

Argo ways to use the data



Howard Freeland
Argo Director at

Institute of Ocean Sciences, Sidney, BC, Canada

Tel: (250)-363-6590

Email: Howard.Freeland@pac.dfo-mpo.gc.ca



Argo ways to use the data

How you access and use Argo data depends on who you are and what skills you have. I will outline three approaches:-

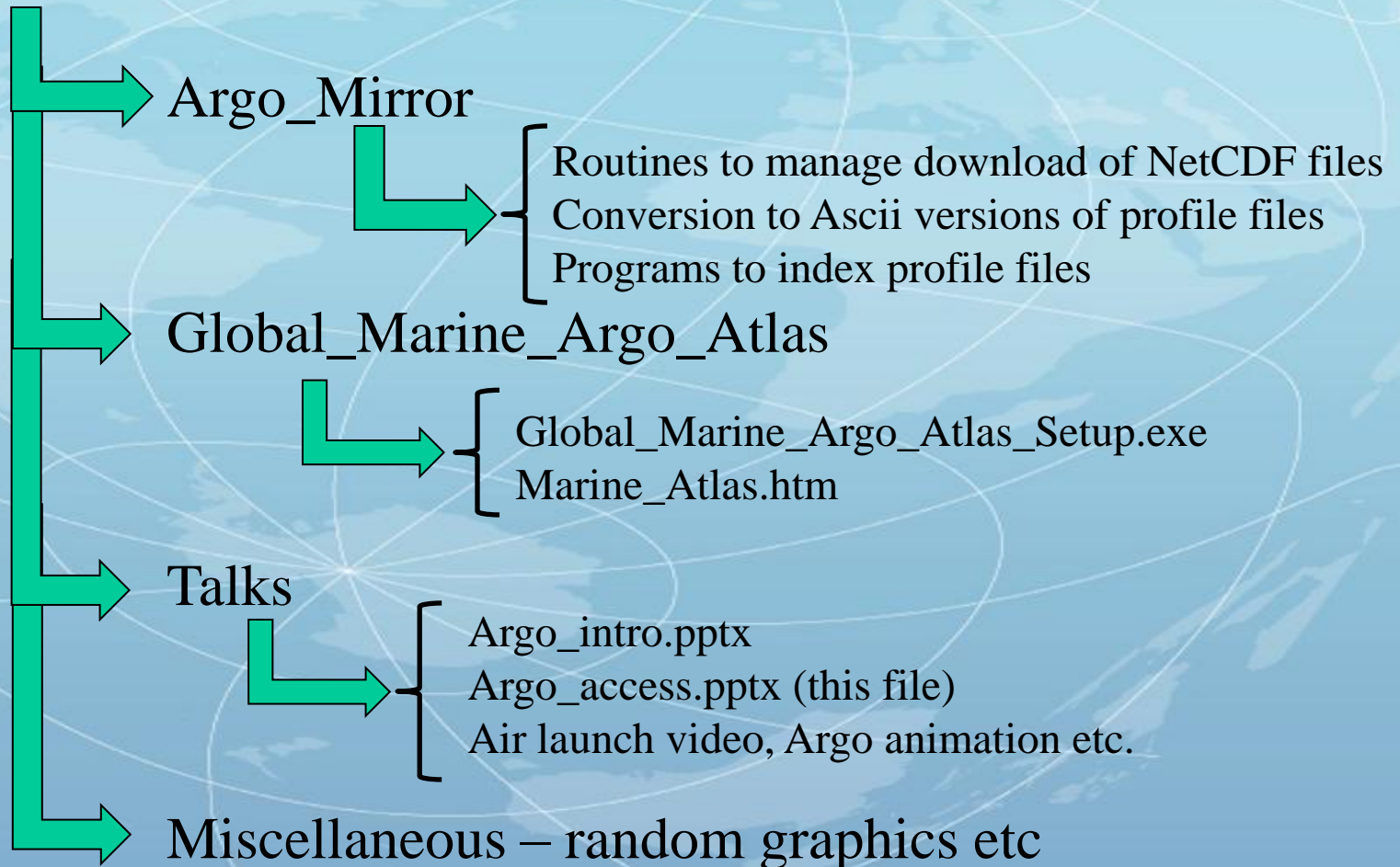
- 1) Assuming you have good computer skills and are a keen user of MatLab or Ocean DataView.
- 2) Assuming you have good programming skills but you don't like MatLab or Ocean DataView
- 3) Assuming that you want to see what Argo has to tell you about your area of the oceans, but you really don't do much programming.

The first two approaches require that you know the meaning of the Argo quality control flags. Those are all described in the Argo data manual and that manual is included in the “miscellaneous” area of your USB drive.



You are all getting a data CD to take home

Argo_Drive



Argo ways to use the data

How you access and use Argo data depends on who you are and what skills you have. If you have good computer skills and use MatLab or Ocean DataView

- 1) You can get data from the GDACs:-
 - a) The US GDAC is `ftp://usgodae.org/pub/outgoing/argo/`
 - b) The French GDAC is `ftp://ftp.ifremer.fr/ifremer/argo/`

The structure and holdings of these are identical except for files uploaded in the last few hours.

