

# Upgrade of the Graphical User Interface (GUI) of otsdaq

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## Introduction: otsdaq

Otsdaq is an acronym for “off-the-shelf data acquisition”. It is a data-acquisition (DAQ) solution that is ready to use and designed for the test beam, detector development, and other rapid deployment settings. The Mu2e experiment makes use of this online DAQ software framework. Otsdaq comes as a web page, offering a web interface for configuring, controlling, and monitoring online DAQ software entities.

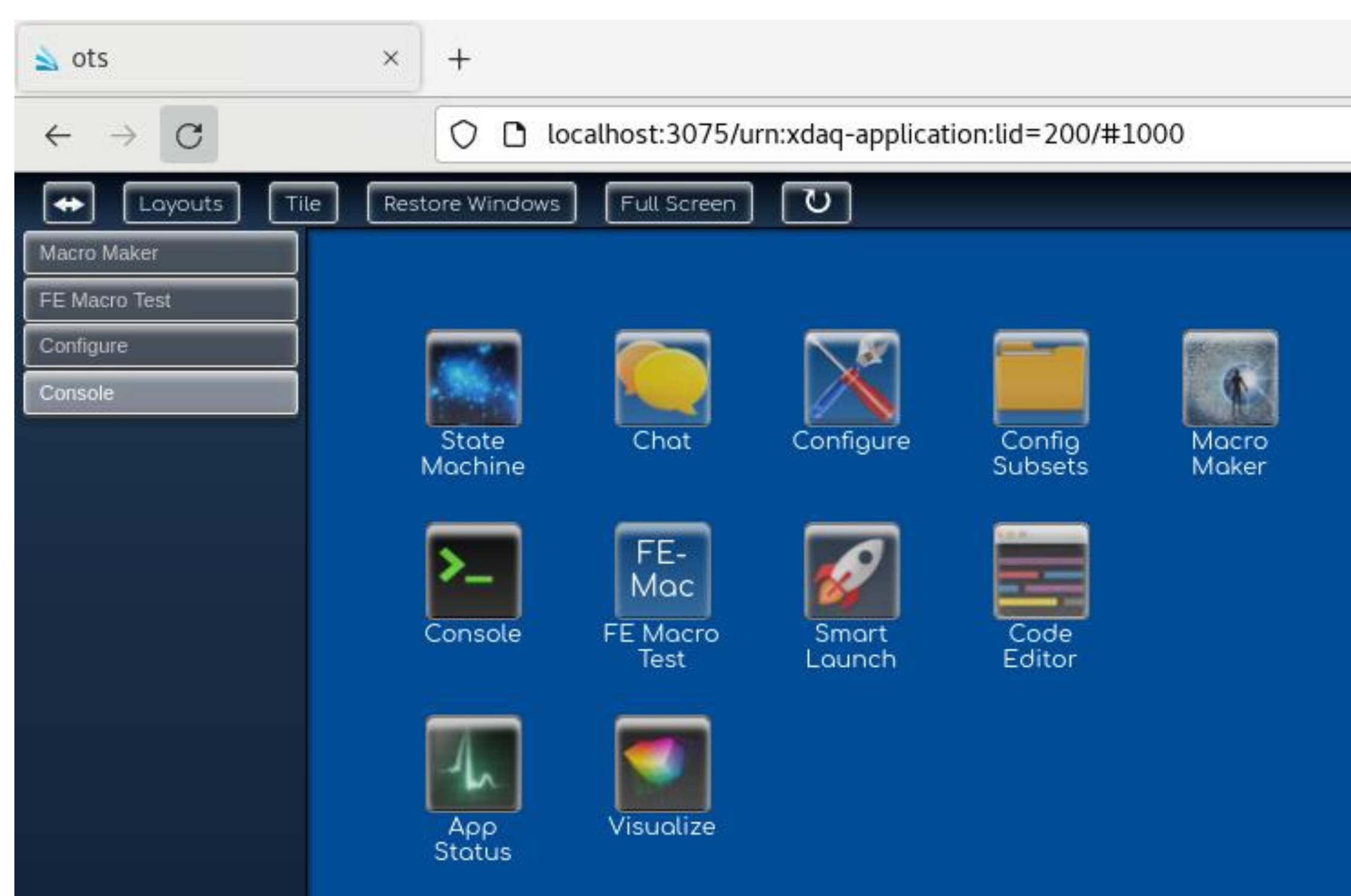


Figure 1. Homepage of the Graphical User Interface (GUI) of otsdaq with all the available icons

## Purpose of the project

The purpose of the project was to improve the design and the functionality of some features on the Graphical User Interface of otsdaq.

