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DEVELOPMENT AND OPERATIONS OF THE ASTROPHYSICS DATA SYSTEM

NASA Grant NCCW-0024

Semi-Annual Report - Report No. 3

For the Period 1 October 1993 through 31 March 1994

Principal Investigator

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Prepared for

National Aeronautics and Space Administration
Washington, D.C. 20546

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Cambridge, Massachusetts 02138

The Smithsonian Astrophysical Observatory
is a member of the
Harvard-Smithsonian Center for Astrophysics

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ASTROPHYSICS DATA SYSTEM

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Monthly Progress Report No. 20

for October 1993

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SAO ASTROPHYSICS DATA SYSTEM

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 November, 1993

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SUMMARY

Work is progressing towards the 11 January 1994 release. The next release will include utilization of new technologies like MOSAIC. You can already now access information about ADS via MOSAIC. The URL is: http://adswww.colorado.edu.

The ADS was represented at the ADASS meeting in Victoria, B.C.

Preparations for the ADS demonstration at the AAS meeting continue.

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ADMINISTRATIVE

TASKS ACCOMPLISHED:

The proposal to NASA for FY94 funding was submitted late in October and received by NASA. Erwin Schmerling is working on getting it through NASA contracts.

Guenther Eichhorn presented the ADS at the ADASS conference in Victoria, B.C. The talk created considerable interest. Several other speakers mentioned the ADS as an access tool to their data, in some cases the principal access method. There were several presentations about the next generation public domain networking software (WAIS, MOSAIC, World Wide Web, etc). We are following these developments and are making use of this technology as much as feasible (*e.g.*, Help and Documentation services in the next release are based on MOSAIC). We will also explore other uses of these technologies (*e.g.*, WAIS for the abstract service).

We will have only one table for the ADS at the AAS meeting as it stands right now. This means we can use only 2 workstations for demonstrations.

The following pages show the user and query statistics through October.

SAO ASTROPHYSICS DATA SYSTEM

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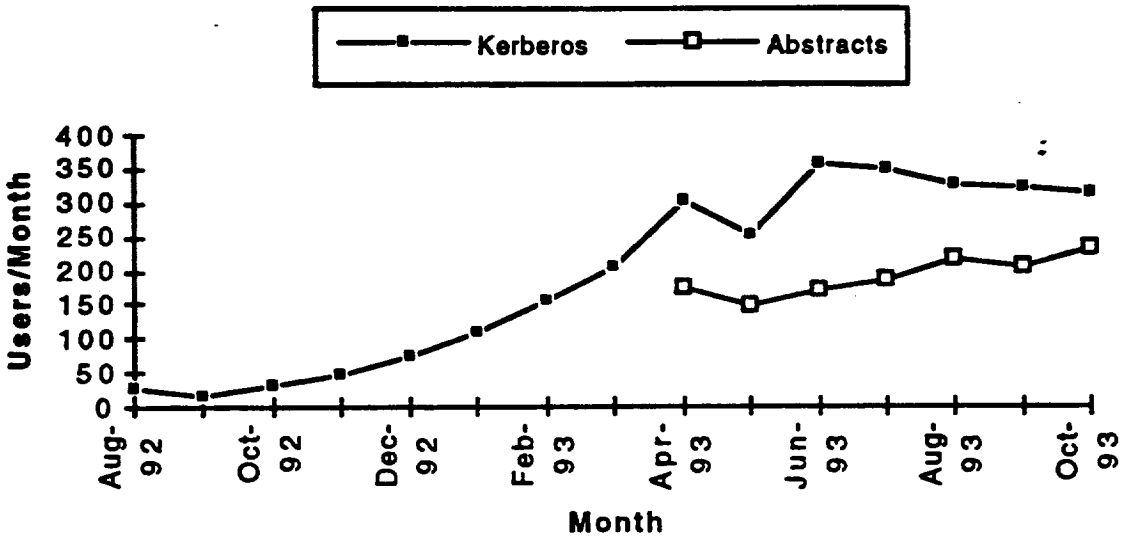
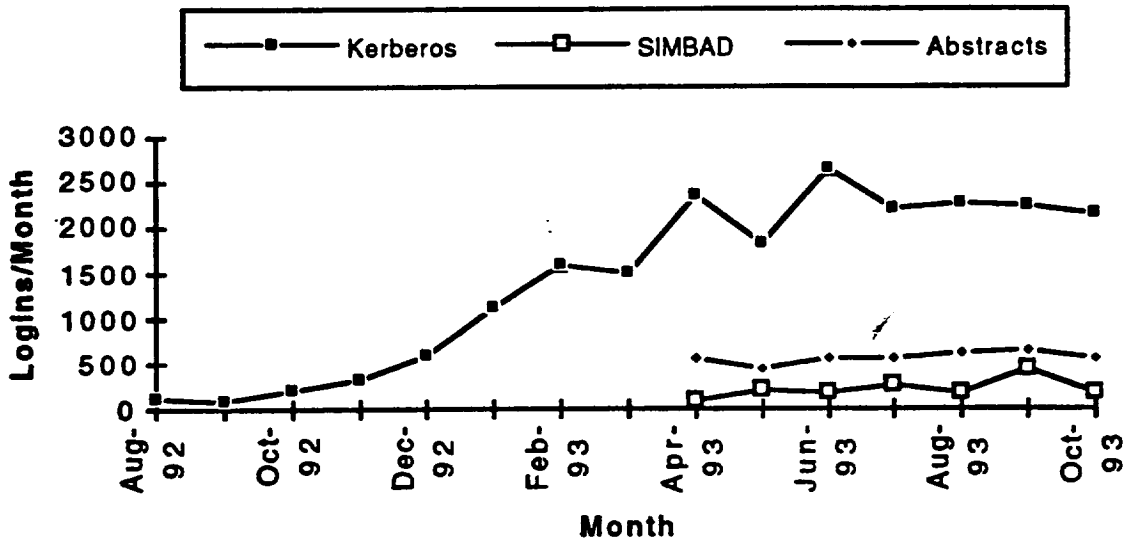
Non-project Users



Non-project Logins



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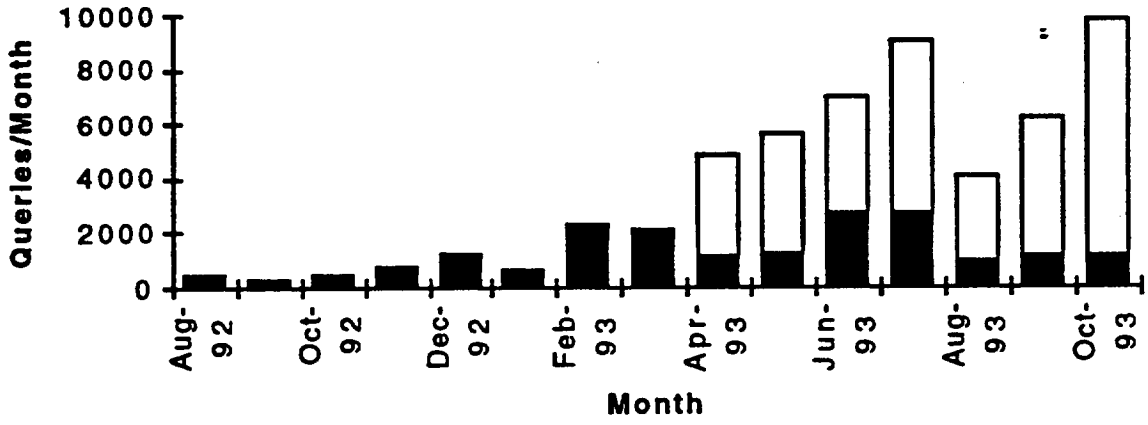
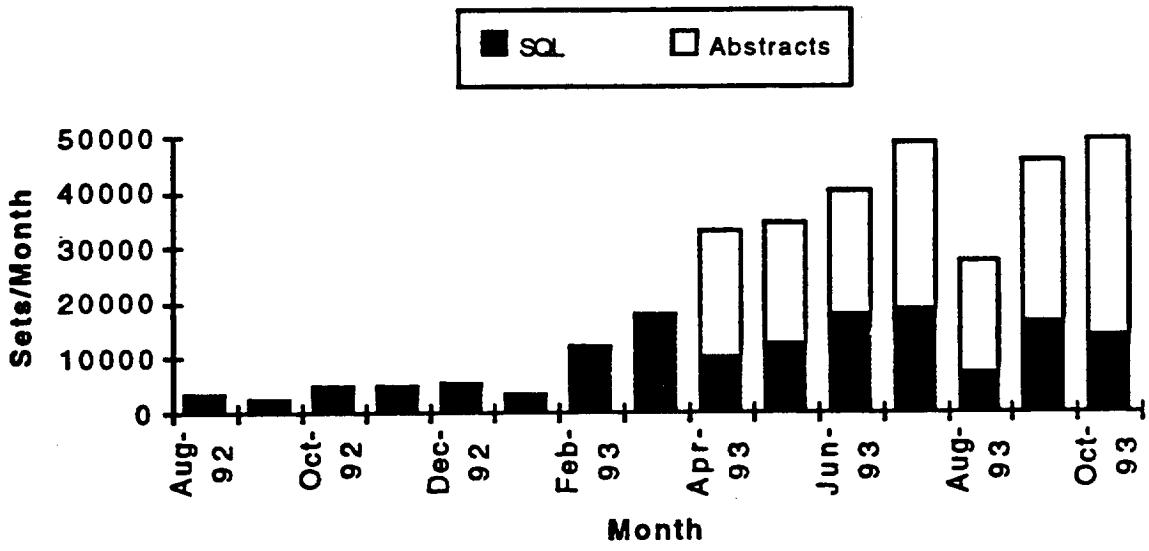
Number of Queries



Number of Retrieved Data Sets



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Status as of: 1 November, 1993

SYSTEM ENGINEERING

TASKS ACCOMPLISHED:

Much of the last month has been devoted to testing the newest release of the EOS software from Ellery Systems. This is finally winding to a close and attention will return shortly to development efforts aiming at the January release of the next version of the ADS.

Much of this work has been proceeding in the background and several of the new services (archive access, visualization, and so on) have already been delivered to QA for testing.

Listed below are the development tasks currently being undertaken by the ADS Project. Assignments (or tentative assignments) are shown by institution in the summary and by responsible party in the status section.

2.1 ADS 2.0 Consolidation

2.2 Infrastructure

2.2.1	Core ADS System	-- User interface, installation structure
2.2.2	RPI/SMS	-- Infrastructure for distributed computing
2.2.3	EOSserver	-- EOS in server mode (for archive access)
2.2.4	Security Services	-- Authorization checking
2.2.5	Secure File Transfer	-- General mechanism for transferring files
2.2.6	Transfer Monitor	-- Coordinate file transfers for all srvcs
2.2.7	Developer's Guide	-- How to build and operate ADS services
2.2.8	CUI	-- Character-terminal user interface

2.3 Operations / Management Tools

2.3.1	Log Handling	-- Statistics and reporting
2.3.2	Monitoring	-- Service availability, usage
2.3.3	Bug Server	-- Bug report submission
2.3.4	Authenticated FTP	-- FTP server with KERBEROS authentication
2.3.5	Mission Planning	-- Generic mission planning tools
2.3.6	DB Validation	-- Automated validation of data sets
2.3.7	QA Test Suites	-- Procedures for checking services

2.4 Archive Access

2.4.1	Abstract Server	-- Access to abstract database
2.4.2	NED Server	-- Interface to NED database
2.4.3	NDADS Archive	-- Access to all the ADC data at NSSDC
2.4.4	EINSTEIN Archive	-- Access to Einstein satellite data
2.4.5	IPAC Plate Archive	-- Access to infrared ISSA plates
2.4.6	SIMBAD	-- General interface to SIMBAD
2.4.7	IUE Archive	-- Access to raw and processed IUE data

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Status as of: 1 November, 1993

SYSTEM ENGINEERING (Cont'd)

TASKS ACCOMPLISHED (cont'd):

2.4 Archive Access (cont'd)

2.4.8	UMinn POSS1 Data	-- Access to the digitized POSS1 plates
2.4.9	Abstract Svc Upgrade	-- Upgrade and possible port to HP
2.4.10	Data Compression	-- To save bandwidth during file transfer

2.5 Catalogs and Tables

2.5.1	Catalog Access	-- Access to catalog data
2.5.2	SQL Server	-- Updated service to RDBMSs
2.5.3	Documentation Server	-- Distributed access to document files
2.5.4	Data Dictionary	-- Information on catalog units and formats
2.5.5	Coordinate Handling	-- Both as service and policy
2.5.6	QBT	-- Query by Table (simpler catalog query)
2.5.7	Table Calculator	-- Simplified table manipulation
2.5.8	Proximity Join	-- Joining tables on positions
2.5.9	Correlation Tools	-- Comparing of tables from different catalogs
2.5.10	Query Fan-Out	-- Querying multiple catalogs at once
2.5.11	Natural Language	-- Using natural language for data searches
2.5.12	Dynamic Catalog Mgmt	-- Updating of catalogs on the fly

2.6 Visualization

2.6.1	Plot Tool	-- XY plotting
2.6.2	Skyview	-- Image display
2.6.3	AGRA	-- Sky mapping
2.6.4	SAOimage	-- Image display

2.7 Packages Interfaces

2.7.1	IRAF Server	-- General interface to IRAF
2.7.2	IDL Server	-- General interface to IDL
2.7.3	WAIS Server	-- WAIS client as ADS service

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

2.2.1 Core ADS System — Michelle Neves (CASA)

By "Core System" we mean the organization, on the client side, of user services and UI functionality. This is distinct from the maintenance and organization of remote services and their operation. The goal here is to provide an environment where new or updated services can easily be added by a knowledgeable user. This work is crucial to get us into a mode where services can be incrementally added or changed.

STATUS: Most in final debugging and test at CASA. A small part is still under development

Approved:_____G. Eichhorn Status as of: 1 November, 1993
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.2.2 RPI/SMS — Andrew Wang (ESI)

The RPI and SMS programs control communications to any ADS services running on a particular machine. This pair of processes is the core of the distributed computing capability used by ADS.

The most substantive work envisioned for the RPI/SMS software is the extension of the RPI to provide aspects of system security, service registration and location functionality. This is necessitated by the poor operability of the current ANSA Trader code. The basic design and implementation for this upgrade has been recently modified to include functionality for the ADS version of the software that has previously only been available in the DCE version.

Minor modifications have also been proposed to the logging and control schemes used to facilitate operations and reporting.

STATUS: Development is currently underway at ESI. Several minor problems have been uncovered by internal ESI testing and are currently being addressed.

2.2.3 EOSserver — Kyle Habermehl (ESI)

In order to control general data access services (e.g. NDADS) which can take hours or even days to retrieve results, we plan to use an EOS server. This code is identical to the standard client EOS but runs as a background process and thus can be maintained from session to session.

STATUS: Delivered to QA for test.

2.2.4 Security Services — Steven Lo (IPAC)

These tools are necessary for complete security checking using KERBEROS. This functionality needs to be folded into the RPI, the FTserver, and packaged for use as a local service and set of libraries for service builders.

STATUS: Basic service package delivered to QA for test and to ESI for incorporation into their modules. Work on this has not yet begun.

2.2.5 Secure File Transfer — Brett Milash (ESI) / Steve Lo (IPAC)

A general file transfer service pair (send/receive) has been built by ESI and is currently in limited use as part of the IDL plotting tool in the current distribution. Full use of this service (*e.g.*, in archive access services) requires an upgrade which will use the security software to check the authenticity and authorization of the requested transfer.

STATUS: In final debugging and test and CASA.

2.2.6 Transfer Monitor — Gregg Allison (CASA)

Since many services will invoke file transfers at one time or another, it makes much more sense to coordinate these requests through one service than to have separate monitor functionality for each service.

STATUS: Nearing end of development.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 November, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.2.7 Developer's Guide — Alice Bertini (CASA)

The real power of the ADS is that is allows data/processing service owners to turn their product into ADS services simply and quickly. In order to facilitate this while still maintaining some level of uniformity to interaction look-and-feel, we must establish and publish guidelines and procedures for new developers to follow.

STATUS: Outline and writing task assignments published.

2.2.8 CUI — Alice Bertini (CASA)

There is at present no good way for users with character terminals to access ADS functionality. A limited subset interface to such things as archive queries and catalog requests could be provided if there is sufficient interest.

STATUS: Design work for this task has not been scheduled.

2.3.1 Log Handling — Jing Li (IPAC)

Currently, our ability to determine system usage as a function of time or user is severely constrained by the format of log files and the data they contain. A generic log handling service (based on the EOSserver) will provide a wide range of statistical measures of system usage.

STATUS: Initial version of this code has been completed and is in development testing.

2.3.2 Monitoring — Jing Li (IPAC)

Part of the proposed enhancements to the RPI/SMS software are the hooks to allow Operations to reliably monitor and control services.

STATUS: The client tools to do this will be built as soon as this functionality in RPI/SMS is available.

2.3.3 Bug Server — Jacque Anderson, Sally Schaller (CASA)

The Bug Server would be a simple local server and widget to help the user construct reports and mail them to User Support.

STATUS: Initial design complete. Development not yet begun.

2.3.4 Authenticated FTP — Steven Lo (IPAC)

A version of the standard FTP daemon has been written which uses KERBEROS authentication to the ADS user database to confirm the right to download system components.

STATUS: Done.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 November, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.3.5 Mission Planning (SAO?)

One long term objective being considered by the ADS Project is the development of distributed mission planning and mission operations tools to support many missions. A preliminary study has shown that many of the mission planning tools currently in use have a core of similar functions that are "re-invented" by each mission center. In addition, the interface of mission planning tools with the user community varies with each mission, requiring that scientists learn several slightly different systems. The ADS can be helpful in supplying missions with a library of planning tools, and a standard user interface. This will allow mission resources to be concentrated on mission specific requirements. It offers the user community a simpler mechanism for developing observation requests in response to NASA AOs, particularly through the use of electronic preparation and submission of these requests.

STATUS: Design work not yet scheduled.

2.3.6 DB Validation (CASA)

Automated procedures to confirm that the data retrieved via ADS are not different from the original data source. Test and QA along with the Project Office make an initial verification of data when it is first made available via ADS. In order to assure that changes to these data are not introduced by the system, regular sampling of the databases is made and compared with reference results.

STATUS: Done for first release of ADS. No further work currently planned.

2.3.7 QA Test Suites (CASA)

As part of Quality Assurance, CASA will maintain and update a regression testbed of information and a suite of procedures that test ADS functionality. This is distinct from the operational monitoring required of Operations and is for a quite different purpose: spot-checking and regression analysis rather than real-time monitoring.

STATUS: On-going.

2.4.1 Abstract Server Guenther Eichhorn / Carolyn Stern Grant (SAO)

The Abstract Server provided remote access to a database of abstracts culled from the Astrophysics literature by NASA RECON.

After some minor adjustment during the first phase of operation (and additional coding within the core system to meet new security constraints required by NASA), the Abstract Server is now in full operation.

STATUS: Updated service/user interface modules delivered to CASA for test.

Approved:_____G. Eichhorn Status as of: 1 November, 1993
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.4.2 NED Server — John Good (IPAC)

The NED database contains a large amount of data about extragalactic sources, including basic data on positions and fluxes, abstracts and references, etc. The initial ADS interface, at the request of the NED project, has been limited to accessing basic name and positional information.

In the longer term, many people have expressed a desire for more of the NED functionality beyond the basic name/position resolution currently offered. It is unclear whether this should be an ADS task or left to the NED project.

STATUS: In operation. Minor upgrades for operational reliability have been completed and delivered to QA for test.

2.4.3 NDADS Archive — Gregg Allison (CASA)

The NDADS server is our main prototype for raw data archive access. It is considered the highest priority item for ADS this fiscal year. A prototype server was built by ADS and delivered to NSSDC for final integration with their database software. NSSDC has been concentrating on the basic access to the data; the work on our end has been infrastructure integration (EOSserver / Archive (*e.g.*, NDADS) server / FTserver) and user interface.

STATUS: Nearing end of development.

2.4.4 EINSTEIN Archive — Todd Karakashian (SAO)

The EINSTEIN archive server will provide meta-data tables as well as real data tables and images of EINSTEIN data. In structure this service is similar to the NDADS server, and some of the same functionality has been reused.

STATUS: Delivered to QA for test.

2.4.5 IPAC Plate Archive — John Good (IPAC)

IPAC is putting on-line all of the ISSA infrared sky images which cover the whole sky in a regular pattern. This service allows a user to request an image or part of an image centered on a particular sky position.

STATUS: Delivered to QA for test. Some minor upgrades are planned before general operation begins.

2.4.6 SIMBAD Server — Carolyn Stern Grant (SAO)

Where NED provides access to information on extragalactic objects, SIMBAD provides it for stellar objects. The type of service is similar and we hope to be able to reuse parts of the NED interface code.

STATUS: In development at SAO.

Approved:_____G. Eichhorn Status as of: 1 November, 1993
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.4.7 IUE Archive (CASA?)

IUE data is available through the NDADS service, but there is still a need for a meta-data search capability to help the user locate the correct data sets to request.

STATUS: Design has not begun.

2.4.8 UMinn POSS1 Data (IPAC?)

The University of Minnesota has scanned the POSS-1 plates and created a database of sources detected. This data can and will be accessed through a standard SQLserver. The project will, if necessary, lend some assistance to UMinn in setting this up since this is a uniquely valuable resource for the community.

STATUS: Design has not begun.

2.4.9 Abstract Svc Upgrade Todd Karakashian (SAO)

The Abstract Server, while quite successful and capable, was a venture into new territory and will certainly need updating as we gain experience. In addition, it has been proposed to migrate the server to a faster platform for added throughput.

STATUS: Design has not begun.

2.4.10 Data Compression (SAO?)

Determine the feasibility and usefulness of data compression for bulk data transfer. If the study determines that data compression would be useful, this task would implement data compression for large-volume data.

STATUS: Study has not begun.

2.5.1 Catalog Access Alice Bertini (CASA)

The current catalog access interface distributed with the ADS client was the first service built and makes use of the first generation SQLserver and catalog documents that must be distributed with the system. As is typical of such endeavors, it suffers from learning curve problems.

In migrating to the new SQL Server and Documentation Server, we must also update the integrated Catalog Access environment. We plan to make use of this opportunity to add some functionality to handle casting of coordinate from one catalog representation to another (a "Data Dictionary" mechanism). This additional functionality is considered critical by our user community and should greatly enhance catalog interoperability.

STATUS: This task has been subdivided into subtasks 2.5.1.1 through 2.5.1.4.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 November, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.1.1 MOSAIC Integration — Alice Bertini (CASA)

Integrate the MOSAIC documentation server into the system in the special case of ADS catalog documentation handling.

STATUS: Development mostly done.

2.5.1.2 SQLserver Integration — Alice Bertini (CASA)

The new SQL Server is quite different from the one currently in use. Consequently, there is a fair bit of work needed to integrate it into the Catalog Access environment properly.

STATUS: Work started.

2.5.1.3 Coordinate Conversion Integration — Alice Bertini (CASA)

Often the query the user wishes to pose to the Catalog Access environment is couched in terms of a coordinate system other than that in which the data is stored. When this happens, it is desirable to perform coordinate translations on the fly, both on the query and on the output tables.

STATUS: Work started.

2.5.1.4 Data Dictionary Integration — Alice Bertini (CASA)

Data Dictionaries provide a convenient way for specifying how data should be interpreted and formatted when extracted from the DBMS table. The purpose of this task is to determine how best to ensure that this functionality is provided in a uniform way across the ADS.

STATUS: Work started.

2.5.2 SQL Server — Brett Milash (ESI)

With the update to the distributed processing architecture that is currently being tested, the old SQL server access to catalog databases needed to be updated as well. In particular, support for the new service access architecture and for FITS data transfer.

STATUS: Delivered to QA for test.

2.5.3 Documentation Server — Michelle Neves (CASA)

The DOCserver is meant to provide a standard mechanism for users to obtain textual data from any server site. This will include timestamp checking to allow for dynamic updating, so that we can be sure that all users are seeing the same documentation.

This functionality is critical to get us out of the mode of distributing documentation on all the catalogs (and therefore requiring massive system releases).

This service will make use of an existing document handling system called MOSAIC for most of its functionality.

STATUS: In design and prototyping development.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 November, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.4 Data Dictionary — Alice Bertini (CASA)

Intercomparing catalogs is usually a matter of checking for positional coincidence. Since existing catalogs currently use a variety of coordinate naming and representation schemes, it is necessary that we have some mechanism for determining this information on a catalog-by-catalog basis. The simplest way to do this is with a standard DBMS "data dictionary" approach. This task is to provide the mechanisms to implement a data dictionary and to provide the hooks for the catalog access system to make use of it.

STATUS: In development.

2.5.5 Coordinate Handling — Carolyn Stern Grant (SAO)

Since coordinates play such a pivotal role in astronomy, we have found it necessary to provide a consistent and uniform set of coordinate handling tools for ADS users and developers. These basic tools will be used extensively, not just by ADS for its internal development but by potential service providers as well.

STATUS: Delivered to QA for test.

2.5.6 QBT — Todd Karakashian (SAO)

The current Query-By-Example (QBE) functionality in ADS has been found to be cumbersome for most applications and at the request of our users we are planning a more user-friendly interface that uses a more compact, tabular form. This Query-By-Table (QBT) should greatly improve the usability of the current Catalog Access but the effort currently has low priority since it results in no new basic functionality.

STATUS: Initial design complete. Final design effort not yet scheduled.

2.5.7 Table Calculator — Gregg Allison? (CASA)

There are many functions that scientists want to perform on tabular data that are not typically found in commercial DBMS software, nor is the interfaces available in these environments flexible enough for the kind of detailed analysis that scientists need to do. With the functionality already available in ADS, it should be straightforward to provide better tabular analysis tools.

STATUS: Design not yet scheduled.

2.5.8 Proximity Join — ? (SAO?)

The primary mode that astronomers use in comparing tables of sky objects is to check the proximity on the sky of sources. This function is no currently supplied by commercial DBMSs (in fact, is at odds with the standard relational model which only deals with "equi-joins"). This task would be to provide a mechanism for "joining" two tables on the basis of the proximity of two objects in it.

STATUS: Design not yet scheduled.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 November, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.9 Correlation Tools ? (SAO?)

The basic ADS system contains a simple correlation function which compares catalog tables on the basis of positional coincidence. Other correlation functions based on source properties, classifications, names etc are possible. Tools for generating these correlations will be developed and added to the system.

STATUS: Design not yet scheduled.

2.5.10 Query Fan-Out ? (SAO?)

It is often desirable to use the results of a query as the basis of follow-up queries to multiple catalogs for multiple objects. The Fan-out tool will provide a GUI widget to create the multiple follow-up queries and to collect the results in a single response.

STATUS: Design not yet scheduled.

2.5.11 Natural Language ? (SAO?)

Determine the feasibility of using natural language queries for data retrieval.

STATUS: Design not yet scheduled.

2.5.12 Dynamic Catalog Mgmt ? (SAO?)

Implement the dynamic addition and removal of catalogs. In ADS 2.0 the catalogs are hardcoded in the user release. With the dynamic catalog management, new catalogs can be brought on-line without requiring a new user release.

STATUS: Superseded by the work on Catalog Access and Documentation Service.

2.6.1 Plot Tool Gregg Allison (CASA) / John Good (IPAC)

The current plot tool distributed with the system is based on a prototype IDL service developed at CASA and requires IDL (either local or remote) to run. A small amount of fine tuning of this functionality is warranted, but the service is essentially done.

Preliminary work has also been done on integrating in an existing portable graphics package (SM) -- so we can offer software to people that they can run on their own machines -- though this work is considered low priority.

STATUS: IPAC is currently working on the plot engine using PLPLOT rather than SM. CASA will handle the GUI for this once it is done, building on the IDL work.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 November, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.6.2 Skyview — John Good (IPAC)

Skyview is a program developed at IPAC for display and analysis of astronomical images in various formats. This work is funded by IPAC and has no direct relationship to ADS or funding by it.

The Skyview program has been integrated into the ADS as a local service. This was completed some time ago and has been shown to several groups. It has not been incorporated into the ADS release, however, for three reasons. First, IPAC has not gotten final approval to distribute the software themselves (rather than through COSMIC). Second, there has not been time to adequately test the ADS interface. Finally, there is very little call for this service until ADS provides access to image databases.

STATUS: Delivered to QA for test.

2.6.3 AGRA — Jing Li (IPAC)

This local service is self-contained code for turning coordinate tables into sky maps (various projections). The development has been slow since this is not a high priority item. This service is designed to allow easy use as either an ADS server body or a stand-alone program and is integrated with both ADS services which return positional tables (NED, SIMBAD, Catalog Access) and with image display services (providing coordinate, point source, and area overlays).

STATUS: Delivered to QA for test. Proposed upgrades from QA have been implemented but not yet delivered.

2.6.4 SAOimage — Carolyn Stern Grant (SAO)

SAOimage is an image display program widely used in the astronomical community, partly due to its links to the IRAF package. SAO has undertaken to build an ADS interface themselves, so the only Project task is to QA it.

STATUS: Delivered to QA for test.

2.7.1 IRAF Server — ? (SAO?)

The goal of IRAF was to provide a set of data processing and analysis services. This meshes extremely well with the ADS functionality to provide distributed access to such services. In addition the interfaces of the two systems are constructed in such a way as to allow melding of the systems with minimal impact on either.

STATUS: No work yet planned.

2.7.2 IDL Server — ? (CASA?)

IDL is widely used in the astrophysical community for visualization and analysis of local data sets. Combining this functionality with ADS should produce a general distributed data processing environment of great power.

STATUS: No work yet planned.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 November, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.7.3 WAIS Server — Todd Karakashian? (SAO?)

WAIS provides distributed access to a number of textual databases around the country. Rather than replicating this functionality, it makes sense for the ADS to tap into the existing services. The simplest way to do this is to create a custom WAIS client that would run as a local ADS service. Not only do we then have access to all WAIS functionality, but we add the value of the ADS GUI interface and additional data processing tools to WAIS.

STATUS: No work yet planned though this may follow on closely to the MOSAIC Documentation Server work that is ongoing.

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 November, 1993

USER COMMITTEE

PSU:

- Nothing to report

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 November, 1993

USER SUPPORT

CASA:

The month of October was spent on continued testing of the EOS 3.25 snapshot release and ADS add-on services. Development work continued on the core system, file transfer service, and catalog access service.

CASA Project Management

The CASA ADS project management support is now using MicroSoft Project to help track our tasks and schedules. The tables enclosed in this report were generated using this software package.

The updated MicroSoft input files for the month ending October '93 are available via anonymous ftp on cuads.colorado.edu in /pub/ads_int/status in the following files:

user_sup.mpp	- User support
q.mpp	- Testing/QA
mainten.mpp	- System maintenance and integration
develop.mpp	- Development
node_sup.mpp	- Node Support
meetings.mpp	- Meetings
managemt.mpp	- CASA project management

These files will be updated at the end of each month starting in October '93.

TASKS ACCOMPLISHED:

- User Support statistics for the month:

- New users:	46
- New US users:	25
- New non-US users:	21
- Total users as of 10/31/93:	1432
- Total US users as of 10/31/93:	1161
- Total non-US users as of 10/31/93:	271
- Information requests:	15
* answered questions: (includes "answered bin" and phone calls)	81
* resolved problems: (multiple messages for each of these)	18

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 November, 1993

USER SUPPORT (Cont'd)

CASA (cont'd):

TASKS ACCOMPLISHED (cont'd):

Task	Completion Date	% Complete
On-line Help Text		
Hypertext-abstracts	10/5/93	100%
Hypertext-install	10/7/93	100%
Hypertext-Core	10/30/93	99%
Hypertext-einstein	10/6/93	99%
Setup MOSAIC/WWW		
Install WWW Server	10/1/93	100%
Advertise availability	10/1/93	100%
httpd1.0a3.1	10/16/93	100%
Install on CUADS	10/16/93	100%
Install on PUPPIS	10/15/93	100%
Install Developer's Server	10/1/93	100%
Notify Developers	10/1/93	100%

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

On-line Help text	1/11/94	93%
Hypertext-ddtool	4/1/94	0%
Hypertext-issa	1/11/94	75%
Hypertext Tutorial	12/31/93	15%
Science Scenarios	1/31/94	on-going
Mailing lists	1/31/94	on-going
Advertising	1/31/94	on-going
Update tri-fold	1/11/94	1%
Update ADS Backdrop	12/24/93	5%
Astro.db - Ingres	1/31/94	0%
Update ADS Docs	1/31/94	on-going
Front-line support	1/31/94	on-going
User Statistics	1/31/94	on-going
Edit users.tbl	1/31/94	0%
Edit readreg.pl	1/31/94	0%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 November, 1993

TEST AND QA

TASKS ACCOMPLISHED:

- Coordinated stress testing of the remote services was conducted throughout the October reporting period.

