# Building webpage using readthedocs:

To build a documentation website using Sphinx with a theme provided by Read the Docs, we can follow these steps:

## **Step 1. Install Sphinx:**

The first step is to make sure that Sphinx is installed on the system. If not, then please install it by using pip and running the following command line:

pip install sphinx

## **Step 2. Create a new Sphinx project:**

Create a new directory for the Sphinx project e.g., dds\_analysis/docs/ or dmr analysis/docs/ and change the working directory to this folder, where the "docs/" directory will be empty at this moment.

#### **Step 3. Initialize Sphinx:**

Run the following command to initialize Sphinx in the project directory for creating an example of source file "index.rst", as well as the default web source page with initial text:

#### sphinx-quickstart

Here, it will prompt to configure the Sphinx project such as name, authors etc. You can make the options according to your preferences, but be sure to select "yes(y)" when asked to separate the source and build directories. After that, there are four files/directories in the "docs/" be created automatically such as :

source/ build/ make.bat and Makefile

Here, all source files with a basic configuration and text in "index.rst", "conf.py" and other template files, which are automatically created by sphinx with default setting. The simple example page with default values is generated by sphinx-quickstart, where "Build/" directory is empty at this moment.

#### **Step 4. Install the Read the Docs theme:**

In the project directory (e.g., "dds\_analysis/docs" or "dmr\_analysis/docs"), open the `conf.py` file by using a text editor, which is generated in "docs/source/conf.py" as mentioned earlier. In this file, a line `html\_theme` variable needs to be modified to set the value to 'sphinx\_rtd\_theme'. If the variable is not present, then please add the following line in the file:

html\_theme = 'sphinx\_rtd\_theme'

#### Step 5. Install the theme package:

Install the Read the Docs theme package by running the following command line:

pip install sphinx rtd theme

### Step 6. Build the documentation:

To build the documentation website, run the following command line in the project directory "docs/", where "make.bat" and "Makefile" are added as mentioned earlier in step 3. After this, an html website with basic text and default content of sphinx is created, in which you can edit and add new content later.

make html

The above mentioned command will use automatically generated files from step 3, i.e., files in "source/" that will be used to make html.

### Step 7. View the generated documentation:

Once the build process is complete, the newly generated HTML files can be viewed in browser. The HTML files locate in "dmr\_analysis/docs/build/" directory. The main entry point of the webpage is `index.html`. Once it is opened in a browser, the dmr\_analysis or dds\_analysis documentation website themed with the Read the Docs theme will appear. Please note that this page is a basic demo website so far, for testing that all earlier steps work well.

### **Step 8: Add your own content:**

At this step, the documentation based on Sphinx with the Read the Docs theme is ready with default settings, theme and text in the website. It can be further customized according to your need by modifying the source files, such as the modification of index.rst file that was automatically generated in the `dmr\_analysis/docs/source` directory and adding more .rst files. Once new files are added (e.g., more pages and links with '.rst' coding), the documentation needs to be rebuilt by using the `make html` command again.

#### **Step 9: Upload to Github:**

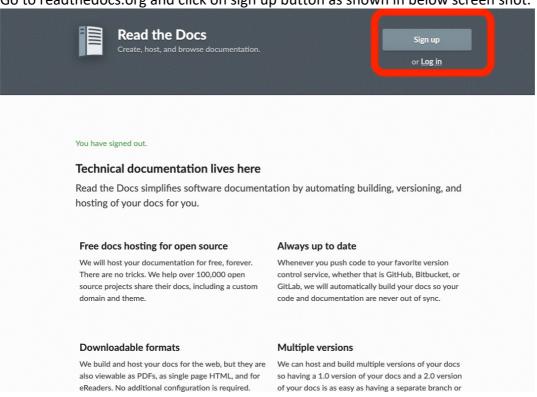
Now, all contents of webpage are added and built, it is ready to upload them to a github account. The readthedocs.org requests to read the documents from an online source. For that reason, make a folder 'docs/' in a github repository and upload 'source/' folder, Makefile and make.bat to it. Since readthedocs.org will look for 'docs/' folder in this repository, to ensure this folder and the content inside it are available as described in step 3.

## Step 10: Make account on readthedocs.org

Now, go to <a href="https://readthedocs.org/">https://readthedocs.org/</a> and make an account for the project if it has not been created yet. Since readthedocs theme is supported by readthedocs.org, which requests an account to use the theme and host the webpage with its own url such as <a href="https://project.readthedocs.org">https://project.readthedocs.org</a>. Please follow below instructions to make an account in readthedocs.org:

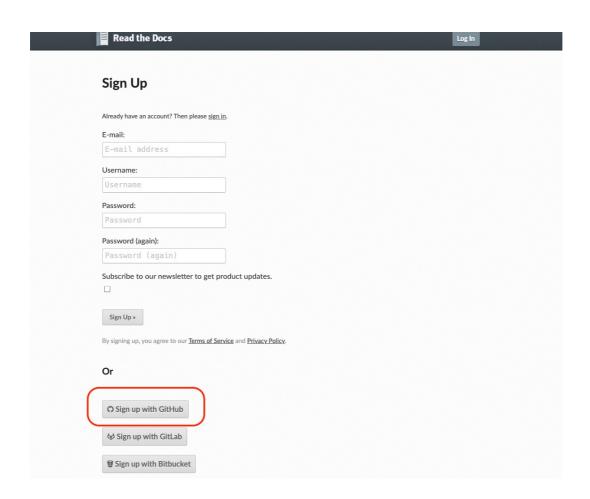
#### 10.1: Make an account:

Go to readthedocs.org and click on sign up button as shown in below screen shot.



### 10. 2: Sign up using github.

As you have uploaded your docs/ to github, it is recommended to sign up using a github account as shown in the screenshot below.



Step 11: Connect and import the dds/dmr project and build:

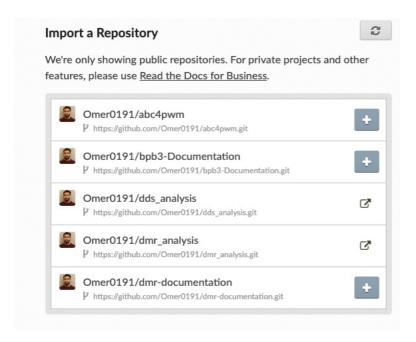
Once readthedocs account is ready and connected to a github by clicking "Import a Project". This step will input files from a github account "docs/" folder of a selected repository. Files in "docs/" are already created in the aforementioned steps. For example, to select dmr\_analysis or dds\_analysis project and click "Build Version".

11.1 Import a project:



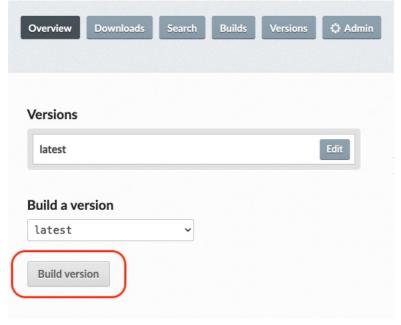
## 11.2: Select your project.

When clicking on the button "import a project", there are options from your github profile, as shown in below screenshot, to select a repository. To be sure a selected repository has 'docs/' folder with correct documentation content that created in previous steps.



## 11.3: Build your project:

Once the repository is selected and inputted, readthedocs.org will use its 'docs/' and the content to build a project website such as shown in below screenshot.



## 11.4: View docs.

If the built documentation is successful, then the website can be visualized by clicking on the 'View Docs' button:

