Inter-American Institute
for Global Change Research

Update on the DIS and IT Matters

Luís Marcelo Achite, IT Manager

EC, CoP Meetings, Montreal, CANADA
May, 2005

Inter-American Institute for Global Change Research

IT Matters
(IT, CRN2, Website, IAIDB)

DIS Update
(Progress since July 2004, Statistics, Policy)

Future Plans

How people can obtain information using the IAI IT elements? How they are integrated?
(Website, IAIDB and DIS)

Inter-American Institute for Global Change Research

IT Matters

- **Daily activities for system maintenance, general security, and reliable IT environment.**
  - Anti-Spam/Virus solution, Intranet (lan.iai.int, webmail.iai.int), General logs for statistics and control, System updates, Website maintenance and updates, Hardware purchases and maintenance, On-line registration system for the EC and CoP Meetings, Other business.
- **CRN2 on-line submission system.**
  - 93 proposals in phase 1 and 37 proposals in phase 2.
  - Visualization system for the submitted proposals.
- **IAI Website and IAIDB System.**

Inter-American Institute for Global Change Research

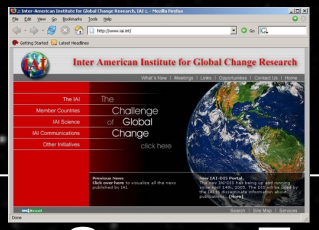
IT Matters

General Information Component

Extra Information Component

Inter-American Institute for Global Change Research

IT Matters

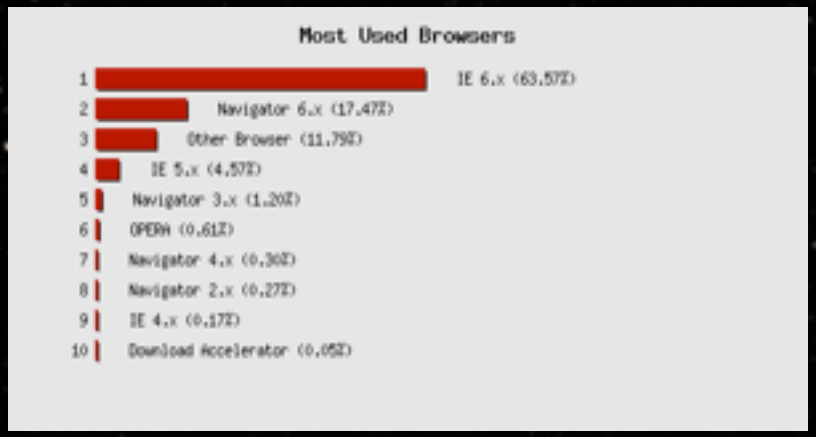


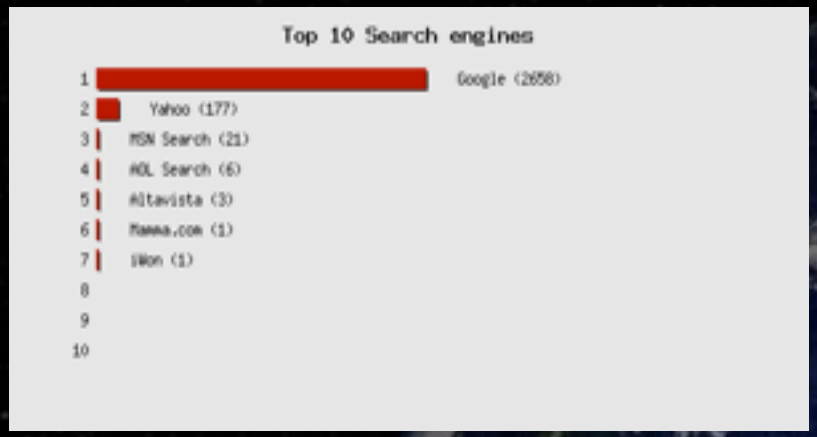
Some Facts (March/2005)

