Package 'R4MFCL'

September 17, 2013

Title R functions for MULTIFAN-CL

Version 0.2

Author Simon Hoyle, Pierre Kleiber, Shelton Harley, Nick Davies, and Adam Langley.

Description Functions for automating the running and analysis of MULTIFAN-CL stock assessments, by manipulating the input files, and analyzing and plotting the output fles. R4MFCL is a collection of utility functions for stock assessments using the model MULTIFAN-CL (Fournier et al 1998; www.multifan-cl.org). There are several groups of R4MFCL functions: 1) input and output functions, for reading MULTIFAN-CL files into R objects and writing them back out as text files in the form that MULTIFAN-CL accepts as input. 2) data manipulation functions, for editing and restructuring the input objects. 3) plotting functions, for producing plots and maps from the result objects. 4) information functions, for comparing objects and giving information about, for example, flag settings.

Maintainer Simon Hoyle <simon.hoyle@gmail.com> and Sam McKechnie <samm@spc.int>

License GPL-2

Date 2013-09-10

Suggests maps, mapdata, mapproj

R topics documented:

`add.catch.frq` *add.catch.frq.Rd*

Description

Used in sensitivity analyses, this function replaces the catch column relating to the fisheries specified - while accounting for the possibility that the number of rows or order differ between the sensitivity runs. The script assumes that the sensitivity *.frq will contain either: only those rows which are to be modified; or all rows to be modified.

Usage

```
add.catch.frq(frq, filepath, fshries)
```

Arguments

`frq`	The frq file object
`filepath`	The path and filename of the frq file with the replacement fishery data.
`fshries`	The id numbers of the fisheries to be edited

Author(s)

Nick Davies

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`add.cpue.frq` *add.cpue.frq.Rd*

Description

Replaces the nominal effort in the original .FRQ file with stanadrdised effort based on the CPUE index Flexible to handle either sort of frq file and you have the choice to include the cv. Puts in -1 for effort first to make sure we account for missing values of CPUE

Usage

```
add.cpue.frq(CPUE.file = "P:/yft/2009/Data Preparation/CPUE/indices/yft_JPstd_R1.txt", data = out
```

Arguments

CPUE.file

data

fishery

add.cv

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

add.flag *add.flag.Rd*

Description

Adds a flag to the doitall object.

Usage

```
add.flag(doitall, flagtype, flagnum, newval, phase)
```

Arguments

doitall

flagtype

flagnum

newval

phase

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

carry.effort.frq *carry.effort.frq.Rd*

Description

Replaces the effort in the last year with effort in the previous year and sets catch to -1.

Usage

```
carry.effort.frq(data = out.data, fishery = 1, last = 2008)
```

Arguments

```
data
fishery
last
```

Author(s)

Shelton Harley and Nick Davies

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

change.fishflag *change.fishflag.Rd*

Usage

```
change.fishflag(a, fisheries, flagnum, newvals)
```

Arguments

```
a
fisheries
flagnum
newvals
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

change.flag *change.flag.Rd*

Usage

```
change.flag(doitall, flagtype, flagnum, newval)
```

Arguments

doitall

flagtype

flagnum

newval

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

change.negflag *change.negflag.Rd*

Usage

```
change.negflag(doitall, flagtype, flagnum, newval)
```

Arguments

doitall

flagtype

flagnum

newval

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

change.size.frq *change.size.frq.Rd*

Usage

```
change.size.frq(ver = 6, data = data, FISH = 1, LF.FILE = "P:/yft/2009/Data Preparation/size data/L
```

Arguments

ver
data
FISH
LF.FILE
WT.FILE

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

change_data *change_data.Rd*

Usage

```
change_data(obj, searchtext, xlines, newline)
```

Arguments

obj
searchtext
xlines
newline

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

check.eff.devs *check.eff.devs.Rd*

Usage

```
check.eff.devs(parfile, repfile, frqfile, parlim = 5.9)
```

Arguments

parfile
repfile
frqfile
parlim

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

check_flag_value *check_flag_value.Rd*

Usage

```
check_flag_value(parname, flagtype, flagnums, fishery = NA, flaglist = T)
```

Arguments

parname
flagtype
flagnums
fishery
flaglist

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

clean.lfdata *clean.lfdata.Rd*

Usage

```
clean.lfdata(infrq)
```

Arguments

```
infrq
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

compare.ce.frq *compare.ce.frq.Rd*

Usage

```
compare.ce.frq(file1, file2, fm, plotname, fdesc = "")
```

Arguments

```
file1
file2
fm
plotname
fdesc
```

Author(s)

