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ECS Reuse: Advertising Service Primer

Technical Paper

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Abstract

This paper provides an overview of the Advertising Service component of the ECS project. This paper was written as part of an ECS software reuse task in collaboration with NASA, the Department of Energy Atmospheric Radiation Measurement (ARM) division and Raytheon Systems. The reuse task involved disconnecting the Advertising Service code from the ECS system to generate a stand alone system. This Primer describes the primary features of the Advertising Service component, optional features, a description of the advertising process, system requirements, installation guidelines and a list of related documents.

Keywords: Advertising, ECS Reuse, Reuse

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Introduction

Purpose

This paper provides an overview of the Advertising Service component of the ECS project. This paper was written as part of an ECS software reuse task in collaboration with NASA, the Department of Energy Atmospheric Radiation Measurement (ARM) division and Raytheon Systems. The reuse task involved disconnecting the Advertising Service code from the ECS system to generate a stand alone system. This Primer describes the primary features of the Advertising Service component, optional features, a description of the advertising process, system requirements, installation guidelines and a list of related documents.

Organization

This paper is organized as follows:

I. What is Advertising?

II. Why use Advertising?

III. System Requirements

IV. Tailoring Modifications

V. Installation/Configuration

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VII. Preliminary Research

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NOTE: The contact information is provided as a courtesy to readers. If it is not appropriate for GSFC contacts to be listed then that list item may be excluded.

Questions concerning distribution or control of this document should be addressed to:

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Target Audience: Groups or individuals considering using the functionality of the Advertising component of ECS. Knowledge of data to be advertised, legacy system functionality and metadata model helpful.

I. What is Advertising?

Overview - The Advertising Service is a collaborative research tool with a Web-based user interface . It provides the scientific community a means to share and access scientific data, services and software tools via advertisements. An advertisement details available data sets, services and software tools. An advertisement provides a title, a description of the product, service or software tool, key words for quick searches, contact information and/or hyperlinks or URLs to the specified data set, service or software tool. The Advertising Service allows users to create, update, delete and search for advertisements.

Primary Features

Advertisement Service - A World Wide Web service allowing users to create, update, delete, and search by field text for advertisements with the search criteria in the title or description or to search by metadata/keywords for datasets.

Online Directory - A World Wide Web user interface that provides a front end to the Advertising Service and the search engine for field text and metadata searching on advertisement information. The Online Directory provides the graphical user interface allowing users to access a list of new advertisements, the advertising search functions, the advertising create function, the advertising update function, the advertising delete function, the advertising help functions and advertisement examples.

ARM Provider
ID: 1000007

Description: The ARM archive is the central repository and distribution point of data and data products resulting from scientific field experiments of the Atmospheric Radiation Measurement (ARM) program.

Attributes
None
Moderation Group
ECS_Internal
Start Date
01/30/98
Valid until
01/30/99
ProviderURL: http://www.archive.arm.gov/

Figure 1. An example of a Provider Advertisement.

Land Remote-Sensing Satellite

ID: 1000008

Description: LLCP effort is to establish long-term, medium-to-high-resolution data sets for particular regional and global applications to global change research.

Attributes

Collection

-- VersionID = 30.98

-- ShortName = LLCP

-- RevisionDate = 03/28/98

-- ArchiveCenter = JPL

Sensor

-- SensorShortName = MODIS

-- SensorLongName = Moderate-Resolution Imaging Spectroradiometer

Instrument

-- InstrumentShortName = ACRIM

-- InstrumentLongName = Active Cavity Radiometer Irradiance Monitor

Platform

-- PlatformShortName = HIRDLS

-- PlatformLongName = Hight Resolution Dynamic Libm Sounder

Campaign

-- CampaignShortName = ETM

-- CampaignLongName = Enhanced Thematic Mapper

AnalysisSource

-- AnalysisShortName = GLAS

-- AnalysisLongName = Geoscience Laser Altmeter System

RangeDateTime

-- RangeBeginningDate = 09/08/97

-- RangeEndingDate = 04/07/99

BoundingRectangle

-- BoundingRectangle = (30.0000, 50.0000, 20.0000, 40.0000)

Moderation Group ECS_Internal

Start Date 02/02/98 Valid until 02/03/98

Provider ID : ARM ProviderPROVIDER

Figure 2. An example of a Data Advertisement.

