

# Appendix A. Software Processes

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This appendix lists all ECS processes in alphabetical order by subsystem. Each process name is followed by a directory specification indicating where that process was defined. A brief description of the process may be given. This is followed by a list of classes and templates used by the process, if any, which are defined in that same directory. Finally, any Static and Libraries (shared) into this process (other than system and COTS libraries) are also listed. These library names may be found in Appendix B.

It should be noted that this appendix contains processes which are in the Drop 4P1, 4PL and 4PY code as well as processes which are in later Drops but may not be fully operative until the delivery of the future Drops.

The first sentence of a class or library description is taken from the comments, if any, in the code for that class or library.

## Subsystem DSS

The Data Server Subsystem (DSS) provides capabilities to store, search, retrieve, and distribute earth science and related data. The DSS provides data repositories and management capabilities necessary to safely store data on a permanent basis. The DSS stages data needed for data processing by the Data Processing Subsystem (DPS). The DSS organizes and stores its data by data types, and provides advanced search capabilities and processing services on those data types in support of earth science users. The DSS distributes data to users either electronically or on physical media. It also provides administrative capabilities necessary to operate and manage its hardware and software.

### **process EcDsDdistGui**

/ecs/formal/DSS/gui/src/ddist

This process enables operations to initiate, track, and manipulate distribution requests by using input GUI controls and database information.

#### Classes

- DsGuBusyCursor -- The constructor and destructor are always called in pairs to set/reset the cursor to indicate that the application is busy and unable to process user input in a window.
- DsGuDdEvents
- DsGuDdistMW
- DsGuDistRequest
- DsGuDistTimer
- DsGuErrorDialog
- DsGuFile

- DsGuOperatorMessage
- DsGuPackingList
- DsGuSysRequest
- DsGuSystemSettings
- DsGuTapeOperation
- DsGuTapeTimer
- DsGuTimer -- Provides capabilities for X-Windows timer operations.
- UIComponent -- Base class for all C++/Motif UI components.

### **Libraries (static)**

- DmDdMsg
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcDmDdClient -- The library establishes and maintains a session with the DDICT server.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsAdSh -- This library provides an administrative/M&O interface to science data server requests.
- DsBtSh -- This library implements a thread which notifies the subscription server of events.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.

- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsCsSh -- This library is used by the HDFEOS server which supplies subsetting services to DLL or other clients.
- DsDbSh -- This library encapsulates the Sybase Open Client calls from the rest of the SDSRV.
- DsDcSh -- This library is used by subsetting code which make reformatting calls to convert HDF-EOS file format to HDF file format for subsetted HDF files.
- DsDdBSh -- This library contains base objects used in both the client and server components of DDIST.
- DsDdCSh -- This is the client side library.
- DsDdISh
- DsDe1Sh -- This internal library contains the method to do validation, installing ESDT, sending metadata to IOS,DMS and SBSRV and generate MCF to ingest.
- DsDe2Sh -- This internal library contains the method to do validation, installing ESDT, sending metadata to IOS,DMS and SBSRV and generate MCF to ingest.
- DsGeSh -- This library provides the public interface for access to all ESDT services and ESDT specifications.
- DsHcSh -- This library provides a DCE-independent client interfaces for both Conformant and NonConformant subsetting.
- DsMd1Sh
- DsMd2Sh
- DsMd3Sh
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsSiSh
- DsSrSh -- This is an internal library for Science Data Server.
- DsStCmnShSh
- DsStFtpSh
- DsStIngestFtpShSh
- DsStNetShSh
- DsStResShSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.

- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.

- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- srfSh -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDsDistributionServer**

/ecs/formal/DSS/distribution/src/server/main

This process provides the control and coordination for data distribution through request processing.

#### **Libraries (static)**

- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsGe -- This library provides the public interface for access to all ESDT services and ESDT specifications.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcDcMsgPsng1
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpost for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsDdBSh -- This library contains base objects used in both the client and server components of DDIST.
- DsDdISh
- DsDdSSh
- DsStCmnShSh
- DsStDisFtpShSh
- DsStFtpSh
- DsStNetShSh
- DsStPullShSh
- DsStResShSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDcNotifySh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityCtStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process EcDsHdfEosServer**

/ecs/formal/DSS/sdsrv/src/hr

The EcDsHdfEosServer provides the services for both Conformance and NonConformance subsetting. It utilizes the EcDsScienceDataServer as its client for all the subsetting requests. The distributed functions are single-thread called by EcDsScienceDataServer. It provides ability to start more than one server with each corresponding server config file.

#### **Libraries (static)**

- DmDdMsg
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcDcMsgPsng1

- EcDmDdClient -- The library establishes and maintains a session with the DDICT server.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsAdSh -- This library provides an administrative/M&O interface to science data server requests.
- DsBtSh -- This library implements a thread which notifies the subscription server of events.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsCsSh -- This library is used by the HDFEOS server which supplies subsetting services to DLL or other clients.
- DsDbSh -- This library encapsulates the Sybase Open Client calls from the rest of the SDSRV.
- DsDdBSh -- This library contains base objects used in both the client and server components of DDIST.
- DsDdCSh -- This is the client side library.
- DsDdIsh
- DsDe1Sh -- This internal library contains the method to do validation, installing ESDT, sending metadata to IOS, DMS and SBSRV and generate MCF to ingest.
- DsDe2Sh -- This internal library contains the method to do validation, installing ESDT, sending metadata to IOS, DMS and SBSRV and generate MCF to ingest.

- DsGeSh -- This library provides the public interface for access to all ESDT services and ESDT specifications.
- DsHcSh -- This library provides a DCE-independent client interfaces for both Conformant and NonConformant subsetting.
- DsMd1Sh
- DsMd2Sh
- DsMd3Sh
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsSiSh
- DsSrSh -- This is an internal library for Science Data Server.
- DsStCmnShSh
- DsStFtpSh
- DsStIngestFtpShSh
- DsStNetShSh
- DsStResShSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDcNotifySh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityCtStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- srfSh -- The SRF library provides the necessary mechansim for the application to communicate asynchronously with another application.

## **process EcDsScienceDataServer**

/ecs/formal/DSS/sdsrv/src/sr

EcDsScienceDataServer is the core server of EOS system. It provides clients the basic functions: store and retrieve the EOS data with the cooperation by other subsystem servers. It allows client insert various types granules to storage and acquire them when they are needed. It keeps track of granules' information with direct access to a metadata database. With the help of other servers, it provides auxiliary services to clients so that they can use EOS system more efficiently and conveniently.

## **Libraries (static)**

- DmDdMsg
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcDcMsgPsng1
- EcDmDdClient -- The library establishes and maintains a session with the DDICT server.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

## **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsAdSh -- This library provides an administrative/M&O interface to science data server requests.
- DsBtSh -- This library implements a thread which notifies the subscription server of events.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsCsSh -- This library is used by the HDFEOS server which supplies subsetting services to DLL or other clients.
- DsDbSh -- This library encapsulates the Sybase Open Client calls from the rest of the SDSRV.
- DsDdBSh -- This library contains base objects used in both the client and server components of DDIST.
- DsDdCSh -- This is the client side library.

