Package 'R4MFCL'

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Title	R	functions	for	MIII	TIFAN-	CI

Version 0.2

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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.

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Suggests maps, mapdata, mapproj

R topics documented:

add.catch.frq	4
add.cpue.frq	4
add.flag	5
carry.effort.frq	6
change.fishflag	6
change.flag	7
change.negflag	7
change.size.frq	8
change_data	8
check.eff.devs	9
check_flag_value	9
clean.lfdata	10
compare.ce.frq	10
compare.frq	11
compare.size.frq	11
compare par flags	12

2

condor.go	13
condor.go2	13
convert.frq.ver6	14
copy.condor.files	15
create.missing.ce	15
crit.fishery.summary	16
crit.summary	16
datfromstr	17
do.critical.cales	17
doit.rm_flag	18
effortcreep	18
fix_growth	19
frq.change.nint	19
frq.remove.size.or.weight.data	20
get.critical.age	20
get.length.output	21
get.outcomes	21
get.tag.structure	22
get.weight.output	23
labels_store	23
load.LFdata	24
make.projection.betyft.frq	24
map_all_pacific	25
merge.frq	25
merge.tag	26
merge_tag_objs	27
pack.fisheries.frq	27
plot.base.comparison	28
plot.biomass	28
plot.biomass.combined	29
plot.F.time	30
plot.fishery.impact.r	30
plot.Kobe	31
plot.Kobe.template.bw	32
plot.Kobe.template.col	32
plot.mfcl.betyft09	33
plot.nofishing	33
plot.nofishing.combined	34
plot.pacific.alb	34
plot.pacific.skj	35
plot.pacific.species	35
plot.pacific.WCPFC	36
plot.pacific.yft	37
plot.recruitment	37
plot.recruitment.combined	38
plot_cpue_cv_frq	39
ppath	39
R4MFCL	40
read.catchrep	40
read.ests	41
read.fit	41
read.frq	42

read.impact	42
read.ini	43
read.par	43
read.rep	44
read.tag	44
read.var	45
read_nmd.frq	45
reconstruct.frq.ce	46
reconstruct.frq.size	47
region_single_frq	47
region_single_ini	48
region_single_tag	48
regroup_fishery_grps.doitall	49
rename.fisheries.doitall	50
rename.fisheries.frq	50
rename.fisheries.tag	51
rename.fishery.grps.doitall	51
retro.frq	52
retro.tag	53
· ·	53
rm_fisheries.doitall	55 54
rm_fisheries.frq	-
rm_fisheries.tag	54
rm_fishflag	55
rm_flag.doitall	55
run.profile	56
seas.flag	57
seas.frq	57
seas.tag	58
setup.cpue	58
setup.effcreep	59
setup.growth	60
setup.growth.offsets	60
setup.idphcatch	61
setup.lensel	62
setup.LFwt	62
setup.M	63
setup.pscatch	64
setup.startyr	64
setup.steepness	65
setup.timesplit	66
sort.frq	66
start_year.frq	67
steepness.doit	67
summarise.size.frq.bet	68
-	69
tag_grps_rm	69
timesplit.doitall	
timesplit.frq	70
timesplit.tag	70
varfromstr	71
write.frq	72
write.ini	72
write.par	73

4 add.cpue.frq

```
      write.tag
      73

      write_nmd.frq
      74
```

Index 75

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
```

add.flag 5

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

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

6 change.fishflag

```
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

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

change.flag 7

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

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

8 change_data

```
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/
```

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

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

check.eff.devs 9

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

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

10 compare.ce.frq

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

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

compare.frq 11

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 12 compare_par_flags

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

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

condor.go 13

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
```

convert.frq.ver6

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

а

Author(s)

Simon Hoyle

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

copy.condor.files 15

```
copy.condor.files copy.
```

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

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

16 crit.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

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

datfromstr 17

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

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

18 effortcreep

```
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

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

fix_growth 19

fix_growth

fix_growth.Rd

Usage

```
fix_growth(a)
```

Arguments

а

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

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

20 get.critical.age

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

get.length.output 21

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
```

22 get.tag.structure

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

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

get.weight.output 23

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