Table 1 - The comprehensive Advertising Service allows five types of advertisement entries. All advertisement entries are subject to approval or rejection by the moderation process. Moderation is described in Table 2.

Advertisement type	Description
Data advertisement	Provides a description of available data and either contact information on how to obtain the data or a URL to hyperlink to the data.
Web Service Advertisement	Provides a description of an available service and either contact information on how to obtain access to the service or a URL to hyperlink to the service
Non-Web Service Advertisement	Provides contact information (email address, product id, phone number) for obtaining non-Web data sets, products or software tools.
Installable Service Advertisement	Provides a description of software tools that can be downloaded from a public FTP site.
Provider Advertisement	Describes the data set, service or software tool owner.

Table 2 - The Advertising Service is a robust system providing a variety of features.

Advertising Service Features	Description
Moderation	Performed by a specialist who is known to the system as a moderator. The moderator reviews and approves or rejects all advertisements.
Administration	Performed by a person who has been designated as the advertising system administrator, usually the system administrator, who is responsible for creating, listing, updating and deleting moderation groups and members. Administration provides security to the moderation process.
Create	Enter detailed advertisement information into a file that is placed in the "create advertisement list" (a queue containing all updated advertisements waiting for moderator approval). After the advertisement has been approved by a moderator, it will be added to the advertisement database.
Update	Modify information of an existing advertisement and put the file with the updated advertisement in the "update list" (a queue containing all updated advertisements waiting for moderator approval). Changes are not visible until the moderator has approved the updates.
Delete	Tag an advertisement for removal from the advertisement database. The tagged advertisement is placed on the "delete list" for moderator review. Once the moderator has approved the deletion, the advertisement is removed from the advertisement database.

Advertising Service Features	Description
Online Help Capabilities	Online Help is accessible by clicking on the HELP link on any advertisement Web page. Advertising system overview, as well as, field level help are available.
Online Advertising Tutorial	An Advertising System tutorial that teaches the user how to enter data into the various Advertising System online forms. The tutorial also details the different functions available for the advertising service component and provides users with examples and explanations of these functions.
Field-text searching	Retrieve advertisement entries containing the text specified on the search form. Field text searches only match on advertisement descriptions or titles.
Metadata searching (data set searches only)	Retrieve **data set** advertisements containing attributes matching the user specified criteria.

Optional Features

Table 3 - In addition to the standard functions provided by the Advertising Service, optional features are available for implementation.

Advertising Service OPTIONAL Features	Description
Replication Function (only useful for distributed computer systems)	Provides for duplication, across distributed computer systems, of the database containing advertisement data set keywords. Replication of the keyword database allows keyword searches to be performed at the local computer system instead of at the distributed system where the data set may be located. Replication greatly increases search performances. The COTS DBMS provides the replication of the Advertising database allowing fast and easy access to information.
APIs	APIs are available for the tailoring of the Advertising Service. For example, programs may be developed to provide balk loading of the database.
FTP load	Allows users to download an FTP template and enter advertisement information. The template is then uploaded to a public FTP site where the advertising system can retrieve the file and load the data into the advertising database.

Advertisement process: Users gain access to the Web based Advertising Service by using a Web browser and by entering the Advertising Service URL. The Advertising Service involves a moderator group, an administrator, a provider, and the advertisements.

The moderator group is a designated group of peers who review all submitted advertisements for completeness, accuracy and relevance of data and products. All submitted advertisements are reviewed and approved/rejected by a moderator group. Users are notified of advertisement approval/rejection via email. Advertisements approved by a moderator, a member of the group, will be stored in a database and are searchable/retrievable through the Advertising Service search mechanisms.

The administrator is someone assigned to oversee the moderator group. The administrator assigns and monitors the moderator group's privileges by granting or denying moderation permission to designated personnel.

