozo explained that limited resources and the project's current state were factors, and asked me to keep doing what I was doing, although he also gave me tasks related to analyzing and improving the game systems. Additionally, I was entrusted with the responsibility of serving as the team's go-to person for game balancing, becoming a key reference in that aspect.



The features were showcased in game-modes. Conflict was the main one, and after that conversation with my lead I became in charge of adjusting and improving its gameplay systems and balance of the asymmetric factions.

However, soon after, I was also given ownership of three additional features: player kicking and banning, player spawning, and achievements for the Xbox release. Juggling all these responsibilities left me with little time left for analyzing and improving the game. And because of a lack of documentation, I decided to identify weak areas in the game systems through gameplay and testing. Alongside making my assigned features happen, I provided assistance to the team wherever I could.

Through these efforts, I made meaningful contributions to the project's progress and emphasized the importance of clear planning and continuous enhancements for a cohesive and engaging gameplay experience.

RESULTS OF MY JOURNEY AT BOHEMIA INTERACTIVE



- Robust data tracking and collection system for multiple systems.
- Enhanced player experience with profile progression and career screen.
- Realistic rules reflecting the Laws of War.
- Intelligent kicking and banning system.
- Streamlined data connection with a fully functional data usage cycle from both scripting and C++ sides.
- Recorded lectures on proper data usage and principles.
- Knowledge of game balance best practices.
- Achievements implementation with future-proof design.



FLATTER THAN EARTH, 01/02/2018

ONCE UPON A PUPPET

([GAMEPLAY VIDEO](#))

In January 2018, I was contacted by Flatter than Earth. Soon after, I met with Martin, the creative director, and Frank, the narrative designer. They were seeking a lead game designer for their adorable and captivating game about a Puppet and its journey. Their demo, showcased at PAX West in December 2017, received high praise for its captivating visual style.

While their passion for their work was evident, I sensed that something was not quite right.



The enchanting demo of Once Upon a Puppet premiered at Pax West 2017.

Martin expressed his concern about the experience of the players with the game: the gameplay did not meet their expectations, and they were not finding it enjoyable. Some players observed others playing without feeling compelled to try it themselves. After our discussion, Frank and Martin were impressed with my ideas.

A few days later, I received a formal offer to join their team, with a start date set for February 2018.



I helped the team realize that challenging sections like this one, which required high player dexterity, were working against their vision for the game.

MY JOB AS THE LEAD GAME DESIGNER AT FLATTER THAN EARTH

I began by identifying the key elements that would make OuaP an atmospheric puzzle-platformer. Next, I evaluated the existing systems to determine if they aligned with our goal and made necessary adjustments.



We wanted to create more moments like this one while keeping the game fun

Capturing the desired puppetry essence was not a simple endeavour. Removing the wall-jumping and the punching was easy, because they did not contribute to the core of the game.



Having a well-defined objective is crucial when merging skill themes and game genres. In the case of OuaP, the game's atmospheric charm necessitated a shift towards the puzzle genre instead of action.

But finding a jump system that felt right was harder. I prototyped ~20 different jumps and worked for 3 months to find the one. But we made it, and I believe it was absolutely worth it.

To validate the core systems and capture the desired atmospheric feeling, I developed an initial test level. As we progressed, I introduced the team to pacing concepts, specifically emphasizing the inclusion of “walking sections.” These sections provide a respite for players, where failure is not possible or does not result in punishment, allowing them to relax and recharge.



This serves as a prime example of a well-designed walking section. By dividing the experience into distinct segments and incorporating environmental elements, we create unique reactions.

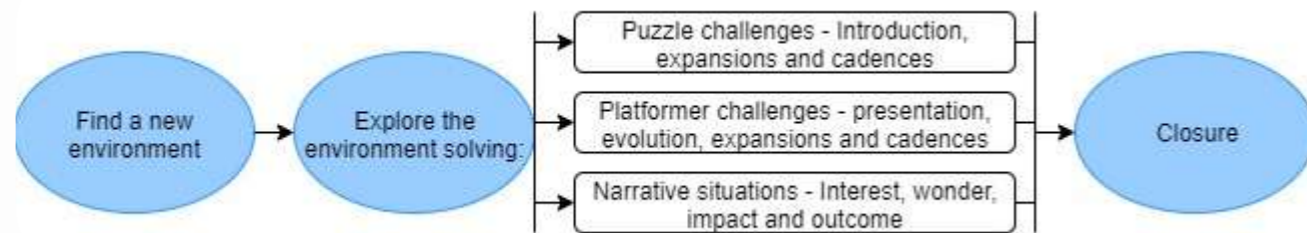
I developed several levels and proposed expanding the design team to accelerate the development. Martin and the team agreed, and I was entrusted with conducting tests and interviews for potential candidates. Eventually, we found two junior level designers who received my endorsement. We hired them and I took on the responsibility of mentoring them, ensuring they understood and aligned with the values and concept of the game.