Adam Langley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

compare.frq *compare.frq.Rd*

Usage

```
compare.frq(file1, file2, fm = "all", plotname, fdesc = "",lwd=2,what=rep(TRUE,3))
```

Arguments

file1

file2

fm

plotname

fdesc

lwd

what

Author(s)

Adam Langley and Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

compare.size.frq *compare.size.frq.Rd*

Usage

```
compare.size.frq(frq1, frq2, fishery = 5, wt=T, prefx = "_",doyears, fdesc="",summary=TRUE)
```

Arguments

frq1

frq2

fishery

wt

prefx

doyears

fdesc

summary

Author(s)

Nick Davies

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

compare_par_flags *compare_par_flags.Rd*

Description

Compares the flags in two par files and reports differences.

Usage

```
compare_par_flags(par1, par2, flaglist = T)
```

Arguments

par1

par2

flaglist

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

condor.go *condor.go.Rd*

Description

Used to compile MULTIFAN-CL files and submit a job to condor.

Usage

```
condor.go(run.dir, frq.obj, tag.obj, doitall.obj, ini.obj, sub.obj, species = "alb", condor_f = co
```

Arguments

run.dir

frq.obj

tag.obj

doitall.obj

ini.obj

sub.obj

species

condor_f

par.obj

run_now

fixpermissions

Author(s)

Simon Hoyle and Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

condor.go2 *condor.go2.Rd*

Description

Used to compile MULTIFAN-CL files and submit a job to condor.

Usage

```
condor.go2(run.dir, frq.obj, tag.obj, doitall.obj, ini.obj, sub.obj = suball, species = "alb", con
```

Arguments

run.dir

frq.obj

tag.obj

doitall.obj

ini.obj

sub.obj

species

condor_f

par.obj

run_now

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

convert.frq.ver6 *Convert.frq.ver6.Rd*

Description

Converts a frq file frm vesion 5 to version 6.

Usage

```
convert.frq.ver6(a)
```

Arguments

a

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

copy.condor.files *copy.condor.files.Rd*

Usage

```
copy.condor.files(rundir, condor.files = "./condor.files/")
```

Arguments

rundir

condor.files

Author(s)

Simon Hoyle and Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

create.missing.ce *create.missing.ce.Rd*

Usage

```
create.missing.ce(data = data, yr = 2008, termfish)
```

Arguments

data

yr

termfish

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`crit.fishery.summary` *crit.fishery.summary.Rd*

Description

Takes the output from do.critical.calcs and gets the key reference points

Usage

```
crit.fishery.summary(crit)
```

Arguments

```
crit
```

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`crit.summary` *crit.summary.Rd*

Description

Takes the output from do.critical.calcs and gets the key reference points

Usage

```
crit.summary(crit, years)
```

Arguments

```
crit
years
```

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

datfromstr *datfromstr.Rd*

Usage

```
datfromstr(datstring)
```

Arguments

datstring

Author(s)

Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

do.critical.calcs *do.critical.calcs.Rd*

Description

Uses the dimensioning stuff provided in the rep file and the mean lengths and weights at age, and takes the fishery specific catch at age from the ests file

Usage

```
do.critical.calcs(repfile = "P:/yft/2007/BaseYFT/yftfinal2007.rep", ests = "P:/yft/2007/BaseYFT/e
```

Arguments

repfile

ests

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`doit.rm_flag` *doit.rm_flag.Rd*

Usage

```
doit.rm_flag(a, flagtype, flag, value)
```

Arguments

```
a
flagtype
flag
value
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`effortcreep` *effortcreep.Rd*

Description

Adjusts effort in a specified fishery at a consistent rate through time.

Usage

```
effortcreep(frq.obj, fisheries, creep)
```

Arguments

```
frq.obj
fisheries
creep
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

fix_growth *fix_growth.Rd*

Usage

```
fix_growth(a)
```

Arguments

a

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

frq.change.nint *frq.change.nint.Rd*

Usage

```
frq.change.nint(in.frq, add.lfint, add.wfint)
```

Arguments

in.frq

add.lfint

add.wfint

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`frq.remove.size.or.weight.data` *frq.remove.size.or.weight.data.Rd*

Description

Provide a matrix (exclude) containing the following columns: Year | Month | week | fishery, and the function will remove the size and/or weight observations depending on the T/F flags.

