

Report of the progress made in **lupulo**

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lupulo is developed as a free software project under the GPL license (for the moment).

lupulo's backend currently **is built with python2** because twisted is not written to be compatible with python3.

lupulo is currently at the 0.1.0 stable release.

You can find the source code in github.com/kudrom/lupulo

You can download lupulo with pip.

The docs are updated in ReadTheDocs.

Goals

- Dynamic description of the data the device is sending
- Changes in the web page
- Multiple web pages for a single device
- Ease of development of the web pages
- Reuse of code
- Recording for offline search
- Extensibility of the behaviour

What's lupulo

lupulo is a web framework to build realtime web pages that monitor and/or command the state of a device.

Main abstractions

- Listeners
- Data schema language
- Layout language
- Widgets
- Accessors
- Templates

Create a valid project

You type `lupulo_create` in a directory.

It's going to create a bunch of directories and files that you're going to change later on.

One of those files is the **settings.py** file which you'll modify to configure the backend mostly.

Write the data schema

The data schema is made of **source events** that relate to every sensory information the device is sending.

Each source event is described by a set of obligatory parameters depending of its **type**.

There are two kind of types, the **primitive** and the **aggregated**.

The primitive type describes some raw data like **number**, **enum** or **date**.

The aggregated type is an aggregation of other types. There are two aggregated types: **dict** and **list**.

There is no limit to aggregation.

Write the layout

A widget is some **JS object** that renders information in the web page.

A layout is a **description** of a widget, it describes how the widget is going to behave in the web page.

In the layout the user **binds** a particular widget with a particular data source event.

A layout can **inherit** from another layout some or all of its parameters.

There is no limit to the levels of inheritance.

Multiple inheritance is not allowed.

Launch

Once you have written everything, you launch the server with `lupulo_start`.

You can test that everything is working as expected with a standalone sse client called `lupulo_sse_client` or you can go to `localhost:8080` and enjoy your first lupulo realtime web page.

Backend

The backend is responsible of:

Frontend

Demo

Any question?