CDO	Reference	Card
-DU	Treference	Caru

Climate Data Operators Version 1.0.9 October 2007

Uwe Schulzweida Max-Planck-Institute for Meteorology

Syntax

cdo	[Options]	Operator

Options

-	
-a	Convert from a relative to an absolute time axis
-b < nbits >	Set the number of bits for the output precision
	(32/64 for nc, nc2, srv, ext, ieg; 1 - 32 for grb)
$-\mathbf{f} < format >$	Output file format (grb, nc, nc2, srv, ext, ieg)
-g < grid>	Grid name or file
	Available grids: t <res>grid, r<nx>x<ny></ny></nx></res>
-h	Help information for the operators
-m $<$ $missval >$	Set the default missing value (default: -9e+33)
-R	Convert GRIB data from reduced to regular grid
-r	Convert from an absolute to a relative time axis
-s	Silent mode
$-\mathbf{t} $	Set the parameter table name or file
	Predefined tables: echam4 echam5 mpiom1
-V	Print the version number
-v	Print extra details for some operators

Operators

Information

showstdname

showlevel

showltype

showyear

showmon

showdate

showtime Syntax

pardes griddes

 \mathbf{vct}

info	Dataset information listed by code number
infov	Dataset information listed by variable name
map	Dataset information and simple map
Syntax	<pre><operator> ifiles</operator></pre>
sinfo	Short dataset information listed by code number
sinfov	Short dataset information listed by variable name
Syntax	<pre><operator> ifiles</operator></pre>
diff	Compare two datasets listed by code number
diffv	Compare two datasets listed by variable name
Syntax	<pre><operator> ifile1 ifile2</operator></pre>
Syntax	<pre><pre>operator > fiffer fiffer</pre></pre>
npar	Number of parameters
	^
npar	Number of parameters
npar nlevel	Number of parameters Number of levels
npar nlevel nyear	Number of parameters Number of levels Number of years
npar nlevel nyear nmon	Number of parameters Number of levels Number of years Number of months
npar nlevel nyear nmon ndate	Number of parameters Number of levels Number of years Number of months Number of dates Number of time steps
npar nlevel nyear nmon ndate ntime	Number of parameters Number of levels Number of years Number of months Number of dates Number of time steps
npar nlevel nyear nmon ndate ntime	Number of parameters Number of levels Number of years Number of months Number of dates Number of time steps < operator > ifile

Show standard names

Show GRIB level types

Show levels

Show years

Show dates Show time steps

Syntax < operator > ifile

Show months

<operator> ifile Parameter description

Grid description

Vertical coordinate table

	File operations		
. '	copy	Copy datasets	
	cat	Concatenate datasets	
	Syntax	< operator > ifiles ofile	
	replace	Replace variables	
	Syntax	replace ifile1 ifile2 ofile	
	merge	Merge datasets with different fields	
	mergetime	Merge datasets sorted by date and time	
٠.	Syntax	< operator > ifiles ofile	
	splitcode	Split code numbers	
	splitname	Split variable names	
	splitlevel	Split levels	
1	splitgrid	Split grids	
	splitzaxis	Split zaxis	
	Syntax	< operator > ifile oprefix	
	splithour	Split hours	
1	splitday	Split days	
ł	splitmon	Split months	
l	splitseas	Split seasons	
1	splityear	Split years	
┨.	Syntax	< operator > ifile oprefix	

Split time selection

splitsel,nsets[,noffset[,nskip]] ifile oprefix

Select variables by code number

Selection selcode

splitsel

delcode	Delete variables by code number
Syntax	<pre><operator>,codes ifile ofile</operator></pre>
selname	Select variables by name
delname	Delete variables by name
Syntax	<pre><operator>,vars ifile ofile</operator></pre>
selstdname	Select variables by standard name
Syntax	selstdname,stdnames ifile ofile
sellevel	Select levels
Syntax	sellevel, levels ifile ofile
selgrid	Select grids
Syntax	selgrid,grids ifile ofile
selgridname	Select grids by name
Syntax	selgridname,gridnames ifile ofile
selzaxis	Select zaxes
Syntax	selzaxis,zaxes ifile ofile
selzaxisname	Select zaxes by name
Syntax	selzaxisname,zaxisnames ifile ofile
selltype	Select GRIB level types
Syntax	selltype,ltypes ifile ofile
14 1	0.1 4 4 11 1
seltabnum	Select parameter table numbers
Syntax	select parameter table numbers seltabnum,tabnums ifile ofile
Syntax	seltabnum,tabnums ifile ofile
Syntax seltimestep	seltabnum,tabnums ifile ofile Select time steps
Syntax seltimestep Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile
Syntax seltimestep Syntax seltime	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times
Syntax seltimestep Syntax seltime Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile
Syntax seltimestep Syntax seltime Syntax selhour	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours
Syntax seltimestep Syntax seltime Syntax selhour Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile
seltimestep Syntax seltime Syntax seltour Syntax selday	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile Select days
Syntax seltimestep Syntax seltime Syntax selhour Syntax selday Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile Select days selday,days ifile ofile
Syntax seltimestep Syntax seltime Syntax selhour Syntax selday Syntax selday Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile Select days selday,days ifile ofile Select months
seltimestep Syntax seltime Syntax seltour Syntax selday Syntax selday Syntax selmon Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile Select days selday,days ifile ofile Select months selmon,months ifile ofile
seltimestep Syntax seltime Syntax selhour Syntax selday Syntax selmon Syntax selyear	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile Select days selday,days ifile ofile Select months selmon,months ifile ofile Select years
seltimestep Syntax seltime Syntax selhour Syntax selday Syntax selmon Syntax selyear Syntax selseas Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile Select days selday,days ifile ofile Select months selmon,months ifile ofile Select years selyear,years ifile ofile Select seasons selseas,seasons ifile ofile
seltimestep Syntax seltime Syntax selhour Syntax selday Syntax selmon Syntax selwar selwar Syntax selyear Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile Select days selday,days ifile ofile Select months selmon,months ifile ofile Select years selyear,years ifile ofile Select seasons
seltimestep Syntax seltime Syntax selhour Syntax selday Syntax selmon Syntax selyear Syntax selseas Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile Select days selday,days ifile ofile Select months selmon,months ifile ofile Select years selyear,years ifile ofile Select seasons selseas,seasons ifile ofile
seltimestep Syntax seltime Syntax selhour Syntax selday Syntax selmon Syntax selyear Syntax selyear Syntax selseas Syntax	seltabnum,tabnums ifile ofile Select time steps seltimestep,timesteps ifile ofile Select times seltime,times ifile ofile Select hours selhour,hours ifile ofile Select days selday,days ifile ofile Select days selday,days ifile ofile Select years selyear,years ifile ofile Select seasons selseas,seasons ifile ofile Select dates