The provider is the organization or unit of an organization owning a data set, service or software tool. In order to submit an advertisement, the submitting organization or provider must be registered with the Advertising Service. Providers are registered when they create a provider advertisement. The user can create a provider advertisement by clicking on the Create Provider Entry link on the Create Directory Entry Web page. The provider advertisement is not available until it has been approved by a moderator.

Once a provider has been registered, users for that provider can create, update, or delete advertisements. All advertisements are submitted by entering appropriate data into the advertising on-line form. Data set advertisements may also be generated by entering information into an FTP template which the user uploads to a public FTP site. The template allows users to enhance their advertisements by entering additional keywords/metadata. All advertisements are transparent to the user community until a member of the moderation group has approved the advertisement. Upon completion of the moderation process, an email stating the rejection or acceptance of the advertisement is sent to the requestor.

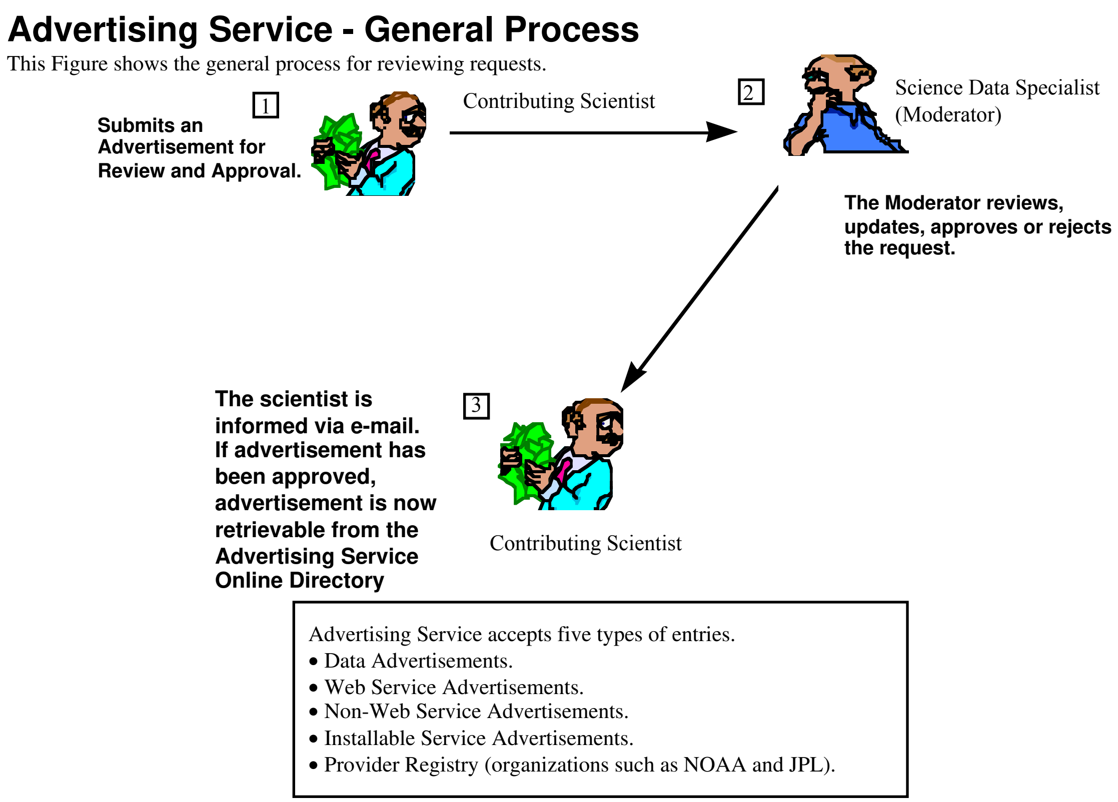

Figure 7. Details the Advertising process.

II. Why use Advertising?

The Advertising Service provides the scientific community with easy access to data sets, services and software tools providing a means for scientists to collaborate on research efforts. Easy access promotes sharing of data sets, service and software tools and encourages the development of partnerships with businesses and industries. The Service provides a collection of functions that ensures requests are routed to the appropriate services providing a fast and user friendly interface between the scientists and data, services and tools. When a distributed computing architecture is involved, all data can be advertised and accessed through a single World Wide Web interface. The Web access allows users to communicate with any or all of the service providers seamlessly and transparently.