Total of Visitors: **11123**
Average of visitors per day: **358**
Total of files downloaded: **8768**
Data Transfered: **8.20 GB**
Data Transfered per day: **270.80 MB**

Some Facts (Issue 35)

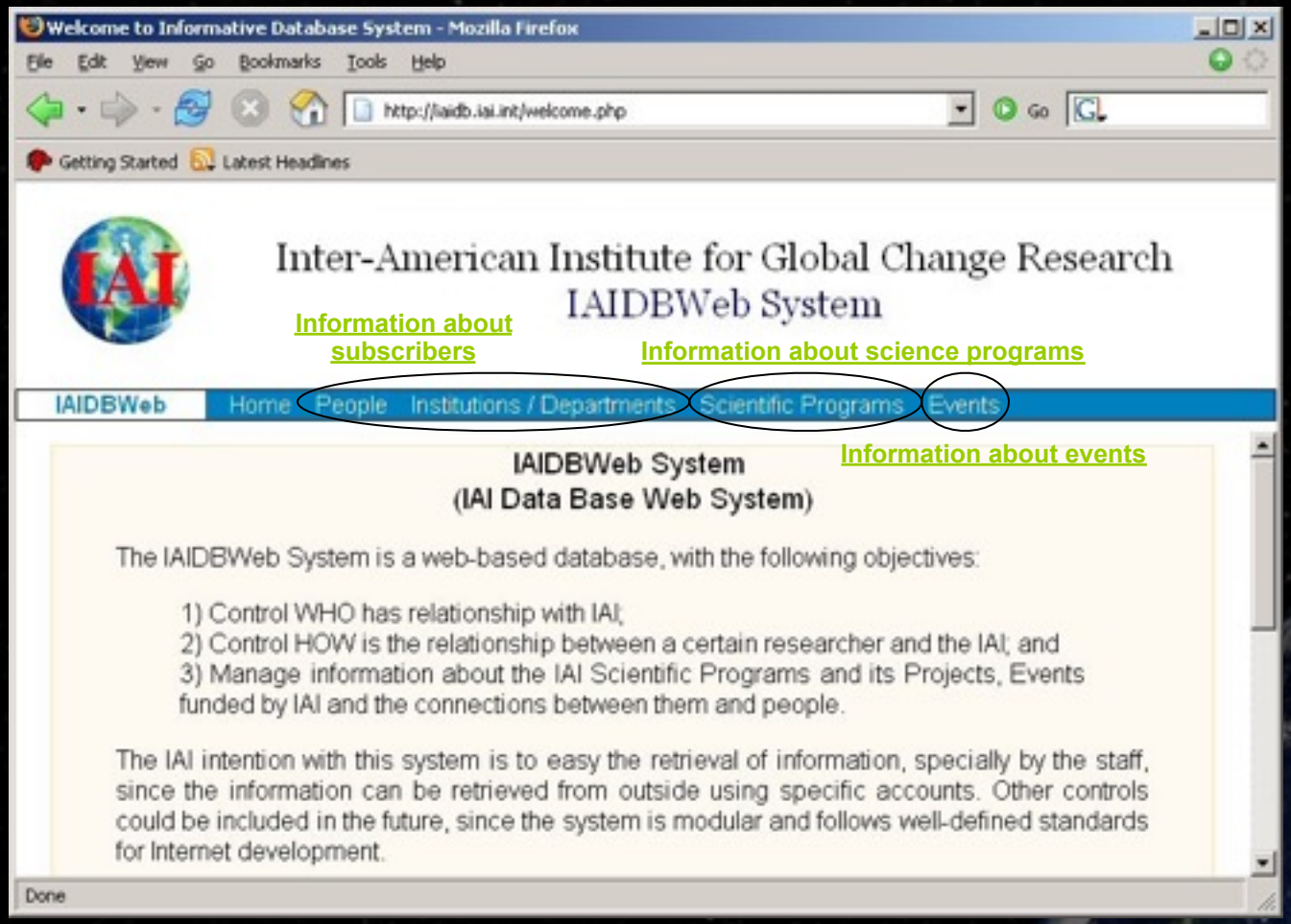
Total of downloads: **711**
Downloads x Subscribers: **40%**