```
##--- 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. \verb|projection.bety| ft.frq \\ \textit{make.projection.bety} ft.frq. \textit{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

map_all_pacific 25

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)
```

26 merge.tag

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

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

merge_tag_objs 27

```
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

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

28 plot.biomass

```
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
```

plot.biomass.combined 29

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

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

30 plot.fishery.impact.r

```
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
```

plot.Kobe 31

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

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

```
\verb"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

Туре

Author(s)

Adam Langley and Shelton Harley

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

plot.mfcl.betyft09 33

```
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

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

Arguments

plotdir plotrep type plotname plottype COL

Author(s)

Shelton Harley

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

34 plot.pacific.alb

```
plot.nof is hing. combined \\ plot.nof is hing. combined. Rd
```

Description

Plot the nofishing plots.

Usage

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

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

Arguments

```
plot_title
eez_dir
plot_eez
```

plot.pacific.skj 35

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
```

36 plot.pacific.WCPFC

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

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

plot.pacific.yft 37

```
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

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

plot_cpue_cv_frq 39

```
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

р1

p2

Author(s)

Pierre Kleiber

40 read.catchrep

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

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

read.ests 41

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

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

read.impact

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

read.ini 43

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)

read.tag

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)

read.var 45

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
```

46 reconstruct.frq.ce

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

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

reconstruct.frq.size 47

```
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 \qquad 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)

48 region_single_tag

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

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

50 rename.fisheries.frq

```
{\it 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)

rename.fisheries.tag 51

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. {\it grps.doitall.} \\ {\it 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))
```

52 retro.frq

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

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

retro.tag 53

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

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

54 rm_fisheries.tag

```
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

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

rm_fishflag 55

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)

56 run.profile

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

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

seas.flag 57

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)

58 setup.cpue

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)
```

setup.effcreep 59

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

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

60 setup.growth.offsets

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
```

setup.idphcatch 61

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

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

62 setup.LFwt

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

setup.M 63

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

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

64 setup.startyr

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
```

setup.steepness 65

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

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

66 sort.frq

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)

start_year.frq 67

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

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

tag_grps_rm 69

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)

70 timesplit.tag

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)
```

varfromstr 71

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

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

72 write.ini

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)

write.par 73

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

74 write_nmd.frq

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

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

Index

*Topic \textasciitildekwd1	pack.fisheries.frq,27
add.catch.frq,4	plot.base.comparison, 28
add.cpue.frq,4	plot.biomass, 28
add.flag,5	plot.biomass.combined, 29
carry.effort.frq,6	plot.F.time, 30
change.fishflag,6	plot.fishery.impact.r, 30
change.flag,7	plot.Kobe, 31
change.negflag, 7	plot.Kobe.template.bw, 32
change.size.frq, 8	plot.Kobe.template.col, 32
change_data, 8	plot.mfcl.betyft09,33
check.eff.devs, 9	plot.nofishing, 33
<pre>check_flag_value, 9</pre>	plot.nofishing.combined, 34
clean.lfdata, 10	plot.pacific.alb, 34
compare.ce.frq, 10	plot.pacific.skj,35
compare.frq,11	plot.pacific.species, 35
compare.size.frq,11	plot.pacific.WCPFC, 36
<pre>compare_par_flags, 12</pre>	plot.pacific.yft,37
condor.go, 13	plot.recruitment,37
condor.go2, 13	plot.recruitment.combined, 38
convert.frq.ver6,14	plot_cpue_cv_frq,39
copy.condor.files, 15	ppath, 39
create.missing.ce, 15	${\sf read.catchrep,40}$
crit.fishery.summary, 16	read.ests, 41
crit.summary, 16	read.fit,41
datfromstr, 17	read.frq,42
do.critical.calcs, 17	read.impact, 42
doit.rm_flag, 18	read.ini,43
effortcreep, 18	read.par, 43
fix_growth, 19	read.rep, 44
frq.change.nint, 19	read.tag,44
frq.remove.size.or.weight.data, 20	read.var, 45
get.critical.age, 20	read_nmd.frq,45
get.length.output, 21	reconstruct.frq.ce,46
get.outcomes, 21	reconstruct.frq.size,47
get.tag.structure, 22	region_single_frq,47
get.weight.output, 23	region_single_ini,48
labels_store, 23	region_single_tag,48
load.LFdata, 24	regroup_fishery_grps.doitall,49
make.projection.betyft.frq, 24	rename.fisheries.doitall,50
map_all_pacific, 25	rename.fisheries.frq,50
merge.frq, 25	rename.fisheries.tag,51
merge.tag, 26	rename.fishery.grps.doitall,51
merge_tag_objs, 27	retro.frq,52

