

Developer Guide for Project HDF5_BLS

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1 Introduction

This document serves as the developer guide for the HDF5_BLS project. It provides details about the project structure, coding conventions, and instructions for development and contribution.

2 Project Structure

The project has the following structure:

```
HDF5_BLS/  
|-- .github/  
|-- docs/  
|-- guides/  
|-- HDF5_BLS/  
|-- HDF5_BLS_GUI/  
|-- spreadsheets/  
|-- tests/  
|-- .gitignore
```

```
|-- CONTRIBUTING.md
|-- LICENSE.md
|-- pyproject.toml
|-- README.md
|-- requirements.txt
|-- setup.py
```

2.1 Key Components

- **.github/**: GitHub configuration files.
- **docs/**: Documentation files for the project.
- **guides/**: The repository to find guides and extra documentation.
- **HDF5_BLS/**: Contains the source code for the project.
- **HDF5_BLS_GUI/**: Contains the source code for the GUI.
- **spreadsheets/**: Contains example and reference spreadsheets for the parameters of the instrument and measures.
- **tests/**: Contains unit tests for the project.
- **.gitignore**: Specifies files and directories to be ignored by Git.
- **CONTRIBUTING.md**: Guidelines for contributing to the project.
- **LICENSE.md**: License for the project.
- **pyproject.toml**: Configuration file for the Python project.
- **README.md**: Overview of the project.
- **requirements.txt**: Specifies the Python dependencies.
- **setup.py**: Defines the package and installation requirements.

3 Installation

To set up the project locally:

1. Clone the repository:

```
1 git clone https://github.com/PierreBouvet/HDF5_BLS_v1
2 cd HDF5_BLS_v1
```

2. Install the required dependencies:

```
1 pip install -r requirements.txt
```

4 Running the Tests

To ensure the code is working as expected, run the tests using the following command:

```
1 pytest
```

5 Development Workflow

5.1 Branching Strategy

Use the following Git branching strategy:

- **main**: Stable code ready for production.
- **feature/{name}**: New features under development.
- **bugfix/{name}**: Bug fixes.

6 Contribution Guidelines

- Fork the repository and create a new branch for your changes.
- Ensure all tests pass before submitting a pull request.
- Write clear and concise commit messages.
- Provide detailed descriptions in pull requests.
- Add tests for new features or bug fixes in the `tests/` directory.

7 Contact

For questions or suggestions, please contact the maintainer at pierre.bouvet@meduniwien.ac.at.