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

- Work in Progress, Projected Completion Dates, Percent completed, and dependencies:

EOS 3.25 Release	1/11/94	90%
SQLserver 2.0	3/15/94	10%
Coord. Conversion	1/11/94	15%
ISSA Archive	1/11/94	90%
Agra	1/31/94	25%
EOSSERVER	1/11/94	80%
Security Services	11/22/93	0%
Secure File Transfer	11/22/93	0%
RPI/SMS	1/31/94	0%
SAOimage Tool	1/11/94	50%
Core ADS - ADS4.00	12/31/93	20%
Skyview	11/22/93	80%
EINSTEIN Archive	11/22/93	80%
NED	11/22/93	80%
Catalog Access	11/22/93	5%
Abstract Service	1/11/94	80%
Log Handling Service	1/31/94	0%
Monitoring Service	1/31/94	0%
2-D Plot Service	1/31/94	0%
Bug Reporting Service	1/31/94	0%
QBT Service	1/31/94	0%
ADS Directory Service	1/31/94	0%
P-Cygni Archive	1/11/94	0%
Catalogs	1/11/94	50%
redshift	1/31/94	0%
sao2000	1/31/94	0%
seyfert	1/31/94	0%
seyfert_ref	1/31/94	0%
agk3	1/31/94	0%
dmsort	1/31/94	0%
saosort	1/31/94	0%
rasort	1/31/94	0%
selected	1/31/94	0%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 November, 1993

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

sbnr	1/31/94	0%
rad_drao	1/31/94	0%
rad_iras	8/26/93	100%
rad_iras_brgal	9/7/93	100%
rad_pks_8400	8/31/93	100%
rad_pks_optir	8/31/93	100%
rad_texas_365	8/25/93	100%
parallax	1/31/94	0%
pln	1/31/94	0%
reflect	1/31/94	0%
gc	1/31/94	0%
nltt	1/31/94	0%
nltt_notes	1/31/94	0%
acrs1	1/31/94	0%
acrs2	1/31/94	0%
hii	11/5/93	0%
ppmn	11/5/93	0%
ppms	11/5/93	0%
openclus	11/5/93	0%
interfer	11/5/93	0%
findlist	11/5/93	0%
findlist_rem	11/5/93	0%
aps_poss (aps)	1/31/94	0%
rc3 (ipac)	1/31/94	0%
iuelog (iue)	1/11/94	100%
iuefes (iue)	1/11/94	100%
wfcbsc (heasarc)	1/31/94	99%
rosao (heasarc)	1/31/94	95%
rospublic (heasarc)	1/31/94	99%
abell (heasarc)	1/31/94	80%
cosb (heasarc)	1/31/94	99%
bulletin (heasarc)	1/31/94	99%
konus (heasarc)	1/31/94	99%
rosid (heasarc)	1/31/94	99%
rosuspspc (heasarc)	1/31/94	99%
td1 (heasarc)	1/31/94	99%
gs (heasarc)	1/31/94	10%
wds_nameidx (casa)	1/31/94	25%
wds_namesort (casa)	1/31/94	25%
wds_pos (casa)	1/31/94	25%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 November, 1993

TEST AND QA (Cont'd)

PROBLEMS/CONCERNS:

- Delays in the final EOS 3.25 release will cause delays in some of the QA efforts because of delays in the development efforts. QA schedules will be updated as needed especially with respect to QA of new catalogs.

Approved:_____G. Eichhorn
Achievement:_____J. Stoner (ESI)

Status as of: 1 November, 1993

SYSTEM INTEGRATION

TASKS ACCOMPLISHED:

- A detailed report will be available next month.

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____S. Murray (SAO)

Status as of: 1 November, 1993

DEVELOPMENT

SAO

TASKS ACCOMPLISHED:

Abstract Service:

- Rewrote more software to consolidate and streamline the update process.
- Continued reloading abstracts database to incorporate the last year's worth of data.
- Fixed bugs and maintained code.
- Improved User Interface code by making use of nested structures.
- Implemeted bibliographic code expansion on search by bibcodes so that users can query by journal name.
- Fixed widget attachments in User Interface so that decstation windows are properly aligned.
- Worked with Ellery to fix bug in settings widgets.
- Added new fields for volume and page number to database.
- Discussed changes to RECON data format and improvements in quality with NASA STI. Prepared draft of a memo to send to them outlining our requests and concerns.

Einstein Archive Service:

- Found and fixed bug in server body which prevented retrieval of only IPC or HRI data.
- Work on debugging Einstein Archive service and integrating it with the File Transfer Service.

SIMBAD Service:

- Found and fixed bugs in User Interface.
- Improved error handling in User Interface.
- Implemeted bibliographic code expansion on search by bibcodes so that users can query by journal name.

Mosaic Catalog Access:

- Exploring the "forms" capability of the beta version of Mosaic 2.0 and the possibility of putting an ADS Catalogs interface into Mosaic.
- Developed a Perl script to interface between Mosaic FORMS and ADS server bodes.

Text Search Service:

- Continued work on design of text search functionality for ADS.

Node Support:

- Provided assistance to American Association of Variable Star Observers in putting data into ADS.
- Discussion with Gene Magnier of MIT and U. Amsterdam regarding putting an M31 data archive into ADS.

Approved:_____G. Eichhorn
Achievement:_____S. Murray (SAO)

Status as of: 1 November, 1993

DEVELOPMENT (Cont'd)

SAO (cont'd)

TASKS ACCOMPLISHED (cont'd):

SAOImage Service:

- Responded to Q/A suggestions for SAOimage, making improvements to service.

HP Workstation:

- Upgraded internal disk; installed new disk space; reinstalled operating system.
- Attempted to install damaged jukebox; work on getting a replacement.
- Maintenance of HP workstation and installation of newer software

General:

- Provided user support to local users.
- Provided user support to remote users with questions about Abstract Service.
- Worked with CASA on coordinate stress-tests of Abstracts Service and Simbad Service.
- Updated versions of Ellery software for testing.
- Investigated and reported EOS bugs to Ellery Systems, Inc.
- Continued work on developer's guide.

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 November, 1993

DEVELOPMENT (Cont'd)

CASA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

- Work in Progress, Projected Completion Dates, Percent completed, and dependencies:

Catalog Access	7/1/94	12%	Operations
Convert dsc files to html	11/22/93	20%	
Coordinate conversion	11/22/93	5%	
SQLserver 2.0 Integration	4/1/93	0%	RPI/SMS, sql programs
Data Dictionary Integration	7/4/94	0%	
Mosaic/Doc Tool Incorp.	11/22/93	75%	
Developer's Guide	11/22/93	28%	
Coordination of Efforts	11/22/93	5%	
QA Policy Chapter	11/22/93	5%	
Help Text Guidelines	11/5/93	80%	
GUI design/implementation	11/22/93	20%	
File Transfer	11/22/93	25%	
NDADS Archive	1/11/94	60%	Transfer Monitor: EOSserver:Security Services: Secure File Transfer
Widget	1/11/94	25%	
Client CLite Library	1/11/94	80%	
EOSserver CLite Library	1/11/94	80%	
C Server Body	1/11/94	95%	
VAX Command File	1/1/94	75%	NSSDC staff effort
VAX ARMS Service	1/1/94	75%	NSSDC staff effort
Link to Security Services	10/30/93	0%	
Dynamic Project Update	11/22/93	0%	
Project - EID Help	11/22/93	0%	
Help Text	1/11/94	0%	
Transfer Monitor	1/11/94	72%	EOSserver: Security Services: Secure File Transfer
Widget	11/22/93	85%	
Client CLite Library	11/22/93	85%	
EOSserver CLite Library	11/22/93	85%	
FTserver, FTGET Server Body	10/30/93	0%	
Link to Security Services	10/30/93	0%	
Help Text	1/11/94	0%	

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 November, 1993

DEVELOPMENT (Cont'd)

CASA (cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

Transfer Monitor II	1/31/94	0%	EOSserver: Security Services: Secure File Transfer
Widget	1/31/94	0%	
Client CLite Library	1/31/94	0%	
EOSserver CLite Library	1/31/94	0%	
FTserver, FTGET Server Body	1/31/94	0%	
Link to Security Services	1/31/94	0%	
Developers Guide Text	1/31/94	0%	
Help Text	1/31/94	0%	
EOSserver CLite Library	10/30/93	0%	Security Services
Generic Plot Tool	1/31/94	0%	SM: GKS: Transfer Monitor
Widget	1/31/94	0%	
Client CLite Library	1/31/94	0%	
SM or GKS Server Body	1/31/94	0%	
Table Calculator	1/31/94	0%	
IDL Server	1/31/94	0%	IDL:ASTRON:IUEDAC: Transfer Monitor
IUE Reprocessed Archive	1/31/94	0%	IDL:IUEDAC: Transfer Monitor
CASA IUE Archives - Misc X	1/31/94	0%	IDL:TOMSIPS: Transfer Monitor
Bug Server	1/31/94	0%	
Directory Service	1/31/94	0%	
Core ADS System	1/11/94	81%	
ADS Main Panel Modification	10/11/93	100%	
Quick Button Implementation	10/10/93	100%	Quick Buttons DIP
About ADS Widget	11/22/93	99%	Feedback on content
Install Service	11/19/93	47%	
remove calc & plot depend.	10/22/93	100%	
Cleanup_mem.sh	1/11/94	0%	
LRS Service	1/11/94	75%	
List Settings Widget	1/11/94	75%	
Table Editor	1/11/94	75%	
FITS Transfer	1/11/94	75%	

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 November, 1993

DEVELOPMENT (Cont'd)

CASA (cont'd)

RK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

DD Tool	4/1/94	25%	
DD Tables	1/31/94	85%	SQL Server 2.0
Text Retrieval	1/31/94	1%	Wais Server: Mosaic Server: ADS WWW Server
P Cygni Catalog	12/31/93	71%	
Data	11/5/93	99%	
Ingres	11/12/93	90%	
Documentation	12/31/93	80%	
Widget	11/12/93	40%	
Integration	12/31/93	0%	

ANTICIPATED DELIVERIES FOR THE NEXT REPORTING PERIOD:

- More of the development work will be completed as scheduled.

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 November, 1993

OPERATIONS

ADS USER/USAGE STATISTICS:

	IPAC2	IUE	PSU	SAO	HEASRC	STSCI	CASA	EUVE	NSSCD
startup :	6	12	1	8	4	0	4	6	9
query :	338	17	11	202	70	106	299	23	6
schema :	298	16	11	196	70	102	276	21	6
retrieve :	9419	323	25	637	134	1101	1805	76	11
abort :	311	17	11	108	69	99	278	23	5
report :	2782	2020	2053	2050	1805	24	1976	1367	1306

startup - *Gives the number of hard startx ups of the SQLserver at the given node location*
query - *Records how many queries users sent to that particular node.*
schema - *Retrieves the query result file format (i.e., table header and number of records found). It therefore represents the number of successfully completed queries (though not necessarily transferred back to the user).*
retrieve - *Records all user requests to bring data from a successful query back to the user location. Data is returned one screen at a time, and a retrieve is issued for each screen of returned data, whether that screen has one or more lines of data.*
abort - *Records each time a query session ends. Currently, this can signal either that the user requested a termination or that all the data had been transferred.*
report - *Records the number of inquiries about the current status of the SQLserver program. Such inquiries can only be issued by the srvadm program.*

Abstracts

user	logins	queries	short	long	list
250	970	8759	27234	8653	32700

users - *Number of distinct users usingthe abstract service*
logins - *Number of logins into the abstract service*
queries - *Number of queries sent to the abstract service (one specification of authors, keywords, titles etc is one query. One query may return thousands of abstracts).*
short - *Number of lines of short abstract information retrieved (authors and titles).*
long - *Number of complete abstracts retrieved (authors, titles, keywords, author affiliation, journal information, abstract text).*

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 November, 1993

SUPPLIERS OF DATA

CASA

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____E. Olson (CEA/Berkeley)

Status as of: 1 November, 1993

SUPPLIERS OF DATA (Cont'd)

CEA

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____P. Barrett (HEASARC/GSFC)

Status as of: 1 November, 1993

SUPPLIERS OF DATA (Cont'd)

HEASARC/GSFC

TASKS ACCOMPLISHED:

•

ANTICIPATED DELIVERIES FOR NEXT REPORTING PERIOD:

•

Approved:_____G. Eichhorn
Achievement:_____J. Mazzarella (IPAC)

Status as of: 1 November, 1993

SUPPLIERS OF DATA (Cont'd)

IPAC/CALTECH

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____P. Lawton (IUE/GSFC)

Status as of: 1 November, 1993

SUPPLIERS OF DATA (Cont'd)

IUE/GSFC

TASKS ACCOMPLISHED:

- IUE upgraded INGRES to Version 6.4/04.
- IUE installed a system patch for a security bug with sendmail.
- IUE has put together a packet of ADS documentation per a request from an IUE staff member from the European Space Agency. The staff member works at the VILSPA tracking station in Madrid and will be attending the IUE 3-Agency meeting to be held at GSFC in November.
- A meeting was held with project personnel to discuss ways of improving access to the IUE database tables. The basic process of transferring Ingres tables from Greentec to iuesn1 and then merging them for use by the ADS usually takes a full day of effort. The project is considering the possibility of maintaining an ADS-like database table which could be updated daily and would require less effort to implement for the ADS. The new procedures will hopefully be completed within a few months.

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

- The IUE project has nearly completed updating the database of IUE Observing Proposals (IUEPROG). The new version should be completed and implemented next month.

ADS User/Usage Statistics:

October

- query	17	- startup	12
- retrieve	323	- withdraw	33
- schema	16	- shutdown	11
- status	16		
- abort	17	- query making users	7
- report	2020	- total users	15
- export	36	- new users	2
- export_failure	1		

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 November, 1993

SUPPLIERS OF DATA (Cont'd)

PSU

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____M. Garcia(SAO)

Status as of: 1 November, 1993

SUPPLIERS OF DATA (Cont'd)

SAO

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____A. Farris (STScI)

Status as of: 1 November, 1993

SUPPLIERS OF DATA (Cont'd)

STScI

TASKS ACCOMPLISHED:

- Nothing to report.

ASTROPHYSICS DATA SYSTEM

NASA Grant NCCW-0024

Monthly Progress Report No. 21

for November 1993

Prepared for

National Aeronautics and Space Administration
Astrophysics Division - Code SZ

Smithsonian Institution
Astrophysical Observatory
Cambridge, Massachusetts 02138

The Smithsonian Astrophysical Observatory
is a member of the
Harvard-Smithsonian Center for Astrophysics

SAO **ASTROPHYSICS DATA SYSTEM**

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 December, 1993

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M. Van Steenberg

IPAC/ADS:
J. Good

IPAC/NODE:
J. Mazzarella

NIST:
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PSU:
J. Nousek

SAO/EINSTEIN:
M. Garcia

SAO/PROJ:
S. Murray

STScI:
A. Farris

U. Minn:
C. Cornuelle

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 December, 1993

SUMMARY

November was highlighted by the efforts to finalize the EOS 3.25 release. Because of delays in getting the final EOS release, the beta test version release has been re-scheduled for 13-Dec-93.

Test and QA is proceeding for the upcoming release of ADS 4.0 on 11-Jan-94.

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 December, 1993

ADMINISTRATIVE

TASKS ACCOMPLISHED:

Problems with the EOS 3.25 release needed to be resolved. Because of the nature of the problems it was decided that a complete fix has to wait 'til the non-ANSA version of EOS is ready. The complete file transfer server and EOS server will then be implemented. The current file transfer server has sufficient capabilities for the current release. Fixing the ANSA version would have required too much time and would have delayed the release. Since the ANSA version will become obsolete soon, it did not make sense to spend too much time on fixing it.

We are currently still working towards a release date of 11-Jan-94 for ADS 4.0. However, because of the added testing requirements for the EOS 3.25 kernel, we may not be able to QA as many catalogs as we would like.

Discussions with prospective nodes continued. The node activities at NIST are picking up momentum. EUVE will have new services and data on-line for the 11-Jan release.

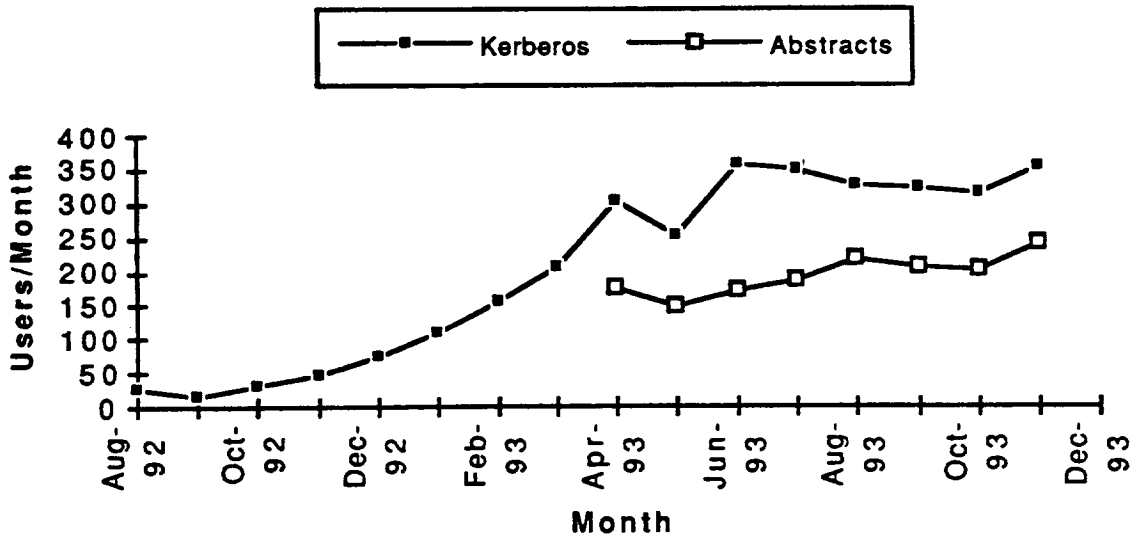
Welcome to two new node managers: Brett Stroozas is the Archive Manager for EUVE. He replaces Jeremy Drake, and; Steve Drake, the new node manager for HEASARC. He replaces Paul Barrett.

SAO ASTROPHYSICS DATA SYSTEM

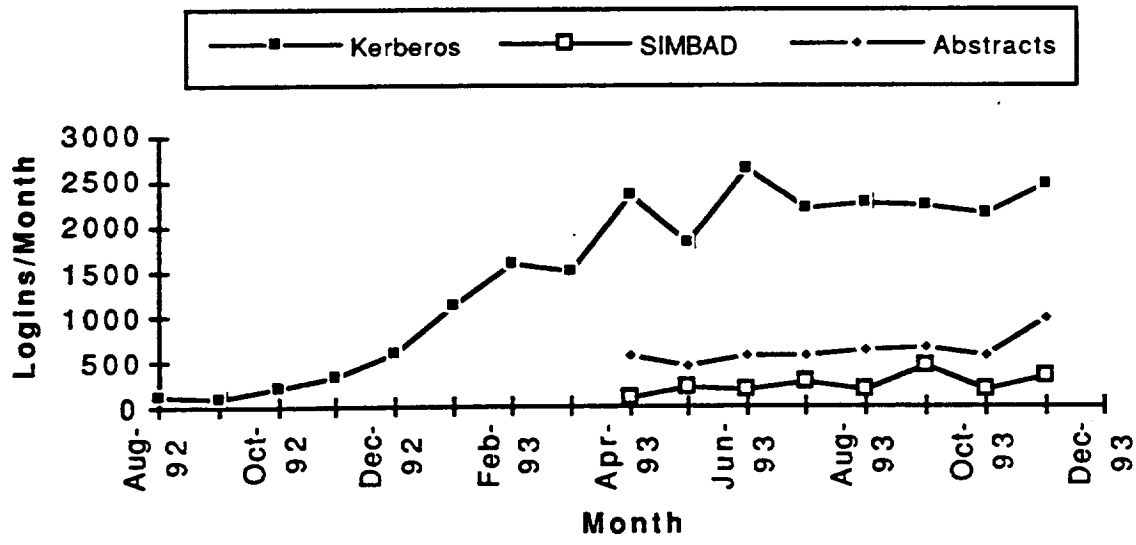
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 December, 1993

Number of Distinct Non-project Use



Number of Non-project Logins



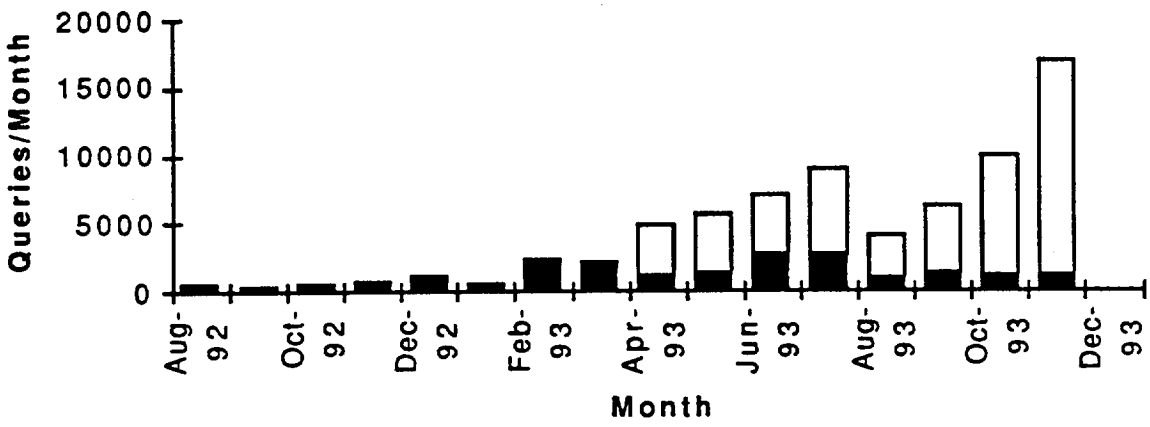
SAO

ASTROPHYSICS DATA SYSTEM

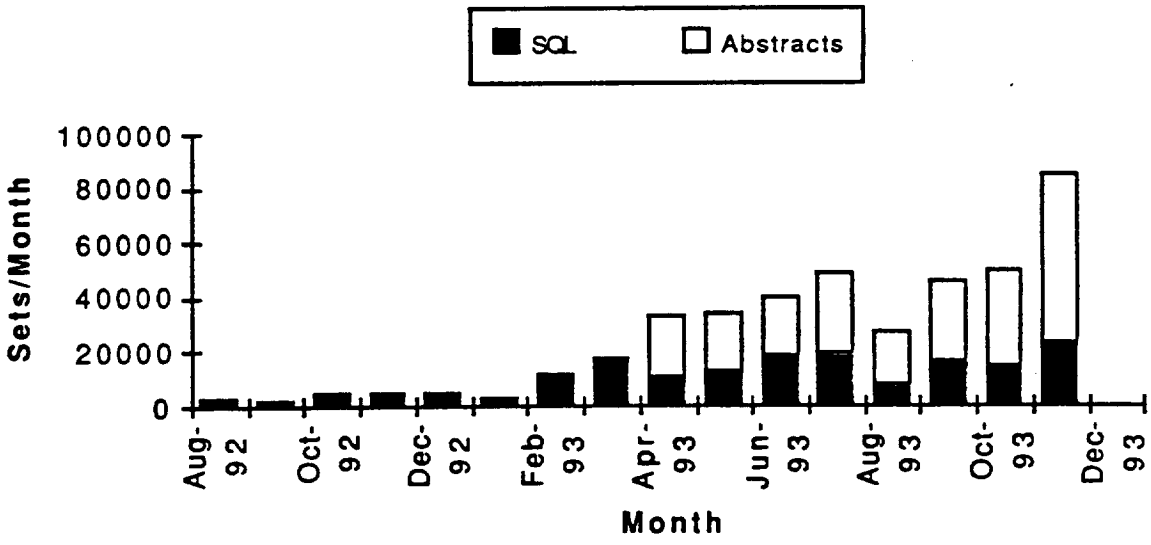
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 December, 1993

Number of Queries



Number of Retrieved Data Sets



Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 December, 1993

ADMINISTRATIVE (Cont'd)

LAST MONTHS PROBLEMS/CONCERNS:

CASA/Test and QA:

- Delays in the final EOS 3.25 release will cause delays in some of the QA efforts because of delays in the development efforts. QA schedules will be updated as needed especially with respect to QA of new catalogs.

A: The release of the beta test version to the nodes has been delayd till 13-Dec-93. We still hope to be able to have the final release of ADS 4.0 on 11-Jan-94.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

SYSTEM ENGINEERING

TASKS ACCOMPLISHED:

All of November was devoted to testing and refining the system that will be released to the community in January. The short-term goal was to get a beta-release out to the Nodes in early December to give them a chance to review the new functionality before the general release.

Listed below are the development tasks currently being undertaken by the ADS Project. Assigments (or tentative assignments) are shown by institution in the summary and by responsible part in the status section.

2.1 ADS 2.0 Consolidation

2.2 Infrastructure

2.2.1	Core ADS System	-- User interface, installation structure
2.2.2	RPI/SMS	-- Infrastructure for distributed computing
2.2.3	EOSserver	-- EOS in server mode (for archive access)
2.2.4	Security Services	-- Authorization checking
2.2.5	Secure File Transfer	-- General mechanism for transferring files
2.2.6	Transfer Monitor	-- Coordinate file transfers for all srvcs
2.2.7	Developer's Guide	-- How to build and operate ADS services
2.2.8	CUI	-- Character-terminal user interface

2.3 Operations / Management Tools

2.3.1	Log Handling	-- Statistics and reporting
2.3.2	Monitoring	-- Service availability, usage
2.3.3	Bug Server	-- Bug report submission
2.3.4	Authenticated FTP	-- FTP server with KERBEROS authentication
2.3.5	Mission Planning	-- Generic mission planning tools
2.3.6	DB Validation	-- Automated validation of data sets
2.3.7	QA Test Suites	-- Procedures for checking services

2.4 Archive Access

2.4.1	Abstract Server	-- Access to abstract database
2.4.2	NED Server	-- Interface to NED database
2.4.3	NDADS Archive	-- Access to all the ADC data at NSSDC
2.4.4	EINSTEIN Archive	-- Access to Einstein satellite data
2.4.5	IPAC Plate Archive	-- Access to infrared ISSA plates
2.4.6	SIMBAD	-- General interface to SIMBAD
2.4.7	IUE Archive	-- Access to raw and processed IUE data
2.4.8	UMinn POSS1 Data	-- Access to the digitized POSS1 plates
2.4.9	Abstract Svc Upgrade	-- Upgrade and possible port to HP
2.4.10	Data Compression	-- To save bandwidth during file transfer

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

SYSTEM ENGINEERING (Cont'd)

TASKS ACCOMPLISHED (cont'd):

2.5 Catalogs and Tables

2.5.1	Catalog Access	-- Access to catalog data
2.5.2	SQL Server	-- Updated service to RDBMSs
2.5.3	Documentation Server	-- Distributed access to document files
2.5.4	Data Dictionary	-- Information on catalog units and formats
2.5.5	Coordinate Handling	-- Both as service and policy
2.5.6	QBT	-- Query by Table (simpler catalog query)
2.5.7	Table Calculator	-- Simplified table manipulation
2.5.8	Proximity Join	-- Joining tables on positions
2.5.9	Correlation Tools	-- Comparing of tables from different catalogs
2.5.10	Query Fan-Out	-- Querying multiple catalogs at once
2.5.11	Natural Language	-- Using natural language for data searches
2.5.12	Dynamic Catalog Mgmt	-- Updating of catalogs on the fly

2.6 Visualization

2.6.1	Plot Tool	-- XY plotting
2.6.2	Skyview	-- Image display
2.6.3	AGRA	-- Sky mapping
2.6.4	SAOimage	-- Image display

2.7 Packages Interfaces

2.7.1	IRAF Server	-- General interface to IRAF
2.7.2	IDL Server	-- General interface to IDL
2.7.3	WAIS Server	-- WAIS client as ADS service

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

2.2.1 Core ADS System — Michelle Neves (CASA)

By "Core System" we mean the organization, on the client side, of user services and UI functionality. This is distinct from the maintenance and organization of remote services and their operation. The goal here is to provide an environment where new or updated services can easily be added by a knowledgeable user. This work is crucial to get us into a mode where services can be incrementally added or changed.

STATUS: In final debugging and test at CASA.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.2.2 RPI/SMS — Andrew Wang (ESI)

The RPI and SMS programs control communications to any ADS services running on a particular machine. This pair of processes is the core of the distributed computing capability used by ADS.

The most substantive work envisioned for the RPI/SMS software is the extension of the RPI to provide aspects of system security, service registration and location functionality. This is necessitated by the poor operability of the current ANSA Trader code. The basic design and implementation for this upgrade has been recently modified to include functionality for the ADS version of the software that has previously only been available in the DCE version.

Minor modifications have also been proposed to the logging and control schemes used to facilitate operations and reporting.

STATUS: Development is currently underway at ESI. Several minor problems have been uncovered by internal ESI testing and are currently being addressed.

2.2.3 EOSserver — Kyle Habermehl (ESI)

In order to control general data access services (*e.g.*, NDADS) which can take hours or even days to retrieve results, we plan to use an EOS server. This code is identical to the standard client EOS but runs as a background process and thus can be maintained from session to session.

STATUS: Problems that have arisen in the testing of the EOSserver have forced us to remove it from this release (it will be reinstated in the next). The services which relied on it (NDADS in particular) are being reworked to accomodate this change.

2.2.4 Security Services — Steven Lo (IPAC)

These tools are necessary for complete security checking using KERBEROS. This functionality needs to be folded into the RPI, the FTserver, and packaged for use as a local service and set of libraries for service builders.

STATUS: Basic service package delivered to QA for test and to ESI for incorporation into their modules. Work on this has not yet begun.

2.2.5 Secure File Transfer — Brett Milash (ESI) / Steve Lo (IPAC)

A general file transfer service pair (send/receive) has been built by ESI and is currently in limited use as part of the IDL plotting tool in the current distribution. Full use of this service (*e.g.*, in archive access services) requires an upgrade which will use the security software to check the authenticity and authorization of the requested transfer.

STATUS: File transfer has passed QA. Adding of full security is currently under study.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.2.6 Transfer Monitor — Gregg Allison (CASA)

Since many services will invoke file transfers at one time or another, it makes much more sense to coordinate these requests through one service than to have separate monitor functionality for each service.

STATUS: In final QA testing.

2.2.7 Developer's Guide — Alice Bertini (CASA)

The real power of the ADS is that is allows data/processing service owners to turn their product into ADS services simply and quickly. In order to facilitate this while still maintaining some level of uniformity to interaction look-and-feel, we must establish and publish guidelines and procedures for new developers to follow.

STATUS: First version completed; all sections delivered to CASA.

2.2.8 CUI — Alice Bertini (CASA)

There is at present no good way for users with character terminals to access ADS functionality. A limited subset interface to such things as archive queries and catalog requests could be provided if there is sufficient interest.

STATUS: Design work for this task has not been scheduled.

2.3.1 Log Handling — Jing Li (IPAC)

Currently, our ability to determine system usage as a function of time or user is severely constrained by the format of log files and the data they contain. A generic log handling service (based on the EOSserver) will provide a wide range of statistical measures of system usage.

STATUS: Initial version of this code has been completed and is in development testing.

2.3.2 Monitoring — Jing Li (IPAC)

Part of the proposed enhancements to the RPI/SMS software are the hooks to allow Operations to reliably monitor and control services.

STATUS: The client tools to do this will be built as soon as this functionality in RPI/SMS is available.

2.3.3 Bug Server — Jacque Anderson, Sally Schaller (CASA)

The Bug Server would be a simple local server and widget to help the user construct reports and mail them to User Support.

STATUS: Initial design complete. Development not yet begun.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.3.4 Authenticated FTP — Steven Lo (IPAC)

A version of the standard FTP daemon has been written which uses KERBEROS authentication to the ADS user database to confirm the right to download system components.

STATUS: Done.

2.3.5 Mission Planning — (SAO?)

One long term objective being considered by the ADS Project is the development of distributed mission planning and mission operations tools to support many missions. A preliminary study has shown that many of the mission planning tools currently in use have a core of similar functions that are "re-invented" by each mission center. In addition, the interface of mission planning tools with the user community varies with each mission, requiring that scientists learn several slightly different systems. The ADS can be helpful in supplying missions with a library of planning tools, and a standard user interface. This will allow mission resources to be concentrated on mission specific requirements. It offers the user community a simpler mechanism for developing observation requests in response to NASA AOs, particularly through the use of electronic preparation and submission of these requests.

STATUS: Design work not yet scheduled.

2.3.6 DB Validation — (CASA)

Automated procedures to confirm that the data retrieved via ADS are not different from the original data source. Test and QA along with the Project Office make an initial verification of data when it is first made available via ADS. In order to assure that changes to these data are not introduced by the system, regular sampling of the databases is made and compared with reference results.

STATUS: Done for first release of ADS. No further work currently planned.

2.3.7 QA Test Suites — (CASA)

As part of Quality Assurance, CASA will maintain and update a regression testbed of information and a suite of procedures that test ADS functionality. This is distinct from the operational monitoring required of Operations and is for a quite different purpose: spot-checking and regression analysis rather than real-time monitoring.

STATUS: On-going.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.4.1 Abstract Server — Guenther Eichhorn / Carolyn Stern Grant (SAO)

The Abstract Server provided remote access to a database of abstracts culled from the Astrophysics literature by NASA RECON.

After some minor adjustment during the first phase of operation (and additional coding within the core system to meet new security constraints required by NASA), the Abstract Server is now in full operation.

STATUS: Updated service/user interface modules delivered to CASA for test.

2.4.2 NED Server — John Good (IPAC)

The NED database contains a large amount of data about extragalactic sources, including basic data on positions and fluxes, abstracts and references, etc. The initial ADS interface, at the request of the NED project, has been limited to accessing basic name and positional information.

In the longer term, many people have expressed a desire for more of the NED functionality beyond the basic name/position resolution currently offered. It is unclear whether this should be an ADS task or left to the NED project.

STATUS: In operation. Minor upgrades for operational reliability have been completed and delivered to QA for test.

2.4.3 NDADS Archive — Gregg Allison (CASA)

The NDADS server is our main prototype for raw data archive access. It is considered the highest priority item for ADS this fiscal year. A prototype server was built by ADS and delivered to NSSDC for final integration with their database software. NSSDC has been concentrating on the basic access to the data; the work on our end has been infrastructure integration (EOSserver / Archive (*e.g.*, NDADS) server / FTserver) and user interface.

STATUS: In final QA testing.

2.4.4 EINSTEIN Archive — Todd Karakashian (SAO)

The EINSTEIN archive server will provide meta-data tables as well as real data tables and images of EINSTEIN data. In structure this service is similar to the NDADS server, and some of the same functionality has been reused.

STATUS: In final QA testing.

2.4.5 IPAC Plate Archive — John Good (IPAC)

IPAC is putting on-line all of the ISSA infrared sky images which cover the whole sky in a regular pattern. This service allows a user to request an image or part of an image centered on a particular sky position.

STATUS: In final QA testing.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.4.6 SIMBAD Server — Carolyn Stern Grant (SAO)

Where NED provides access to information on extragalactic objects, SIMBAD provides it for stellar objects. The type of service is similar and we hope to be able to reuse parts of the NED interface code.

