

DataSet Arrangement & Management

Something which I learnt from my experience
of GAME-T Data Management

AGATA, Yasushi Univ. of Tokyo, Japan

อากาตะ ยาสึชิ
(น้ำพุ) ญี่ปุ่น

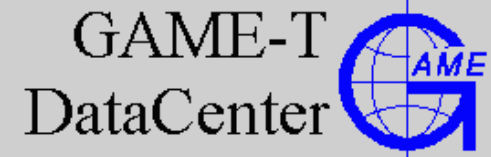
What is GAME-T Datacenter?

- On-line dataset of hydromet.
For Tropical Asia
- <http://hydro.iis.u-tokyo.ac.jp/GAME-T/>
<http://game-t.nrct.go.th/GAME-T/>
and CD-ROM
- Routine Observation Data
(1997-2002, daily rainfall) ← Only This Duration
and IOP special measurement data
(1998 April – October ← Only..., flux, hydrology, sonde etc.)
- and Some Products

GAME-T Dataset WWW



DataCenter Top Page



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Data Contents

[Field Observations](#)

Flux observations at paddy field and forest, Experimental Basin Observation and Soil Moisture Measurement

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Rawinsonde enhanced observation etc.

[Routine \(Station\) Observations](#)

Routine Obs. Data (Rainfall, Air Temp., Wind Velocity, River Discharge etc.) by local authorities, including both routine and radar observation.

2002 Aug. 8-9 RID daily river discharge 1980-1994

[Remote Sensing](#)

Remote sensing activities other than satellite observation.

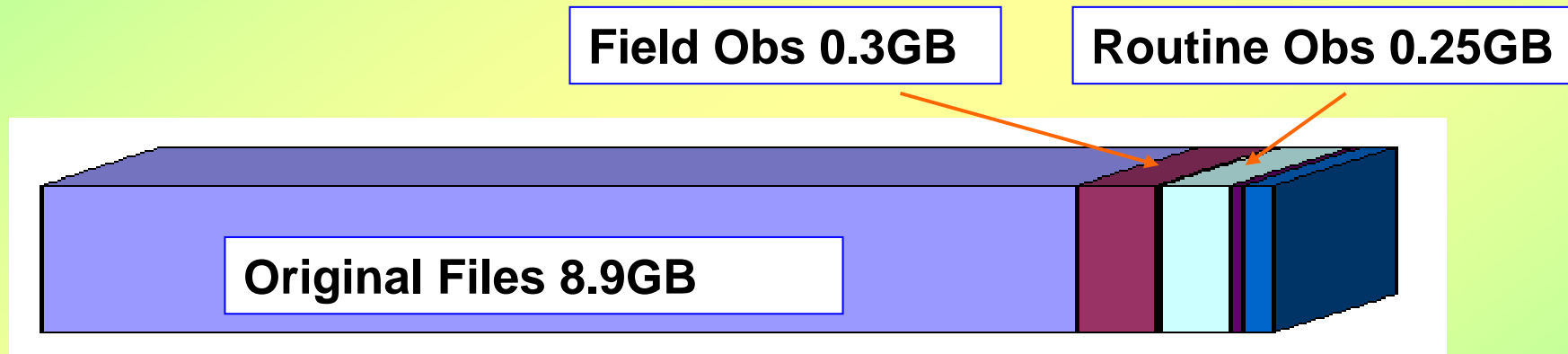
2002 Jun. 10-11 : GPS Observation datacenter opened

What's New

Oct. 8, 2002
New Item :
[Original data files](#) provided by each organization and/or researchers.
Opened only for GAME-T members.

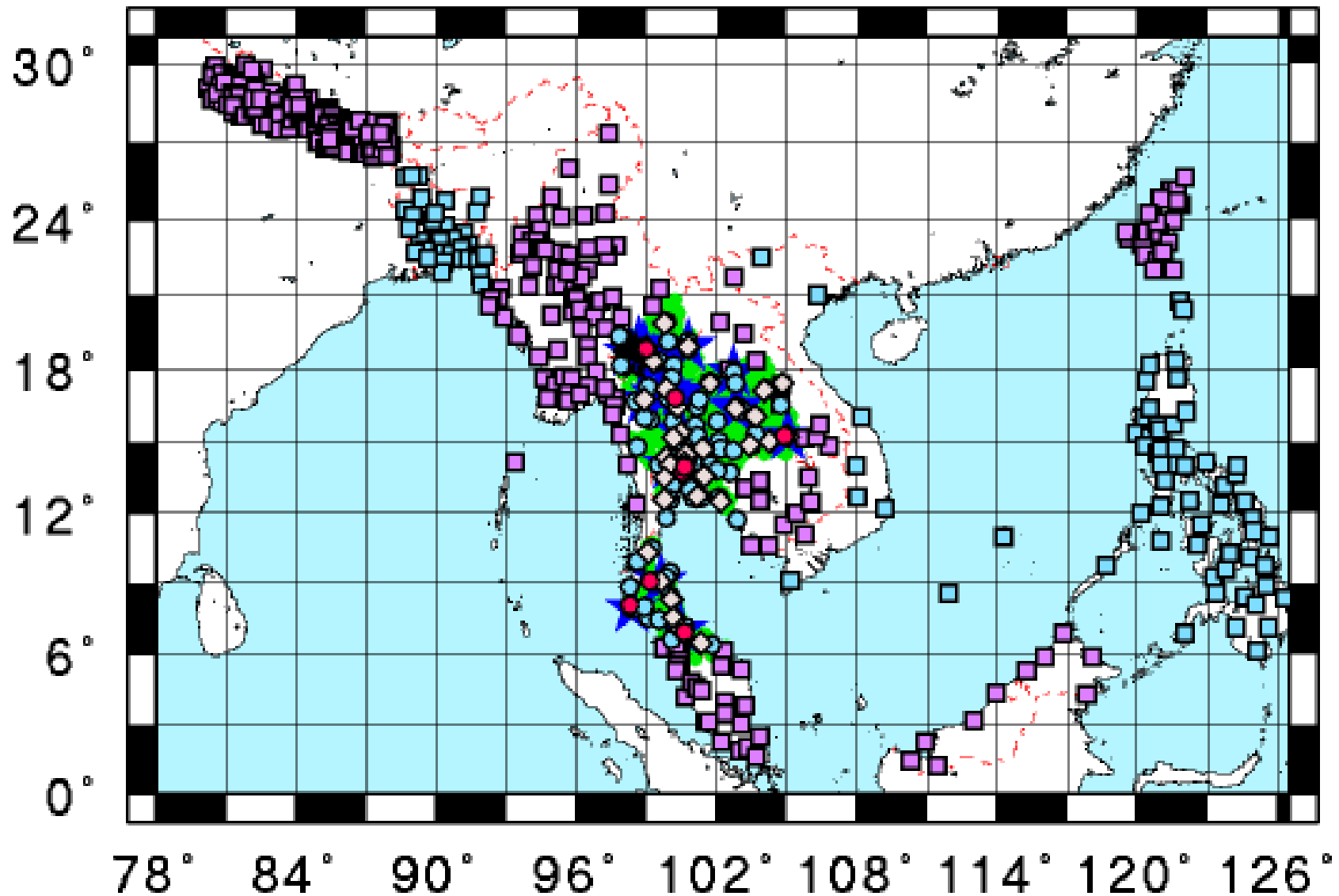
Oct. 7, 2002
Errata
Correction :
The zipped archive of daily discharge file

Size of Files



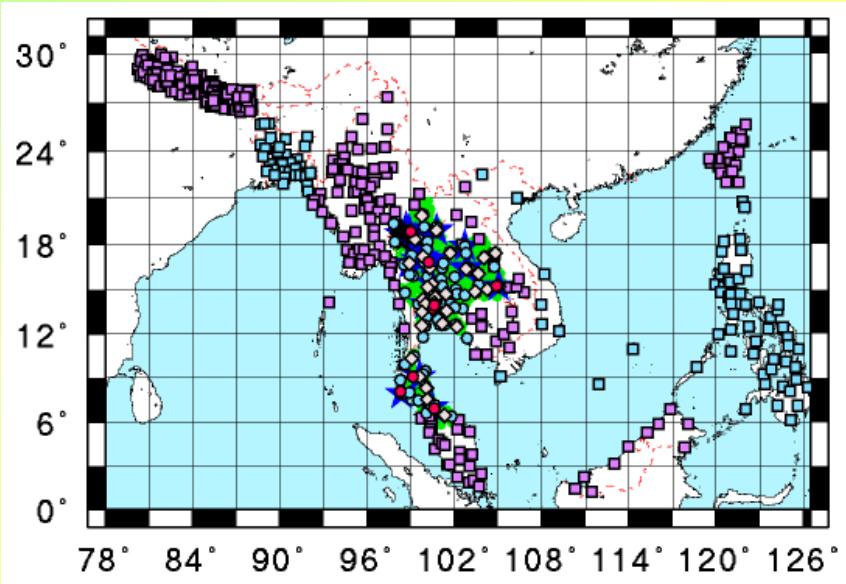
Total : 9.6GB

Routine Obs. Stations (GAME-T1)

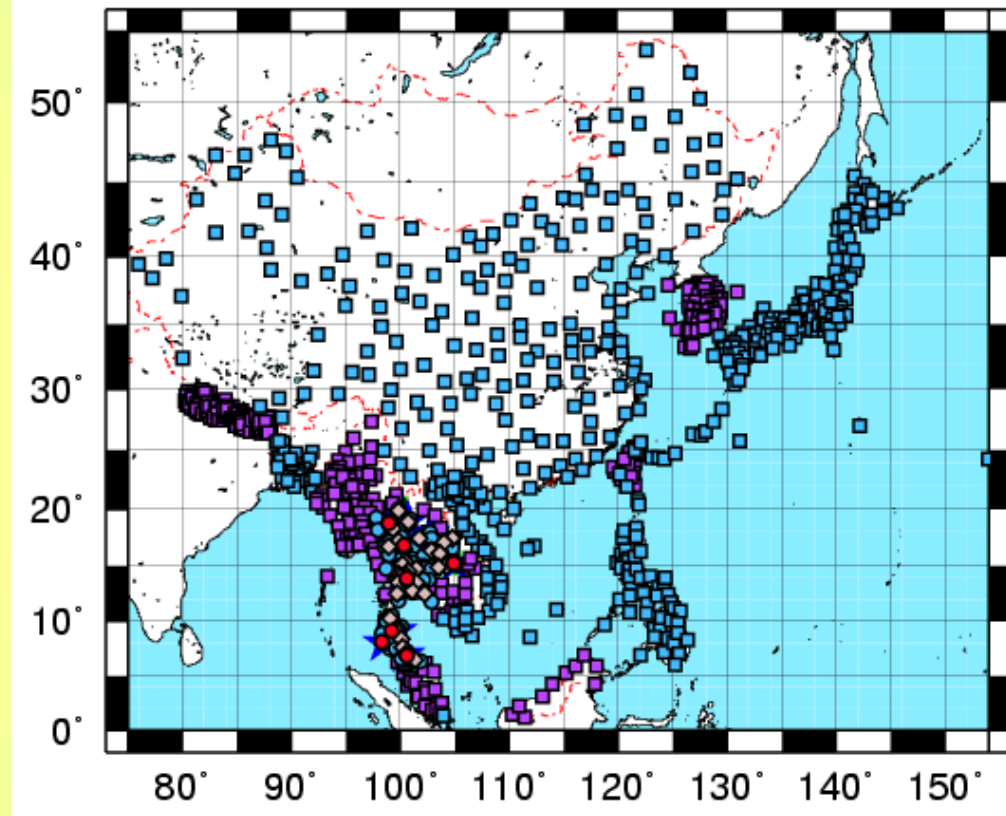


Routine Obs. Stations

Later, we added “GAME-2” datasets



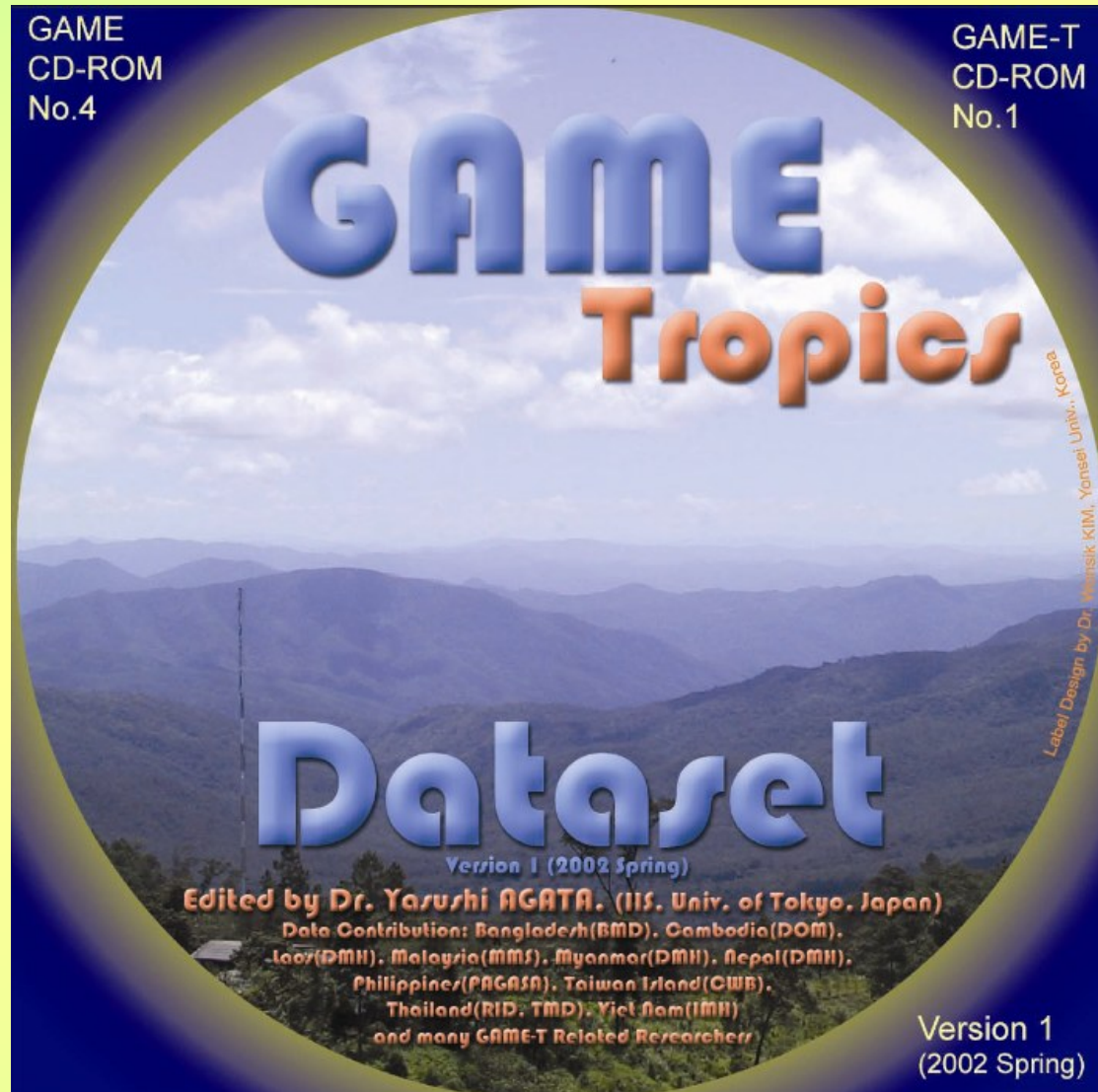
GAME-T2 Data



GAME-2 Data

CD-ROM

- CD-ROM published
 - Complete 'Snapshot' of GAME-T database at June 2002.
 - Contains more than 8000 files (620MB)
 - 500 copies, sold out
- Version2: now in editing processes



Access

- Pageview:
 - 10000-100000 / month
- Unique IP
 - 1000 ca. / month
- Request e-mail (for password) :
 - 2-3 / month (to the author)

Way to Success (in GAME-T)

- **GAME regulation of data collection**
- **MOUs and contracts between GAME office and various countries' organizations**
- **WWW-based simple User Interface**
 - Established before plenty of datasets were collected
 - Effort to display datasets effectively helps to collect another datasets!
- **Rule and Web Interface is mandatory**

What GAME-T datacenter does

NOT contain:

- **Visualization / Distribution with New technology**
 - Ajax (Google Map GAME-T Map is available)
 - Webservice / Dynamic Indexing
 - RSS Feed
- **Intensive Measurement data other than 1998 IOP**

What GAME-T datacenter does NOT contain (2):

- **Routine data**
 - High Temporal Resolution :Hourly, 3-hourly etc.
 - Items other than rainfall
 - Ex. Pressure (for GPS), Temperature (for Food), River Water Level and Discharge (for Hydrology) etc.
 - Up-to-date : 2003,2004,2005...
 - Long-term past : before 1996,1995,1994...
 - Some Countries in SE and S Asia

New Techniques...

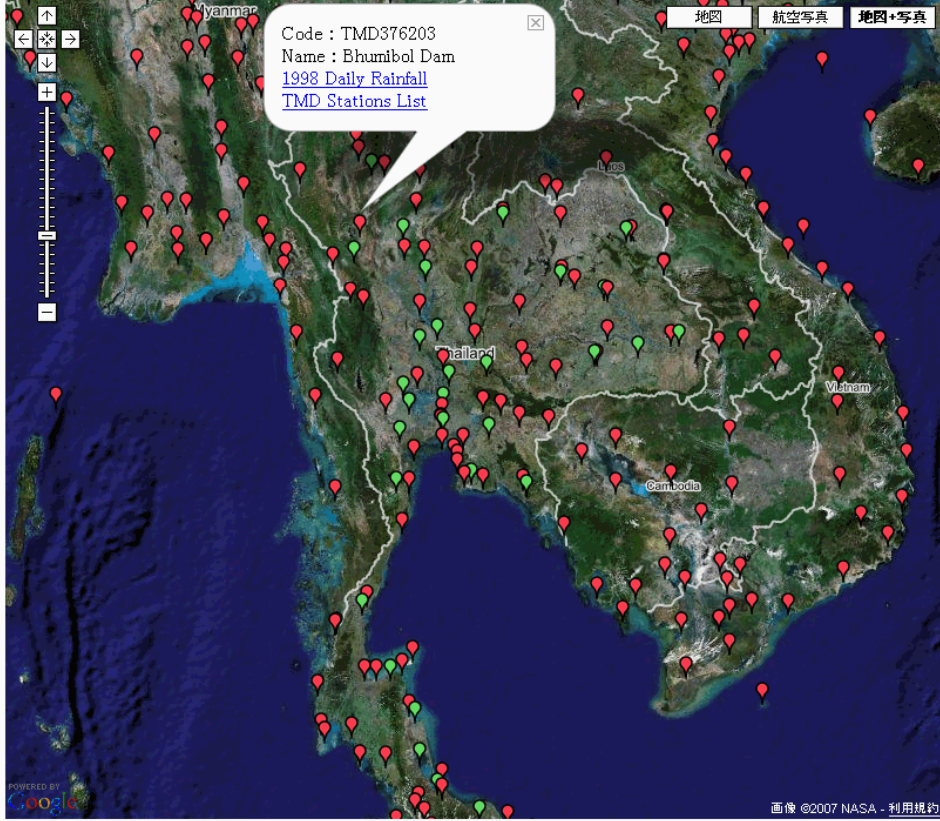
- Ex. Station map using Google Map APIs

MAHASRI/GAME-2 Rain gauge Stations: Google Map API - Mozilla Firefox

http://hydro.iis.u-tokyo.ac.jp/~agata/himitsu/maps/mahasri-station_rain.html

MAHASRI/GAME-2 Rain gauge Stations See [GAME-T2 Dataset \(Routine Observations\) for Details](#)

Now TMD stations only. Red = TMD normal Stations, Green = Agromet Stations.



Station Information:
"Bhumibol Dam" [TMD376203]
17.233333 / 99.05

Code : TMD376203
Name : Bhumibol Dam
[1998 Daily Rainfall](#)
[TMD Stations List](#)

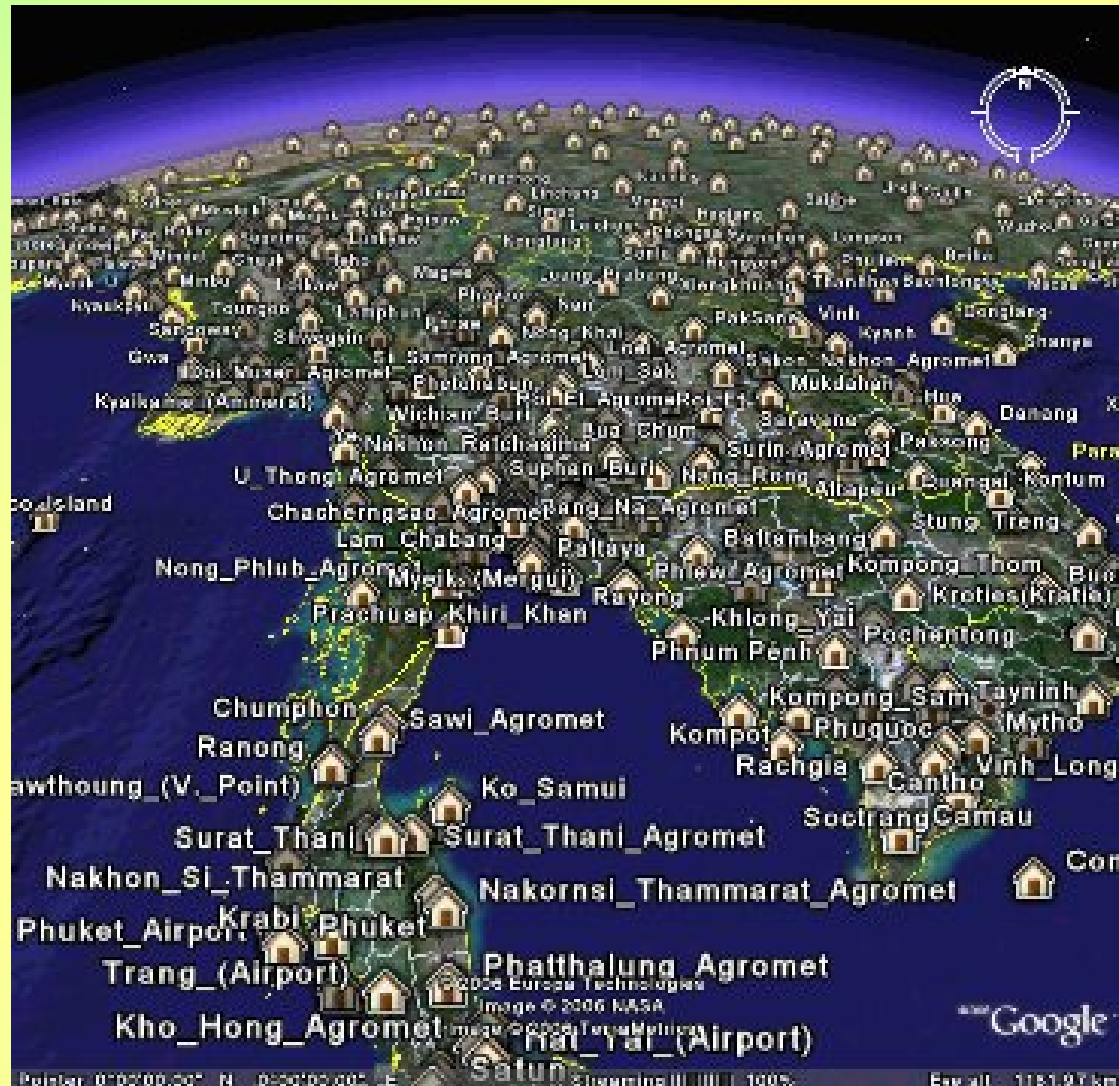
powered by Google

画像 ©2007 NASA - 利用規約

完了

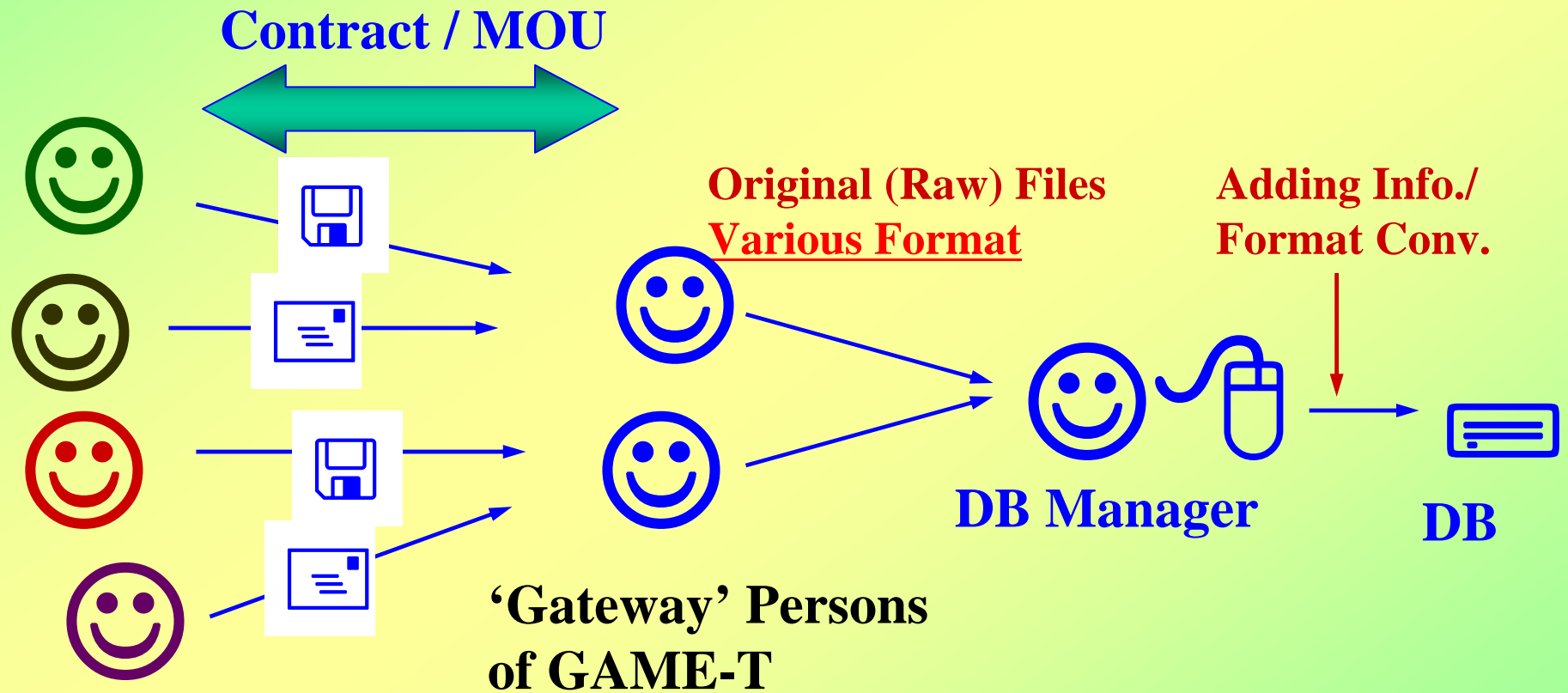
New Techniques...

- Ex. Station map using Google Earth



How Datasets were collected?

[1] Routine Obs.

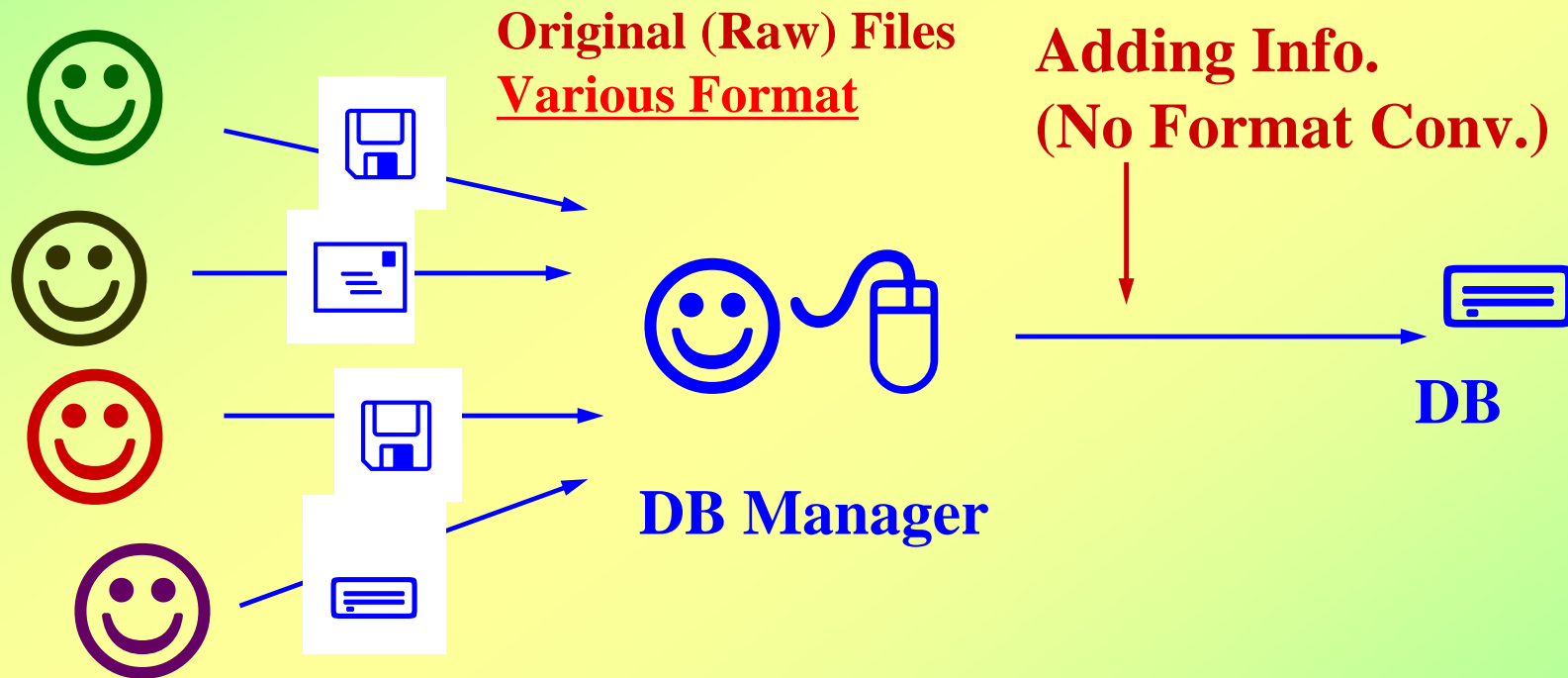


**Governmental
Agencies on Weather/River
Observation**

How Datasets were collected?

[2] Intensive (GAME-T) Obs.

- Researchers send files to DB manager



Each Researcher



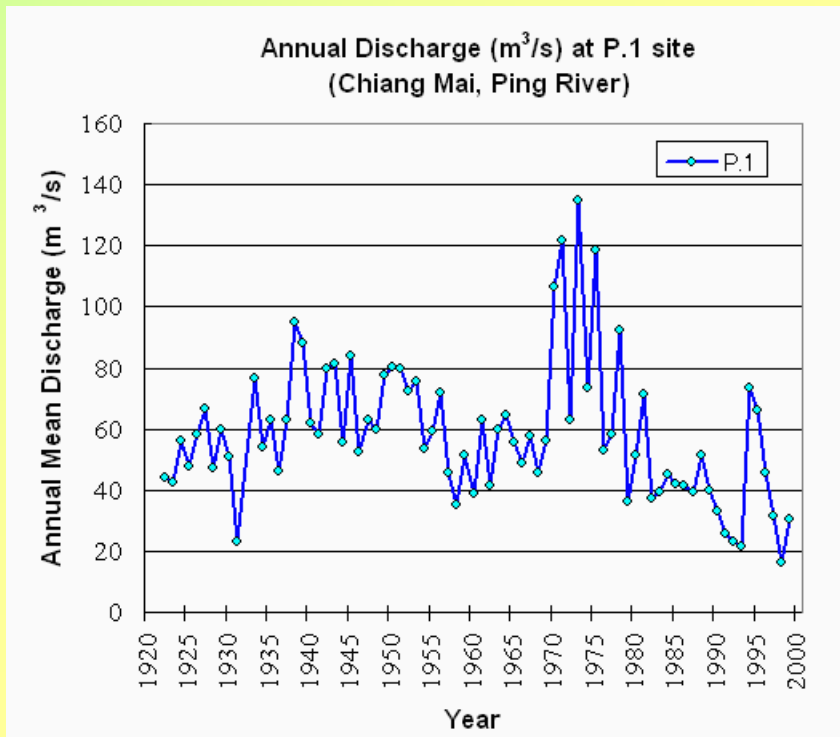
**Things to be
discussed**

Regulation?

- **Need to establish MAHASRI data collection rule? (like that of GAME)**
- **Or Does MAHASRI data leader have to make contract to each countries' responsible organization and to all MAHASRI researchers?**

Data Set Duration

- From 2003 to When? (up-to-date dataset)
- From when to 1996? (long-term datasets)



← 80 years river flow data of Ping River, Near Chiang Mai, Thailand

Data Set Item

- **Surface → Rainfall, Temperature, Pressure, Cloudiness, Wind Direction and speed, Humidity, Soil Water Content, Soil Temperature, Radiation, Sunshine...**
- **Daily, 3-hourly, hourly, or higher resolution**
- **What is mandatory and what is optional?**

Data Management Team

- **How to organize data Management “Team” of MAHASRI ?**
- **Discussed in Dr. Masuda’s Talk and discussion time**

THANK YOU!

<http://hydro.iis.u-tokyo.ac.jp/GAME-T/>

<http://game-t.nrct.go.th/GAME-T/>

ขอบคุณ ครับ

GAME-T Dataset



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GAME-T
DataCenter

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Original (Raw) Files

- Media

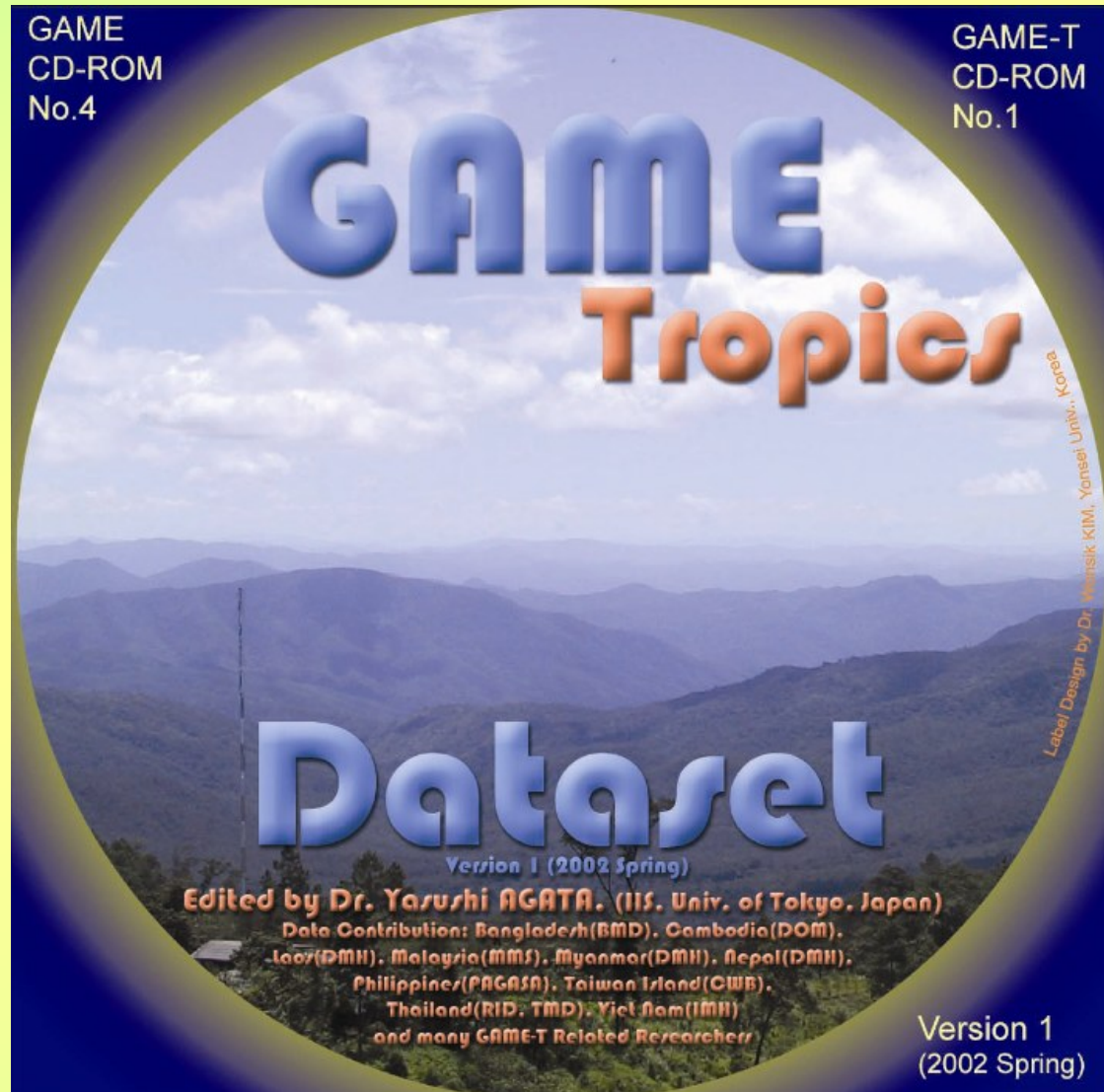
- More than 100 FD, CD-R, ZIP, MO, DVD-R, DLT...
- On-line publication
- E-mail attached

•GAME-T
Member can
view contents
of each disk
(Password
Needed)



Recent Achievement [1]

- CD-ROM published
 - Complete ‘Snapshot’ of GAME-T database at June 2002.
 - Contains more than 8000 files (620MB)
 - Please take one!



