

CTD Sampling Data Format and Transmission Specification

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CTD Sampling Requirements

Numerous organizations are keenly interested in receiving timely CTD data for analysis. Currently, this data is being delivered in numerous formats using a number of delivery channels which is complicating the preparation of the data for analysis.

In order to accelerate the analysis and the decision making process related to the CTD data, a consistent CTD data file format is required. This document lays out a data specification for the consistent creation of the CTD data.

Processed Data

Processed CTD data is required after everyday's sampling and delivered via a nightly FTP transmission (see Appendix 1 for FTP instructions).

Data Requirements

Processed CTD data and a CTD scan jpg are required for every station; remove up-casting data and bin data at every 0.5 meter individual.

For timely analysis, the CTD data must be provided in the following format (a sample format is provided in Appendix 2). The data should be provided in a text format e.g. csv or asc.

Header Record

Field Name	Description	Format/Unit of Measure
Orig Datum Used*	Original Datum Used	See note below
Date	Date	YYYYMMDD
Start Time	Start Time	HHMMSS
End Time	End Time	HHMMSS
Longitude	Longitude	Decimal Degrees (8 decimal places)
Latitude	Latitude	Decimal Degrees (8 decimal places)

* To ensure the integrity of all spatial data associated with the Deepwater Horizon Project, any coordinates supplied in Latitude and Longitude must state which Datum the coordinates are on. In almost all cases this will be WGS84, NAD83 or NAD27.

Detail Record

Field Name	Descriptions	Format/Unit of Measure
X	Longitude	Decimal Degrees (8 decimal places)
Y	Latitude	Decimal Degrees (8 decimal places)

Depth_m	Depth	Meters
Temp_C	Temperature	Celsius
Sal_PSU	Salinity	PSU
Den_Kg_m3	Density	Kg/m3
Vp_m_s	Sound Velocity	m/s
Pres_db	Pressure	Db
O2_mg_l	Oxygen	Mg/l
O2_ml_l	Oxygen	ml/l
Fluoro_mg_m3	Fluorescence	Mg/m3
V1 (to VN as req'd)	Voltage Readings	V

Note: that if a sample is repeated at a given location then this sample should be uniquely identified from the original sample *by the date and time assigned to each.*

File naming convention

Within the FTP folder, each vessel has its own folder under which individual folders for the CTD, LISST and Location data has been created.

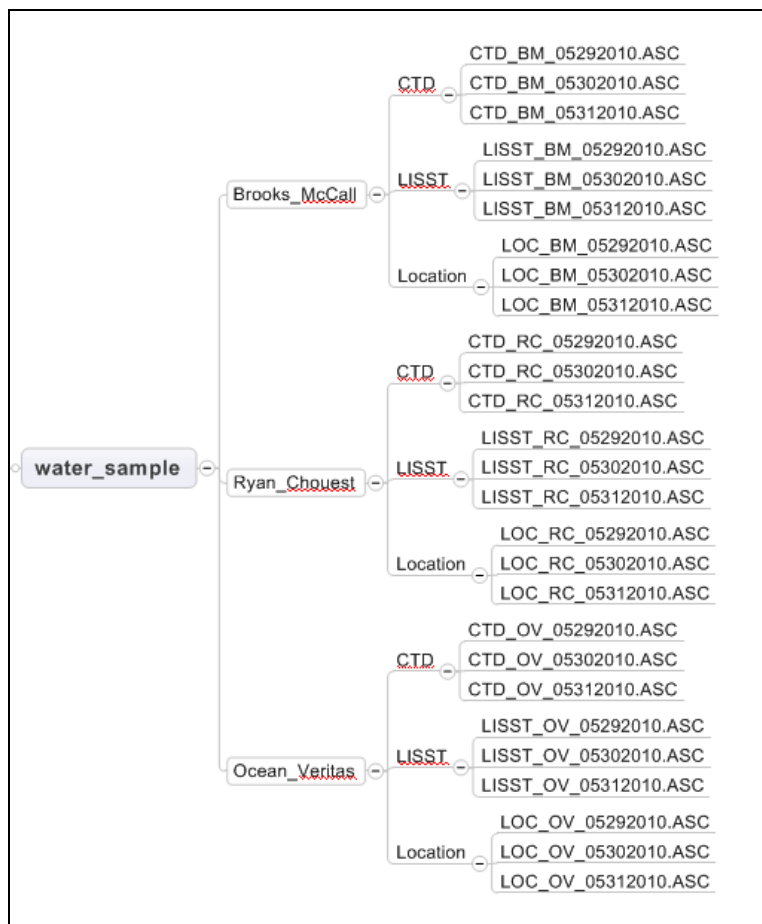
Data created in each folder must have the following format:

<DATA_TYPE>_<VESSEL_CODE>_<DATE (in format MMDDYYYY)>

<DATA_TYPE> = "CTD", "LISST", "LOC"

<VESSEL_CODE> = "BM", "OV", "RC"

The screenshot below illustrates the folder setup and sample files.

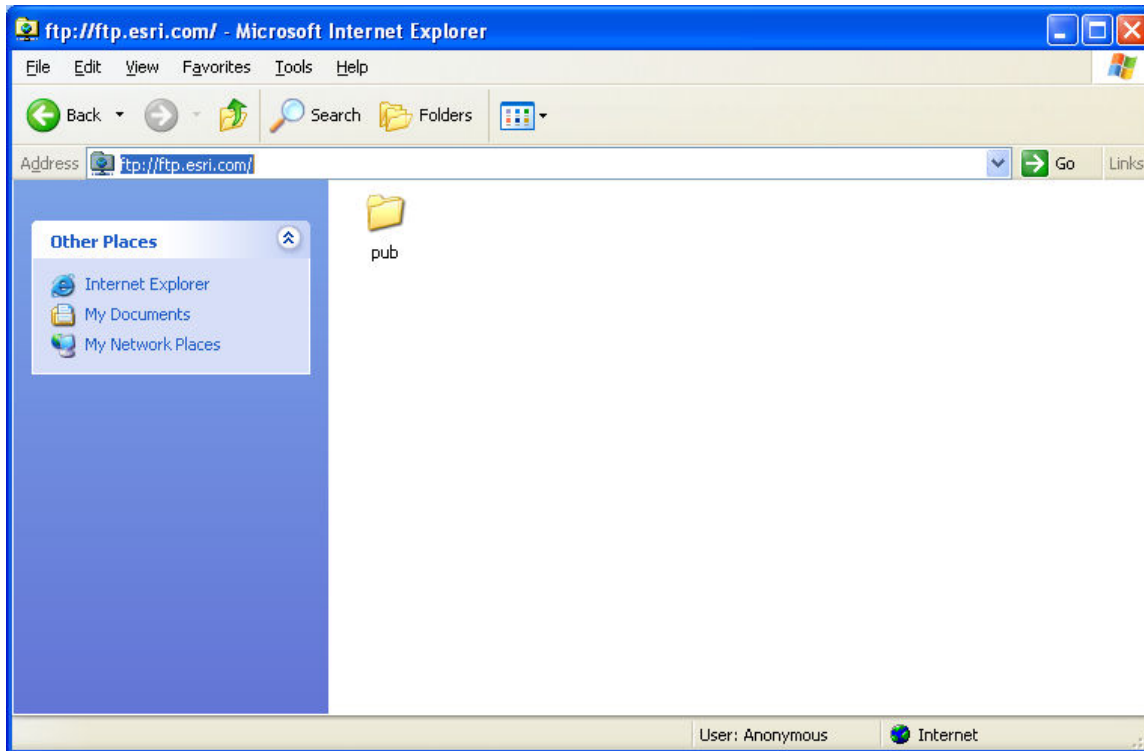


Raw Data

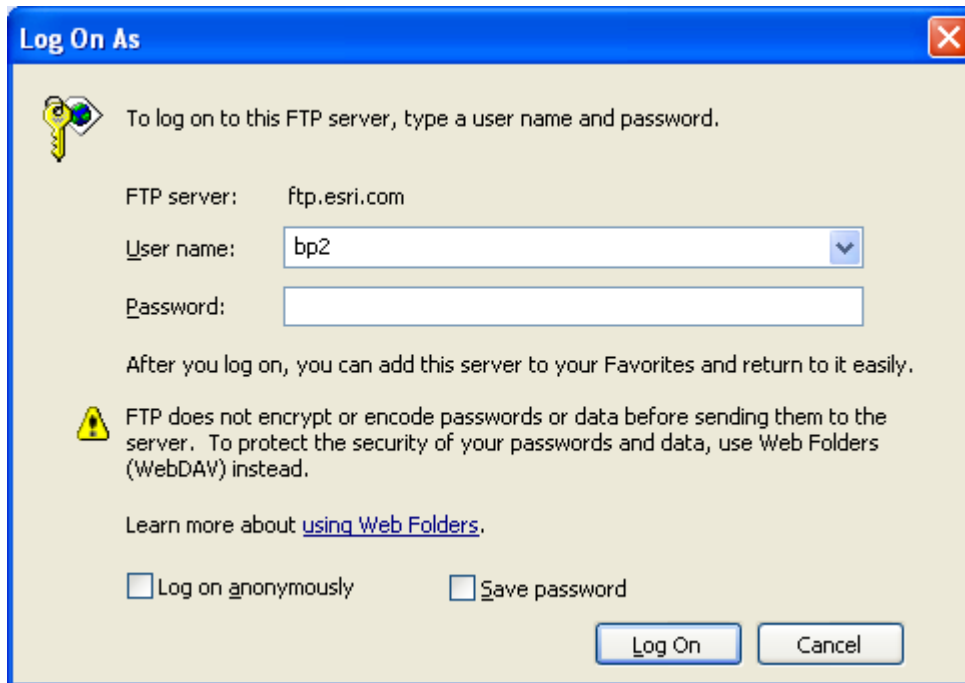
