CDO	Reference	Card
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Climate Data Operators Version 1.0.9 October 2007

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Syntax

cdo	[Options]	Operators
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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	
-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

 ${\bf showl type}$

showyear

showmon

showdate

 $\mathbf{showtime}$

pardes griddes

 \mathbf{vct}

Syntax

Informatio	n
info	Dataset information listed by code number
infov	Dataset information listed by variable name
map	Dataset information and simple map
Synt	
sinfo	Short dataset information listed by code number
sinfov	Short dataset information listed by variable nam
Synt	ax < operator > ifiles
diff	Compare two datasets listed by code number
diffv	Compare two datasets listed by variable name
Synt	ax < operator > ifile1 ifile2
npar	Number of parameters
nlevel	Number of levels
nyear	Number of years
nmon	Number of months
ndate	Number of dates
ntime	Number of time steps
Synt	ax < operator > ifile
showforma	t Show file format
showcode	Show code numbers
showname	Show variable names
showstdnar	ne Show standard names
showlevel	Show levels

Show GRIB level types

Show years

Show dates

Syntax operator > ifile

Show months

Show time steps

<operator> ifile Parameter description Grid description

Vertical coordinate table

	File operations				
	copy	Copy datasets			
	cat	Concatenate datasets			
	Syntax	<pre><operator> ifiles ofile</operator></pre>			
	replace	Replace variables			
	Syntax	replace ifile1 ifile2 ofile			
	merge	Merge datasets with different fields			
	mergetime	Merge datasets sorted by date and time			
	Syntax	<pre><operator> ifiles ofile</operator></pre>			
	splitcode	Split code numbers			
	$_{ m splitname}$	Split variable names			
	splitlevel	Split levels			
ĺ	splitgrid	Split grids			
	splitzaxis	Split zaxis			
	Syntax	$<\!operator\!>$ ifile oprefix			
	splithour	Split hours			
ì	splitday	Split days			
l	splitmon	Split months			
	splitseas	Split seasons			
ļ	splityear	Split years			
l	Syntax	$<\!operator\!>$ ifile oprefix			
	splitsel	Split time selection			
	Syntax	splitsel,nsets[,noffset[,nskip]] ifile oprefix			
ĺ	·				
l					
L					

Selection

selcode	Select variables by code number
delcode	Delete variables by code number
Syntax	< operator >, codes ifile ofile
selname	Select variables by name
delname	Delete variables by name
Syntax	<pre><operator>,varnames 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
seltabnum	Select parameter table numbers
seltabnum Syntax	Select parameter table numbers seltabnum, tabnums ifile ofile
Syntax	seltabnum,tabnums ifile ofile
Syntax seltimestep	seltabnum,tabnums ifile ofile Select time steps
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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 months selmon,months ifile ofile Select years selyear,years ifile ofile Select seasons selseas,seasons ifile ofile Select dates

sellonlatbox	Select a longitude/latitude box	chcode	Change code number
Syntax	sellonlatbox,lon1,lon2,lat1,lat2 ifile ofile	Syntax	<pre>chcode,oldcode,newcode[,] ifile ofile</pre>
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
Conditional s	election	Syntax	chlevelc,code,oldlev,newlev ifile ofile
		chlevelv	Change level of one variable
ifthen	If then	Syntax	chlevelv,var,oldlev,newlev ifile ofile
ifnotthen	If not then	setgrid	Set grid
Syntax	<pre><operator> ifile1 ifile2 ofile</operator></pre>	Syntax	setgrid, grid ifile ofile
ifthenelse	If then else	setgridtype	Set grid type
Syntax	ifthenelse ifile1 ifile2 ifile3 ofile	Syntax	setgridtype,gridtype ifile ofile
ifthenc	If then constant	setzaxis	Set zaxis
ifnotthenc	If not then constant	Syntax	setzaxis,zaxis ifile ofile
Syntax	< operator >, c ifile ofile		·
		setgatt	Set global attribute
		Syntax setgatts	setgatt,attname,attstring ifile ofile Set global attributes
		Syntax	set global attributes setgatts, attfile ifile ofile
Comparison			
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
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	
Syntax	< operator >, c ifile ofile	Syntax	Set a longitude/latitude box to constant setclonlatbox,c,lon1,lon2,lat1,lat2 ifile ofile
		setcindexbox	Set an index box to constant
		Syntax	setcindexbox, c, idx1, idx2, idy1, idy2 ifile ofile
Modification		enlarge	Enlarge fields
aatnautah	Set parameter table	Syntax	enlarge,grid ifile ofile
setpartab Syntax		setmissval	Set a new missing value
setcode	setpartab,table ifile ofile Set code number	Syntax	setmissval,miss ifile ofile
Syntax	setcode,code ifile ofile	setctomiss	Set constant to missing value
setname	Set variable name	setmisstoc	Set missing value to constant
Syntax	setname,name ifile ofile	Syntax	< operator >, c ifile ofile
setlevel	Set level	setrtomiss	Set range to missing value
Syntax	setlevel, level ifile ofile	Syntax	setrtomiss,rmin,rmax ifile ofile
setltype	Set GRIB level type		
Syntax	setltype, ltype ifile ofile		
setdate	Set date	Arithmetic	
Syntax	setdate.date ifile ofile	expr	Evaluate expressions
settime	Set time	Syntax	expr,instr ifile ofile
		exprf	Evaluate expressions from script file
Syntax	settime,time ifile ofile Set day	Syntax	exprf, filename ifile ofile
Syntax	setday,day ifile ofile		
setmon	Set month	abs	Absolute value
Syntax	setmon, month ifile ofile	int	Integer value
setyear	Set year	nint	Nearest integer value
Syntax	setyear, year ifile ofile	sqr	Square
settunits	Set time units	sqrt	Square root Exponential
Syntax	settunits,units ifile ofile	exp ln	Natural logarithm
settaxis	Set time axis		Base 10 logarithm
Syntax	settaxis,date,time[,inc] ifile ofile	log10	Sine
setreftime	Set reference time	sin cos	Cosine
Syntax	setreftime, date, time ifile ofile	tan	Tangent
v	Set calendar	asin	Arc sine
setcalendar		asm	ALC SHE
setcalendar		2006	Arc cosine
Syntax	setcalendar,calendar ifile ofile	acos	Arc cosine
		acos atan Syntax	Arc cosine Arc tangent <operator> ifile ofile</operator>

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		
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Second Common C	Syntax			v			Syntax	strwin[,v] ifile ofile
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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				
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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
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Statistical values Statis	muldpy	Multiply with days per year		- "				
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Statistical values Syntax		-	,					
Audible statical functions CFAT Multipart and by percentile Symax Multipart and by statical values Symax					spcut	Cut spectral wave number		
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minimum max max max max max max max max max ma	Availa	able statistical functions $\langle STAT \rangle$				ů ,		
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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
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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>		
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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				
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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
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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 imsort ifile ofile	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
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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
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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
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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 integridbil Bilinear grid interpolation Syntax corrector integrity interpolation	$\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 \\ \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