

Accessing Data for the Climate Prediction Tool

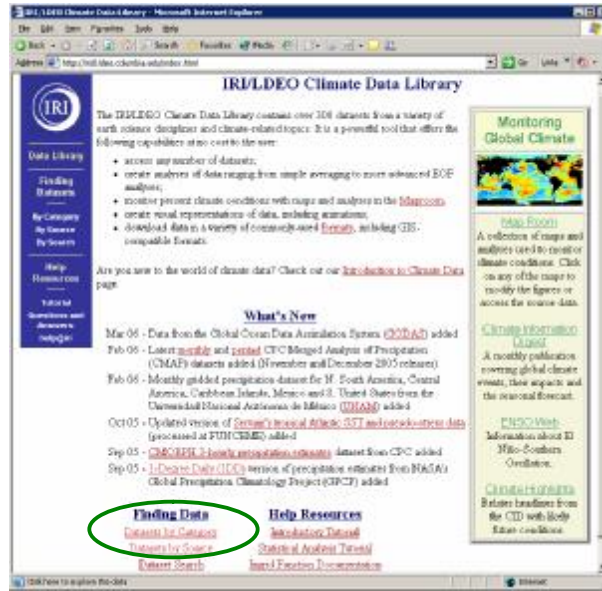
- Data for use with the CPT is available via the IRI Data Library.
- The following slides demonstrate how to:
 - Access data
 - Create seasonal and ensemble averages
 - Download data in the CPT gridded data format

To start the example go to the IRI Data Library:
<http://iridl.ldeo.columbia.edu>



PLEASE NOTE: Instructions for the example are given in the slides and additional information is often included here in the notes box. Keep the slide show in this format (Normal View) in order to view all of these notes.

Accessing Sea Surface Temperature Data



Select the *Datasets by Category* link.



This example focuses on downloading sea surface temperature data from the most recent version of the Extended Reconstructed Sea Surface Temperature dataset (NOAA NCDC ERSSTv2).

Accessing Sea Surface Temperature Data



Select the *Air-Sea Interface* link.



Accessing Sea Surface Temperature Data

ID	Resolution	Global	Date Range	Frequency
ISI Analysis ERSST.1E	0.250 S, 2.500 E	GLOBAL	Dec - Feb, Nov - Jun	SEASONAL
LEVITISM	1x1	GLOBAL	Jan, Dec	MONTHLY, SEASONAL, ANNUAL
Model AMIP.5G	5x4	GLOBAL	Jan 1979, Dec 1999	MONTHLY
Modeler	2x2	[101W, 21E] [55S, 57N]	Jan 1981, Jan 1999	MONTHLY
NOAA NCDC ERSST	2x2	GLOBAL	Jan 1854, Jan 2005	MONTHLY
NOAA NCEP ERSST.2.5M2 GLOBAL ERSST.2.5M2	1x1	GLOBAL	Nov 1981, Jan 2006	FIVE DAYS, WEEKLY, MONTHLY
NOAA NCEP ERSST.2.5M2 GLOBAL	1x1 3333309	GLOBAL [74 52, 64 4930E]	Jan 1990, Jan 2006	MONTHLY
NOAA NCEP ERSST.2.5M2 GLOBAL	1.5x1	[82E 25W, 71 25W], [35S, 45N]	VARIOUS Jan 1980 to Present	WEEKLY, MONTHLY

Select the **NOAA NCDC ERSST** link.



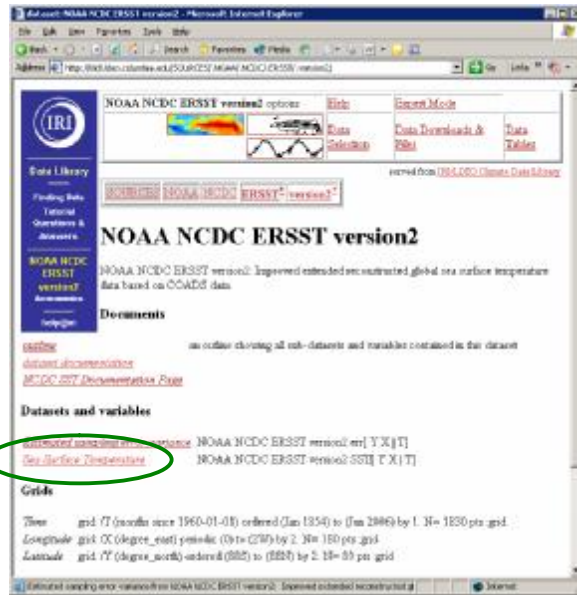
Accessing Sea Surface Temperature Data



Select the *version2* link.



