

A method of data sharing in 2007 PRIME project and a study of its integration into NAREGI data grid environment

PRAGMA 13 Workshop

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NCSA at the University Illinois at Urbana-Champaign

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Cybermedia center

Osaka University

Research Objective of PRIME 2007

+ Big Ultimate Objective:

+ build/visualize/mathematically analyze

3D cardiomyocyte (Heart Cell) model

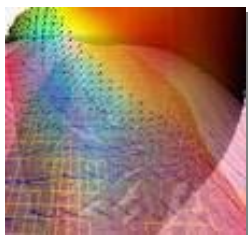
--> High Resolution

--> Finite Elements

--> Normal & Failing Hearts

--> **Base on Realistic Anatomical Structures**

Cardiac Mechanics
Research Group
CMRG - UCSD



NCMIR



National Center for Microscopy
and Imaging Research
NCMIR - UCSD

Cybermedia Center
CMC - Osaka University



Research Center for
Ultra-High Voltage
Electron Microscopy
UHVEM - Osaka Univ.

What we have to do

- The goal will be achieved by integrating resources and expertise of NCMIR and CMRG at UCSD, and CMC and UHVEM at Osaka University.
- Effective and interactive data collection, data accumulation, and analyses will be facilitated by **establishing a trans-Pacific cyber network that uses grid technologies** based on previous efforts.



UHVEM

CCD camera
controller



data

Research Center for Ultra-High
Voltage Electron Microscopy



X11 server



Overall UHVEM - CMC - NCMIR

Data flow

CMC

Cybermedia Center

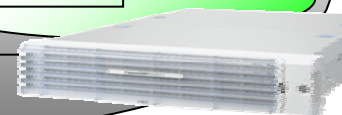
SCP/SFTP

IMOD (X11 client)

WebDAV

Storage

data



UCSD

data

data

Cell Centered Database

NCMIR

National Center for Microscopy and Imaging Research



Summary and future plans

- A data sharing system was constructed at CMC.
- It will be integrated into NAREGI data grid environment.
 - Building NAREGI data grid system at CMC :-)
 - Design and implementation for automatically uploading data from UHVEM and automatically importing them into gfarm server with metadata and VO information
 - And more...