Usage

```
frq.remove.size.or.weight.data(data = test.data, exclude = exclude, size = T, weight = F)
```

Arguments

`data`

`exclude`

`size`

`weight`

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`get.critical.age` *get.critical.age.Rd*

Description

Calculates the age (and associated length, and weight) where the weight of a cohort is maximised.

Usage

```
get.critical.age(data = Base.rep)
```

Arguments

`data`	A .rep object

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`get.length.output` *get.length.output.Rd*

Description

Not for standard use, and now may be obsolete. Adjusts the weight data to focus on the areas with most of the catch.

Usage

```
get.length.output(REGION = 1, DIR = "P:/yft/2009/Data Preparation/size data/")
```

Arguments

`REGION`

`DIR`

Author(s)

Adam Langley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`get.outcomes` *get.outcomes.Rd*

Description

Extracts management information from result files

Usage

```
get.outcomes(file.rep, file.par, nofish = T)
```

Arguments

`file.rep`

`file.par`

`nofish`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`get.tag.structure` *get.tag.structure.Rd*

Description

Creates an object holding tag result information from the tag report file

Usage

```
get.tag.structure(tagrepfile="temporary_tag_report",tagfile="skj.tag",year1=1972)
```

Arguments

`tagrepfile`

`tagfile`

`year1`

Author(s)

Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`get.weight.output` *get.weight.output.Rd*

Description

Not for standard use, and now may be obsolete. Adjusts the weight data to focus on the areas with most of the catch.

Usage

```
get.weight.output(REGION = 1, DIR = "P:/yft/2009/Data Preparation/size data/")
```

Arguments

`REGION`

`DIR`

Author(s)

Adam Langley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`labels_store` *labels_store.Rd*

Description

Loads the labels.tmp file into an object.

Usage

```
labels_store(labelfile = basecase.labels)
```

Arguments

`labelfile`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

load.LFdata *load.LFdata.Rd*

Description

Loads length frequency data from a database via ODBC and labels it with region. These data can then be processed into MFCL format, via another function. Mainly included as an example.

Usage

```
load.LFdata(species = "ALB", gear = "L")
```

Arguments

species

gear

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

make.projection.betyft.frq *make.projection.betyft.frq.Rd*

Description

Formats MULTIFAN-CL frq file for projections. Has been made obsolete by a collection of more complex projection functions.

Usage

```
make.projection.betyft.frq(frq.in = base.frq, fish = 1:24, years = 10)
```

Arguments

frq.in

fish

years

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`map_all_pacific` *map_all_pacific.Rd*

Description

Draw a map with dimensions as specified, adding the EEZ boundaries.

Usage

```
map_all_pacific(plot_title = "", lims = c(100, 300, -45, 45), eezfile = "L:/alb/2008/Pago/eznew2.t
```

Arguments

`plot_title`

`lims`

`eezfile`

Author(s)

Adam Langley and Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`merge.frq` *merge.frq.Rd*

Description

Combine catch, effort and size frequency data when merging fisheries together. Currently set up for the albacore assessment and needs adapting.

Usage

```
merge.frq(frq.obj, oldf, newf, mergelf = FALSE)
```

Arguments

frq.obj

oldf

newf

mergelf

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

merge.tag *merge.tag.Rd*

Description

Change the fishery numbers for tag recoveries in a tag object.

Usage

```
merge.tag(tag.obj, oldf, newf)
```

Arguments

tag.obj

oldf

newf

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

merge_tag_objs *merge_tag_objs.Rd*

Description

Combine two tag objects into one.

Usage

```
merge_tag_objs(obj1, obj2, relgrps)
```

Arguments

obj1
obj2
relgrps

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

pack.fisheries.frq *pack.fisheries.frq.Rd*

Description

Remove gaps between fishery numbers

Usage

```
pack.fisheries.frq(frq.obj)
```

Arguments

frq.obj

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.base.comparison *plot.base.comparison.Rd*

Description

Plot F/FMSY against B/BMSY

Usage

```
plot.base.comparison(baseres, labs)
```

Arguments

baseres

labs

Author(s)

Adam Langley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.biomass *plot.biomass.Rd*

Description

Plots biomass by region and then combined Option to add on CI as a polygoon

Usage

```
plot.biomass(plotdir = "H:/rmfcl/test/figs/", plotrep = test, varfile = NULL, type = "SSB", plotna
```

Arguments

plotdir

plotrep

varfile

type

plotname

plottype

Author(s)

Pierre Kleiber and Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`plot.biomass.combined` *plot.biomass.combined.Rd*