Accessing Sea Surface Temperature Data



Select the *Sea Surface Temperature* link.



Note that documentation about the ERSSTv2 dataset is available from the documentation link in the blue banner on the left side of the page. The time period for which data is available is shown under the Grids heading.

Selecting a Time Period

NOAA NCDC ERSST version2 SST options

NOAA NCDC ERSST version2 SST: Sea Surface Temperature data

Sea Surface Temperature from NOAA NCDC ERSST version2. Improved extended reanalysis of global sea surface temperature data based on TOADS data.

Grids

Three grid_1T (month since 1960-01-01) ordered (J in 1854) to (Jan 2006) by 1. 10= 180 pt grid

Longitude grid_1X (degree_east) pincvle (01) to (200) by 2. 14= 180 pt grid

Latitude grid_1Y (degree_south) ordered (88S) to (88N) by 2. 14= 180 pt grid

Other Info

datafile: sstv2

data: 4

data_type: int16

format: table

[Data Selection](#)

Select the *Data Selection* link.



Selecting a Time Period

The screenshot shows the NOAA NCEP Climate Data Selection web interface. The page title is "Data Selection". Below the title, there is a "Data Library" section with a list of data products. The "Time" text box is highlighted with a green circle and contains the text "Jan 1950 to Jan 2006". The "Restrict Ranges" button is also visible. The "Hints" section at the bottom provides additional information about the data selection process.

Enter Jan 1950-2006 in the Time text box. Click Restrict Ranges.



This example illustrates how to select data from all January months during 1950-2006. To select a different month or range of years, put the appropriate information in the Time text box using the same format (Mmm YYYY-YYYY). You may also download data for a single month the same way (Mmm YYYY). For example, if you already have data for Jan 1950-2005 and want to update the time series with the 2006 data, you would just put “Jan 2006” in the Time text box.

By not changing the other ranges (i.e., latitude and longitude), you automatically select all the data available (i.e., global domain). Sub-domains of the data can be selected within CPT, so it is generally best to download data for as large an area as possible. This will, however, affect the size of the file downloaded in later steps. Additional guidelines about making other data domain selections can be found under the Hints heading.

Selecting a Time Period

Data Selection

You can interactively pick out the data you would like with the [Data Menu](#).

You can reduce the amount of data by restricting the range of the grid.

The current settings for the grid are:

- grid: T (degrees_north) centered (85S) to (85N) by 2.16= 72 grid
- grid: O (degrees_west) centered (0) to (180) by 2.16= 180 grid
- grid: T (seconds since 1950-01-01) centered (1950) to (2000) by 12.10= 57 grid

If this is what you want, click **Stop Selecting**.

Setting Ranges

If you want to restrict the range along a grid, choose here:

name	range
T: Latitude	85S to 85N
X: Longitude	0 to 180
T: Time	Jan 1950-2000

[Reset Ranges](#)

Hints

- longitude is best specified as west to east, two east values or two west values, otherwise you can end up with the wrong half of the world (e.g. 0-360 to 355-360 will work results better than 0-360 to 0-360)
- wide latitude crossing values will reverse the grid.
- when specified time, some unusual values work, i.e. Jan-Mar will select Jan-Mar of all years in the dataset.

Click the *Stop Selecting* button.



Note that your time period selection is now indicated in the gray box at the top of the page.

Downloading a Data File

NOAA NCDC ERSST version2 SST options

NOAA NCDC ERSST version2 SST: Sea Surface Temperature data

SST Sea Surface Temperature from NOAA NCDC ERSST version2. Improved extended reconstructed global sea surface temperature data based on COADS data.