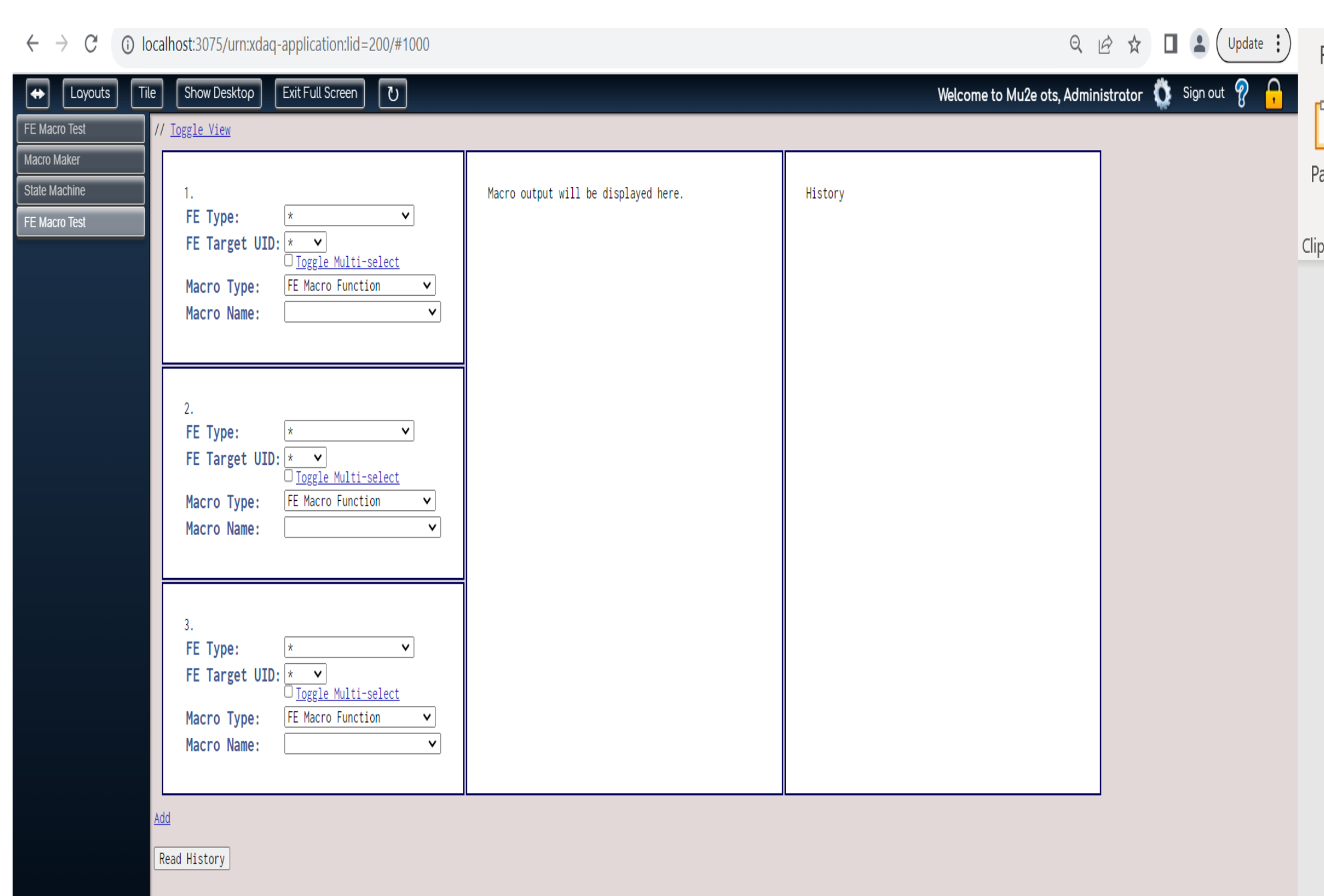


Figure 2. The image of the FE Macro test page, when a couple of the fields are collapsed using the “Add” button.