STATUS: In final QA testing.

2.4.7 IUE Archive — (CASA?)

IUE data is available through the NDADS service, but there is still a need for a meta-data search capability to help the user locate the correct data sets to request.

STATUS: Design has not begun.

2.4.8 UMinn POSS1 Data — (IPAC?)

The University of Minnesota has scanned the POSS-1 plates and created a database of sources detected. This data can and will be accessed through a standard SQLserver. The project will, if necessary, lend some assistance to UMinn in setting this up since this is a uniquely valuable resource for the community.

STATUS: Preliminary desgin discussions have been held but no work is yet assigned.

2.4.9 Abstract Svc Upgrade — Todd Karakashian (SAO)

The Abstract Server, while quite successful and capable, was a venture into new territory and will certainly need updating as we gain experience. In addition, it has been proposed to migrate the server to a faster platform for added throughput.

STATUS: Design has not begun.

2.4.10 Data Compression — (SAO?)

Determine the feasibility and usefulness of data compression for bulk data transfer. If the study determines that data compression would be useful, this task would implement data compression for large-volume data.

STATUS: Study has not begun.

2.5.1 Catalog Access — Alice Bertini (CASA)

The current catalog access interface distributed with the ADS client was the first service built and makes use of the first generation SQLserver and catalog documents that must be distributed with the system. As is typical of such endeavors, it suffers from learning curve problems.

Approved:_____G. Eichhorn Status as of: 1 December, 1993
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

In migrating to the new SQL Server and Documentation Server, we must also update the integrated Catalog Access environment. We plan to make use of this opportunity to add some functionality to handle casting of coordinate from one catalog representation to another (a "Data Dictionary" mechanism). This additional functionality is considered critical by our user community and should greatly enhance catalog interoperability.

STATUS: This task has been subdivided into subtasks 2.5.1.1 through 2.5.1.4.

2.5.1.1 MOSAIC Integration — Alice Bertini (CASA)

Integrate the MOSAIC documentation server into the system in the special case of ADS catalog documentation handling.

STATUS: In final QA testing.

2.5.1.2 SQLserver Integration — Alice Bertini (CASA)

The new SQL Server is quite different from the one currently in use. Consequently, there is a fair bit of work needed to integrate it into the Catalog Access environment properly.

STATUS: Work started.

2.5.1.3 Coordinate Conversion Integration — Alice Bertini (CASA)

Often the query the user wishes to pose to the Catalog Access environment is couched in terms of a coordinate system other than that in which the data is stored. When this happens, it is desirable to perform coordinate translations on the fly, both on the query and on the output tables.

STATUS: Work started.

2.5.1.4 Data Dictionary Integration — Alice Bertini (CASA)

Data Dictionaries provide a convenient way for specifying how data should be interpreted and formatted when extracted from the DBMS table. The purpose of this task is to determine how best to ensure that this functionality is provided in a uniform way across the ADS.

STATUS: Work started.

2.5.2 SQL Server — Brett Milash (ESI)

With the update to the distributed processing architecture that is currently being tested, the old SQL server access to catalog databases needed to be updated as well. In particular, support for the new service access architecture and for FITS data transfer.

STATUS: Delivered to QA for test.

2.5.3 Documentation Server — Michelle Neves (CASA)

The DOCserver is meant to provide a standard mechanism for users to obtain textual data from any server site. This will include timestamp checking to allow for dynamic updating, so that we can be sure that all users are seeing the same documentation.

Approved:_____G. Eichhorn Status as of: 1 December, 1993
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

This functionality is critical to get us out of the mode of distributing documentation on all the catalogs (and therefore requiring massive system releases).

This service will make use of an existing document handling system called MOSAIC for most of its functionality.

STATUS: In design and prototyping development.

2.5.4 Data Dictionary — Alice Bertini (CASA)

Intercomparing catalogs is usually a matter of checking for positional coincidence. Since existing catalogs currently use a variety of coordinate naming and representation schemes, it is necessary that we have some mechanism for determining this information on a catalog-by-catalog basis. The simplest way to do this is with a standard DBMS "data dictionary" approach. This task is to provide the mechanisms to implement a data dictionary and to provide the hooks for the catalog access system to make use of it.

STATUS: In development.

2.5.5 Coordinate Handling — Carolyn Stern Grant (SAO)

Since coordinates play such a pivotal role in astronomy, we have found it necessary to provide a consistent and uniform set of coordinate handling tools for ADS users and developers. These basic tools will be used extensively, not just by ADS for its internal development but by potential service providers as well.

STATUS: In final QA testing.

2.5.6 QBT — Todd Karakashian (SAO)

The current Query-By-Example (QBE) functionality in ADS has been found to be cumbersome for most applications and at the request of our users we are planning a more user-friendly interface that uses a more compact, tabular form. This Query-By-Table (QBT) should greatly improve the usability of the current Catalog Access but the effort currently has low priority since it results in no new basic functionality.

STATUS: Initial design complete. Final design effort not yet scheduled.

2.5.7 Table Calculator — Gregg Allison? (CASA)

There are many functions that scientists want to perform on tabular data that are not typically found in commercial DBMS software, nor is the interfaces available in these environments flexible enough for the kind of detailed analysis that scientists need to do. With the functionality already available in ADS, it should be straightforward to provide better tabular analysis tools.

STATUS: Design not yet scheduled.

Approved:_____G. Eichhorn Status as of: 1 December, 1993
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.8 Proximity Join ? (SAO?)

The primary mode that astronomers use in comparing tables of sky objects is to check the proximity on the sky of sources. This function is no currently supplied by commercial DBMSs (in fact, is at odds with the standard relational model which only deals with "equi-joins"). This task would be to provide a mechanism for "joining" two tables on the basis of the proximity of two objects in it.

STATUS: Design not yet scheduled.

2.5.9 Correlation Tools ? (SAO?)

The basic ADS system contains a simple correlation function which compares catalog tables on the basis of positional coincidence. Other correlation functions based on source properties, classifications, names etc are possible. Tools for generating these correlations will be developed and added to the system.

STATUS: Design not yet scheduled.

2.5.10 Query Fan-Out ? (SAO?)

It is often desirable to use the results of a query as the basis of follow-up queries to multiple catalogs for multiple objects. The Fan-out tool will provide a GUI widget to create the multiple follow-up queries and to collect the results in a single response.

STATUS: Design not yet scheduled.

2.5.11 Natural Language ? (SAO?)

Determine the feasibility of using natural language queries for data retrieval.

STATUS: Design not yet scheduled.

2.5.12 Dynamic Catalog Mgmt ? (SAO?)

Implement the dynamic addition and removal of catalogs. In ADS 2.0 the catalogs are hardcoded in the user release. With the dynamic catalog management, new catalogs can be brought on-line without requiring a new user release.

STATUS: Superseded by the work on Catalog Access and Documentation Service.

2.6.1 Plot Tool Gregg Allison (CASA) / John Good (IPAC)

The current plot tool distributed with the system is based on a prototype IDL service developed at CASA and requires IDL (either local or remote) to run. A small amount of fine tuning of this functionality is warranted, but the service is essentially done.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

Preliminary work has also been done on integrating in an existing portable graphics package (SM) -- so we can offer software to people that they can run on their own machines -- though this work is considered low priority.

STATUS: IPAC is currently working on the plot engine using PLPLOT rather than SM. CASA will handle the GUI for this once it is done, building on the IDL work.

2.6.2 Skyview — John Good (IPAC)

Skyview is a program developed at IPAC for display and analysis of astronomical images in various formats. This work is funded by IPAC and has no direct relationship to ADS or funding by it.

The Skyview program has been integrated into the ADS as a local service. This was completed some time ago and has been shown to several groups. It has not been incorporated into the ADS release, however, for three reasons. First, IPAC has not gotten final approval to distribute the software themselves (rather than through COSMIC). Second, there has not been time to adequately test the ADS interface. Finally, there is very little call for this service until ADS provides access to image databases.

STATUS: In final QA testing.

2.6.3 AGRA — Jing Li (IPAC)

This local service is self-contained code for turning coordinate tables into sky maps (various projections). The development has been slow since this is not a high priority item. This service is designed to allow easy use as either an ADS server body or a stand-alone program and is integrated with both ADS services which return positional tables (NED, SIMBAD, Catalog Access) and with image display services (providing coordinate, point source, and area overlays).

STATUS: Delivered to QA for test.

2.6.4 SAOimage — Carolyn Stern Grant (SAO)

SAOimage is an image display program widely used in the astronomical community, partly due to its links to the IRAF package. SAO has undertaken to build an ADS interface themselves, so the only Project task is to QA it.

STATUS: In final QA testing.

2.7.1 IRAF Server — ? (SAO?)

The goal of IRAF was to provide a set of data processing and analysis services. This meshes extremely well with the ADS functionality to provide distributed access to such services. In addition the interfaces of the two systems are constructed in such a way as to allow melding of the systems with minimal impact on either.

STATUS: No work yet planned.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.7.2 IDL Server ? (CASA?)

IDL is widely used in the astrophysical community for visualization and analysis of local data sets. Combining this functionality with ADS should produce a general distributed data processing environment of great power.

STATUS: No work yet planned.

2.7.3 WAIS Server Todd Karakashian? (SAO?)

WAIS provides distributed access to a number of textual databases around the country. Rather than replicating this functionality, it makes sense for the ADS to tap into the existing services. The simplest way to do this is to create a custom WAIS client that would run as a local ADS service. Not only do we then have access to all WAIS functionality, but we add the value of the ADS GUI interface and additional data processing tools to WAIS.

STATUS: No work yet planned though this may follow on closely to the MOSAIC Documentation Server work that is ongoing.

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 December, 1993

USER COMMITTEE

PSU:

- Nothing to report

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 December, 1993

USER SUPPORT

CASA:

The month of November was spent on continued testing of the EOS 3.25 snapshot releases and ADS add-on services. Development work continued on the core system, file transfer service, and catalog access service. More of the QA work associated with individual services was also completed.

Please Note: The WBS numbers will be included in December's status report. Because of time constraints, they were not included in this report.

The CASA ADS project management support is now using MicroSoft Project to help track our tasks and schedules. The tables enclosed in this report were generated using this software package.

The information for the MicroSoft Project input tables is taken from our individually maintained status files.

WBS#	task	End Date	% complete	Dependencies
	Project Management DIP	2/28/94	10%	Microsoft Project
	Supervision	1/31/94	---	***ONGOING***
	UI-DB Submission	1/31/94	0%	
	OpenWindows	1/31/94	0%	OpenWin 3.0 at ESI
	RECON Submissions	1/31/94	1%	Sue's list

TASKS ACCOMPLISHED:

- User Support statistics for the month:
  - New users: 64
  - New US users: 30
  - New non-US users: 34

  - Total users as of 11/30/93: 1496
  - Total US users as of 11/30/93: 1191
  - Total non-US users as of 11/30/93: 305

  - Information requests: 19
    * answered questions: (includes "answered bin" and phone calls) 92
    * resolved problems: (multiple messages for each of these) 18

Approved:_____G. Eichhorn
Achievement:_____ T. Snow (CASA)

Status as of: 1 December, 1993

USER SUPPORT (Cont'd)

CASA (cont'd):

TASKS ACCOMPLISHED (cont'd):

WBS#	Task	Completion Date	% complete	
	On-line Help Text	1/11/94	91%	
	Hypertext-Core	1/11/94	99%	
	Hypertext-catalogs	11/6/93	100%	
	Hypertext-einstein	11/3/93	100%	
	Hypertext-table calc	11/10/93	100%	
	Hypertext-issa	11/5/93	100%	
	Hypertext-ndads	12/31/93	70%	
	Hypertext-simbad_qui	11/11/93	100%	
	Hypertext-simbad xterm	11/11/93	100%	
	Hypertext-skyview	11/10/93	100%	
	Hypertext-file transfer	12/3/93	100%	
	Hypertext-Pcygni	1/11/94	50%	
	Hypertext Tutorial	12/31/93	15%	
	Science Scenarios	1/31/94	1%	on-going
	Mailing lists	1/31/94	1%	on-going
	Advertising	1/31/94	5%	on-going
	Update tri-fold	12/31/93	100%	
	Update ADS Backdrop	12/24/93	75%	
	Astro.db - Ingres	1/31/94	0%	
	Update ADS Docs	1/31/94	1%	on-going
	Front-line support	1/31/94	1%	on-going
	User Statistics	1/31/94	1%	on-going
	users.tbl	1/31/94	1%	on-going
	readreg.pl	1/31/94	1%	on-going

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

- Meetings

AAS, January	1/11/94	5%
Update Display	1/11/94	50%
HTML Based Science Scen.	1/11/94	75%
WGAS presentation	1/11/94	50%
Set-up Boulder High	1/31/94	50%
SIGCHI Poster	12/15/93	75%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 December, 1993

TEST AND QA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	Completion Date	% complete
	SQLserver 2.0	3/15/94	10%
	Coord. Conversion	1/11/94	75%
	ISSA Archive	1/11/94	90%
	AGRA	1/31/94	25%
	Text Retrieval	7/1/94	0%
	Data Dictionary	7/1/94	0%
	WAIS Server	1/31/94	0%
	EOSSERVER - on hold	11/22/93	85%
	Security Services	??	0%
	Secure File Transfer	??	0%
	EOS 3.25.1 Release	1/11/94	90%
	Full Release QA	1/11/94	75%
	RPI/SMS	1/31/94	0%
	SAOimage Tool	1/11/94	90%
	Core ADS - ADS4.00	12/31/93	80%
	SIMBAD GUI	1/11/94	80%
	P Cygni Service	1/11/94	80%
	LRS	1/31/94	0%
	File Transfer Monitor	1/11/94	75%
	Skyview	1/1/94	85%
	EINSTEIN Archive	11/22/93	90%
	NED	1/1/94	30%
	Catalog Access	1/1/94	80%
	UMinn POSS1 Data Arch.	1/1/94	85%
	STARCAT (ESO)	11/19/93	100%
	Abstract Service	1/11/94	90%
	NDADS Archive	1/11/94	70%
	Log Handling Service	1/31/94	0%
	Monitoring Service	1/31/94	0%
	2-D Plot Service	1/31/94	0%
	Bug Reporting Service	1/31/94	0%
	QBT Service	1/31/94	0%
	ADS Directory Service	1/31/94	0%
	Catalogs	1/11/94	50%
	redshift	1/31/94	0%
	sao2000	1/31/94	0%
	seyfert	1/31/94	0%
	seyfert_ref	1/31/94	0%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 December, 1993

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	agk3	1/31/94	0%
	dmsort	1/31/94	0%
	saosort	1/31/94	0%
	rasort	1/31/94	0%
	selected	1/31/94	0%
	sbnr	1/31/94	0%
	rad_drao	1/31/94	0%
	parallax	1/31/94	0%
	pln	1/31/94	0%
	reflect	1/31/94	0%
	gc	1/31/94	0%
	nltt	1/31/94	0%
	nltt_notes	1/31/94	0%
	acrs1	1/31/94	0%
	acrs2	1/31/94	0%
	hii	11/5/93	0%
	ppmn	11/5/93	0%
	ppms	11/5/93	0%
	openclus	11/5/93	0%
	interfer	11/5/93	0%
	findlist	11/5/93	0%
	findlist_rem	11/5/93	0%
	pcygni	1/11/94	10%
	aps_poss (aps)	1/31/94	100%
	rc3 (ipac)	1/31/94	0%
	iuelog (iue)	1/11/94	90%
	iuefes (iue)	1/11/94	90%
	wfcbsc (heasarc)	1/31/94	99%
	rosao (heasarc)	1/31/94	95%
	rospublic (heasarc)	1/31/94	99%
	abell (heasarc)	1/31/94	80%
	cosb (heasarc)	1/31/94	99%
	bulletin (heasarc)	1/31/94	99%
	konus (heasarc)	1/31/94	99%
	rosid (heasarc)	1/31/94	99%
	rosuspspc (heasarc)	1/31/94	99%
	td1 (heasarc)	1/31/94	99%
	gs (heasarc)	1/31/94	10%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 December, 1993

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	wds_nameidx (casa)	1/31/94	25%
	wds_namesort (casa)	1/31/94	25%
	wds_pos (casa)	1/31/94	25%
	euve_bsl (euve)	1/11/94	10%

PROBLEMS/CONCERNS:

- Delays in the final EOS 3.25 release will cause delays in some of the QA efforts because of delays in the development efforts. QA schedules will be updated as needed especially with respect to QA of new catalogs.

Approved:_____G. Eichhorn
Achievement:_____J. Stoner (ESI)

Status as of: 1 December, 1993

SYSTEM INTEGRATION

TASKS ACCOMPLISHED (October):

The primary work at Ellery during October has been to prepare and test software updates for delivery to ADS QA at CASA:

- Don Roberts ran standard tests and investigated problems found with the EOS kernel and the server architecture and tested fixes for bugs in the CASA/ADS bug system.
- Clark Fishback tracked bug problems and efforts to fix them, did some testing, worked on and released an update to the distributed processing manual.
- Randall Gaz worked on tracking down bugs in ADS applications and core software.
- Several bug fixes of software were delivered to ADS QA at CASA through the month.

Other ADS support activities during the month included:

- Kyle Habermehl participated in ADS conference calls, did some UI server bug fixes and provided support to various ADS groups.
- Brett Milash worked to fix an ADS locator problem.
- Andrew Wang continued work on a non-DCE and non-ANSA RPC mechanism.
- Project management, reporting and planning support were also done for the ADS by Geoff Shaw, Lowell Schneider, Jeff Jordan, Nathan Vanderhoofven, and Jeff Stoner.

Plans for the next two months of November and December are:

- Software patch versions will be made available to ADS based on CASA QA testing until final acceptance.
- Development activity will continue to replace ANSA/ANSA-trader based EOS.
- Ongoing bug fixes and support to project as needed.
- Participation in discussions of new ADS services.

TASKS ACCOMPLISHED (November):

The primary work at Ellery during November has been to prepare and test software updates for delivery to ADS QA at CASA:

- Randall Gaz worked on tracking down bugs in ADS applications and core software.
- Clark Fishback tracked bug problems and efforts to fix them, did some testing, worked on and released an update to the distributed processing manual.
- Don Roberts ran standard tests and investigated problems found with the EOS kernel and the server architecture and tested fixes for bugs in the CASA/ADS bug system.
- Dave Spracklen reviewed several ADS bug fixes.
- Jeff Stoner worked on several ADS bug fixes.

Approved:_____G. Eichhorn
Achievement:_____J. Stoner (ESI)

Status as of: 1 December, 1993

SYSTEM INTEGRATION (Cont'd)

TASKS ACCOMPLISHED (cont'd):

- Several bug fixes of software were delivered to ADS QA at CASA through the month. A final release is planned for December 1st.

Other ADS support activities during the month included:

- Brett Milash worked to investigate IPAC ANSA errors and reviewed some new service proposals.
- Andrew Wang continued work on a non-DCE and non-ANSA RPC mechanism.
- Kyle Habermehl provided general support to ADS and participated in conference calls. He also fixed several problems with the EOSServer including a concatenation problem, a select problem and a shutdown problem.
- An ESI internal meeting was help to discuss the progress of Andrew Wang's current effort for the non-ANSA-non-DCE version of EOS. Currently a test version exists on HP platform only and does not include security. During the beginning of December, Ellery will come up with a more detailed and definitive implementation and test plan.
- Project management, reporting and planning support were also done for the ADS by Geoff Shaw, Lowell Schneider, Jeff Jordan, Nathan Vanderhoofven, and Jeff Stoner.

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

- Software release to ADS QA at CASA on December 1st.
- Development activity will continue to replace ANSA/ANSA-trader based EOS.
- Specify requirements and implementation plan for security in the new RPC mechanism.
- Ongoing bug fixes and support to project as needed.
- Participation in discussions of new ADS services.

Approved:_____G. Eichhorn
Achievement:_____S. Murray (SAO)

Status as of: 1 December, 1993

DEVELOPMENT

SAO

TASKS ACCOMPLISHED:

Abstract Service:
- Finished reloading abstracts database with new data and made new version available for all users.
- Fixed widget attachment problems on decstation.
- Fixed bugs with list query and improved error checking on Query Form.
- Rewrote more software to consolidate and streamline the update process.

Einstein Archive Service:
- Fixed bug involving filename translation into file transfer widget.
- Added timeout feature to server and user interface.

SIMBAD Service:
- Fixed widget attachment problems on decstation.
- Submitted to CASA for Q/A and release.

Mosaic Server:
- Fixed bugs and maintained code.

Starcat Service:
- Submitted HST starcat (xterm) service to CASA for Q/A and release.

Node Support:
- Worked with University of Minnesota personnel on SQL queries to APS plate catalogs.
- Assisted AAVSO in preparing data for ADS.

Coordinate Conversion Service:
- Added new precision options to server. Users may now specify accuracy by letter codes (a, t, h, m) corresponding to degree of accuracy (arcsecond, tenth-arcsecond etc).
- Modified User Interface settings window accordingly.

General:
- Worked on ADS presentation to university-wide internet users for 12/8.
- Provided user support to local users.
- Provided user support to remote users with questions about Abstract Service.
- Continued work on developer's guide.
- Found and reported bug with some adc_cdrom catalogs in which ram columns are a factor of 10 too large (decimal point misplaced).
- Assisted in development of General 2D Plot Tool.

Approved:_____G. Eichhorn
Achievement:_____S. Murray (SAO)

Status as of: 1 December, 1993

DEVELOPMENT (Cont'd)

SAO (cont'd)

TASKS ACCOMPLISHED (cont'd):

Miscellaneous:

- Worked with CASA in performing stress testing of ADS software.
- Worked on obtaining and testing translator scripts to allow ADS newsletters (from Framemaker) to be put into Mosaic.

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 December, 1993

DEVELOPMENT (Cont'd)

CASA

TASKS ACCOMPLISHED:

- System integration of all new services with the core system and EOS 3.25.1 from the beta release and the final release.

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

- System maintenance related activities in program and ongoing:

IDL 2-D Plotting	Table Calculator	Startup Options
Display IP Script	Update ADS Docs	ADS Bug Fixes
ADS Integration	ADS Release Builds	ADS/EOS Bugs DB
CASA Testsuites	ADC CDROM Catalogs	

WBS#	Task	End Date	% complete	Dependencies
	Catalog Access-Total	7/1/94	12%	
	Convert dsc files to html	11/22/93	100%	
	Update ADS_Doc Req	2/1/94	0%	
	Coordinate conversion	11/22/93	100%	
	SQLserver 2.0 Integration	7/1/94	0%	RPI/SMS, sql programs
	Data Dictionary Builder	7/1/94	10%	
	Data Dictionary Integration	7/1/94	0%	
	Mosaic/Doc Tool Incorp.	11/22/93	100%	
	Dynamic List Updates	12/6/93	100%	
	Dynamic QBE Updates	12/6/93	100%	
	SQL Parser in adstoqbeCB	7/1/94	0%	
	Add Positional Options	7/1/94	0%	
	Incorporate Mosaic Widget	7/1/94	0%	Kyle's mosaic widget in ESI
	QBT	7/1/94	0%	Kyle's mosaic widget in ESI
	Developer's Guide	1/11/94	80%	
	Coordination of Efforts	11/22/93	90%	
	QA Policy Chapter	11/22/93	100%	
	SQL appendices	1/11/94	10%	
	Help Text Guidelines	1/1/94	100%	
	GUI Guidelines	11/22/93	100%	
	File Transfer	11/22/93	80%	
	NDADS Archive	1/1/94	88%	Transfer Monitor : EOSserver
	Widget	11/22/93	100%	
	Merged CLite Library	12/6/94	90%	
	C Server Body Reconnect	12/6/93	0%	

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 December, 1993

DEVELOPMENT (Cont'd)

CASA (cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	End Date	% complete	Dependencies
	N/A (Client CLite Lib)	11/22/93	95%	"EOSSERVER, SMS inadequate"
	N/A (EOSserver CLite Lib)	11/22/93	95%	"EOSSERVER, SMS inadequate"
	C Server Body	11/22/93	95%	
	Link to Security Services	11/22/93	0%	
	Dynamic Project Update	11/22/93	100%	
	Project - EID Help	11/22/93	100%	
	Help Text	12/6/93	80%	
	VAX Command File	1/1/94	75%	NSSDC staff effort
	VAX ARMS Service	1/1/94	75%	NSSDC staff effort
	Transfer Monitor	12/6/93	89%	EOSserver: Security Service
	Widget	11/22/93	100%	
	Merged CLite Library	12/6/93	100%	"EOSSERVER SMS inadequate"
	Client CLite Library	11/22/93	95%	"EOSSERVER SMS inadequate"
	EOSserver CLite Library	11/22/93	95%	
	FTserver, FTGET Ser Body	11/22/93	0%	
	Link to Security Services	11/22/93	0%	
	Help Text	12/6/93	80%	
	Transfer Monitor II	1/31/94	0%	EOSserver: Security Services
	Widget	1/31/94	0%	
	N/A (Client CLite Library)	1/31/94	0%	
	N/A (EOSserver CLite Lib)	1/31/94	0%	
	FTserver, FTGET Ser Body	1/31/94	0%	
	Link to Security Services	1/31/94	0%	
	Developers Guide Text	1/31/94	0%	
	Help Text	1/31/94	0%	
	EOSserver CLite Library	11/22/93	95%	Security Services
	Generic Plot Tool	1/31/94	0%	SM: GKS: Transfer Monitor
	Widget	1/31/94	0%	
	Client CLite Library	1/31/94	0%	
	SM or GKS Server Body	1/31/94	0%	
	Table Calculator	1/31/94	0%	
	IDL Server	1/31/94	0%	IDL:ASTRON:IUEDAC: Transfer Monitor

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 December, 1993

DEVELOPMENT (Cont'd)

CASA (cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	End Date	% complete	Dependencies
	IUE Reprocessed Archive	1/31/94	0%	IDL:IUEDAC:Transfer Monitor
	CASA IUE Arch - Misc X	1/31/94	0%	IDL:TOMSIPS:Transfer Monitor
	Bug Server	1/31/94	0%	
	Directory Service	1/31/94	0%	
	ADS Help Tool	11/12/93	100%	
	Core ADS System	11/22/93	100%	
	About ADS Widget	11/8/93	100%	Feedback on content
	Install Service	11/3/93	100%	
	Cleanup_mem.sh	11/8/93	100%	
	Help Tool Mosaic Fac	11/22/93	100%	
	LRS Service	1/31/94	75%	
	List Settings Widget	1/11/94	75%	
	Table Editor	1/11/94	75%	
	FITS Transfer	1/11/94	75%	
	Data Dictionary Service	4/1/94	55%	
	DD Tool	4/1/94	25%	
	DD Tables	1/31/94	85%	SQL Server 2.0
	Text Retrieval	1/31/94	1%	Wais: Mosaic: ADS WWW
	Cygni Catalog	12/31/93	72%	
	Data	11/5/93	99%	
	Ingres	11/12/93	90%	
	Documentation	12/31/93	80%	
	Widget	11/12/93	40%	
	Integration	12/31/93	0%	

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 December, 1993

OPERATIONS

ADS USER/USAGE STATISTICS:

	IPAC2	IUE	PSU	SAO	HEASRC	STSCI	CASA	EUVE	NSSCD
startup :	3	6	1	4	5	5	2	10	7
query :	185	29	16	224	51	104	254	28	69
schema :	182	29	16	220	44	97	236	28	69
retrieve :	1205	90	17	3114	65	1501	5984	76	10463
abort :	168	26	7	179	31	95	203	21	63
report :	2897	2059	2169	2151	1964	54	1520	416	2150

startup - *Gives the number of hard startx ups of the SQLserver at the given node location*
query - *Records how many queries users sent to that particular node.*
schema - *Retrieves the query result file format (*i.e., *table header and number of records found). It therefore represents the number of successfully completed queries (though not necessarily transferred back to the user).*
retrieve - *Records all user requests to bring data from a successful query back to the user location. Data is returned one screen at a time, and a retrieve is issued for each screen of returned data, whether that screen has one or more lines of data.*
abort - *Records each time a query session ends. Currently, this can signal either that the user requested a termination or that all the data had been transferred.*
report - *Records the number of inquiries about the current status of the SQLserver program. Such inquiries can only be issued by the srvadm program.*

Abstracts

user	logins	queries	short	long	list
257	1222	16002	46893	15350	121620

users - *Number of distinct users usingthe abstract service*
logins - *Number of logins into the abstract service*
queries - *Number of queries sent to the abstract service (one specification of authors, keywords, titles etc is one query. One query may return thousands of abstracts).*
short - *Number of lines of short abstract information retrieved (authors and titles).*
long - *Number of complete abstracts retrieved (authors, titles, keywords, author affiliation, journal information, abstract text).*

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 December, 1993

SUPPLIERS OF DATA

CASA

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____B. Stroozas (CEA/Berkeley)

Status as of: 1 December, 1993

SUPPLIERS OF DATA (Cont'd)

CEA

TASKS ACCOMPLISHED:

- Wrote and tested new service -ISM Tool. Delivered to CASA for ADS release at Jan 94 AAS. This tool calculates the transmission of the interstellar medium using input values from the user.
- New catalogues: Documented and tested New Catalogue-euve_bsl for release at Jan 94 AAS. This catalogue is derived from The Extreme Ultraviolet Explorer Bright Source List, Malina, R.F., et al., Astronomical Journal, Feb. 1994 (in press).

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

- We are updating the caltargets table for inclusion in the next ADS release. This table will be current to 12/93.
- Software development work is now in progress for the creation of a new CEA node service. A spectral data archive server is being developed which will allow users to retrieve and display EUV spectra by selecting them from the euve_bsl table.
- Work is in progress to install the EUVE All-Sky Catalog and database into ADS for local node use only. This catalog will be released externally upon publication.

Approved:_____G. Eichhorn
Achievement:_____P. Barrett (HEASARC/GSFC)

Status as of: 1 December, 1993

SUPPLIERS OF DATA (Cont'd)

HEASARC/GSFC

TASKS ACCOMPLISHED:

- The following catalog were delivered to CASA:
  rosgpspc - Catalog of German ROSAT Observations.

ANTICIPATED DELIVERIES FOR NEXT REPORTING PERIOD:

- The following catalogs are being documented:
  gs - Catalog of EXOSAT Grating Spectrometer Observations
  me - Catalog of EXOSAT Medium Energy Detector Observations.

Approved: G. Eichhorn
Achievement: J. Mazzarella (IPAC)

Status as of: 1 December, 1993

SUPPLIERS OF DATA (Cont'd)

IPAC/CALTECH

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____P. Lawton (IUE/GSFC)

Status as of: 1 December, 1993

SUPPLIERS OF DATA (Cont'd)

IUE/GSFC

TASKS ACCOMPLISHED:

- IUE demonstrated the ADS software and provided requested ADS documentation to a group of visitors from the European Space Agency. The visitors are affiliated with the VILSPA tracking station in Madrid, Spain and were attending the IUE 3-Agency meeting held at GSFC.

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

- The database of IUE Observing Proposals (IUEPROG) has been updated to include approved 16th episode observing programs. The updated documentation will be sent to CASA next month.
- The IUE Merged Observing Log is being updated and should be completed in early December. Hopefully the new version will be ready for the next ADS release.

ANTICIPATED DELIVERIES FOR THE NEXT REPORTING PERIOD:

- Updated versions of IUEPROG and IUELOG database tables.

ADS User/Usage Statistics:

November

- query	29	- startup	6
- retrieve	90	- withdraw	12
- schema	29	- shutdown	4
- status	29		
- abort	26	- query making users	9
- report	2059	- total users	14
- export	18	- new users	4
- export_failure	0		

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 December, 1993

SUPPLIERS OF DATA (Cont'd)

PSU

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____M. Garcia(SAO)

Status as of: 1 December, 1993

SUPPLIERS OF DATA (Cont'd)

SAO

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____A. Farris (STScI)

Status as of: 1 December, 1993

SUPPLIERS OF DATA (Cont'd)

STScI

TASKS ACCOMPLISHED:

- Nothing to report.

ASTROPHYSICS DATA SYSTEM

NASA Grant NCCW-0024

Monthly Progress Report No. 22

for December 1993

Prepared for

National Aeronautics and Space Administration
Astrophysics Division - Code SZ

Smithsonian Institution
Astrophysical Observatory
Cambridge, Massachusetts 02138

The Smithsonian Astrophysical Observatory
is a member of the
Harvard-Smithsonian Center for Astrophysics

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 January 1994

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J. Good

IPAC/NODE:
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W. Martin

PSU:
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SAO/PROJ:
S. Murray

STScI:
A. Farris

U. Minn:
C. Cornuelle

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 January 1994

SUMMARY

Preparations for the release in January continued. The beta version was released to the nodes on 13 December. Testing was finished by the end of December.

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 January 1994

ADMINISTRATIVE

TASKS ACCOMPLISHED:

The major effort was in preparing the release of ADS 4.0 in January. Testing continued at all ADS development groups. On 13 December the beta version of ADS 4.0 was released to the nodes. Testing then continued at all nodes till the end of December.

Preparations for the demonstration of ADS 4.0 at the AAS meeting in Washington in January continued. We prepared two Hewlett Packard workstations for the demo (1 table at the booth). One of the workstations was a loaner from HP. The backdrop display was prepared by CASA to include new nodes.

Contacts with potential new nodes continued. Guenther, Carolyn and Todd visited NIST to help them get started in setting up a new node with atomic and molecular data. They are now working on building a GUI/server combination for their data. A group in France has expressed interest in making their data available through ADS. They received additional information about ADS.

New nodes in this release include the Center for EUV Astronomy at Berkeley and the University of Minnesota with scans of the POSS 1 plates. Their data were included in the beta release. The EUVE node is developing services that will be made available to the ADS users as soon as they are completed and tested.