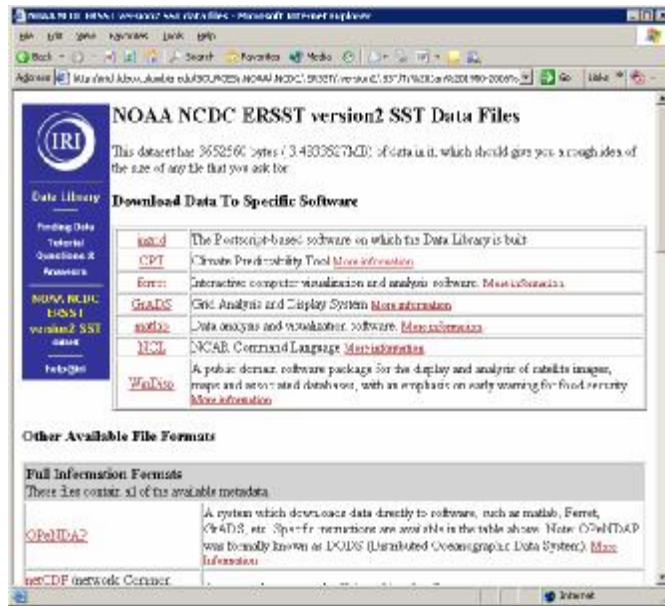
Grids

Time: `grid: T` (months since 1960-01-01) ordered (Jan 1950) to (Jan 2006) by 12. M=50 pts grid
Longitude: `grid: X` (degree_west) periodic (0) to (200) by 2.5. N=180 pts grid
Latitude: `grid: Y` (degree_north) ordered (85S) to (85N) by 2. N=80 pts grid

Click the [Data Files](#) link.

Note that your time period selection is also indicated under the Grids heading and in the gray source bar near the top of the page.

Downloading a Data File



The screenshot shows a web browser window displaying the NOAA NCDC ERSST version2 SST Data Files page. The page title is "NOAA NCDC ERSST version2 SST Data Files". Below the title, it states: "This dataset has 3652560 bytes (3.4803827MB) of data in it, which should give you a rough idea of the size of any file that you ask for." The page is divided into several sections:

- Data Library:** A sidebar on the left with a search bar and navigation links.
- Download Data To Specific Software:** A table listing software options for downloading data.
- Other Available File Formats:** A section for full information formats.

Software	Description
mat4	The Fortran-based software on which the Data Library is built
CPT	Climate Predictability Tool More information
Ercat	Interactive computer visualization and analysis software. More information
GrADS	Grid Analysis and Display System More information
xyPlot	Data analysis and visualization software. More information
NCL	NCAR Command Language More information
WebVis	A public domain software package for the display and analysis of satellite images, maps and associated databases, with an emphasis on early warning for food security. More information

Full Information Formats
These files contain all of the available metadata

OPeNDAP	A system which downloads data directly to software, such as Matlab, Ferret, C/Python, etc. Specific information is available in the table above. Note OPeNDAP was formerly known as LODS (Distributed Oceanographic Data System). More information
netCDF network Center	

Click the [CPT](#) link.



Downloading a Data File

Accessing data using CPT

You are downloading:

NOAA NCDC ERSST version2 SST

with missing value: -9999

Longitude	grid CC (degree east) periodic (0 to 360) by 2.125 180 pts grid
Latitude	grid T (degree north) ordered (90S) to (90N) by 2.125 180 pts grid
Time	grid TT (months since 1950-01-01) ordered (Jan 1950 to Jan 2006) by 12 14= 57 pts grid

Get the data from this ID by default.

or ID for details (zipped compressed)

Click one of the *tsv* links to download the data.



If you have a slow or unstable internet connection, you are encouraged to download the compressed file. When downloading these data from the ERSST dataset, the compressed file can be up to 10 times smaller than the uncompressed file.

When downloading data from other datasets, you may notice an additional step on this page. Some datasets use NaN to indicate missing data, which is not compatible with CPT. If your selected dataset does use NaN, you will be given an opportunity at this point to select another missing data indicator (e.g., -9999) to be used in your data file.

Accessing ECHAM4.5 Forecast Data

The IRI/LEDEO Climate Data Library contains over 300 datasets from a variety of earth science disciplines and climate-related topics. It is a powerful tool that offers the following capabilities at no cost to the user:

- access any number of datasets;
- create analyses of data ranging from simple averaging to more advanced EOF analysis;
- monitor present climate conditions with maps and analysis in the [Data Tools](#);
- create visual representations of data, including animations;
- download data in a variety of commonly-used formats, including GIS-compatible formats.

Are you new to the world of climate data? Check out our [Introduction to Climate Data](#) page.