- DsDdISh
- DsDe1Sh -- This internal library contains the method to do validation, installing ESDT, sending metadata to IOS,DMS and SBSRV and generate MCF to ingest.
- DsDe2Sh -- This internal library contains the method to do validation, installing ESDT, sending metadata to IOS,DMS and SBSRV and generate MCF to ingest.
- DsGeSh -- This library provides the public interface for access to all ESDT services and ESDT specifications.
- DsHcSh -- This library provides a DCE-independent client interfaces for both Conformant and NonConformant subsetting.
- DsMd1Sh
- DsMd2Sh
- DsMd3Sh
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsSiSh
- DsSrSh -- This is an internal library for Science Data Server.
- DsStCmnShSh
- DsStFtpSh
- DsStIngestFtpShSh
- DsStNetShSh
- DsStResShSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDcNotifySh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.

- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityCtStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
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- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
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- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- srfSh -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDsSdSrvGui**

/ecs/formal/DSS/gui/src/sdsrv

The Science Data Server GUI provides the operator two major functions, the management of Earth Science Data Types and the monitoring of all types of requests the Science Data Server is involved with. The Data Types GUI allows operations to add and view the ESDTs offered by the

Science Data Server; the System Requests GUI allows operators to monitor and change the priority for all the requests within each data server component.

### **Classes**

- DsGuBusyCursor -- The constructor and destructor are always called in pairs to set/reset the cursor to indicate that the application is busy and unable to process user input in a window.
- DsGuDssMW
- DsGuElement
- DsGuErrorDialog
- DsGuList
- DsGuMultiFile
- DsGuOperatorMessage
- DsGuQueue
- DsGuSdDatatype
- DsGuSysRequest
- DsGuSystemSettings
- UIComponent -- Base class for all C++/Motif UI components.

### **Libraries (static)**

- DmDdMsg
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcDcMsgPsng1
- EcDmDdClient -- The library establishes and maintains a session with the DDICT server.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
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## Libraries (shared)

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- DsBtSh -- This library implements a thread which notifies the subscription server of events.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsCsSh -- This library is used by the HDFEOS server which supplies subsetting services to DLL or other clients.
- DsDbSh -- This library encapsulates the Sybase Open Client calls from the rest of the SDSRV.
- DsDdBSh -- This library contains base objects used in both the client and server components of DDIST.
- DsDdCSh -- This is the client side library.
- DsDdIsh
- DsDe1Sh -- This internal library contains the method to do validation, installing ESDT, sending metadata to IOS, DMS and SBSRV and generate MCF to ingest.
- DsDe2Sh -- This internal library contains the method to do validation, installing ESDT, sending metadata to IOS, DMS and SBSRV and generate MCF to ingest.
- DsGeSh -- This library provides the public interface for access to all ESDT services and ESDT specifications.
- DsHcSh -- This library provides a DCE-independent client interfaces for both Conformant and NonConformant subsetting.
- DsMd1Sh
- DsMd2Sh
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- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsSiSh

- DsSrSh -- This is an internal library for Science Data Server.
- DsStCmnShSh
- DsStFtpSh
- DsStIngestFtpShSh
- DsStNetShSh
- DsStResShSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDcNotifySh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
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- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityCtStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.

- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- srfSh -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDsSt4MMServer**

/ecs/formal/DSS/stmgt/src/tp/stacker/4mm

The EcDsSt4MMServer is the resource manager for the 4MM stackers. Scheduling of the usage and any input and output from the device are handled by the 4MM stacker resource manager. This manager only handles 4MM devices that are part of automated stackers. It runs only on Sun hardware. This resource manager can handle multiple 4mm stackers, but is limited to managing only the stackers that are physically connected to the node that hosts this server.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(ODDCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmn -- This internal library contains the interface that the code uses to do database access and run stored procedures.
- DsStDb -- This library contains the implementation of the common stacker code.

- DsStFmt -- This library is used to format the writing of files to tape and other reading of files from tape.
- DsStFtp
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- DsStScsi -- This library supports most standard scsi commands in hopes that there will only be minimal changes needed to support new devices.
- DsStSt -- Both client and server code are contained in the library.
- DsStStk4 -- This library implements code specific for the 4MM stacker resource manager and should only be used by the server side.
- DsStTape -- This library contains the base class functionality that is common to all tape resource managers.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **process EcDsSt8MMServer**

/ecs/formal/DSS/stmgt/src/tp/stacker/8mm

The EcDsSt8MMServer is the resource manager for the 8MM stackers. Scheduling of the usage and any input and output from the device are handled by the 8MM stacker resource manager. This manage only handles 8MM devices that are part of automated stackers. It runs only on Sun hardware. This resource manager can handle multiple 8mm stackers, but is limited to managing only the stackers that are physically connected to the node that hosts this server.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmn -- This internal library contains the interface that the code uses to do database access and run stored procedures.
- DsStDb -- This library contains the implementation of the common stacker code.
- DsStFmt -- This library is used to format the writing of files to tape and other reading of files from tape.
- DsStFtp
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.

- DsStScsi -- This library supports most standard scsi commands in hopes that there will only be minimal changes needed to support new devices.
- DsStSt -- Both client and server code are contained in the library.
- DsStStk8 -- This library implements code specific for the 8MM stacker resource manager and should only be used by the server side.
- DsStTape -- This library contains the base class functionality that is common to all tape resource managers.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **process EcDsSt8mmTapeServer**

/ecs/formal/DSS/stmgt/src/tp/8mm

Resource manager for 8mm tape. Queues are mainted for requests based on priority and time of request receipt.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsSt8mmTapeShSh
- DsStCmnShSh
- DsStFmtShSh
- DsStFtpSh
- DsStResShSh
- DsStScsiShSh
- DsStStSh -- Both client and server code are contained in this library.
- DsStTapeShSh

- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSh
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process EcDsSt9TrkTapeServer**

/ecs/formal/DSS/stmgt/src/tp/9Trk

Resource manager for 9-track tape. Queues are maintained for requests based on priority and time of request receipt.

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsSt9TrkTapeShSh
- DsStCmnShSh
- DsStFmtShSh
- DsStFtpSh
- DsStResShSh
- DsStScsiShSh
- DsStStSh -- Both client and server code are contained in this library.
- DsStTapeShSh
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH

- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process EcDsStArchiveServer**

/ecs/formal/DSS/stmgt/src/st

The Archive Server handles client request to put files into or take files out of the COTS archive product. As such, it provides an interface which hides the COTS implementation. Since there may be multiple archives served by different COTS or cusom applications, there is an archive ID which is used to map data location into the archive and location in the archive for all files. The archive id is based on a server key and a logical volume identifier. The server key provides a means by which STMGT client supplied software can determine which archive server should be accessed. The logical volume specifier allows for a searching of one or more locations in the archive for the existence of a file. The logical specifier allows for handling multiple "directory paths" for the storage of logically connected data, e.g. all the data for a given ESDT. Currently, data storage is determined by ESDT.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of

- MsAcComm -- This library contains class used for both Accountability Server and Client

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmnShSh
- DsStFtpSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.

- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process EcDsStCDROMServer**

/ecs/formal/DSS/stmgt/src/cd

Resource manager for CD ROM. Queues are maintied for requests based on priority and time of request receipt.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCDROMShSh
- DsStCmnShSh
- DsStFtpSh
- DsStResShSh
- DsStStSh -- Both client and server code are contained in this library.

- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process EcDsStD3Server**

/ecs/formal/DSS/stmgt/src/tp/D3

The EcDsStD3Server executable is the image run by the resource manager for the D3 tape. The client interface is supplied by libDsStRes and the SCSI interface is supplied by libDsStScsi. The D3 resource manager schedules the use of the D3 tape drive and manages the I/O to/from the

drive on behalf of clients. The D3 resource manager run only on the Sun but can service clients who are either on the Sun or on the SGI.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmn -- This internal library contains the interface that the code uses to do database access and run stored procedures.
- DsStD3Tape -- This is a server side library only and contains the custom code for support of the D3 tape.
- DsStFmt -- This library is used to format the writing of files to tape and other reading of files from tape.
- DsStFtp
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- DsStScsi -- This library supports most standard scsi commands in hopes that there will only be minimal changes needed to support new devices.
- DsStSt -- Both client and server code are contained in the library.
- DsStTape -- This library contains the base class functionality that is common to all tape resource managers.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.

- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **process EcDsStFtpDisServer**

/ecs/formal/DSS/stmgt/src/ftp/disftp

The EcDsStFtpDisServer provides its clients the ability to do push and pull distribution ftp from a server other than the one the client is on. This is important since, for ftp push, different underlying network architecture may be required for the push than is available to the DDIST server. DDIST is the only client for this server. In turn, this server is a client of the EcDsStPullMonitorServer.

#### **Libraries (static)**

- DsStDisFtp -- This library contains the server code which allows for the moving of data from staging to the target location either for end user pull of data from the pull area or push of data to the end user specified node and directory.
- DsStNet -- This is a library for the server side only and contains the base class functionality for the classes which implement ftp push and ftp pull distribution services.

- DsStPull -- This library contains the server and client code for the pull cache manager.
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmnShSh
- DsStFtpSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process EcDsStIngestFtpServer**

/ecs/formal/DSS/stmgt/src/ftp/inftp

The EcDsStIngestFtpServer provides ftp pull services to the Ingest subsystem. It utilizes the EcDsStStagingDiskServer as a client and libraries supplied by CSS to perform the ftp pull. It is possible to have different instances of this server running on different platforms to handle, making use of the server id to allow for ingest to move data into the system via the best path for a particular data type.

#### **Libraries (static)**

- DsStIngestFtp -- This library contains the server side code for performing ftp pulls to satisfy Ingest.
- DsStNet -- This is a library for the server side only and contains the base class functionality for the classes which implement ftp push and ftp pull distribution services.
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmnShSh
- DsStFtpSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.

- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process EcDsStmgtGui**

/ecs/formal/DSS/gui/src/stmgt

The files in this directory comprise the software for the STGMT GUI process, EcDsStmgtGui. The GUI is the primary interface for operations staff to control and monitor STMGT processing. It can be used to help assemble requests for hard media distribution for which multiple media are required. Error messages are sent to the operator GUI which indicate conditions encountered by STMGT processes that the operator needs to be aware of.

#### **Classes**

- DsGuStBackupRestart
- DsGuStCacheStat
- DsGuStConfiguration
- DsGuStEvents
- DsGuStFileViewer
- DsGuStmgtMW
- DsGuStOperatorNotify -- This class provides the object to notify the operator of server events.
- DsGuStRequest
- DsGuStResource
- DsGuStSetupBackup
- UIComponent -- Base class for all C++/Motif UI components.

#### **Libraries (static)**

- DsStGuiCmn
- DsStPull -- This library contains the server and client code for the pull cache manager.
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmnShSh
- DsStFtpSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.

- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process EcDsStPrintServer**

/ecs/formal/DSS/stmgt/src/pr

Resource manager for the printer. Queues are mainted for requests based on priority and time of request receipt.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.

- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmnShSh
- DsStFtpSh
- DsStPrinterShSh
- DsStResShSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

- GSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

## **process EcDsStPullMonitorServer**

/ecs/formal/DSS/stmgt/src/pull

The EcDsStPullMonitorServer is the cache manager for the user pull cache. Files that are requested for user pull distribution are moved from the archive to the read only cache, linked to staging disks maintained by DDIST and the pushed via ftp to a cache directory on the user pull disk. Files are then linked from the cache area to directories with randomly generated names which can be accessed by end users to get their data. The Pull Cache manager, EcDsStPullMonitorServer, determines what files have to be removed from the cache to make room for new files. If it detects that a request is for a file that is already in the cache, it prevents the transfer of the file again. It maintains the links to the user accessible directories and keeps a count of the number of outstanding accesses for a given file in the cache. Files that are not accessed in a configurable time period are expired. The operator can request that no expired files may be deleted except for the ones that are confirmed for delete by the operator. The Pull Cache manager does not do any file transfers, those are done by its client. The EcDsStFtpDisServer is the only client of the EcDsStPullMonitor.

### **Libraries (static)**

- DsStPull -- This library contains the server and client code for the pull cache manager.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmnShSh
- DsStFtpSh
- DsStStSh -- Both client and server code are contained in this library.

- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process EcDsStStagingDiskServer**

/ecs/formal/DSS/stmgt/src/st

The Staging Disk Server allocates and monitors shared RAID space between competing processes. Clients for which insufficient staging is available currently are queued in a priority based queue. Staging Disk Servers also use the server key to differentiate which of the multiple

Staging Disk Servers are accessed. The server key will be available to the client either as part of the archive id or as part of an existing staging disk tag.

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmnShSh
- DsStFtpSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.

- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process EcDsStStagingMonitorServer**

/ecs/formal/DSS/stmgt/src/st

The Staging Monitor Server monitors the Read Only cache area which is part of the partition monitored by the Staging Disk Server. Files which are retrieved from the archive are moved to the Read Only cache which is monitored by the Staging Monitor that shares the same Server Key as the archive server. The Staging Monitor Server governs the writing and deleting of files to the Read Only cache. Clients of Staging Disk can access files in the Read Only cache via Staging Disk calls.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmnShSh
- DsStFtpSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.

- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

### **process will**

/ecs/formal/DSS/stmgt/src/cd

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCDROMShSh
- DsStCmnShSh
- DsStFtpSh
- DsStResShSh
- DsStStSh -- Both client and server code are contained in this library.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.

- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

## Subsystem INS

The Ingest Subsystem supports the ingest of data into ECS repositories. This data is accepted from a variety of external data providers in various formats and is predefined within ECS with regard to expected metadata and metadata characteristics, and is ingested in accordance with approved ICDs. The Ingest Subsystem supports a variety of ingest requests and preprocesses the data for archiving into ECS. This preprocessing varies according to attributes of the ingested data such as data type, data format, and the level to which the ingested data has been processed from raw instrument data.

