GEOSS/AWCI Data loading and quality control system

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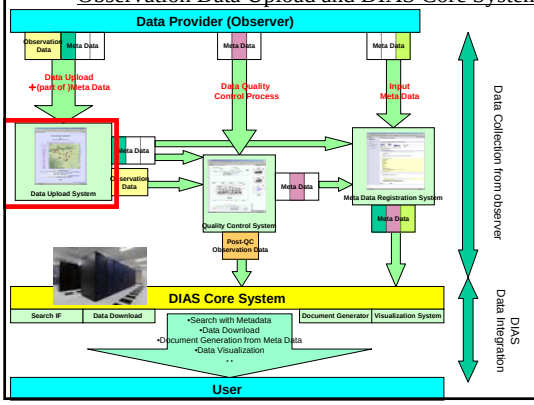
Outline

0. GEOSS/AWCI data archiving update by Mr.Tamagawa
1. Introduction of **Data Upload System**
2. Introduction of **Data Quality Control System**
   - System Structure/How to use, New Features, Demonstration

→ cont. Dr. Kinutani's presentation

(Meta-Data Registration System)

Observation Data Upload and DIAS Core System



Observation Data **Upload** System

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On-line Data Upload

- Observers have sent their own data to data administrators with the means of e-mail or mail before.
- However, by these methods, there were lots of problem, like the point that the file format and meta information are not unified, the point which requires much time and effort to send the data for observers, and also processing take lots of time, etc..
- So, we have started to develop on-line data upload system for AWCI data, which is in cooperation with Data Quality Control System, Meta-Data Registration System, and Data Archiving System.

Data Upload System

- Observers can upload observation data and input some Metadata on Web Interface consisted of 4 steps.
- On each step, observers need to input some information about the data.
- Easy Operation and Quick Response.
- This system has some function which **reduce** the complicatedness of upload process

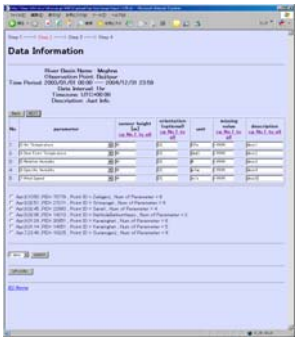
Login Page

- Username and Password are required.
- Each observation site manager has it own (unique) username and password.

STEP1

- Observation Point(Map/List)
- Time Period
- Data Interval
- Timezone
- Description (optional)
- Num. of observed elements

STEP2



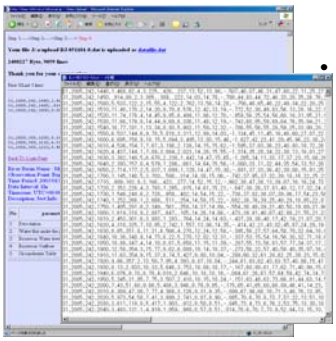
- Observation Data
  - Choose from pulldown menu
- Sensor height
- Orientation(op.)
- Unit
- Missing value
- Description(op.)

1. **Copy from No.1 to all**
2. **Unit = Input Automatically when you choose observation data**
3. **Copy from former inputted data**
4. **Modify the num of observation data**
5. **Upload from prepared csv file**

STEP3

- Upload observation Data(File).
- Confirmation of metada inputted at STEP1,2.

STEP 4



- Confirmation of
  - local path of uploaded file
  - contents of the file (first/last 3lines and all lines when you require)
  - All metadata inputted at STEP1,2,3

After STEP 4

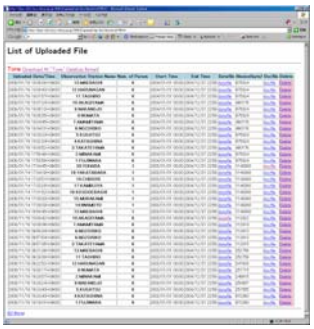
- Our system send the confirmation message to observer by e-mail.
- Inputted metadata are stored in our Upload system --- Observer can use at next time.
- Observation data is loaded to Quality Control System

Confirmation Message by e-mail

Subject: For Admin AWCI Data Upload Tone MAEBASHI
From: eikoma@tkl.iis.u-tokyo.ac.jp
To: xxxxxx@xxxxxxxxxxxxxxxxxxxxxxxx
Date: Mon, 19 Jan 2009 18:09:31 +0900 (JST)
X-Mailer: smtpsend 1.2.0

River Basin Name: Tone
Point ID:MAEBASHI
TimePeriod: 2004/01/01 00:00--2004/12/31 23:59
Data Interval: 1hr
Timezone: UTC+09:00
Description: Meteorological st., Year 2004
Num. of stations: 6
Data Information is:
http://dias-d.tkl.iis.u-tokyo.ac.jp/AWCI/upload/data/06/20090119185106/doc.html
Meta Data Information is:
http://dias-d.tkl.iis.u-tokyo.ac.jp/AWCI/upload/data/06/20090119185106/xml.xml
Your Upload Files are:
http://dias-d.tkl.iis.u-tokyo.ac.jp/AWCI/upload/cgi-bin/doclist.sh?06+0

Upload Status Page



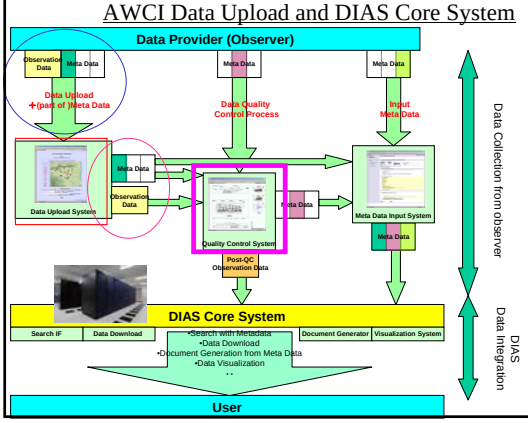
- Download each/all data
- Check meta-data
- Delete uploaded data

New Features

- Added Zooming up/down bar on map(STEP1)
- Renamed each data for data-download. (after STEP4)
  ex. Datafile.dat → 06_006_20090119180327 06_data-1.inf
- Changed the subject of confirmation mail to “Unique Subject”. (Confirmation Mail → with River Basin Name etc..)
- Added “Daily” on Data Interval (STEP1)
- Set Default and Remember “Timezone”(STEP1)
- Remember “Number of Elements & Interval”(STEP1)
- Checking the existence of upload data(STEP3)
- Generated Confirmation Page when you delete data(after STEP4)

etc…

AWCI Data Upload and DIAS Core System



Data Quality Control(QC) System

Eiji Ikoma, Katsunori Tamagawa,
Tetsu Ohta, Kenji Taniguchi,
Toshio Koike, Masaru Kitsuregawa

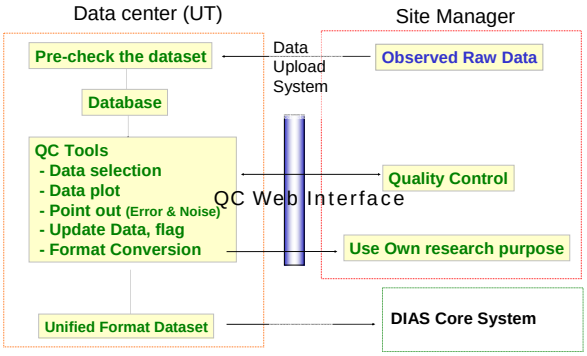
Our QC System

- First version of our QC System was developed for CEOP Data in 2004.
- Ver.1(2004-2005) for → Ver.2(2005-2006) → Ver.3(2007-)
- 13site(Ver.1)→ 25site(Ver.2)→Ver.3
- We are running QC-V3 system for AWCI Observation Data.

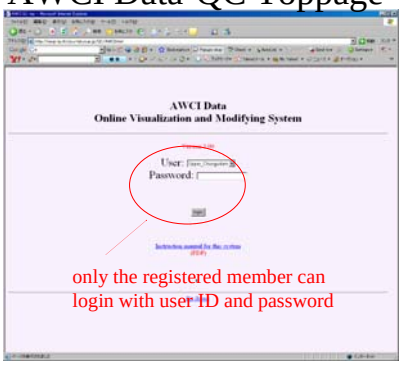
Features of our QC system

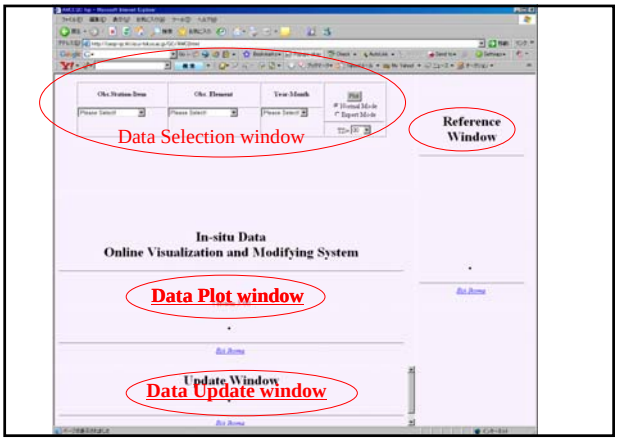
- Web-based UI (required only Web browser)
- Easy-to-use and light operation
- Data management mechanism for each user authority
- Post-QC Data download support system
- Progress Management system for Data Manager

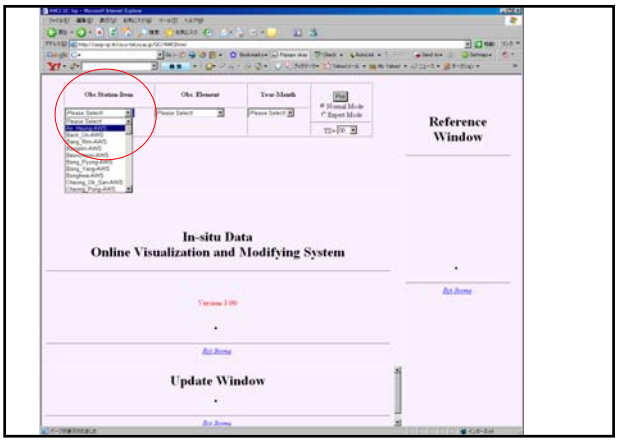
Outline of QC Process

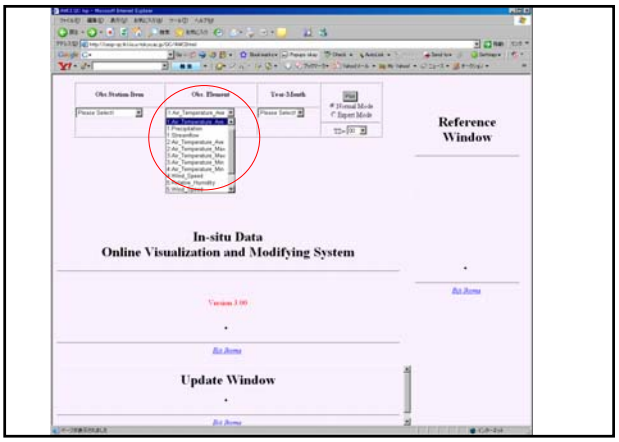


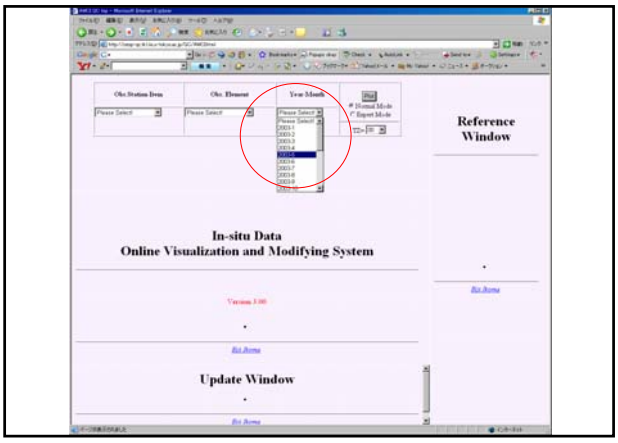
AWCI Data-QC Toppage

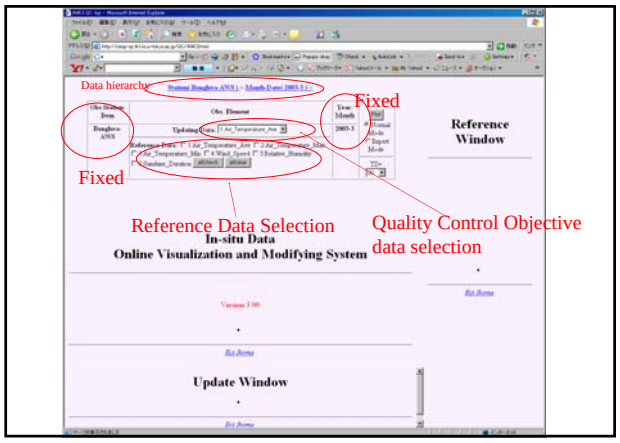


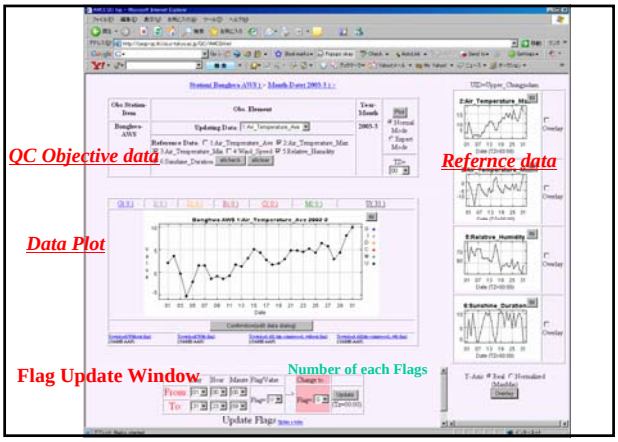




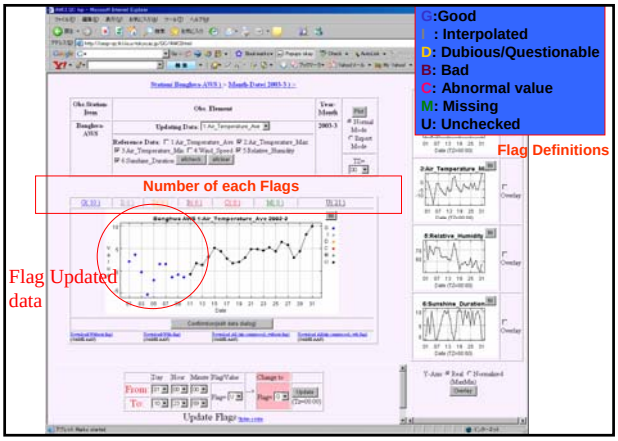


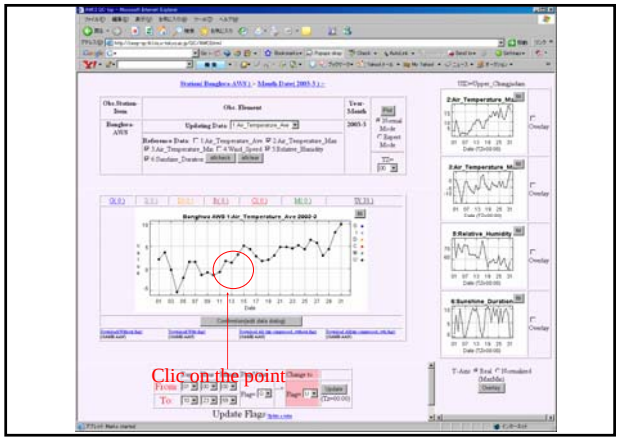

Reference Window
In-situ Data
Online Visualization and Modifying System
Update Window

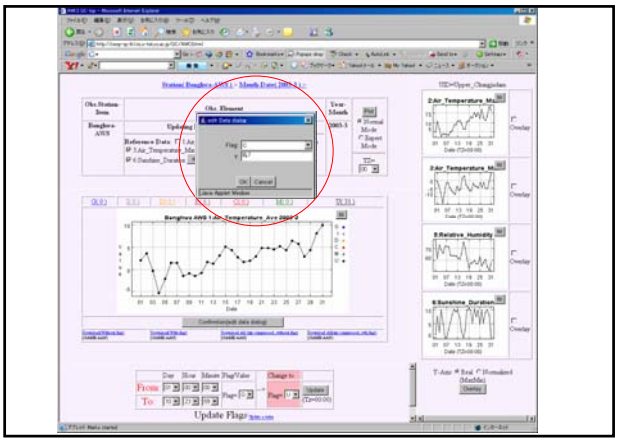

Data hierarchy
Fixed
Fixed
Reference Window
Reference Data Selection
Quality Control Objective data selection
In-situ Data
Online Visualization and Modifying System
Update Window

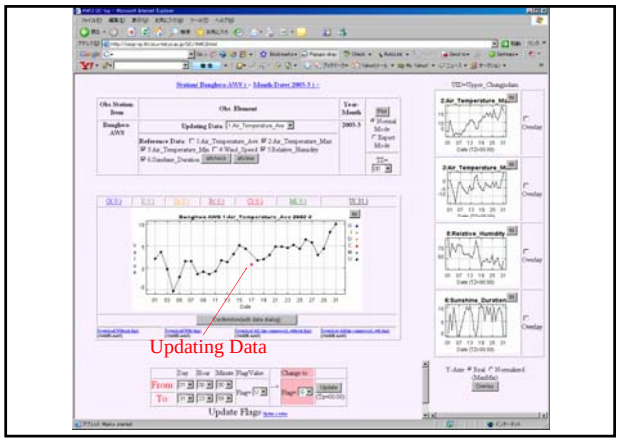

QC Objective data
Refernce data
Data Plot
Flag Update Window
Number of each Flags