Recent Achievement [2]

- New DB Server was installed in NRCT, Thailand
 - Maintained by NRCT's staff
 - Contents are the same as that of Univ. of Tokyo's Server (rsync)



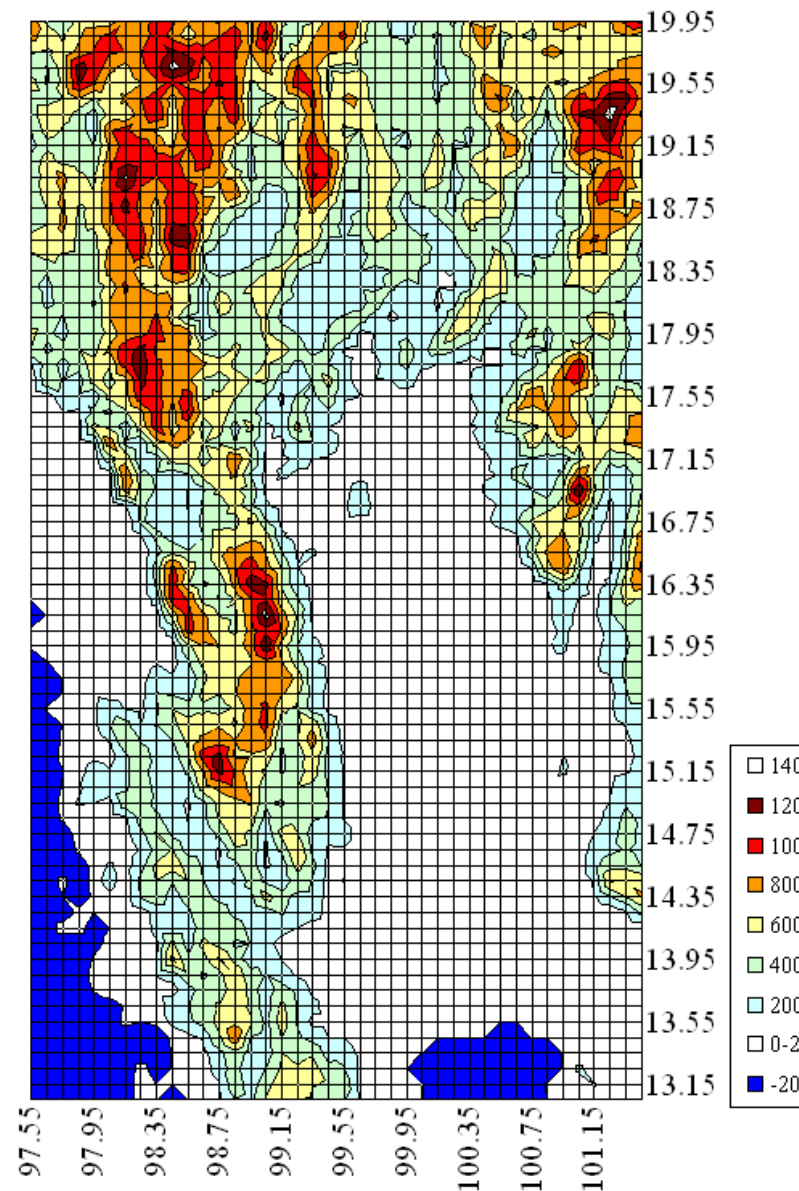
<http://game-t.nrct.go.th/GAME-T/>

New Contents (after CD-ROM)

- **ORIGINAL DATA FILES :**
GAME-T members can now view their contents originally provided by researchers and/or agencies
 - Total size is now more than 4GB

- **0.1 deg DEM of ChaoPhraya River**
 - Also 0.1deg river direction data is now being prepared
 - For 0.1deg LSM study (tomorrow's presentation)

0.1deg DEM of ChaoPhraya River, Thailand



Number of Files

- **NUMBER: 7464 out of 12790 are routine files.**
 - DB manager divided all files so that each file contains one-year one-station data in the same format