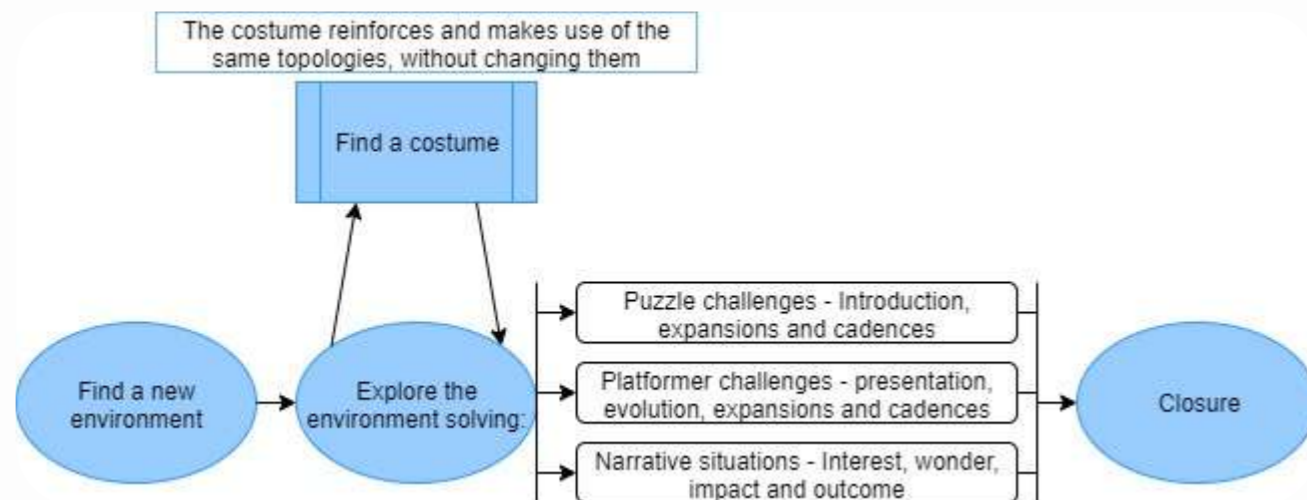
I made sure the level designers understood our reasoning in making a visually appealing game with relatively easy mechanics, so that we were all on the same page in terms of design.

PART 2 OF BEING THE LEAD GAME DESIGNER AT FTE

Once we were happy with the core systems and had some playable levels, I was tasked with introducing costumes in the game. The stakeholders envisioned our puppet character, Drev, wearing multiple costumes throughout the game with the future possibility of selling Drev dolls after the release of the game. That was challenging, but I am proud of the way my team and I managed to make it fit into the game without altering its core too much.



Core loop of the game before introducing the Costumes



Core loop of the game after introducing the costumes and deciding they would bring active abilities

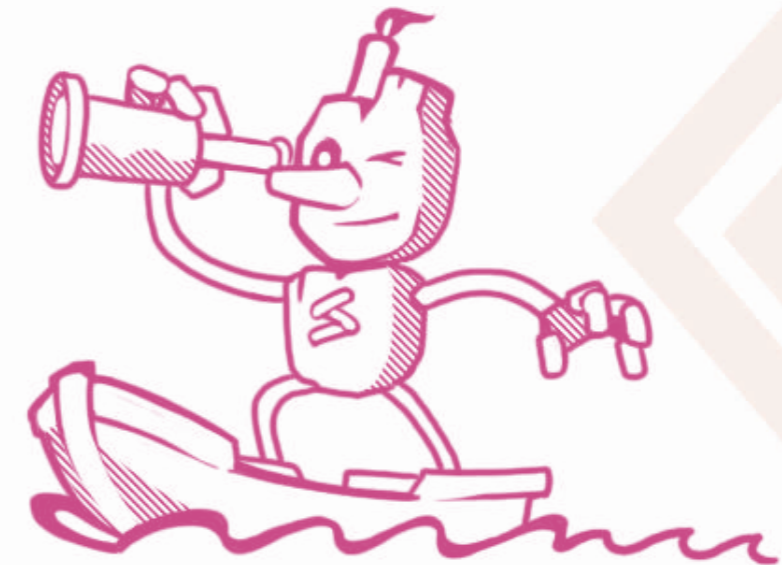
Despite the team's desire to give costumes multiple abilities and alter the player's interaction with other systems, I advocated for simplicity and depth in the game design.