Description

Plots biomass combined across all regions Option to add on CI as a polygoon

Usage

```
plot.biomass.combined(plotdir = "H:/rmfcl/test/figs/", plotrep = test, varfile = NULL, type = "SSB
```

Arguments

`plotdir`

`plotrep`

`varfile`

`type`

`plotname`

`plottype`

Author(s)

Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.F.time *plot.F.time.Rd*

Description

Plots annual F by year for adults and juveniles (as defined by the maturity ogive in the *.ini file)

Usage

```
plot.F.time(plotdir = "H:/rmfcl/test/figs/", plotrep = "C:/assessments/alb/2008/6_area/28.splitgr
```

Arguments

plotdir

plotrep

inifile

plotname

plottype

COL

Author(s)

Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.fishery.impact.r *plot.fishery.impact.r.Rd*

Description

Does the fishery impact plot by taking the output straight from the plot.rep files You need to give the file names for the input files

Usage

```
plot.fishery.impact.r(plotdir = "H:/rmfcl/test/figs/", type = "Total", plotrep = testq0, impnames
```

Arguments

plotdir
type
plotrep
impnames
plotname
plottype
COL

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

plot.Kobe *plot.Kobe.Rd*

Description

Take MULTIFAN-CL results and produce a Kobe plot

Usage

```
plot.Kobe(plotdir = "S:/OFP Publications/Tuna Fishery Assessment Report/2007/Figures/BET/", plotr
```

Arguments

plotdir
plotrep
type
plotname
plottype
COL

Author(s)

Adam Langley and Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`plot.Kobe.template.bw` *plot.Kobe.template.bw.Rd*

Description

Make the template for a Kobe plot without colour

Usage

```
plot.Kobe.template.bw(Type)
```

Arguments

```
Type
```

Author(s)

Adam Langley and Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`plot.Kobe.template.col` *plot.Kobe.template.col.Rd*

Description

Make the template for a Kobe plot

Usage

```
plot.Kobe.template.col(Type)
```

Arguments

```
Type
```

Author(s)

Adam Langley and Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.mfcl.betyft09 *plot.mfcl.betyft09.Rd*

Usage

```
plot.mfcl.betyft09(lims = c(100, 260, -45, 45))
```

Arguments

lims

Author(s)

Adam Langley and Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.nofishing *plot.nofishing.Rd*

Usage

```
plot.nofishing(plotdir = "H:/rmfcl/test/figs/", plotrep = testq0, type = "SSB", plotname = "H:/rmf
```

Arguments

plotdir

plotrep

type

plotname

plottype

COL

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.nofishing.combined *plot.nofishing.combined.Rd*

Description

Plot the nofishing plots.

Usage

```
plot.nofishing.combined(plotdir = "H:/rmfcl/test/figs/", plotrep = testq0, type = "SSB", plotname
```

Arguments

plotdir

plotrep

type

plotname

plottype

COL

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.pacific.alb *plot.pacific.alb.Rd*

Description

Plots the Pacific and includes boundaries for the albacore tuna model.

Usage

```
plot.pacific.alb(plot_title = "", eez_dir = "I:/assessments/Pop dy modeling/MFCL/R functions/", pl
```

Arguments

plot_title

eez_dir

plot_eez

Author(s)

Adam Langley and Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`plot.pacific.skj` *plot.pacific.skj.Rd*

Description

Plots the Pacific and includes boundaries for the skipjack tuna model.

Usage

```
plot.pacific.skj(plot_title = "")
```

Arguments

```
plot_title
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`plot.pacific.species` *plot.pacific.species.Rd*

Description

Plots the Pacific and includes boundaries for the specified model.

Usage

```
plot.pacific.species(plot_title = "", uselims = NA, add.WCPFC = F, add.EPO = F, sp = "YFT", add.EEZ
```

Arguments

plot_title

uselims

add.WCPFC

add.EPO

sp

add.EEZ

eez_file

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

plot.pacific.WCPFC *plot.pacific.WCPFC.Rd*

Description

Plots the Pacific and includes boundaries for the yellowfin tuna model.

Usage

```
plot.pacific.WCPFC(plot_title = "", lims = c(100, 260, -45, 45))
```

Arguments

plot_title

lims

Author(s)

Adam Langley and Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.pacific.yft *plot.pacific.yft.Rd*

Description

Plots the Pacific and includes boundaries for the yellowfin tuna model.

Usage