What's New

Mar 06 - Data from the Global Ocean Data Assimilation System ([GODAS](#)) added
Feb 06 - Latest [monthly](#) and [partial](#) CPC Merged Analysis of Precipitation (CMAP) datasets added (November and December 2005 releases)
Feb 06 - Monthly gridded precipitation dataset for N. South America, Central America, Caribbean Islands, Mexico and U. States from the Universidad Nacional Autonoma de Mexico ([UNAM](#)) added
Oct 05 - Updated version of [Stratospheric Arctic O3T and ice water vapor data](#) (processed at FHNW/CHM) added
Sep 05 - [CMAP/CHM 2-hourly reinterpolation datasets](#) dataset from CPC added
Sep 05 - [1-Degree Daily \(1DD\)](#) version of precipitation estimates from NASA's Global Precipitation Climatology Project (GPCP) added

Finding Data

- [Datasets by Category](#)
- [Datasets by Source](#)
- [Dataset Search](#)

Help Resources

- [Introduction Tutorial](#)
- [Statistical Analysis Tutorial](#)
- [Input Function Documentation](#)

Monitoring Global Climate
A collection of maps and analyses used to monitor climate conditions. Click on any of the maps to modify the figures or access the source data.

Data Tools
A collection of maps and analyses used to monitor climate conditions. Click on any of the maps to modify the figures or access the source data.

Climate Monitoring Alert
A monthly publication covering global climate events, their impacts and the seasonal forecast.

ENSO Watch
Information about El Niño-Southern Oscillation.

Climate Profiles
Related briefings from the CID web body about conditions.

Select the *Datasets by Category* link.



This example focuses on downloading forecast data from the retrospective runs of the ECHAM4.5 model.

Accessing ECHAM4.5 Forecast Data



The screenshot shows a web browser window titled "Datasets By Category" from the IRI website. The page lists various data categories with brief descriptions. The "Forecasts" link is circled in green. The categories listed are:

- [Air-Sea Interactions](#): Datasets focusing on the feedback between the atmosphere and the ocean. Includes sea surface temperature (SST) and wind stress data variables, among others.
- [Atmosphere](#): Datasets focusing on parameters describing the atmosphere. Includes surface weather observations (e.g., temperature, precipitation, etc.) and gridded satellite-sensed data variables, among others.
- [Climate Indices](#): Datasets focusing on climate indices. Includes drought indices and teleconnection indices such as the Southern Oscillation Index (SOI), North Atlantic Oscillation (NAO), and Niño 3.4, among others.
- [Cloud Characteristics and Fluxes](#): Datasets focusing on parameters describing clouds and the radiation budget. Includes outgoing longwave radiation (OLR), albedo, and cloudiness parameters, among others.
- [Ecosystems and Land-Atmosphere Interactions](#): Datasets focusing on land-atmosphere and ocean-atmosphere interactions and environmental data variables, among others.
- [Forecasts](#): Datasets focusing on climate forecast data. Includes IRI Seasonal Forecasts, among others.
- [Historical Model Simulations](#): Datasets focusing on the recreation of historical data records by model simulations. Includes the NCEP-NCAR Reanalysis and ECHAM4.5, among others.
- [Hydrology](#): Datasets focusing on hydrological parameters. Includes discharge rates and streamflow data variables, among others.
- [Ice](#): Datasets focusing on status data from the Arctic and seasonal assessments from ice cores.

Select the *Forecasts* link.



Accessing ECHAM4.5 Forecast Data

Forecast Data in the IRI Data Library

Dataset Name	Spatial Resolution (Lat/Lon / Number of Stations)	Spatial Extent	Time Period	Temporal Resolution
REPROFORECAST	2d	[10N,10W] [85,20E]	Jan 1970-Feb 2001	MONTHLY
IRI FD ECHAM4.5 Forecast psst ensemble12 MONTHLY	2.8125d 78x90S	GLOBAL	Aug 2001 - Present	MONTHLY
IRI FD ECHAM4.5 Forecast psst ensemble12 MONTHLY	2.8125d 78x90S	GLOBAL	Jan 1968-Jan 2000	MONTHLY
IRI FD ECHAM4.5 Forecast psst ensemble12 MONTHLY	2.8125d 78x90S	GLOBAL	Aug 2001 - Present	MONTHLY
IRI FD Seasonal Forecast Probability	1.5d 5	GLOBAL	Oct-Dec 1969, Nov 2006 - Jan 2007	SEASONAL
IRI FD Seasonal Forecast Temperature	2d	GLOBAL	Jan-Mar 1998, Nov 2006 - Jan 2007	SEASONAL

Select the *IRI FD ECHAM4.5 Forecast psst ensemble12 MONTHLY* link.



