Transparent Assessment Framework

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ICES DIG
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http://taf.ices.dk

Science for sustainable seas

Aim

To implement a framework to organize user workflow so that data, methods, and results used in ICES assessments, are easy to find and rerun later with new data.

Objectives

TAF is designed to be:

- Encapsulated: entire pathway from input DBs to SAG (and other assessment outputs) in one system
- Quality controlled: data and results can be traced to sources, scripts are organised and well structured, values can be checked
- Repeatable: data preparation and assessment workflow is recorded and can be run
- Transparent: anyone can browse all aspects on the web

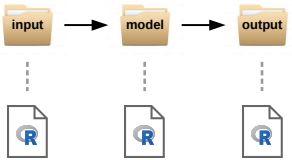
Key benefits

- High quality science: online, peer-reviewed, reproducible
- Improved time efficiency and reduced workload on EGs
- Much more open and structured than current workflow

System workflow

Core workflow

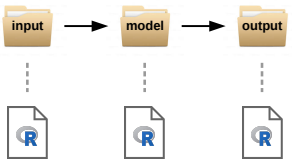
Scripts



Analysis

Sharepoint vs. TAF

ICES assessments (input, model, output) are currently archived on Sharepoint. How is that different from TAF?



Assessment on Sharepoint:

may not exist
may not run
may contain partial/confusing information

is inaccessible for many clients and the public

unclear where data came from
unclear how data were preprocessed

may be different from final advice

Assessment in TAF:

guaranteed to exist

guaranteed to run

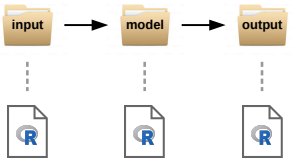
contains the final model run, in a standard structured format

open for anyone to browse online

first step explicitly downloads from data sources
and preprocesses the data

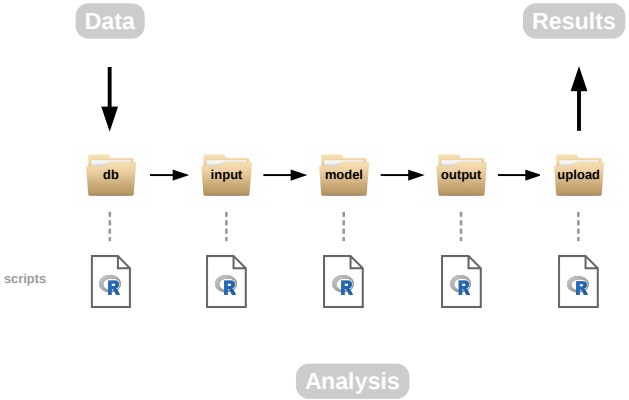
last step uploads results to SAG for final advice sheet

Core

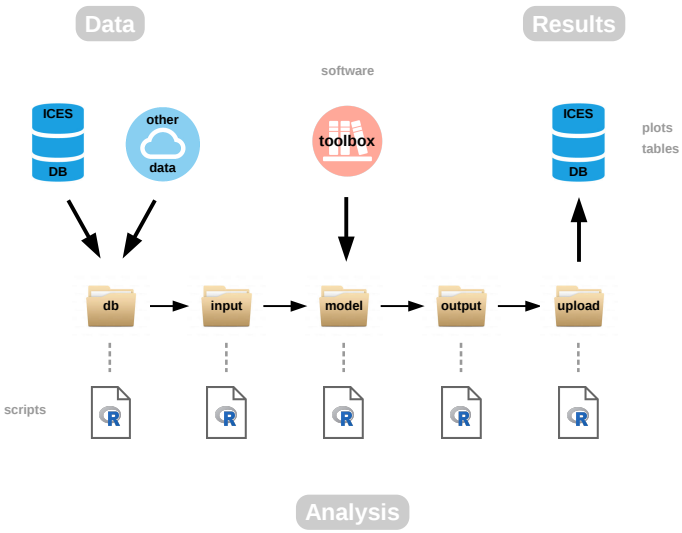


Analysis

Complete pathway



TAF


Data
Results
software
ICES
DB
other
data
toolbox
ICES
DB
plots
tables
db
input
model
output
upload
scripts
Analysis

User interface

Web user interface

(design outline)

Open `taf.ices.dk` in a web browser

Browse (everything is open) or log in to modify/run assessments

- Stock mode — upload, edit, save, run
- Boss mode

HAWG	NWWG
● her-3a22	● cod-iceg
○ her-47d3	● sai-faro
● her-67bc	● sai-icel
● her-irls	○ smr-5614
○ ...	○ ...