- 2) Look at the “geo” area of each, then to the ocean basin of interest, try clicking as follows:-

Geo > pacific_ocean > 2012 > 09 and then see files that look like:-
20120919_prof.nc or 20120920_prof.nc

These are multi-profile files, 20120920_prof.nc is in NetCDF format and contains ALL profiles gathered in the Pacific Ocean on 20th September 2012.

NetCDF is a native format for MatLab and Ocean DataView, if you use Ocean DataView or MatLab, you should be able to handle the data easily.



Ocean DataView is free display software available from <http://odv.awi.de/>

Argo ways to use the data

How you access and use Argo data depends on who you are and what skills you have. If you are a good programmer but do not use MatLab or Ocean DataView then try the Argo Mirror routines.

On a PC create a directory like C:\Argo_mirror and copy all of the Argo mirror files to that directory from the USB drive.

Open a DOS window and navigate to C:\Argo_mirror and type “Help” this will summarise the instruction set.

The Argo Mirror routines will take a long time (perhaps 3 or 4 days) to create an initial mirror of all Argo data, but then updating is much faster. It searches for any files that have been changed and updates them.

The routines also index all downloaded data and converts them to an easy-to-read flat ascii format.

The instructions are easily put into *.bat files and run as Windows scheduled programs. I run my mirror updates at 5 am each day.



Argo Mirror Instructions

The typical instruction looks something like the following:-

```
driver fr 2001/1 2005/6 7 p
```

This reads – run the driver program to check for any updates to Argo data, use the French GDAC, scan all data from January 2001 up to and including June 2005, 7 = check all oceans and p = do profile data only.

```
driver us 2013/1 2013/8 4 p
```

This one means, use the US Argo server, update all data gathered to now in 2013, and do the Pacific Ocean only.

The Ocean codes are:-

1 = Atlantic Ocean only

3 = Atlantic + Indian Oceans

5 = Pacific + Atlantic Oceans

7 = Atlantic + Indian + Pacific Oceans

2 = Indian Ocean only

4 = Pacific Ocean only

6 = Indian + Pacific Oceans



Argo Mirror Results

The starting point to deliver files is wherever you put the Argo_mirror software – note NO installation is required, just copy files.

If your starting point is:-

c:\pices\Argo_mirror\

It starts by creating the Atlantic Ocean directory:-

c:\pices\Argo_mirror\atlantic_ocean\

Then years:-

c:\pices\Argo_mirror\atlantic_ocean\2001\

Then months:-

c:\pices\Argo_mirror\atlantic_ocean\2001\01\



Argo Mirror Results

Inside:-

c:\pices\Argo_mirror\atlantic_ocean\2001\01\

It then downloads the daily multi-profile NetCDF files such as:-

20010101_prof.nc 20010102_prof.nc 20010103_prof.nc
to 20010131_prof.nc

It then proceeds to the Indian and Pacific Oceans.

After all downloads are complete it runs through all downloaded files and creates a new directory for each day:-

c:\pices\Argo_mirror\atlantic_ocean\2001\01\01\ etc.

The NetCDF multi-profile file for that day is split into ascii files and indexed..

NOTE: The routines that convert to ascii do create a lot of error messages and warning messages. It is safe to ignore them all.

Let us look at one example on my laptop computer.....