76 INDEX

retro.tag, 53	compare_par_flags, 12
rm_fisheries.doitall,53	condor.go, 13
rm_fisheries.frq,54	condor.go2,13
rm_fisheries.tag,54	convert.frq.ver6,14
rm_fishflag,55	copy.condor.files, 15
rm_flag.doitall,55	create.missing.ce, 15
run.profile,56	crit.fishery.summary, 16
seas.flag, 57	crit.summary, 16
seas.frq,57	datfromstr, 17
seas.tag, 58	do.critical.calcs, 17
setup.cpue, 58	doit.rm_flag, 18
setup.effcreep,59	effortcreep, 18
setup.growth, 60	fix_growth, 19
setup.growth.offsets, 60	frq.change.nint, 19
setup.idphcatch,61	<pre>frq.remove.size.or.weight.data, 20</pre>
setup.lensel,62	get.critical.age, 20
setup.LFwt, 62	get.length.output,21
setup.M, 63	get.outcomes, 21
setup.pscatch, 64	get.tag.structure,22
setup.startyr,64	<pre>get.weight.output, 23</pre>
setup.steepness, 65	labels_store, 23
setup.timesplit,66	load.LFdata, 24
sort.frq,66	make.projection.betyft.frq,24
start_year.frq,67	<pre>map_all_pacific, 25</pre>
steepness.doit,67	merge.frq, 25
summarise.size.frq.bet,68	merge.tag, 26
tag_grps_rm,69	merge_tag_objs,27
timesplit.doitall,69	pack.fisheries.frq,27
timesplit.frq,70	plot.base.comparison, 28
timesplit.tag, 70	plot.biomass, 28
varfromstr, 71	plot.biomass.combined, 29
write.frq,72	plot.F.time, 30
write.ini, 72	plot.fishery.impact.r, 30
write.par, 73	plot.Kobe, 31
write.tag, 73	plot.Kobe.template.bw, 32
write_nmd.frq,74	plot.Kobe.template.col, 32
Topic \textasciitildekwd2	plot.mfcl.betyft09,33
add.catch.frq,4	plot.nofishing, 33
add.cpue.frq,4	plot.nofishing.combined, 34
add.flag,5	plot.pacific.alb, 34
carry.effort.frq,6	plot.pacific.skj,35
change.fishflag,6	plot.pacific.species, 35
change.flag,7	plot.pacific.WCPFC, 36
change.negflag,7	plot.pacific.yft, 37
change.size.frq,8	plot.recruitment, 37
change_data, 8	plot.recruitment.combined, 38
check.eff.devs, 9	plot_cpue_cv_frq, 39
check_flag_value, 9	ppath, 39
clean.lfdata, 10	read.catchrep, 40
compare.ce.frq, 10	read.ests, 41
compare.frq, 11	read.fit, 41
compare.size.frq, 11	read.frq, 42
Compar C. 312C. 11 q, 11	1 Cau. 11 4, 72

