



# 2<sup>nd</sup> PRAGMA 参加報告



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# PRAGMAとは？

- **Pacific Rim and Grid Middleware Assembly**

- 環太平洋諸国の組織・研究者によるコミュニティ
- 多分野にわたり、地域性がある

- **戦略**

- アプリケーションにフォーカスを置く
- regional/international conferenceの開催
- VTC/AGを使ったトレーニング等
- リソース、データ等の共有のためのミドルウェアの配備
- GGF、ApGrid, APAN等の組織と協力する
- ある程度具体的な目標 (milestone)をたてて進める
- 年に2度～3度のペースでミーティングを開く
- ロゴ、Tシャツなどなど、名前を売る
- Nature, Science等の雑誌への論文投稿

- **大切なことは、知識、経験の共有**

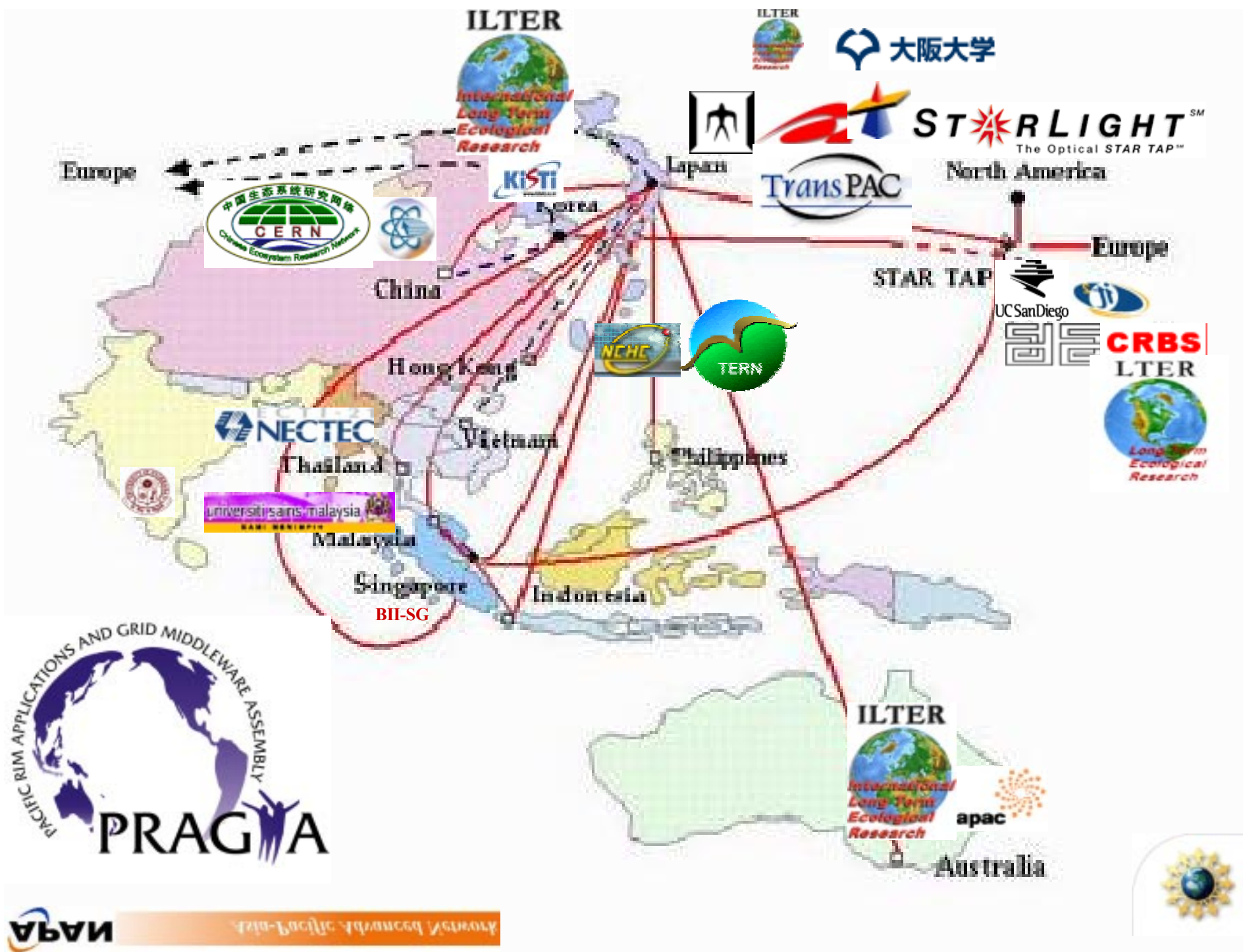




# Proposed Mission

To establish *sustained* collaborations and advance the use of the *computational* grid among a community of investigators at the *leading institutions* around the Pacific Rim (Sangsan Lee, March 2002)