Original Files 2056

Remote Sensing 1679



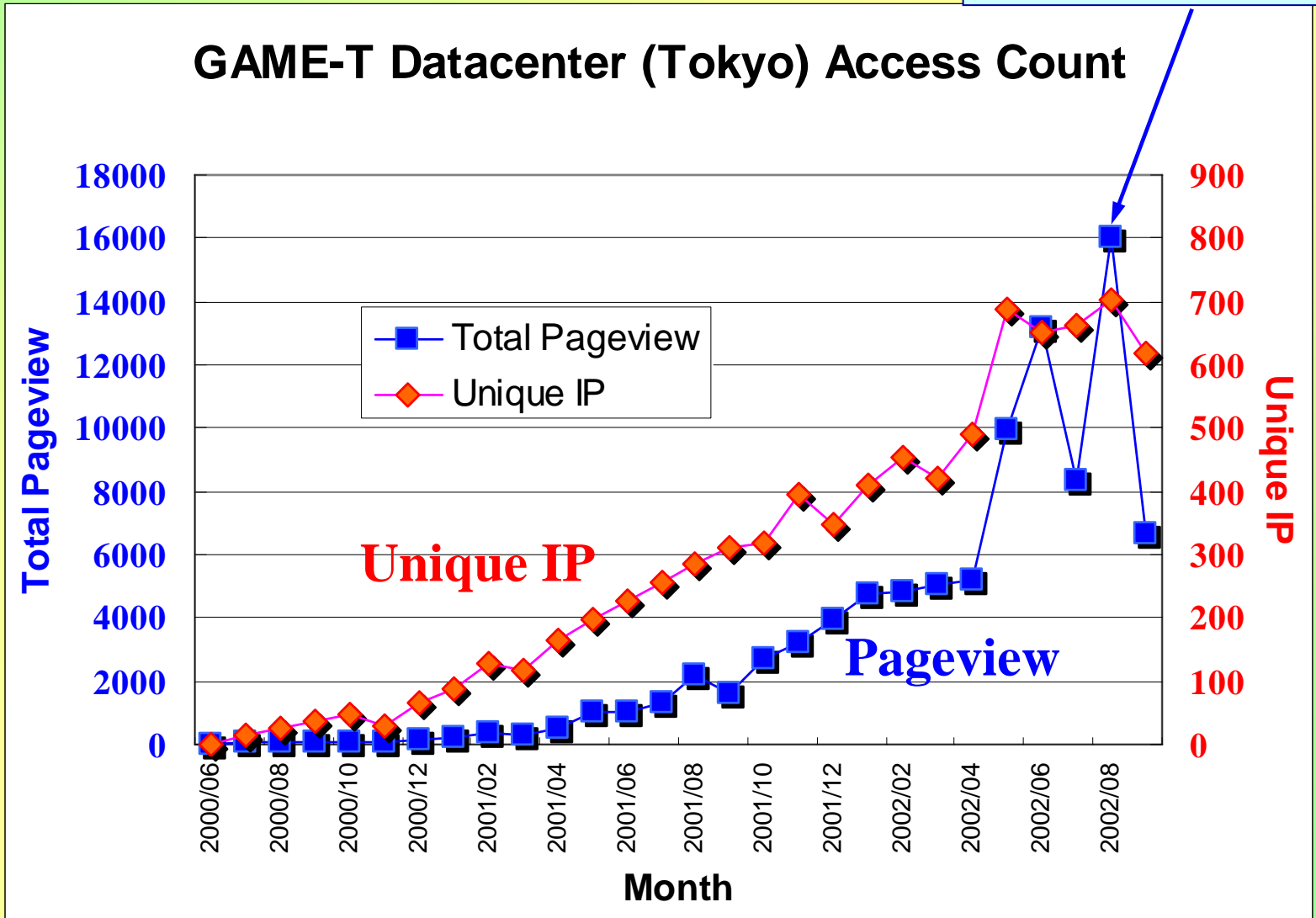
Routine Files 7464

Total : 12790

Access Count

Max. at 2002Aug.
Pageview=16309
UniqIP=704

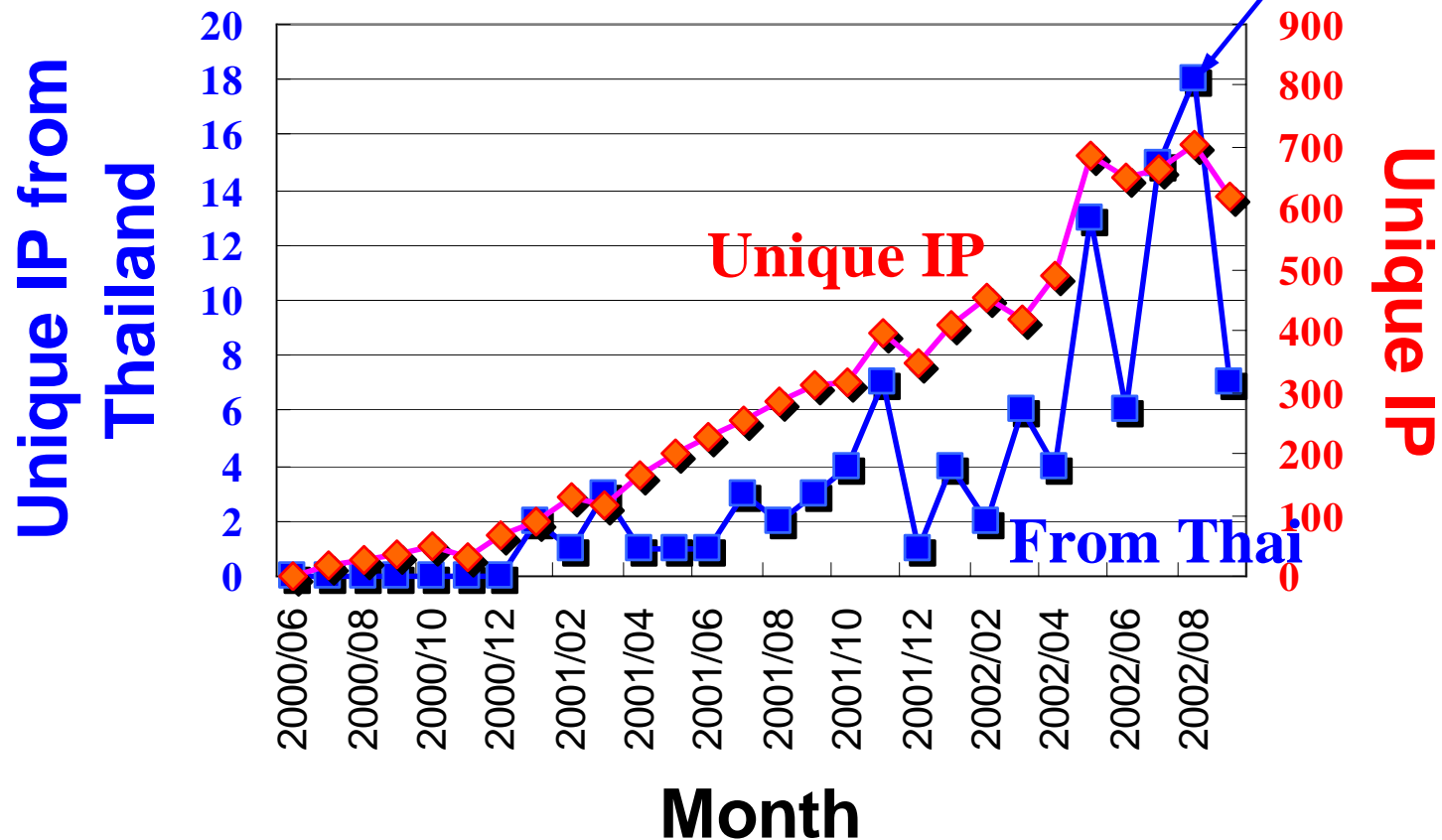
- Total Pageview to date=92909



Access from Thailand

Max at 2002Aug.
UniqIP=704
From Thai=18

GAME-T Datacenter (Tokyo) Access Count



Conclusion

- **GAME-T(1)'s achievement :**
 - 'Human network' for data collection
 - Data publication and sharing system.
- **Data collection / publication activities continue also in GAME-T(2)**
- **CD-ROM and distributed DB server offers easier access to GAME-T data files.**
- **New data files were/will be created**
 - For new generation study

Need latest info?

- **GAME-T ML (see hyperlink in the DB)**
 - Monsoon-ML(English/Thai) :
BY Prof. Hashizume, Chulalongkorn Univ.
 - GAME-ML(Japanese)
By Univ. of Tokyo
- **DB Manager : agata@iis.u-tokyo.ac.jp**
- **We welcome your comment and data requests!**

Acknowledgement

- **GAME-T DB has been helped by**
 - all who provided us their precious data, including both official agencies in SE Asia countries and GAME-T researchers
 - All who used the DB and gave comments
- **New DB server in Thailand was installed with NRCT's support. The server is now maintained by NRCT.**

THANK YOU!

ขอบคุณ ครับ