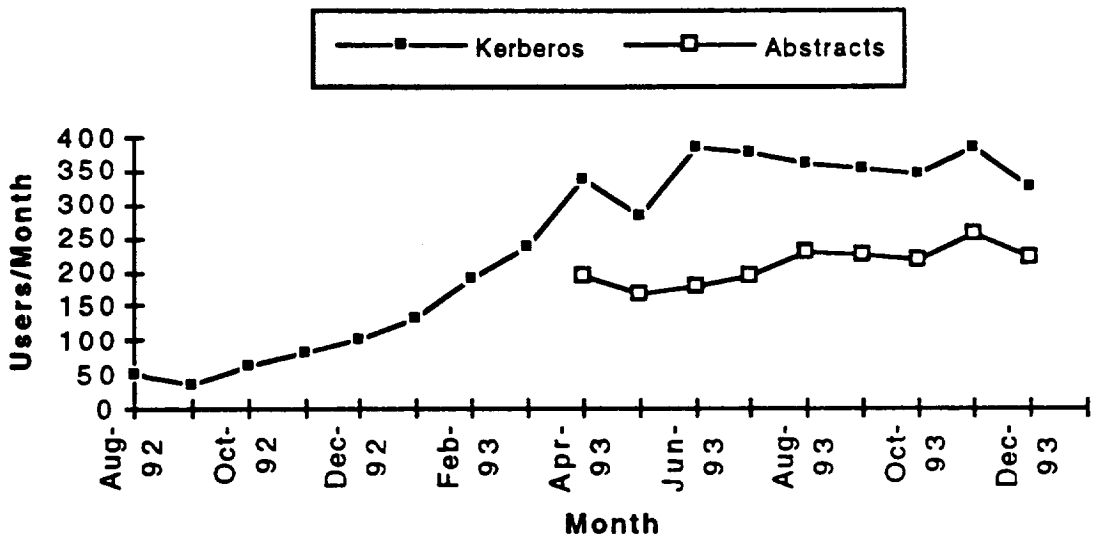
NASA/STI has informed us that they have been instructed to discontinue the abstracting of some of the literature. This would greatly affect the ADS abstract service. NASA/STI does not want to discontinue this service, so they asked their customers to comment on this situation. The ADS users have been informed about this development and were asked to send comments to NASA/STI. So far there is no new word on this situation from NASA.

SAO ASTROPHYSICS DATA SYSTEM

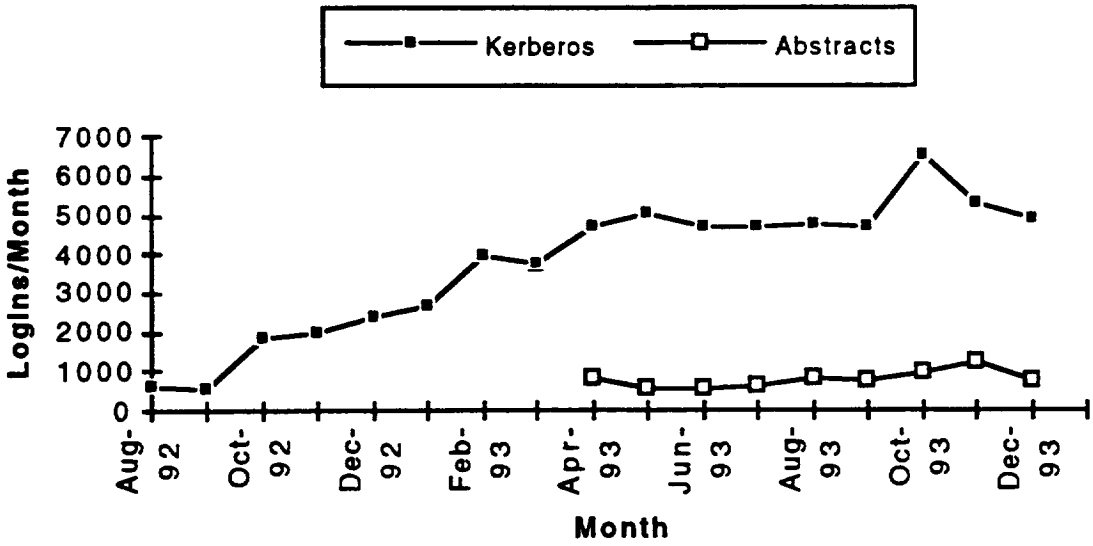
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 January, 1994

Number of Distinct Users



Number of Logins

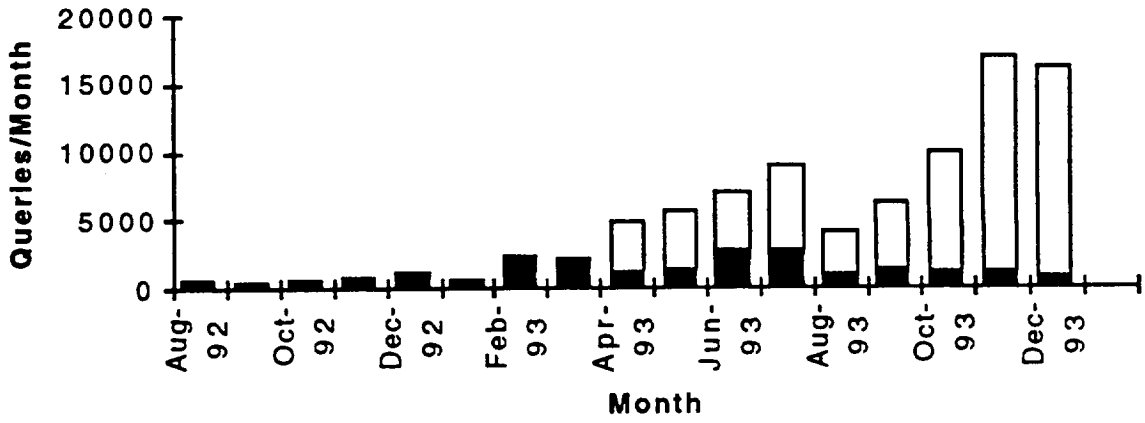


SAO ASTROPHYSICS DATA SYSTEM

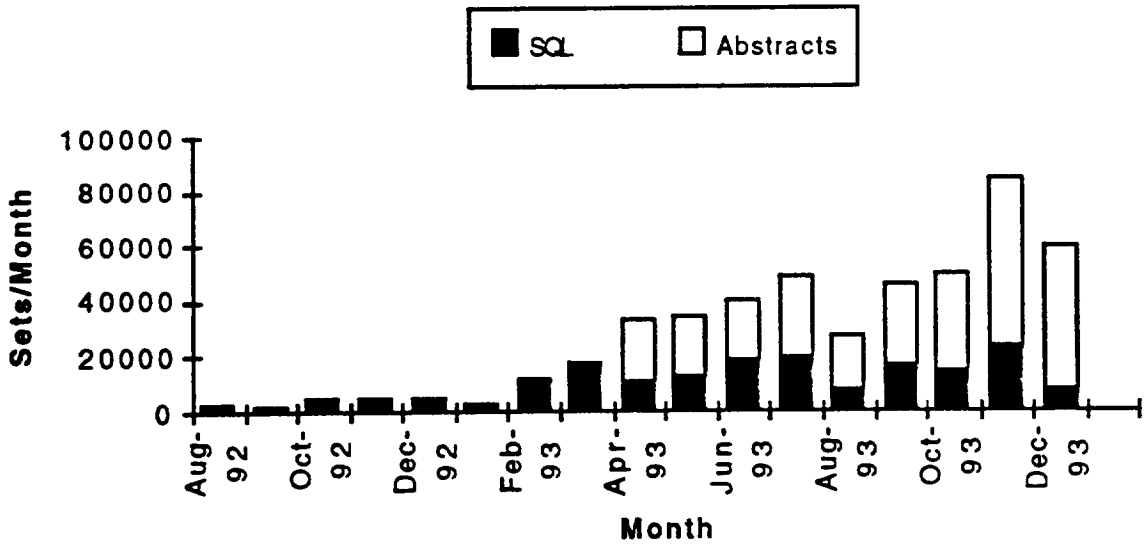
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 January, 1994

Number of Queries



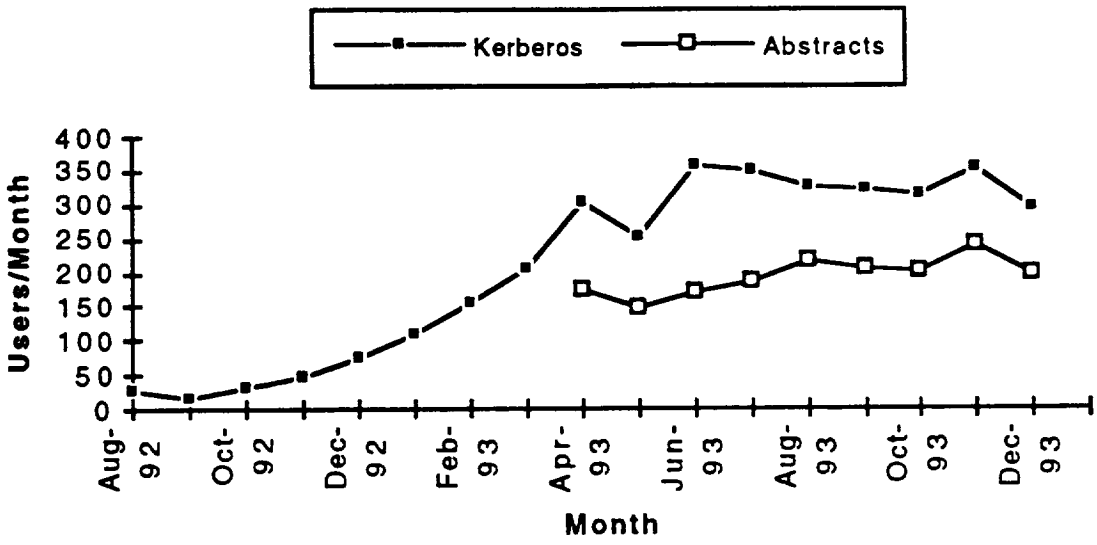
Number of Retrieved Data Sets



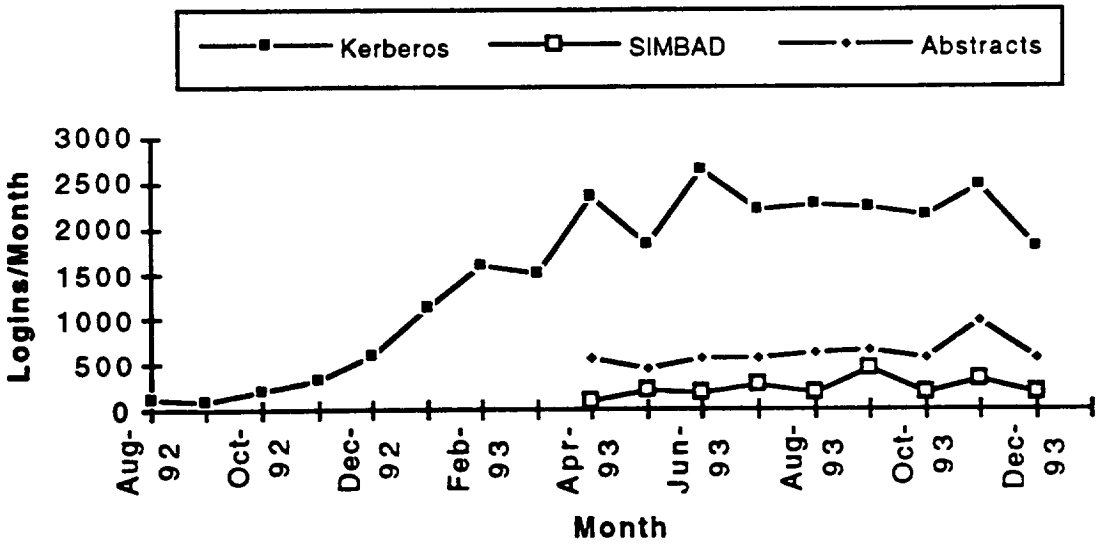
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 January, 1994

Number of Distinct Non-project Users



Number of Non-project Logins



Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 January 1994

SYSTEM ENGINEERING

TASKS ACCOMPLISHED:

The month of December was almost entirely devoted to building the January release of the ADS. This was mostly refinement and debugging. By the end of January, we expect to have a more detailed plan for the next phase of the Project.

Listed below are the development tasks currently being undertaken by the ADS Project. Assignments (or tentative assignments) are shown by institution in the summary and by responsible party in the status section.

2.1 ADS 2.0 Consolidation

2.2 Infrastructure

2.2.1	Core ADS System	-- User interface, installation structure
2.2.2	RPI/SMS	-- Infrastructure for distributed computing
2.2.3	EOSserver	-- EOS in server mode (for archive access)
2.2.4	Security Services	-- Authorization checking
2.2.5	Secure File Transfer	-- General mechanism for transferring files
2.2.6	Transfer Monitor	-- Coordinate file transfers for all srvcs
2.2.7	Developer's Guide	-- How to build and operate ADS services
2.2.8	CUI	-- Character-terminal user interface

2.3 Operations / Management Tools

2.3.1	Log Handling	-- Statistics and reporting
2.3.2	Monitoring	-- Service availability, usage
2.3.3	Bug Server	-- Bug report submission
2.3.4	Authenticated FTP	-- FTP server with KERBEROS authentication
2.3.5	Mission Planning	-- Generic mission planning tools
2.3.6	DB Validation	-- Automated validation of data sets
2.3.7	QA Test Suites	-- Procedures for checking services

2.4 Archive Access

2.4.1	Abstract Server	-- Access to abstract database
2.4.2	NED Server	-- Interface to NED database
2.4.3	NDADS Archive	-- Access to all the ADC data at NSSDC
2.4.4	EINSTEIN Archive	-- Access to Einstein satellite data
2.4.5	IPAC Plate Archive	-- Access to infrared ISSA plates
2.4.6	SIMBAD	-- General interface to SIMBAD
2.4.7	IUE Archive	-- Access to raw and processed IUE data
2.4.8	UMinn POSS1 Data	-- Access to the digitized POSS1 plates
2.4.9	Abstract Svc Upgrade	-- Upgrade and possible port to HP
2.4.10	Data Compression	-- To save bandwidth during file transfer

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 January 1994

SYSTEM ENGINEERING (Cont'd)

TASKS ACCOMPLISHED (cont'd):

2.5 Catalogs and Tables

2.5.1	Catalog Access	-- Access to catalog data
2.5.2	SQL Server	-- Updated service to RDBMSs
2.5.3	Documentation Server	-- Distributed access to document files
2.5.4	Data Dictionary	-- Information on catalog units and formats
2.5.5	Coordinate Handling	-- Both as service and policy
2.5.6	QBT	-- Query by Table (simpler catalog query)
2.5.7	Table Calculator	-- Simplified table manipulation
2.5.8	Proximity Join	-- Joining tables on positions
2.5.9	Correlation Tools	-- Comparing of tables from different catalogs
2.5.10	Query Fan-Out	-- Querying multiple catalogs at once
2.5.11	Natural Language	-- Using natural language for data searches
2.5.12	Dynamic Catalog Mgmt	-- Updating of catalogs on the fly

2.6 Visualization

2.6.1	Plot Tool	-- XY plotting
2.6.2	Skyview	-- Image display
2.6.3	AGRA	-- Sky mapping
2.6.4	SAOimage	-- Image display

2.7 Packages Interfaces

2.7.1	IRAF Server	-- General interface to IRAF
2.7.2	IDL Server	-- General interface to IDL
2.7.3	WAIS Server	-- WAIS client as ADS service

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

2.2.1 Core ADS System — Michelle Neves (CASA)

By "Core System" we mean the organization, on the client side, of user services and UI functionality. This is distinct from the maintenance and organization of remote services and their operation. The goal here is to provide an environment where new or updated services can easily be added by a knowledgeable user. This work is crucial to get us into a mode where services can be incrementally added or changed.

STATUS: In final debugging and test at CASA.

Approved:_____G. Eichhorn Status as of: 1 January 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.2.2 RPI/SMS — Andrew Wang (ESI)

The RPI and SMS programs control communications to any ADS services running on a particular machine. This pair of processes is the core of the distributed computing capability used by ADS.

The most substantive work envisioned for the RPI/SMS software is the extension of the RPI to provide aspects of system security, service registration and location functionality. This is necessitated by the poor operability of the current ANSA Trader code. The basic design and implementation for this upgrade has been recently modified to include functionality for the ADS version of the software that has previously only been available in the DCE version.

Minor modifications have also been proposed to the logging and control schemes used to facilitate operations and reporting.

STATUS: Development is currently underway at ESI. Several minor problems have been uncovered by internal ESI testing and are currently being addressed.

2.2.3 EOSserver — Kyle Habermehl (ESI)

In order to control general data access services (*e.g.*, NDADS) which can take hours or even days to retrieve results, we plan to use an EOS server. This code is identical to the standard client EOS but runs as a background process and thus can be maintained from session to session.

STATUS: Problems that have arisen in the testing of the EOSserver have forced us to remove it from this release (it will be reinstated in the next). The services which relied on it (NDADS in particular) are being reworked to accomodate this change.

2.2.4 Security Services — Steven Lo (IPAC)

These tools are necessary for complete security checking using KERBEROS. This functionality needs to be folded into the RPI, the FTserver, and packaged for use as a local service and set of libraries for service builders.

STATUS: Basic service package delivered to QA for test and to ESI for incorporation into their modules. Work on this has not yet begun.

2.2.5 Secure File Transfer — Brett Milash (ESI) / Steve Lo (IPAC)

A general file transfer service pair (send/receive) has been built by ESI and is currently in limited use as part of the IDL plotting tool in the current distribution. Full use of this service (*e.g.*, in archive access services) requires an upgrade which will use the security software to check the authenticity and authorization of the requested transfer.

STATUS: File transfer has passed QA. Adding of full security is currently under study.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 January 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.2.6 Transfer Monitor — Gregg Allison (CASA)

Since many services will invoke file transfers at one time or another, it makes much more sense to coordinate these requests through one service than to have separate monitor functionality for each service.

STATUS: In final QA testing.

2.2.7 Developer's Guide — Alice Bertini (CASA)

The real power of the ADS is that is allows data/processing service owners to turn their product into ADS services simply and quickly. In order to facilitate this while still maintaining some level of uniformity to interaction look-and-feel, we must establish and publish guidelines and procedures for new developers to follow.

STATUS: First version completed; all sections delivered to CASA.

2.2.8 CUI — Alice Bertini (CASA)

There is at present no good way for users with character terminals to access ADS functionality. A limited subset interface to such things as archive queries and catalog requests could be provided if there is sufficient interest.

STATUS: Design work for this task has not been scheduled.

2.3.1 Log Handling — Jing Li (IPAC)

Currently, our ability to determine system usage as a function of time or user is severely constrained by the format of log files and the data they contain. A generic log handling service (based on the EOSserver) will provide a wide range of statistical measures of system usage.

STATUS: Initial version of this code has been completed and is in development testing.

2.3.2 Monitoring — Jing Li (IPAC)

Part of the proposed enhancements to the RPI/SMS software are the hooks to allow Operations to reliably monitor and control services.

STATUS: The client tools to do this will be built as soon as this functionality in RPI/SMS is available.

2.3.3 Bug Server — Jacque Anderson, Sally Schaller (CASA)

The Bug Server would be a simple local server and widget to help the user construct reports and mail them to User Support.

STATUS: Initial design complete. Development not yet begun.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 January 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.3.4 Authenticated FTP — Steven Lo (IPAC)

A version of the standard FTP daemon has been written which uses KERBEROS authentication to the ADS user database to confirm the right to download system components.

STATUS: Done.

2.3.5 Mission Planning — (SAO?)

One long term objective being considered by the ADS Project is the development of distributed mission planning and mission operations tools to support many missions. A preliminary study has shown that many of the mission planning tools currently in use have a core of similar functions that are "re-invented" by each mission center. In addition, the interface of mission planning tools with the user community varies with each mission, requiring that scientists learn several slightly different systems. The ADS can be helpful in supplying missions with a library of planning tools, and a standard user interface. This will allow mission resources to be concentrated on mission specific requirements. It offers the user community a simpler mechanism for developing observation requests in response to NASA AOs, particularly through the use of electronic preparation and submission of these requests.

STATUS: Design work not yet scheduled.

2.3.6 DB Validation — (CASA)

Automated procedures to confirm that the data retrieved via ADS are not different from the original data source. Test and QA along with the Project Office make an initial verification of data when it is first made available via ADS. In order to assure that changes to these data are not introduced by the system, regular sampling of the databases is made and compared with reference results.

STATUS: Done for first release of ADS. No further work currently planned.

2.3.7 QA Test Suites — (CASA)

As part of Quality Assurance, CASA will maintain and update a regression testbed of information and a suite of procedures that test ADS functionality. This is distinct from the operational monitoring required of Operations and is for a quite different purpose: spot-checking and regression analysis rather than real-time monitoring.

STATUS: On-going.

Approved:_____G. Eichhorn Status as of: 1 January 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.4.1 Abstract Server — Guenther Eichhorn / Carolyn Stern Grant (SAO)

The Abstract Server provided remote access to a database of abstracts culled from the Astrophysics literature by NASA RECON.

After some minor adjustment during the first phase of operation (and additional coding within the core system to meet new security constraints required by NASA), the Abstract Server is now in full operation.

STATUS: Updated service/user interface modules delivered to CASA for test.

2.4.2 NED Server — John Good (IPAC)

The NED database contains a large amount of data about extragalactic sources, including basic data on positions and fluxes, abstracts and references, etc. The initial ADS interface, at the request of the NED project, has been limited to accessing basic name and positional information.

In the longer term, many people have expressed a desire for more of the NED functionality beyond the basic name/position resolution currently offered. It is unclear whether this should be an ADS task or left to the NED project.

STATUS: In operation. Minor upgrades for operational reliability have been completed and delivered to QA for test.

2.4.3 NDADS Archive — Gregg Allison (CASA)

The NDADS server is our main prototype for raw data archive access. It is considered the highest priority item for ADS this fiscal year. A prototype server was built by ADS and delivered to NSSDC for final integration with their database software. NSSDC has been concentrating on the basic access to the data; the work on our end has been infrastructure integration (EOSserver / Archive (*e.g.*, NDADS) server / FTserver) and user interface.

STATUS: In final QA testing.

2.4.4 EINSTEIN Archive — Todd Karakashian (SAO)

The EINSTEIN archive server will provide meta-data tables as well as real data tables and images of EINSTEIN data. In structure this service is similar to the NDADS server, and some of the same functionality has been reused.

STATUS: In final QA testing.

2.4.5 IPAC Plate Archive — John Good (IPAC)

IPAC is putting on-line all of the ISSA infrared sky images which cover the whole sky in a regular pattern. This service allows a user to request an image or part of an image centered on a particular sky position.

STATUS: In final QA testing.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 January 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.4.6 SIMBAD Server — Carolyn Stern Grant (SAO)

Where NED provides access to information on extragalactic objects, SIMBAD provides it for stellar objects. The type of service is similar and we hope to be able to reuse parts of the NED interface code.

STATUS: In final QA testing.

2.4.7 IUE Archive — (CASA?)

IUE data is available through the NDADS service, but there is still a need for a meta-data search capability to help the user locate the correct data sets to request.

STATUS: Design has not begun.

2.4.8 UMinn POSS1 Data — (IPAC?)

The University of Minnesota has scanned the POSS-1 plates and created a database of sources detected. This data can and will be accessed through a standard SQLserver. The project will, if necessary, lend some assistance to UMinn in setting this up since this is a uniquely valuable resource for the community.

STATUS: Preliminary desgin discussions have been held but no work is yet assigned.

2.4.9 Abstract Svc Upgrade — Todd Karakashian (SAO)

The Abstract Server, while quite successful and capable, was a venture into new territory and will certainly need updating as we gain experience. In addition, it has been proposed to migrate the server to a faster platform for added throughput.

STATUS: Design has not begun.

2.4.10 Data Compression — (SAO?)

Determine the feasibility and usefulness of data compression for bulk data transfer. If the study determines that data compression would be useful, this task would implement data compression for large-volume data.

STATUS: Study has not begun.

2.5.1 Catalog Access — Alice Bertini (CASA)

The current catalog access interface distributed with the ADS client was the first service built and makes use of the first generation SQLserver and catalog documents that must be distributed with the system. As is typical of such endeavors, it suffers from learning curve problems.

Approved:_____G. Eichhorn Status as of: 1 January 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

In migrating to the new SQL Server and Documentation Server, we must also update the integrated Catalog Access environment. We plan to make use of this opportunity to add some functionality to handle casting of coordinate from one catalog representation to another (a "Data Dictionary" mechanism). This additional functionality is considered critical by our user community and should greatly enhance catalog interoperability.

STATUS: This task has been subdivided into subtasks 2.5.1.1 through 2.5.1.4.

2.5.1.1 MOSAIC Integration — Alice Bertini (CASA)

Integrate the MOSAIC documentation server into the system in the special case of ADS catalog documentation handling.

STATUS: In final QA testing.

2.5.1.2 SQLserver Integration — Alice Bertini (CASA)

The new SQL Server is quite different from the one currently in use. Consequently, there is a fair bit of work needed to integrate it into the Catalog Access environment properly.

STATUS: Work started.

2.5.1.3 Coordinate Conversion Integration — Alice Bertini (CASA)

Often the query the user wishes to pose to the Catalog Access environment is couched in terms of a coordinate system other than that in which the data is stored. When this happens, it is desirable to perform coordinate translations on the fly, both on the query and on the output tables.

STATUS: Work started.

2.5.1.4 Data Dictionary Integration — Alice Bertini (CASA)

Data Dictionaries provide a convenient way for specifying how data should be interpreted and formatted when extracted from the DBMS table. The purpose of this task is to determine how best to ensure that this functionality is provided in a uniform way across the ADS.

STATUS: Work started.

2.5.2 SQL Server — Brett Milash (ESI)

With the update to the distributed processing architecture that is currently being tested, the old SQL server access to catalog databases needed to be updated as well. In particular, support for the new service access architecture and for FITS data transfer.

STATUS: Delivered to QA for test.

2.5.3 Documentation Server — Michelle Neves (CASA)

The DOCserver is meant to provide a standard mechanism for users to obtain textual data from any server site. This will include timestamp checking to allow for dynamic updating, so that we can be sure that all users are seeing the same documentation.

Approved:_____G. Eichhorn Status as of: 1 January 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

This functionality is critical to get us out of the mode of distributing documentation on all the catalogs (and therefore requiring massive system releases).

This service will make use of an existing document handling system called MOSAIC for most of its functionality.

STATUS: In final QA testing.

2.5.4 Data Dictionary — Alice Bertini (CASA)

Intercomparing catalogs is usually a matter of checking for positional coincidence. Since existing catalogs currently use a variety of coordinate naming and representation schemes, it is necessary that we have some mechanism for determining this information on a catalog-by-catalog basis. The simplest way to do this is with a standard DBMS "data dictionary" approach. This task is to provide the mechanisms to implement a data dictionary and to provide the hooks for the catalog access system to make use of it.

STATUS: In development.

2.5.5 Coordinate Handling — Carolyn Stern Grant (SAO)

Since coordinates play such a pivotal role in astronomy, we have found it necessary to provide a consistent and uniform set of coordinate handling tools for ADS users and developers. These basic tools will be used extensively, not just by ADS for its internal development but by potential service providers as well.

STATUS: In final QA testing.

2.5.6 QBT — Todd Karakashian (SAO)

The current Query-By-Example (QBE) functionality in ADS has been found to be cumbersome for most applications and at the request of our users we are planning a more user-friendly interface that uses a more compact, tabular form. This Query-By-Table (QBT) should greatly improve the usability of the current Catalog Access but the effort currently has low priority since it results in no new basic functionality.

STATUS: Initial design complete. Final design effort not yet scheduled.

2.5.7 Table Calculator — Gregg Allison? (CASA)

There are many functions that scientists want to perform on tabular data that are not typically found in commercial DBMS software, nor is the interfaces available in these environments flexible enough for the kind of detailed analysis that scientists need to do. With the functionality already available in ADS, it should be straightforward to provide better tabular analysis tools.

STATUS: Design not yet scheduled.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 January 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.8 Proximity Join ? (SAO?)

The primary mode that astronomers use in comparing tables of sky objects is to check the proximity on the sky of sources. This function is no currently supplied by commercial DBMSs (in fact, is at odds with the standard relational model which only deals with "equi-joins"). This task would be to provide a mechanism for "joining" two tables on the basis of the proximity of two objects in it.

STATUS: Design not yet scheduled.

2.5.9 Correlation Tools ? (SAO?)

The basic ADS system contains a simple correlation function which compares catalog tables on the basis of positional coincidence. Other correlation functions based on source properties, classifications, names etc are possible. Tools for generating these correlations will be developed and added to the system.

STATUS: Design not yet scheduled.

2.5.10 Query Fan-Out ? (SAO?)

It is often desirable to use the results of a query as the basis of follow-up queries to multiple catalogs for multiple objects. The Fan-out tool will provide a GUI widget to create the multiple follow-up queries and to collect the results in a single response.

STATUS: Design not yet scheduled.

2.5.11 Natural Language ? (SAO?)

Determine the feasibility of using natural language queries for data retrieval.

STATUS: Design not yet scheduled.

2.5.12 Dynamic Catalog Mgmt ? (SAO?)

Implement the dynamic addition and removal of catalogs. In ADS 2.0 the catalogs are hardcoded in the user release. With the dynamic catalog management, new catalogs can be brought on-line without requiring a new user release.

STATUS: Superseded by the work on Catalog Access and Documentation Service.

2.6.1 Plot Tool Gregg Allison (CASA) / John Good (IPAC)

The current plot tool distributed with the system is based on a prototype IDL service developed at CASA and requires IDL (either local or remote) to run. A small amount of fine tuning of this functionality is warranted, but the service is essentially done.

Approved:_____G. Eichhorn Status as of: 1 January 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

Preliminary work has also been done on integrating in an existing portable graphics package (SM) -- so we can offer software to people that they can run on their own machines -- though this work is considered low priority.

STATUS: IPAC is currently working on the plot engine using PLPLOT rather than SM. CASA will handle the GUI for this once it is done, building on the IDL work.

2.6.2 Skyview — John Good (IPAC)

Skyview is a program developed at IPAC for display and analysis of astronomical images in various formats. This work is funded by IPAC and has no direct relationship to ADS or funding by it.

The Skyview program has been integrated into the ADS as a local service. This was completed some time ago and has been shown to several groups. It has not been incorporated into the ADS release, however, for three reasons. First, IPAC has not gotten final approval to distribute the software themselves (rather than through COSMIC). Second, there has not been time to adequately test the ADS interface. Finally, there is very little call for this service until ADS provides access to image databases.

STATUS: In final QA testing.

2.6.3 AGRA — Jing Li (IPAC)

This local service is self-contained code for turning coordinate tables into sky maps (various projections). The development has been slow since this is not a high priority item. This service is designed to allow easy use as either an ADS server body or a stand-alone program and is integrated with both ADS services which return positional tables (NED, SIMBAD, Catalog Access) and with image display services (providing coordinate, point source, and area overlays).

STATUS: Delivered to QA for test.

2.6.4 SAOimage — Carolyn Stern Grant (SAO)

SAOimage is an image display program widely used in the astronomical community, partly due to its links to the IRAF package. SAO has undertaken to build an ADS interface themselves, so the only Project task is to QA it.

STATUS: In final QA testing.

2.7.1 IRAF Server — ? (SAO?)

The goal of IRAF was to provide a set of data processing and analysis services. This meshes extremely well with the ADS functionality to provide distributed access to such services. In addition the interfaces of the two systems are constructed in such a way as to allow melding of the systems with minimal impact on either.

STATUS: No work yet planned.

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.7.2 IDL Server ? (CASA?)

IDL is widely used in the astrophysical community for visualization and analysis of local data sets. Combining this functionality with ADS should produce a general distributed data processing environment of great power.

STATUS: No work yet planned.

2.7.3 WAIS Server Todd Karakashian? (SAO?)

WAIS provides distributed access to a number of textual databases around the country. Rather than replicating this functionality, it makes sense for the ADS to tap into the existing services. The simplest way to do this is to create a custom WAIS client that would run as a local ADS service. Not only do we then have access to all WAIS functionality, but we add the value of the ADS GUI interface and additional data processing tools to WAIS.

STATUS: No work yet planned though this may follow on closely to the MOSAIC Documentation Server work that is ongoing.

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 January 1994

USER COMMITTEE

PSU:

Chris Baluta, working under the direction of John Nousek, installed and tested the new ADS 4.0 beta release at Penn State. In addition, changes were made to the ADS databases maintained at PSU to provide compatibility with the new release.

John Nousek has corresponded with Julian Osborne of Leicester University, UK, on participating in the RAS symposium on databases in astronomy, with the goal of having ADS participation.

Approved:_____G. Eichhorn Status as of: 1 January 1994
Achievement:_____T. Snow (CASA)

USER SUPPORT

CASA:

The month of December was spent preparing for the final release of the ADS 4.00. A beta release of the software was sent to all the nodes on December 13 with the beta period ending on December 23.

Preparations for the upcoming January AAS meeting were also completed.