Some of the improvements were about:

- Fixing graphical bugs
- Enhancing the overall appearance
- Adding more interactivity to the tool (e.g., buttons, boxes, different colors, etc.)
- Designing a history feature

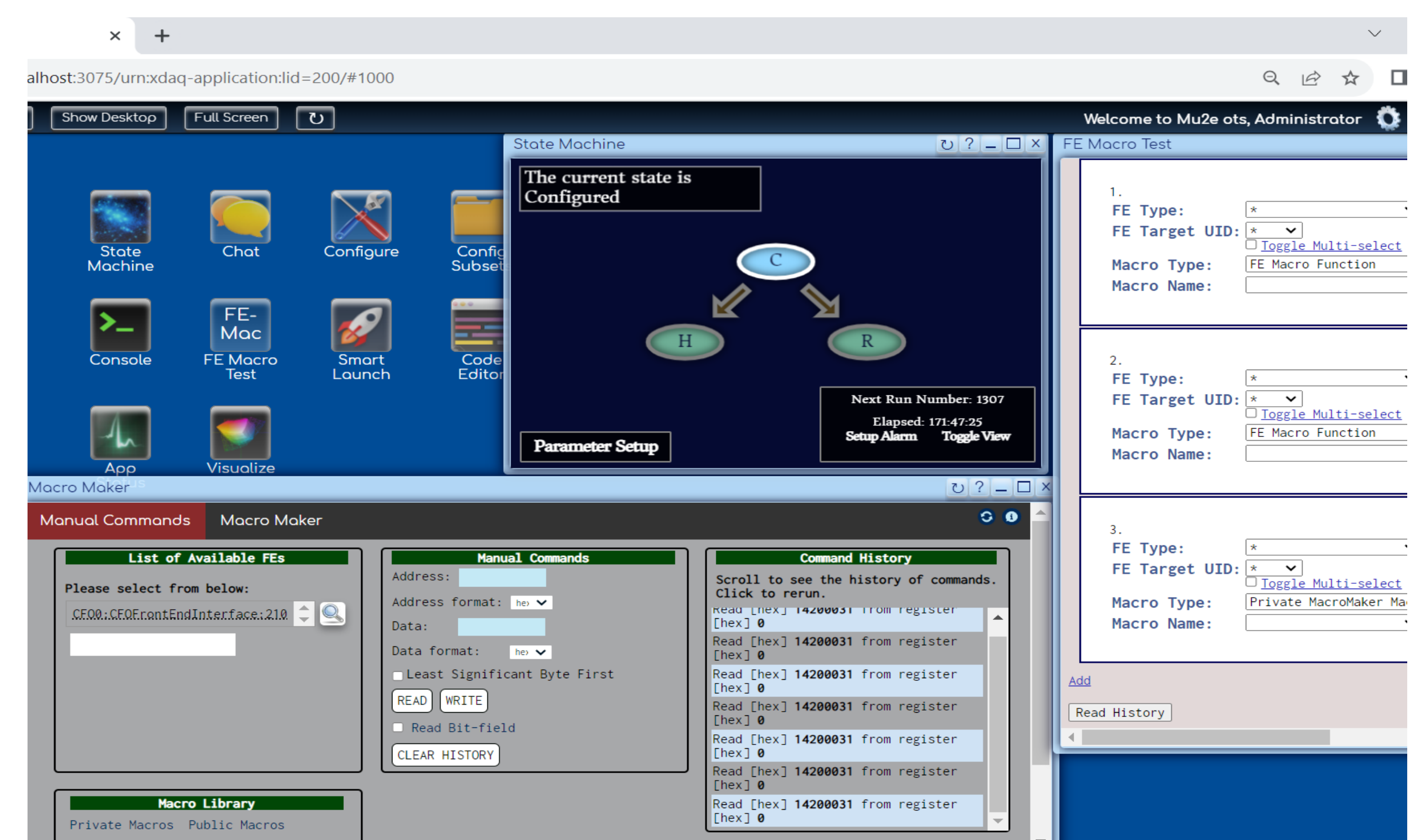


Figure 3. The layout of the “State Machine”, the “Macro Maker”, and the “FE Macro Test”.

## Coding on Visual Studio Code

The GUI interface is developed in HTML and JavaScript. The code is maintained on GitHub and developed by different users working on a remote machine environment.