shifttime

Shift time steps

Syntax shifttime, sval ifile ofile

sellonlatbox	Select a longitude/latitude box	chcode	Change code number
Syntax	sellonlatbox,lon1,lon2,lat1,lat2 ifile ofile	Syntax	\mathbf{chcode} , $old code$, $new code[,]$ if ile of ile
selindexbox	Select an index box	chname	Change variable name
Syntax	selindexbox,idx1,idx2,idy1,idy2 ifile ofile	Syntax	chname,ovar,nvar, ifile ofile
		chlevel	Change level
		Syntax	chlevel,oldlev,newlev, ifile ofile
		chlevelc	Change level of one code chlevelc,code,oldlev,newlev ifile ofile
Conditional s	election	Syntax	Change level of one variable
ifthen	If then	Syntax	chlevelv,var,oldlev,newlev ifile ofile
ifnotthen	If not then		, , ,
Syntax	<pre><operator> ifile1 ifile2 ofile</operator></pre>	setgrid Syntax	Set grid
ifthenelse	If then else	setgridtype	setgrid,grid ifile ofile Set grid type
Syntax	ifthenelse ifile1 ifile2 ifile3 ofile	Syntax	setgridtype,gridtype ifile ofile
		·	
ifthenc	If then constant	setzaxis	Set zaxis
ifnotthenc Syntax	If not then constant <operator>,c ifile ofile</operator>	Syntax	setzaxis,zaxis ifile ofile
Syntax	<pre><pre>< operator >,c lille office</pre></pre>	setgatt	Set global attribute
		Syntax	setgatt, attname, attstring ifile ofile
		setgatts	Set global attributes
C		Syntax	setgatts, attfile ifile ofile
Comparison		invertlat	Invert latitude
eq	Equal	invertion	Invert longitude
ne	Not equal	invertlatdes	Invert latitude description
le	Less equal	invertiondes	Invert longitude description
lt	Less than	invertlatdata	Invert latitude data
ge	Greater equal	invertiondata	Invert longitude data
$_{ m gt}$	Greater than	Syntax	<pre><operator> ifile ofile</operator></pre>
Syntax	$<\!operator\!>$ ifile1 ifile2 ofile	maskregion	Mask regions
eqc	Equal constant	Syntax	maskregion, regions ifile ofile
nec	Not equal constant	masklonlatbox	Mask a longitude/latitude box
lec	Less equal constant	Syntax	masklonlatbox, lon1, lon2, lat1, lat2 ifile ofile
ltc	Less then constant	maskindexbox	Mask an index box
gec	Greater equal constant	Syntax	maskindexbox,idx1,idx2,idy1,idy2 ifile ofile
gtc	Greater then constant	setclonlatbox	Set a longitude/latitude box to constant
Syntax	< operator >, c ifile ofile	Syntax	setclonlatbox,c,lon1,lon2,lat1,lat2 ifile ofile
		setcindexbox	Set an index box to constant
		Syntax	setcindexbox,c,idx1,idx2,idy1,idy2 ifile ofile
3.5 110		enlarge	Enlarge fields
${\bf Modification}$		enlarge Syntax	Enlarge fields enlarge,grid ifile ofile
Modification setpartab	Set parameter table	Syntax	enlarge,grid ifile ofile
	Set parameter table setpartab, table ifile ofile	Syntax setmissval	enlarge,grid ifile ofile Set a new missing value
setpartab	-	Syntax setmissval Syntax	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile
setpartab Syntax	setpartab, table ifile ofile	Syntax setmissval Syntax setctomiss	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value
setpartab Syntax setcode Syntax setname	setpartab, table ifile ofile Set code number	Syntax setmissval Syntax setctomiss setmisstoc	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant
setpartab Syntax setcode Syntax setname Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile	Syntax setmissval Syntax setctomiss	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value
setpartab Syntax setcode Syntax setname Syntax setlevel	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level	Syntax setmissval Syntax setctomiss setmisstoc Syntax	enlarge, grid ifile ofile Set a new missing value setmissval, miss ifile ofile Set constant to missing value Set missing value to constant <operator>, c ifile ofile</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile	Syntax setmissval Syntax setctomiss setmisstoc Syntax setrtomiss	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>c ifile ofile Set range to missing value</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile Set GRIB level type	Syntax setmissval Syntax setctomiss setmisstoc Syntax setrtomiss	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>c ifile ofile Set range to missing value</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile Set GRIB level type setltype,ltype ifile ofile	Syntax setmissval Syntax setctomiss setmisstoc Syntax setrtomiss Syntax setrtomiss Syntax	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>c ifile ofile Set range to missing value</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile Set GRIB level type setltype,ltype ifile ofile Set date	Syntax setmissval Syntax setctomiss setmisstoc Syntax setrtomiss Syntax Arithmetic	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setlevel Syntax settype Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile Set GRIB level type setltype,ltype ifile ofile Set date setdate,date ifile ofile	Syntax setmissval Syntax setctomiss setmisstoc Syntax setrtomiss Syntax setrtomise Arithmetic expr	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype Syntax setdate Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level setlevel, level ifile ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time	Syntax setmissval Syntax setctomiss Syntax setricomiss Syntax setricomiss Syntax setricomiss Syntax Arithmetic expr	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype Syntax setdate Syntax setdate Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level Set level ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time settime, time ifile ofile	Syntax setmissval Syntax setctomiss Syntax setristoc Syntax setriomiss Syntax Arithmetic expr Syntax exprf	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype Syntax setdate Syntax setdate Syntax settate Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile Set GRIB level type setltype,ltype ifile ofile Set date setdate,date ifile ofile Set time settime,time ifile ofile Set day	Syntax setmissval Syntax setctomiss Syntax setrisstoc Syntax setriomiss Syntax Arithmetic expr Syntax setmissval syntax se	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax settype Syntax setdate Syntax setdate Syntax settime Syntax settime Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile Set GRIB level type setltype,ltype ifile ofile Set date setdate,date ifile ofile Set time settime,time ifile ofile Set day setday,day ifile ofile	Syntax setmissval Syntax setctomiss Syntax setrisstoc Syntax setrtomiss Syntax Arithmetic expr Syntax synt	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant < operator >,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype Syntax setdate Syntax setdate Syntax setday Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level setlevel, level ifile ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time settime, time ifile ofile Set day setday, day ifile ofile Set month	Syntax setmissval Syntax setctomiss Setmisstoc Syntax setrtomiss Syntax Arithmetic expr Syntax exprf Syntax abs int	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype Syntax setdate Syntax setdate Syntax settime Syntax setday Syntax setday Syntax setday Syntax setday Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level setlevel, level ifile ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time settime, time ifile ofile Set day, day ifile ofile Set month setmon, month ifile ofile	Syntax setmissval Syntax setctomiss setmisstoc Syntax setrtomiss setrtomiss Syntax Syntax Arithmetic expr Syntax exprf Syntax abs int nint	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value Nearest integer value</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax settlype Syntax setdate Syntax setdate Syntax setdaty Syntax setday Syntax setday Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile Set GRIB level type setltype,ltype