# 1<sup>st</sup> PRAGMA Workshop

- Date

- 2002年3月10～12日

- Place

- Radisson Hotel La Jolla, CA

- Participants

- 約30名 Inaugural PRAGMA Workshop  
March 11-12, 2002

- 議題

- アプリケーションプロポーザル
- リソースの洗い出しと参加者の興味などなど

- VTCによる日本、韓国、豪州からの参加





# 2<sup>nd</sup> PRAGMA Workshop

- **Date**

- 2002年7月10～11日

- **Place**

- Westin Chosun Hotel, Participants

- **Participants**

- 100名超 (外国からの参加は63名)

- **議題**

- PRAGMAアプリケーションの進捗報告

- 新規アプリケーションプロポーザル

- その他



# Workshop Program (1<sup>st</sup> day)

- **PRAGMA Opening, July 10, 09:00-09:30**
  - 1. Welcoming Address (Fran Berman, SDSC)
  - 2. Welcoming Address (Young-Hwa Cho, KISTI)
- **Relevant Updates, July 10, 10:00-11:00**
  - 1. Overview of APEC APGrid (Jysoo Lee, KISTI)
  - 2. Review/Status of AP-Grid (Satoshi Sekiguchi, AIST)
  - 3. Hyunhae/Genkai Project (Koji Okamura(Kyushu U),  
Yongjin Park (Hanyang U))
- **PRAGMA Catching Up, July 10, 11:00-12:00**
  - 1. Overview/Feedback/Plans for the Pragma Website (Elise Tan Yee Lee, BII)
  - 2. Update on resource testbeds (Chhabra Rajesh Kumar, BII)
  - 3. Overview/status of governance issues (Peter Arzberger, UCSD)
  - 4. Update on testbed at CNIC (Kai Nan, CNIC)
- **Presentations of proposals to host the fourth PRAGMA workshop (Bernard Pailthorpe, Univ. of Sydney / Fang-Pang Lin, NCHC)**





# Workshop Program ( 1<sup>st</sup> day, cont'd)

- **PRAGMA Applications Progress Report, July 10, 13:50-15:25**
  - 1. Visualization and Grid computing for Telescience (Fang-Pang Lin, NCHC)
  - 2. Encyclopedia of Life (Wilfred Li, SDSC)
  - 3. NLANR Measurement activities (Ronn Ritke, NLANR)
  - 4. Information Intergration using Web-services. (Hong Suk Shin, UCSD)
  - 5. Updates on TransPAC and GTRN (Rick McMullen, Indiana University)
  
- **New Grid Applications Report I, July 10, 15:45-17:15**
  - 1. Drug Design and Discovery (Mitsuhisa Sato, Tsukuba)
  - 2. Brain Science on the Grid (Rajkumar Buyya, Melbourne)
  - 3. Grid Data Farm for HEP data analysis (Osamu Tatebe, AIST)
  - 4. Bio World Wide Workflow (Tan Tin Wee, NUS)
  - 5. Grid Research Projects in Malaysia (Huah Yong Chan, Universiti Sains Malaysia)
  
- Thailand Grid Applications (Royal Chitradon, NECTEC)







# Workshop Program (2<sup>nd</sup> day)

- **New Grid Applications Report II, July 11, 09:30-11:30**
  - 1. Telescience (Mark Ellisman, UCSD)
  - 2. APST v.1.1 to Deploy Parameter Sweeps on the Grid (Henri Casanova, UCSD)
  - 3. National Instruments Grid (Inho Kim, KBSI)
  - 4. Grid Based CFD Research in Korea (Jang Hyuk Kwon, KAIST)
  - 5. HEP Data Grid in Korea (Dongchul Son, Kyungpook National U)
  - 6. In Silico Prediction of ADME and Virtual Screening (Kyoung Tay No, Soongsil U)
  