- Walking
- Jumping
- Activating items
- Using the Puppetry action
- Choosing a costume
- Using the costume's unique ability

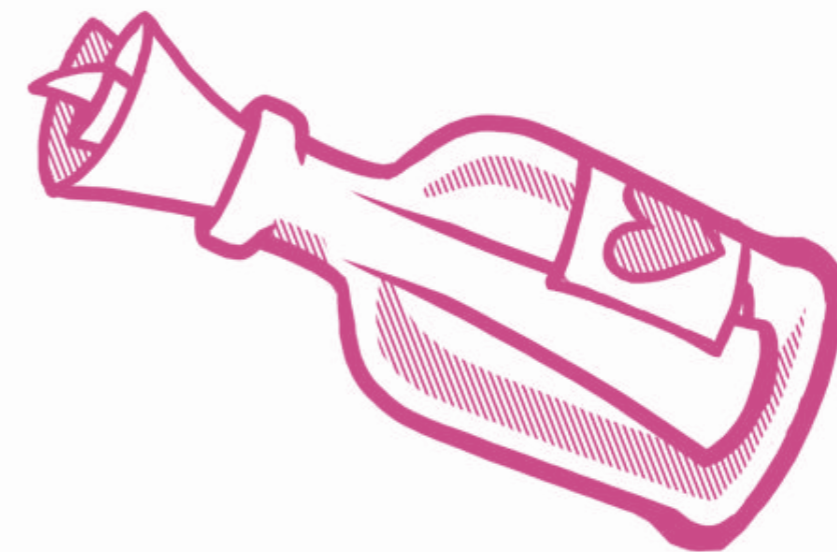
Final list of verbs after adding the Costums feature to the game and iterating over it

After conducting testing sessions with real users, my colleagues acknowledged and appreciated my stance on ensuring the game's usability and accessibility. They understood why I stood by my convictions and thanked me for it.

RESULTS OF MY JOURNEY AT FTE



- The company achieved a deep understanding of their desired game and its unique gameplay elements.
- The creative team had a finely-tuned system that truly captured the essence of puppetry.
- The level designers demonstrated a strong grasp of the vision of the team and consistently delivered high-quality levels.
- Both stakeholders and the creative director expressed satisfaction with the final experience.
- The team had high-quality documentation facilitating seamless collaboration with stakeholders and new team members.



UBISOFT BARCELONA, 01/02/2016

MIGHT AND MAGIC: ELEMENTAL GUARDIANS

([CINEMATIC TRAILER](#), [GAMEPLAY VIDEO](#))



They wanted to make a game similar to summoner wars using the Might & Magic IP

In December 2015 I was finishing an internship at Winko Games, and the lead designer, Ricardo, recommended me pursuing a career in game balancing and systems design because he thought those were my best traits.

Not long before then, Ubisoft released a great Rayman game, so I had them in mind for my next move. I checked their website and there was an opening for a Game Balancer in Barcelona. I applied, and they liked my profile and asked me to complete an extremely long test - I had to put about 60h into it. But I did it and they loved it, offering me a position right away.



I created a system of stats, spells, and levels for 500 characters, each with 13 stats.