ifile ofile Set date setdate,date ifile ofile Set time settime,time ifile ofile Set month setmon,month ifile ofile Set year	Syntax Setmissval Syntax Setctomiss Setmisstoc Syntax Setrtomiss Syntax Arithmetic Expr Syntax Syntax Syntax Arithmetic expr Syntax Arithmetic expr	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value Nearest integer value Square</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax settype Syntax setdate Syntax setdate Syntax settime Syntax settime Syntax setday Syntax setmon Syntax setwear Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile Set GRIB level type setltype,ltype ifile ofile Set date setdate,date ifile ofile Set time settime,time ifile ofile Set day setday,day ifile ofile Set month setmon,month ifile ofile Set year setyear,year ifile ofile	Syntax Setmissval Syntax Setctomiss Setmisstoc Syntax Setrtomiss Syntax Arithmetic Expr Syntax Syntax Exprf Syntax abs int nint sqr sqrt	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value Nearest integer value Square Square Square root</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax settlype Syntax setdate Syntax settime Syntax settime Syntax setton Syntax setmon Syntax setyear Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level setlevel, level ifile ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time settime, time ifile ofile Set ay setday, day ifile ofile Set month setmon, month ifile ofile Set year setyear, year ifile ofile Set time units	Syntax Setmissval Syntax Setctomiss Setmisstoc Syntax Setrtomiss Syntax Arithmetic Expr Syntax Exprf Syntax abs int nint sqr sqrt expr	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value Square Square root Exponential</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype Syntax setdate Syntax setdate Syntax settime Syntax setton Syntax setton Syntax setmon Syntax setyear Syntax settunits Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level setlevel, level ifile ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time settime, time ifile ofile Set day setday, day ifile ofile Set month setmon, month ifile ofile Set year setyear, year ifile ofile Set time units settunits, units ifile ofile	Syntax Setmissval Syntax Setctomiss Setmisstoc Syntax Setrtomiss Syntax Arithmetic Expr Syntax Syntax abs int nint sqr sqrt exp ln	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value Nearest integer value Square Square root Exponential Natural logarithm</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax settlype Syntax setdate Syntax setdatay Syntax setday Syntax setday Syntax setday settune Syntax settune Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level setlevel, level ifile ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time settime, time ifile ofile Set month setmon, month ifile ofile Set year setyear, year ifile ofile Set time units settumits, units ifile ofile	Syntax Setmissval Syntax Setctomiss Setmisstoc Syntax Setrtomiss Syntax Arithmetic Expr Syntax Syntax Arithmetic expr Syntax abs int int sqr sqrt exp ln log10	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value Nearest integer value Square Square Square root Exponential Natural logarithm Base 10 logarithm</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax settlype Syntax setdate Syntax setdate Syntax settime Syntax settome Syntax setday Syntax setmon Syntax setyear Syntax setyear Syntax settunits Syntax settunits Syntax settaxis Syntax	setpartab,table ifile ofile Set code number setcode,code ifile ofile Set variable name setname,name ifile ofile Set level setlevel,level ifile ofile Set GRIB level type setltype,ltype ifile ofile Set date setdate,date ifile ofile Set time settime,time ifile ofile Set totay setday,day ifile ofile Set month setmon,month ifile ofile Set year setyear,year ifile ofile Set time units settunits,units ifile ofile Set time axis settaxis,date,time[,inc] ifile ofile	Syntax Setmissval Syntax Setctomiss Setmisstoc Syntax Setrtomiss Syntax Arithmetic Expr Syntax Exprf Syntax abs int nint sqr sqrt exp ln log10 sin	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value Nearest integer value Square Square root Exponential Natural logarithm Base 10 logarithm Sine</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setlevel Syntax setdate Syntax settime Syntax settime Syntax settay Syntax setmon Syntax settunits Syntax settunits Syntax settunits Syntax settunits Syntax settenits Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level setlevel, level ifile ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time settime, time ifile ofile Set month setmon, month ifile ofile Set year setyear, year ifile ofile Set time units settunits, units ifile ofile Set time axis settaxis, date, time[,inc] ifile ofile Set reference time	Syntax Setmissval Syntax Setctomiss Setmisstoc Syntax Setrtomiss Syntax Arithmetic Expr Syntax Exprf Syntax abs int nint sqr sqrt exp ln log10 sin cos	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value Nearest integer value Square Square root Exponential Natural logarithm Base 10 logarithm Sine Cosine</operator>
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setltype Syntax settitime Syntax settime Syntax settime Syntax settime Syntax setton Syntax settunits Syntax settunits Syntax settaxis Syntax setteftime Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level setlevel, level ifile ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time settime, time ifile ofile Set day setday, day ifile ofile Set month setmon, month ifile ofile Set year setyear, year ifile ofile Set time units settunits, units ifile ofile Set time axis settaxis, date, time[,inc] ifile ofile Set reference time setreftime, date, time ifile ofile	Syntax Setmissval Syntax Setctomiss Setmisstoc Syntax Setrtomiss Syntax Arithmetic Expr Syntax Syntax abs int nint sqr sqrt exp ln log10 sin cos tan	enlarge, grid ifile ofile Set a new missing value setmissval, miss ifile ofile Set constant to missing value Set missing value to constant < operator >, c ifile ofile Set range to missing value setrtomiss, rmin, rmax ifile ofile Evaluate expressions expr, instr ifile ofile Evaluate expressions from script file exprf, filename ifile ofile Absolute value Integer value Nearest integer value Square Square Square root Exponential Natural logarithm Base 10 logarithm Sine Cosine Tangent
setpartab Syntax setcode Syntax setname Syntax setlevel Syntax setlevel Syntax setdate Syntax settime Syntax settime Syntax settay Syntax setmon Syntax settunits Syntax settunits Syntax settunits Syntax settunits Syntax settenits Syntax	setpartab, table ifile ofile Set code number setcode, code ifile ofile Set variable name setname, name ifile ofile Set level setlevel, level ifile ofile Set GRIB level type setltype, ltype ifile ofile Set date setdate, date ifile ofile Set time settime, time ifile ofile Set month setmon, month ifile ofile Set year setyear, year ifile ofile Set time units settunits, units ifile ofile Set time axis settaxis, date, time[,inc] ifile ofile Set reference time	Syntax Setmissval Syntax Setctomiss Setmisstoc Syntax Setrtomiss Syntax Arithmetic Expr Syntax Exprf Syntax abs int nint sqr sqrt exp ln log10 sin cos	enlarge,grid ifile ofile Set a new missing value setmissval,miss ifile ofile Set constant to missing value Set missing value to constant <operator>,c ifile ofile Set range to missing value setrtomiss,rmin,rmax ifile ofile Evaluate expressions expr,instr ifile ofile Evaluate expressions from script file exprf,filename ifile ofile Absolute value Integer value Nearest integer value Square Square root Exponential Natural logarithm Base 10 logarithm Sine Cosine</operator>