The updated MicroSoft Project input files for the month ending December '93 are available via anonymous ftp on cuads.colorado.edu in /pub/ads_int/status in the following files:

user_sup_dec.mpp	- User support
qa_dec.mpp	- Testing/QA
mainten_dec.mpp	- System maintenance and integration
develop_dec.mpp	- Development
node_sup_dec.mpp	- Node Support
meetings_dec.mpp	- Meetings
managemt_dec.mpp	- CASA project management

TASKS ACCOMPLISHED:

- User Support statistics for the month:

- New users:	64
- New US users:	33
- New non-US users:	15
- Total users as of 11/30/93:	1544
- Total US users as of 11/30/93:	1224
- Total non-US users as of 11/30/93:	320
- Information requests:	12
* answered questions: (includes "answered bin" and phone calls)	66
* resolved problems: (multiple messages for each of these)	5

Approved:_____G. Eichhorn
Achievement:_____ T. Snow (CASA)

Status as of: 1 January 1994

USER SUPPORT (Cont'd)

CASA (cont'd):

TASKS ACCOMPLISHED (cont'd):

WBS#	Task	Completion Date	% complete	
2.5.13	Online Help Text	1/11/94	100%	
	Hypertext-Core	1/11/94	100%	
	Hypertext-ndads	12/31/93	100%	
	Hypertext-Pcygni	1/11/94	100%	
	Coordinate Service Docs	12/15/93	100%	
	Hypertext Tutorial	12/31/93	90%	
	Science Scenarios	12/31/94	1%	on-going
	Mailing lists	12/31/94	1%	on-going
	Advertising	12/24/93	100%	on-going
	Update tri-fold	12/7/93	100%	
	Print tri-fold	12/21/93	100%	
	Update ADS Backdrop	12/24/93	100%	
	Astro.db - Ingres	1/31/94	0%	
	Update ADS Docs	12/31/93	100%	on-going
	Update README.doc	12/8/93	100%	
	Update PC	12/13/93	100%	
	Front-line support	12/31/94	1%	on-going
	User Statistics	12/31/94	1%	on-going
	Edit	1/31/94	0%	
	users.tbl	1/31/94	0%	
	readreg prog	1/31/94	0%	
	NDADS Node Support	12/31/94	50%	on-going
	HEASARC/GRO Node Sup	12/31/94	0%	on-going
	CASA Node Support	12/31/94	7%	on-going

Approved:_____G. Eichhorn
Achievement:_____ T. Snow (CASA)

Status as of: 1 January 1994

TEST AND QA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	Completion Date	% complete
2.5.14.1	SQLserver 2.0	3/15/94	10%
2.5.5.1	Coord. Conversion	1/11/94	75%
???	EUVE ISM Tool	1/31/94	5%
2.4.5.1	ISSA Archive	1/11/94	90%
2.6.3.1	AGRA	1/31/94	25%
2.5.3	Text Retrieval	7/1/94	0%
2.5.4.1	Data Dictionary	7/1/94	0%
2.7.3	WAIS Server	1/31/94	0%
2.2.3.1	EOSSERVER - on hold	11/22/93	85%
2.2.4.1	Security Services	11/22/93	0%
2.2.5.1	Secure File Transfer	11/22/93	0%
2.2.9.1	EOS 3.25.1 Release	1/11/94	90%
	"Snapshot QA, 11/1"	11/22/93	92%
	Full Release QA	1/11/94	0%
2.2.2.1	RPI/SMS	1/31/94	0%
2.6.4.1	SAOimage Tool	1/11/94	100%
2.2.1.1	Core ADS - ADS4.00	12/31/93	100%
2.4.6.1	SIMBAD GUI	1/11/94	80%
2.4.7.1	P Cygni Service	1/11/94	80%
2.4.11.1	LRS	1/11/94	0%
2.2.6.1	File Transfer Monitor	1/11/94	75%
2.6.2.1	Skyview	1/1/94	100%
2.4.2.1	NED	1/1/94	90%
2.5.1.1	Catalog Access	12/9/94	90%
2.4.8	UMinn POSS1 Data Arch.	1/11/94	85%
2.4.1.1	Abstract Service	1/11/94	90%
2.4.3.1	NDADS Archive	6/6/95	50%
2.3.1	Log Handling Service	1/31/94	0%
2.3.2	Monitoring Service	1/31/94	0%
2.6.1	2-D Plot Service	1/31/94	0%
	Bug Reporting Service	1/31/94	0%
2.5.6	QBT Service	1/31/94	0%
	ADS Directory Service	1/31/94	0%
	IUE Catalog	1/11/94	0%
	EUVE BSL Catalog	1/11/94	0%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 January 1994

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	Catalogs	1/31/94	56%
	redshift	1/11/94	0%
	sao2000	1/11/94	0%
	seyfert	1/11/94	0%
	seyfert_ref	1/11/94	0%
	agk3	1/11/94	0%
	dmsort	1/11/94	0%
	saosort	1/11/94	0%
	rasort	1/11/94	0%
	selected	1/11/94	0%
	sbnr	1/11/94	0%
	rad_drao	1/31/94	0%
	rad_iras	12/30/93	100%
	rad_iras_brgal	12/30/93	100%
	parallax	1/31/94	10%
	pln	1/31/94	10%
	reflect	1/31/94	10%
	gc	1/31/94	0%
	nltt	1/31/94	0%
	nltt_notes	1/31/94	0%
	acrs1	1/31/94	0%
	acrs2	1/31/94	0%
	wds	1/1/94	0%
	hii	11/5/93	50%
	ppmn	11/5/93	0%
	ppms	11/5/93	0%
	openclus	11/5/93	0%
	interfer	11/5/93	0%
	findlist	11/5/93	0%
	findlist_rem	11/5/93	0%
	p cygni	1/31/94	0%
	pcyg (casa)	1/5/94	100%
	aps_poss (aps)	12/31/93	99%
	evue_bsl.xmp	12/29/93	100%
	rc3 (ipac)	1/31/94	0%
	wfcbsc (heasarc)	1/31/94	99%
	rosao (heasarc)	1/31/94	95%
	rospublic	1/31/94	99%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 January 1994

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	abell (heasarc)	1/31/94	80%
	cosb (heasarc)	1/31/94	99%
	bulletin	1/31/94	99%
	konus (heasarc)	1/31/94	99%
	rosid (heasarc)	1/31/94	99%
	rosuspspc	1/31/94	99%
	td1 (heasarc)	1/31/94	99%
	gs (heasarc)	1/31/94	10%
	wds_nameidx (casa)	1/31/94	80%
	wds_namesort (casa)	1/31/94	80%
	wds_pos	1/31/94	100%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 January 1994

SYSTEM INTEGRATION & MAINTENANCE

CASA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	Completion Date	% complete	
	IDL 2-D Plotting	12/31/94	0%	
	Table Calculator	12/31/94	0%	
	Startup Options	12/31/94	0%	
	Display IP Script	12/31/94	0%	
	Update ADS Docs	12/31/93	100%	on-going
	ADS Bug Fixes	12/31/94	0%	on-going
	ADS Integration	12/31/94	0%	on-going
	ADS Release Builds	12/31/94	0%	on-going
	ADS Beta Release	12/6/93	100%	
	ADS/EOS Bugs DB	12/31/94	0%	on-going
	CASA Testsuites	1/31/94	90%	on-going
	ADC CDROM Cats	1/31/94	95%	

Approved:_____G. Eichhorn
Achievement:_____J. Stoner (ESI)

Status as of: 1 January 1994

SYSTEM INTEGRATION

TASKS ACCOMPLISHED:

The primary work at Ellery during December has been to prepare and test software updates for delivery to ADS QA at CASA:

- A final software delivery was given to ADS QA at CASA on December 22nd.
- Kyle Habermehl worked on several problems with ADS login issues dealing with ADS requested feature to echo '*' characters in password field and to have login come up more under programmer control rather than EOS kernel control. He also fixed a DEC-only window management problem.
- The ADS beta software was installed at ESI and testing with the new core software on this version of code.
- Devin Hooker worked on testing and bug fixes.
- Clark Fishback worked up release notes for the software delivery as well as did general QA and QA management.
- Randall Gaz worked on tracking down bugs in ADS applications and core software.
- Don Roberts ran standard tests and investigated problems found with the EOS kernel and the server architecture and tested fixes for bugs in the CASA/ADS bug system.
- Brett Milash worked on several ADS bug fixes and testing.
- Jeff Stoner worked on several ADS bug fixes.

Other ADS support activities during the month included:

- Andrew Wang continued work on a non-DCE and non-ANSA RPC mechanism.
- Kyle Habermehl provided general support to ADS and participated in weekly conference calls.
- Project management, reporting and planning support were also done for the ADS by Geoff Shaw, Lowell Schneider, and Jeff Stoner.

Plans for the next two months of January and February are:

- Development activity will continue to replace ANSA/ANSA-trader based EOS.
- Specify requirements and implementation plan for security in the new RPC mechanism.
- Ongoing bug fixes and support to project as needed.
- Participation in discussions of new ADS services.

Approved:_____G. Eichhorn
Achievement:_____S. Murray (SAO)

Status as of: 1 January 1994

DEVELOPMENT

SAO

TASKS ACCOMPLISHED:

Abstract Service:
- Found and fixed bugs discovered by following up on problems found in server body logs.
- Fixed bugs discovered in beta testing.
- Wrote memo to NASA/STI providing feedback on abstracts data.

Einstein Archive Service:
- Modified C-Lite code to use new coordinate conversion wrapper scripts.
- Fixed bugs discovered in beta testing, added enhancements.
- Modified usage of file transfer tool.

Mosaic Server:
- Modified to work with Mosaic 2.1.

SAOIMAGE Service:
- Revised server body scripts for SAOimage service.

Coordinate Conversion Service:
- Modified the coordinate conversion sms_local to start up when ADS is started up.
- Wrote wrapper scripts to facilitate doing coordinate conversions from other services.
- Fixed bugs, made enhancements, wrote documentation.

SIMBAD Service:
- Modified C-Lite code to use new coordinate conversion wrapper scripts.
- Found and fixed minor bugs in the GUI.

Node Support:
- Assisted personnel at U Minnesota with getting their catalogs on-line.
- Travelled to NIST to design server for their data.
- Made test widget to periodic table to use for NIST holdings.

General:
- Provided User Support to people using Abstracts Services.
- Gave ADS Tutorial to local users.
- Assisted in development of General 2D Plot Tool.
- Worked on SAO node configuration table in html.

Approved:_____G. Eichhorn
Achievement:_____S. Murray (SAO)

Status as of: 1 January 1994

DEVELOPMENT (Cont'd)

SAO (cont'd)

TASKS ACCOMPLISHED (cont'd):

Miscellaneous:

- Installed local installations of the beta release of ADS 4.0 and sent beta comments to Q/A.
- Upgraded ADS HTTPD server.
- Arranged for ADS exhibit at AAS, loaner workstation from HP.
- Wrote documentation for ADS Developer's Guide.
- Investigated Mosaic forms support.

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 January 1994

DEVELOPMENT (Cont'd)

CASA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	End Date	% complete
2.5.1	Catalog Access-Total	7/1/94	14%
	Update ADS_Doc Req	2/1/94	100%
2.5.2	SQLserver 2.0 Integration	7/1/94	0%
	Data Dictionary Builder	7/1/94	10%
2.5.4	Data Dictionary Integration	7/1/94	0%
	Dynamic List Updates	12/6/93	100%
	Dynamic QBE Updates	12/6/93	100%
	SQL Parser in adstoqbeCB	7/1/94	0%
	Add Positional Options	7/1/94	0%
	Incorporate Mosaic Widget	7/1/94	0%
	QBT	7/1/94	0%
2.2.7	Developer's Guide	1/11/94	80%
	Coordination of Efforts	11/22/93	90%
	SQL appendices	1/11/94	10%
	Help Text Guidelines	1/1/94	100%
	File Transfer	11/22/93	90%
2.4.3	NDADS Archive	1/1/94	97%
	Merged CLite Library	12/6/94	100%
	C Server Body Reconnect	12/6/93	0%
	N/A (Client CLite Lib)	11/22/93	95%
	N/A (EOSserver CLite Lib)	11/22/93	95%
	N/A (C Server Body)	11/22/93	95%
	Link to Security Services	11/22/93	0%
	Help Text	12/6/93	100%
	VAX Command File	1/1/94	100%
	VAX ARMS Service	1/1/94	100%
2.2.6	Transfer Monitor	12/6/93	86%
	Merged CLite Library	12/6/93	100%
	N/A (Client CLite Library)	11/22/93	95%
	N/A (EOSserver CLite Library)	11/22/93	95%
	"FTserver, FTGET Ser Body"	11/22/93	0%
	Link to Security Services	11/22/93	0%
	Help Text	12/6/93	100%

Approved:_____G. Eichhorn Status as of: 1 January 1994
Achievement:_____ T. Snow (CASA)

DEVELOPMENT (Cont'd)

CASA (cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	End Date	% complete
2.2.10	Transfer Monitor II	1/31/94	0%
	Widget	1/31/94	0%
	N/A (Client CLite Library)	1/31/94	0%
	N/A (EOSserver CLite Lib)	1/31/94	0%
	"FTserver/FTGET Ser Body"	1/31/94	0%
	Link to Security Services	1/31/94	0%
	Developers Guide Text	1/31/94	0%
	Help Text	1/31/94	0%
???	EOSserver CLite Library	11/22/93	50%
2.6.5	Generic Plot Tool	1/31/94	0%
	Widget	1/31/94	0%
	Client CLite Library	1/31/94	0%
	SM or GKS Server Body	1/31/94	0%
2.5.7	Table Calculator	1/31/94	0%
2.7.2	IDL Server	1/31/94	0%
2.4.12	IUE Reprocessed Archive	1/31/94	0%
	CASA IUE Archives - Misc X	1/31/94	0%
2.3.3	Bug Server	1/31/94	0%
2.3.8	Directory Service	1/31/94	0%
2.4.11	LRS System	1/11/94	75%
	List Settings Widget	1/11/94	75%
	Table Editor	1/11/94	75%
	FITS Transfer	1/11/94	75%
2.5.4	Data Dictionary Service	4/1/94	55%
	DD Tool	4/1/94	25%
	DD Tables	1/31/94	85%
2.5.3	Text Retrieval	1/31/94	1%
2.4.7	P Cygni Catalog	12/31/93	100%
	Documentation	12/31/93	100%
	Integration	12/31/93	100%
	"AAS January '94"	1/11/94	61%
	Update Display w/EUVE	1/11/94	75%
	Update Display w/HEASARC	1/11/94	75%
	Update Display w/U of Minn	1/11/94	75%
	HTML Based Science Scen.	1/11/94	10%
	WGAS Presentation	1/11/94	50%
	100 Copies of Catalog Lists	1/11/94	100%
	Boulder High (Mike Fuchs)	1/31/94	25%

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 January 1994

OPERATIONS

ADS USER/USAGE STATISTICS:

	IPAC2	IUE	PSU	SAO	HEASRC	STSCI	CASA	EUVE	NSSDC
startup :	3	13	1	8	5	2	3	4	8
query :	226	32	15	84	26	120	34	21	29
schema :	215	31	15	84	26	118	34	21	27
retrieve :	3771	68	23	205	39	2982	90	81	39
abort :	193	30	15	79	23	88	32	21	28
report :	2281	1307	1678	1673	1544	33	519	1334	1604

startup - *Gives the number of hard startx ups of the SQLserver at the given node location*

query - *Records how many queries users sent to that particular node.*

schema - *Retrieves the query result file format* (i.e., *table header and number of records found). It therefore represents the number of successfully completed queries (though not necessarily transferred back to the user).*

retrieve - *Records all user requests to bring data from a successful query back to the user location. Data is returned one screen at a time, and a retrieve is issued for each screen of returned data, whether that screen has one or more lines of data.*

abort - *Records each time a query session ends. Currently, this can signal either that the user requested a termination or that all the data had been transferred.*

report - *Records the number of inquiries about the current status of the SQLserver program. Such inquiries can only be issued by the srvadm program.*

Abstracts

user	logins	queries	short	long	list
220	765	15587	36130	15646	68670

users - *Number of distinct users usingthe abstract service*

logins - *Number of logins into the abstract service*

queries - *Number of queries sent to the abstract service (one specification of authors, keywords, titles etc is one query. One query may return thousands of abstracts).*

short - *Number of lines of short abstract information retrieved (authors and titles).*

long - *Number of complete abstracts retrieved (authors, titles, keywords, author affiliation, journal information, abstract text).*

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 January 1994

SUPPLIERS OF DATA

CASA

TASKS ACCOMPLISHED:

- Created HTML document with CASA node server configuration at URL: http://puppis.colorado.edu/casaConfig.html

Approved:_____G. Eichhorn
Achievement:_____B. Stroozas (CEA/Berkeley)

Status as of: 1 January 1994

SUPPLIERS OF DATA (Cont'd)

CEA

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____S. Drake (HEASARC/GSFC)

Status as of: 1 January 1994

SUPPLIERS OF DATA (Cont'd)

HEASARC/GSFC

TASKS ACCOMPLISHED:

- Installed the beta release of ADS 4.00 as a test client.
- On the HEASARC home page on the WWW/Mosaic we have the ADS as one of the other services (it's anchor, so if the user clicks on it, he/she gets to the ADS home page).

Approved:_____G. Eichhorn
Achievement:_____J. Mazzarella (IPAC)

Status as of: 1 January 1994

SUPPLIERS OF DATA (Cont'd)

IPAC/CALTECH

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn Status as of: 1 January 1994
Achievement:_____P. Lawton (IUE/GSFC)

SUPPLIERS OF DATA (Cont'd)

IUE/GSFC

TASKS ACCOMPLISHED:

- The IUE Merged Observing Log, iuelog, and IUE FES, iuefes, tables were updated. Updated documentation was delivered to QA.
- IUE installed and tested ADS Version 4.0.

ADS User/Usage Statistics:

December

- query	32	- startup	13
- retrieve	68	- withdraw	24
- schema	31	- shutdown	8
- status	32		
- abort	30	- query making users	8
- report	1307	- total users	14
- export	40	- new users	2
- export_failure	1		

PROBLEMS/CONCERNS:

- Search capabilities to identify IUE data sets for retrieval have been in place since the beginning of the ADS system. In response to item 2.4.7 of ADS Monthly Progress Report No. 20 for October 1993, the IUE Merged Log of Observations is routinely updated and is available in the ADS under the name IUELOG. It is searchable with all the standard tools the ADS provides. Could the enhancements which a "meta-data search capability" should provide be spelled out for our consideration? It may be that similar functionality is already available, and that the resources to duplicate it could be used more efficiently elsewhere.

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 January 1994

SUPPLIERS OF DATA (Cont'd)

PSU

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____M. Garcia(SAO)

Status as of: 1 January 1994

SUPPLIERS OF DATA (Cont'd)

SAO

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____A. Farris (STScI)

Status as of: 1 January 1994

SUPPLIERS OF DATA (Cont'd)

STScI

TASKS ACCOMPLISHED:

- Nothing to report.

ASTROPHYSICS DATA SYSTEM

NASA Grant NCCW-0024

Monthly Progress Report No. 23

for January 1994

Prepared for

National Aeronautics and Space Administration
Astrophysics Division - Code SZ

Smithsonian Institution
Astrophysical Observatory
Cambridge, Massachusetts 02138

The Smithsonian Astrophysical Observatory
is a member of the
Harvard-Smithsonian Center for Astrophysics

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 February 1994

DISTRIBUTION

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R. Thompson

GSFC/NSSDC:
M. Van Steenberg

IPAC/ADS:
J. Good

IPAC/NODE:
J. Mazzarella

NIST:
W. Martin

PSU:
J. Nousek

SAO/EINSTEIN:
M. Garcia

SAO/PROJ:
S. Murray

STScI:
A. Farris

U. Minn:
C. Cornuelle

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 February 1994

SUMMARY

The highlight of ADS activities in January was the release of ADS 4.0 just before the AAS meeting in Washington, DC. The new architecture now allows easier updates of services and dynamic releases of catalogs. Another important aspect of the new ADS version is the availability of archive access services *e.g.*, to the Einstein archive, the ISSA plate archive and NDADS.

At the AAS meeting we had a demonstration booth with two workstations. Alice Bertini and Guenther Eichhorn gave oral presentations about the ADS.

The usage of the abstract service is still increasing. The nuumber of registered users is still climbing strongly. At the end of January we had 1646 registered users.

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 February 1994

ADMINISTRATIVE

TASKS ACCOMPLISHED:

The first part of January was dominated by preparations for the ADS 4.0 release and the AAS meeting in Washington, DC. The release was sent out as planned just before the AAS meeting. It included catalogs from a couple of new nodes: The Center for EUV Astronomy at Berkeley and the Automated Plate Scan Project at the University of Minnesota, and archive access to 4 archives: Einstein archive (SAO), IRAS Sky Survey Archive (IPAC), IUE early type star spectra (CASA), and the NSSDC Data Archive and Distribution Service. This greatly increases the data holdings available through the ADS. We now also provide access to the astronomical objects data base at SIMBAD in France with a graphical user interface. The abstract service has been updated to allow object queries that also utilize the SIMBAD data base.

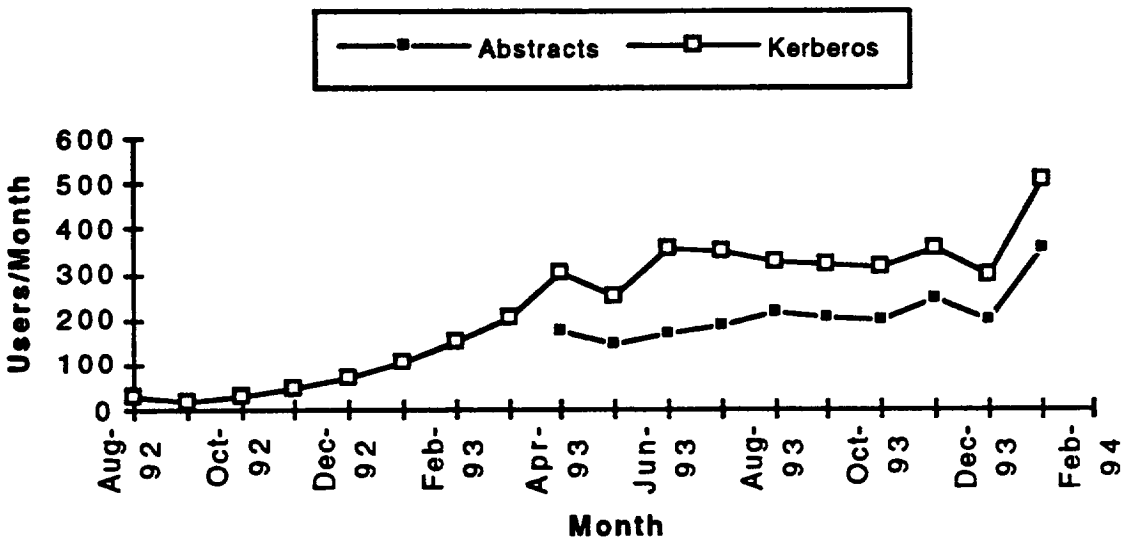
Efforts continue at the National Institute for Standards and Technology to build a server for their atomic and molecular data. CEA is in the process of building a remote procedure for calculating the transmission of the interstellar medium.

The usage of the ADS is holding steady, the number of registered users is still increasing strongly. The following pages show the ADS statistics in graphical form.

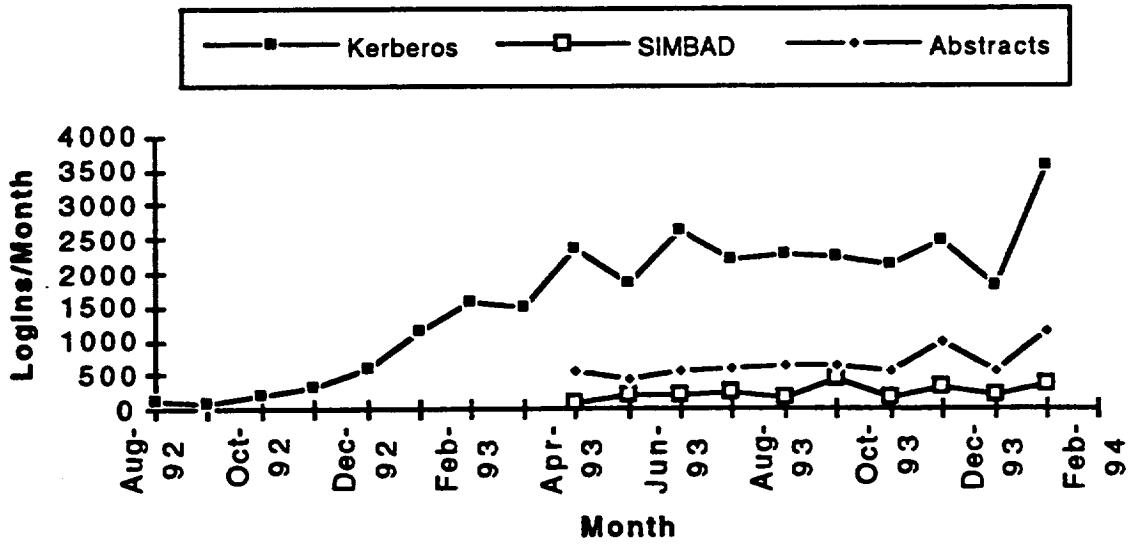
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 February, 1994

Number of Distinct Non-project Users



Number of Non-project Logins

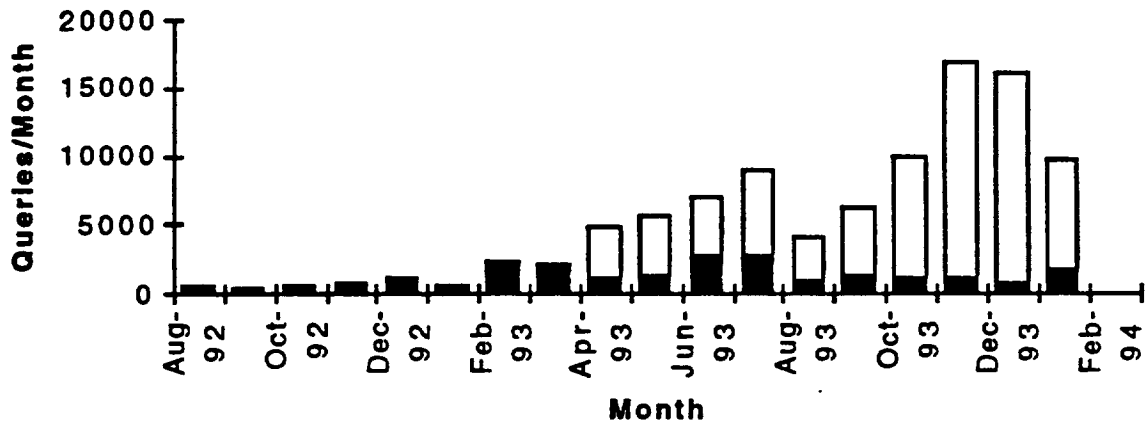


SAO ASTROPHYSICS DATA SYSTEM

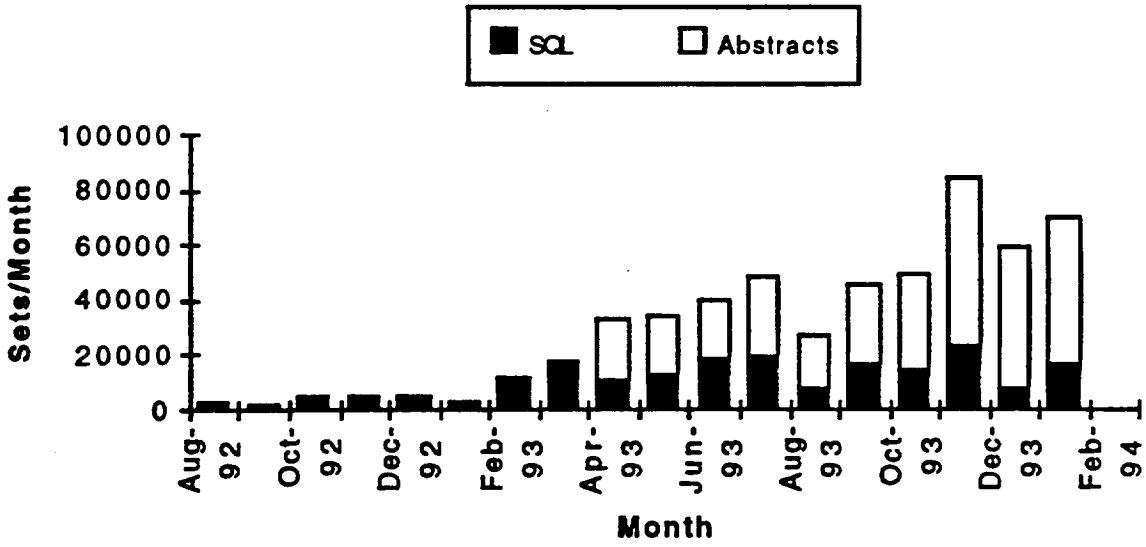
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 February, 1994

Number of Queries



Number of Retrieved Data Sets



Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 February 1994

ADMINISTRATIVE (Cont'd)

LAST MONTHS PROBLEMS/CONCERNS:

IUE/GSFC Suppliers of Data:

- Search capabilities to identify IUE data sets for retrieval have been in place since the beginning of the ADS system. In response to item 2.4.7 of ADS Monthly Progress Report No. 20 for October 1993, the IUE Merged Log of Observations is routinely updated and is available in the ADS under the name IUELOG. It is searchable with all the standard tools the ADS provides. Could the enhancements which a "meta-data search capability" should provide be spelled out for our consideration? It may be that similar functionality is already available, and that the resources to duplicate it could be used more efficiently elsewhere.

A: In task 2.4.7 we want to implement an easy to use interface to the IUE data at NDADS that allows the user different search capabilities (search by coordinates/name/exposure time/etc). We realize that some of these capabilities exist. We plan to work with IUE when we start work on task 2.4.7 to coordinate these efforts and utilize whatever capabilities are already available. We have not yet scheduled when to start this task.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 February 1994

SYSTEM ENGINEERING

TASKS ACCOMPLISHED:

With the release of the ADS 4.00 system, we have completed the second phase of ADS architectural development. At this time there are several alternatives for future evolution and the Project is carefully reviewing each of these and its relevence in the current academic, fiscal, and technological environment. This process is expected to take at least two months, and final plans should be available by the end of March, 1994.

Approved:_____G. Eichhorn
Achievement:_____ T. Snow (CASA)

Status as of: 1 February 1994

USER SUPPORT

CASA:

The month of January was spent releasing the ADS 4.00 final version and attending the AAS meeting in Washington DC.

The updated MicroSoft Project input files for the month ending January 1994 are available via anonymous ftp on cuads.colorado.edu in /pub/ads_int/status in the following files:

user_sup_jan.mpp	- User support
qa_jan.mpp	- Testing / QA
mainten_jan.mpp	- System maintenance & integration
develop_jan.mpp	- Development
node_sup_jan.mpp	- Node Support
meetings_jan.mpp	- Meetings
managemt_jan.mpp	- CASA project management

TASKS ACCOMPLISHED:

- User Support statistics for the month:

- New users:	102
- New US users:	76
- New non-US users:	26
- Total users as of 11/30/93:	1646
- Total US users as of 11/30/93:	1300
- Total non-US users as of 11/30/93:	346
- Information requests:	30
* answered questions: (includes "answered bin" and phone calls)	98
* resolved problems: (multiple messages for each of these)	13

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 February 1994

USER SUPPORT

CASA:

TASKS ACCOMPLISHED (cont'd):

WBS#	Task	Completion Date	% complete	
2.5.13	Online Help Text	1/11/94	100%	
	Hypertext-Core	1/11/94	100%	
	Hypertext-ndads	12/31/93	100%	
	Hypertext-Pcygni	1/11/94	100%	
	Hypertext Tutorial	9/30/94	100%	
	Hypertext Reg Form	5/17/94	67%	
	Puppis	2/4/94	100%	
	Install Httpd1.0	1/21/94	100%	
	Create Req Form	1/26/94	100%	
	Write Form Server	2/4/94	100%	
	Science Scenarios	1/30/94	1%	
	Mail Abstract Plea	1/15/94	100%	
	Annc. Simbad/abstract Upd	1/28/94	100%	
	Annc. Install Upd	2/1/94	100%	
	Mailing lists	9/30/94	1%	
	Astro.db - Ingres	1/31/94	0%	
	Front-line support	9/30/94	1%	on-going
	User Statistics	9/30/94	1%	on-going
	Edit	3/31/94	0%	
	users.tbl	3/31/94	0%	
	readreg prog	3/31/94	0%	
	AAS, January '94	1/11/94	100%	
	Update Display w/EUVE	1/11/94	100%	
	Update Dsply w/HEASARC	1/11/94	100%	
	HTML Based Sci Scen	1/11/94	100%	
	VBT Poster Display	1/11/94	100%	
	WGAS Presentation	1/11/94	100%	
	100 Copies Catalog list	1/11/94	100%	
	Boulder High (Mike Fuchs)	7/1/94	25%	

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 February 1994

TEST AND QA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	Completion Date	% complete
2.5.14.1	SQLserver 2.0	3/15/94	10%
2.5.5.1	Coord. Conversion	1/11/94	100%
	EUVE ISM Tool	3/1/94	95%
2.4.5.1	ISSA Archive	1/11/94	100%
2.6.3.1	AGRA	7/1/94	25%
2.5.3	Text Retrieval	7/1/94	0%
2.5.4.1	Data Dictionary	7/1/94	0%
2.7.3	WAIS Server	7/31/94	0%
2.2.3.1	EOSSERVER - on hold	11/22/93	75%
2.2.4.1	Security Services	11/22/93	0%
2.2.5.1	Secure File Transfer	11/22/93	0%
2.2.9.1	EOS 3.25 Release	1/11/94	100%
	"Snapshot QA, 11/1"	11/22/93	100%
	Full Release QA	1/11/94	100%
2.6.4.1	SAOimage Tool	1/11/94	100%
2.4.6.1	SIMBAD GUI	1/11/94	100%
2.4.7.1	P Cygni Service	1/11/94	100%
2.4.11.1	LRS	4/15/94	0%
2.2.6.1	File Transfer Monitor	1/11/94	100%
	HST Archive	1/15/94	100%
2.6.2.1	Skyview Update	7/1/94	0%
2.4.4.1	Einstein Archive	1/11/94	100%
2.5.1.1	Catalog Access	7/1/94	0%
2.4.2.1	NED	1/1/94	100%
2.4.8	UMinn POSS1 Data Arch.	1/11/94	100%
2.4.1.1	Abstract Service	1/11/94	100%
2.4.3.1	NDADS Archive	6/12/95	50%
2.3.1	Log Handling Service	9/30/94	0%
2.3.2	Monitoring Service	9/30/94	0%
2.6.1	2-D Plot Service	9/30/94	0%
2.5.6	QBT Service	9/30/94	0%
	ADS Directory Service	9/30/94	0%
2.2.2.1	RPI/SMS	9/30/94	0%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 February 1994

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	Catalogs	9/30/94	71%
	redshift	3/11/94	0%
	sao2000	3/11/94	0%
	seyfert	3/11/94	0%
	seyfert_ref	3/11/94	0%
	agk3	3/11/94	0%
	dmsort	3/11/94	0%
	saosort	3/11/94	0%
	rasort	3/11/94	0%
	selected	3/11/94	0%
	sbnr	3/11/94	0%
	rad_drao	1/31/94	100%
	rad_iras	12/30/93	100%
	rad_iras_brgal	12/30/93	100%
	parallax	9/30/94	10%
	pln	9/30/94	10%
	reflect	9/30/94	10%
	gc	9/30/94	10%
	nltt	9/30/94	50%
	nltt_notes	9/30/94	50%
	acrs1	9/30/94	0%
	acrs2	9/30/94	0%
	wds	1/1/94	0%
	hii	11/5/93	50%
	ppmn	11/5/93	0%
	ppms	11/5/93	0%
	openclus	11/5/93	0%
	interfer	11/5/93	0%
	findlist	11/5/93	0%
	findlist_rem	11/5/93	0%
	p cygni	1/31/94	0%
	pcyg (casa)	1/5/94	100%
	rc3 (ipac)	9/30/94	0%
	abell (heasarc)	9/30/94	80%
	bulletin (heasarc)	2/28/94	99%
	cma (heasarc)	2/28/94	99%
	cosb (heasarc)	2/28/94	99%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 February 1994

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	exolog (heasarc)	2/28/94	99%
	exopubs (heasarc)	2/28/94	99%
	gingalog (heasarc)	2/28/94	99%
	gingamode (heasarc)	2/28/94	99%
	gs (heasarc)	1/31/94	90%
	konus (heasarc)	2/28/94	99%
	me (heasarc)	2/28/94	99%
	rosao (heasarc)	2/28/94	95%
	rosid (heasarc)	2/28/94	99%
	rospublic (heasarc)	2/28/94	99%
	rosuspspc	2281/94	99%
	tdl	2/28/94	99%
	wfcbsc (heasarc)	2/28/94	99%
	xray (heasarc)	2/28/94	99%
	wds_nameidx (casa)	1/12/94	100%
	wds_namesort (casa)	2/4/94	100%

Approved:_____G. Eichhorn
Achievement:_____J. Stoner (ESI)

Status as of: 1 February 1994

SYSTEM INTEGRATION

TASKS ACCOMPLISHED:

The primary work at Ellery during January has been to continue support ADS QA at CASA and the ADS project in general:

- Kyle Habermehl provided general support to ADS and participated in weekly conference calls.
- Brett Milash worked on a DEC Ultrix ftget server bug as well as provided support to SAO on sqlserver problems.
- Clark Fishback directed ESI QA efforts for ADS.
- Don Roberts ran standard tests and investigated problems found with the EOS kernel and the server architecture and tested fixes for bugs in the CASA/ADS bug system.
- Randall Gaz worked on tracking down bugs in ADS applications and core software.
- Project management, reporting and planning support were also done for the ADS by Geoff Shaw, Lowell Schneider, Nathan Vanderhoofven and Jeff Stoner.

