Technical documentation Magic Tactil

[Sous-titre du document]

This document permit to understand how each module of the project Magic Tactil works. We have not finished to develop all the modules yet, the reader can find two important parts which are the description of the module who are and are not developed yet. Moreover, some additional information like the communication protocol are present in this document.

Magic Tactil

2014

Description of document

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Tableau des révisions

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Summary

2014

1- Description of each module

a. Module 1 : Identification

This module permits to have connexion between each clients and the server. Unless he has a password and an email address or a username

If the player cannot connect to the server, this means that one or more information the user used are wrong or he did not have create his Magic Tactil account yet.

If he wants to register, he must give some private information like his name, surname, pseudonym, his password and his email address.

Anyway, if the user wants to, he also can give more information like his age, gender and where he is living.

Those data are kept in the database which is in the server side of the project.

b. Module 2 : Network

The network is the technical module for communication between the clients, the server and the database.

There are two types of communication, the first being the communication between client and server. Then the second is communication between the server and the database.

Whenever the client sends information to the server, there will always be an impact on the database. Indeed, regardless of the customer's request, there will be a recovery from the database or a change by adding, deleting or updating.

c. Module 3 : Profile

This is a feature of the case according to view, modify or remove depending on the person.

The user can see his own information, particularly those used to create the account or its Tactile Magic game history

The same user can also change this information, however, some of them can not be touched, such as those that led to the creation account Tactile Magic.

d. Module 4 : The rooms

When the user is connected, it will automatically be placed in a "room" overall.

Nevertheless, it is possible to create or join others' rooms. "These "rooms" are a set of separate users from other users.

This concept will be used when creating a conference in which he will only be possible to discuss.

e. Module 5 : Friendlist and blacklist

This module allows you to simply add or remove users from the existing list of friends or its blacklist.

f. Module 6 : Calendar

The calendar is the aspect of the project events Tactile Magic. The purpose of this module is to power through a calendar to see all events related to the world of Magic near the user or a specific location.

From there, the user will be able to register for events of interest or create an event by specifying where the event happens, which organizes the event, date, time which it begins and users wishing to participate

g. Module 7 : Shop

Tactile Magic in the store is one way to get other maps or other objects collected. To do this, the user must use the points he has accumulated during his playing experience

With these points, users will be able to:

- Buy cards to the unit or card decks (15 cards that will be generated by a rule).

- Buy cards to other players.

- To sell cards that the player has.

h. Module 8 : Cards

When the player uses Tactile Magic, the cards will be the main focus. Indeed, it is possible to:.

- Collect the cards, all cards a player available will be stored on the server. From a customer perspective, this list will be retrieved from the server to the connection.

- With all the cards that the player has available, and it will create a set of cards (to be called Deck thereafter). This will keep the deck in the database server as well as the collection of maps, it will be recovered during the connection.

- Created by deck means that the player can add and remove one or more cards of the same name based on the cards they have.

- When the deck is formed, it may as well start playing with other players on Magic Tactil. It can thus choose the deck of his choice when he is in a "room" to throw a party

i. Module 9 : Chat

The discussion module allows each player to be able to communicate in different ways with other players.

- The player can send private messages to a particular player.

- The player can send messages to any "room".

j. Module 10 : Choose a game

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- The player can send private messages to a Particular player.

- The player can send messages to any "room".

k. Module 11 : The game

During a game of Magic Tactil a range of actions possible, these actions can be performed when the user wishes.

For the display part, only clients will manage this part, whether the display of field actions on cards (engagement and disengagement) and maps.

The maps will be via an API designed for Tactile Magic. Clients will query the API to return information to the appropriate map. Depending on the client, the API will return a format suitable or JSON format for customers IOS and Android, as well as a different XML format for Windows clients.

To specify an action (s) player (s), clients send a packet to the server that will distribute the package to the right "room" with the exception of the person who sent it. Once received packet (s) client (s) will interpret this package and put in order the playground.

2- Description of the work done

1- Module 1 : Network

a. Network 1 : Server

At startup, a Thread is launched to handle the "Room" page. "Room" which contains all users who log.

The purpose of the main thread is to accept the different connections that are on the server. And in the same thread for each client will be allocated a new thread for the same client.

Allocated in each thread, it will wait until you can read a packet.