- **Breakout preparation and Breakout sessions, July 11, 14:45-17:30**
  - 1. PRAGMA Next Steps Governance (Peter Artzberger, UCSD)
  - 2. Resources (Philip Papadopoulos, UCSD)
  - 3. Telescience Group (Shinji Shimojo, Osaka Univ.)
  - 4. Bioscience Group (Larry Ang, BII)
  - 5. Data Grid (Osamu Tatebe, ATST)





# Breakout sessions

- **Sessions**

- Biosciences
- Data Grid,
- Telescience
- Computational Infra

- **Requirements**

- Goal to achieve
- Target date: iGrid 2002, SC 2002, or some time in 2003 or later
- Time schedule to achieve the goal/schedule for regular VTC/Post progress reports on the web
- Who are the responsible/committed institutions/organizers/contacts



➤ Preparation of 5min ppt presentation in the



# Governance Discussion

- Mission
  - SC02までに文書化
  - 現在ドラフトを回覧
- Two clear goals of PRAGMA
  - Develop applications to run on grid
  - Establish sustainable collaborations
- Membership
  - 規模とフォーカス、進捗のバランス
- Charter
  - ドラフト作成し、委員会で回覧
- Goals
  - 3<sup>rd</sup> PRAGMAで報告

# Pro-temp Governing Committee

- Bernard Pailthorpe,  
*John O'Callahan,*  
*David Abramson:*  
APAC
- Larry Ang: BII
- Yan Baoping:  
CAS/CNIC
- Satoshi Masuoka:  
TITech/GSICC
- Satoshi Sekiguchi:  
AIST
- 06/99 Sangsan Lee, Jysoo  
Lee: KISTI
- Sissades Tongsimma:  
NECTEC
- Rick McMullen, *Jim*  
*Williams:* Transpac
- Mitsuhsa Sato: U  
Tsukuba
- Philip Papadopoulos,  
Peter Arzberger:  
UCSD/SDSC
- *Maxine Brown:*  
StarTan

# Bio Science Group

## ◆ プロジェクト

- Genomic Projects (BII, SDSC, BRIC, OSAKA University, KISTI)
- Virtual Screening Drug Discovery (CAMD RC, AIST, Tsukuba, KISTI)

## ◆ Contacts

<u>Organization</u>	<u>Name</u>	<u>Email</u>
BII	Arun	arun@bii.a-star.edu.sg
SDSC	Wilfred	wilfred@sdsc.edu
BRIC	Nam	
OSAKA	Date	date@ais.cmc.osaka-u.ac.jp
Tsukuba	Sato	msato@is.tsukuba.ac.jp
KISTI	Sik Lee	siklee@hpcnet.ne.kr
CAMD RC	No	ktno@camd.ssu.ac.kr
AIST	Nakada	hide-nakada@aist.go.jp



# Milestones

## ◆ Genomic Project

- 以下のアプリケーションを3~4程度のサイトにあるヘテロな環境で動かす
  - ◆ Grid Enabled High Throughput Blast – BII (Aug 2002)
  - ◆ Protein Pipeline – SDSC (Oct 2002)

## ◆ Virtual Screening Drug Discovery

- リソースの共有 (Oct 2002)
- データベース (時期未定)

◆ iGrid 2003 あるいは SC2003 でのデ

2<sup>nd</sup> PRAGMA  
July 11, 2002  
Seoul, Korea

# Data Grid Breakout

## ● 各参加者のプロジェクト紹介

- Elic H. Yen (Academia Sinica, Taiwan)
  - Digital Archiver, Bio Informatics
- Kuichi Kumar (iHPC, Singapore)
  - Collaboration with Grid Datafarm, Visualization
- Royol Chitradon (NECTEC, Thailand)
  - Spatial Data Grid, Geographical Information System
  - Natural Research Data Grid
- Rick McMullen (Indiana U, USA)
  - ATLAS Tier-2 site
- Fang-Pang Lin (NCHC, Taiwan)
  - King (Knowledge Innovation Grid)
- Atsuko Takefusa (Ochanomizu U, Japan)
  - Study of Scheduling and Replication policy
  - Grid Datafarm Simulator
- Kaichao Wu, Yongzheng Ma, Hengho He (CAS, China)
  - Scientific Database funded by CAS

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# Discussion and What to do

- Build a list, catalog
- Divide subgroups, if necessary,
- Mailing List
- Requirement of Data Grid software and Testbed
- Possibility of collaboration
- Near future timeline
  - SC 2002
    - Grid Datafarm for HEP applications (AIST, Indiana Univ)
    - MET Broker, Prof. Ninomiya (NECTEC)
    - Digital Archive in Taiwan (Academia Sinica)
    - ApGrid booth, NCHC booth, Asian region booth?,
    - PRAGMA booth???