Inter-American Institute for Global Change Research

IT Matters



Inter-American Institute for Global Change Research

DIS Update

- **As informed last year in Buenos Aires, AR, the IAI decided for the ORNL Mercury Solution and the new DIS website is running since April 14th, 2005.**
- **IAI-DIS is fully integrated with the LBA-DIS and can be also integrated with other groups as requested.**
- **The new system is structured in 3 main mechanisms: DIS Metadata Editor, DIS Search Process and DIS Harvest Process.**
  - SERVICE approach instead of a SYSTEM approach.
  - Easy integration with other “actors” of the Mercury Consortium.
  - US$15K per year to participate in the Consortium.

Inter-American Institute for Global Change Research

OAK RIDGE NATIONAL LABORATORY

Managed by UT Battelle for the Department of Energy

- The Oak Ridge National Laboratory (ORNL) is a multiprogram science and technology laboratory managed for the US Department of Defense. It is located in the city of Oak Ridge, Tennessee.
- The ORNL manages the Mercury Project, a web based metadata search and data retrieval system, used by different institutions for data dissemination.
- Mercury's business model is based on a consortium of different institutions with common interests who share general costs and share the benefits of development funded by all participants. Users share the cost of hardware maintenance and upgrades, software maintenance and support, tool development, engineering, and operations.

Inter-American Institute for Global Change Research

DIS Update

- **As informed last year in Buenos Aires, AR, the IAI decided for the ORNL Mercury Solution and the new DIS website is running since April 14th, 2005.**
- **IAI-DIS is fully integrated with the LBA-DIS and can be also integrated with other groups as requested.**
- **The new system is structured in 3 main mechanisms: DIS Metadata Editor, DIS Search Process and DIS Harvest Process.**
  - SERVICE approach instead of a SYSTEM approach.
  - Easy integration with other “actors” of the Mercury Consortium.
  - US$15K per year to participate in the Consortium.

Inter-American Institute for Global Change Research

DIS Update : “Actors”

USGS

nbii National Biological Information Infrastructure

EPA

NCER

NATIONAL CENTER FOR ENVIRONMENTAL RESEARCH
Office of Research and Development
U.S. Environmental Protection Agency
Science to Achieve Results (STAR) Program

CPTEC
Centro de Previsão de Tempo e Estudos Climáticos
Brazil
INPE

Oak Ridge National Laboratory
Distributed Active Archive Center

iobin The United States Node of the Inter-American Biodiversity Information Network

IAI

NASA

LBA
THE LARGE SCALE BIOSPHERE-ATMOSPHERE EXPERIMENT IN AMAZONIA - LBA

ESIP FEDERATION
Earth Science Information Partners
System Wide Interoperability Layer

