CDO Reference Card

Climate Data Operators Version 1.6.0 March 2013

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http://code.zmaw.de/projects/cdo

Syntax

cdo	[Options]	Operator1	[-Operator2	[-OperatorN]]
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Options

-a	Generate an absolute time axis
-b < nbits >	Set the number of bits for the output precision
	(I8/I16/I32/F32/F64 for nc,nc2,nc4,nc4c;
	F32/F64 for grb2,srv,ext,ieg; 1-24 for grb,grb2)
	Add L or B for Little or Big endian byteorder
$-\mathbf{f} < format >$	Outputformat: grb,grb2,nc,nc2,nc4,nc4c,srv,ext,ieg
-g < grid >	Grid or file name
	Grid names: r <nx>x<ny>, n<n>, gme<ni></ni></n></ny></nx>
-h	Help information for the operators
-M	Indicate that the I/O streams have missing values
-m $<$ $missval >$	Set the default missing value (default: -9e+33)
-0	Overwrite existing output file, if checked
-R	Convert GRIB1 data from reduced to regular grid
-r	Generate 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
-z szip	SZIP compression of GRIB1 records

Operators

Information

showmon showdate

showtime

<operator> ifile

info	Dataset information listed by parameter identifier		
infon	Dataset information listed by parameter name		
map	Dataset information and simple map		
<pre><operator> ifi</operator></pre>	<pre><operator> ifiles</operator></pre>		
sinfo	Short information listed by parameter identifier		
sinfon	Short information listed by parameter name		
< operator > ifi	les		
diff	Compare two datasets listed by parameter id		
diffn	Compare two datasets listed by parameter name		
< operator > ifi	le1 ifile2		
npar	Number of parameters		
nlevel	Number of levels		
nyear	Number of years		
nmon	Number of months		
ndate	Number of dates		
ntime	Number of timesteps		
<pre><operator> ifile</operator></pre>			
showformat	Show file format		
showcode	Show code numbers		
showname	Show variable names		
showstdname	Show standard names		
showlevel	Show levels		
showltype	Show GRIB level types		
showyear	Show years		

Show months

showtimestamp Show timestamp

Show date information

Show time information

pardes	Parameter description
griddes	Grid description
zaxisdes	Z-axis description
vct	Vertical coordinate table
<pre><operator> ifile</operator></pre>	

File operations

copy	Copy datasets	
cat	Concatenate datasets	
<pre><operator> ifiles ofile</operator></pre>		
replace	Replace variables	
replace ifile1	ifile2 ofile	
duplicate	Duplicates a dataset	
duplicate[,ndup	ofile ofile	
mergegrid	Merge grid	
mergegrid ifi	Le1 ifile2 ofile	
merge	Merge datasets with different fields	
mergetime	Merge datasets sorted by date and time	
<operator> if:</operator>		
splitcode	Split code numbers	
splitcode splitparam	Split code numbers Split parammeter identifiers	
_	•	
splitparam	Split parammeter identifiers	
splitparam splitname	Split parammeter identifiers Split variable names	
splitparam splitname splitlevel splitgrid splitzaxis	Split parammeter identifiers Split variable names Split levels Split grids Split z-axes	
splitparam splitname splitlevel splitgrid splitzaxis splittabnum	Split parammeter identifiers Split variable names Split levels Split grids Split z-axes Split parameter table numbers	
splitparam splitname splitlevel splitgrid splitzaxis splittabnum	Split parammeter identifiers Split variable names Split levels Split grids Split z-axes	
splitparam splitname splitlevel splitgrid splitzaxis splittabnum	Split parammeter identifiers Split variable names Split levels Split grids Split z-axes Split parameter table numbers	
splitparam splitname splitlevel splitgrid splitzaxis splittabnum <operator>[.sw</operator>	Split parammeter identifiers Split variable names Split levels Split grids Split z-axes Split parameter table numbers ap ifile obase	
splitparam splitname splitlevel splitgrid splitzaxis splittabnum <operator>[,sw splithour splitday splitmon</operator>	Split parammeter identifiers Split variable names Split levels Split grids Split z-axes Split parameter table numbers ap ifile obase Split hours	
splitparam splitname splitlevel splitgrid splitzaxis splittabnum <operator>[,sw splithour splitday splitmon splitseas</operator>	Split parammeter identifiers Split variable names Split levels Split grids Split z-axes Split parameter table numbers apl ifile obase Split days Split days Split months Split seasons	
splitparam splitname splitlevel splitgrid splitzaxis splittabnum <operator>[,sw splithour splitday splitmon</operator>	Split parammeter identifiers Split variable names Split levels Split grids Split z-axes Split parameter table numbers ap/ifile obase Split hours Split days Split months Split seasons Split years	