III. System Requirements:

Table 5 - To reduce development effort and cost and to increase reliability of the Advertising Service, Commercial off the Shelf tools, COTS, have been integrated into the system where ever feasible.

COTS name	Description
Distributed Computing Environment (DCE)	Middleware to allow heterogeneous distributed computer systems to interoperate. Refer to section V for further details.
Object Oriented Distributed Computing Environment (OODCE)	Object Oriented wrapper for DCE. Provides the object oriented interface to C++ executables. Refer to section V for further details.
RogueWave Libraries	A common set of C++ classes.
Sybase SQL Server	Physical database to store and manage advertisement information.
Netscape Enterprise Service v.2.0x	Used as the Advertising Navigating Server; allows Internet users to access Advertising Service; provides HTML/HTTP access to the Advertising DBMS Application Server.
Netscape Browser v.4.0x	Included in the Web server package.

Table 6 - The table below details the RAM requirements for the Advertising Service installation and execution.

Component	Disk Requirements
Sybase SQL Server	250 MB
Database (disk space for empty tables)	2 MB
Disk space for 10,000 advertising entries	20 MB
Netscape Enterprise Web Server v2.01	100 MB
Rogue Wave Libraries	**<TBD>**
tarred executables (needed only during the installation process)	186 MB

Table 7 - Many components of the Advertising Service have been developed using a variety of software including CGI scripts (version), C++ modules, HTML, C++, RogueWave DbTools.h++ libraries, common libraries , SQL.

Component	Software	Description
Advertising Application Server	C++, CGI	Processes requests from the interface objects. Communication between interface objects and the Advertising Application server is performed using DCE protocols (RPC).
Persistent Object Framework (POF)	C++, SQL, RogueWave DbTools.h++ libraries	A group of classes providing database operations to fetch and store database information.
HTML Framework	C++, HTML 3.2	Provides operations for dynamically constructing HTML pages.
Core Library	C++	A library that actually accesses the database using the POF. Used by CGI programs initiated by the Web Server.
Search Library	C++	Classes for constructing advertisement searches
Server Library	C++	Supports message passing between the Advertising server and associated clients.

Component	Software	Description
Installer	C++	Allows users to download client software.
Client Library	C++, DCE (Remote Procedure Calls) RPCs	Provides secure communication from an external application to the Advertising Application Server

User Access - Since Java scripting is used for forms validation, users must use a JAVA enabled Browser to access the Advertising System

IV. Tailoring Modifications:

All efforts have been made to make the Web pages generic; however, personalization of the logos, feedback email address, the contact person name and background color schemes can be easily accomplished by someone familiar with HTML and C++.

Tailoring of the Advertising Service may also include modifying advertising database attributes. Some data fields may have to be expanded and requirements associated with valids may also need modification. Refer to the Gap Analysis section of the Data Model Primer by Melvin Tucker for further information.

V. Installation/Configuration

The Advertising Service utilizes the following database: **advertise**

Refer to the Data Model Primer by Melvin Tucker for the latest copy of physical data model.

Configuration involved in installing DCE and Web server for Advertising Server

General Configuration

I. Select an ECS_MODE : *RCCLAB1OPS*

II. Create the directory structure */usr/ecs/$ECS_MODE/….*

III. Update the config files both PF Config files and local IOS config files to include the mode. The PF config files are in */ecs/formal/IOS/AdvService/src/Server* and other local IOS config files are in */ecs/formal/IOS/AdvService/src/Progs*

IV. Make sure the following directories are created in /usr/ecs/$ECS_MODE/CUSTOM

A. lib

B. bin

C. cgi-bin

D. security

E. data

F. docs/WWW

G. cfg

H. logs

V. Copy all your files to the appropriate directory

A. HTML files(*.html) */usr/ecs/$ECS_MODE/CUSTOM/docs/WWW/IOS*

B. Images (*.gif, *.jpg) */usr/ecs/$ECS_MODE/CUSTOM/docs/WWW/IOS*

C. Config Files(*.cnfg)
/usr/ecs/$ECS_MODE/CUSTOM/data/IOS

D. PF Config Files(*.CFG,*.PCFG,*.ACFG) */usr/ecs/$ECS_MODE/CUSTOM/cfg*

E. Shared Libraries (*.so)*(where SUBSYSTEM is CSS, MSS, COMMON, DSS and IOS)* */usr/ecs/$ECS_MODE/CUSTOM/lib/$SUBSYSTEM*