NASA
Project Office
LBA-Hydrometeorology

Inter-American Institute for Global Change Research

DIS Update : View

XML files with pointers to real information

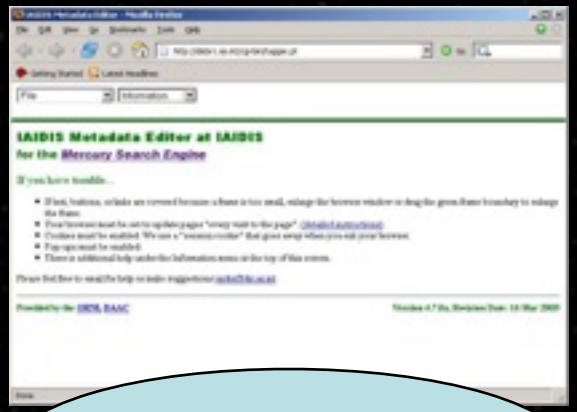
Transformation Processes

Z39.50 Server

XML to HTML

Inter-American Institute for Global Change Research

DIS Update : Structure

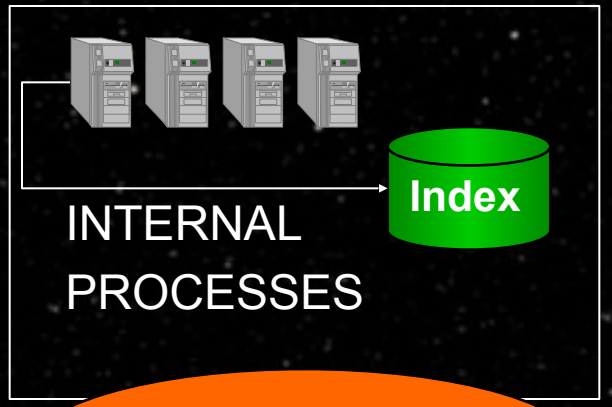


DIS Metadata Editor

- Metadata Creation
- Metadata Edition
- Metadata Visualization
- Real Data Storing

DIS Search Process

- Metadata Search by different index criteria



DIS Harvest Process

- Daily Harvest
- XML to HTML conversion for Z39.50 and Google

IAI **Oak Ridge**

Inter-American Institute for Global Change Research

DIS Update : What can DIS offer?

- Provide a single portal to information produced within the IAI scientific programs;
- Provide fielded, spatial, and temporal search capabilities;
- Allow individuals and database managers to distribute their data while maintaining complete control and ownership;
- Leverage investment in existing information systems and research; and SPECIALLY
- KNOWLEDGE MANAGEMENT (organize pieces)

Inter-American Institute for Global Change Research

DIS Update : More than a regular search engine

Characteristic	Regular Engines	DIS
General HTML Search	●	●
Targeted Search	◒	●
Fielded Searches (keyword, spatial, temporal)	◒	●
Z39.50, FGDC Standards	○	●
User has total control over what is listed during search results	○	●
Browse Trees	◒	●
Structured Reports	○	●

● Good

◒ Medium

○ None

Inter-American Institute for Global Change Research

DIS Update : Contractual Obligation

Project Management Manual

Grant Administration (PI Responsabilities)

- The PI is responsible to make sure that all data generated within the project is referenced as metadata in the DIS.
- The PI must appoint the person who will contact the ITM in order to create metadata for the project.

Reports

- The Technical Report (Progress and Final Reports) must follow the "IAI Guidelines for the Preparation of Technical Reports". It must provide a complete account of all project activities, scientific results and data/metadata created.