Split time selection

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

Salact fields

Selection soloct

select	Select fields	
delete	Delete fields	
<pre><operator>,params ifiles ofile</operator></pre>		
selparam	Select parameters by identifier	
delparam	Delete parameters by identifier	
< operator >, par	ams ifile ofile	
selcode	Select parameters by code number	
delcode	Delete parameters by code number	
< operator >, cod	es ifile ofile	
selname	Select parameters by name	
delname	Delete parameters by name	
<pre><operator>,nan</operator></pre>	mes ifile ofile	
selstdname	Select parameters by standard name	
	names ifile ofile	
sellevel		
sellevel, levels if		
	Select levels by index	
sellevidx, levidx ifile ofile		
selgrid		
selgrid, grids ifile ofile		
selzaxis	Select z-axes	
selzaxis,zaxes ifile ofile		
selltype	Select GRIB level types	
selltype,ltypes ifile ofile		
seltabnum	Select parameter table numbers	
seltabnum,tabnums ifile ofile		

seltimestep	Select timesteps	
seltimestep, tim	nesteps ifile ofile	
seltime	Select times	
seltime, times it	file ofile	
selhour	Select hours	
selhour, hours i	file ofile	
selday	Select days	
selday,days ifi	le ofile	
selmon	Select months	
${\bf selmon}, months$	ifile ofile	
selyear	Select years	
selyear, years if	ile ofile	
selseas	Select seasons	
selseas,seasons	ifile ofile	
seldate	Select dates	
seldate,date1[,d	ate2] ifile ofile	
selsmon	Select single month	
selsmon, month	[,nts1[,nts2]] ifile ofile	
sellonlatbox	Select a longitude/latitude box	
sellonlatbox,lon1,lon2,lat1,lat2 ifile ofile		
selindexbox	Select an index box	
selindexbox,idz	x1,idx2,idy1,idy2 ifile ofile	

Conditional selection

ifthen	If then
ifnotthen	If not then
<pre><operator> ifile1 ifile2 ofile</operator></pre>	
ifthenelse	If then else
ifthenelse ifile1 ifile2 ifile3 ofile	
ifthenc	If then constant
ifnotthenc	If not then constant
<pre><operator>,c ifile ofile</operator></pre>	

${\bf Comparison}$

eq	Equal
ne	Not equal
le	Less equal
lt	Less than
ge	Greater equal
gt	Greater than
< operator > ifi	le1 ifile2 ofile
eqc	Equal constant
eqc nec	Equal constant Not equal constant
-	*
nec	Not equal constant
nec lec	Not equal constant Less equal constant
nec lec ltc	Not equal constant Less equal constant Less than constant
nec lec ltc gec	Not equal constant Less equal constant Less than constant Greater equal constant Greater than constant

Modification

setpartab	Set parameter table	
setpartab, table ifile ofile		
setcode	Set code number	
setcode, code ifile ofile		
setparam	Set parameter identifier	
setparam,param ifile ofile		
setname	Set variable name	
setname,name ifile ofile		
setunit	Set variable unit	
setunit,unit ifile ofile		
setlevel	Set level	
setlevel, level ifile ofile		
setltype	Set GRIB level type	
setltype.ltype ifile ofile		

setdate	Set date	
setdate,date ifile ofile		
settime	Set time of the day	
$\mathbf{settime}, time \ \mathtt{if}$	ile ofile	
setday	Set day	
setday,day ifil	e ofile	
setmon	Set month	
setmon, month i	file ofile	
setyear	Set year	
setyear, year ifi	ile ofile	
settunits	Set time units	
settunits, units	ifile ofile	
settaxis	Set time axis	
settaxis,date,tir	ne[,inc] ifile ofile	
setreftime	Set reference time	
setreftime, date	time[,units] ifile ofile	
setcalendar	Set calendar	
setcalendar,calendar ifile ofile		
shifttime	Shift timesteps	
shifttime,sval i	file ofile	
chcode	Change code number	
chcode, oldcode,	newcode[,] ifile ofile	