Plans for the next two months of February and March are:

- Development activity will continue to replace ANSA/ANSA-trader based EOS.
- Specify requirements and implementation plan for security in the new RPC mechanism.
- Ongoing bug fixes and support to project as needed.
- Participation in discussions of new ADS services.

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 February 1994

SYSTEM INTEGRATION & MAINTENANCE

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	Completion Date	% complete	
	IDL-2-D Plotting	9/30/94	0%	
	Table Calculator	9/30/94	0%	
	Startup Options	9/30/94	0%	
	Display IP Script	9/30/94	0%	
	File Transfer Monitor	9/30/94	5%	
	NDADS Archive Service	9/30/94	5%	
	Abstract Update	1/27/94	100%	
	SIMBAD GUI Update	1/27/94	100%	
	Install Update	1/31/94	100%	
	HST Archive Update	7/1/94	10%	
	ADS Bug Fixes	9/30/94	0%	on-going
	ADS Integration	9/30/94	0%	on-going
	ADS Release Builds	9/30/94	0%	on-going
	ADS/EOS Bugs DB	9/30/94	0%	on-going
	CASA Testsuites	9/30/94	1%	on-going
	ADC CDROM Cats	12/22/94	60%	

Approved:_____G. Eichhorn
Achievement:_____S. Murray (SAO)

Status as of: 1 February 1994

DEVELOPMENT

SAO

TASKS ACCOMPLISHED:

Abstract Service:

- Made bug fixes for file handling in order to avoid using extrinsics fwrite and fread.
- Finished script to get list of new words in abstracts and titles which will need to have new synonyms (for synonym replacement).
- Loaded new data into the abstract database.

SIMBAD Service:

- Made bug fixes for file handling in order to avoid using extrinsics fwrite and fread.

Einstein Archive Service:

- Fixed small bugs reported by users.

Coordinate Conversion Service:

- Fixed small bug reported by user.

General:

- Attended and presented ADS demos at the AAS meeting in Washington D.C.
- Helped QA Minnesota plate catalogs.
- Gave ADS tutorials to local users.
- Answered user questions about the Abstract Service.

Miscellaneous:

- Finalized bug fixes for the release.
- Installed ADS 4.0 on a number of platforms and machines.
- Sent comments to STI on the impact of stopping abstracting.
- Recompiled SQL server to accept command line arguments in order to change output format from the default (from Ingres Terminal Monitor).
- Helped find and confirm fix for bug in installation script.
- Reviewed Todd's development work in preparation for taking over the work.
- Added new catalogs to Ingres for inclusion in ADS.

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 February 1994

DEVELOPMENT (Cont'd)

CASA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	End Date	% complete
2.5.1	Catalog Access-Total	7/1/94	2%
	Update ADS_Doc Req	1/3/94	100%
2.5.2	SQLserver 2.0 Integration	7/1/94	0%
	Data Dictionary Builder	7/1/94	10%
2.5.4	Data Dictionary Integration	7/1/94	0%
	SQL Parser in adstoqbeCB	7/1/94	0%
	Add Positional Options	7/1/94	0%
	Incorporate Mosaic Widget	7/1/94	0%
	QBT	7/1/94	0%
2.2.7	Developer's Guide	1/11/94	66%
	Coordination of Efforts	11/22/93	90%
	SQL appendices	1/11/94	10%
	Help Text Guidelines	1/1/94	100%
	File Transfer	11/22/93	90%
2.4.3	NDADS Archive	1/1/94	97%
	N/A (Client CLite Lib)	11/22/93	95%
	N/A (EOSserver CLite Lib)	11/22/93	95%
	N/A (C Server Body)	11/22/93	95%
	Link to Security Services	11/22/93	0%
	VAX Command File	1/1/94	100%
	VAX ARMS Service	1/1/94	100%
2.2.6	Transfer Monitor	11/22/93	84%
	N/A (Client CLite Library)	11/22/93	95%
	N/A (EOSserver CLite Library)	11/22/93	95%
	"FTserver, FTGET Ser Body"	11/22/93	0%
	Link to Security Services	11/22/93	0%
2.2.10	Transfer Monitor II	12/30/94	0%
	Widget	12/30/94	0%
	N/A (Client CLite Library)	12/30/94	0%
	N/A (EOSserver CLite Lib)	12/30/94	0%
	"FTserver/FTGET Ser Body"	12/30/94	0%
	Link to Security Services	12/30/94	0%
	Developers Guide Text	12/30/94	0%
	Help Text	12/30/94	0%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 February 1994

DEVELOPMENT (Cont'd)

CASA (cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	End Date	% complete	
	EOSserver CLite Library	11/22/93	50%	
2.6.5	Generic Plot Tool	12/30/94	0%	
	Widget	12/30/94	0%	
	Client CLite Library	12/30/94	0%	
	SM or GKS Server Body	12/30/94	0%	
2.5.7	Table Calculator	12/30/94	0%	
2.7.2	IDL Server	12/30/94	0%	
2.4.12	IUE Reprocessed Archive	12/30/94	0%	
2.3.3	Bug Server	2/28/94	80%	
2.3.8	Directory Service	3/3/94	0%	
2.4.11	LRS System	7/14/94	6%	
	New Main Widget	7/14/94	25%	
	List Settings Widget	7/14/94	0%	
	Table Editor	7/14/94	0%	
	FITS Transfer	7/14/94	0%	
2.5.4	Data Dictionary Service	4/1/94	53%	
	DD Tool	4/1/94	25%	
	DD Tables	2/28/94	80%	
2.5.3	Text Retrieval	1/31/94	99%	
	CASA IUE Archives - Misc X	5/31/94	0%	
	NDADS Node Support	9/30/94	50%	on-going
	HEASARC/GRO Node Support	9/30/94	0%	on-going
	CASA Node Support	9/30/94	7%	on-going

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 February 1994

OPERATIONS

ADS USER/USAGE STATISTICS:

	IPAC2	IUE	PSU	SAO	HEASRC	STSCI	CASA	EUVE	NSSDC	APS
startup :	2	8	2	18	22	8	5	8	3	21
query :	284	30	8	111	406	214	284	21	3	200
schema :	277	29	8	108	374	209	272	21	3	198
retrieve :	2843	623	11	145	913	3823	1360	38	3	6039
abort :	256	29	6	97	357	200	274	21	3	180
report :	2980	2055	2179	2229	2150	1648	1455	1077	2230	137

startup - *Gives the number of hard startx ups of the SQLserver at the given node location*

query - *Records how many queries users sent to that particular node.*

schema - *Retrieves the query result file format (i.e., table header and number of records found). It therefore represents the number of successfully completed queries (though not necessarily transferred back to the user).*

retrieve - *Records all user requests to bring data from a successful query back to the user location. Data is returned one screen at a time, and a retrieve is issued for each screen of returned data, whether that screen has one or more lines of data.*

abort - *Records each time a query session ends. Currently, this can signal either that the user requested a termination or that all the data had been transferred.*

report - *Records the number of inquiries about the current status of the SQLserver program. Such inquiries can only be issued by the srvadm program.*

Abstracts

user	logins	queries	short	long	list
373	1430	8254	46433	7722	78480

users - *Number of distinct users using the abstract service*

logins - *Number of logins into the abstract service*

queries - *Number of queries sent to the abstract service (one specification of authors, keywords, titles etc is one query. One query may return thousands of abstracts).*

short - *Number of lines of short abstract information retrieved (authors and titles).*

long - *Number of complete abstracts retrieved (authors, titles, keywords, author affiliation, journal information, abstract text).*

Approved:_____G. Eichhorn
Achievement:_____C. Cornuelle (APS)

Status as of: 1 February 1994

SUPPLIERS OF DATA

APS/UMinn

TASKS ACCOMPLISHED:

The software necessary to create multi-plate access was completed far ahead of schedule, and is currently being tested. This means that the 18 plate catalogs on-line with ADS will be merged into just two, one for the O-emulsions and one for the E-emulsions, plus the APS_PLATELIST. We should have is implemented before the month is ended.

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

Requests for information and special plate processing continue to trickle in here. What we call the "pipeline," the production of databases from the scanned plate images, is nearing software completion as various photometric and astrometric wrinkles are ironed out. Once this is finalized, again by month's end, we will begin to produce further catalogs to the plate limit for ADS release.

APS is also working to improve our local database file handling mechanisms and develop more software of local utility.

Approved:_____G. Eichhorn
Achievement:_____ T. Snow (CASA)

Status as of: 1 February 1994

SUPPLIERS OF DATA (Cont'd)

CASA

TASKS ACCOMPLISHED:

- More of the ADC CDROM catalogs are becoming available through the CASA node. See list of catalogs under the QA section for a complete update.

Approved:_____G. Eichhorn
Achievement:_____B. Stroozas (CEA/Berkeley)

Status as of: 1 February 1994

SUPPLIERS OF DATA (Cont'd)

CEA

TASKS ACCOMPLISHED:

- Nothing to report

Approved:_____G. Eichhorn
Achievement:_____S. Drake (HEASARC/GSFC)

Status as of: 1 February 1994

SUPPLIERS OF DATA (Cont'd)

HEASARC/GSFC

TASKS ACCOMPLISHED:

- Nothing to report

Approved:_____G. Eichhorn
Achievement:_____J. Mazzarella (IPAC)

Status as of: 1 February 1994

SUPPLIERS OF DATA (Cont'd)

IPAC/CALTECH

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn Status as of: 1 February 1994
Achievement:_____P. Lawton (IUE/GSFC)

SUPPLIERS OF DATA (Cont'd)

IUE/GSFC

TASKS ACCOMPLISHED:

- Installed mosaic server. Copied IUE's message of the day and documentation files to iuesn1.
- Installed new versions of "abstracts", "simbad_gui", and "install" services.

WORK IN PROGESS AND PROJECTED COMPLETION DATES:

- Index tables will be generated for the recently updated IUE database tables to improve system performance.

ADS User/Usage Statistics:

January

- query	30	- startup	8
- retrieve	623	- withdraw	24
- schema	29	- shutdown	8
- status	30		
- abort	29	- query making users	9
- report	2055	- total users	16
- export	24	- new users	6
- export_failure	0		

PROBLEMS/CONCERNS:

- IUE installed the documentation html files for iuelog, iuefes, and iueprog. It appears that the software that points to these files is still pointing to the versions on adswww.

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 February 1994

SUPPLIERS OF DATA (Cont'd)

PSU

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____M. Garcia(SAO)

Status as of: 1 February 1994

SUPPLIERS OF DATA (Cont'd)

SAO

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____A. Farris (STScI)

Status as of: 1 February 1994

SUPPLIERS OF DATA (Cont'd)

STScI

TASKS ACCOMPLISHED:

- Nothing to report.

ASTROPHYSICS DATA SYSTEM

NASA Grant NCCW-0024

Monthly Progress Report No. 24

for February 1994

Prepared for

National Aeronautics and Space Administration
Astrophysics Division - Code SZ

Smithsonian Institution
Astrophysical Observatory
Cambridge, Massachusetts 02138

The Smithsonian Astrophysical Observatory
is a member of the
Harvard-Smithsonian Center for Astrophysics

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 March 1994

DISTRIBUTION

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J. Good

IPAC/NODE:
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W. Martin

PSU:
J. Nousek

SAO/EINSTEIN:
M. Garcia

SAO/PROJ:
S. Murray

STScI:
A. Farris

U. Minn:
C. Cornuelle

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 March 1994

SUMMARY

After the release of version 4 and the AAS meeting, everybody took a breather and worked on tying up loose ends. The only major development was the development of a World Wide Web interface to the Abstract Service. The Abstract Service is now accessible through the WWW via its various interfaces (*e.g.*, XMosaic, Lynx). This incidentally, provides character based access to the abstracts via the Lynx interface.

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 March 1994

ADMINISTRATIVE

TASKS ACCOMPLISHED:

Preparations for the project meeting on 28-29 March 1994 started. This meeting will discuss the current status of the ADS and its future directions. This will include discussions about how the new networking technologies will affect the ADS.

Discussions with NCSA, the developer of the XMosaic access tool to the World Wide Web (WWW), were held about a possible development cooperation between the ADS and the Mosaic development group. Mosaic is a very popular tool for network access to information. The ADS has started to make use of this technology. However, there are certain capabilities that the ADS needs that are not provided by Mosaic. It would be very advantageous to implement some of these capabilities in Mosaic. This would allow much wider access to ADS data.

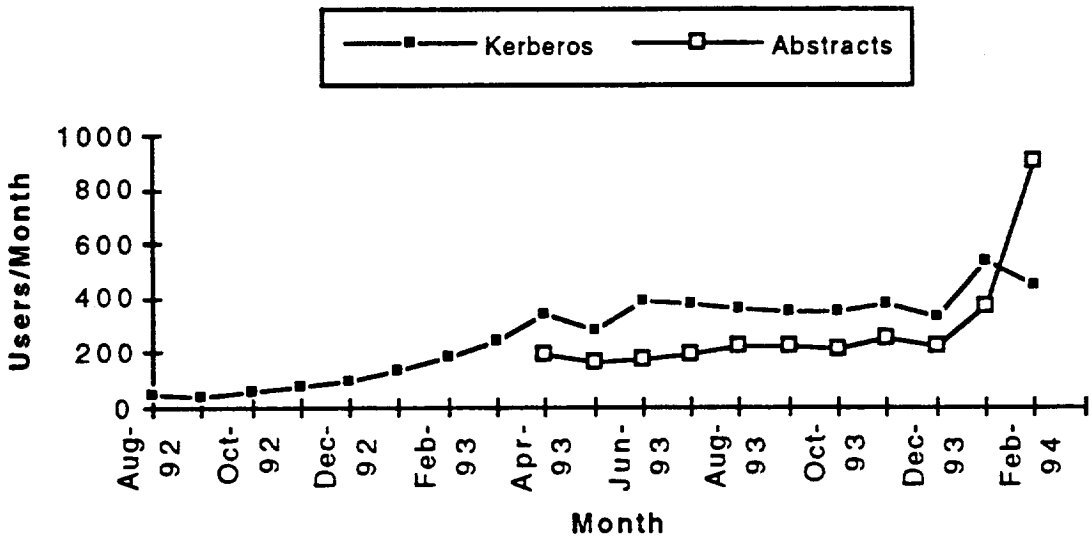
WWW access to the Abstract Service was developed and released in February. This makes the Abstract Service available from character based terminals via, for instance, the Lynx interface to the WWW. A catalog access tool through the WWW is also in development.

SAO ASTROPHYSICS DATA SYSTEM

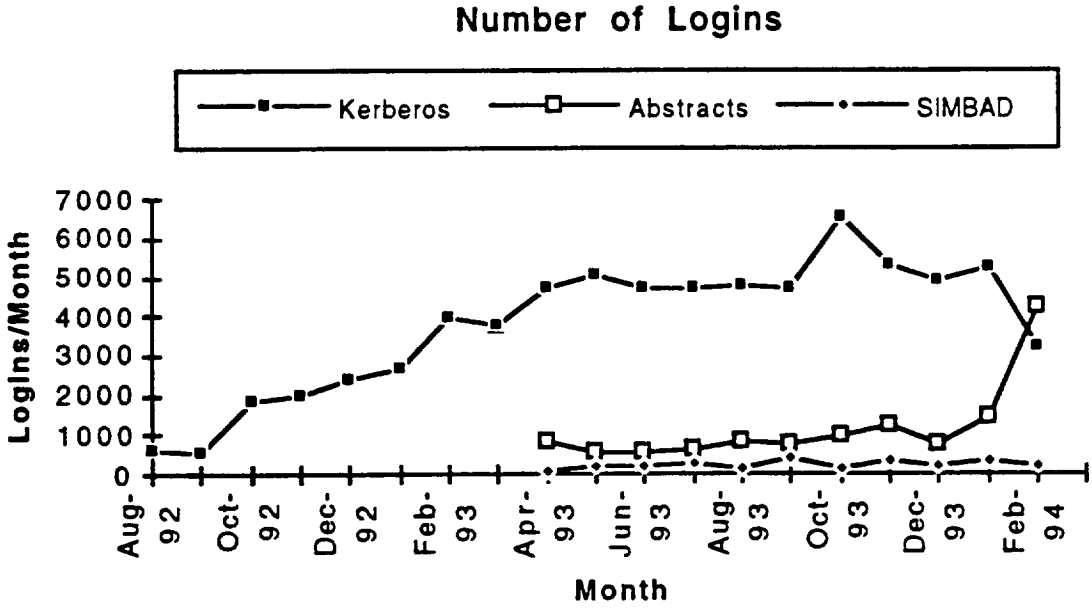
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 March, 1994

Number of Distinct Users



Number of Logins

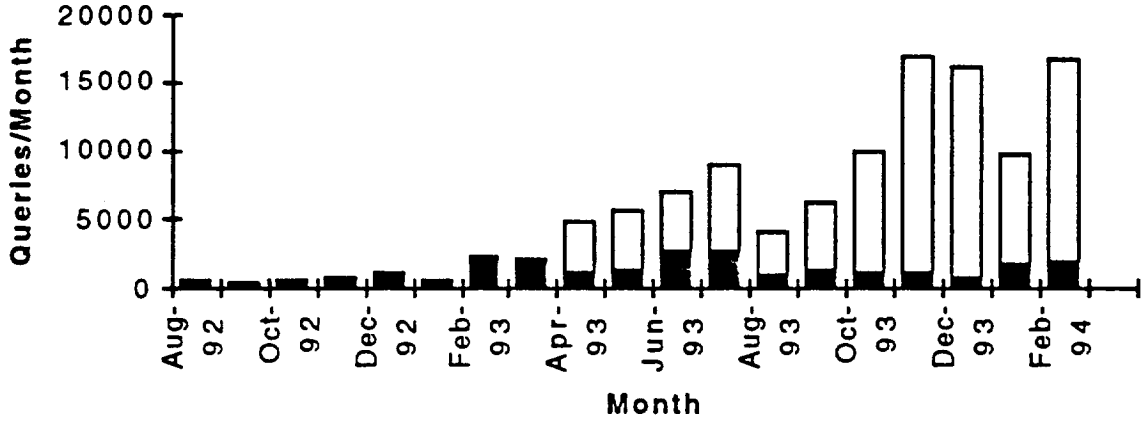


SAO ASTROPHYSICS DATA SYSTEM

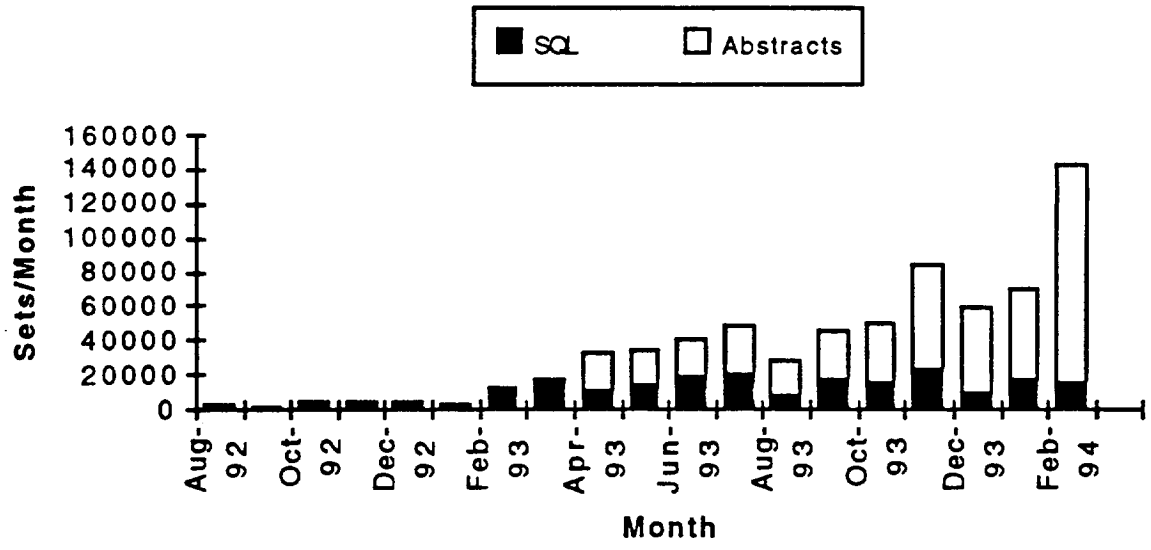
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 March, 1994

Number of Queries



Number of Retrieved Data Sets



Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 March 1994

ADMINISTRATIVE (Cont'd)

LAST MONTHS PROBLEMS/CONCERNS:

IUE/GSFC Suppliers of Data:

- IUE installed the documentation html files for iuelog, iuefes, and iueprog. It appears that the software that points to these files is sitll pointing to the version on adswww.

A: (Sent to Pat and Randy last month when they asked User support the same question): The catalog description service currently serves all catalog documentation from the httpd server running here at casa (adswww.colorado.edu). The reason is because mosaic does not currently provide a name service for documents so that the URL's need to be hard-coded into the C-lite client code. We will eventually be distributing the catalog html description files back to the nodes for them to serve from their local httpd servers once we have the client C-lite code in place to query the remote data dictionary files to find the most current httpd server name. In the mean time, the project is requesting that the nodes continue to send their html formatted catalog description files to ADS QA for serving. The html format specifications for catalog description files is detailed in the mosaic document at URL http://adswww.colorado.edu/catalogs/ADS_DocReq.html.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 March 1994

SYSTEM ENGINEERING

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 March 1994

USER COMMITTEE

PSU:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 March 1994

USER SUPPORT

CASA:

The month of February was spent tying up some loose ends associated with the ADS 4.00 release, updating the documents available on the web, and adding new catalogs from the ADC CDrom to the CASA node.

Note: Tasks marked with ** indicate on-going tasks that cannot accurately reflect a % complete.

The updated MicroSoft Project input files for the month ending February 1994 are available via anonymous ftp on cuads.colorado.edu in /pub/ads_int/status in the following files:

user_sup_febn.mpp	- User support
qa_feb.mpp	- Testing / QA
mainten_feb.mpp	- System maintenance & integration
develop_feb.mpp	- Development
node_sup_feb.mpp	- Node Support
meetings_feb.mpp	- Meetings
managemt_feb.mpp	- CASA project management

TASKS ACCOMPLISHED:

- User Support statistics for the month:

- New users:	104
- New US users:	55
- New non-US users:	49
- Total users as of 3/1/94:	1750
- Total US users as of 3/1/94:	1355
- Total non-US users as of 3/1/94:	395
- Information requests:	22
* answered questions: (includes "answered bin" and phone calls)	124
* resolved problems: (multiple messages for each of these)	33

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 March 1994

USER SUPPORT (Cont'd)

CASA:

TASKS ACCOMPLISHED (cont'd):

WBS#	Task	Completion Date	% complete
	Puppis	2/4/94	100%
	Write Form Server	2/4/94	100%
	What's New Doc's	3/4/94	90%
	New Home Pg Docs	3/1/94	100%
	CUADS	2/16/94	100%
	Convert Image Mapping	2/15/94	100%
	Install Httpd1.0	2/16/94	100%
	Science Scenarios	9/30/94	1%
	Annc. Install Upd	2/1/94	100%
	Mailing lists	9/30/94	1%
	Astro.db - Ingres	1/31/94	0%
	Front-line support	9/30/94	1% **
	User Statistics	9/30/94	1% **
	Edit	3/31/94	0% **
	users.tbl	3/31/94	0% **
	readreg prog	3/31/94	0% **
	Boulder High (Mike Fuchs)	7/1/94	25%
	Setup	7/1/94	25%
	JHU-FUSE	3/10/94	0%

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 March 1994

TEST AND QA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	Completion Date	% complete
2.5.14.1	SQLserver 2.0	3/15/94	10%
	EUVE ISM Tool	2/28/94	100%
2.6.3.1	AGRA	7/1/94	25%
2.5.3	Text Retrieval	7/1/94	0%
2.5.4.1	Data Dictionary	7/1/94	0%
2.7.3	WAIS Server	7/31/94	0%
2.2.3.1	EOSSERVER - **on hold**	11/22/93	75%
2.2.4.1	Security Services	11/22/93	0%
2.2.5.1	Secure File Transfer	11/22/93	0%
2.4.11.1	LRS	4/15/94	0%
2.6.2.1	Skyview Update	9/30/94	0%
2.4.4.1	*Einstein* Archive	9/30/94	100%
2.5.1.1	Catalog Access	9/30/94	0%
	Registration Service	2/4/94	100%
	Bug Reporting Service	2/28/94	100%
	What's New Service	2/28/94	100%
2.4.1.1	Abstract Service	1/11/94	100%
2.4.3.1	NDADS Archive	6/12/95	50%
2.3.1	Log Handling Service	9/30/94	0%
2.3.2	Monitoring Service	9/30/94	0%
2.6.1	2-D Plot Service	9/30/94	0%
2.5.6	QBT Service	9/30/94	0%
	ADS Directory Service	9/30/94	0%
2.2.2.1	RPI/SMS	9/30/94	0%
	Catalogs	9/30/94	48%
	redshift	9/30/94	100%
	sao2000	3/11/94	0%
	seyfert	3/11/94	0%
	seyfert_ref	3/11/94	0%
	agk3	3/11/94	0%
	dmsort	3/11/94	0%
	saosort	3/11/94	0%
	rasort	3/11/94	0%
	selected	3/11/94	0%
	sbnr	3/11/94	0%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 March 1994

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	parallax	9/30/94	25%
	pln	9/30/94	25%
	reflect	9/30/94	10%
	gc	9/30/94	25%
	nltt	9/30/94	50%
	nltt_notes	9/30/94	50%
	acrs1	9/30/94	0%
	acrs2	9/30/94	0%
	wds	1/1/94	0%
	hii	11/5/93	50%
	ppmn	11/5/93	0%
	ppms	11/5/93	0%
	openclus	11/5/93	0%
	interfer	11/5/93	0%
	findlist	11/5/93	0%
	findlist_rem	11/5/93	0%
	p cygni	1/31/94	0%
	aps_platelist	3/2/94	100%
	aps_possi_e	3/3/94	100%
	aps_possi_o	3/3/94	100%
	aps_possi	3/3/94	100%
	gal_xry_fluxes	3/3/94	100%
	gal_xry_atlas	3/3/94	100%
	qso_absorp91	3/4/94	100%
	qso_hew_burb93	9/30/94	0%
	rad_6cv	9/30/94	0%
	rad_6cvi	9/30/94	0%
	rad_atnf_pmn	9/30/94	0%
	rad_gb1	9/30/94	0%
	rad_gb2	9/30/94	0%
	rad_gb3	9/30/94	0%
	rad_vla_nep	9/30/94	0%
	rad_vvopt83	9/30/94	0%
	qso_eo_ipc	3/3/94	100%
	rc3 (ipac)	9/30/94	0%
	abell (heasarc)	9/30/94	80%
	bulletin (heasarc)	2/28/94	99%
	cma (heasarc)	2/28/94	99%

Approved:_____G. Eichhorn
Achievement:_____ T. Snow (CASA)

Status as of: 1 March 1994

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	cosb (heasarc)	2/28/94	99%
	exolog (heasarc)	2/28/94	99%
	exopubs (heasarc)	2/28/94	99%
	gingalog (heasarc)	2/28/94	99%
	gingamode (heasarc)	2/28/94	99%
	gs (heasarc)	1/31/94	90%
	konus (heasarc)	2/28/94	99%
	me (heasarc)	2/28/94	99%
	rosao (heasarc)	2/28/94	95%
	rosid (heasarc)	2/28/94	99%
	rospublic (heasarc)	2/28/94	99%
	rosuspspc (heasarc)	2/28/94	99%
	td1	2/28/94	99%
	wfcbsc (heasarc)	2/28/94	99%
	xray (heasarc)	2/28/94	99%
	wds_nameidx (casa)	1/12/94	100%
	wds_namesort (casa)	2/4/94	100%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 March 1994

SYSTEM INTEGRATION & MAINTENANCE

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	Completion Date	% complete
	IDL-2-D Plotting	9/30/94	0% **
	Table Calculator	9/30/94	0% **
	Startup Options	9/30/94	0% **
	Display IP Script	9/30/94	0%
	File Transfer Monitor	9/30/94	6% **
	NDADS Archive Service	9/30/94	6% **
	HST Archive Update	7/1/94	100%
	Kerberos Slave Server	2/7/94	100%
	ADS Bug Fixes	9/30/94	0% **
	ADS Integration	9/30/94	0% **
	ADS Release Builds	9/30/94	0% **
	ADS/EOS Bugs DB	9/30/94	0% **
	CASA Testsuites	9/30/94	1% **
	ADC CDROM Cats	12/22/94	1% **

Approved:_____G. Eichhorn
Achievement:_____J. Stoner (ESI)

Status as of: 1 March 1994

SYSTEM INTEGRATION

TASKS ACCOMPLISHED:

The primary work at Ellery during February has been to continue support ADS QA at CASA and the ADS project in general:

- Kyle Habermehl provided general support to ADS and participated in weekly conference calls.
- Brett Milash worked on several software problems.
- Clark Fishback produced on-line HTML versions of the distributed processing guide for use with the Mosaic program.
- Project management, reporting and planning support were also done for the ADS by Lowell Schneider and Jeff Stoner.

Plans for the next two months of March and April are:

- Development activity will continue to replace ANSA/ANSA-trader based EOS.
- Specify requirements and implementation plan for security in the new RPC mechanism.
- Ongoing bug fixes and support to project as needed.
- Participation in discussions of new ADS services.

Approved:_____G. Eichhorn
Achievement:_____S. Murray (SAO)

Status as of: 1 March 1994

DEVELOPMENT

SAO

TASKS ACCOMPLISHED:

Abstract Service:
- Finalized the Mosaic version of the astract service (and help text) and announced it to users, to Physics-Astronomy-Math librarians, and on NCSA *What's New* page.
- Updated contents of abstracts database, and updated synonym list.
- Experimented with wais indexing the abstracts using freeWAIS 0.202.

AAVSO Archive Service:
- Began design of Graphical User Interface.
- Received sample fits files from AAVSO programmers and began testing in ADS.

Einstein Archive Service:
- Fixed bugs in the User Interface which were causing ADS to crash.
- Increased limits on number of items which could be returned in response to bug reports.

SAOIMAGE Service:
- Found and fixed bugs involving user environment variables.

NIST Archive Service:
- Provided phone support to developers at NIST.

General:
- Answered user questions about the Abstract Service.
- Submitted info on ADS to be included in NASA Online Resource Guide.