# Telescience Group

Shinji Shimojo, Toyokazu Akiyama,  
Seiichi Kato (Osaka University)

San-Liang Chu (NCHC)

Bernard Pailthorpe, Nicole Bordes  
(Sydney VisLab)

Mark Ellisman++ (SDSC)

# Goals

- Remote Instrumentation
  - Realtime acquisition, analysis, and visualization in a collaborative or shared environment
  - Generalize to other instruments / Build the foundation
- What we need ?
  - Coordinated High speed network/ advanced network (IPv6)
  - High Quality video transfer - DVTS
  - Database (SRB?) and metadata description (XML)
  - Coordination Language? Instrument specific
  - Visualization



# Todo

- iGrid 2002 (Osaka U, SDSC, NCHC)
  - SRB based shared environment ?
  - Stable highspeed IPv6 Link Osaka, Taiwan, US, and Europe
- SC2002 – continue discussion
- Jan. 2003 CCD camera will be installed in Osaka University

# Resources

# Issues

- Testbed application resources
  - Rajesh Chhabra to catalog (and recruit)
- Heterogeneity?
  - Default middleware
    - Schedulers (meta and local)
      - Local scheduler may be site-dependent
    - Start with APGrid Engineering Team Recommendations
- APGrid interaction
- Dedicated PRAGMA resources?
  - No, shared
  - But, PRAGMA is a single virtual organization

# More Issues

- Security
  - Regional CA's
  - Ring of trust or hierarchy
- PRAGMA GIIS?
- What are the applications?
- Purpose of PRAGMA
  - Share experiences in applications
  - Enable collaborations
  - See Peter

- Contact List
  - Availability
  - Who to contact
  - What is the resource (size, cpu, disk, bandwidth, ...)
    - Compute
    - Data
  - Yoshio Tanaka (AIST) to drive this
    - Who keeps list current in the long term ( ask PRAGMA webmasters)
    - Mason Katz (SDSC)
    - Wei-Cheng Huang (NCHC)



- Generating accounts
  - Bi-lateral
    - PRAGMA resources open other PRAGMA members
  - Multiple users can map to a single account
  - Kishore Sakharar (BII) to drive this
    - Rajkumar Buyya
    - Kevin Dong
    - Hirotaka Ogawa
    - Tein Yuan
    - Sissades Tongsimma
  - Dates
    - Sep 1 for draft
    - Oct 1 for consensus

- VTC
  - Who can host multi-site
    - SDSC
    - AIST (policy issues to be resolved)
    - Australia, Melbourne
  - Once a month
  - Phil (SDSC) to drive this (Sep 1)

- Relationship of PRAGMA to APGrid, GGF,  
...
- GGF
  - Applications working group



January 23 (Thu) – 24 (Fri), 2003

Collocated with APAN winter meeting January 22(Wed)-24(Fri)

## **PRAGMA 3<sup>rd</sup> Meeting in Fukuoka** (draft)

- Date: January 23 (Thu) – 24 (Fri), 2003
- Place: Software Research Park Center Bldg.  
Momochihama, Fukuoka City  
near Fukuoka Dome and Fukuoka Tower  
with high-speed Research Internet access
- Co-Hosts: GTRC/AIST, OSAKA U,  
KYUSHU U, Tokyo Inst. Tech.
- Sponsors: MEXT, etc/
- Access: Fukuoka Int'l Airport  
20 min by taxi, 30-45 min by pub. transport.
- Accommodations: Hyatt Residential Suite  
<sup>06/99</sup>(8000 JPY/single, 3800 JPY/quad), Twins <sup>28</sup>

 For more info.

- <http://www.pragma-grid.org/>
- <http://pragma.hpcnet.ne.kr/>
- <http://www.apgrid.org/>