METkit Help

Marine Energy Toolkit Help

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2024-11-06

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1 Welcome

1.1 How to use the help documentation:

This help documentation is organized by role, including System Administrators (sysadmins), RShiny Application developers (rtech), and community users (community). Information related to corresponding workflows are located in each section of the help documentation.

For information related to server setup and location please refer to the sysadmins section of the documentation. For application development methods and existing workflows to update the application please refer to the rtech section of the help. In order to understand how to contribute to the application as a part of the user community please refer to the community section of the documentation.

1.2 Prerequisites

This is a *sample* book written in **Markdown**. You can use anything that Pandoc's Markdown supports, e.g., a math equation $a^2 + b^2 = c^2$.

The **bookdown** package can be installed from CRAN or Github:

```
install.packages("bookdown")
# or the development version
# devtools::install_github("rstudio/bookdown")
```

Remember each Rmd file contains one and only one chapter, and a chapter is defined by the first-level heading `#`.

To compile this example to PDF, you need XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): https://yihui.name/tinytex/.

2 System Administrators

2.1 Server Software

This application is hosted on a server in Digital Ocean. # Add detail here about how it is hosted? Maybe move the sentence on line 9 up here?

Detailed documentation of how the server is currently set up is located here: https://github.com/mhk-env/mhk-env_server-software

Symbolically link (`ln -s`) a Shiny server app from within the Github repo (`mhk-env_shiny-apps`) to the active folder `/srv/shiny-server` from where Shiny apps get served:

```
ln -s /share/github/mhk-env_shiny-apps/report-gen2 /srv/shiny-server/report
```

2.2 OLD (bookdown)

This website describes how to use open-source software and data to construct the MarineEnergy.app Toolkit for Enviromental Compliance, organized for now by audience.

3 R Technicians

3.1 Updating dynamic content

TODO:

- Interactions: re-knit env.Rmd.

3.1.1 Shiny App Content Updates

To render changes made to content in a Shiny app, navigate to the folder that contains the application files to run the app. Shiny apps are served from a standard folder where they are symbolically linked to source files. These folders contain the global.R, ui.R, server.R scripts that run the app.

- global.R: functions used in ui.R and server.R can be defined here, sourced here from other files or in loaded libraries
- ui.R: defines the user interface, or display, of the contents in the shiny app; this is navigable through the bookmarks in the lower left menu of the Code panel in RStudio
- server.R: back-end server functions to populate the user interface; this is also navigable through the bookmarks in the lower left menu of the Code panel in RStudio

3.1.2 Projects Page

The projects page is accessed from the marineenergy.app Reporting Tool. Projects shown on the map and timeline diagram are updated periodically based on input from stakeholders. The content is updated through a series of steps as outlined below.

- Enter new project information into: data | marineenergy.app - Google Sheet
  - If a new project permit type is needed, add this to the list presented on the project_permit_types worksheet
- Use RStudio to open the apps/scripts: /update_all.R script within the /share/github/apps_dev repository branch
  - Run the update_projects() function

  - Note that this function is defined in the apps_dev/scripts/update.R script

- Commit changes

3.1.3 BioAssesments Page

The bioassessments page is accessed from the marineenergy.app Reporting Tool in the BioAssessments Tab. BioAssessments can be updated periodically based on input from stakeholders. The content is updated through a series of steps as outlined below.

- Enter new BioAssessment project information into: [databa | marineenergy.app - Google Sheet] (https://docs.google.com/spreadsheets/d/17QQ9A0G0SxIOfiuFCJFzikQ088cQbO_MMTBbjEHa9
- Use RStudio to open the [apps/scriptsL /update.R] (https://github.com/marineenergy/apps/blob/apps_d script within the share/github/apps_dev repository branch
  - Run the update_ba() function
  - Note that this function is defined in the apps_dev/scripts/update.R script

3.1.4 Edit Documents and BioAssessments and/or excerpts via an RShiny Data Entry Application

The Application to add and/or edit FERC Documents is located here: https://shiny.marineenergy.app/edit/

The Application to add and/or edit BioAssessments is located here: https://shiny.marineenergy.app/edit-ba/

4 Community Members

4.1 Edit in OpenEI

- Regulations
  - MarineEnergyApp | OpenEI

4.2 Suggest in Google Sheets

Suggest and then get reviewed by R-technicians for updating.

- Projects
  - projects
- Documents
  - documents
- Spatial
  - spatial

5 Applications

Some *significant* applications are demonstrated in this chapter.

5.1 Example one

5.2 Example two

6 Final Words

We have finished a nice book.