atan

Syntax

Arc tangent

 $<\!operator\!>$ ifile ofile

Speed Second Speed Spe				T				
Special Company of the property of the prope	addc	Add a constant	hourpctl	Hourly percentiles				
Proc. Proc			Syntax	hourpctl,p ifile1 ifile2 ifile3 ofile	remapeta	Remap vertical hybrid level	histcount	Histogram count
			dav < STAT >	Daily statistical values	Syntax	remapeta, vct[,oro] ifile ofile	histsum	Histogram sum
Some Control		v .	1	v	m.19m1	Model to pressure level intermelation	histmean	Histogram mean
March Marc	Syntax	< operator >, c ifile ofile					histfreq	Histogram frequency
March Select Se	add	Add two fields					Syntax	<pre><operator>,bins ifile ofile</operator></pre>
But Married		Subtract two fields	Syntax	daypctl,p ifile1 ifile2 ifile3 ofile			wet	Windchill temperature (C)
Symbol Company of the field Symbol Symbo		Multiply two fields	mon < STAT >	Monthly statistical values	Syntax	mizni, nieveis iffie offie		
moneycol Monthly precentive Monthly precentiv				,	inttime	Time interpolation	Symax	wet liller lillez ollle
Septil Segment of the 19th of 19th o				1	Syntax	inttime,date,time[,inc] ifile ofile	fdns	Frost days where no snow index per time period
Second Content of the Content of t			monpctl	v .	intntime	Time interpolation	Syntax	fdns ifile1 ifile2 ofile
Promoted Processor Proce			Syntax	monpctl,p ifile1 ifile2 ifile3 ofile	Syntax	intntime.n ifile ofile		
Second Second Second and the second presented Second Second and the		~	voon < STAT >	Voorly statistical values		,		0 0 1
Second Common C	Syntax			v			Syntax	strwin[,v] ifile ofile
Solution and the second processes of specific strike size of specific strike size of the second processes of specific strike size of specific strike s	ymonadd	Add multi-year monthly time average	Syntax	<pre><operator> 1111e offile</operator></pre>	Syntax	intyear, years ifile1 ifile2 oprefix	strbre	Strong breeze days index per time period
Secretary Multiply well-your records for the control of the co	ymonsub	Subtract multi-year monthly time average	yearpctl	Yearly percentiles				· · · ·
millipin will due per mench millipin will due per mench more of the per mench more of the per mench will be per mench wi	ymonmul	Multiply multi-year monthly time average	Syntax	yearpctl,p ifile1 ifile2 ifile3 ofile				
Systax (specified 1912 4715 4715 4715 4715 4715 4715 4715 4715	ymondiv	Divide multi-year monthly time average	OTT ATT		Transformation	on		
The content of the					sn2gn	Spectral to gridpoint	Syntax	strgal ifile ofile
Second proceeds Second pro		•	Syntax	<pre><operator> ifile ofile</operator></pre>			hum	Hurricana days index per time period
Section Decision of the procession Section Secti			seasactl	Seasonal percentiles				
Statistical values Statis	divdpm		_				Syntax	nurr lille oille
Statistical values Statis	muldpy	Multiply with days per year		- "				
Statistical volume Second System System System Comparison of the state of the system System Comparison of the system Syst	divdpy	Divide by days per year	yhour <stat< td=""><td>Multi-year hourly statistical values</td><td></td><td></td><td></td><td></td></stat<>	Multi-year hourly statistical values				
Statistical values Statistical values Statistical values Statistical values Audibide statistical functions Audibide stati			Syntax	<pre><operator> ifile ofile</operator></pre>			Climate indic	es
Statistical values Syntax		-	,					
Audible statical functions CFAT Multipart and by percentile Symax Multipart and by statical values Symax					spcut	Cut spectral wave number		
Adaptive description Processing Proces	a		Syntax	<pre><operator> ifile ofile</operator></pre>	Syntax	spcut,wnums ifile ofile	Syntax	eca_cdd ifile ofile
Available statistical functions Systax Symport Systax Systax Symport Systax Symport Systax Symport Systax	Statistical val	ues	vdavnetl	Multi-year daily percentiles	10	Discourse and continity to II and Warind	eca cfd	Consecutive frost days index per time period
minimum max max max max max max max max max ma	Availa	able statistical functions $\langle STAT \rangle$				ů ,		
maximum sum sum sum sum sum sum sum sum sum		*	Symax	ydaypesi,p iiiiei iiiiez iiiies oiiie			Symax	eca_cid iiiie oiiie
sum need mean severage are seve			ymon <stat></stat>	Multi-year monthly statistical values			eca_csu	Consecutive summer days index per time period
mean average way Syntax youngell, pittle title stiled follow your according to your youngell with the property of the property			Syntax	<pre><operator> ifile ofile</operator></pre>	uv2dvl		Syntax	eca_csu[,T] ifile ofile
Syntax S			(1	26.10	Syntax	< operator > ifile ofile		
particle production and deviation and well as a production of the							1	
Spring S	0		Syntax	ymonpctl,p ifile1 ifile2 ifile3 ofile			Syntax	eca_cwd ifile ofile
Satisfied withouts over an ensemble Syntax Coperator > filts offile Contact Syntax Coperator > filts offile Contact Co			vseas< STAT >	Multi-year seasonal statistical values	Formatted I/	0	eca cwdi	Cold wave duration index wrt mean of reference per
Section Sect	standar	rd deviation std			,	Lagran		*
Syntax Coperator > filties of the Syntax Syntax Coperator > thits Syntax	ong < STAT >	Statistical values over an encomble	Syntax	(operator > IIIIe offic	_		Dyntax	
Example Proceediles Syntax Statistical values over a field Syntax			yseaspctl	Multi-year seasonal percentiles			eca_cwfi	Cold-spell days index wrt 10th percentile of reference
Syntax Empet 11 11 11 11 11 11 11			Syntax	yseaspctl,p ifile1 ifile2 ifile3 ofile	inputsrv	SERVICE input	Syntax	eca_cwfi[,nday] ifile1 ifile2 ofile
Syntax Syn				Malei and deila and in a statistical and a	inputext	EXTRA input		T
Statistical values over a field Syntax Squared percentiles Syntax Syntax Squared percentiles Syntax Synt	Syntax	enspctl,p ifiles ofile	1 *	, , ,	Syntax	<pre><operator> ofile</operator></pre>		
Syntax Coperator > 1file of 1le Syntax S	fld < STAT >	Statistical values over a field	Syntax	<pre><operator>,nts ifile ofile</operator></pre>	autmut	ACCII output	Syntax	eca_etr ifile1 ifile2 ofile
Syntax S			vdrunpctl	Multi-year daily running percentiles			eca fd	Frost days index per time period
Syntax Education Construction					, , , , , , , , , , , , , , , , , , , ,	·		
Regression Syntax Competent Syntax Syntax Competent Syntax		•		J				
Syntax coperator iffile offile Interpolation Interpolation Syntax coperator iffile offile		• 7	1				eca_gsl	
Syntax S	zon < STAT >	Zonal statistical values	Dogmogaion		-		Syntax	eca_gsl[,nday[,T[,fland]]] ifile1 ifile2 ofile
Zongett Zonal percentiles Syntax Zongett	Syntax	< operator > ifile ofile	Regression		outputsrv	SERVICE output	ogo hd	Heating degree days per time period
Syntax S	zonpctl	Zonal percentiles	detrend	Detrend	outputext	EXTRA output		
Trend Syntax Sy	Syntax	zonpctl,p ifile ofile	Syntax	detrend ifile ofile	Syntax	<pre><operator> ifiles</operator></pre>	Syntax	eca_nd[,11[,12]] iffile offile
Syntax Agerator > ifile ofile Syntax Syn		* '^						*
Syntax Aperator > 111e of 11e Syntax Aperator > 111e of 11e Syntax Subtrend Syntax Syn							eca_hwdi	Heat wave duration index wrt mean of reference per
Syntax merpetl.p ifile of file				1 1			1	
Syntax subtrend ifile if	Syntax	<pre><operator> ifile ofile</operator></pre>		1 1	Miscellaneous	s	Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile
Vertical statistical values Syntax Coperator > iffile offile	Syntax merpctl	<pre>< operator > ifile ofile Meridional percentiles</pre>	Syntax	trend ifile ofile1 ofile2			Syntax eca_hwfi	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referen
Syntax Coperator > iffile offile	Syntax merpctl	<pre>< operator > ifile ofile Meridional percentiles</pre>	Syntax subtrend	trend ifile ofile1 ofile2 Subtract trend	gradsdes1	Grads data descriptor file (version 1 GRIB map)	Syntax eca_hwfi	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referen
Interpolation Syntax coperator > ,nsets[noffset[,nskip]] ifile ofile Femaphil Syntax coperator > ,nsets[noffset[,nskip]] ifile ofile Syntax coperator > ,nsets[noffset[,nskip]] ifile ofile Syntax Syntax Syntax Syntax Syntax Syntax Syntax Coperator > ,nsets[inoffset[,nskip]] ifile ofile Syntax	Syntax merpctl Syntax	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile</operator></pre>	Syntax subtrend	trend ifile ofile1 ofile2 Subtract trend	gradsdes1 gradsdes2	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map)	Syntax eca_hwfi Syntax	eca_hwdi[nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile
Time range statistical values Syntax Synta	Syntax merpctl Syntax vert <stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values</operator></pre>	Syntax subtrend	trend ifile ofile1 ofile2 Subtract trend	gradsdes1 gradsdes2	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map)	Syntax eca_hwfi Syntax eca_id	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period
Syntax <pre>cynerator>.nsets/[noffset/].nskip/] iffile ofile</pre> Time range percentiles	Syntax merpctl Syntax vert <stat> Syntax</stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile</operator></operator></pre>	Syntax subtrend Syntax	trend ifile ofile1 ofile2 Subtract trend subtrend ifile1 ifile2 ifile3 ofile	gradsdes1 gradsdes2 Syntax	$ \begin{array}{l} \hbox{GrADS data descriptor file (version 1 GRIB map)} \\ \hbox{GrADS data descriptor file (version 2 GRIB map)} \\ < operator > \hbox{ifile} \end{array} $	eca_hwfi Syntax eca_id Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile
Time range percentiles Syntax timselpctl.p.p.sets[.nosfiset[.nskip]] ifile1 ifile2 Femaphic Syntax timselpctl.p.p.sets[.nosfiset[.nskip]] ifile1 ifile2 Syntax Setroc.p.min.m.max,c ifile offile Syntax Setroc.p.min.m.max,c ifile	Syntax merpctl Syntax vert <stat> Syntax</stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile</operator></operator></pre>	Syntax subtrend Syntax	trend ifile ofile1 ofile2 Subtract trend subtrend ifile1 ifile2 ifile3 ofile	gradsdes1 gradsdes2 Syntax smooth9	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) < operator > ifile 9 point smoothing	eca_hwfi Syntax eca_id Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile
Syntax timselpctl.p.nsets[noffset[nskip]] ifile1 ifile2 Fun STAT > Running statistical values Syntax coperator >,nts ifile ofile Syntax runpctl Running percentiles Syntax runpctl.p.nst ifile1 ofile Syntax coperator > ifile ofile Syntax settroc2.rmin,rmax,c,c2 ifile ofile Syntax settroc2.rmin,rmax,c	Syntax merpctl Syntax vert <stat> Syntax timsel<stat></stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values</operator></operator></pre>	Syntax Subtrend Syntax Interpolation	trend ifile ofile1 ofile2 Subtract trend subtrend ifile1 ifile2 ifile3 ofile	gradsdes1 gradsdes2 Syntax smooth9 Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <operator> ifile 9 point smoothing smooth9 ifile ofile</operator>	Syntax eca_hwfi Syntax eca_id Syntax eca_r10mm	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period
Trunce Strate Running statistical values Syntax coperator > grid ifile of ile	Syntax merpetl Syntax vert <stat> Syntax timsel<stat> Syntax</stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator> ,nsets[,noffset[,nskip]] ifile ofile</operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil	trend ifile ofile1 ofile2 Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <operator> ifile 9 point smoothing smooth9 ifile ofile Set range to constant</operator>	eca_hwfi Syntax eca_id Syntax eca_id Syntax eca_r10mm Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile
Syntax Coperator > ,nts ifile ofile	Syntax merpctl Syntax vert <stat> Syntax timsel<stat> Syntax timselctl</stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator> ,nsets[,noffset[,nskip]] ifile ofile Time range percentiles</operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic	subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <operator> ifile 9 point smoothing smooth9 ifile ofile Set range to constant</operator>	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period
Syntax Coperator >, nts ifile ofile Syntax Syntax Coperator >, nts ifile ofile Syntax	Syntax merpctl Syntax vert <stat> Syntax timsel<stat> Syntax timselctl</stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator> ,nsets[,noffset[,nskip]] ifile ofile Time range percentiles</operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic integration	subtrend ifile ofile1 ofile2 Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <operator> ifile 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile</operator>	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period
runpctl Running percentiles Syntax runpctl, p,nts ifile1 ofile Syntax runpctl, p,nts ifile1 ofile tim <stat> Statistical values over all time steps Syntax < operator > ifile ofile Syntax const, const, grid ofile syntax const, const, grid ofile random create a field with random values Syntax const, const, grid ofile syntax const, const, grid ofile random create a field with random values Syntax runpctl, p, nts ifile ofile Syntax const, const, grid ofile random create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random create a field with random values Syntax random, grid ofile syntax runpctl, p, nts ifile ofile Syntax const, const, grid ofile random create a field with random values Syntax random, grid ofile syntax car-90pt wet days wrt 90th percentile of reference period syntax random, grid ofile syntax runpctl, p, nts ifile ofile Syntax const, const, grid ofile random create a field with random values Syntax random, grid ofile syntax car-90ptot precipitation percent due to R75p days Syntax const, const, grid ofile random create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random create a field with random values Syntax random, grid ofile syntax const, const, const, grid ofile random create a field with random values Syntax random, grid ofile syntax car-90ptot precipitation percent due to R75p days Syntax const, const, const, grid ofile random create a field with random values Syntax random, grid ofile syntax car-90ptot precipitation percent due to R90p days Syntax rotuvb, u, v, ifile ofile syntax const, const,</stat>	Syntax merpctl Syntax vert <stat> Syntax timsel<stat> Syntax timselptl Syntax</stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl.p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator> .nsets[.noffset[.nskip]] ifile ofile Time range percentiles timselpctl.p.nsets[.noffset[.nskip]] ifile1 ifile2</operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapbic remapdis	Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging	gradsdes1 gradsdes2 Syntax smooth9 Syntax sertoc Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <pre>operator> ifile</pre> 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2	eca_hwfi Syntax eca_id Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile
Syntax runpctl,p,nts ifile1 ofile construction weights Syntax runpctl,p,nts ifile1 ofile Syntax Syntax runpctl,p,nts ifile1 ofile Syntax Statistical values over all time steps Syntax S	Syntax merpctl Syntax vert <stat> Syntax timsel<stat> Syntax timselctl Syntax timselpctl Syntax run<stat></stat></stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator>,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values</operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapbic remapdis	Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <pre>operator> ifile</pre> 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c,c2 ifile ofile	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r25p	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference
tim <stat> Statistical values over all time steps Syntax <pre>operator> ifile ofile</pre> Syntax <pre>Syntax <pre>coperator> ifile ofile</pre> Syntax <pre>Syntax (operator) ifile ofile</pre> Syntax (operator) ifile ofile Time percentiles Syntax timpetl, p ifile ifile ifile ofile Syntax timpetl, p ifile ofile Syntax impetl, p ifile ofile Syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile Syntax random, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile random Syntax random, grid ofile Syntax random, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile syntax const, const, grid ofile syntax ear not precipt in ifile of ile syntax ear not precipt in ifile of ile syntax const, const, grid ofile random Create a field with random values Syntax random, grid of ile syntax const, const, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile random Create a field with random values Syntax random, grid ofile syntax const, const, grid ofile syntax const, const, grid ofile syntax const, const, const, grid ofile random Create a field with random values syntax const, const</pre></stat>	Syntax merpctl Syntax vert <stat> Syntax timsel<stat> Syntax timselectl Syntax timselpctl Syntax run<stat> Syntax</stat></stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator> ,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values <operator> ,nts ifile ofile</operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapbic remapdis Syntax	Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging <operator>,grid ifile ofile</operator>	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <operator> ifile 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c;2 ifile ofile Sort over the time</operator>	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile
tim <stat> Statistical values over all time steps Syntax <pre>operator> ifile ofile Syntax <pre>coperator> ifile ofile Syntax <pre>syntax timpetl, p ifile ofile Syntax <pre>premap</pre></pre></pre></pre></stat>	Syntax merpctl Syntax vert <stat> Syntax timsel<stat> Syntax timselpctl Syntax timselpctl Syntax run<stat> Syntax</stat></stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator>,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values <operator>,nts ifile ofile Running percentiles</operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapbic remapdis Syntax genbil	subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging <operator>,grid ifile ofile Generate bilinear interpolation weights</operator>	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <operator> ifile 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c;2 ifile ofile Sort over the time</operator>	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile
Syntax < operator > ifile ofile Syntax impetl, p ifile ifile ofile Syntax impetl, p ifile ifile ofile Syntax impetl, p ifile ofile Syntax	Syntax merpctl Syntax vert <stat> Syntax timsel<stat> Syntax timselpctl Syntax timselpctl Syntax run<stat> Syntax</stat></stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator>,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values <operator>,nts ifile ofile Running percentiles</operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic ifficurates remapdis Syntax genbil genbic	Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging <pre></pre> <pre></pre> <pre>Coperator > grid ifile ofile</pre> Generate bilinear interpolation weights Generate bicubic interpolation weights	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax timsort Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <pre>operator > ifile</pre> <pre>9 point smoothing smooth9 ifile ofile</pre> Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c,c2 ifile ofile Sort over the time timsort ifile ofile	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax eca_r75ptot	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of reference a.hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile Precipitation percent due to R75p days