The data types are formally referred to as Earth Science Data Types (ESDTs). An ESDT is a defined data set associated with a given mission/instrument or identified grouping and is registered in an ESDT Baseline List. The ESDT is identified with a short name, a long name, a collection description, and informairon of file type, metadata, formats, and serverces provided such as sub-setting by a given attribute. An example of an ESDT is AST\_L1A (short name) which is the ASTER Level 1A data set which is reconstructed, unprocesseddd instrument digital

counts with radiometric and geometric coefficients attached. ESDTs may also be ancillary data, algorithms, correlatvie and calibration data.

The Ingest Subsystem software is organizaed into collectons of software processes which executes in a specific pattern depending on the ESDT being ingested. These processes include an automated ingest process, a polling ingest process and a media ingest process. These ingest processes provide the virtual interface for the receipt of all external data to be archived within the archival system of the ECS Science Data Processing System (SDPS). Specific ingest process parameters to be modified as interface and mission requirements evolve. For a given incoming data set corresponding to an ESDT, Ingest performs data preprocessing, metadata extraction, and directs the DSS STMGT to perform metadata validation.

## **process EclnAuto**

/ecs/formal/INGEST/SessionMgr/src/AutoIngest

This program provides fundamental capabilities so that data may be ingested into the ECS system. This process can be taiolored to fit for a specific interface. RPCs are utilited to request inest services which includes the establishment of a connection with the external source. This process manages multiple requests, checks DAN information, invokes a RPC to the Request Manager to begin request processing, sends and receives data status messages, and cleans up request information. Error log informaiton is placed into common files for access by MSS. ~

### **Classes**

- InAutoIngestIF\_1\_0\_ABS
- InAutoIngestIF\_1\_0\_Mgr
- InAutoNtwkIngestMgr -- Provides a single point of entry to the Ingest system for all ingest OODCE interfaces.
- InRequestMgrIF\_1\_0
- PktStructDef\_1\_0

### **Libraries (static)**

- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsSeCryptoDes -- This library contains the APIs for the DES encryption algorithm.
- des -- This library represents the core DES APIs.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect,build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.

- DsStCmn -- This internal library contains the interface that the code uses to do database access and run stored procedures.
- DsStFtp
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- DsStSt -- Both client and server code are contained in the library.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcUtMisc -- This library contains miscellaneous utilities.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- InConfig -- This library provides a class which is used by each Ingest executable to obtain parameters from its configuration file.
- InDBaccUt -- This library provides classes which allows access to the Ingest database.
- InMsg -- This library provides classes that are used for all data messages exchanged between the external source and Ingest.

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcInGran**

/ecs/formal/INGEST/GranServer/src/Server

Provides services to perform required preprocessing of data and subsequent insertion of the data into the appropriate Data Server. The preprocessing of data consists of converting the data (if needed), extracting the metadata into the standard ECS metadata format (if needed), performing required metadata existence and parameter range checks, and updating the metadata with ingest specific metadata (e.g., start and stop date/time for ingest). It is responsible for tracking the ingest requests and coordinating the ingest processing, which is comprised of transferring data, performing data preprocessing, and sending an insertion request to the appropriate Data Server. In addition, the EcInGran is responsible for updating the granule state, transferring data files into Ingest, building file lists, and grouping files with valid ESDTs. ~

#### **Classes**

- InDataTransferTask -- InDataTransferTask class conducts data transfer from the external sources into Ingest subsystem.
- InGranuleAsync\_S -- The InGranuleAsync\_S class is the server-side component of the asynchronous granule request capability.
- InGranuleDispatcher -- This is the customized version of the Ingest granule dispatcher object.
- InGranuleServer -- The InGranuleServer class listens for incoming granule request messages.

#### **Libraries (static)**

- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsSeCryptoDes -- This library contains the APIs for the DES encryption algorithm.
- des -- This library represents the core DES APIs.

- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmn -- This internal library contains the interface that the code uses to do database access and run stored procedures.
- DsStFtp
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- DsStSt -- Both client and server code are contained in the library.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcUtMisc -- This library contains miscellaneous utilities.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- InADPP
- InConfig -- This library provides a class which is used by each Ingest executable to obtain parameters from its configuration file.
- InDBaccUt -- This library provides classes which allows access to the Ingest database.
- InGranuleC -- This library supports the client side of the SRF request.
- InGranuleMsg -- This library supports the messages needed for SRF to communicate between Granule Server and Request Manager.
- InMetadataToolAPI -- This library provides the class which accesses the PGS Toolkit from a non PGE C++ environment.
- InMsg -- This library provides classes that are used for all data messages exchanged between the external source and Ingest.
- InPreprocess -- This library provides preprocessing functions.
- InResource -- This library allocates resources for staging disk and IngestFtp.
- InRmQueue -- This library contains code for Request Managers queue.
- InSnowIce -- This library provides the class which inserts all of the data sets extracted from the native format file into SDSs within HDF-EOS.

- InTOMS -- This library provides the class that is designed to pre-process TOMS data in CD-ROM format into the standard ECS Internal format.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh

- EcSeUtilityCtStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EclnGUI**

/ecs/formal/INGEST/GUI/src/gui

Provides operations personnel with the capability, via the GUI Interface, to perform physical media ingest; to monitor the ingest history log; to monitor the status of ongoing ingest requests; to initiate or cancel an ingest request and to modify Ingest configuration parameters.

#### **Classes**

- IngestMW -- Parent Class that controls/drives the other four ingest GUI.
- IngestMWDerived
- InHistoryLog -- Provides History Log GUI functionality.
- InHistoryLogDerived
- InMediaIngest -- Provides hard media ingest functionality.
- InMediaIngestDerived
- InOperatorTools
- InOperatorToolsDerived
- InReqCtrlBarGraph
- InReqCtrlBarGraphDerived
- InRequestController
- InRequestControllerDerived
- UIComponent -- Base class for all C++/Motif UI components.

#### **Libraries (static)**

- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsSeCryptoDes -- This library contains the APIs for the DES encryption algorithm.
- des -- This library represents the core DES APIs.

- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(ODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmn -- This internal library contains the interface that the code uses to do database access and run stored procedures.
- DsStFtp
- DsStPull -- This library contains the server and client code for the pull cache manager.
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- DsStSt -- Both client and server code are contained in the library.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcPoDbRW
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- InConfig -- This library provides a class which is used by each Ingest executable to obtain parameters from its configuration file.
- InDBaccUt -- This library provides classes which allows access to the Ingest database.
- InGuiUt -- This library provides generic GUI capabilities.
- InMsg -- This library provides classes that are used for all data messages exchanged between the external source and Ingest.
- InResource -- This library allocates resources for staging disk and IngestFtp.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- EcCfSh
- EcDcMsgPsng1Sh

- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcInInter**

/ecs/formal/INGEST/GUI/src/html

Allows external data provider access to ECS Ingest services via the Internet.