```
plot.pacific.yft(plot_title = "", lims = c(100, 260, -45, 45), add.WCPFC = F)
```

Arguments

plot_title

lims

add.WCPFC

Author(s)

Adam Langley and Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot.recruitment *plot.recruitment.Rd*

Description

Plot recruitment by region and then combined Option to add on CI as a polygoon for combined R only

Usage

```
plot.recruitment(plotdir = "H:/rmfcl/test/figs/", plotrep = test, varfile = NULL, plotname = "H:/r
```

Arguments

plotdir

plotrep

varfile

plotname

plottype

Author(s)

Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`plot.recruitment.combined`

plot.recruitment.combined.Rd

Description

Plots biomass combined across all regions Option to add on CI as a polygoon

Usage

```
plot.recruitment.combined(plotdir = "H:/rmfcl/test/figs/", plotrep = test, varfile = NULL, plotnam
```

Arguments

`plotdir`

`plotrep`

`varfile`

`plotname`

`plottype`

Author(s)

Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

plot_cpue_cv_frq *plot_cpue_cv_frq.Rd*

Description

Takes a version 6 frq file and par file and plots the CPUE and CVs for the chosen fisheries. Currently the fisheries need to have effort wts.

Usage

```
plot_cpue_cv_frq(frq, parf, fisheries)
```

Arguments

frq

parf

fisheries

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

ppath *ppath.Rd*

Description

Joins parts of a file path together without fussing with "/" signs.

Usage

```
ppath(p1,p2)
```

Arguments

p1

p2

Author(s)

Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

R4MFCL *R4MFCL-package.Rd*

Description

R4MFCL is a collection of utility functions for stock assessments using the model MULTIFAN-CL (Fournier et al 1998; www.multifan-cl.org). There are several groups of R4MFCL functions: - input and output functions, for reading MULTIFAN-CL files into R objects and writing them back out as text files in the form that MULTIFAN-CL accepts as input. - data manipulation functions, for editing and restructuring the input objects - plotting functions, for producing plots and maps from the result objects - information functions, for comparing objects and giving information about, for example, flag settings.

---

read.catchrep *read.catchrep.Rd*

Description

Reads the catch.rep result file imnto an object.

Usage

```
read.catchrep(catchrep.file)
```

Arguments

```
catchrep.file
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

read.ests *read.ests.Rd*

Description

Load the ests.rep file into an object.

Usage

```
read.ests(rep.obj, ests = "C:/assessments/alb/2008/6_area/28.splitgr3/ests.rep", x = 1)
```

Arguments

```
rep.obj
ests
x
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

read.fit *read.fit.Rd*

Description

Loads the observed and expected size frequency from the *.fit file by fishery and time period.

Usage

```
read.fit(fit.file)
```

Arguments

```
fit.file
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`read.frq` *read.frq.Rd*

Description

Reads in the frq file into a frq object for either version 4 or 6+.

Usage

```
read.frq(frq.file, frq.title = "", ntop = 0, fishdefs = NA)
```

Arguments

`frq.file`

`frq.title`

`ntop`

`fishdefs`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`read.impact` *read.impact.Rd*

Description

Reads the *.rep files from various impact runs into their own objects, and names them.

Usage

```
read.impact(impdir = "H:/rmfcl/test/", impnames = c("ll", "psassoc", "psunassoc", "idph", "other")
```

Arguments

`impdir`

`impnames`

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`read.ini` *read.ini.Rd*

Description

Reads the *.ini data input file into an object.

Usage

```
read.ini(ini.file)
```

Arguments

```
ini.file
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`read.par` *read.par.Rd*

Description

Reads the *.par output and input MULTIFAN-CL parameter file into an object.

Usage

```
read.par(par.file)
```

Arguments

```
par.file
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`read.rep` *read.rep.Rd*

Description

Reads the rep file, which contains most of the important results, into an object.

Usage

```
read.rep(rep.file)
```

Arguments

```
rep.file
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`read.tag` *read.tag.Rd*

Description

Reads the *.tag data input file into an object.

Usage

```
read.tag(tagfile)
```

Arguments

```
tagfile
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`read.var` *read.var.Rd*

Description

Reads the *.var result file into an object.

Usage

```
read.var(var.file)
```

Arguments

`var.file`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`read_nmd.frq` *read_nmd.frq.Rd*

Description

Reads in the frq file into a frq object for either version 4 or 6+.