When the packet is read, it will be interpreted and then gives the correct class that uses it.

For each received packet, the server must always returned information. This information takes the form of a package previously defined and may thus contain either the return value of the action that was sent by the customer is a return values predefined by the server team.

b. Network 2 : Clients

When the client is connected to the server each time the client needs the server to act, it will create a package to a standard made by the group and then send it. Following sends the client waits for the server response is the response to the request with a value predefined by the server group.

2- Module 2 : Identification

a. Identification 1 : Server

To identify a player, the server receives a packet containing the necessary information (username / password and Mail).

If (s) information (s) is / are error (s), the server returns an error packet.

Otherwise, the server sends a packet containing a return code to tell the client that is connected.

The module identification did a search in the database based on the information that the client has to pre-sent.

To create an account Tactile Magic, the server must receive a packet containing the required data (name, email and password). It is still possible to send other information in the packet (age, sex, place of residence).

b. Identification 2 : The client

To log in from a client, the user must have already created the account Tactile Magic, if this is not done, it must first select the account creation mode on the main window.

As stated previously, the user must specify a minimum of information (full name, nickname, email and password).

In the case where the user is already in possession of an account Tactile Magic, he simply enter the necessary data (username / email and password).

Subsequently, the client sends the data to the server. And depending on the server do return.

The user will be creating an account or not, or it will connect or not

3- Module 3 : The profile

a. The profile 1 : The server

When the server receives a packet destined to the module profile, it searches the database based on the information data and sends the information found.

If the name must be recovered is the same as the name of the issuer, all information must be sent.

In the event, the name of the issuer is different, some information will not be sent and that the choice of the user. Including those reported in the privacy of the user.

If the name does not exist, the packet will contain an error.

b. The profile 2 : The client

The goal of the customer profile module is to create the appropriate Packet. Indeed, the user can also recover information kindly like trying to retrieve information from another user.

Once the packet is sent, the client will wait for the server response containing the result of the query.

In case the packet contains information about a user, it will display.

Otherwise an error will appear.

4- Module 4 : The rooms

a. The rooms 1 : The server

ach user login, it appears directly on a global room. In which all other users from connecting or have not yet been in a room annex.

Lorsqu'utilisateur change from "room" to go, for example, in part, that user leaves the main room and the server will change from "room"

Obviously, once the game ends or a "room" Annex dies, users will be automatically transferred to the "room" overall.

b. The rooms 2 : The client

The customer will never see its membership in the "room" general. In fact, they are visible only when the user wants to enter in a part or in a "room" conference.

5- Module 5 : The chat

a. The chat 1 : The server

A message is contained in a Packet received by a client. Packet should contain the message, the sender and the recipient.

Once the message is received, the server must retrieve the recipient and send the package to the right person.

b. The chat 2 : The client

To send a message, the client must create a Packet. This packet must contain the name, recipient and message.

This package will be sent to the server.

Regarding the reception, the client will read the contents of the package and display a chat window with the name of the person who contacts and his message.

3- The structure Packet, database and returns

The structure Packet contain :

- Source
- Destination
- Returns (4 letters)
- Data

Each user is stored in a XML file which contains the following tags:

- User

The tag User contains the following information:

- Email
- Username
- Name
- Givennname
- Birthday
- Location
- Password
- Telephone
- Gender
- Logstatus
- Roomstatus
- Id

The different returns are :

- OKIf the function worked but the function does not return any response to the customer.
- KOIf the function does not work, but the function does not return any response to the customer.
- The information which are got from the database.

To view the table of the protocol which meets all these information, please read the « MagicTactil\renduTableau Protocole.xls ».

4- The conception

a. Global Diagram

Global diagram located in the file which is AA2 on svn's Magic Tactil.

- Représentation de l'architecture globale page 4

b. Detailed Diagram

Detailed diagram located in the file which is AA2 on rendering svn's Magic Tactil.

- Vue Processus page 8

c. Communications flux Diagram

The communication flux diagram located in the file which is AA2 on svn's Magic Tactil.

- Vue globale du projet page 6

d. Bricks projects

Some bricks of the project could be seen on a located file on svn's Magic Tactil.

- Couches Applicatives page 22
  - Client Android page 22
  - Client Windows page 23
  - Serveur page 25