Accessing ECHAM4.5 Forecast Data



Select the *surface* link.



This example will select precipitation data, but many other variables are available. To select geopotential height, for example, you would select the *Pressure Level* link and then the *geopotential height* link. Selecting the *outline* link on this page will show you all of the variables that are available in this dataset.

Accessing ECHAM4.5 Forecast Data

The screenshot shows a web browser window displaying the IRI website. The page title is "IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface". The page content includes a navigation menu, a search bar, and a list of data variables. The "Total Precipitation" link is highlighted in red.

IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface

MONTHLY surface from IRI FD ECHAM4p5 Forecast psst ensemble12 retrospective ECHAM4.5 ensemble forecasts based on perturbed SST.

Documents

[surface](#) on surface showing all sA-datasets and variables contained in the dataset

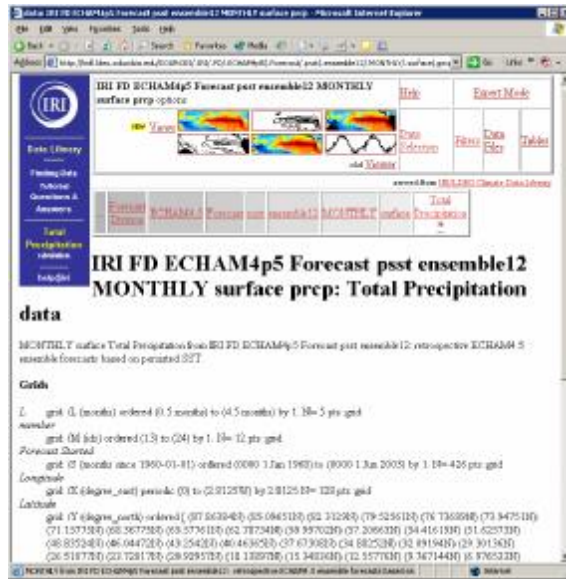
Datasets and variables

Dataset Name	Variable Name
ensemble12	IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface sta[X Y] (M L S)
ensemble12	IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface lat[X Y] (M L S)
ensemble12	IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface lon[X Y] (M L S)
ensemble12	IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface sea[height] (M L S)
ensemble12	IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface proj[X Y] (M L S)
ensemble12	IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface pr[X Y] (M L S)
ensemble12	IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface rh[X Y] (M L S)
ensemble12	IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface temp[X Y] (M L S)
ensemble12	IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface tau[X Y] (M L S)

Select the *Total Precipitation* link.



Selecting a Data Domain



The screenshot shows a web browser window displaying the IRI website. The page title is "IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface prep: sp10a". The main content area features a navigation menu on the left with options like "Data Selection", "Data Color", and "Data Table". The "Data Selection" link is highlighted in red. Below the navigation menu, the page title is repeated: "IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface prep: Total Precipitation data". The page also includes a "Grids" section with a list of grid specifications for time, longitude, and latitude.

Select the *Data Selection* link.



Selecting a Data Domain

Data Selection

You can interactively pick out the data you would like with the [Data Viewer](#).

You can reduce the amount of data by restricting the range of the grids:

The current settings for the grids are:

- grid 00 (degree, month period): 00 to 01 (2000) by 2 (212) 00-120 per grid
- grid 01 (degree, month, weekend): 01 to 02 (2000) by 2 (212) 00-120 per grid
- grid 02 (date, weekend): 02 to 03 (2000) by 2 (212) 00-120 per grid
- grid 03 (month, weekend): 03 to 04 (2000) by 2 (212) 00-120 per grid
- grid 04 (month, weekend): 04 to 05 (2000) by 2 (212) 00-120 per grid
- grid 05 (month, weekend): 05 to 06 (2000) by 2 (212) 00-120 per grid
- grid 06 (month, weekend): 06 to 07 (2000) by 2 (212) 00-120 per grid
- grid 07 (month, weekend): 07 to 08 (2000) by 2 (212) 00-120 per grid
- grid 08 (month, weekend): 08 to 09 (2000) by 2 (212) 00-120 per grid
- grid 09 (month, weekend): 09 to 10 (2000) by 2 (212) 00-120 per grid
- grid 10 (month, weekend): 10 to 11 (2000) by 2 (212) 00-120 per grid
- grid 11 (month, weekend): 11 to 12 (2000) by 2 (212) 00-120 per grid