- Security file */usr/ecs/$ECS_MODE/CUSTOM/security*

- Server Executables */usr/ecs/$ECS_MODE/CUSTOM/bin/IOS*

Configuration for DCE Server

I. Copy all the files in */usr/ecs/SHARED/* to your machine on which DCE server is being started..

II. Create CDS entry for the servers: (DCE Administrator will do it for you)

   A. */subsys/ecs/$ECS_MODE/IoAdServer*

III. Make sure the machine is in the appropriate DCE cell. Check that the following list has an entry for your machine: (DCE Administrator will do it for you)

   A. */subsys/ecs/servers/stimpy*

IV. Make sure the shared entry has an entry for your machine (For Agent Manager) (DCE Administrator will do it for you)

V. Before bringing up the DCE server, make sure all the stale bindings are removed by using */tools/bin/EcCoEpMgr*.

VI. Do a DCE login by using the following command:

unixprompt%> dce_login your username

(If you do not have a DCE account, talk to Reginald McAllister (Ext. 0404).

Bring up the CDS Browser by typing */opt/dce/bin/cdsbrowser* and delete the entries in */subsys/ecs/$ECS_MODE/IoAdServer* and */subsys/ecs/servers/stimpy*.

VII. Set the following environment variables

- *setenv EcAgInstanceID 1*
- *setenv MAIL /var/spool/mail/$USER*
- *setenv MODE RCCLAB1OPS*
- *setenv CONFIG_PATH /usr/ecs/RCCLAB1OPS/CUSTOM/cfg/EcIoAdServer.CFG*

- *setenv ECS_HOME /usr/ecs/*

VIII. Use the following command for bringing up the server :

/usr/ecs/$ECS_MODE/CUSTOM/bin/IOS/EcIoAdServer ConfigFile /usr/ecs/$ECS_MODE/CUSTOM/cfg/EcIoAdServer.CFG ecs_mode RCCLAB1OPS >& tmpFile &

IX. To view the status use the following command,

A. *tail -f tmpFile*

X. Check the following file for any kind of errors:

/usr/ecs/$ECS_MODE/CUSTOM/logs/EcIoAdServer.ALOG

Configuration for Netscape Enterprise Server

I. Update the *obj.conf* file to include the following environment variables in the config files for Netscape enterprise server:

- Init fn="cache-init" disable="true"
- Init fn="init-cgi" NLSPATH="/tools/oodce/opt/dcelocal/hptools/nls/msg/en_US.ISO8859-1/%N"
- Init fn="init-cgi" MODE="RCCLAB1OPS"
- Init fn="init-cgi" CONFIG_PATH="/usr/ecs/RCCLAB1OPS/CUSTOM/cfg/EcIoAdServer.CFG"
- Init fn="init-cgi" ECS_HOME="/usr/ecs/"
- Init fn="init-cgi" LD_LIBRARY_PATH="/usr/ecs/RCCLAB1OPS/CUSTOM/lib/IOS/:/usr/ecs/RCCLAB1OPS/CUSTOM/lib/MSS/:/usr/ecs/RCCLAB1OPS/CUSTOM/lib/CSS/:/usr/ecs/RCCLAB1OPS/CUSTOM/lib/DSS/:/usr/ecs/RCCLAB1OPS/CUSTOM/lib/COM/:/usr/ecs/RCCLAB1OPS/CUSTOM/lib/"
- Init fn="init-cgi" FTP_POPEN="/home/tvu/bin/ftp_popen"

II. Create aliases for

- */images* *to /usr/ecs/$ECS_MODE/CUSTOM/docs/WWW/IOS/*
- */IOS* *to /usr/ecs/$ECS_MODE/CUSTOM/cgi-bin/IOS*