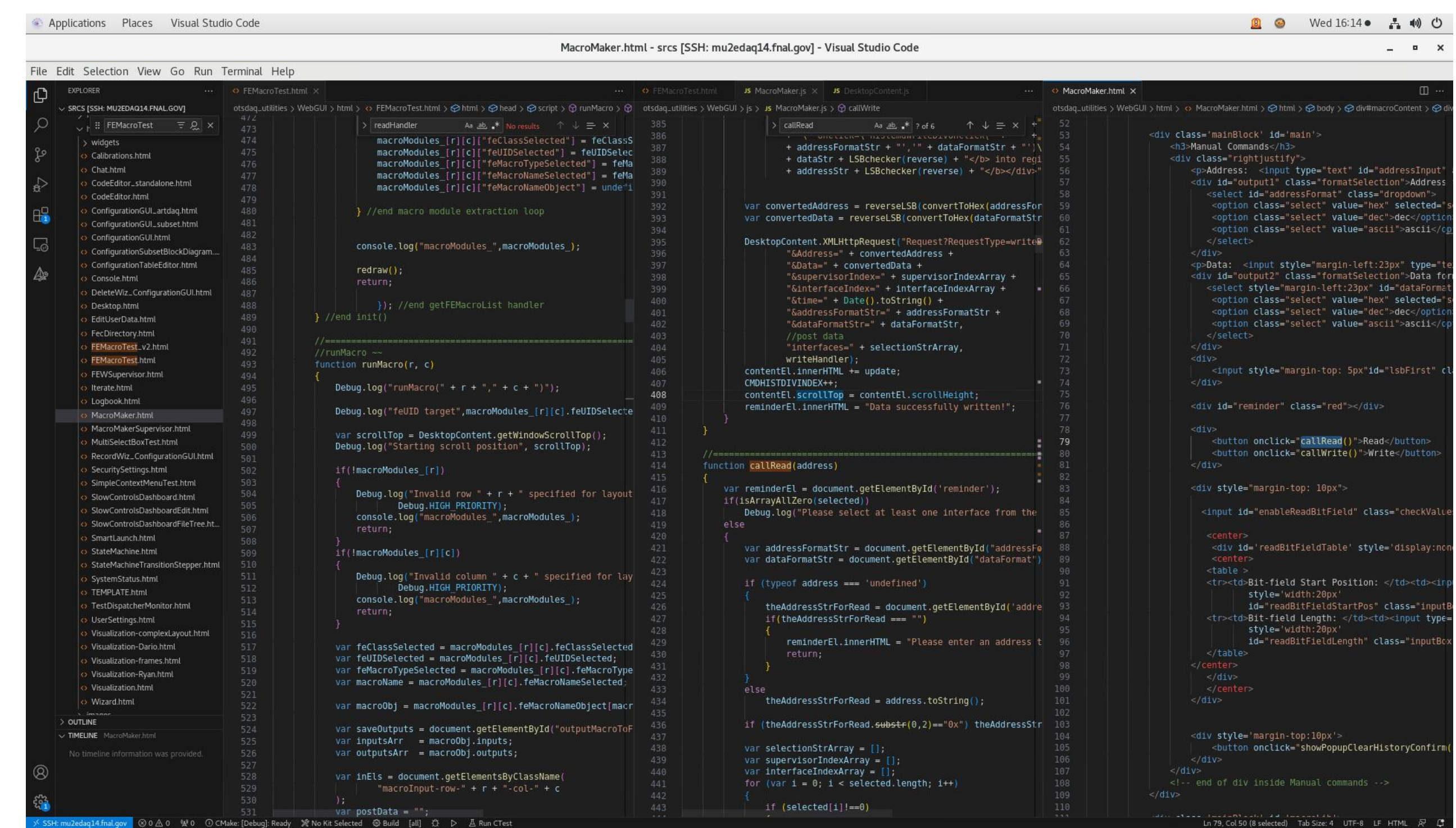


Figure 4. Code on the Visual Studio Code Editor running on the remote machines of the Mu2e FCC test stand

## Conclusions and future work

The goals completed during the internship were:

- Gain an understanding of HTML and JavaScript for Web Development
- Develop software on a remote and distributed machines environment
- Improve the overall appearance of ots

## Acknowledgements

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