timpctl Time percentiles Syntax timpctl, p if ile 1 if ile 2 if ile 3 of ile syntax timpctl, p if ile 1 if ile 2 if ile 3 of ile syntax random, grid of ile remap SCRIP grid remapping Syntax remap, grid, weights if ile of ile Syntax random, grid of ile returb Backward rotation Syntax random, grid of ile returb Backward rotation Syntax random, grid of ile returb Backward rotation Syntax random, grid of ile reca_r90ptot Syntax eca_r90ptot if ile 1 if ile 2 of ile syntax random, grid of ile reca_r90ptot Syntax random, grid of ile reca_r90ptot Syntax random, grid of ile reca_r90ptot Syntax random, grid of ile was remotive. Syntax random, grid of ile reca_r90ptot Syntax random, grid of ile Syntax random, grid of ile reca_r90ptot Syntax random, grid of ile was remotive. Syntax random, grid of ile was remotive. Syntax random, grid of ile reca_r90ptot Syntax random, grid of ile was remotive. Syntax random, grid of ile was random, gri	Syntax merpctl Syntax vert <stat> Syntax timsel<stat> Syntax timseleptl Syntax timselptl Syntax run<stat> Syntax run<stat> Syntax</stat></stat></stat></stat>	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator>,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values <operator>,nts ifile ofile Running percentiles runpctl,p,nts ifile1 ofile</operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapdis Syntax genbil genbic gencon	Subtract trend subtrend ifile1 ofile2 Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging <operator>,grid ifile ofile Generate bilinear interpolation weights Generate conservative interpolation weights Generate conservative interpolation weights</operator>	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax timsort Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <operator> ifile 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant tothers to constant2 setrtoc2,rmin,rmax,c,c2 ifile ofile Sort over the time timsort ifile ofile Create a constant field</operator>	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax eca_r75ptot Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of referencea_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile Precipitation percent due to R75p days eca_r75ptot ifile1 ifile2 ofile
timpctl Time percentiles Syntax timpctl, pifile1 ifile2 ifile3 ofile Syntax timpctl, pifile1 ifile2 ifile3 ofile Syntax remap,grid,weights ifile ofile Syntax rotuvb,u,v, ifile ofile Syntax rotuvb,u,v, ifile ofile Syntax corrector integridbil Backward rotation Syntax rotuvb,u,v, ifile ofile Syntax corrector ifile ofile Syntax corrector of the R90p days Syntax rotuvb,u,v, ifile ofile Syntax rotuvb,u,v, ifile ofile Syntax rotuvb,u,v, ifile ofile Mass stream function Syntax corrector of the to R90p days Syntax rotuvb,u,v, ifile ofile Syntax rotuvb,u,v, ifile ofile	$\begin{array}{c} \text{Syntax} \\ \hline \text{merpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{Vert} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{timsel} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{timselpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{timselpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{run} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{runpctl} \\ \hline \\ \hline \text{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ $	<pre><operator> ifile ofile Meridional percentiles merpctl.p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator> .nsets[.noffset[.nskip]] ifile ofile Time range percentiles timselpctl.p.nsets[.noffset[.nskip]] ifile1 ifile2 Running statistical values <operator> .nts ifile ofile Running percentiles runpctl.p.nts ifile1 ofile Statistical values over all time steps</operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapdis Syntax genbil genbic gencon gendis	Subtract trend subtrend ifile1 ofile2 Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging < operator > .grid ifile ofile Generate bilinear interpolation weights Generate ocuservative interpolation weights Generate conservative interpolation weights Generate distance-weighted averaging weights	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax timsort Syntax const Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <operator> ifile 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c; Setroc2,rmin,rmax,c; Corrected to constant of the ofile Corea of the time timsort ifile ofile Create a constant field const,const,grid ofile</operator>	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax eca_r75ptot Syntax eca_r90p	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of reference a hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile Precipitation percent due to R75p days eca_r75ptot ifile1 ifile2 ofile Wet days wrt 90th percentile of reference period
Syntax timpctl,p ifile1 ifile2 ifile3 ofile Syntax remap,grid,weights ifile ofile Syntax rotuvb Backward rotation Syntax rotuvb,u,v, ifile ofile Syntax rotuvb,u,v, ifile ofile Syntax rotuvb,u,v, ifile ofile Syntax rotuvb,u,v, ifile ofile mastrfu Mass stream function Syntax eca_r90ptot ifile1 ifile2 ofile car_95p Very wet days wrt 95th percentile of reference p mastrfu Mass stream function	$\begin{array}{c} \text{Syntax} \\ \hline \text{merpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{Vert} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{timsel} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{timselpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{timselpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{run} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{runpctl} \\ \hline \\ \hline \text{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ $	<pre><operator> ifile ofile Meridional percentiles merpctl.p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator> .nsets[.noffset[.nskip]] ifile ofile Time range percentiles timselpctl.p.nsets[.noffset[.nskip]] ifile1 ifile2 Running statistical values <operator> .nts ifile ofile Running percentiles runpctl.p.nts ifile1 ofile Statistical values over all time steps</operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapdis Syntax genbil genbic gencon gendis Syntax	Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging < operator >,grid ifile ofile Generate bilinear interpolation weights Generate conservative interpolation weights Generate distance-weighted averaging weights < operator >,grid ifile ofile	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax timsort Syntax const Syntax random	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <pre>operator> ifile</pre> 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c,c2 ifile ofile Sort over the time timsort ifile ofile Create a constant field const,const,grid ofile Create a field with random values	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax eca_r75ptot Syntax eca_r90p	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of reference a hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile Precipitation percent due to R75p days eca_r75ptot ifile1 ifile2 ofile Wet days wrt 90th percentile of reference period
hour < STAT > Hourly statistical values interpolate interpolation Syntax concretor > ifile of ile interpolation Bilinear grid interpolation	$\begin{array}{c c} & \text{Syntax} \\ \hline \textbf{merpctl} & \text{Syntax} \\ \hline \textbf{vert} < STAT > & \text{Syntax} \\ \hline \textbf{timsel} < STAT > & \text{Syntax} \\ \hline \textbf{timselpctl} & \text{Syntax} \\ \hline \textbf{timselpctl} & \text{Syntax} \\ \hline \textbf{run} < STAT > & \text{Syntax} \\ \hline \textbf{run} < STAT > & \text{Syntax} \\ \hline \textbf{timselpctl} & \text{Syntax} \\ \hline \textbf{tim} < STAT > & \text{Syntax} \\ \hline \textbf{tim} < STAT > & \text{Syntax} \\ \hline \end{array}$	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator>,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values <operator>,nts ifile ofile Running percentiles runpctl,p,nts ifile1 ofile Statistical values over all time steps <operator> ifile ofile</operator></operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapdis Syntax genbil genbic gencon gendis Syntax	Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging < operator >,grid ifile ofile Generate bilinear interpolation weights Generate conservative interpolation weights Generate distance-weighted averaging weights < operator >,grid ifile ofile	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax timsort Syntax const Syntax random	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <pre>operator> ifile</pre> 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c,c2 ifile ofile Sort over the time timsort ifile ofile Create a constant field const,const,grid ofile Create a field with random values random,grid ofile	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax eca_r75ptot Syntax eca_r90p Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of reference a hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile Precipitation percent due to R75p days eca_r75ptot ifile1 ifile2 ofile Wet days wrt 90th percentile of reference period eca_r90p ifile1 ifile2 ofile