Miscellaneous:
- Installed kerkeros slave on mccoy.
- Submitted the following 12 new catalogs to CASA for inclusion in ADS:

gal_xry_atlas	# Observation Information For The *Einstein* Galaxy Catalog
gal_xry_fluxes	# Flux Density Information For The *Einstein* Galaxy Catalog
qso_absorp91	# A Catalog of Absorption in QSO Spectra 1991
qso_hew_burb93	# A Revised and Updated Catalog of QSO's 1993
rad_6cv	# The 6C V Survey (151 MHz) (01.5-06.25h, 17.25-20.4h; 48-68 deg)
rad_6cvi	# The 6C VI Survey (151 MHz) (0h-09h, 22.5h-24h; 30-51 deg)
rad_atnf_pmn	# PMN Southern & Tropical Surveys (Dec: -87.5d to -10d)
rad_gb1	# Green Bank I Survey at 1400 MHz (Dec: 45d to 52d)
rad_gb2	# Green Bank II Survey at 1400 MHz (Dec: 32d to 40d)
rad_gb3	# Green Bank III Survey at 1400 MHz (Dec: 70d to 77d)
rad_vla_nep	# 1.5 GHz VLA-NEP Survey around the North Ecliptic Pole
rad_vvopt83	# Veron and Veron Catalogue of Extragalactic Radio Source IDs

Approved:_____G. Eichhorn Status as of: 1 March 1994
Achievement:_____T. Snow (CASA)

DEVELOPMENT (Cont'd)

CASA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	End Date	% complete
2.5.1	Catalog Access	7/1/94	2%
2.5.2	SQLserver 2.0 Integration	7/1/94	0%
	Data Dictionary Builder	7/1/94	10%
2.5.4	Data Dictionary Integration	7/1/94	0%
	SQL Parser in adstoqbeCB	7/1/94	0%
	Add Positional Options	7/1/94	0%
	Incorporate Mosaic Widget	7/1/94	0%
	QBT	7/1/94	0%
2.2.7	Developer's Guide	1/11/94	49%
	Coordination of Efforts	11/22/93	90%
	SQL appendices	1/11/94	10%
	File Transfer	11/22/93	90%
2.4.3	NDADS Archive	1/1/94	93%
	N/A (Client CLite Lib)	11/22/93	95%
	N/A (EOSserver CLite Lib)	11/22/93	95%
	N/A (C Server Body)	11/22/93	95%
	Link to Security Services	11/22/93	0%
2.2.6	Transfer Monitor	11/22/93	84%
	N/A (Client CLite Library)	11/22/93	95%
	N/A (EOSserver CLite Library)	11/22/93	95%
	"FTserver, FTGET Ser Body"	11/22/93	0%
	Link to Security Services	11/22/93	0%
2.2.10	Transfer Monitor II	9/30/94	0%
	Widget	9/30/94	0%
	N/A (Client CLite Library)	9/30/94	0%
	N/A (EOSserver CLite Lib)	9/30/94	0%
	"FTserver/FTGET Ser Body"	9/30/94	0%
	Link to Security Services	9/30/94	0%
	Help Text	9/30/94	0%
	EOSserver CLite Library	11/22/93	50%
2.6.5	Generic Plot Tool	9/30/94	4%
	Widget	9/30/94	0%
	Client CLite Library	9/30/94	1%
	C Function Library	9/30/94	1%
	IDL Server Body	9/30/94	0%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 March 1994

DEVELOPMENT (Cont'd)

CASA (cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	End Date	% complete	
	SM Server Body	9/30/94	0%	
	GKS Server Body	9/30/94	0%	
	GNUPLOT Server Body	9/30/94	0%	
	XMGR Server Body	9/30/94	0%	
	Install GNUPLOT Software	2/28/94	100%	
	Install XMGR Software	2/28/94	100%	
2.5.7	Table Calculator	9/30/94	0%	
2.7.2	IDL Server	9/30/94	0%	
2.4.12	IUE Reprocessed Archive	9/30/94	0%	
	AGRA GUI Alternative Widget	9/30/94	75%	
2.3.3	Bug Server	2/28/94	100%	
	What's New Svr	2/16/94	100%	
2.3.8	Directory Service	3/3/94	0%	
2.4.11	LRS System	7/14/94	6%	
	New Main Widget	7/14/94	25%	
	List Settings Widget	7/14/94	0%	
	Table Editor	7/14/94	0%	
	FITS Transfer	7/14/94	0%	
2.5.4	Data Dictionary Service	4/1/94	53%	
	DD Tool	4/1/94	25%	
	DD Tables	2/28/94	80%	
2.5.3	Text Retrieval	1/31/94	99%	
	CASA IUE Archives - Misc X	5/31/94	0%	
	NDADS Node Support	9/30/94	75%	**
	HEASARC/GRO Node Support	9/30/94	0%	**
	CASA Node Support	9/30/94	7%	**
	APS Node Support	9/30/94	0%	**

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 March 1994

OPERATIONS

ADS USER/USAGE STATISTICS:

	IPAC2	IUE	PSU	SAO	HEASRC	STSCI	CASA	EUVE	NSSDC	APS
startup :	6	4	2	8	7	6	1	1	9	8
query :	393	28	19	140	247	503	112	0	305	
schema :	367	28	19	136	219	490	111	0	11	298
retrieve :	5507	45	20	2362	399	2323	1097	0	13	1868
abort :	335	23	15	117	217	491	110	0	10	285
report :	2740	2027	2055	2047	2166	1977	784	44	1925	106

startup - *Gives the number of hard startx ups of the SQLserver at the given node location*

query - *Records how many queries users sent to that particular node.*

schema - *Retrieves the query result file format* (i.e., table header and number of records found). It therefore represents the number of successfully completed queries (though not necessarily transferred back to the user).

retrieve - *Records all user requests to bring data from a successful query back to the user location. Data is returned one screen at a time, and a retrieve is issued for each screen of returned data, whether that screen has one or more lines of data.*

abort - *Records each time a query session ends. Currently, this can signal either that the user requested a termination or that all the data had been transferred.*

report - *Records the number of inquiries about the current status of the SQLserver program. Such inquiries can only be issued by the srvadm program.*

Abstracts

user	logins	queries	short	long	list
908	4222	14914	118285	11590	3538348

users - *Number of distinct users using the abstract service*

logins - *Number of logins into the abstract service*

queries - *Number of queries sent to the abstract service (one specification of authors, keywords, titles etc is one query. One query may return thousands of abstracts).*

short - *Number of lines of short abstract information retrieved (authors and titles).*

long - *Number of complete abstracts retrieved (authors, titles, keywords, author affiliation, journal information, abstract text).*

Approved:_____G. Eichhorn
Achievement:_____C. Cornuelle (APS)

Status as of: 1 March 1994

SUPPLIERS OF DATA

APS/UMinn

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

CASA

TASKS ACCOMPLISHED:

- More of the ADC CDrom catalogs are becoming available through the CASA node. See list of catalogs under the QA section for a complete update.

Approved:_____G. Eichhorn Status as of: 1 March 1994
Achievement:_____B. Stroozas (CEA/Berkeley)

SUPPLIERS OF DATA (Cont'd)

CEA

TASKS ACCOMPLISHED:

- Updated and revised ISM tool after discussion with ADS. Waiting for IPAC release and installation of Xmosaic page.
- Cosmetic update to Bright Source List Catalog - replaced -9999 values with NULL.

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

- Updating and revising the caltargets table. New version will be current through GO Cycle I; 12/31/93. Projected completion data April 1, 1994.
- Software development work is now in progress for the creation of a new CEA node service. A generic FITS spectral data archive server is being developed which will allow users to retrieve and display EUV spectra. Projected completion date May 1, 1994.
- Results from the EUVE Catalogue by Bowyer *et al* 1994, APJS (in press) will be released in a database format on ADS. Projected completion data late May 1994.
- EUVE pigeonhole server would allow interactive retrieval of EUV photon data and telemetry from the EUVE survey. Investigation into the feasibility of such a service is under way. Initial results should be available by late summer.

Approved:_____G. Eichhorn
Achievement:_____S. Drake (HEASARC/GSFC)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

HEASARC/GSFC

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____J. Mazzarella (IPAC)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

IPAC/CALTECH

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____P. Lawton (IUE/GSFC)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

IUE/GSFC

TASKS ACCOMPLISHED:

- Attended to Internet security alert.
- Installed new mosaic client.
- ADS Introductory session for an IUE Resident Astronomer.
- Sent CASA the documentation on IUELOG, IUEFES, and IUEPROG that should be accessed to replace the documentation they had advertised.
- Reformatted IUELOG table and created index files for the coordinate fields to improve search efficiency.

WORK IN PROGESS AND PROJECTED COMPLETION DATES:

- An IUE home page is being developed.

ANTICIPATED DELIVERIES FOR THE NEXT REPORTING PERIOD:

- An updated version of the IUELOG table should be completed next month.

ADS User/Usage Statistics:

February

- query	28	- startup	4
- retrieve	45	- withdraw	12
- schema	28	- shutdown	4
- status	28		
- abort	23	- query making users	8
- report	2027	- total users	16
- export	12	- new users	3
- export_failure	1		

PROBLEMS/CONCERNS:

- Unchecked global replaces can cause errors and omissions in documentation.

Approved:_____G. Eichhorn
Achievement:_____W. Martin (NIST)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

NIST

TASKS ACCOMPLISHED:

- Continue development on server body to query the NIST Atomic Physics Database (an Oracle relational database containing atomic transition probabilities, atomic wavelengths, and atomic energy levels).

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

PSU

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____M. Garcia(SAO)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

SAO

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____A. Farris (STScI)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

STScI

TASKS ACCOMPLISHED:

- Nothing to report.

ASTROPHYSICS DATA SYSTEM

NASA Grant NCCW-0024

Monthly Progress Report No. 25

for March 1994

Prepared for

National Aeronautics and Space Administration
Astrophysics Division - Code SZ

Smithsonian Institution
Astrophysical Observatory
Cambridge, Massachusetts 02138

The Smithsonian Astrophysical Observatory
is a member of the
Harvard-Smithsonian Center for Astrophysics

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 April 1994

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J. Good

IPAC/NODE:
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NIST:
W. Martin

PSU:
J. Nousek

SAO/EINSTEIN:
M. Garcia

SAO/PROJ:
S. Murray

STScI:
A. Farris

U. Minn:
C. Cornuelle

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 April 1994

SUMMARY

On 28-29 March we had our project meeting. The main topic in this meeting was the direction in which we want to take ADS in the face of new technology developments.

Ellery Systems Inc. described their new networking architecture. A first implementation of this will be available on 2 May 1994. The protocols for this architecture will be available so clients and servers using this architecture can be built by other groups. This will help in moving the ADS to a more open architecture.

As far as the plans of the ADS are concerned, the consensus of the participants was that we need to improve the access to our data holdings in the short term (3-6 months). These activities will have priority in the next half year. This will include functionalities like query fan-out, object search capabilities etc., wrapped in a general service named "Tell me about...". This architecture will make it easier for the user to find data and will enable the user to merge data from different sources.

In the long term we will implement the new architecture that ESI is developing. We will also dissasemble the core system and divide it in separate parts that can be modified and/or replaced independently (*e.g.*, a separate table editor). This will help in intergrating public domain software into the ADS system.

Our user base is still increasing rapidly. As of the end of March we had 1892 users.

Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 April 1994

ADMINISTRATIVE

TASKS ACCOMPLISHED:

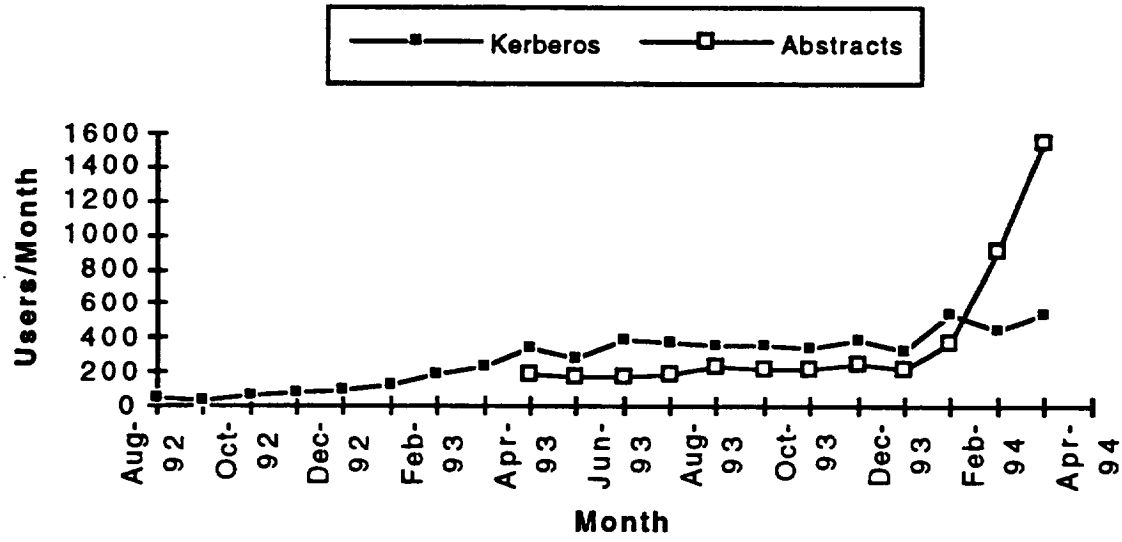
The major event was the preparation for the project meeting and the project meeting itself. The future plans for the ADS were discussed at this meeting. On 30 March Steve, Guenther, John Good, and Carol Christian visited NCSA, the Mosaic developers to discuss a possible collaboration. They seemed to be interested in the architectural approach that we presented. We are trying to have them modify Mosaic so that it can accomodate some of the functionality that ADS provides. This would allow us to use Mosaic as a user interface for the ADS. We will continue to work with them in this direction.

SAO ASTROPHYSICS DATA SYSTEM

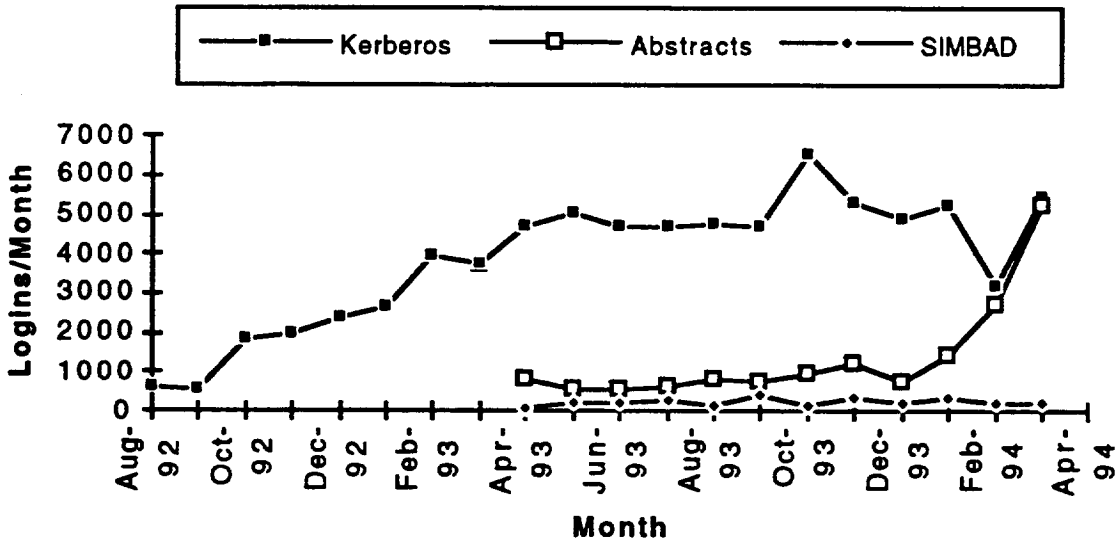
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 April, 1994

Number of Distinct Users



Number of Logins

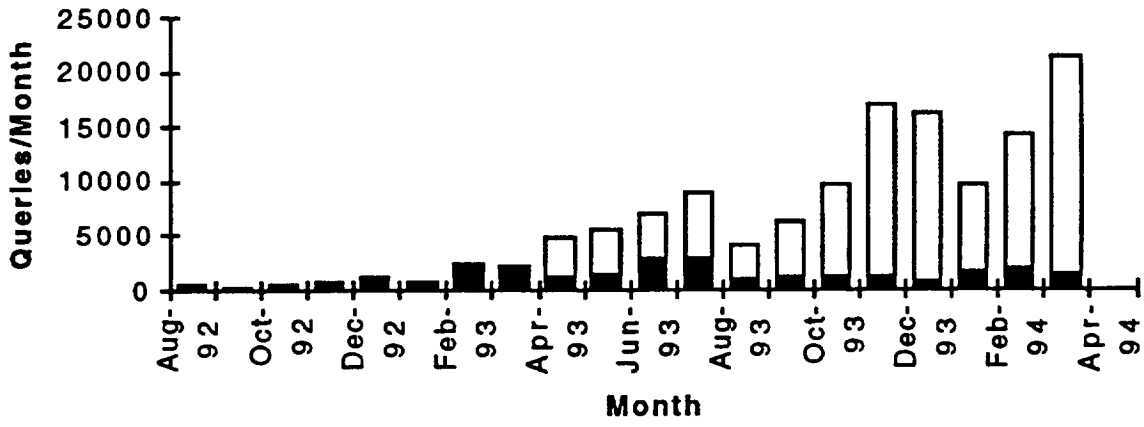


SAO ASTROPHYSICS DATA SYSTEM

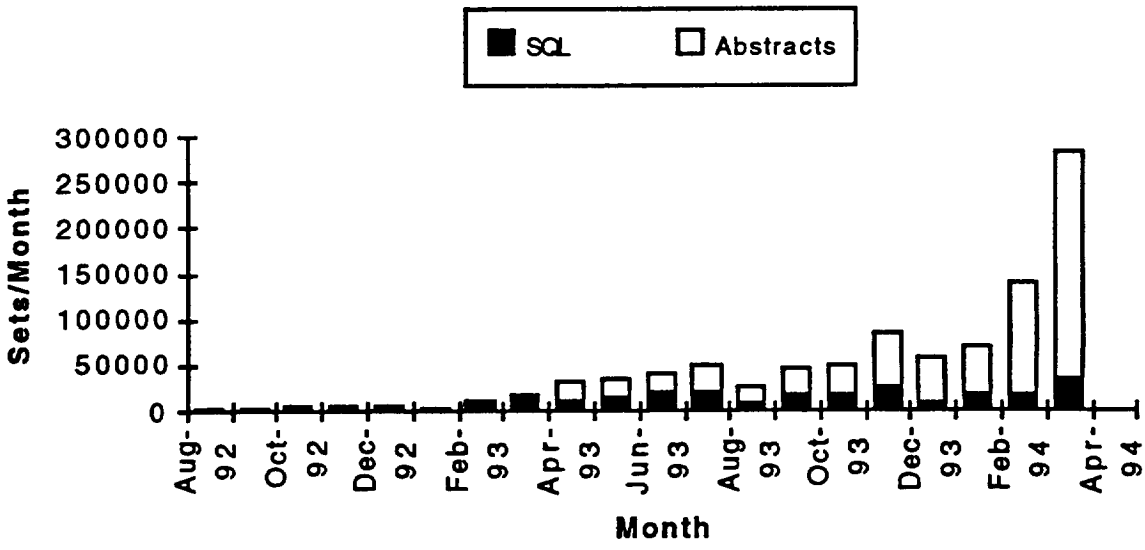
Approved:_____S. Murray
Achievement:_____G. Eichhorn (SAO)

Status as of: 1 April, 1994

Number of Queries



Number of Retrieved Data Sets



SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 April 1994

SYSTEM ENGINEERING

TASKS ACCOMPLISHED:

At the last ADS Project meeting, it was decided to focus ADS development efforts on integrating ADS services together into a general "Tell Me About ..." (TMA) service.

The following is the official ADS WBS development task list and task descriptions with those tasks specific to getting the TMA service up and running called out. The TMA interface itself is a relatively small piece of the pie; the new catalog access and documentation searching services eat up most of the manpower.

Proposed new tasks are prefixed with an "x". Existing tasks that are necessary for this effort are marked with an "o".

2 System Development

2.2 Infrastructure

2.2.1	Core ADS System	--	User interface, installation structure	
2.2.2	Remote Communications	--	Infrastructure for distributed computing	
2.2.3	Remote Executive	--	EOS in server mode (for archive access)	
2.2.4	Security Services	--	Authorization checking	
2.2.5	Secure File Transfer	--	General mechanism for transferring files	o
2.2.6	Transfer Monitor	--	Coordinate file transfers for all srvcs	
2.2.7	Developer's Guide	--	How to build and operate ADS services	
2.2.8	CUI	--	Character-terminal user interface	
2.2.9	Core ADS Upgrade	--	Upgrading the ADS Core for robustness	x
2.2.10	File Transfer Upgrades	--	Upgrading the file transfer for efficiency	x

2.3 Operations / Management Tools

2.3.1	Log Handling	--	Statistics and reporting
2.3.2	Monitoring	--	Service availability, usage
2.3.3	Bug Server	--	Bug report submission
2.3.4	Authenticated FTP	--	FTP server with KERBEROS authentication
2.3.5	Mission Planning	--	Generic mission planning tools
2.3.6	DB Validation	--	Automated validation of data sets
2.3.7	QA Test Suites	--	Procedures for checking services
2.3.8	Data Dictionary Tools	--	Maintenance procedures for nodes x

2.4 Archive Access

2.4.1	Abstract Server	--	Access to abstract database
2.4.2	NED Server	--	Interface to NED database
2.4.3	NDADS Archive	--	Access to all the ADC data at NSSDC
2.4.4	EINSTEIN Archive	--	Access to *Einstein* satellite data
2.4.5	IPAC Plate Archive	--	Access to infrared ISSA plates
2.4.6	SIMBAD	--	General interface to SIMBAD

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

TASKS ACCOMPLISHED (cont'd):

2.4 Archive Access (cont'd)

2.4.7	IUE Archive	-- Access to raw and processed IUE data	
2.4.8	UMinn POSS1 Data	-- Access to the digitized POSS1 plates	
2.4.9	Abstract Svc Upgrade	-- Upgrade and possible port to HP	
2.4.10	Data Compression	-- To save bandwidth during file transfer	
2.4.11	AAVSO Archive	-- Access to variable star database	
2.4.12	NIST Archive	-- Spectral line database	

2.5 Catalogs and Tables

2.5.1	Catalog Access	-- General access to catalog data	
	2.5.1.1	MOSAIC Integration	
	2.5.1.2	SQLserver Integration	o
	2.5.1.3	Coordinate Conversion Integration	o
	2.5.1.4	Data Dictionary Integration	o
	2.5.1.5	Positional Query Integration	x
	2.5.1.6	WAIS Integration	x
	2.5.1.7	Query Fan-Out Integration	x
2.5.2	SQL Server	-- Updated service to RDBMSs	
	2.5.2.1	SQLserver Installation	x
	2.5.2.2	Data Dictionary Installation	x
	2.5.2.3	FITS Integration	x
	2.5.2.4	Dynamic Coordinate Handling	x
2.5.3	Documentation Server	-- Distributed access to document files	
2.5.4	Data Dictionary	-- Information on catalog units and formats	o
2.5.5	Coordinate Handling	-- Both as service and policy	
2.5.6	QBT	-- Query by Table (simpler catalog query)	
2.5.7	Table Calculator	-- Simplified table manipulation	
2.5.8	Proximity Join	-- Joining tables on positions	
2.5.9	Correlation Tools	-- Comparing of tables from different catalogs	
2.5.10	Query Fan-Out	-- Querying multiple catalogs at once	
2.5.11	Natural Language	-- Using natural language for data searches	
2.5.12	Dynamic Catalog Mgmt	-- Updating of catalogs on the fly	
2.5.13	Subservice Install	-- Hooks for future catalog access functions	x
2.5.14	Query Manager	-- Keep track of outstanding queries	x
2.5.15	Table Handling	-- Stand-alone DBMS/Spreadsheet functionality	

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

2.6	Visualization		
2.6.1	Plot Tool	-- XY plotting	o
2.6.2	Skyview	-- Image display	
2.6.3	AGRA	-- Sky mapping	
2.6.4	SAOimage	-- Image display	
2.7	Packages Interfaces		
2.7.1	IRAF Server	-- General interface to IRAF	
2.7.2	IDL Server	-- General interface to IDL	
2.7.3	WAIS Server	-- WAIS client as ADS service	o
2.8	Science Integration		
2.8.1	TMA Service	-- "Tell Me About ..." inteface	x
2.8.2	SIMBAD I/F	-- Patch to the SIMBAD svc for TMA access	x
2.8.3	NED/TMA I/F	-- Patch to the NED svc for TMA access	x
2.8.4	NDADS/TMA I/F	-- Patch to the NDADS svc for TMA access	x
2.8.5	EINSTEIN/TMA I/F	-- Patch to the *Einstein* svc for TMA access	x
2.8.6	ISSA/TMA I/F	-- Patch to the ISSA svc for TMA access	x
2.8.7	Abstract/TMA I/F	-- Patch to the Abstract svc for TMA access	x
2.8.8	Skyview/TMA I/F	-- Patch to the Skyview svc for TMA access	x
2.8.9	AGRA/TMA I/F	-- Patch to the AGRA svc for TMA access	x
2.8.10	SAOimage/TMA I/F	-- Patch to the SAOimage svc for TMA access	x

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

2.2.1 Core ADS System Michelle Neves (CASA)

By "Core System" we mean the organization, on the client side, of user services and UI functionality. This is distinct from the maintenance and organization of remote services and their operation. The goal here is to provide an environment where new or updated services can easily be added by a knowledgeable user. This work is crucial to get us into a mode where services can be incrementally added or changed.

STATUS: In final debugging and test at CASA.

2.2.1 Core ADS System Michelle Neves (CASA)

By "Core System" we mean the organization, on the client side, of user services and UI functionality. This is distinct from the maintenannnce and organization of remote services and their operation. The goal here is to provide an environment where new or updated services can easily be added or replaced by a knowledgeable user. This work is crucial to get us into a mode where services can be incrementally added or changed.

STATUS: The first version of this is in the field and has been very well recieved.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 April 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.2.2 Remote Communications — Andrew Wang (ESI)

The name of this task has been changed since the actual mechanism to be used has been redesigned and is no longer encapsulated in the programs RPI and SMS. However, the new c ode has the same basic function, which is to control communications to any ADS services running on a particular machine. This functionality is the core of the distributed computing capability used by ADS.

This package provides service registration and location functionality and some aspects of system security. The ADS Project decided to take this step in response to the poor operability of the current ANSA Trader code.

STATUS: Development is currently underway at ESI. While this is not an ADS-funded effort, it is critical to the Project and is therefore, listed as a task here.

2.2.3 Remote Executive — (ESI ?)

This task has been renamed to indicate a more general scope.

There are several reasons for needing a general executive function which can be run remotely. In order to control general data access services (*e.g.*, NDADS) which can take hours or even days to retrieve results, we plan to use an EOS server. Also, there are times when the most effective way to handle a user's request is by fanning-out the processing to several machines or setting up a hierarchy of processors.

This code will probably be very similar to the executive process running directly under user control on the client machine.

STATUS: Problems that arose in testing the EOSserver from ESI have lead to abandoning that approach for the time being. As resources permit, we hope to revive this task at some point in the future.

2.2.4 Security Services — Steven Lo (IPAC)

ADS security is based on the KERBEROS package developed as part of Project Athena at MIT. The ADS-developed tools on top of this system allow for user authentication at the service level and for completely secure communication of data.

This functionality needs to be folded into all aspects of the ADS system and provided as a simple set of library tools for service builders.

STATUS: First generation toolkit delivered for testing. Maintenance and refinement on-going as time permits.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 April 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.2.5 Secure File Transfer — Steve Lo (IPAC)

The file transfer service pair (send/receive) currently in use is being rewritten to enhance it's efficiency (Task 2.2.10). Full optional security checking will be added to this version.

STATUS: The new FT service pair is currently in development. Security will be added to this at an appropriate time.

2.2.6 Transfer Monitor — Gregg Allison (CASA)

Since many services invoke file transfers at one time or another, it makes sense to coordinate these requests through one service than to have separate monitor functionality for each service.

STATUS: Done. It is currently unclear whether a second generation of this service will be needed to accommodate the updated FT service (Task 2.2.10).

2.2.7 Developer's Guide — Alice Bertini (CASA)

The real power of the ADS is that it allows data/processing service owners to turn their product into ADS services simply and quickly. In order to facilitate this while still maintaining some level of uniformity to interaction look-and-feel, we must establish and publish guidelines and procedures for new developers to follow.

STATUS: Complete and on-line. Updating of this document is an on-going LOE task.

2.2.8 CUI — Alice Bertini (CASA)

There is at present no good way for users with character terminals to access ADS functionality. A limited subset interface to such things as archive queries and catalog requests could be provided if there is sufficient interest.

STATUS: Design work for this task has not been scheduled.

2.2.9 Core ADS Upgrade — Michelle Neves (CASA)

Several refinements to the Core ADS system have been proposed which would further enhance the user's ability to maintain and update their installation.

STATUS: Design work begun.

2.2.10 File Transfer Upgrades — Gregg Allison (CASA)

The current File Transfer service is based on the FTP protocols which were defined originally to work on slow and unstable networks. They are, in consequence, quite slow.

STATUS: Design work begun.

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.3.1 Log Handling — Jing Li (IPAC)

Currently, our ability to determine system usage as a function of time or user is severely constrained by the format of log files and the data they contain. A generic log handling service (based on the Remote Executive and Table Handling services) will provide a wide range of statistical measures of system usage.

STATUS: An initial version of this code, based on EOS, has been developed. Fully functional remote service code is dependent on development of the Remote Executive and Table Handling services.

2.3.2 Monitoring — Jing Li (IPAC)

Part of the proposed enhancements to the Remote Communications system software are the hooks to allow Operations to reliably monitor and control services.

STATUS: The client tools to do this will be built as soon as this functionality in Remote Communications system is available.

2.3.3 Bug Server — Jacque Anderson (CASA)

The Bug Server would be a simple local server and widget to help the user construct reports and mail them to User Support.

STATUS: Initial design complete. Development not yet begun.

2.3.4 Authenticated FTP — Steven Lo (IPAC)

A version of the standard FTP daemon which uses KERBEROS authentication to the ADS user database to confirm the right to download system components.

STATUS: Done.

2.3.5 Mission Planning — (SAO ?)

One long term objective being considered by the ADS Project is the development of distributed mission planning and mission operations tools to support many missions. A preliminary study has shown that many of the mission planning tools currently in use have a core of similar functions that are "re-invented" by each mission center. In addition, the interface of mission planning tools with the user community varies with each mission, requiring that scientists learn several slightly different systems. The ADS can be helpful in supplying missions with a library of planning tools, and a standard user interface. This will allow mission resources to be concentrated on mission specific requirements. It offers the user community a simpler mechanism for developing observation requests in response to NASA AOs, particularly through the use of electronic preparation and submission of these requests.

STATUS: Design work not yet scheduled.

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.3.6 DB Validation (CASA)

Automated procedures to confirm that the data retrieved via ADS are not different from the original data source. Test and QA along with the Project Office make an initial verification of data when it is first made available via ADS. In order to assure that changes to these data are not introduced by the system, regular sampling of the databases is made and compared with reference results.

STATUS: Done for first release of ADS. No further work currently planned.

2.3.7 QA Test Suites (CASA)

As part of Quality Assurance, CASA will maintain and update a regression testbed of information and a suite of procedures that test ADS functionality. This is distinct from the operational monitoring required of Operations and is for a quite different purpose: spot-checking and regression analysis rather than real-time monitoring.

STATUS: On-going.

2.3.8 Data Dictionary Tools Carolyn Stern Grant (SAO)

With the new SQLserver/Catalog Access, ADS nodes will be making much more use of Data Dictionaries (tables defining the contents of catalogs; which columns are positions, what formats to use for reporting, etc.). Consequently, there is need for a set of utilities which will aid the nodes in maintaining these tables.

STATUS: Design not yet begun.

2.4.1 Abstract Server Guenther Eichhorn / Carolyn Stern Grant (SAO)

The Abstract Server provided remote access to a database of abstracts culled from the Astrophysics literature by NASA RECON.

STATUS: Done and in operation.

2.4.2 NED Server John Good (IPAC)

The NED database contains a large amount of data about extragalactic sources, including basic data on positions and fluxes, abstracts and references, etc. The initial ADS interface, at the request of the NED project, has been limited to accessing basic name and positional information.

In the longer term, many people have expressed a desire for more of the NED functionality beyond the basic name/position resolution currently offered. It is unclear whether this should be an ADS task or left to the NED project.

STATUS: Done and in operation.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 April 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.4.3 NDADS Archive — Gregg Allison (CASA)

The NDADS server provides raw data archive access to the astronomical holdings at NSSDC. Metadata defining the contents of this archive are in short supply, however, and would greatly enhance the value of the data.

STATUS: Done and in operation.

2.4.4 EINSTEIN Archive — Todd Karakashian (SAO)

The *Einstein* archive server provides metadata tables as well as real data tables and images of *Einstein* data. In structure this service is similar to the NDADS server, and some of the same functionality has been reused.

STATUS: Done and in operation.

2.4.5 IPAC Plate Archive — John Good (IPAC)

IPAC is putting on-line all of the ISSA infrared sky images which cover the whole sky in a regular pattern. This service allows a user to request an image or part of an image centered on a particular sky position.

STATUS: Done and in operation.

2.4.6 SIMBAD Server — Carolyn Stern Grant (SAO)

The SIMBAD database contains a large amount of data about galactic sources (mostly stellar), including basic data on positions and fluxes, abstracts and references, etc.

STATUS: Done and in operation.

2.4.7 IUE Archive — (CASA ?)

IUE data is available through the NDADS service, but there is still a need for a metadata search capability to help the user locate the correct data sets to request.

STATUS: Design not yet begun.

2.4.8 UMinn POSS1 Data — (IPAC ?)

The University of Minnesota has scanned the POSS-1 plates and created a database of sources detected. This data can and will be accessed through a standard SQLserver. The project will, if necessary, lend some assistance to UMinn in setting this up since this is a uniquely valuable resource for the community.

STATUS: Preliminary design discussions have been held but no work is yet assigned.

2.4.9 Abstract Svc Upgrade — (SAO)

The Abstract Server, while quite successful and capable, was a venture into new territory and will certainly need updating as we gain experience. In addition, it has been proposed to migrate the server to a faster platform for added throughput.

STATUS: Design has not begun.

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.4.10 Data Compression (SAO ?)

Determine the feasibility and usefulness of data compression for bulk data transfer. If the study determines that data compression would be useful, this task would implement data compression for large-volume data.