Update the Flag

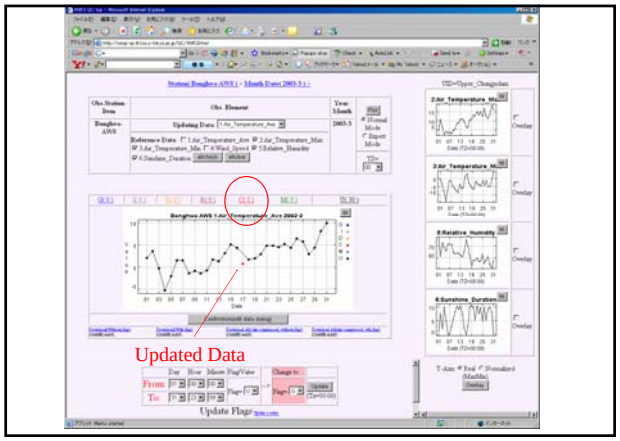

C:Good
I : Interpolated
D: Dubious/Questionable
B: Bad
C: Abnormal value
M: Missing
U: Unchecked
Flag Definitions
Number of each Flags
Flag Updated data

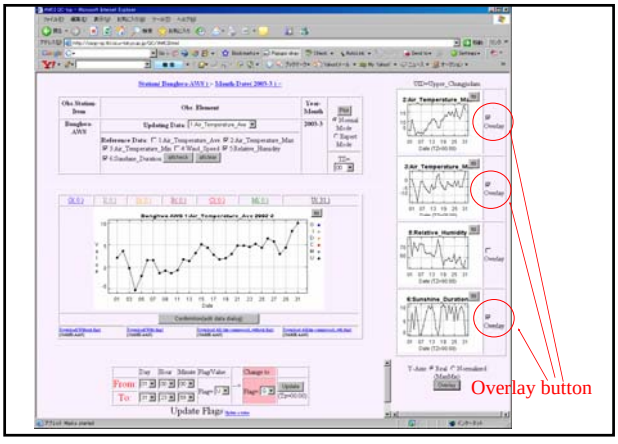

Clic on the point

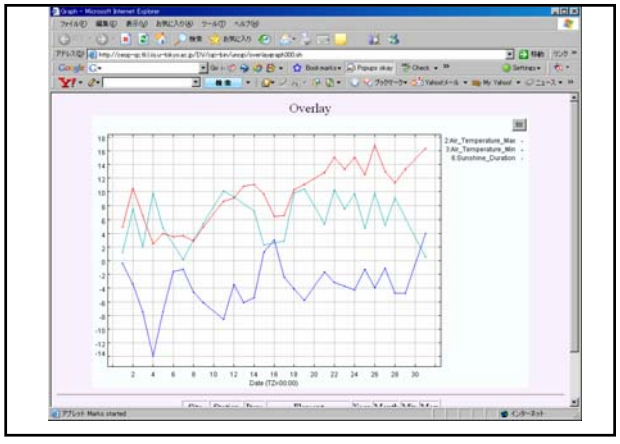


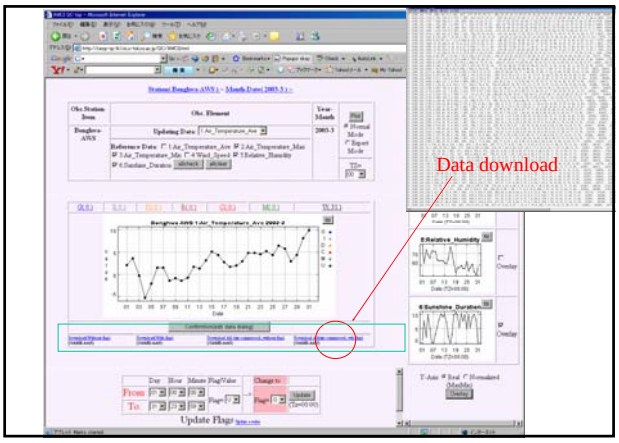


Confirmation for update









After QC

- QC-System will send the observation data to “DIAS Core System”
- Also will send Meta-Data to “Meta Data Registration System”
- Users can download your Post-QC Data easily.