IAI Guidelines for the Preparation of Technical Reports

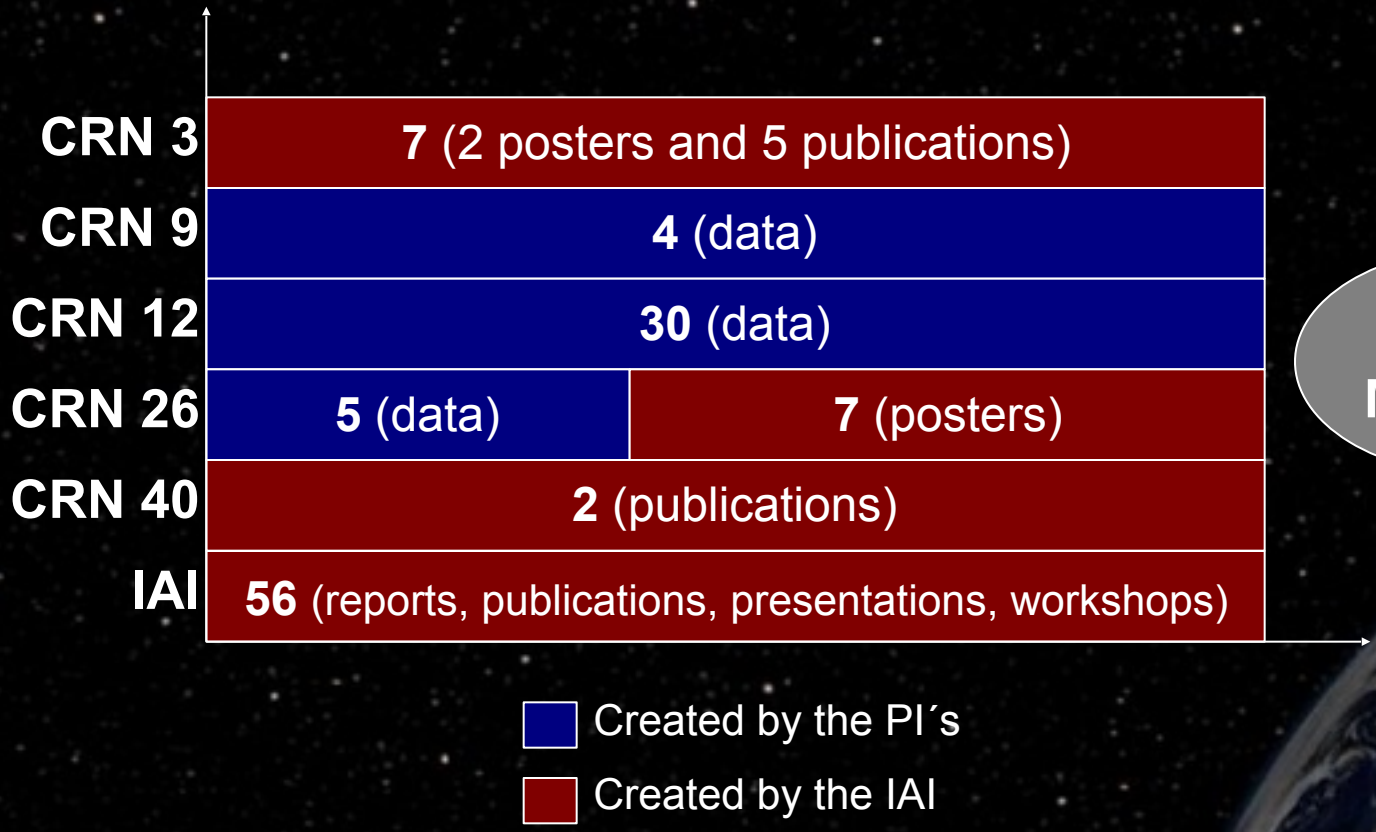
- Use the IAI-DIS to describe any sort of data produced or generated within the project.

New Scientific Program Guidelines

- … under CRN II it will be a contractual obligation for all projects to contribute metadata and real data to the IAI Data and Information System (DIS)…

Inter-American Institute for Global Change Research

DIS Update : Current Scenario



111 Metadata

Inter-American Institute for Global Change Research

Future Plans

DIS

1. Update the GCMD DIS Portal with new metadata.
2. Finalize the DIS Data Policy document.
3. Prepare documents for the DIS Portal (Tutorial, User´s Guide, etc).
4. Prepare a new brochure for the DIS.
5. Create two DIS posters.
6. DIS training session for the current CRN PIs.
7. Work with PIs in order to create metadata for current projects.
8. DIS Workshop for the CRN2 Pis.

IT

1. Video/Tele Conference Solution.
2. Collaboration and Document Management.
3. Better Control of Potential Reviewers.
4. Better Control of Events (redesign the process).
5. Migrate the US newsletter subscribers to the IAIDB plataform.
6. Improvement of the Proposal Submission process.
7. Report submission system for scientific programs.
8. Integrate the IAIDB system with other components.
9. Daily maintenance of Network/Internet components (including security)
10. Improvement of the IAI website

Inter-American Institute for Global Change Research

How people can obtain information using the IAI IT elements? How they are integrated?
(Website, IAIDB and DIS)

PRACTICAL DEMONSTRATION USING INTERNET

Inter-American Institute
for Global Change Research

Luís Marcelo Achite
iaidis@dir.iai.int

EC, CoP Meetings, Montreal, CANADA
May, 2005