It also is what you want, choose

Setting Ranges

You must restrict the range along a grid, choose here:

name	range
X Longitude	0 to 360
Y Latitude	90 to 90
M member	1 to 12
L S	1.5 to 3.5
S Season	2001 Jan 1968 to 31 Dec 2003

Enter 1 Jan 1968-2003 in the S text box and 1.5 to 3.5 in the L text box. Click Restrict Ranges.



NOTE: These steps select data from forecasts made in January and valid for February, March and April during 1968-2003. By not changing the other ranges (i.e., member, latitude and longitude), you automatically select all the data available (i.e., global domain) for all 12 ensemble members. Sub-domains of the data can be selected within CPT, so it is generally best to download data for as large an area as possible. This will, however, affect the size of the file downloaded in later steps. Additional guidelines about making other data domain selections can be found under the Hints heading.

Selecting a Data Domain

The screenshot shows the IRI Data Selection web application. The main content area is titled "Data Selection" and contains instructions on how to interactively pick out data. A grey box displays the current settings for the grids, including a list of selected grids with their parameters. A "Stop Selecting" button is highlighted with a green circle. Below the grey box is a "Setting Ranges" section with a table for defining grid ranges.

This current settings for the grids are:

- grid (X (degree_east) period) (0 to 32.8125°) by 1.8125 H= 128 pts grid
- grid (Y (degree_south) period) (07.863840) (05.094511) (02.312500) (01.863840) H= 64 pts grid
- grid (M (day) ordered) (12) to (24) by 1 H= 12 pts grid
- grid (L (month) ordered) (1.5) ordered by 1.5 months by 1.38° pts grid
- grid (T (month since 1960-01-01) ordered) (0000.1 Jan 1960) to (0800.1 Jan 2005) by 32.18= 24 pts grid

Setting Ranges

If you want to restrict the range along a grid, choose here:

name	range
X Longitude	0 to 32.8125°
Y Latitude	07.86384 to 07.86384
M month	12 to 24
L	1.5 to 3.5
T (Time since 1960-01-01)	0.1875 to 0.8125

Click the *Stop Selecting* button.



Note that your data selections are now indicated in the grey box at the top of the page.

Creating an Ensemble Average

The screenshot shows a web browser window displaying the IRI data portal for 'IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface prep: optima'. The page includes a navigation menu on the left with 'Data Library' selected. The main content area features a grid of data visualization options: 'Map', 'Time Series', 'Filters', 'Data Table', and 'Download'. The 'Filters' link is circled in green. Below the grid, there is a table with columns for 'Forecast psst ensemble12 MONTHLY surface prep', 'Time', 'Units', 'Grid Line', 'Date', and 'Values'. The 'Filters' link is highlighted in red. Below the table, the page title is 'IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface prep: Total Precipitation data'. The page also contains a 'Grids' section with a list of grid parameters.

Select the *Filters* link.



Note that this step is only used for model ensembles and is not necessary for many other datasets (e.g., ERSST). This step averages over the selected portion of the member grid (i.e., 13-24). Many other options are available on the Filters page and we will use it again in the next step to create a seasonal average.

Creating an Seasonal Average



Select the Average over L link.



Here we have calculated the ensemble and seasonal averages separately for the purpose of demonstration. We could have calculated them in a single step by selecting the *ML* link when we came to the Filters page the first time.

Downloading a Data File

The screenshot shows a web browser window displaying the IRI Data Library interface. The main content area is titled "mean mean [IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface prep] options". Below the title, there are several interactive elements: a "Year" dropdown menu, a "Data Selection" button, and a "Data Files" link which is circled in green. To the right of the "Data Files" link are "Data Files" and "Data Files" buttons. Below these elements is a table with columns for "Year", "Data Selection", "Data Files", and "Data Files". The table contains several rows of data, including "2000", "2001", "2002", "2003", "2004", "2005", "2006", "2007", "2008", "2009", "2010", "2011", "2012", "2013", "2014", "2015", "2016", "2017", "2018", "2019", "2020", "2021", "2022", "2023", "2024", "2025", "2026", "2027", "2028", "2029", "2030". Below the table, there is a section titled "mean mean [IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface prep] : Total Precipitation data". This section includes a description of the data, a "Grids" heading, and a list of grid coordinates for "Forecast Start", "Longitude", and "Latitude".