hour < STAT > Hourly statistical values	$\begin{array}{c} \text{Syntax} \\ \hline \text{merpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{Vert} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{timsel} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{timselpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{run} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{run} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{runpctl} \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \textbf{timpctl} \\ \hline \\ \hline \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ $	<pre><operator> ifile ofile Meridional percentiles merpctl.p. ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator>,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values <operator>,nts ifile ofile Running percentiles runpctl,p,nts ifile1 ofile Statistical values over all time steps <operator> ifile ofile Time percentiles Time percentiles</operator></operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic influe/Brene remapdis Syntax genbil genbic gencon gendis Syntax remap	Subtract trend	gradsdes1 gradsdes2 Syntax smooth9 Syntax sertoc Syntax setrtoc2 Syntax timsort Syntax const Syntax const Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <pre>operator> ifile</pre> 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c,c2 ifile ofile Sort over the time timsort ifile ofile Create a constant field const,const,grid ofile Create a field with random values random,grid ofile	eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax eca_r75ptot Syntax eca_r90p Syntax eca_r90ptot	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of reference a_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile Precipitation percent due to R75p days eca_r75ptot ifile1 ifile2 ofile Wet days wrt 90th percentile of reference period eca_r90p ifile1 ifile2 ofile Precipitation percent due to R90p days
	$\begin{array}{c} \text{Syntax} \\ \hline \text{merpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{Vert} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{timsel} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{timselpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{timselpctl} \\ \hline \text{Syntax} \\ \hline \\ \textbf{run} < STAT > \\ \hline \text{Syntax} \\ \hline \\ \textbf{runpctl} \\ \hline \\ \hline \text{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \text{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \text{Syntax} \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \text{Syntax} \\ \hline \\ \\ \textbf{tim} < STAT > \\ \hline \\ \text{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \text{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \text{Syntax} \\ \hline \\ \hline \\ \textbf{tim} < STAT > \\ \hline \\ \text{Syntax} \\ \hline \\ \hline \\ \textbf{timpctl} \\ \hline \\ \\ \text{Syntax} \\ \hline \\ \hline \\ \textbf{timpctl} \\ \hline \\ \\ \text{Syntax} \\ \hline \\ \hline \\ \hline \\ \textbf{timpctl} \\ \hline \\ \\ \text{Syntax} \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \textbf{Syntax} \\ \hline \\ \textbf{Syntax} \\ \hline \\ $	<pre><operator> ifile ofile Meridional percentiles merpctl,p ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator>,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values <operator>,nts ifile ofile Running percentiles runpctl,p,nts ifile1 ofile Statistical values over all time steps <operator> ifile ofile Time percentiles timpctl,p ifile1 ifile2 ifile3 ofile</operator></operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapdis Syntax genbil genbic gencon gendis Syntax remap Syntax	Bilinear interpolation Bicubic interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging <operator>,grid ifile ofile Generate bicubic interpolation weights Generate conservative interpolation weights Generate distance-weighted averaging weights Generate onservative interpolation weights Generate onservative interpolation weights Generate distance-weighted averaging weights <operator>,grid ifile ofile SCRIP grid remapping remap,grid,weights ifile ofile</operator></operator>	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax timsort Syntax const Syntax random Syntax rotuvb	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <pre>operator > ifile</pre> <pre>9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c,c2 ifile ofile Sort over the time timsort ifile ofile Create a constant field const,const,grid ofile Create a field with random values random,grid ofile Backward rotation</pre>	Syntax eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax eca_r75ptot Syntax eca_r90p Syntax eca_r90ptot Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of reference a.hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile Precipitation percent due to R75p days eca_r75ptot ifile1 ifile2 ofile Wet days wrt 90th percentile of reference period eca_r90p ifile1 ifile2 ofile Precipitation percent due to R90p days eca_r90ptot ifile1 ifile2 ofile
Syntax < operator > ,grid ifile ofile Syntax mastrfu ifile ofile	$\begin{array}{c} \text{Syntax} \\ \textbf{merpctl} \\ \text{Syntax} \\ \hline \textbf{vert} < STAT > \\ \text{Syntax} \\ \hline \textbf{timsel} < STAT > \\ \text{Syntax} \\ \hline \textbf{timselpctl} \\ \text{Syntax} \\ \hline \textbf{run} < STAT > \\ \text{Syntax} \\ \hline \textbf{runpctl} \\ \text{Syntax} \\ \hline \textbf{tim} < STAT > \\ \text{Syntax} \\ \hline \textbf{timpctl} \\ \text{Syntax} \\ \hline \textbf{timpctl} \\ \text{Syntax} \\ \hline \textbf{hour} < STAT > \\ \hline \end{array}$	<pre><operator> ifile ofile Meridional percentiles merpctl.p. ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator>,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values <operator>,nts ifile ofile Running percentiles runpctl,p,nts ifile1 ofile Statistical values over all time steps <operator> ifile ofile Time percentiles timpctl,p ifile1 ifile2 ifile3 ofile Hourly statistical values</operator></operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapdis Syntax genbil genbic gencon gendis Syntax remap Syntax interpolate	Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging <pre><operator>, grid ifile ofile</operator></pre> Generate bilinear interpolation weights Generate ocnservative interpolation weights Generate distance-weighted averaging weights <pre><operator>, grid ifile ofile</operator></pre> SCRIP grid remapping remap, grid, weights ifile ofile PINGO grid interpolation	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax timsort Syntax const Syntax random Syntax rotuvb Syntax	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <pre>operator > ifile</pre> 9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c,c2 ifile ofile Sort over the time timsort ifile ofile Create a constant field const,const,grid ofile Create a field with random values random,grid ofile Backward rotation rotuvb,u,v, ifile ofile	Syntax eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax eca_r75ptot Syntax eca_r90p Syntax eca_r90ptot Syntax	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of reference a_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile Precipitation percent due to R75p days eca_r75ptot ifile1 ifile2 ofile Wet days wrt 90th percentile of reference period eca_r90p ifile1 ifile2 ofile Precipitation percent due to R90p days
	$\begin{array}{c} \text{Syntax} \\ \textbf{merpctl} \\ \text{Syntax} \\ \hline \textbf{vert} < STAT > \\ \text{Syntax} \\ \hline \textbf{timsel} < STAT > \\ \text{Syntax} \\ \hline \textbf{timselpctl} \\ \text{Syntax} \\ \hline \textbf{run} < STAT > \\ \text{Syntax} \\ \hline \textbf{runpctl} \\ \text{Syntax} \\ \hline \textbf{tim} < STAT > \\ \text{Syntax} \\ \hline \textbf{timpctl} \\ \text{Syntax} \\ \hline \textbf{timpctl} \\ \text{Syntax} \\ \hline \textbf{hour} < STAT > \\ \hline \end{array}$	<pre><operator> ifile ofile Meridional percentiles merpctl.p. ifile ofile Vertical statistical values <operator> ifile ofile Time range statistical values <operator>,nsets[,noffset[,nskip]] ifile ofile Time range percentiles timselpctl,p,nsets[,noffset[,nskip]] ifile1 ifile2 Running statistical values <operator>,nts ifile ofile Running percentiles runpctl,p,nts ifile1 ofile Statistical values over all time steps <operator> ifile ofile Time percentiles timpctl,p ifile1 ifile2 ifile3 ofile Hourly statistical values</operator></operator></operator></operator></operator></pre>	Syntax subtrend Syntax Interpolation remapbil remapbic remapdis Syntax genbil genbic gencon gendis Syntax remap Syntax interpolate intgridbil	Subtract trend subtrend ifile1 ifile2 ifile3 ofile Bilinear interpolation Bicubic interpolation Conservative remapping Distance-weighted averaging <operator>,grid ifile ofile Generate bilinear interpolation weights Generate osciubic interpolation weights Generate distance-weighted averaging weights <operator>,grid ifile ofile SCRIP grid remapping remap,grid,weights ifile ofile PINGO grid interpolation Bilinear grid interpolation</operator></operator>	gradsdes1 gradsdes2 Syntax smooth9 Syntax setrtoc Syntax setrtoc2 Syntax timsort Syntax const Syntax random Syntax rotuvb Syntax mastrfu	GrADS data descriptor file (version 1 GRIB map) GrADS data descriptor file (version 2 GRIB map) <pre>operator > ifile</pre> <pre>9 point smoothing smooth9 ifile ofile Set range to constant setrtoc,rmin,rmax,c ifile ofile Set range to constant others to constant2 setrtoc2,rmin,rmax,c,c2 ifile ofile Sort over the time timsort ifile ofile Create a constant field const,const,grid ofile Create a field with random values random,grid ofile Backward rotation rotuvb,u,v, ifile ofile Mass stream function</pre>	Syntax eca_hwfi Syntax eca_id Syntax eca_r10mm Syntax eca_r20mm Syntax eca_r75p Syntax eca_r75ptot Syntax eca_r90p Syntax eca_r90ptot Syntax eca_r95p	eca_hwdi[,nday[,T]] ifile1 ifile2 ofile Warm spell days index wrt 90th percentile of reference a_hwfi[,nday] ifile1 ifile2 ofile Ice days index per time period eca_id ifile ofile Heavy precipitation days index per time period eca_r10mm ifile ofile Very heavy precipitation days index per time period eca_r20mm ifile ofile Moderate wet days wrt 75th percentile of reference eca_r75p ifile1 ifile2 ofile Precipitation percent due to R75p days eca_r75ptot ifile1 ifile2 ofile Wet days wrt 90th percentile of reference period eca_r90p ifile1 ifile2 ofile Precipitation percent due to R90p days eca_r90ptot ifile1 ifile2 ofile Very wet days wrt 95th percentile of reference period eca_r90ptot ifile1 ifile2 ofile