III. The Document root will be

A. */usr/ecs/$ECS_MODE/CUSTOM/docs/WWW/IOS/*

IV. Notes from Dietmar for configuration of Web server:::

As far as the Web server configuration is concerned, the reader has to be made aware of the fact that this is "bare bones" information and that other essential information can be obtained from this URL:

http://dmserver.gsfc.nasa.gov/ecsdev/gui/html/webadmin_seminar/

As discussed there, special precautions have to be taken regarding security issues. e.g., the Web admin server should be run as "root" (to avoid tempering with config files), all other server ports run as "nobody" (to limit privileges of the server to a minimum). Web server root should never ever be identical with system root (Web server can access all directories!). Access restrictions for read and write: The default setting is no restrictions. Consequently, every Web user, authorized or not, has access to all the HTML docs, can read and MODIFY them. Using Netscape 4.0 browser and without any write restrictions in place at the Web server, everyone may be able to modify the code and save the modifications!! Then: Passwords have to be chosen carefully, Web server administration should only be allowed from the workstation where the Web server is installed, etc.

V. Check the following file for any kind of errors:

$WEB_SERVER_DIR/logs/errors

(Where WEB_SERVER_DIR = /data1/stimpy-nents/https_stimpy2)

Configuration for Databases

1. Make sure the config file /usr/ecs/$ECS_MODE/CUSTOM/cfg/EcIoAdServer.CFG has the correct values for the following variables:

DBHandleList	*= IOS*	*ACL*
DBServer	*= relbhp_srvr*	*OTIS_SERVER*
DBLibrary	*= SYBASE_CT*	*SYBASE_CT*
DBName	*= IoAdAdvService*	*EcsAclStorage*
DBModeOverride	*= NONE*	*OPS*
DebugLogNameList	*= IOS_SQLNew.txt*	
NumSybaseConnections	*= 5*	

2. To access the Sybase database directly, set the following environment variables:

   setenv SYBASE /tools/sybOCv11.1.0

   setenv DSQUERY relbhp_srvr

3. To Login to the database

   unixprompt%> isql -U jbao -P welcome

   isql> use IoAdAdvService_RCCLAB1OPS

   isql> go

4. To quit the database

   isql> quit

5. To view any errors in transactions, check the following file:

   /usr/ecs/$ECS_MODE/CUSTOM/logs/IOS_SQLNew.txt

Refer to the Appendix A for details of the changes made to ECS DROP 2 software or Appendix B for Advertising Service System build instructions.

VI. Special considerations:

COTS Dependencies

Distributed Computing Environment (DCE) - "is an industry-standard, vendor-neutral set of distributed computing technologies better known as 'middleware'. It provides security services to protect and control access to data, name services that make it easy to find distributed resources, and a highly scalable model for organizing widely scattered users, services, and data. DCE provides portability, a measure of the ease with which a piece of software that executes on one type of computer can be made to execute on a different type of computer, and interoperability, a measure of the ability of computers of different types to participate in the same distributed system. DCE runs on all major computing platforms and is designed to support distributed applications in heterogeneous hardware and software environments. DCE is a key technology in three of today's most important areas of computing: security, the World Wide Web, and distributed objects."

DCE consists of multiple components which have been integrated to work closely together. They are the Remote Procedure Call (RPC), the Cell and Global Directory Services (CDS and GDS), the Security Service, DCE Threads, Distributed Time Service (DTS),and Distributed File Service (DFS). The Threads, RPC, CDS, Security, and DTS components are commonly referred to as the "secure core" and are the required components of any DCE installation. DFS is an optional component. DCE also includes administration tools to manage these components.

http://www.camb.opengroup.org/tech/dce/

Object Oriented Distributed Computing Environment (OODCE) - is a development library to access DCE Services and allows the development of DCE applications in C++.

VII. Preliminary Research

The lessons learned will be an ongoing task. This section will be updated periodically.

Related Discussions - URs, DCE, keywords, reuse of other ECS components for a complete system

VIII. Supporting Documentation:

1. **"Data Model Primer"**, Melvin Tucker

This document defines the term data model and provides a detailed description of the EOSDIS Core System (ECS) data model and reasons for reusing the ECS data model. Results from preliminary research defining and implementing the ECS data model are also discussed.