STATUS: Study has not begun.

2.4.11 AAVSO Archive Carolyn Stern Grant (SAO)

The American Association of Variable Star Observers (AAVSO) have the oldest and most complete set of light curves for variable stars. The database for this archive will be mounted at SAO and updated regularly.

STATUS: In development.

2.4.12 NIST Archive Carolyn Stern Grant (SAO)

The National Institute for Standards and Technology (NIST) maintains a database of spectral line strengths for a large (and growing) number of atomic and isotopic species. Access to this service will be through NIST computers.

STATUS: In development.

2.5.1 Catalog Access Alice Bertini / Michelle Neves (CASA)

The current catalog access interface distributed with the ADS client was the first service built and makes use of the first generation SQLserver and catalog documents that must be distributed with the system. As is typical of such endeavors, it suffers from learning curve problems.

In migrating to the new SQL Server and Documentation Server, we must also update the integrated Catalog Access environment. We plan to make use of this opportunity to add some functionality to handle casting of coordinate from one catalog representation to another (a "Data Dictionary" mechanism). This additional functionality is considered critical by our user community and should greatly enhance catalog interoperability.

STATUS: This task has been subdivided into subtasks 2.5.1.1 through 2.5.1.7.

2.5.1.1 MOSAIC Integration

Integrate the MOSAIC documentation server (Task 2.5.3) into the system in the special case of ADS catalog documentation handling.

STATUS: Done and in operation.

2.5.1.2 SQLserver Integration

The new SQL Server is quite different from the one currently in use. Consequently, there is a fair bit of work needed to integrate it into the Catalog Access environment properly.

STATUS: Work started.

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.1.3 Coordinate Conversion Integration

Often the query the user wishes to pose to the Catalog Access environment is couched in terms of a coordinate system other than that in which the data is stored. When this happens, it is desirable to perform coordinate translations on the fly, both on the query and on the output tables.

STATUS: Work started.

2.5.1.4 Data Dictionary Integration

Data Dictionaries provide a convenient way for specifying how data should be interpreted and formatted when extracted from the DBMS table. The purpose of this task is to determine how best to ensure that this functionality is provided in a uniform way across the ADS.

STATUS: Work started.

2.5.1.5 Positional Query Integration

The initial ADS catalog query mechanisms were built on the use of generalized SQL requests to DBMSs whereas the bulk of user requests are for area searches around specific sources or locations. The purpose of this task is to build a general "search-in-a-cone" interface to satisfy the need for these simpler requests.

STATUS: Work started.

2.5.1.6 WAIS Integration

One of the central functions of the TMA service (Task 2.8.1) will be the ability to determine from limited subject-matter input which data sets to search. We plan to build this functionality on top of a set of WAIS servers (Task 2.7.3).

STATUS: Information content definition in progress.

2.5.1.7 Query Fan-Out Integration

As part of the TMA service (Task 2.8.1), we will be setting up a set of catalog queries to be sent out simultaneously to several servers. This ability needs to be built into the general Catalog Access tool and coordinated with other queries (through the Query Manager; Task 2.5.14).

STATUS: Work begun.

2.5.2 SQL Server — Alberto Accomazzi / Carolyn Stern Grant (SAO)

With the update to the distributed processing architecture that is currently being tested, the old SQL server access to catalog databases needed to be updated as well. In particular, support for the new service access architecture and for FITS data transfer.

The basis for this service was developed at ESI and has been delivered. Several upgrades are planned before this service is put to use.

STATUS: This task has been subdivided into subtasks 2.5.2.1 through 2.5.2.4.

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.2.1 SQLserver Installation

The SQLserver and associated tools constitute a large and important service package. In addition, specific support will be available for several optional DBMS systems. Packaging of this service for installation and operation is therefore, a task in itself.

STATUS: Work not yet begun.

2.5.2.2 Data Dictionary Installation

The Data Dictionary work done under Task 2.5.4 must be integrated into the SQLserver to allow it to correctly format output and identify which columns represent which coordinates.

STATUS: Work not yet begun.

2.5.2.3 FITS Integration

One of the modes in which the SQLserver will return data is as a FITS table file copied as a file to the user's machine. This table file must contain all the information necessary for the user to import it into existing reduction packages.

STATUS: Work not yet begun.

2.5.2.4 Dynamic Coordinate Handling

With the Data Dictionary and Coordinate Conversion utilities in place, the SQLserver should be able to provide functionality above and beyond simple SQL request handling. Specifically, requests for information on a region can be submitted in any coordinate system and converted on input and data coordinate information can be converted to any coordinate system on output.

STATUS: Work not yet begun.

2.5.3 Documentation Server Michelle Neves (CASA)

The DOCserver is meant to provide a standard mechanism for users to obtain textual data from any server site. This will include timestamp checking to allow for dynamic updating, so that we can be sure that all users are seeing the same documentation.

This functionality is critical to get us out of the mode of distributing documentation on all the catalogs (and therefore requiring massive system releases).

This service makes use of an existing document handling system called MOSAIC for most of its functionality.

STATUS: Done and in operation. Discussion is underway with NCSA (developers of MOSAIC) concerning collaborative efforts to better merge our systems' functionality.

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.4 Data Dictionary — Alice Bertini (CASA)

Intercomparing catalogs is usually a matter of checking for positional coincidence. Since existing catalogs currently use a variety of coordinate naming and representation schemes, it is necessary that we have some mechanism for determining this information on a catalog-by-catalog basis. The simplest way to do this is with a standard DBMS "data dictionary" approach. This task is to provide the mechanisms to implement a data dictionary and to provide the hooks for the catalog access system to make use of it.

In addition, Data Dictionaries provide a mechanism for specifying output report formats.

STATUS: In development.

2.5.5 Coordinate Handling — Carolyn Stern Grant (SAO)

Since coordinates play such a pivotal role in astronomy, we have found it necessary to provide a consistent and uniform set of coordinate handling tools for ADS users and developers. These basic tools will be used extensively, not just by ADS for its internal development but by potential service providers as well.

STATUS: Done and in operation.

2.5.6 QBT — (SAO)

The current Query-By-Example (QBE) functionality in ADS has been found to be cumbersome for most applications and at the request of our users we are planning a more user-friendly interface that uses a more compact, tabular form. This Query-By-Table (QBT) should greatly improve the usability of the current Catalog Access but the effort currently has low priority since it results in no new basic functionality.

STATUS: Initial design complete. Final design effort not yet scheduled.

2.5.7 Table Calculator — Gregg Allison? (CASA)

There are many functions that scientists want to perform on tabular data that are not typically found in commercial DBMS software, nor is the interface available in these environments flexible enough for the kind of detailed analysis that scientists need to do. With the functionality already available in ADS, it should be straightforward to provide better tabular analysis tools.

STATUS: Design not yet scheduled.

2.5.8 Proximity Join — ? (SAO ?)

The primary mode that astronomers use in comparing tables of sky objects is to check the proximity on the sky of sources. This function is not currently supplied by commercial DBMSs (in fact, is at odds with the standard relational model which only deals with "equi-joins"). This task would be to provide a mechanism for "joining" two tables on the basis of the proximity of two objects in it.

STATUS: Design not yet scheduled.

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.9 Correlation Tools ? (SAO ?)

The basic ADS system contains a simple correlation function which compares catalog tables on the basis of positional coincidence. Other correlation functions based on source properties, classifications, names, etc., are possible. Tools for generating these correlations will be developed and added to the system.

STATUS: Design not yet scheduled.

2.5.10 Query Fan-Out ? (SAO ?)

It is often desirable to use the results of a query as the basis of follow-up queries to multiple catalogs for multiple objects. The Fan-out tool will provide a GUI widget to create the multiple follow-up queries and to collect the results in a single response.

STATUS: Subsumed by Task 2.5.1.7.

2.5.11 Natural Language ? (SAO ?)

Determine the feasibility of using natural language queries for data retrieval.

STATUS: Design not yet scheduled.

2.5.12 Dynamic Catalog Mgmt ? (SAO ?)

Implement the dynamic addition and removal of catalogs. In ADS 2.0 the catalogs are hardcoded in the user release. With the dynamic catalog management, new catalogs can be brought on-line without requiring a new user release.

STATUS: Superseded by the work on Catalog Access and Documentation Service.

2.5.13 Subservice Install Michelle Neves (CASA)

The ADS as a whole has the ability to add new services. This concept has to be extended down into the services since many of these are themselves dynamic collections of smaller pieces. This is especially true of the catalog access service, but the model developed here should be general.

STATUS: Not yet begun.

2.5.14 Query Manager ?

The original SQLserver/Catalog Access system had as one component a Query Manger. This component was responsible for keeping the user apprised of the status of all outstanding queries.

With the new Catalog Access system, we will need to update (or rewrite) this function, possibly building on our experience with the File Transfer monitor.

STATUS: Not yet begun.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 April 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.5.15 Table Handling ?

In the current ADS system, the handling of tables is integrated directly into the Executive process (EOS). This causes several problems, the greatest of which are subsequent slowness of the program as an Executive and difficulty in using table handling functions from within other services.

The purpose of this task is to provide table handling functionality in a stand-alone mode.

STATUS: Not yet begun.

2.6.1 Plot Tool Gregg Allison (CASA)

The current plot tool distributed with the system is based on a prototype IDL service developed at CASA and requires IDL (either local or remote) to run. A small amount of fine tuning of this functionality is warranted, but the service is essentially done.

Several preliminary studies have been done on integrating in existing portable graphics packages so we can offer software to people that they can run on their own machines.

STATUS: Pieces have been delivered to CASA. Development and integration there have not yet begun.

2.6.2 Skyview John Good (IPAC)

Skyview is a program developed at IPAC for display and analysis of astronomical images in various formats. This work is funded by IPAC and has no direct relationship to ADS or funding by it.

STATUS: Done and distributed.

2.6.3 AGRA Jing Li (IPAC)

This local service is self-contained code for turning coordinate tables into sky maps (various projections). The development has been slow since this is not a high priority item. This service is designed to allow easy use as either an ADS server body or a stand-alone program and is integrated with both ADS services which return positional tables (NED, SIMBAD, Catalog Access) and with image display services (providing coordinate, point source, and area overlays).

STATUS: In test.

2.6.4 SAOimage Carolyn Stern Grant (SAO)

SAOimage is an image display program widely used in the astronomical community, partly due to its links to the IRAF package. SAO has undertaken to build an ADS interface themselves, so the only Project task is to QA it.

STATUS: Done and distributed.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 April 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.7.1 IRAF Server ? (SAO ?)

The goal of IRAF was to provide a set of data processing and analysis services. This meshes extremely well with the ADS functionality to provide distributed access to such services. In addition, the interfaces of the two systems are constructed in such a way as to allow melding of the systems with minimal impact on either.

STATUS: No work yet planned.

2.7.2 IDL Server ? (CASA ?)

IDL is widely used in the astrophysical community for visualization and analysis of local data sets. Combining this functionality with ADS should produce a general distributed data processing environment of great power.

STATUS: No work yet planned.

2.7.3 WAIS Server Jing Li (IPAC)

WAIS provides distributed access to a number of textual databases around the country. Rather than replicating this functionality, it makes sense for the ADS to tap into the existing services. The simplest way to do this is to create a custom WAIS client that would run as a local ADS service. Not only do we then have access to all WAIS functionality, but we add the value of the ADS GUI interface and additional data processing tools to WAIS.

STATUS: No work yet planned though this may follow on closely to the MOSAIC Documentation Server work that is ongoing.

2.8.1 TMA Service John Good / Jing Li (IPAC)

The number one request of our users is for a simple way to request information on a specific source: "What can you tell me about M31?" In response to this, the ADS Project is initiating a large effort to tie the various tools in the system into a "Tell Me About ..." (TMA) service.

This task is to provide the client-side interface and integration necessary to tie the rest of the services together.

STATUS: Design phase initiated.

2.8.2 SIMBAD/TMA I/F Carolyn Stern Grant (SAO)

SIMBAD will need to provide a simple function to return location and source type given an object name.

STATUS: Not yet begun.

2.8.3 NED/TMA I/F John Good (IPAC)

NED will need to provide a simple function to return location and source type given an object name.

STATUS: Not yet begun.

Approved:_____G. Eichhorn Status as of: 1 April 1994
Achievement:_____J. Good (IPAC)

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

2.8.4 NDADS/TMA I/F Gregg Allison (CASA)

If possible, NDADS should provide a simple function to return a list of images given a location on the sky.

STATUS: Not yet begun.

2.8.5 EINSTEIN/TMA I/F Alberto Accomazzi (SAO)

Einstein should provide a simple function to return a list of images given a location on the sky.

STATUS: Not yet begun.

2.8.6 ISSA/TMA I/F Jing Li (IPAC)

ISSA should provide a simple function to return a list of images given a location on the sky.

STATUS: Not yet begun.

2.8.7 Abstract/TMA I/F Carolyn Stern Grant (SAO)

The Abstract Service should provide a simple function which returns a list of abstracts given a block of subject text.

STATUS: May already exist as part of the current service.

2.8.9 AGRA/TMA I/F Jing Li (IPAC)

AGRA needs to provide a mode to make a map from a set of tables with most things defaulting to nominal values.

STATUS: Not yet begun.

2.8.10 SAOimage/TMA I/F Alberto Accomazzi (SAO)

SAOimage needs to provide a mode to display an image given a file name with everything else defaulting to nominal values.

STATUS: Not yet begun.

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 April 1994

SYSTEM ENGINEERING (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

TMA Task Assignments

A tentative list of the assignments for the TMA-related tasks is given below. I've tried to keep these in line with the interests expressed by developers at the Project Meeting in Boulder.

2.2.9	Core ADS Upgrade	-- Michelle (CASA)
2.5.13	Subservice Install	-- Michelle (CASA)
2.2.10	File Transfer Upgrades	-- Gregg (CASA)
2.5.14	Query Manager	-- Gregg ? (CASA) [based on FT monitor ?]
2.6.1	Plot Tool	-- Gregg (CASA)
2.5.1	Catalog Access	-- Alice/Michelle (CASA)
2.5.4	Data Dictionary	-- Alice (CASA)
2.5.1.6	WAIS Integration	-- Jacque (CASA)
2.5.2	SQL Server	-- Alberto/Carolyn (SAO)
2.3.8	Data Dictionary Tools	-- Carolyn (SAO)
2.2.5	Secure File Transfer	-- Steve Lo (IPAC)
2.8.1	TMA Service	-- John/Jing (IPAC)
2.7.3	WAIS Server	-- WAIS client as ADS service
2.8.2 - 2.8.10	(whoever wrote the service and/or interface in the first place)	

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 April 1994

USER COMMITTEE

PSU:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 April 1994

USER SUPPORT

CASA:

The month of March was spent tying up some loose ends associated with the ADS 4.00 release, updating the documents available on the web, adding new catalogs from the ADC CDrom to the CASA node, and participating in the ADS project meeting here at CASA on March 28-29.

Note: Tasks marked with ** indicate on-going tasks that cannot accurately reflect a % complete.

The updated MicroSoft Project input files for the month ending March 1994 are available via anonymous ftp on cuads.colorado.edu in /pub/ads_int/status in the following files:

user_sup_mar.mpp	- User support
qa_mar.mpp	- Testing / QA
mainten_mar.mpp	- System maintenance & integration
develop_mar.mpp	- Development
node_sup_mar.mpp	- Node Support
meetings_mar.mpp	- Meetings
managemt_mar.mpp	- CASA project management

TASKS ACCOMPLISHED:

- User Support statistics for the month:

- New users:	142
- New US users:	76
- New non-US users:	66
- Total users as of 4/1/94:	1892
- Total US users as of 4/1/94:	1433
- Total non-US users as of 4/1/94:	459
- Information requests:	16
* answered questions: (includes "answered bin" and phone calls)	210
* resolved problems: (multiple messages for each of these)	17

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 April 1994

USER SUPPORT

CASA:

TASKS ACCOMPLISHED (cont'd):

WBS#	Task	Completion Date	% complete
4.1.3	What's New Doc's	3/4/94	100%
4.1.3	New Home Pg Docs	3/1/94	100%
4.1.3	Science Scenarios	9/30/94	1%
4.1.3	Mailing Lists	9/30/94	1%
4.1.3	Astro.db - Ingres	1/31/94	0%
4.1.3	WWW Server Statistics	3/25/94	100%
4.1.3	FAQ Page	3/21/94	90%
4.1.3	User Support Pres Material	5/15/94	0%
4.1.3	Front-line support	9/30/94	1% **
4.1.3	User Statistics	9/30/94	1% **
4.1.3	Edit	3/31/94	0% **
	users.tbl	3/31/94	0% **
	readreg prog	3/31/94	0% **
	Boulder High (Mike Fuchs)	7/1/94	25%
	Setup	7/1/94	25%
	JHU-FUSE	3/10/94	100%
	UI III Workshop	9/30/94	0%
	ADS project meetings	3/28/94	100%

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____ T. Snow (CASA)

Status as of: 1 April 1994

TEST AND QA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	Completion Date	% complete
	ISM Update	4/8/94	100%
2.5.14.1	SQLserver 2.0	9/30/94	75%
2.6.3.1	AGRA	9/30/94	25%
2.5.3	Text Retrieval	3/30/94	100%
2.5.4.1	Data Dictionary	7/1/94	0%
2.7.3	WAIS Server - **on hold**	7/31/94	0%
	Coord Conversion Update	4/8/94	100%
2.2.3.1	EOSSERVER - **on hold**	11/22/93	75%
2.2.4.1	Security Services	11/22/93	0%
2.2.5.1	Secure File Transfer	11/22/93	0%
2.4.11.1	LRS	7/15/94	0%
2.6.2.1	Skyview Update	9/30/94	20%
2.4.4.1	*Einstein* Archive	4/7/94	100%
	Bug Reporting Service	3/3/94	100%
	What's New Service	3/3/94	100%
	RPI/SMS Node Package	3/24/94	100%
	HEASARC Browse	3/17/94	100%
	StarTrax	3/17/94	100%
	Carbon Star Spectra DB	3/23/94	100%
	HEASARC StarTrax	4/1/94	100%
2.4.1.1	Abstract Service	1/11/94	100%
2.4.3.1	NDADS Archive	6/12/95	50%
2.3.1	Log Handling Service	9/30/94	0%
2.3.2	Monitoring Service	9/30/94	0%
2.6.1	2-D Plot Service	9/30/94	0%
2.5.6	QBT Service	9/30/94	0%
	ADS Directory Service	9/30/94	0%
2.2.2.1	RPI/SMS	9/30/94	0%
	Coordinate Stack Service	9/39/94	0%
	Catalogs	9/30/94	87%
	redshift_zdata	9/30/94	10%
	sao2000	9/30/94	0%
	parallax	3/9/94	100%
	pln	3/11/94	100%
	reflect	3/14/94	100%
	gc	3/15/94	100%
	nltt	3/11/94	100%

Approved:_____G. Eichhorn
Achievement:_____ T. Snow (CASA)

Status as of: 1 April 1994

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	Catalogs (cont'd)		
	nltt_notes	3/14/94	100%
	acrs1	3/24/94	100%
	acrs2	3/24/94	100%
	p cygni	9/30/94	0%
	agk3	4/8/94	0%
	findlist	4/6/94	100%
	findlist_rem	4/8/94	0%
	hii	4/8/94	0%
	interfer	4/8/94	0%
	openclus	4/8/94	0%
	ppmn	4/8/94	0%
	ppms	4/8/94	0%
	selected	4/8/94	0%
	wds	4/8/94	0%
	saohddm	4/8/94	0%
	aps_platelist	3/2/94	100%
	aps_possi_e	3/3/94	100%
	aps_possi_o	3/3/94	100%
	aps_possi	3/3/94	100%
	abell > adc_abell	3/10/94	100%
	gal_xry_fluxes	3/3/94	100%
	gal_xry_atlas	3/3/94	100%
	qso_absorp91	3/4/94	100%
	qso_hew_burb93	3/7/94	100%
	rad_6cv	3/7/94	100%
	rad_6cvi	3/7/94	100%
	rad_atnf_pmn	3/7/94	100%
	rad_gb1	3/8/94	100%
	rad_gb2	3/8/94	100%
	rad_gb3	3/8/94	100%
	rad_vla_nep	3/9/94	100%
	rad_vvopt83	3/10/94	100%
	qso_eo_ipc	3/3/94	100%
	snr (casa)	3/15/94	100%
	seyfert (ipac)	3/30/94	100%
	do (ipac) repl. casa's dbo	4/1/94	100%
	rc3 (ipac)	~~9/30/94~~	0%
	abell (heasarc)	3/30/94	100%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 April 1994

TEST AND QA (Cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	Completion Date	% complete
	cma (heasarc)	3/15/94	100%
	cosb (heasarc)	3/15/94	100%
	exolog (heasarc)	3/15/94	100%
	exopubs (heasarc)	3/15/94	100%
	gingalog (heasarc)	3/15/94	100%
	gingamode (heasarc)	3/15/94	100%
	gs (heasarc)	3/15/94	100%
	konus (heasarc)	3/15/94	100%
	me (heasarc)	3/15/94	100%
	rosao (heasarc)	3/15/94	100%
	rosid (heasarc)	3/15/94	100%
	rospublic (heasarc)	3/15/94	100%
	rosuspspc (heasarc)	3/15/94	100%
	td1	3/15/94	100%
	wfcbsc (heasarc)	3/15/94	100%
	xray (heasarc)	3/15/94	100%

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 April 1994

SYSTEM INTEGRATION & MAINTENANCE

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	Completion Date	% complete
	IDL-2-D Plotting	9/30/94	0%
	Table Calculator	9/30/94	0%
	Startup Options	9/30/94	0%
	Display IP Script	9/30/94	0%
	File Transfer Monitor	9/30/94	0%
	NDADS Archive Service	9/30/94	0%
	Services Tar File Tests	3/8/94	100%
	Services Tar File Tests	3/18/94	100%
	ADS Bug Fixes	9/30/94	0%
	ADS Integration	9/30/94	0%
	ADS Release Builds	9/30/94	0%
	Service Release Builds	9/30/94	0%
	ADS/EOS Bugs DB	9/30/94	0%
	CASA Testsuites	9/30/94	0%
	ADC CDROM Cats	9/30/94	0%

Approved:_____G. Eichhorn
Achievement:_____J. Stoner (ESI)

Status as of: 1 April 1994

SYSTEM INTEGRATION

TASKS ACCOMPLISHED:

It should be noted that the core software is changing names from Ellery Open Systems to FastLane.

The primary work at Ellery during March has been to continue support ADS QA at CASA and the ADS project in general:

- Geoff Shaw, Jeff Jordan and Devin Hooker attended the ADS management planning meeting at CASA on the 28th and 29th of March.
- Clark Fishback and Devin Hooker participated in the weekly ADS conference calls.
- Don Roberts reviewed core software documentation.
- Randall Gaz participated in one of the ADS conference calls as well as in a FastLane technical review with respect to the dispatcher and name service.
- Clark Fishback worked on documentation updates to the Function Reference and Programmer's Reference Guides.
- Devin Hooker and Lowell Schneider worked on specification and implementation of the new dispatcher and name service sections of the core software.
- Project management, reporting and planning support were also done for the ADS by Kyle Habermehl, Lowell Schneider and Jeff Stoner.

Plans for the next two months of April and May are:

- Development activity will continue to replace ANSA/ANSA-trader based EOS.
- Specify requirements and implementation plan for security in the new RPC mechanism.
- Ongoing bug fixes and support to project as needed.
- Participation in discussions of new ADS services.

Approved:_____G. Eichhorn
Achievement:_____S. Murray (SAO)

Status as of: 1 April 1994

DEVELOPMENT

SAO

TASKS ACCOMPLISHED:

Abstract Service:

- Released patch fixing incorrect interpretation of object names containing a "+" sign.
- Tracked down problems causing Ingres to crash and modified the mosaic version of the abstract server accordingly.
- Reloaded abstracts database to correct for problems with authors containing apostraphes.
- Revised abstract loading scripts to correct for problems with authors whose surnames contain more than one word.

AAVSO Archive Service:

- Continued discussions with AAVSO programmers to finalize format of fits files for archive service. Had to clarify use of flags indicating quality of magnitude data, and incorrect formatting of fits file on a few individual records.
- Wrote most of aavso server body to split the fits file into separate files based on magnitude flag.
- Continued work on Graphical User Interface.

MOSAIC Catalog Service:

- Tested mosaic catalog access.
- Modified first efforts at data dictioary files for all 114 SAO catalogs which may be used with mosaic catalog service.

NIST Archive Service:

- Submitted proposal for work on this service.
- Began work on the Graphical User Interface.
- Provided phone support to NIST personnel.

General:

- Answered user questions about the Abstract Service (both ADS version and Mosaic version).
- Answered user questions about problems with the SIMBAD Service.

Miscellaneous:

- Researched software packages for table editors in preparation for the NASA CAN proposal.
- Replaced failing disk drive on mccoy.
- Brought up kerkeros slave server on mccoy.
- Attended project meeting in Boulder on 3/28 and 3/29.

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 April 1994

DEVELOPMENT (Cont'd)

CASA

WORK IN PROGRESS AND PROJECTED COMPLETION DATES:

WBS#	Task	End Date	% complete
2.5.1	Catalog Access	7/1/94	3%
	Add Positional Options	7/1/94	0%
	Sub-service Installation	7/1/94	0%
	SQL Parser in adstoqbeCB	7/1/94	0%
2.5.2	SQLserver 2.0 Integration	7/1/94	0%
	Catalog Docs	7/1/94	10%
	Data Dictionary Builder	7/1/94	10%
2.5.4	Data Dictionary Integration	7/1/94	0%
	FITS I/O	7/1/94	0%
	QBT/Mosaic	7/1/94	0%
2.2.7	Developer's Guide	9/30/94	75%
	Coordination of Efforts	11/22/93	90%
	SQL appendices	9/30/94	66%
	File Transfer	11/22/93	90%
2.4.3	NDADS Archive	11/22/93	93%
	N/A (Client CLite Lib)	11/22/93	95%
	N/A (EOSserver CLite Lib)	11/22/93	95%
	N/A (C Server Body)	11/22/93	95%
	Link to Security Services	11/22/93	0%
2.2.6	Transfer Monitor	11/22/93	84%
	N/A (Client CLite Library)	11/22/93	95%
	N/A (EOSserver CLite Library)	11/22/93	95%
	"FTserver, FTGET Ser Body"	11/22/93	0%
	Link to Security Services	11/22/93	0%
2.2.10	Transfer Monitor II	9/30/94	1%
	Widget	9/30/94	0%
	CLite Library	9/30/94	0%
	C FT Library Clean Compile	9/30/94	1%
	C FT Library Root Control	9/30/94	5%
	C FT Library Spec Protocol	9/30/94	0%
	C FT Library Replacement	9/30/94	0%
	Link to Security Services	9/30/94	0%
	Spec Distributed Computing	9/30/94	0%
	Impliment Dist Comp Spec	9/30/94	0%
	Help Text	9/30/94	0%
	EOSserver CLite Library	11/22/93	50%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 April 1994

DEVELOPMENT (Cont'd)

CASA (cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	End Date	% complete
2.6.5	Generic Plot Tool	9/30/94	1%
	Widget	9/30/94	0%
	Client CLite Library	9/30/94	0%
	C Function Library	9/30/94	1%
	IDL Server Body	9/30/94	0%
	SM Server Body	9/30/94	0%
	GKS Server Body	9/30/94	0%
	GNUPLOT Server Body	9/30/94	0%
	XMGR Server Body	9/30/94	10%
	Plot Add-on Service	9/30/94	0%
	Expanded Capabilities	9/30/94	0%
	Value Added Services	9/30/94	0%
	Help Text	9/30/94	0%
2.5.7	Table Calculator	9/30/94	0%
2.7.2	IDL Server	9/30/94	0%
2.4.12	IUE Reprocessed Archive	9/30/94	0%
	CASA IUE Archives - Misc	9/30/94	0%
	AGRA GUI Alternative Widget	3/3/94	100%
	Catalog CCGAL Program	9/30/94	5%
2.3.8	Directory Service	3/3/94	0%
2.5.4	Data Dictionary Service	4/1/94	53%
	DD Tool	4/1/94	25%
	DD Tables	2/28/94	80%
	Tell Me About Service	6/1/94	2%
2.4.11	LRS System	7/14/94	6%
	New Main Widget	7/14/94	25%
	List Settings Widget	7/14/94	0%
	Table Editor	7/14/94	0%
	FITS Transfer	7/14/94	0%
2.5.3	Text Retrieval	1/31/94	99%
	Cool Star	5/31/94	20%
	Data Organization	5/31/94	40%
	Widget	5/31/94	0%
	Install Service	9/30/94	0%
	Core System	9/30/94	76%
	Anonymous Authentication	4/15/94	90%

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 April 1994

DEVELOPMENT (Cont'd)

CASA (cont'd)

WORK IN PROGRESS AND PROJECTED COMPLETION DATES (cont'd):

WBS#	Task	End Date	% complete
	Global Variable Mngmnt	9/30/94	0%
	Global Help Text	9/30/94	0%
	Table Editor	9/30/94	0%
	NDADS Node Support	9/30/94	75%
	HEASARC/GRO Node Support	9/30/94	0%
	CASA Node Support	9/30/94	90%
	APS Node Support	9/30/94	0%
	LRS	9/30/94	50%

SAO ASTROPHYSICS DATA SYSTEM

Approved:_____G. Eichhorn
Achievement:_____J. Good (IPAC)

Status as of: 1 April 1994

OPERATIONS

ADS USER/USAGE STATISTICS:

	IPAC	IUE	PSU	SAO	HEASRC	STSCI	CASA	EUVE	NSSDC	APS
startup :	5	7	1	8	7	9	11	1	2	6
query :	274	84	10	228	89	93	244	11	0	133
schema :	239	83	10	224	79	93	242	11	0	130
retrieve :	11410	198	15	6916	392	1679	8162	73	0	2965
abort :	225	83	7	223	79	82	216	10	0	130
report :	2863	1735	2103	2069	1795	2049	1501	2107	2091	84

startup - *Gives the number of hard startx ups of the SQLserver at the given node location*

query - *Records how many queries users sent to that particular node.*

schema - *Retrieves the query result file format* (i.e., table header and number of records found). It therefore represents the number of successfully completed queries (though not necessarily transferred back to the user).

retrieve - *Records all user requests to bring data from a successful query back to the user location. Data is returned one screen at a time, and a retrieve is issued for each screen of returned data, whether that screen has one or more lines of data.*

abort - *Records each time a query session ends. Currently, this can signal either that the user requested a termination or that all the data had been transferred.*

report - *Records the number of inquiries about the current status of the SQLserver program. Such inquiries can only be issued by the srvadm program.*

Abstracts

user	logins	queries	short	long	list
1404	6908	15488	237481	8069	175284

users - *Number of distinct users using the abstract service*

logins - *Number of logins into the abstract service*

queries - *Number of queries sent to the abstract service (one specification of authors, keywords, titles etc is one query. One query may return thousands of abstracts).*

short - *Number of lines of short abstract information retrieved (authors and titles).*

long - *Number of complete abstracts retrieved (authors, titles, keywords, author affiliation, journal information, abstract text).*

Approved:_____G. Eichhorn
Achievement:_____C. Cornuelle (APS)

Status as of: 1 April 1994

SUPPLIERS OF DATA

APS/UMinn

TASKS ACCOMPLISHED:

- Nothing to report

Approved:_____G. Eichhorn
Achievement:_____T. Snow (CASA)

Status as of: 1 April 1994

SUPPLIERS OF DATA (Cont'd)

CASA

TASKS ACCOMPLISHED:

- More of the ADC CDrom catalogs are becoming available through the CASA node. See list of catalogs under the QA section for a complete update.

Approved:_____G. Eichhorn
Achievement:_____B. Stroozas (CEA/Berkeley)

Status as of: 1 April 1994

SUPPLIERS OF DATA (Cont'd)

CEA

TASKS ACCOMPLISHED:

- Nothing to report

Approved:_____G. Eichhorn
Achievement:_____S. Drake (HEASARC/GSFC)

Status as of: 1 April 1994

SUPPLIERS OF DATA (Cont'd)

HEASARC/GSFC

TASKS ACCOMPLISHED:

- Nothing to report

Approved:_____G. Eichhorn
Achievement:_____J. Mazzarella (IPAC)

Status as of: 1 April 1994

SUPPLIERS OF DATA (Cont'd)

IPAC/CALTECH

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____P. Lawton (IUE/GSFC)

Status as of: 1 April 1994

SUPPLIERS OF DATA (Cont'd)

IUE/GSFC

TASKS ACCOMPLISHED:

- The system disk on iuesn1 crashed and has been declared only good for scratch area. The system has been rearranged within the remaining space. The operating system was upgraded to SunOS 4.1.3.
- The new packages have been added.
- The URL for the IUEDAC homepage was sent to CASA for inclusion in the Information Servers.
- The IUELOG table was updated and implemented. Index tables were created to improve searches based by coordinates and object class.

WORK IN PROGESS AND PROJECTED COMPLETION DATES:

- The primary IUE database maintained by the project is being modified so that all coordinates will be stored in decimal degrees rather than radians. This will help simplify the process of converting the fields for use by the ADS.

ADS User/Usage Statistics:

March

- query	84	- startup	7
- retrieve	198	- withdraw	21
- schema	83	- shutdown	7
- status	84		
- abort	83	- query making users	9
- report	1735	- total users	14
- export	21	- new users	1
- export_failure	1		

Approved:_____G. Eichhorn
Achievement:_____W. Martin (NIST)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

NIST

TASKS ACCOMPLISHED:

- Nothing to report

Approved:_____G. Eichhorn
Achievement:_____J. Nousek (PSU)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

PSU

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____M. Garcia(SAO)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

SAO

TASKS ACCOMPLISHED:

- Nothing to report.

Approved:_____G. Eichhorn
Achievement:_____A. Farris (STScI)

Status as of: 1 March 1994

SUPPLIERS OF DATA (Cont'd)

STScI

TASKS ACCOMPLISHED:

- Nothing to report.