# Overview

## Folder Structure

The main branch of the phenomena repository is organized in a way to allow for the application to be easily extended and used as a standalone application or as an importable module. The structure is as follows.

|  |  |  |  |
| --- | --- | --- | --- |
| build | | | Temporary folder used by the build script. |
|  | dist | | Location of distribution folder. This folder can be zipped and released as a standalone application |
|  | work | | Directory used during the build process |
| data | | | Contains static files that will be included with the bundled application |
| docs | | | Documents and user guides to assist general users and continued development of the project |
| phonomena | | | Application folder |
|  | gui | | Python module containing user interface application. Acts as a frontend for the simulation application |
|  |  | widgets | Separate file for each tab on the main window of the application |
|  | simulation | | Folder containing files needed for FDTD simulation |
|  |  | solvers | The folder is scanned and attempt to import the Solver class from all python files |
| tests | | | Scripts used to test performance of the application and different solvers |
|  | results | |  |
| .gitignore | | | Specify files to ignore on git commits |
| build.py | | | Build script to bundle the application using PyInstaller |
| README.md | | | Repository description file |
| requirements.txt | | | Specifies required python packages for the application. Can be installed using pip install -r requirements.txt |

## User Interface

# Building Application

# Solver

## Writer