Usage

```
read_nmd.frq(frq.file, frq.title = "", ntop = 0, fishdefs = NA)
```

Arguments

`frq.file`

`frq.title`

`ntop`

`fishdefs`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`reconstruct.frq.ce` *reconstruct.frq.ce.Rd*

Description

Replaces the nominal effort in the original .FRQ file with stanadrdised effort based on a CPUE index. Not generalised - specific to bigeye 2008.

Usage

```
reconstruct.frq.ce(CPUE.file = "X:/yft/2009/Data Preparation/CPUE/indices/yft_JPstd_R1.txt", data
```

Arguments

`CPUE.file`

`data`

`fishery`

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`reconstruct.frq.size` *reconstruct.frq.size.Rd*

Description

Pull in new size and weight frequency data and rebuild the frq object. Not generalized - specific to WCPO bigeye.

Usage

```
reconstruct.frq.size(data = data, FISH = 1, LF.FILE = "P:/yft/2009/Data Preparation/size data/LLle
```

Arguments

`data`

`FISH`

`LF.FILE`

`WT.FILE`

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`region_single_frq` *region_single_frq.Rd*

Description

Change a frq object to a single region, removing all fisheries outside that region

Usage

```
region_single_frq(frq, region)
```

Arguments

`frq`

`region`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

region_single_ini *region_single_ini.Rd*

Description

Change an ini object to a single region, removing all fisheries outside that region

Usage

```
region_single_ini(ini)
```

Arguments

ini

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

region_single_tag *region_single_tag.Rd*

Description

Change a tag object to a single region, removing all fisheries outside that region

Usage

```
region_single_tag(tag, region, keepfish)
```

Arguments

tag

region

keepfish

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`regroup_fishery_grps.doitall` *regroup_fishery_grps.doitall.Rd*

Description

Regroup all the fisheries in the vector f to the groups in the vector newgrps for the specified flag.

Usage

```
regroup_fishery_grps.doitall(doitall, f, flag, newgrps)
```

Arguments

`doitall`

`f`

`flag`

`newgrps`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

rename.fisheries.doitall *rename.fisheries.doitall.Rd*

Description

Rename all the fisheries in the vector oldfs to the numbers in the vector newfs.

Usage

```
rename.fisheries.doitall(doitall, oldfs, newfs)
```

Arguments

doitall

oldfs

newfs

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

rename.fisheries.frq *rename.fisheries.frq.Rd*

Description

Rename all the fisheries in the vector oldfish to the numbers in the vector newfish.

Usage

```
rename.fisheries.frq(frq.obj, oldfish, newfish)
```

Arguments

frq.obj

oldfish

newfish

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

rename.fisheries.tag *rename.fisheries.tag.Rd*

Description

Rename the fisheries in oldfish to the fishery numbers in newfish.

Usage

```
rename.fisheries.tag(tag.obj, oldfish, newfish)
```

Arguments

tag.obj

oldfish

newfish

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

rename.fishery.grps.doitall
rename.fishery.grps.doitall.Rd

Description

Rename all the fisheries in the vector oldfs to the numbers in the vector newfs, for the specified flag.

Usage

```
rename.fishery.grps.doitall(doitall, oldfs, newfs, flag, keep = T, newgrps = c(0))
```

Arguments

doitall

oldfs

newfs

flag

keep

newgrps

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

retro.frq *retro.frq.Rd*

Description

Set a frq object up fo a retrospective analysis. Need some more testing.

Usage

```
retro.frq(frq.obj, retro.tag.obj = NA)
```

Arguments

frq.obj

retro.tag.obj

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

retro.tag *retro.tag.Rd*

Description

Set a tag object up fo a retrospective analysis. Need some more testing.

Usage

```
retro.tag(tag.obj, yr)
```

Arguments

```
tag.obj
yr
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

rm_fisheries.doitall *rm_fisheries.doitall.Rd*

Description

Removes all flags for specified fisheries from the doitall.

Usage

```
rm_fisheries.doitall(a, rmfisheries)
```

Arguments

```
a
rmfisheries
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

rm_fisheries.frq *rm_fisheries.frq.Rd*

Description

Removes all catch and effort in specific fisheries.

