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Documentation Panorama-View Interface

Introduction

Thea panorama view interface is made for a restaurant in the Swiss alps that wants to make a snapshot of the panorama every minute. This snapshots shows the whole horizon (→ 180 degree).

A user that visits the web page can see this picture in a gallery. After the picture is more than 14 days old, it will get deleted.

There is also the possibility to take control over the camera. For this you have to request the control. After this you enter a queue and as soon you are the first person in the queue you gain access for 30 seconds.

Interface introduction

View home

This is the entry point of the website. A user will see some general information.

Visit the gallery

A user can visit the page and will see an overview of all snapshots as thumbnails of the current day. Because the cache will save panorama pictures for 14 day (and every minute), the user can switch between the different days.

View the camera

A user can request control for the camera. After the request he will enter a queue and as soon he has reached the first place he gains access over the camera for 30 seconds. Expired entries (For example an users closes the browser) will be deleted after 40 seconds.

Requirements & Implementation

To have a secure and stable system that makes a panorama picture every minute the system uses Linux with an Apache server. PHP is used for the backend implementation

Serverside modules

- Linux with cronjob: The cronjob executes a script every minute. This script will take the pictures and append them to one big picture that will be displayed in the gallery.
- Apache with PHP 5: PHP is used for implementing the whole interface.
- MySQL for saving the queue.
- Camera: The camera is needed to make pictures.

Clientside modules

- Mustache: Mustache is used as a template engine.
- jQuery: jQuery is used for the frontend.
- Bootstrap 3: Is used to increase the usability and design.

All these requirements are needed on the server. Clientside modules will be delivered to the user via request. A camera script will move the camera, makes snapshots and moves the camera again (and so on). It will be executed by the cronjob every minute. With these requirements the server can use a safe configuration and doesn't need to run with sudo rights.

Installation

Developer

1. Setup an environment with the required programs
2. Attach the camera
3. cd /var/www
4. git clone https://github.com/swaechter/web-panoramaview-en.git
5. cd web-panoramaview-en
6. git submodule init
7. git submodule update
8. Add the cronjob entry (See cronjob directory)
9. Import the SQL dump (See sql directory)
10. Change the IP in the src/config.php file
11. Chnage the MySQL password in the src/config.php file

User

1. Install the VLC plugin for your browser
2. Open a webbrowser and navigate to the website