StarCrew : Bill of specification

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# 1.What is star citizen ?

Star citizen is a crowd-funded game under development directed by Chris Roberts, maker of the Wing Commander series.

Star Citizen can be described as a Space Simulator where players can fly in starships as a crew or alone and explore on foot planets, asteroids or space station.  
The goal of the game can differ depending on the player.  
One might want to ferry cargo between two location, one other might want to attack this player in order steal this cargo.  
And some would want to raid a pirate base in order to reclaim the stolen wares.  
To recap, Star Citizen has a lot playstyles to offer and all of them can require several players to be properly experienced.  
  
Thus, player will need to find other players in order to achieve their goals and this is where “StarCrew” appears.

# 2.What’s the purpose of “StarCrew” ?

“StarCrew” is an application that allows player from around the world to find a crew for their mission depending on the language they speak, when they play and what they want to achieve.

A user can use “StarCrew” in two different ways, he can create his own mission and recruit other players or apply for other people’s missions and join a pre-existing crew.

As said earlier, a user has access to two main features : creating a mission and applying for a mission. The following will explain the functioning of these features

# 3.Missions

## a.Creating a mission

To create a mission, the user has to specify four main factors :

* The goal : whether it is escorting, piracy or scouting. A mission has a goal and the crew is expected to fulfill it.
* Language : Star Citizen has a worldwide community and not everybody necessarily speaks english. Thus, players have the option to set a specific language for the mission.
* hours : A mission can be addressed to players in different timezones, to ensure that everybody is available at the same time, the mission’s captain has to set a start time for the event on a given timezone, “StarCrew” will then convert this in the user’s local time).
* duration : The user can set an estimated duration for the mission, letting the future crew know how much time the mission will take.

Example :

**toto’s mission**

**Goal :** escort a valuable cargo From “ArcCorp” to “Nyx”

**Language :** French

**Start Time :** Friday 13th Jan. 10 PM GMT+1

**Duration (approximate)** : 1h00

This example can described as the core informations of the mission.  
Next, the user (in this case, the captain of the mission) has to inform how many players he wants in his crew and which ship he plans to use.  
Also, he can choose to add additional ships slots and specify what types of ships he wants (ie : light fighter, bomber…)

The captain can then assign roles to bookmarked players (see “bookmark list”)

Finally, the user can add miscellaneous informations such as “in game” names and VOIP server address

Once everything is set, the user can publish the mission, making it accessible for everyone in demand of a mission.

## b.Applying for a mission.

By default, a user has access to every mission.  
He can use different options to narrow down his search depending on his playstyle (piracy, military, mining…), his language, when he wants to play, the number of crew members he wants to play with and the duration of the mission.

Once the user finds a mission that suits him, he can apply to it.

To apply to a mission, the user has to choose a role in the different positions available.

Then, the mission captain can accept or not the user.  
If the captain does not accept nor deny the application an hour before the beginning of the mission, the application will be refused allowing the user to look for other missions.  
Also, if the crew is full, the application will automatically refused.

If a mission is not full an hour before it begins, the captain can choose whether he wants to report it, cancel it or do it anyway.

## c.Mission lobby

when a user joins or publishes a mission, he has access to a lobby.  
This lobby allows the user to see the crew of the mission, the vacant positions and has access to a chatbox.  
  
The chatbox can be used by every crew member and the captain can pin messages.  
Pinned messages are a specific type of message that are highlighted and that are visible for users that join the crew later on.  
These highlighted messages can be used to publish important informations and thus, making them easily accessible.

## d.Mission’s status

In its lifespan, a mission goes through a set of different status.

1. Private : the captain has not yet published the mission.  
   In this status, the captain can change the core informations of the mission (name, language…)
2. Live: Once the captain publishes the mission, anyone can find it and apply for it. The captain can only change minor informations such as VOIP server or time.
3. Full : When the crew is completed, the mission’s status changes to “full”, it will not be accessible for people looking for a mission. If a crew member leaves the mission, the status goes back to “Live”
4. Finished : The captain can set the mission as finished once the mission has ended in the game.  
   This action will remove the mission on everyone’s page and move it in an archive.  
   The mission will be automatically be set as “Finished” an hour after the estimated end time.

## e.Missions archive

The missions archive regroups all the previous missions a user has participated in.

The user can see the core informations of a mission and its crew.

The user can add old crew mates in his bookmark

Archived missions are stored in the database for a given time, afterwards, the mission will be definitely deleted.  
This time has yet to be determined after a first testing.

This time will depend of the size of a mission entry in the database and the capabilities of the server.

Current available server options :

2 core Xenon cpu E5-2620v3 @ 2,40GHz

500GB HDD

6GB ram

100Mbit/s ports and unlimited traffic

Hosted in germany (munich)

1 core processor (?)

1GB RAM

30GB SSD

2TB transfert/month

Provided by Digital Ocean, available worldwide ( $10/month )

## f.Mission types

The “Electronic Access” (EA) program is a simulator built inside the game that allows players to play with and against each others in a given situation.

There are two games in the Electronic Access program : Arena Commander (dogfight simulator) and Star Marine (First Person Shooter)

These games can be played in a private or public server.  
On a public server, other player can join the game.

Electronic Access (public / private) :

* Arena Commander
  + Vanduul swarm
  + Pirate swarm
  + Squadron battle
  + Murray cup
  + Free flight
* Star Marine
  + Control points
  + Team deathmatch

The “Persistent Universe” (PU) is the main part of Star Citizen. In the PU, players can explore freely the universe.

Persistent Universe :

* Piracy
  + General Piracy (any outlaw activity)
  + Raid (Raid a specific location in order to claim it)
  + Interception
* Mercenary
  + Raid (Raid a location controlled by pirates)
  + Escort
* Exploration
* Other : The player can set himself the goal of the mission.

## 

# 4.Bookmarked users :

A user can add another user in his bookmarks by searching his handle or directly bookmark a crew mate in a mission lobby (active of finished)  
The user can invite bookmarked players in missions before or after publishing it.

# 5. User profile

When a user registers, he can set his profile.  
The profile contains the following informations :

* Star Crew nickname
* (optional) Star Citizen handle (if different from the previous nickname)
* Language(s) spoken
* Local timezone
* Personal fleet (set of ships the player owns)
* (optional) Avatar

The user has the option to fill these informations manually or to link his StarCitizen account to StarCrew. (the third party “sc-api.com” will be used)

A user cannot join a mission until he has completed his profile.

At any time, the user can update his profile, add or remove ships from his fleet.

# 6. Accessibility

Since Star Citizen has an international community, Star Crew must be accessible to everyone regardless of the language.  
Thus, the website must be available in different languages.  
Moreover, since it is not possible to offer a proper translation in every language, a translation module has to be accessible to every user allowing them to propose their own translation in their language.  
In order to be sure that those translations are correct, multiple revisions of this translation are needed.

# 7. Developpement norms

StarCrew is a web app, it will be developped in PHP using Laravel 5.4.  
All the server-side code will follow a MVC architecture and respect the [PSR](http://www.php-fig.org/psr/) (PHP Standards Recommendations), specifically the [PSR-2](https://github.com/php-fig/fig-standards/blob/master/accepted/PSR-2-coding-style-guide.md) coding standard and the [PSR-4](https://github.com/php-fig/fig-standards/blob/master/accepted/PSR-4-autoloader.md) autoloading standard (as Laravel does).

Finally, to document the code, [PHPDoc](https://www.phpdoc.org/) will be used to supply a proper documentation for future developers.

Client-side, no specific tools are required, in a first place, we will use Bootstrap as a CSS library and use JQuery over javascript.