

Quality Assurance, MPPC Testing: Database and Interface

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Goal

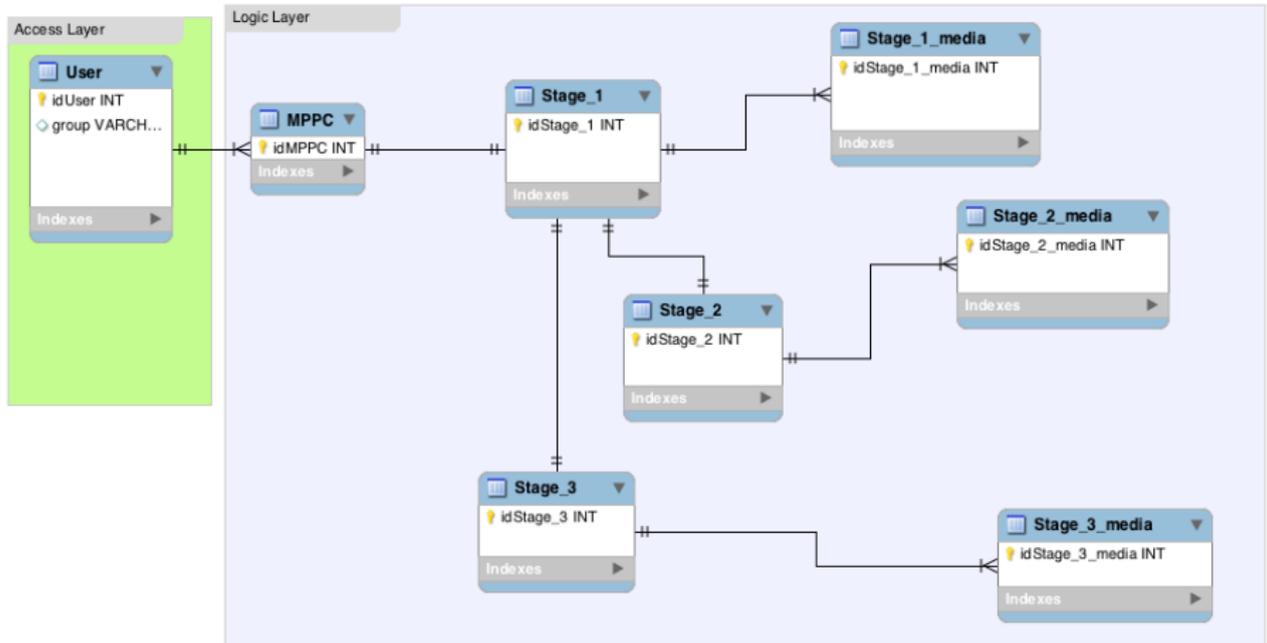
Implementation of a form based web program able to handle a large database for the quality assurance collaboration with the Jefferson Lab.

The software should be easy to use, modular and extensible making possible to add and correct “on the fly“.

General Vision about the implementation

- **DataBase:** The current database administration program is implemented in MySQL. The main structure of this database will be seen in the next slides.
- **Programming Language:** The chosen language to work within this program, is Python. It has been chosen because it adds the possibility to work (if necessary!) directly with the arduino micro controller and also makes possible to include python based frameworks like pyroot
- **Web Development Framework:** In addition to this for a better handling of the user interface we used Django. This framework provides all the tools we need for a clean and safe object oriented application, giving to this web program a more natural representation of the stages we used to get the solution.

The Database...



Results

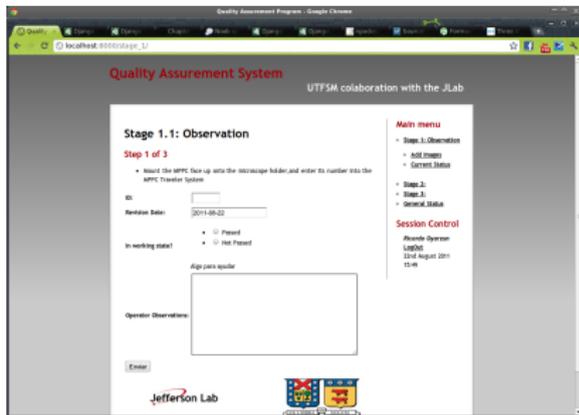
- A user interface template proposal for the Quality assurance Program
- A database design ready to expand for our next stage of development
- Appropriate research about the using arduino with the python platform.

What is next...

- Calling arduino scripts (directly or by system call) and connecting the output with our database.
- Database extension according to the new stage 2 and 3 requirements.
- Improving Django User Interface in preparation for the last stages of the program
- Adjusting the site for working with the pyroot framework.

First Look: The Program prototype

- This is how the program looks like. Improving the User interface is important for the next weeks.



The Admin Site

The screenshot shows the Django administration interface in a Google Chrome browser window. The browser's address bar displays 'localhost:8000/portal/admin/'. The page title is 'Django administration' and the user is logged in as 'Ricardo'. The main content area is titled 'Site administration' and contains several sections:

- Auth**
 - Groups**: Add, Change
 - Users**: Add, Change
- Sites**
 - Sites**: Add, Change
- Stage1**
 - Image stage1s**: Add, Change
 - Mppcs**: Add, Change
 - Stage1s**: Add, Change

On the right side, there is a 'Recent Actions' box titled 'My Actions' which shows a list of actions: '1 Mppc', 'ricardo', and 'User'.

Questions?