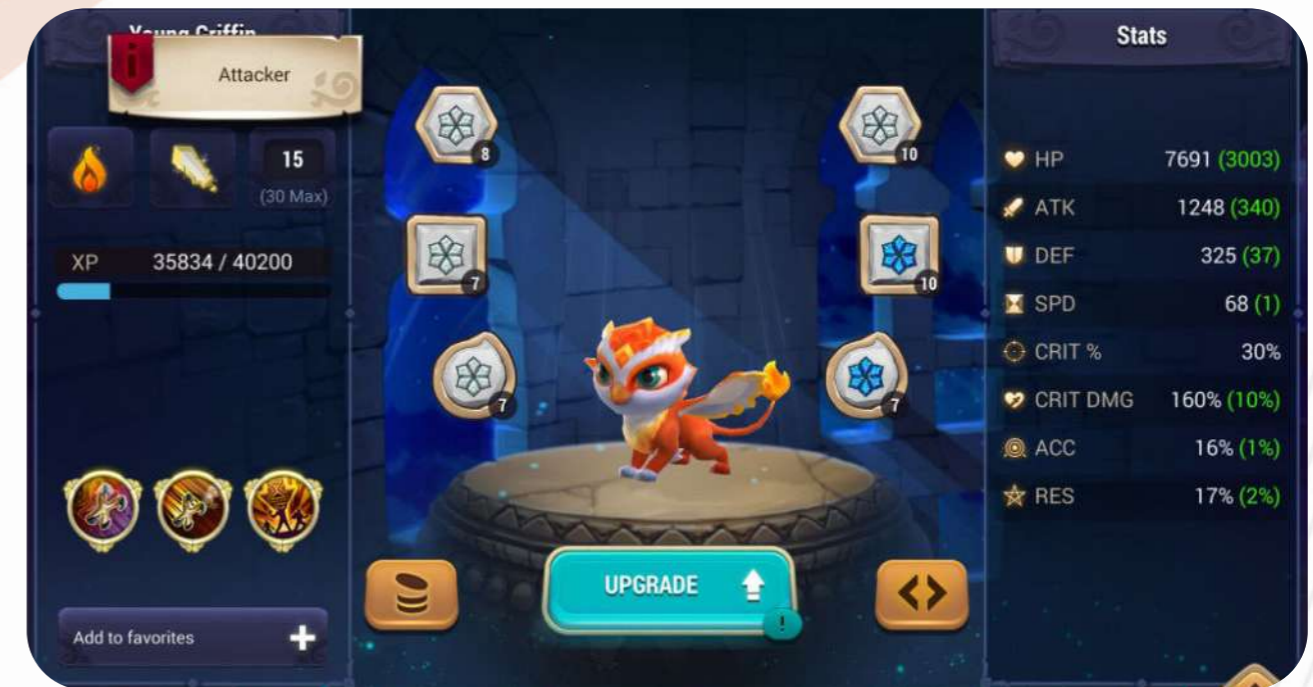
When I joined them, they told me they wanted to make an RPG featuring a lot of characters. I was free to make any decision I wanted regarding their stats, spells and levels. But they needed characters with multiple levels and ranks.

Creating over 500 of these characters was quite overwhelming at first. The team was made of over 80 people and the game costed over 2M € to make, and I alone was in charge of all its gameplay elements. I was thrilled! I could tell that was not a task for a junior, but it was definitely an exciting one.

MY JOB AS GAMEPLAY DESIGNER AT UBISOFT BARCELONA

I became familiar with the Might & Magic universe and studied their creatures so I could choose which topologies would work for us. Using the provided documentation, I defined every possible “role” and “type” for each creature.

Based on their rank, role, and type, I gave stats to each creature. Balancing the stats involved a combination of generic templates for efficiency and tailored adjustments to ensure each character felt distinct and unique.



It was key to establish the roles and types before initiating the design of the creatures. The role was a broad classification such as “attacker” or “saboteur” while the type delved into attributes like “single-target” or “health-based scaling”.

The attention to detail I put into every character paid off, according to the stakeholders and the community.

After creating the creature types, I crafted their spells using over 80 unique effects or interaction types called “ingredients” that I would use to create each character and spell. For example, the ingredients “attack” and “poison” could result in the spell “attacks an enemy and inflicts a 2-turn poison”.

Once I was done with the stats and the spells, I focused on the PVP mode. I designed the combat AI, the dynamically-generated bots and their team compositions, the matchmaking system, and many other necessary features.

I documented every ingredient, assigned them to characters, and carefully balanced their power, cost, and duration individually and collectively. Not only as individual atoms but also from a team-composition perspective.



Players couldn't agree on the best creature, team, or even equipment or strategies, for each of the game modes.

Based on feedback from the PVP system and user testing, we discovered UX issues caused by Unity's Random Number Generator. To resolve these problems, I personally designed and implemented a new RNG from scratch.



The result of such a huge system was a rich and interesting meta-game for the players to enjoy.

PART 2 OF BEING A GAMEPLAY DESIGNER AT UBISOFT

To improve the collaboration with the FX and Animation departments, I analyzed their requirements, and then implemented a streamlined process that standardized the pipeline and documentation across the entire project.

