High Rate Analysis Documentation: First Steps

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Why a documentation?

Several reason, mainly:

▶ Development:
  ▶ Keep track of changes
  ▶ Uniform different structures and contents
  ▶ Continuous cross-checks between people and adopted procedures

▶ Final deliverable: to allow external people to use the infrastracture without hassles

▶ KPI2.2.2.2 to fulfill: ≥ 1 *dedicated website*

Tool Comparison

Main idea: keep everything in one place, i.e. HighRateAnalysis-WP5

Wiki

- Contents are stored in some sort of side-repository (like GitLab)
- Automatically online
- Limited to pure Markdown
- No requirements
- No compilation

Jupyter Book

- Contents in a dedicated folder `docs` of the main repo
- GitHub-Page feature need to be activated
- Flexible and advanced Markdown
- One package to install (Docker image available, if needed):
  `pip install jupyter-book`
- One command to generate html files, automatically done by a GitHub workflow

Preview

► Input material mainly from Tommaso Tedeschi slides
► Prototype built from scratch (in a private repo), ready to be migrated to HighRateAnalysis-WP5
► Pull Request ready to be submitted: 1 folder + 1 workflow yml file

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Prototype deployed with GitHub Pages: https://frgigr.github.io/testbook/sections/intro.html

Search `Ctrl` `+` `K`

Infrastructure Details

Resource Access

Examples

Troubleshooting and Notes

High Rate Analysis User Guide

This guide is meant to be the fundamental reference for all people willing to understand how to use the High Rate Analysis platform, based on INFN Cloud resources. It is built with Jupyter Book [1].

⚠ **Warning**

Work in progress documentation! In case of comments, questions or issues, please contact Francesco G. Gravili or refer to the GitHub repository linked on top of the page.

Acknowledgements

The content of this guide reflects the efforts of many people: many thanks to everyone who contributed to it!
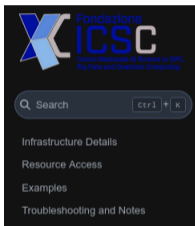
References

[1]   Executable Books Community. Jupyter Books. feb 2020. URL: ⚙ executablebooks/jupyter-book, doi:10.5281/zenodo.4539666.

Next
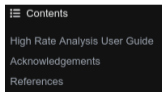Infrastructure Details ›

By WP2 and WP5 Communities
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A few extras

On the left: General *Table of Contents* + Search function

On the right: *Table of Contents* for the current page

On top of the page:
- ▶ One banner for general announcements
- ▶ 4 buttons:
  - ▶ Links to the *GitHub repo* and *Issues* tab
  - ▶ Download the full guide as *pdf* (suggested) or *markdown*
  - ▶ Full screen mode
  - ▶ Night/Day mode

Workflow

- ► Implementation quite straightforward, but not as GitLab. Added comments for every step
- ► Dependencies: Python only
- ► Two main jobs defined:
  1. Setup the environment and build the project
  2. Deploy the website using the generated files
- ► Possibility to trigger the workflow when pushing to a dedicated branch, currently `main`
- ► Basically ready, no need to touch it unless to upgrade versions

```
1   # Basic workflow to build and publish book
2   name: Documentation
3
4   # Controls when the workflow will run
5   on:
6     # Triggers the workflow on push or pull request events but only for the "main" branch
7     push:
8       branches: [ "main" ]
9     pull_request:
10      branches: [ "main" ]
11
12    # Allows you to run this workflow manually from the Actions tab
13    workflow_dispatch:
14
15  # List of one or more jobs that can run sequentially or in parallel
16  jobs:
17    # Build step
18    buildjob:
19      name: Building Documentation
20
21      # Select ubuntu: LTS versions should be preferred
22      runs-on: ubuntu-22.04
23
24      # Full sequence of tasks being executed as part of the job
25      steps:
26        # Checks-out your repository under $GITHUB_WORKSPACE, so your job can access it
27        - uses: actions/checkout@v4
28
29        # Setup python 3.10. Not mandatory to use this version, but it is the one available in ubuntu 22.04
30        - name: Python 3 setup
31          uses: actions/setup-python@v5
32          with:
33            python-version: '3.10'
34
35        # Verify the installation is complete, with no issues
36        - name: Display python version
37          run: python -c "import sys; print(sys.version)"
38
39        # Install jupyter book package
40        - name: Install additional packages
41          run: pip install jupyter-book
```

Conclusions

▶ First draft of documentation ready!

▶ Developed with Jupyter Book and deployed with GitHub pages:
https://frgigr.github.io/testbook/sections/intro.html

▶ Completely automatic deployment and a Docker image is available for development, if you don't want to pollute your computer

▶ Just one click to submit a Pull Request to the HighRateAnalysis-WP5

▶ This is my personal choice, feel free to adopt/reject it

▶ Every kind of feedback/contribution is more than welcome!