Usage

```
rm_fisheries.frq(frq.obj, fishery)
```

Arguments

```
frq.obj
fishery
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

rm_fisheries.tag *rm_fisheries.tag.Rd*

Description

Removes all recoveries in specified fisheries from a tag object.

Usage

```
rm_fisheries.tag(tag.obj, fisheries)
```

Arguments

```
tag.obj
fisheries
```

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

rm_fishflag *rm_fishflag.Rd*

Description

Removes all occurrences of changes to a specified fish flag from the doitall.

Usage

```
rm_fishflag(doitall, flag)
```

Arguments

doitall

flag

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

rm_flag.doitall *rm_flag.doitall.Rd*

Description

Removes all occurrences of changes to a specified flag from the doitall.

Usage

```
rm_flag.doitall(a, flagtype, flag, value)
```

Arguments

a

flagtype

flag

value

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

run.profile *run.profile.Rd*

Description

Run a likelihood profile analysis on a stock assessment. Needs to be generalized and tested.

Usage

```
run.profile(rundir, rungrp, startpar = NA, ptype = "Fmult", target, nsteps = 300, penalty = 5e+05)
```

Arguments

rundir

rungrp

startpar

ptype

target

nsteps

penalty

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

seas.flag *seas.flag.Rd*

Description

Change the doitall object so that the specified fishery is made seasonal.

Usage

```
seas.flag(a, fishery, flagnum, seasf.list)
```

Arguments

a

fishery

flagnum

seasf.list

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

seas.frq *seas.frq.Rd*

Description

Change the frq object so that the specified fishery is made seasonal.

Usage

```
seas.frq(frq.obj, seas.fish)
```

Arguments

frq.obj

seas.fish

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`seas.tag` *seas.tag.Rd*

Description

Change the tag object so that the specified fishery is made seasonal.

Usage

```
seas.tag(tag.obj, fishlist)
```

Arguments

`tag.obj`

`fishlist`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`setup.cpue` *setup.cpue.Rd*

Description

Replace particular CPUE series with other values, which are supplied. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.cpue(rungrp, sourcedir, cpue, spp)
```

Arguments

rungrp

sourcedir

cpue

spp

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

setup.effcreep *setup.effcreep.Rd*

Description

Adjust the effort in specified fisheries to adjust for a steady increase in fishing power at a specified rate. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.effcreep(rungrp, creeprate)
```

Arguments

rungrp

creeprate

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

setup.growth *setup.growth.Rd*

Description

Change the growth parameters to the values supplied in VBopt. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.growth(rungrp, VBopt)
```

Arguments

rungrp

VBopt

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

setup.growth.offsets *setup.growth.offsets.Rd*

Description

Modifies the growth offests to the specified values, and turns on their use and estimation in a specified phase. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.growth.offsets(rungrp, ageclasses, penwt, phase, tog)
```

Arguments

rungrp

ageclasses

penwt

phase

tog

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`setup.idphcatch` *setup.idphcatch.Rd*

Description

Replace the catches in Indonesia Phillippines fisheries with values supplied in a folder with prefix 'idph'. Needs modification to be more general. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.idphcatch(rungrp, sourcedir, idph, spp)
```

Arguments

`rungrp`

`sourcedir`

`idph`

`spp`

Author(s)

Nick Davies

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

setup.lensel *setup.lensel.Rd*

Description

Change selectivity to fully length-based in the specified fisheries. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.lensel(rungrp, fisheries, tog)
```

Arguments

rungrp

fisheries

tog

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

setup.LFwt *setup.LFwt.Rd*

Description

Change the likelihood weight on the length frequencies to the specified value in specified fisheries, defaulting to all fisheries. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.LFwt(rungrp, newLFwt)
```

Arguments

rungrp

newLFwt

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`setup.M` *setup.M.Rd*

Description

Change the starting value of mean natural mortality in the ini file, and turn off M estimation. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.M(rungrp, newM)
```

Arguments

`rungrp`

`newM`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

setup.pscatch *setup.pscatch.Rd*

Description

Replace the catches in purse seine fisheries (2011 WCPO bigeye) with values supplied in a folder with prefix 'PScatch'. Needs modification to be more general. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.pscatch(rungrp, sourcedir, PScatch, spp)
```

Arguments

rungrp

sourcedir

PScatch

spp

Author(s)

Nick Davies

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

setup.startyr *setup.startyr.Rd*

Description

Changes the start year of the assessment. Runs start_year.frq. Currently doesn't change the tag file. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.startyr(rungrp, newstartyr)
```

Arguments

rungrp

newstartyr

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`setup.steepness` *setup.steepness.Rd*

Description

Changes the fixed value of steepness in the assessment by editing the doitall file. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.steepness(rungrp, newsteep)
```

Arguments

`rungrp`

`newsteep`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`setup.timesplit` *setup.timesplit.Rd*

Description

Modifies the assessment files to include a time split, defined by the parameter splitx. The setup files are generally used in structural sensitivity analyses. They modify an object that contains all the MULTIFAN-CL input files.