#### **Classes**

- InHtPageRep -- Class representing HTML page consisting of header, body and footer.
- InInteractiveIngest -- Class that allows external data provider access to ECS Ingest services via the Internet.
- InRequestMgrIF\_1\_0

### **Libraries (static)**

- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsSeCryptoDes -- This library contains the APIs for the DES encryption algorithm.
- des -- This library represents the core DES APIs.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmn -- This internal library contains the interface that the code uses to do database access and run stored procedures.
- DsStFtp
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- DsStSt -- Both client and server code are contained in the library.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcHt -- This library provides classes that contain operations to handle all HTML tags.
- EcUtMisc -- This library contains miscellaneous utilities.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- InConfig -- This library provides a class which is used by each Ingest executable to obtain parameters from its configuration file.
- InDBaccUt -- This library provides classes which allows access to the Ingest database.
- InMsg -- This library provides classes that are used for all data messages exchanged between the external source and Ingest.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- EcCfSh
- EcDcMsgPsng1Sh

- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcInPolling**

/ecs/formal/INGEST/Polling/src/poll

Creates the proper polling request, detects new files of interest at a tunable period of time in an external or local disk location, creates a unique identifier for the request, submits requests, and reports the status of its ongoing requests.

#### **Classes**

- InPollingIngestSession -- This object class does not have any control link with the external interface (i.e., no physical stimulus provided from external source).
- InRequestMgrIF\_1\_0

### **Libraries (static)**

- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsSeCryptoDes -- This library contains the APIs for the DES encryption algorithm.
- des -- This library represents the core DES APIs.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmn -- This internal library contains the interface that the code uses to do database access and run stored procedures.
- DsStFtp
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- DsStSt -- Both client and server code are contained in the library.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcUtMisc -- This library contains miscellaneous utilities.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- InConfig -- This library provides a class which is used by each Ingest executable to obtain parameters from its configuration file.
- InDBaccUt -- This library provides classes which allows access to the Ingest database.
- InFTP -- This library provides a class with file transfer capabilities.
- InHostInfo
- InMsg -- This library provides classes that are used for all data messages exchanged between the external source and Ingest.
- InSysCmd -- This library provides classes which allows applications to invoke multi-line unix commands.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.

- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcInReqMgr**

/ecs/formal/INGEST/RequestMgr/src/Request

The EcInReqMgr is the core process which manages the ingest request traffic and the processing of the ingest requests, and the Ingest database in the event of a failure. ~ ~ ~

## Classes

- InRequest -- This object class contains information provided by the requester or the external data source requesting ingest of data to ECS.
- InRequestManager -- Receive RPC from Client and create InRequest object to process the RPC Ingest request.
- InRequestMgrIF\_1\_0\_ABS
- InRequestMgrIF\_1\_0\_Mgr
- InRequestServer

## Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- CsSeCryptoDes -- This library contains the APIs for the DES encryption algorithm.
- des -- This library represents the core DES APIs.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsStCmn -- This internal library contains the interface that the code uses to do database access and run stored procedures.
- DsStFtp
- DsStRes -- This library provides the common functionality for all of the resource manager servers. Libraries are maintained for both SGI and Sun.
- DsStSt -- Both client and server code are contained in the library.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.

- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- InConfig -- This library provides a class which is used by each Ingest executable to obtain parameters from its configuration file.
- InDBaccUt -- This library provides classes which allows access to the Ingest database.
- InGranuleC -- This library supports the client side of the SRF request.
- InGranuleMsg -- This library supports the messages needed for SRF to communicate between Granule Server and Request Manager.
- InMsg -- This library provides classes that are used for all data messages exchanged between the external source and Ingest.
- InResource -- This library allocates resources for staging disk and IngestFtp.
- InRmQueue -- This library contains code for Request Managers queue.

- InUpdateUR -- This library provides definitions and prototypes for InUpdateUR class.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

## Subsystem CLS

The Client Subsystem provides a collection of components through which users access the services and data available in EOSDIS and other systems interoperable with EOSDIS. The Client Subsystem components fall into one of the following general categories: a) An intuitive desktop manager, which manages desktop objects (files) in the user's local file space, and which represent applications and data in the domain of the client; and b) Application programs accessible through user interfaces which implement the range of functionality available in the client.

### **process EcCIDtDesktopDaacUser**

/ecs/formal/CLS/DESKT/src/Desktop

The DAAC desktop is intended for use by DAAC operations staff or anyone needing DCE authentication services. The DCE login account is assumed to have the same user ID as the user's Unix login. The DAAC desktop includes the desktop manager and a set of default icons applicable to the role of the operator.

#### **Classes**

- Application -- Allow main and MainWindow to access protected member functions.
- CIDtAction -- Contains methods to execute all actions like opening directories, files and animating image files.
- CIDtApplicationObject -- This class manages all actions on a application icon.
- CIDtBuildProfile
- CIDtChangePerm
- CIDtContainerObject -- This class manages all actions on a container icon.
- CIDtDeleteItem -- This class has methods to execute Delete Item pulldown menu option in the desktop.

- CIDtDesktopObject -- Base class for CIDtDocumentObject, CIDtContainerObject & CIDtApplicationObject.
- CIDtDesktopObjectFactory -- Reads the action files & creates the corresponding desktop object.
- CIDtDesktopWindow -- This class builds the desktop window.
- CIDtDisplayArea -- This class builds along with its base classes display area for the icons.
- CIDtDocumentObject -- This class manages all actions on a document icon.
- CIDtFile -- This class has methods to execute File menu option in the desktop.
- CIDtGlobal
- CIDtHelp -- This class has methods to execute Help menu option in the desktop.
- CIDtHierarchical -- Hierarchical display of a directory tree.
- CIDtIconic -- Iconic display of a directory.
- CIDtLoginWindow -- Creates a dialog for users to log into prior to accessing the "main" desktop window.
- CIDtMessageDialog -- Manages different types of dialogs.
- CIDtModifyActions -- Class for building Modify Actions Dialog to edit actions file.
- CIDtModifyDND -- Class for building Modify Drag and Drop Info Dialog to edit actions file.
- CIDtSelected -- This class has methods to execute Selected menu option in the desktop.
- CIDtTools
- CIDtUndoDelete -- Contains methods to Undo Delete.
- CIDtUserPreferences -- Class for building Preferences Dialog.
- CIDtView
- CIDtXPlaces -- Class for getting positions of various windows and save their locations.

### **Libraries (static)**

- CIDtProfileToOdl -- This library is used to read and write ODL parameters specific for the User Profile Gateway.
- ECSAuthn
- MD5Encrypt
- UIComponent -- This library contains generic user interface components used by the desktop such as menu bars, busy cursors, etc.
- xpm -- The Xpm library is a public domain pixmap display library.

## **process EcCIDtDesktopSciUser**

/ecs/formal/CLS/DESKT/src/Desktop

The Science User Desktop is the desktop intended to be used by end-users of ECS. It is independent of DCE and communicates to the User Profile Gateway over TCP/IP sockets. It includes a desktop manager and default set of icons for services that a science user would typically use.