chcode	Change code number	
chcode,oldcode,newcode[,] ifile ofile		
chparam	Change parameter identifier	
chparam,oldparam,newparam, ifile ofile		
chname	Change variable name	
chname,oldname,newname, ifile ofile		
chunit	Change variable unit	
chunit,oldunit,newunit, ifile ofile		
chlevel		
chlevel,oldlev,newlev, ifile ofile		
	Change level of one code	
chlevelc,code,oldlev,newlev ifile ofile		
chlevelv	Change level of one variable	
chlevelv,name,oldlev,newlev ifile ofile		
setgrid	Set grid	
setgrid,grid ifile ofile		

setgridtype	Set grid type	
setgridtype,gridtype ifile ofile		
setgridarea	Set grid cell area	
setgridarea, gridarea ifile ofile		
setzaxis	Set z-axis	
cotravic ravic ifile ofile		

	setgatt	Set global attribute
setgatt, attname, attstring ifile ofile		
	setgatts	Set global attributes
setgatts,attfile ifile ofile		ifile ofile

invertlat	Invert latitudes
invertlat ifile	ofile

Invert levels

invertlev ifile ofile				
maskregion	Mask regions			
maskregion,reg	ions ifile ofile			

invertlev

masklonlatbox	Mask a longitude/latitude box	
masklonlatbox	lon1,lon2,lat1,lat2 ifile ofile	
maskindexbox	Mask an index box	
maskindexbox.idx1.idx2.idv1.idv2 ifile ofile		

setclonlatbox	Set a longitude/latitude box to constant		
setclonlatbox,c,lon1,lon2,lat1,lat2 ifile ofile			
setcindexbox	Set an index box to constant		
cotaindovhov a	idv1 idv2 idv1 idv2 ifile ofile		

enlarge	Enlarge fields
enlarge grid if	ile ofile

setmissval	Set a new missing value	
setmissval,newmiss ifile ofile		
setctomiss	Set constant to missing value	
setmisstoc	Set missing value to constant	
<pre><operator>,c ifile ofile</operator></pre>		
setrtomiss	Set range to missing value	
setvrange Set valid range		
<pre><operator>,rmin,rmax ifile ofile</operator></pre>		

Arithmetic

Arithmetic	Arithmetic					
expr	Evaluate expressions					
expr,instr ifile						
exprf	Evaluate expressions from script file					
exprf, filename ifile ofile						
abs Absolute value						
int	Integer value					
nint	Nearest integer value					
pow	Power					
sqr	Square					
sqrt	Square root					
exp	Exponential					
ln	Natural logarithm					
log10	Base 10 logarithm					
sin	Sine					
cos	Cosine					
tan asin	Tangent Arc sine					
acos	Arc cosine					
reci	Reciprocal value					
<pre>< operator > ifi</pre>						
	Add a constant					
addc subc	Add a constant Subtract a constant					
mulc	Multiply with a constant					
divc	Divide by a constant					
<pre>< operator >, c i</pre>						
add	Add two fields					
sub mul	Subtract two fields Multiply two fields					
div	Divide two fields					
min	Minimum of two fields Maximum of two fields					
max						
atan2	Arc tangent of two fields					
<operator> ifi</operator>	ile1 ifile2 ofile					
monadd	Add monthly time series					
monsub	Subtract monthly time series					
monmul	Multiply monthly time series					
mondiv	Divide monthly time series					
	ile1 ifile2 ofile					
ymonadd	Add multi-year monthly time series					
ymonsub	Subtract multi-year monthly time series					
ymonmul	Multiply multi-year monthly time series					
ymondiv	Divide multi-year monthly time series					
<pre><operator> ifi</operator></pre>	le1 ifile2 ofile					
ydayadd	Add multi-year daily time series					
ydaysub	Subtract multi-year daily time series					
ydaymul	Multiply multi-year daily time series					
ydaydiv	Divide multi-year daily time series					
<pre><operator> ifile1 ifile2 ofile</operator></pre>						
yhouradd	Add multi-year hourly time series					
yhoursub	Subtract multi-year hourly time series					
yhourmul	Multiply multi-year hourly time series					
yhourdiv	Divide multi-year hourly time series					
<pre><operator> ifi</operator></pre>	le1 ifile2 ofile					
muldpm	Multiply with days per month					
divdpm	Divide by days per month					
muldpy	Multiply with days per year					
divdpy Divide by days per year						
<pre><operator> ifi</operator></pre>						