Select the *Data Files* link.



Note that the data are no longer dependent on the lead time or ensemble member, so information about the L and M grids is no longer shown under the Grids heading.

Downloading a Data File

The screenshot shows a web browser window displaying the IRI Data Library page for the 'mean mean | IRI FD ECHAM4p5 Forecast psst ensemble12 MONTHLY surface prcp | Data Files'. The page includes a navigation menu on the left, a main content area with a table of software options, and a section for 'Other Available File Formats'.

Download Data To Specific Software

CPT	The Postscript-based software on which the Data Library is built. More information
CFT	Climate Forecasting Tool. More information
Iris	Interactive computer visualization and analysis software. More information
GADS	Grid Analysis and Display System. More information
matlab	Data analysis and visualization software. More information
IDL	IDL: Interactive Data Language. More information
WebDap	A public domain software package for the display and analysis of satellite images, maps and associated databases, with an emphasis on early warning for food security. More information

Other Available File Formats

Full Information Formats
These files contain all of the available metadata.

OPeNDAP	A system which downloads data directly to software, such as matlab, Ferret, KIALS, etc. Specific instructions are available in the table above. Note: OPeNDAP was formerly known as DODS (Distributed Oceanographic Data System). More information
netCDF (Network Common Data Form)	A commonly supported self-describing data format. More information

Select the **CPT** link.



Downloading a Data File

Accessing data using CPT

You are downloading:

mesa_mesa | IRI | ECHAM4p5 Forecast post ensemble12 MONTHLY surface prep]

Longitude	Latitude	Forecast Started
grid_02 (degrees east) periodic (0) to (2.5125W) by 2.5125W= 128 pts grid	grid_02 (degrees north) ordered ((87.36384W) (85.09650W) (82.3135N) (79.52561N) (76.13689N) (73.54751N) (71.13775N) (68.56773N) (65.57761N) (62.78734N) (59.69707N) (57.36530N) (54.41619N) (51.65473N) (48.83504N) (46.04470N) (43.2542N) (40.46365N) (37.67308N) (34.88252N) (32.09194N) (29.30136N) (26.51077N) (23.72017N) (20.92957N) (18.13897N) (15.34835N) (12.55776N) (9.767144N) (6.976533N) (4.185924N) (1.395404N) (1.399307N) (4.182925) (6.976533N) (9.767144N) (12.55776N) (15.34836N) (18.13897N) (20.92957N) (23.72017N) (26.51077N) (29.30126N) (32.09194N) (34.88252N) (37.67308N) (40.46365N) (43.25425N) (46.04475N) (48.83524N) (51.62573N) (54.41519N) (57.20665N) (59.99702N) (62.78748N) (65.57761N) (68.36773N) (71.15775N) (73.54751N) (76.73889N) (79.52961N) (82.31995N) (85.09671N) (87.86384N)] grid	Forecast Started grid_02 (months since 1960-01-01): ordered (0000 : Jan 1968) to (0000 : Jan 2003) by 12. M= 36 pts grid

Get the data from this [1D tsv file](#) or [2D tsv file \(gzip compressed\)](#)

access and manipulate the data

IRI

Click one of the *tsv* links to download the data.

If you have a slow or unstable internet connection, you are encouraged to download the compressed file. When downloading these data from the ECHAM4.5 model dataset, the compressed file can be up to 4 times smaller than the uncompressed file.

When downloading data from other datasets, you may notice an additional step on this page. Some datasets use NaN to indicate missing data, which is not compatible with CPT. If your selected dataset does use NaN, you will be given an opportunity at this point to select another missing data indicator (e.g., -9999) to be used in your data file.

Additional Information

IRI Data Library

- Introductory Tutorial
 - <http://iridl.ldeo.columbia.edu/dochelp/Tutorial/>
- Statistical Analysis Tutorial
 - <http://iridl.ldeo.columbia.edu/dochelp/StatTutorial/>
- Email Questions
 - help@iri.columbia.edu

Climate Predictability Tool

- Information and Software Download
 - <http://iri.columbia.edu/outreach/software/>