### **Classes**

- Application -- Allow main and MainWindow to access protected member functions.
- CIDtAction -- Contains methods to execute all actions like opening directories, files and animating image files.
- CIDtApplicationObject -- This class manages all actions on a application icon.
- CIDtBuildProfile
- CIDtChangePerm
- CIDtContainerObject -- This class manages all actions on a container icon.
- CIDtDeleteItem -- This class has methods to execute Delete Item pulldown menu option in the desktop.
- CIDtDesktopObject -- Base class for CIDtDocumentObject, CIDtContainerObject & CIDtApplicationObject.
- CIDtDesktopObjectFactory -- Reads the action files & creates the corresponding desktop object.
- CIDtDesktopWindow -- This class builds the desktop window.
- CIDtDisplayArea -- This class builds along with its base classes display area for the icons.
- CIDtDocumentObject -- This class manages all actions on a document icon.
- CIDtFile -- This class has methods to execute File menu option in the desktop.
- CIDtGlobal
- CIDtHelp -- This class has methods to execute Help menu option in the desktop.
- CIDtHierarchical -- Hierarchical display of a directory tree.
- CIDtIconic -- Iconic display of a directory.
- CIDtLoginWindow -- Creates a dialog for users to log into prior to accessing the "main" desktop window.
- CIDtMessageDialog -- Manages different types of dialogs.
- CIDtModifyActions -- Class for building Modify Actions Dialog to edit actions file.
- CIDtModifyDND -- Class for building Modify Drag and Drop Info Dialog to edit actions file.
- CIDtSelected -- This class has methods to execute Selected menu option in the desktop.

- CIDtTools
- CIDtUndoDelete -- Contains methods to Undo Delete.
- CIDtUserPreferences -- Class for building Preferences Dialog.
- CIDtView
- CIDtXPlaces -- Class for getting positions of various windows and save their locations.

### **Libraries (static)**

- CIDtProfileToOdl -- This library is used to read and write ODL parameters specific for the User Profile Gateway.
- ECSAuthn
- MD5Encrypt
- UIComponent -- This library contains generic user interface components used by the desktop such as menu bars, busy cursors, etc.
- xpm -- The Xpm library is a public domain pixmap display library.

### **process EcCIDtInController**

/ecs/formal/CLS/DESKT/src/Installer/AdvInstaller

### **Classes**

- CInWorkstationInstall -- This class encapsulate the processing required to get the information need to know what we have to install on a workstation and it encapsulate the process of installing.

### **Libraries (static)**

- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- EcUtNoPF -- EcUtNoPF is a utility library for all the ECS applications that do not use Process Framework.
- IoAdInstallBase -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.

### **process EcCIDtUserProfileGateway**

/ecs/formal/CLS/DESKT/src/ProfileGateway

The User Profile Gateway acts as a user profile retrieval engine for the Science User Desktop. The server listens on a socket for calls from the desktop. It also supports updates to the profile from the B0SOT.

## Classes

- CIDtBuildProfile
- CIDtManagedServer
- CIDtProfileServer
- CIDtRpc\_1\_0
- CIDtRpc\_1\_0\_ABS
- CIDtRpc\_1\_0\_Mgr

## Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CIDtProfileToOdl -- This library is used to read and write ODL parameters specific for the User Profile Gateway.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityCtStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.

- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **process EcCIWbDc**

/ecs/formal/CLS/WKBCH/DDC

#### **Classes**

- CIWbDcAttribute -- Stores the Attribute specific data.
- CIWbDcCollBase -- Stores the CollBase specific data.
- CIWbDcCollection -- Stores the Collection specific data.
- CIWbDcGroup -- Stores the Group specific data.
- CIWbDcInfoMgr -- Stores the InfoMgr specific data.
- CIWbDcInfoMgrParent -- Stores the InfoMgrParent specific data.
- CIWbDcKeyword -- Stores the Keyword specific data.
- CIWbDcNumericValue -- Stores the NumericValue specific data.
- CIWbDcQuery
- CIWbDcQueryFactory
- CIWbDcRequest -- This class is the main controller of the DDICT Cache.
- CIWbDcSpatial -- Stores the Spatial specific data.
- CIWbDcSpatialValue -- Stores the SpatialValue specific data.
- CIWbDcStringValue -- Stores the StringValue specific data.
- CIWbDcTemporal -- Stores the Temporal specific data.
- CIWbDcTemporalValue -- Stores the TemporalValue specific data.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.

- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DmDdMsg
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(ODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDmDdClient -- The library establishes and maintains a session with the DDICT server.
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **Libraries (shared)**

- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.

### **process EcCIWbDtDART**

/ecs/formal/CLS/WKBCH/DAR

This is an X/Motif GUI that allows users to submit Data Acquisition Requests to the ASTER Ground Data System. A subscription is submitted on behalf of the user for notification whenever a data granule with the specified DAR ID is inserted into ECS. User's also may modify their existing DARs with this tool.

### **Classes**

- AreaOfInterest -- The areaofinterest class provides the functionality to define and display a polygon that is an area of interest.
- Budget
- BulletinBoard3
- BulletinBoard8
- BulletinBoard9
- DurationEntryDH

- EcDaSpecialRequest
- EcDaSubmissionInfo
- EcDaViewGeom
- ExtDateEntry
- ExtDateInterval
- FileManager
- FloatNumberEntry
- Form8
- Form9
- GlobalPosition -- Encapsulates the attributes and operations necessary to complement a Latitude/Longitude Pair.
- GroundTrack
- InstrMode
- Lat\_LongEntry
- Latitude -- To encapsulate the attributes and operations necessary to implement a Latitude.
- LatLong
- Longitude -- To encapsulate the attributes and operations necessary to implement a Longitude.
- MainWindow
- MyClient
- NumberEntry
- OkCancel
- PlusMinusEntry
- SpatialMap
- SubscriptionInterface
- TextFile
- Track
- UIComponent -- Base class for all C++/Motif UI components.
- ViewSwath
- Xar

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReLA -- This library provides a Wrapper for FTP.

- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcGwDAR -- This library is the DAR Communications client library which client applications should link with to communicate with the DAR Gateway.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.

- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- srf -- The SRF library provides the necessary mechansim for the application to communicate asynchronously with another application.

## **process EcCIWbJessProxyServer**

/ecs/formal/CLS/WKBCH/JessProxy

### **Classes**

- EcCIWbJessProxyServer

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcCIWbUr**

/ecs/formal/CLS/WKBCH/URT

This is the CGI script that displays the User Registration input form to the user. It uses an HTML template to dynamically generate the form.

#### **Classes**

- CIWbUrAddress -- This class provides a base for three different types of addresses - Mailing, Billing, and Shipping.
- CIWbUrProfile

- CIWbUrRequest
- CIWbUrUserInfo

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcCIWbCgiVar -- This library contains utilities to read HTML templates and build HTML pages from the templates.
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.

- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **process EcCIWbUrConfirm**

/ecs/formal/CLS/WKBCH/URT

#### **Classes**

- CIWbUrAddress -- This class provides a base for three different types of addresses - Mailing, Billing, and Shipping.
- CIWbUrProfile
- CIWbUrRequest
- CIWbUrUserInfo

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcCIWbCgiVar -- This library contains utilities to read HTML templates and build HTML pages from the templates.
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW

- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **process EcCIWbUrSubmit**

/ecs/formal/CLS/WKBCH/URT

#### **Classes**

- CIWbUrAddress -- This class provides a base for three different types of addresses - Mailing, Billing, and Shipping.
- CIWbUrProfile
- CIWbUrRequest
- CIWbUrUserInfo

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

- EcCf
- EcCIWbCgiVar -- This library contains utilities to read HTML templates and build HTML pages from the templates.
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- CIDtProfileToOdl -- This library is used to read and write ODL parameters specific for the User Profile Gateway.
- CIDtV0BOSUserProfile
- EcCIWbCgiVar -- This library contains utilities to read HTML templates and build HTML pages from the templates.

