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# **Py4Incompact3D Documentation**

***Release 0.0.0***

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## INTRODUCTION

*Py4Incompact3D* is a library for postprocessing data produced by Xcompact3D simulations. The aim of this project is to facilitate automated postprocessing of Xcompact3D simulations by providing, at first:

- Mesh class: this stores the domain data for the simulation
- Case class: this stores the information of the case: boundary conditions, fields etc.

With these building blocks, complex postprocessing tools may be built - for example, derivative calculators to compute the vorticity and Q-criterion given the velocity field.

## Installation

- Clone the git repository to a location on your PYTHONPATH
- Test module can be imported by python interpreter: `import Py4Incompact3D`

## Documentation

Documentation of functions can be found under *doc/build/latex/*.

To regenerate documentation, from the project root type *make -C doc/ latexpdf* (requires sphinx).

## Contributing

It is hoped that users of Xcompact3D will find this library useful and contribute to its development, for instance by adding additional functionality.