2. **"Training Material Volume 15: Advertising Service Administration"**, Kenneth Prickett, *http://edhs1.gsfc.nasa.gov:8001/edhs1.gsfc.nasa.gov/QuickSearch?advertising.*

This Volume contains training material for the Earth Observing System Data and Information System (EOSDIS) Core System (ECS) Advertising component. The document provides a detailed description of the process required to add a moderator group and to edit, approve and update an advertisement.

3. **"Release B SDPS Interoperability Subsystem Design Specification" #305-CD-022-002**, Lynne Case, http://edhs1.gsfc.nasa.gov:8001/edhs1.gsfc.nasa.gov/QuickSearch?advertising

This document describes the design of the Interoperability Subsystem including the Advertising Service Component.

4. **"Science-User Scripts for Exercising EP6 Functionality"**, Janice M. Poston Day

http://edhs1.gsfc.nasa.gov:8001/edhs1.gsfc.nasa.gov/QuickSearch?advertising, section 4.5.

This document contains help information to allow users to walk-through the Advertising Service search and submit functions.

5. **609-CD-002-001**, section 4

This document contains EP6 help information and a set of scripts to allow users to walk-through the EP6 functionality.

6. **170-TP-010-001 Comparison of Isite Freeware and Commercial Sybase Software for Creating Web Sites with Text Search Functions**

This paper provides three tables that compare the properties of Isite freeware vs. Sybase commercial software . Particular emphasis is on the creation of new Web sites providing text search functions. The functionality of Web sites using either Isite or Sybase is also investigated.

7. 311-CD-014-001 Interoperability Subsystem (IOS) Database Design and Schema Specifications for the ECS Project, 1/98

8. http://dmserver.gsfc.nasa.gov/ecsdev/gui/html/webadmin_seminar/

Provides information regarding enterprise Web server administration and details ECS procedures for establishing a Web server.

IX. Other Available Components/Tools:

Acronym Finder - The Java based Acronym Finder tool provides user's a means to lookup explanations for Internet, World Wide Web, computer related, and system or data specific abbreviations or acronyms. User's of this tool can enter their own system or data specific acronyms into the acronym database. The Acronym Finder provides a variety of search options including search by entering the entire acronym or search by entering a partial acronym and specifying search to search for acronyms with the entered criteria as a prefix, substring or suffix. The search will return a list of matching acronyms and an explanation of each.

Appendix A

<u>Changes to DROP2 IOS code</u>

Appended the word "Draft" to the title:

added a function IoAdGetPageTitle which accepts the title as parameter and appends the word "Draft" to it.

Did this change to all the CXX files in the directory src/Progs.

Changes to the file src/EcHtmlLib/EcHtImageRep.cxx

Added code for Hspace and Vspace.

Changed the function <u>WriteAddress</u> in the file src/EcHtmlLib/EcHtPageRep.cxx by adding some line breaks etc.

Added code to the function <u>Write</u> of src/EcHtmlLib/EcHtLinkRep.cxx so that the Href will be shown in double quotes for ex: HREF="http:vcxxvx"

In src/HtmlCoreLib/IoAdPage.cxx,

added code to include all the ARM stuff for the body of a HTML Page in the function <u>WriteBody</u>

In src/HtmlCoreLib/IoAdEsodPage.cxx

added code to include Arm specific footer for the HMTL Page in the function <u>WriteFooter</u>.

In src/HtmlCoreLib/IoAdEsodam.cxx

added code to include Arm specific footer and body for the HTML Page.

In src/Progs directory,

changed configuration files to add ARM specific variables.

Dietmar changed the static HTML pages.

Added ARM specific GIF files to /ecs/formal/IOS/WWWdoc/. Note that generally GIF files and some of the HTML files are in the directory /ecs/formal/IOS/WWWdoc/.