The raw data taken from each cruise will be stored and archived after each trip. The vehicle for delivery this information, because of its size, needs to be determined.

Appendix 1 - FTP Instructions

1. Enter the URL in the IE Address bar [ftp.esri.com](ftp://ftp.esri.com)



On the File menu click "Login As"

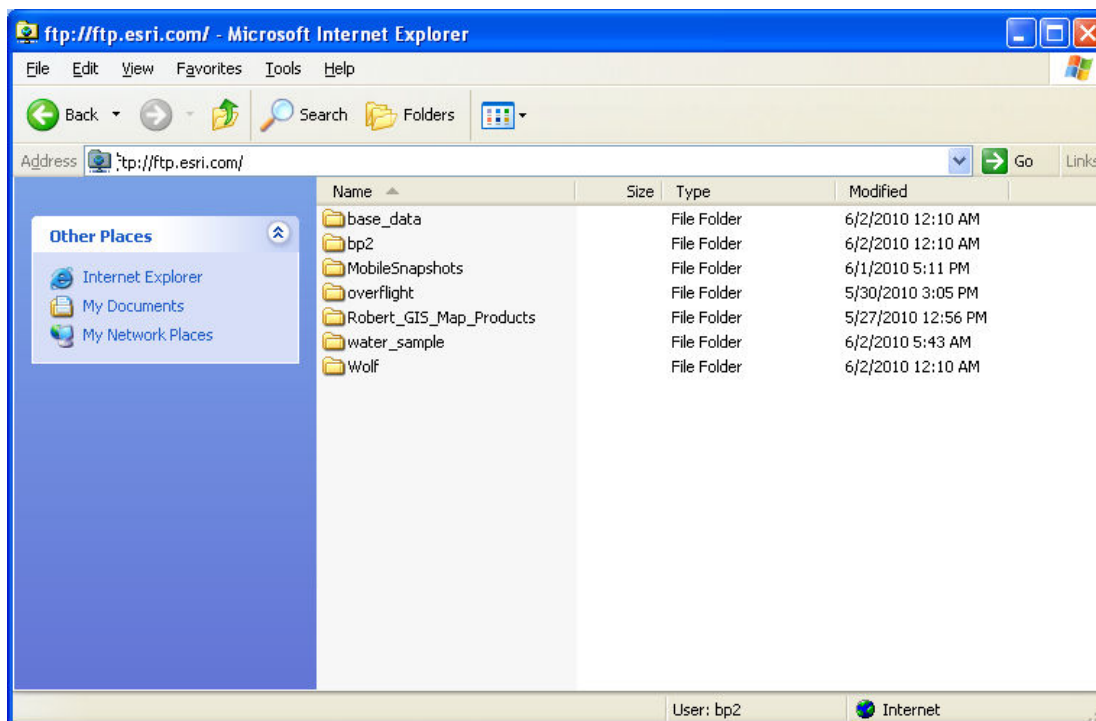


Enter the login credentials:

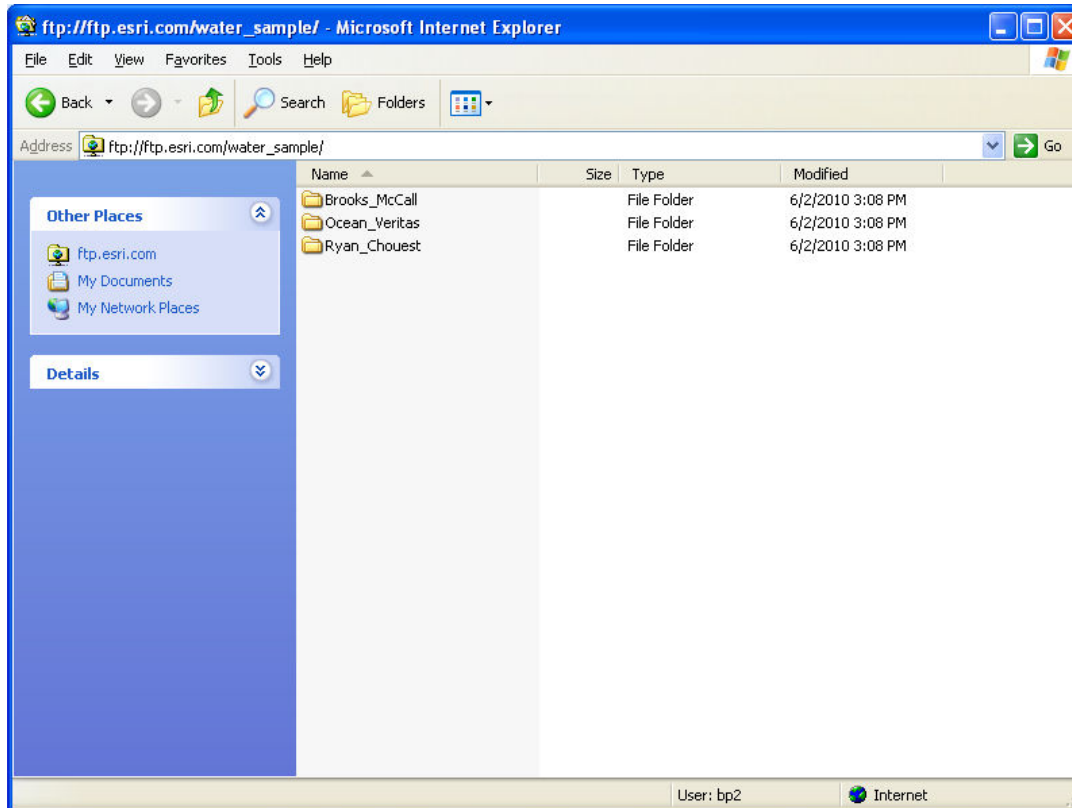
UID – “bp2”

PWD – “R0GG7Dmc” (the second char is a zero)

This should take you to the private folder structure



At which point you should be able to click on the “water_sample” folder under which you’ll see a folder for each vessel’s data.



Select the folder for your vessel and create a folder for this uploads data using the following format:

<DATE (in the format YYYYMMYY>_<StationID>

For example, 20100531_BM42.

Then upload the data into that folder

Appendix 2 – Sample Data

Sample CTD file format:

WGS84 Orig Datum Used	YYYYMMDD Date	HHMMSS Start Time	HHMMSS End Time	Decimal 8 Longitude	Decimal 8 Latitude													
Decimal 8 X	Decimal 8 Y	Meters Depth_m	Celsius Temp_C	PSU Sal_P_SU	Kg/m3 Den_Kg_m3	m/s Vp_m_s	Db Pres_db	Mg/l O2_mg_l	M/l O2_ml_l	mg/m3 Fluoro_mg_m3								V1 V1