INDEX 77

read.impact, 42	write.tag,73
read.ini,43	write_nmd.frq,74
read.par, 43	
read.rep, 44	add.catch.frq,4
read.tag,44	add.cpue.frq,4
read.var, 45	add.flag,5
read_nmd.frq,45	
reconstruct.frq.ce, 46	carry.effort.frq,6
reconstruct.frq.size,47	change.fishflag,6
region_single_frq,47	change.flag,7
region_single_ini,48	change.negflag,7
region_single_tag, 48	change.size.frq,8
regroup_fishery_grps.doitall,49	change_data, 8
rename.fisheries.doitall,50	check.eff.devs,9
rename.fisheries.frq,50	check_flag_value, 9
rename.fisheries.tag, 51	clean.lfdata, 10
rename.fishery.grps.doitall, 51	compare.ce.frq, 10
retro.frq,52	compare.frq, 11
retro.tag, 53	compare.size.frq, 11
rm_fisheries.doitall,53	compare_par_flags, 12
rm_fisheries.frq,54	condor.go, 13
rm_fisheries.tag, 54	condor.go2, 13
rm_fishflag, 55	convert.frq.ver6, 14
rm_flag.doitall,55	copy.condor.files, 15
run.profile, 56	create.missing.ce, 15
seas.flag, 57	crit.fishery.summary, 16
seas.frq, 57	crit.summary, 16
seas.tag, 58	datfromstr, 17
setup.cpue, 58	do.critical.calcs, 17
setup.effcreep, 59	doit.rm_flag, 18
setup.growth, 60	dort.im_riag, 10
setup.growth.offsets, 60	effortcreep, 18
setup.idphcatch, 61	
setup.lensel, 62	fix_growth, 19
setup.LFwt, 62	frq.change.nint, 19
setup.M, 63	frq.remove.size.or.weight.data, 20
setup.pscatch, 64	
setup.startyr, 64	get.critical.age, 20
setup.steepness, 65	get.length.output, 21
setup.timesplit,66	get.outcomes, 21
sort.frq,66	get.tag.structure,22
start_year.frq, 67	get.weight.output, 23
steepness.doit, 67	
summarise.size.frq.bet, 68	labels_store, 23
tag_grps_rm, 69	load.LFdata, 24
timesplit.doitall, 69	
timesplit.frq, 70	make.projection.betyft.frq, 24
timesplit.tag, 70	map_all_pacific, 25
varfromstr, 71	merge.frq, 25
write.frq, 72	merge.tag, 26
write.iriq, 72 write.ini, 72	merge_tag_objs, 27
	nack fisheries fro 27
write.par, 73	pack.fisheries.frq,27

78 INDEX

plot.base.comparison, 28	seas.frq,57
plot.biomass, 28	seas.tag, 58
plot.biomass.combined, 29	setup.cpue, 58
plot.F.time, 30	setup.effcreep, 59
plot.fishery.impact.r, 30	setup.growth, 60
plot.Kobe, 31	setup.growth.offsets, 60
plot.Kobe.template.bw, 32	setup.idphcatch, 61
plot.Kobe.template.col, 32	setup.lensel, 62
plot.mfcl.betyft09, 33	setup.LFwt, 62
plot.nofishing, 33	setup.M, 63
plot.nofishing.combined, 34	setup.n, 65
plot.pacific.alb, 34	setup.startyr, 64
plot.pacific.skj, 35	setup.steepness, 65
plot.pacific.species, 35	setup.timesplit,66
plot.pacific.WCPFC, 36	sort.frq, 66
plot.pacific.yft, 37	start_year.frq,67
plot.recruitment, 37	steepness.doit, 67
plot.recruitment.combined, 38	summarise.size.frq.bet,68
plot_cpue_cv_frq, 39	tag gras rm 60
ppath, 39	tag_grps_rm, 69
DAMEST 40	timesplit.doitall,69
R4MFCL, 40	timesplit.frq,70
read.catchrep, 40	timesplit.tag,70
read.ests, 41	varfromstr, 71
read.fit, 41	vai i i oiiisti, / i
read.frq, 42	write.frq,72
read.impact, 42	write.ini,72
read.ini, 43	write.par, 73
read.par, 43	write.tag, 73
read.rep, 44	write.tag, 75 write_nmd.frq, 74
read.tag, 44	write_nma.rrq, 74
read.var, 45	
read_nmd.frq,45	
reconstruct.frq.ce,46	
reconstruct.frq.size,47	
region_single_frq,47	
region_single_ini,48	
region_single_tag, 48	
regroup_fishery_grps.doitall,49	
rename.fisheries.doitall,50	
rename.fisheries.frq, 50	
rename.fisheries.tag, 51	
rename.fishery.grps.doitall,51	
retro.frq, 52	
retro.tag, 53	
rm_fisheries.doitall, 53	
rm_fisheries.frq, 54	
rm_fisheries.tag, 54	
rm_fishflag, 55	
rm_flag.doitall, 55	
run.profile, 56	
seas.flag, 57	