eca_r95ptot	Precipitation percent due to R95p days
Syntax	eca_r95ptot ifile1 ifile2 ofile
eca_r99p	Extremely wet days wrt 99th percentile of reference period
Syntax	eca_r99p ifile1 ifile2 ofile
eca_r99ptot	Precipitation percent due to R99p days
Syntax	eca_r99ptot ifile1 ifile2 ofile
-	
eca_rr1	Wet days index per time period
Syntax	eca_rr1 ifile ofile
eca_rx1day	Highest one day precipitation amount per time period
Syntax	eca_rx1day[,mode] ifile ofile
eca_rx5day	Highest five-day precipitation amount per time period
Syntax	eca_rx5day/,x/ ifile ofile
eca sdii	Simple daily intensity index per time period
	eca_sdii ifile ofile
Syntax	eca_sdif fifte office
eca_su	Summer days index per time period
Syntax	$\mathbf{eca_su}[,T]$ ifile ofile
eca_tg10p	Cold days percent wrt 10th percentile of reference period
Syntax	eca_tg10p ifile1 ifile2 ofile
eca_tg90p	Warm days percent wrt 90th percentile of reference period
Syntax	eca_tg90p ifile1 ifile2 ofile
T	
eca_tn10p	Cold nights percent wrt 10th percentile of reference period
Syntax	eca_tn10p ifile1 ifile2 ofile
eca_tn90p	Warm nights percent wrt 90th percentile of reference period
Syntax	eca_tn90p ifile1 ifile2 ofile
eca_tr	Tropical nights index per time period
Syntax	eca_tr $[T]$ ifile ofile
eca_tx10p	Very cold days percent wrt 10th percentile of reference period
Syntax	eca_tx10p ifile1 ifile2 ofile
eca_tx90p	Very warm days percent wrt 90th percentile of reference period
Syntax	eca_tx90p ifile1 ifile2 ofile