Statistical values

Available statistical functions	< stat >
minimum	min
maximum	max
sum	sum
mean	mean
average	avg
variance	var, var1
standard deviation	std , $\operatorname{std1}$

	sum mean		sum mean		
	average		avg		
variance standare		e d deviation	var, var1 std, std1		
consect	consects Consecutive Timesteps				
< operat	tor> ifi				
ens <ste< td=""><td>at ></td><td>Statistical values over an</td><td>ensemble</td><td></td></ste<>	at >	Statistical values over an	ensemble		
		les ofile			
enspetl		Ensemble percentiles			
	p ifiles				
		Ranked Histogram averag Ranked Histogram averag			
ensroc		Ensemble Receiver Opera		istics	
< operat	tor > obs:	file ensfiles ofile			
enscrps		Ensemble CRPS and deco	omposition		
	rfile i	files ofilebase			
ensbrs	v rfile	Ensemble Brier score ifiles ofilebase			
fld <sta< td=""><td></td><td>Statistical values over a f</td><td>iold</td><td></td></sta<>		Statistical values over a f	iold		
		le ofile	ieid		
fldpctl		Field percentiles			
	p ifile				
		Zonal statistical values			
	tor> ifi				
zonpct	$l_{,p}$ ifile	Zonal percentiles			
mer <st< td=""><td>tat> tor> ifi</td><td>Meridional statistical value of ile</td><td>1es</td><td></td></st<>	tat> tor> ifi	Meridional statistical value of ile	1es		
merpct	:l	Meridional percentiles			
	$\mathbf{l}_{,p}$ ifile				
gridbox	x < stat >	Statistical values over gri	d boxes		
< operat	tor > ,nx,n	ny ifile ofile			
		Vertical statistical values			
< operat	tor> ifi	le ofile			
		Time range statistical val			
		ss[,noffset[,nskip]] ifile of	file		
		Time range percentiles			
		ts[,noffset[,nskip]] ifile1		ofile	
		Running statistical values	3		
		ifile ofile			
runpct		Running percentiles			
		ile1 ofile			
	at> $tor>$ ifi	Statistical values over all	timesteps		
timpct		Time percentiles 1 ifile2 ifile3 ofile			
hour <stat> Hourly statistical values <operator> ifile ofile</operator></stat>					
hourpetl Hourly percentiles					
hourpe	\mathbf{tl} , p ifil	e1 ifile2 ifile3 ofile			
day < st	at >	Daily statistical values			
	tor > ifi				
daypctl Daily percentiles					
daypctl,p ifile1 ifile2 ifile3 ofile					
		Monthly statistical values	3		
	tor> ifi				
	monpctl Monthly percentiles				
monnet	tl n ifila	1 ifilo2 ifilo2 ofilo			