If you need to add ARM specific images or links, change the file /ecs/formal/IOS/AdvService/src/Progs/IoAdSiteSpecific.cnfg

Change	Section	Name=Value
path for FTP executable ftp_popen	[IOS:FTP]	ExecPath = /usr/ecs/OPS/CUSTOM/bin

		/CSS/ftp_popen
HTML Pages (For Example See below)	[IOS:HTML]	
Home Page	[IOS:HTML]	EsodHome = /IoAdEsodHome.html
New Advertisements Executable	[IOS:HTML]	WhatsNew = /IOS/IoAdEsodWhatsNew
GIF or JPG images(For Example See below)	[IOS:GIF]	
ARM Logo	[IOS:GIF]	AdvLogo = /images/arm.gif
SYBASE variables	[IOS:SYBASE]	SYBASE = /tools/sybase
DataBase details	[IOS:DBMS]	NumSybaseConnections = 5
Administration Details like Responsible Engineer etc.	[IOS:Admin]	EMail = xxx@eos.hitc.com

Appendix B

<u>How to do a System Build</u>

We have a view for DOE ARM project it is called *DOE*. To set to the view *DOE* use the following command:

unixprompt%>csettask DOE

you get the following messages on your screen:

Checking for merge-in-progress

No merge in progress

Setting task to DOE ...

Maintenance task found...

Dev task found

shared task.

Updating config spec ...

Setting to new view XXXXX_DOE ...

where *XXXXX* is your username. *DOE* is a shared task. For more details on a shared task, please call me or ask someone in CM group.

For performing a system build, do the following:

unixprompt%>cp /tools/lib/libtcl.a /ecs/formal/CSS/lib/sun5.5

unixprompt%>cp /tools/lib/libexpect.a /ecs/formal/CSS/lib/sun5.5

unixprompt%>source /ecs/formal/COMMON/.buildrc

unixprompt%>cd /ecs/formal/MSS/MACI/src

*unixprompt%>rm *Yacc** (This is for removing the files generated and winked in by compiler,
If the files are not there it says "no match" which is OK)

*unixprompt%>rm *Lex** (This is for removing the files generated and winked in by compiler,
If the files are not there it says "no match" which is OK)

unixprompt%>cd /ecs/formal/COMMON/SysBuild

Generally it is advisable to perform System build in steps. There are four steps: i.e., *Buildmake, ProductHs, ProductLibs, LastPass*

<u>Step1: This process takes about 10 minutes</u>

unixprompt%>clearmake -C gnu -V -f System.make BuildImake >& bmake.out &

unixprompt%>tail -f bmake.out

<u>Step 2: This process takes about an hours</u>

unixprompt%>clearmake -C gnu -V -f System.make ProductHs >& phs.out &

unixprompt%>tail -f phs.out

<u>Step 3: This process takes mores than 3 hours</u>

unixprompt%>clearmake -C gnu -V -f System.make ProductLibs >& plib.out &

unixprompt%>tail -f plib.out

<u>Step 4:</u>

unixprompt%>cd /ecs/formal/IOS

unixprompt%>clearmake -C gnu -V LastPass >& lps.out &

unixprompt%>tail -f lps.out

where *bmake.out, phs.out, plib.out* and *lps.out* are the output files. Using tail command you can view how your build process is going on. If you come across error in any step, do not proceed to the next step. Talk to CM team. To get out of the tail command, press *<Cntrl-C>*. If the process is completed, it will say "Done ….". You can also check for the completion of the compile/link process by checking the process status i.e., by using the following command:

unixprompt%>ps

When you pass all the four steps mentioned above, check if you have all the executables and libraries needed. The file */ecs/formal/IOS/.install* has a list of all the files needed for installing Advertising Service.

If you build the system once, you do not have to build it again and again. After changing the files just use the following command to build the local directory.

unixprompt%>clearmake -C gnu -V

Remember that all the IOS libraries are shared libraries. Hence if you change any of the libraries, you need to install the library in the test platform before testing it

Installation Procedure

1. Go to each subsystem top /ecs/formal/$SUBSYSTEM and give the following command

   unixprompt%>clearmake -C gnu Deliver

   The above command will copy the files to /ecs/formal/$SUBSYSTEM/install directory into required directory structure.

2. To form a tar file, give the following command

   unixprompt%>cd /ecs/formal/$SUSSYSTEM/install

   unixprompt%>tar cvf filename.tar .

If you get any questions at any time, please talk to CM group.

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