

asar: :CHEATSHEET



Partially automate a U.S. fisheries stock assessment report.

Install

Install 4 R packages: pak, tinytex, asar, and stockplotr

```
install.packages("pak")
pak::pak("tinytex")
tinytex::install_tinytex(bundle = "TinyTeX-2")
pak::pak("nmfs-ost/asar")
pak::pak("nmfs-ost/stockplotr")
```

Ensure Quarto CLI v1.6+ is installed

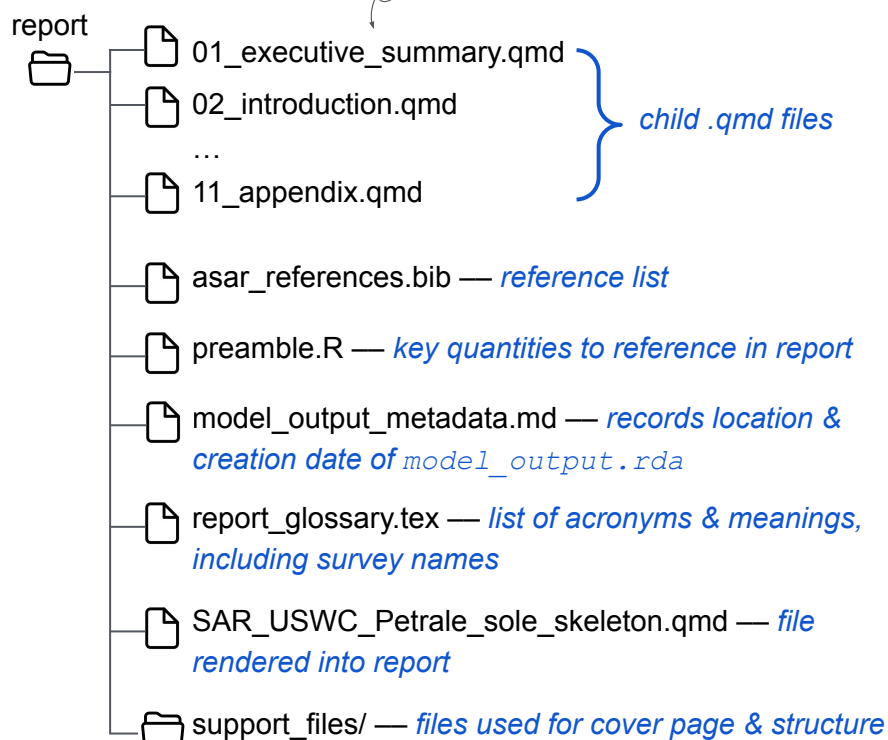
```
quarto::quarto_version()
```

Create report skeleton

Make report with minimal recommended arguments

```
asar::create_template(
  office = "NWFSC",
  region = "U.S. West Coast",
  species = "Petrale sole",
  spp_latin = "Eopsetta jordani",
  year = 2023, # specify if past year
  authors = c("John Snow" = "NWFSC"),
  model_results = here::here("model_output.rda")
)
```

Model output file converted with stockplotr::convert_output()



Use time-saving shortcuts

Save time writing reports by using features including quantities, acronyms, citations, survey names, and parameters.

Q 03_data.qmd

```
# Data {#sec-data}
For `r end_year`, composition data was obtained from the \gls{pacfin} Biological Data System [atstar_1999].
During the \gls{ny dec nearshore}, `r species` was observed...
```

Annotations:

- End year calculated in preamble.R
- Acronym in report_glossary.tex
- Citation in asar_references.bib
- Informal survey name, used like acronyms in report_glossary.tex, will render as correct survey name
- Parameter in report skeleton yaml (e.g., SAR_USWC_Petrale_sole_skeleton.qmd)

Render report

Options:

- Use R console
- RStudio "render" button in program pane
- Use terminal: quarto render report/skeleton.qmd

Add accessibility features

For PDFs: Add tags & alternative text for figures

```
add_accessibility(
  x = "SAR_USWC_Petrale_sole_skeleton.tex",
  dir = getwd(),
  alttext_csv = file.path(getwd(), "captions_alt_text.csv"),
  compile = TRUE
)
```

Annotations:

- Report skeleton
- Render button
- LaTeX version of report created by rendering skeleton
- File with templates for captions and alternative text. Templates must be reviewed and expanded by user

Add tables & figures

Steps:

- Create tables, figures with stockplotr or other method
- Place table .rda files in "tables" folder
- Place figure .png, .jpg, or .rda files in "figures" folder
- Add code chunks to report/08_tables.qmd that import and display tables in "tables" folder:

```
asar::create_tables_doc(
  subdir = here::here("report"),
  tables_dir = here::here("tables")
)
```

Annotation: "tables" folder location

```
asar::create_figures_doc(
  subdir = here::here("report"),
  figures_dir = here::here("figures")
)
```

Annotation: Location to save 09_figures.qmd

Captions/alternative text file format (captions_alt_text.csv)

| label | type | caption | alt_text |
|-------------|--------|-----------------------------|--------------------------------------|
| example_fig | figure | Example caption for figure. | Example alternative text for figure. |
| example_tab | table | Example caption for table. | |
| ... | ... | ... | ... |

See "Increasing Report Accessibility" vignette

Tip

Use relative filepaths

- Saves time and effort
 - Facilitates collaboration
- Recommended tool: here R package

```
absolute_path <- "C:/docs/file"
relative_path <- here::here("file")
```