monpctl,p ifile1 ifile2 ifile3 ofile

year <stat> Yearly statistical values</stat>	Interpolatio	n
<pre><operator> ifile ofile</operator></pre>	remapbil	Bilinear interpolation
yearpctl Yearly percentiles	remapbic	Bicubic interpolation
yearpctl,p ifile1 ifile2 ifile3 ofile	remapdis	Distance-weighted avera
seas <stat> Seasonal statistical values</stat>	remapnn	Nearest neighbor remap
<pre><operator> ifile ofile</operator></pre>	remapcon	First order conservative
seaspctl Seasonal percentiles	remapcon2	Second order conservati
seaspctl,p ifile1 ifile2 ifile3 ofile	remaplaf	Largest area fraction re rid ifile ofile
yhour <stat> Multi-year hourly statistical</stat>		
<pre><pre>< operator > ifile ofile</pre></pre>	genbil genbic	Generate bilinear interp Generate bicubic interp
		Generate distance-weigh
yday <stat> Multi-year daily statistical va</stat>	gennn	Generate nearest neight
*	gencon	Generate 1st order cons
ydaypctl Multi-year daily percentiles	gencon2	Generate 2nd order con
ydaypctl,p ifile1 ifile2 ifile3 ofile	genlaf	Generate largest area fr
ymon <stat> Multi-year monthly statistica</stat>	l values <pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>	rid ifile ofile
$<\!operator\!>$ ifile ofile	remap	SCRIP grid remapping
ymonpctl Multi-year monthly percentile	remap,grid,we	eights ifile ofile
ymonpctl,p ifile1 ifile2 ifile3 ofile	remapeta	Remap vertical hybrid l
vseas < stat > Multi-year seasonal statistica		[,oro] ifile ofile
<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>		
*	ml2pl ml2pl,plevels	Model to pressure level
yseaspetl Multi-year seasonal percentile	ml2hl	Model to height level in
yseaspctl,p ifile1 ifile2 ifile3 ofile	ml2hl.hlevels	
ydrun <stat> Multi-year daily running stat</stat>	istical values intlevel	Linear level interpolation
<pre><operator>,nts ifile ofile</operator></pre>	intlevel	
ydrunpctl Multi-year daily running per	entiles	
ydrunpctl,p,nts ifile1 ifile2 ifile3 ofile	intlevel3d	Linear level interpolation
	intlevelx3d	like intlevel3d but with
	inttime	Interpolation between t
Correlation and co.	intuime, date, t	ime[,inc] ifile ofile Interpolation between t
fldcor Correlation in grid space	intuine intuine	
fldcor ifile1 ifile2 ofile		
timcor Correlation over time	intyear	Interpolation between t ifile1 ifile2 obase
timcor ifile1 ifile2 ofile	intyear, years	illiel lillez obase
fldcovar Covariance in grid space		
fldcovar ifile1 ifile2 ofile	Transformat	ion
	sp2gp	Spectral to gridpoint
timcovar Covariance over time	sp2gp sp2gpl	Spectral to gridpoint (li
timcovar ifile1 ifile2 ofile	gp2sp	Gridpoint to spectral
	gp2spl	Gridpoint to spectral (l
	<pre>< operator > i</pre>	
Damasian	sp2sp	Spectral to spectral
Regression	sp2sp,trunc i	file ofile
regres Regression	dv2uv	Divergence and vorticity

regres	Regression	Ш
regres ifile of	file	
detrend	Detrend	
detrend ifile ofile		
trend	Trend	
trend ifile ofile1 ofile2		
subtrend	Subtract trend	١.
subtrend ifile1 ifile2 ifile3 ofile		J

EOFs

eof	Calculate EOFs in spatial or time space
eoftime	Calculate EOFs in time space
eofspatial	Calculate EOFs in spatial space
eof3d	Calculate 3-Dimensional EOFs in time space
<pre><operator>,neof ifile ofile1 ofile2</operator></pre>	
0 00	Glil
eofcoeff	Calculate principal coefficients of EOFs
enfcoeff ifile1	ifile2 obase

rpolation

remapbic Bicubic interpolation		Bicubic interpolation
	remapdis	Distance-weighted average remapping
	remapnn	Nearest neighbor remapping
	remapcon	First order conservative remapping
=	remapcon2	Second order conservative remapping
	remaplaf	Largest area fraction remapping
	<pre>< operator > ,grie</pre>	difile ofile
	genbil	Generate bilinear interpolation weights
genbic		Generate bicubic interpolation weights
	gendis	Generate distance-weighted average remap weights
	gennn	Generate nearest neighbor remap weights
=	gencon	Generate 1st order conservative remap weights
	gencon2	Generate 2nd order conservative remap weights
	genlaf	Generate largest area fraction remap weights
	<pre>< operator > ,grie</pre>	d ifile ofile
		CCDID: 1
	remap	SCRIP grid remapping