Usage

```
setup.timesplit(rungrp, splitx, storefish)
```

Arguments

`rungrp`

`splitx`

`storefish`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`sort.frq` *sort.frq.Rd*

Description

Sorts the data in a frq file with the fisheries and times in ascending order.

Usage

```
sort.frq(frq.obj)
```

Arguments

`frq.obj`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`start_year.frq` *start_year.frq.Rd*

Description

Change the starting year of the assessment by removing all frq data before that time and changing the start year parameter.

Usage

```
start_year.frq(frq.obj, start_yr, halfyr = F)
```

Arguments

`frq.obj`

`start_yr`

`halfyr`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`steepness.doit` *steepness.doit.Rd*

Description

Inserts a new line "recruitmentConstraints 01.par ###" after PHASE 1. This allows steepness to be fixed at a chosen level.

Usage

```
steepness.doit(doitall, new.steepness, add_header = T, gap = 2)
```

Arguments

doitall

new.steepness

add_header

gap

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

summarise.size.frq.bet

summarise.size.frq.bet.Rd

Description

Takes two frq files from the bigeye assessment and compares the length and weight data on an annual basis for the range of years Just does the last 15 years at the moment. Specific for the 2009 BET assessment, and included as an example. .

Usage

```
summarise.size.frq.bet(frq1, fishery = 5)
```

Arguments

frq1

fishery

Author(s)

Shelton Harley

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

tag_grps_rm *tag_grps_rm.Rd*

Description

Remove the specified tag groups from the tag object.

Usage

```
tag_grps_rm(tag.obj, keep)
```

Arguments

tag.obj

keep

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

timesplit.doitall *timesplit.doitall.Rd*

Description

Changes a doitall file to account for time splits. Time splits occur when a fishery is broken up into several fisheries by time, with dates and new fishery codes specified in the 'fishsplit' parameter.

Usage

```
timesplit.doitall(doitall, fishsplit, qsplit = T)
```

Arguments

doitall

fishsplit

qsplit

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`timesplit.frq` *timesplit.frq.Rd*

Description

Changes a frq file to account for time splits. Time splits occur when a fishery is broken up into several fisheries by time, with dates and new fishery codes specified in the 'fishsplit' parameter.

Usage

```
timesplit.frq(frq.obj, divyrs, div.fish)
```

Arguments

`frq.obj`

`divyrs`

`div.fish`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`timesplit.tag` *timesplit.tag.Rd*

Description

Changes a tag file to account for time splits. Time splits occur when a fishery is broken up into several fisheries by time, with dates and new fishery codes specified in the 'fishsplit' parameter.

Usage

```
timesplit.tag(tag.obj, fishsplit)
```

Arguments

tag.obj

fishsplit

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

---

varfromstr *varfromstr.Rd*

Usage

```
varfromstr(datstring, cols = c(2:3))
```

Arguments

datstring

cols

Author(s)

Pierre Kleiber

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

write.frq *write.frq.Rd*

Description

Writes out the frq file (catch and effort, size frequency and model structure).

Usage

```
write.frq(frqfile, frq.obj)
```

Arguments

frqfile

frq.obj

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

write.ini *write.ini.Rd*

Description

Writes out the ini file in MULTIFAN-CL inoput format, from an ini object.

Usage

```
write.ini(ini.file, ini.obj, old.format=FALSE)
```

Arguments

ini.file

ini.obj

old.format

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`write.par` *write.par.Rd*

Description

Writes out the par file from a par object.

Usage

```
write.par(par.file, par.obj)
```

Arguments

`par.file`

`par.obj`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`write.tag` *write.tag.Rd*

Description

Writes a tag object out into a *.tag text file for input to MULTIFAN-CL.

Usage

```
write.tag(tagfile, tag.obj)
```

Arguments

`tagfile`

`tag.obj`

Author(s)

Simon Hoyle

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

`write_nmd.frq` *write_nmd.frq.Rd*

Description

An alternative write.frq function - writes out the frq file (catch and effort, size frequency and model structure)

Usage

```
write_nmd.frq(new.frq, frq.obj)
```

Arguments

`new.frq`

`frq.obj`

Author(s)

Nick Davies

Examples

```
##---- Should be DIRECTLY executable !! ----
##-- ==>  Define data, use random,
##--or do  help(data=index)  for the standard data sets.
```

Index