Download any dataset into R using read.csv

TRANSPARENT ASSESSMENT FRAMEWORK (TAF)

View Assessment Code

StockKeyLabel: rjm-347d | Year: 2015 | Script Name: model.R | Submit

Success! Success with: https://raw.githubusercontent.com/ices-taf/2015_rjm-347d/master/model.R.

Code

"Click to show/hide code"

```
## Run analysis, write model results

## Before: input.RData (input)
## After:  dls.txt (model)

library(icesAdvice)
library(icesTAF)

mkdir("model")

## Get data
load("input/input.RData")

## Apply DLS method 3.2
i1 <- survey$Index[nrow(survey)-(6:2)] # five year period from n-6 to n-2
dls <- DLS3.2(mean(catch$Catch), survey$Index, i1=i1)

write.dls(dls, "model/dls.txt")
```

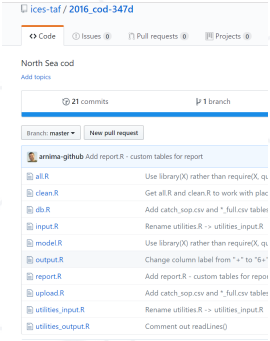
TAF (web) services

GET data services

run	get and run TAF code on an ICES server and harvest results
code	view/download code used in the assessment
data	view/download data files used in the assessment
results	view/download results files
plots	view/download plots (if submitted)
tables	view/download report tables (if submitted)

POST data services

non-ices-data	data / models not currently in ICES system



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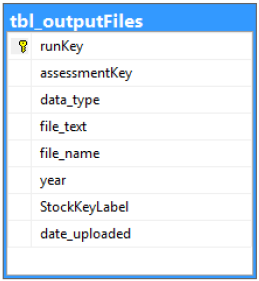

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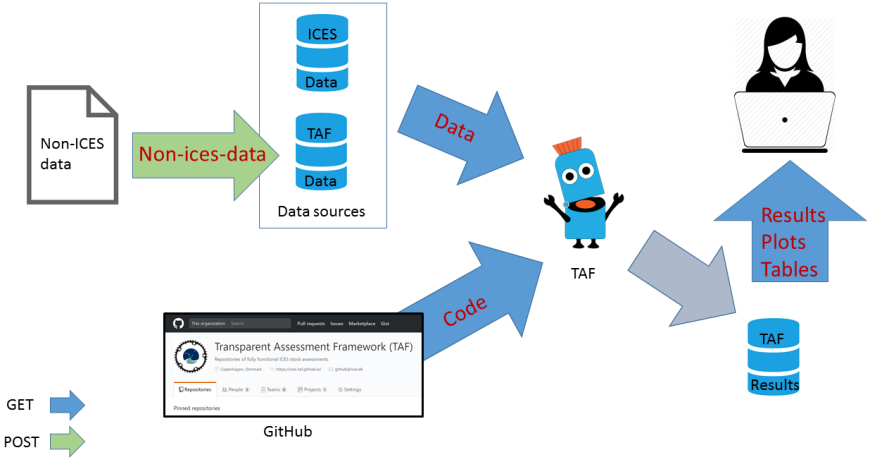

Follow ongoing development

taf.ices.dk

Main landing page

ices-taf.github.io

Technical overview and design comments

github.com/ices-taf

Stock assessment code (R scripts)

github.com/ices-taf/doc/projects/1

TAF development board

github.com/ices-taf/doc/issues

Users can post suggestions for future TAF development

Thanks!

Questions?

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