<pre>coperator >,grid fifte office</pre>		
remap	SCRIP grid remapping	
remap,grid,weights ifile ofile		
remapeta	Remap vertical hybrid level	
remapeta,vct[,oro] ifile ofile		
ml2pl	Model to pressure level interpolation	
ml2pl,plevels ifile ofile		
ml2hl	Model to height level interpolation	
ml2hl,hlevels ifile ofile		
intlevel	Linear level interpolation	
intlevel, levels ifile ofile		

	intlevel3d	Linear level interpolation onto a 3d vertical coordi	
J	intlevelx3d	like intlevel3d but with extrapolation	
	<pre><operator>,icoordinate ifile1 ifile2 ofile</operator></pre>		
inttime Interpolation between timesteps		Interpolation between timesteps	
		*	

inttime	Interpolation between timesteps	
<pre>inttime,date,time[,inc] ifile ofile</pre>		
intntime	Interpolation between timesteps	
intntime,n ifile ofile		

intyear	Interpolation between two years	
intyear, years if	ile1 ifile2 obase	

nsformation

ı	sp2gp	Spectral to gridpoint
	sp2gpl	Spectral to gridpoint (linear)
	gp2sp	Gridpoint to spectral
	gp2spl	Gridpoint to spectral (linear)
	<pre><operator> ifile ofile</operator></pre>	
	sp2sp	Spectral to spectral
	${ m sp2sp}, trunc \ { m ifile} \ { m ofile}$	

dv2uv dv2uvl Divergence and vorticity to U and V wind Divergence and vorticity to U and V wind (linear) U and V wind to divergence and vorticity U and V wind to divergence and vorticity (linear) D and V to velocity potential and stream function uv2dvuv2dvl dv2ps<operator> ifile ofile

Import/Export		
import_binary	Import binary data sets	
import_binary ifile ofile		
import_cmsaf	Import CM-SAF HDF5 files	
import_cmsaf ifile ofile		
import_amsr Import AMSR binary files		
import_amsr ifile ofile		
input	ASCII input	
input,grid ofile		
inputsrv	SERVICE ASCII input	
inputext	EXTRA ASCII input	
<pre><operator> ofile</operator></pre>		

con.wgs.final, file of ite			
outputf outputed outputed outputed outputed outputed outputed outputed SERVICE ASCII output SECALOR Consecutive dry days index per time period sea.catl Consecutive summer days index per time period sea.catl Consecutive wer days index per time period sea.catl Consecutive wer days index per time period sea.catl I it offile SECALOR (Sites offile offile SECALO	_	ASCII output	
outputsty outputsty SERVICE ASCII output SERVICE ASCII output SERVICE ASCII output Consecutive dry days index per time period exacted			hurr ifile ofile
outputs outputs EXTRA ASCII output outputs EXTRA ASCII output Ascillaneous Miscellaneous Mis	•		
outputexy SERVICE ASCII output			
## Consecutive dry days index per time period ecacdd. Consecutive frost days index per time period ecacdd. Consecutive summer days index per time period ecacdd. Cold wave with save than summer days index per time period ecacdd. Cold wave with save than summer days index per time period ecacdd. Cold wave with save than summer days index per time period ecacdd. Cold wave with save than summer days index pe		U 1	
Canada Consecutive dry days index per time period ecanded Consecutive dry days index per time period ecanded Consecutive fort days index per time pe			Climate indices
cadd Consecutive wet days index per time period caed fill of ills caed ca	-	•	eca_cdd Consecutive dry days index per time period
gradedeal GrADS data descriptor file (version I GRB man) coperator > file (version 2 GRB man) coperator > file of ile version coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man)	<pre><pre><pre>coperator > 111</pre></pre></pre>	1100	
gradedeal GrADS data descriptor file (version I GRB man) coperator > file (version 2 GRB man) coperator > file of ile version coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man) coperator > file of ile version 2 GRB man)			Consequeive front days index per time period
Miscellaneous GrADS data descriptor file (version 2 GRIB map) gradeded 2 GrADS data descriptor file (version 2 GRIB map) gradeded 2 GrADS data descriptor file (version 2 GRIB map) Graded version 2 Graded versio			The state of the s
gradades GrADS data descriptor file (version I GRIB map)	Miscellaneous	8	
canced Consecutive wet days index per time period			
Consecutive wet days makes per time period eca.cwd Recard Re			eca_csu[,T] ifile ofile
Dandpass Bandpass filtering Dandpass, min, max filt is efite Cacawdi, max filt of the lowpass Lowpass filtering Coalward Cold wave duration index wrt mean of reference Cacawdi, max, filt of the lowpass Lowpass filtering Cold-spell days index wrt 10th percentile of reference Cacawdi, max, filt of the lowpass Lowpass filtering Cold-spell days index wrt 10th percentile of reference Cacawdi, max, filt of the Cacawdi, max	~		eca_cwd Consecutive wet days index per time period
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