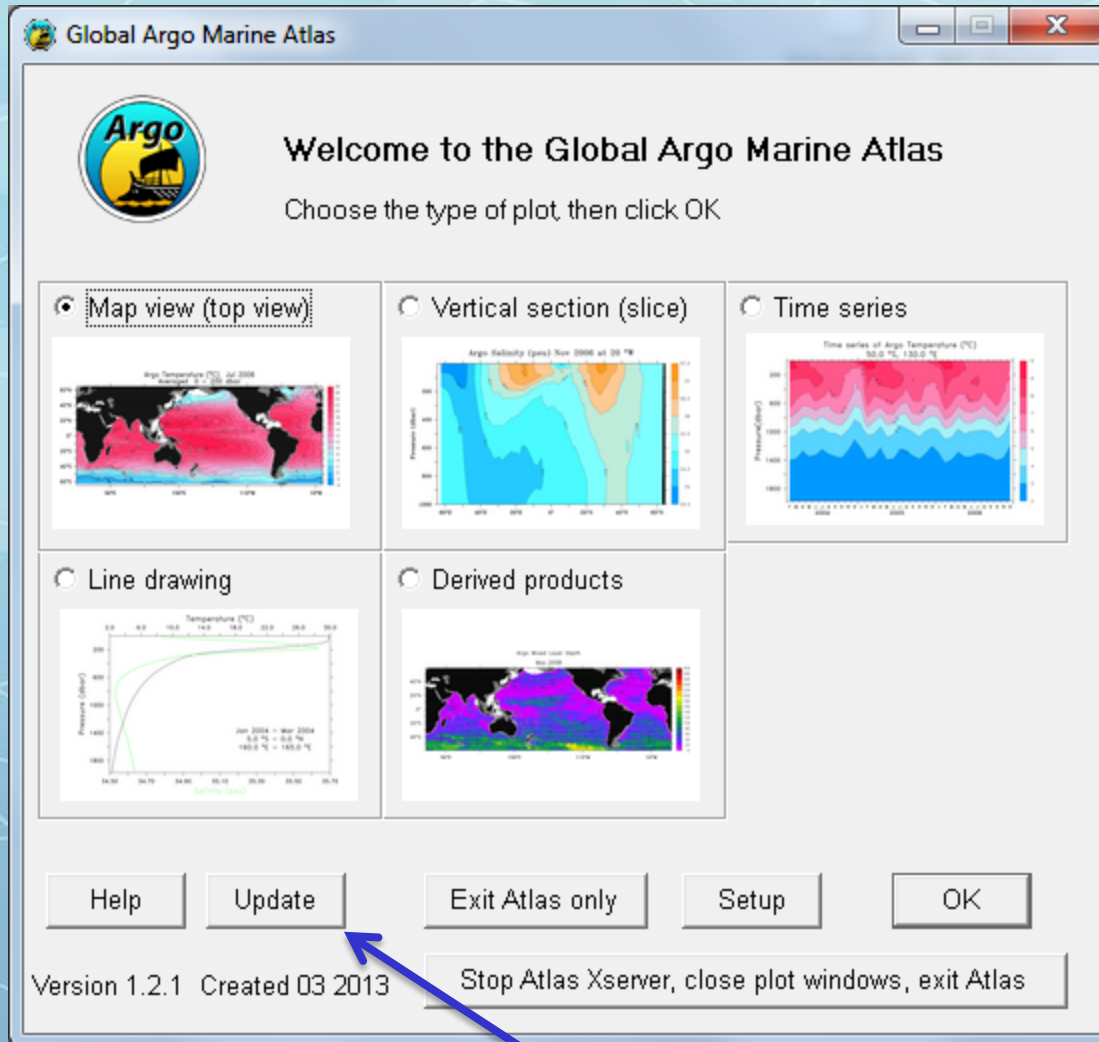


Global Marine Argo Atlas

- 1) You have an installation file on the USB drive.
- 2) Despite the “Argo” name it also contains the Reynolds SST data set.
- 3) Install the program and start it. The following is what you see.....



Global Marine Argo Atlas



This button is very important!



Useful Links.....1-Data

French GDAC (global Argo Data)

<http://www.coriolis.eu.org/Data-Services-Products/View-Download>
<ftp://ftp.ifremer.fr/ifremer/argo/>

US GDAC (global Argo Data)

<http://usgodae.org/argo/argo.html>
<ftp://usgodae.org/pub/outgoing/argo/>

Argo Data Management Home Page

<http://www.argodatamgt.org>



Useful Links...2 Argo Information Centre

The Argo Portal

<http://www.argo.net/>

AIC - Home

<http://wo.jcommops.org/cgi-bin/WebObjects/Argo>

AIC – Real-time map

<http://argo.jcommops.org/website/Argo/viewer.htm>

AIC – Maps of float locations, array design etc

<http://argo.jcommops.org/maps.html>

AIC – Google Earth overlay

<http://argo.jcommops.org/argo.kml>



Useful Links...3 Argo Steering Team

AST - Home

<http://www.argo.ucsd.edu/>

AST – Members

<http://www.argo.ucsd.edu/members.html>

AST – Meeting reports etc

<http://www.argo.ucsd.edu/meetings.html>

AST – How to acknowledge Argo data

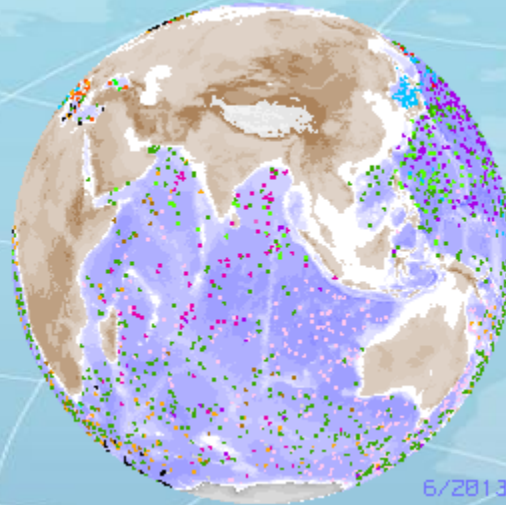
http://www.argo.ucsd.edu/Acknowledging_Argo2.html

Argo movies and Argo in the NE Pacific

<http://www.pac.dfo-mpo.gc.ca/science/oceans/Argo/index-eng.html>



Argo ways to use the data



Remember: Argo is yours, please use it!

But: If you do use it please cite us using the formula indicated on the AST web pages.