ID	Evolution	Element	FINISHED	Extra FX	STATUS - Extra FX	FX Comments/Description	Extra Animation	STATUS - Extra Animation	ANIM Comments	STATUS
nurai_L3		water	YES	Attack all	DONE	Water slash & ice spikes	Attack all	DONE		AVAILABLE
nurai_L2		air	YES	Attack all	DONE	Air slash	Attack all	DONE		AVAILABLE
nurai_L3		air	YES	Attack all	DONE	Air slash & lightning strike	Attack all	DONE		AVAILABLE
nurai_L2		earth	YES	Cast + Attack	DONE	cast+	Cast + Attack	DONE		AVAILABLE
nurai_L3		earth	YES	Cast + Attack	DONE	cast+	Cast + Attack	DONE		AVAILABLE
Dancer_L2		fire	YES	Double attack	DONE	double	Double attack	DONE		DONE
Dancer_L3		fire	YES	Double attack	DONE	double	Double attack	DONE		DONE
Dancer_L2		fire	YES	Double attack all	DONE	Fire slash x2	Double attack all	DONE		DONE
Dancer_L3		fire	YES	Double attack all	DONE	Fire vortex & slash x2	Double attack all	DONE		DONE
Dancer_L2		water	YES	Attack all	DONE	Water slash	Attack all	DONE		DONE
Dancer_L3		water	YES	Attack all	DONE	Water rotating weapon slash	Attack all	DONE		DONE
Dancer_L2		air	YES	Cast + Attack	DONE	cast+	Cast + Attack	DONE		DONE
Dancer_L3		air	YES	Cast + Attack	DONE	cast+	Cast + Attack	DONE		DONE
Dancer_L2		air	YES	Attack all	DONE	Air slash	Attack all	DONE		DONE
Dancer_L3		air	YES	Attack all	DONE	Air rotating weapon & slash	Attack all	DONE		DONE
Dancer_L2		earth	YES	Attack all	DONE	Earth slash	Attack all	DONE		DONE
Dancer_L3		earth	YES	Attack all	DONE	Earth rotating weapon & slash	Attack all	DONE		DONE
Ninja_L2		fire	YES	Double attack	DONE	double	Double attack	DONE		DONE
Ninja_L3		fire	YES	Double attack	DONE	double	Double attack	DONE		DONE
Ninja_L2		water	YES	Attack all	DONE	Water slash & ice spikes	Attack all	DONE		DONE
Ninja_L3		water	YES	Attack all	DONE	Water rotating weapon	Attack all	DONE		DONE
Ninja_L2		earth	YES	Attack all	DONE	Earth slash & rock projectiles	Attack all	DONE		DONE
Ninja_L3		earth	YES	Attack all	DONE	Earth rotating weapon	Attack all	DONE		DONE
guard_L2		water	YES	Attack all	DONE	Big hit water	Attack all	DONE		DONE
guard_L3		water	YES	Attack all	DONE	Ice darts & hit all	Attack all	DONE		DONE
guard_L2		air	YES	Attack all	DONE	Electric tornado small	Attack all	DONE		DONE
guard_L3		air	YES	Attack all	DONE	Electric tornado medium	Attack all	DONE		DONE
ght_L2	Stoneguard	earth	YES	Attack all	DONE	Earth slash	Attack all	DONE		DONE
ght_L3	Stoneguard	earth	YES	Attack all	DONE	Earth slash & rock projectiles	Attack all	DONE		DONE
ght_L2	Stoneguard	water	YES	Attack all	DONE	Water slash	Attack all	DONE		DONE

I created a new pipeline and unified a document for the FX and Animation departments. I also added the sound information to it, so they knew when were we ready to release a creature.

I oversaw the coordination between the external sound design team and the project, acting as a bridge between them. This involved regularly providing them with presentations and specifications while maintaining frequent meetings. The creative director entrusted the task of supervising and ensuring cohesion between the FX, the animation and the sound departments.

Lists

Prefab	ListRuneType	ListRuneItem	ListCreatureCircularCard	ListCreatureSpell	CreatureListFilter (Filters)
	All Customize Avatar Items				Spell Upgrade (for Avatar tree) PopupRuneMassSellFast (Filters) PopupRuneEngrave (select rune)
Sound ID	46	37	40	01	46
Desc	ScreenRunes Type List Avatar Customize Lists	Tapable Rune (Runes + Selling)	Creatures on lists	Spells in the UI with tooltip	Filter buttons Selecting options
Reviewed by programming					

We assigned sounds to each prefab, so everytime a prefab was instantiated, its sound would match automatically.

RESULTS OF MY JOURNEY AT UBISOFT BARCELONA



- Balanced system with over 500 characters.
- Balanced PvE mode with 9 worlds, 21 levels each.
- Full set of consistent systems for PvP.
- Branching class tree with three interesting options.
- Over 13 types of equipment; today, players still argue about which one the best one is for each creature.
- Well documented systems that were easy to edit.
- A history of communicating with players well and releasing balancing and content updates.
- Very healthy community base on Reddit and Discord.
- The game achieved over 4M downloads and currently stands with a score of 4.5/5 on IOs and 4.3/5 on GGP.





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