- UIComponent -- This library contains generic user interface components used by the desktop such as menu bars, busy cursors, etc.
- xpm -- The Xpm library is a public domain pixmap display library.

## Subsystem DMS

The Data Management Subsystem (DMS) receives service request (to search the inventory or directory databases, to browse search results or to order data) from a user's client (i.e., a GUI), translates it from ODL to ECS formats, forwards it to the SDSRV and vice versa.

### process DmAsEcsToAsterServer

/ecs/formal/DM/ASTGW/src/EcsToAsterServer

#### Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReLA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DmLmDbi -- The DmLmDbi library contains utilities for interfacing and connecting with the DDICT database.
- DmLmExtIf -- The DmLmExtIf library contains classes that allow the LIMGR to interface with external information managers.
- DmLmGlobal -- The global CSC provides classes for DM subsystem to handle the global variables.
- DmLmInfoMgrFactory -- The DmLmInfoMgrFactory library contains classes that create the correct type of external interface used by the LIMGR to access external interfaces.
- DmLmMapper -- The DmLmMapper library contain a class used to map client attribute names to science data server attribute names and map ECS attribute names and values to VO attribute names and values.
- DmLmMsg -- The msg CSC provides classes for DM subsystem server and client.
- DmLmReqProc -- The reqproc CSC provides classes for DM subsystem server.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDmLmClient
- EcDmLmLimServer -- The server CSC provides classes for DM subsystem servers, it contains classes for making LIM server.
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDmDdMaintenanceTool**

/ecs/formal/DM/DDICT/src/ddmaint

#### **Classes**

- DmDdMtAcronymEditor -- This class implements an editor, which allows operators to create, view and modify Acronyms in the Data Dictionary database.
- DmDdMtAction -- This is an abstract base class.
- DmDdMtActionQueue -- This class is designed to assist in the management of actions on the main window.
- DmDdMtAddAdvAction -- This is a concrete class, that knows how to add database data elements.
- DmDdMtAddDataAction -- This is a concrete class, that knows how to add database data elements.
- DmDdMtAddLinkAction -- This class is designed to assist in addition of links between database items.
- DmDdMtAttributeEditor -- This class implements an editor, which allows operators to create, view and modify Attributes in the Data Dictionary database.
- DmDdMtBooleanTuple -- This class provides specific support for the display and manipulation of boolean tuples.
- DmDdMtCollectionEditor -- This class implements an editor, which allows operators to create, view and modify Collections in the Data Dictionary database.

- DmDdMtCollInfo -- This class is more of a structure whose sole purpose in life is to contain some intermediate form of data - that is used for sorting the result set of a query by ArchiveName.
- DmDdMtDatabaseSelectionDialog -- DmDdMtDatabaseSelectionDialog class.
- DmDdMtDatasetGroup -- A class to generate V0 IMS dataset in ODL protocol.
- DmDdMtDBExtract -- This is an interface to the DDICT server while exporting Valids.
- DmDdMtDeleteDataAction -- This is an concrete class, that knows how to delete database data elements.
- DmDdMtDeleteLinkAction -- This class is designed to assist in deletion of links between database items.
- DmDdMtDescriptionMapper -- Maps source constants to variable configuration file values to allow run time instead of compile time changes to the database schema.
- DmDdMtDialogDirector -- The Dialog Director is an abstract base class used to facilitate communication between a main window and a dialog class.
- DmDdMtEditDataAction -- This is an concrete class, that knows how to edit database data elements.
- DmDdMtEditorDialogDirector -- The Editor Dialog Director is an abstract base class used to facilitate communication between a main window and an editor dialog class.
- DmDdMtExportAction -- This is an concrete class, that knows how export collections.
- DmDdMtExportDeleteAction -- This is an concrete class, that knows how delete items from the export list.
- DmDdMtExportFile -- Creates a V0 IMS export file of ECS metadata.
- DmDdMtExtendedDateTime -- This code is mostly generated automatically by Builder Xcessory.
- DmDdMtFileDialogDirector -- FileDialogDirector is a concrete class based on the Dialog Director.
- DmDdMtFileSelectionDialog -- This class represents a standard Motif file selection dialog.
- DmDdMtGlossaryEditor -- This class is implements an edior, which allows operators to create, view and modify Glossarys in the Data Dictionary database.
- DmDdMtInformationManagerEditor -- This class is implements an edior, which allows operators to create, view and modify Information Managers in the Data Dictionary database.
- DmDdMtInfoToCollAction -- This is an concrete class, that knows how to Map collections to info y// managers.
- DmDdMtInstrumentEditor -- This class is implements an edior, which allows operators to create, view and modify Instruments in the Data Dictionary database.
- DmDdMtIntegerTuple -- This class provides specific support for the display and manipulation of integer tuples.

- DmDdMtKeywordEditor -- This class implements an editor, which allows operators to create, view and modify Keywords in the Data Dictionary database.
- DmDdMtListHelper -- This class is designed to assist in the management of lists on the main window.
- DmDdMtListItem -- This class is designed to assist in the management of lists on the main window.
- DmDdMtMainWindow
- DmDdMtMapAction -- This is a concrete class, that knows how to Map collections.
- DmDdMtMessageHelper -- This class is designed to assist in determining required elements in DDICT messages, such as insert and update messages.
- DmDdMtModifyAttributeAction -- This is a concrete class, that knows how to Map collections.
- DmDdMtMultipleAction -- This is a concrete class, that knows how to deal with multiple collections.
- DmDdMtNameMapper -- This class is designed to assist in mapping names from an external value to an internal value.
- DmDdMtPlatformEditor -- This class implements an editor, which allows operators to create, view and modify Platforms in the Data Dictionary database.
- DmDdMtRealTuple -- This class provides specific support for the display and manipulation of real tuples.
- DmDdMtReleaseAction -- This is a concrete class, that knows how to release collections.
- DmDdMtSelectDialogDirector -- SelectDialogDirector is a concrete class based on the Dialog Director.
- DmDdMtSelectElistDialogDirector -- SelectElistDialogDirector is based on the Select Dialog Director.
- DmDdMtSensorEditor -- This class implements an editor, which allows operators to create, view and modify Sensors in the Data Dictionary database.
- DmDdMtStringTuple -- This class provides specific support for the display and manipulation of string tuples.
- DmDdMtTab -- This class is designed to assist in the management of tabs on the main window.
- DmDdMtTabHelper -- This class is designed to assist in the management of tabs on the main window.
- DmDdMtTables -- This class is designed to describe the view of tables in the data dictionary, as provided to the maintenance tool operator.
- DmDdMtThreeWayToggle
- DmDdMtTuple -- This class provides generic support for the display and manipulation of data tuples.

- DmDdMtUndoAction -- This is an concrete class, that knows how to undo other actions.
- DmDdMtValidGroup
- MainWindow
- UIComponent -- Base class for all C++/Motif UI components.

### **Templates**

- DmDdMtGenericEditorDialogDirector -- The Generic Editor Dialog Director is a concrete class used to facilitate communication between a main window and an editor dialog class.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DmDdMsg
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDmDdClient -- The library establishes and maintains a session with the DDICT server.
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.

- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- srf -- The SRF library provides the necessary mechansim for the application to communicate asynchronously with another application.

#### **Libraries (shared)**

- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.

## **process EcDmDictServer**

/ecs/formal/DM/DDICT/src/ddserver

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.

- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- srf -- The SRF library provides the necessary mechansim for the application to communicate asynchronously with another application.

### **process EcDmEcsToV0Gateway**

/ecs/formal/DM/GatewayCSCI/src/EcsToV0Server

#### **Classes**

- DmGwManagedServer -- This is an example how an application can use Process Frame Work to create a managed server.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Common -- This library contains classes for the EcsToV0Server and V0ToEcsServer executables.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DmGwV0If -- The DmGwV0If library contains classes for all the ECS to V0 request processing.
- DmGwV0Util -- The DmGwV0Util library contains the implementation of functions used by the ECS to V0 Gateway for client/server interfaces.
- DmLmDbi -- The DmLmDbi library contains utilities for interfacing and connecting with the DDICT database.
- DmLmExtIf -- The DmLmExtIf library contains classes that allow the LIMGR to interface with external information managers.
- DmLmMapper -- The DmLmMapper library contain a class used to map client attribute names to science data server attribute names and map ECS attribute names and values to VO attribute names and values.
- DmLmMsg -- The msg CSC provides classes for DM subsystem server and client.
- DmLmReqProc -- The reqproc CSC provides classes for DM subsystem server.

- DmLmV0IfFactory -- The DmLmV0IfFactory library contains classes that create the correct type of external interface used by the LIMGR to access external interfaces.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDmLmLimServer -- The server CSC provides classes for DM subsystem servers, it contains classes for making LIM server.
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthn -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContext -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.

- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **Libraries (shared)**

- DmLmGlobalSh -- The global CSC provides classes for DM subsystem to handle the global variables.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- MsAcClntSh -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcCommSh -- This library contains class used for both Accountability Server and Client

## **process EcDmLimServer**

/ecs/formal/DM/LIMGR/src/server

The server CSC provides classes for DM subsystem servers, it contains classes for making LIM server. It makes the LIM server executable program EcDmLimServer.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DmLmDbi -- The DmLmDbi library contains utilities for interfacing and connecting with the DDICT database.
- DmLmExtIf -- The DmLmExtIf library contains classes that allow the LIMGR to interface with external information managers.
- DmLmGlobal -- The global CSC provides classes for DM subsystem to handle the global variables.
- DmLmInfoMgrFactory -- The DmLmInfoMgrFactory library contains classes that create the correct type of external interface used by the LIMGR to access external interfaces.
- DmLmMapper -- The DmLmMapper library contain a class used to map client attribute names to science data server attribute names and map ECS attribute names and values to VO attribute names and values.
- DmLmMsg -- The msg CSC provides classes for DM subsystem server and client.
- DmLmReqProc -- The reqproc CSC provides classes for DM subsystem server.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDmLmClient
- EcDmLmLimServer -- The server CSC provides classes for DM subsystem servers, it contains classes for making LIM server.

- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.

- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDmV0ToEcsGateway**

/ecs/formal/DM/GatewayCSCI/src/ProgFrame

The EcDmV0ToEcsGateway program runs the V0 Gateway server. This program initializes the ManagedServer class which listens for new requests over the socket. If a request comes in, a thread is spawned and the RequestReceiver class is instantiated. This class checks authentication and determines the type of request to be processed.

#### **Classes**

- DmGwIKSocket -- This class encapsulates the IK library routines in a class and removes all global variables required to operate.
- DmGwRequestReceiver -- This class takes in a socket descriptor and request id and executes the contents of the socket in the Gateway and returns the resultant request on the new socket id.
- MyManagedServer -- This class is the V0Gateway server class built on the top of process framework managed server class.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Common -- This library contains classes for the EcsToV0Server and V0ToEcsServer executables.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DmLmDbi -- The DmLmDbi library contains utilities for interfacing and connecting with the DDICT database.
- DmLmExtIf -- The DmLmExtIf library contains classes that allow the LIMGR to interface with external information managers.
- DmLmGlobal -- The global CSC provides classes for DM subsystem to handle the global variables.
- DmLmMsg -- The msg CSC provides classes for DM subsystem server and client.

- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDmLmClient
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthn -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContext -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Persistent
- RequestProcessing

- Server
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **Libraries (shared)**

- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(ODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- MsAcClntSh -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcCommSh -- This library contains class used for both Accountability Server and Client

## **Subsystem IOS**

The Interoperability Subsystem(IOS) receives advertising information from ECS and non-ECS service providers, and provides interfaces for users to access to the advertising information.

## **process EcloAdServer**

/ecs/formal/IOS/AdvService/src/Server

### **Classes**

- TestServerObject

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.

- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodamGroups**

/ecs/formal/IOS/AdvService/src/Progs

Driver program to display create/update/delete group forms and also to create/update/delete groups.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodamGroupSearch**

/ecs/formal/IOS/AdvService/src/Progs

CGI program for doing a search on moderation groups.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

## **process IoAdEsodamModeration**

/ecs/formal/IOS/AdvService/src/Progs

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodamModerationForm**

/ecs/formal/IOS/AdvService/src/Progs

CGI program that displays a request to be moderated.

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodamModerationGroups**

/ecs/formal/IOS/AdvService/src/Progs

CGI program for doing a search of groups.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodamModerationQueue**

/ecs/formal/IOS/AdvService/src/Progs

CGI program that lists all the ads to be moderated for a given group.

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodamObsoleteReqs**

/ecs/formal/IOS/AdvService/src/Progs

CGI program that displays obsolete requests.

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodContributionForm**

/ecs/formal/IOS/AdvService/src/Progs

CGI program to display a form for creating/updating/deleting advertisements.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodContributions**

/ecs/formal/IOS/AdvService/src/Progs

CGI program to create/update/delete advertisements.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodEntryDetail**

/ecs/formal/IOS/AdvService/src/Progs

CGI program that displays an advertisement in detail.

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodGroupDetail**

/ecs/formal/IOS/AdvService/src/Progs

CGI program that displays a moderation group in detail.

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.

- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodScienceSearch**

/ecs/formal/IOS/AdvService/src/Progs

CGI program for finding particular advertisements based on a combination of criteria. An entry will be displayed if it meets all of the criteria specified in all of the sections.

## **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

## **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.

- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

## **process loAdEsodScienceSearchForm**

/ecs/formal/IOS/AdvService/src/Progs

CGI program that displays a form for searching to be performed on data advertisements only based on the time ranges, geo-coordinates, and attributes specified.

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.

- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.

- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

## **process IoAdEsodTextSearch**

/ecs/formal/IOS/AdvService/src/Progs

CGI program for doing a general search of advertisements based on a search string. (Also does filtering based on class IDs -- can retrieve Product ads alone, Service ads alone, etc...)

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH

- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh

- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodTextSearchForm**

/ecs/formal/IOS/AdvService/src/Progs

CGI program that displays a form to allow searching to be performed on all advertisements by specifying search words on Title, Description, or Keywords.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.

- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.

- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

## **process IoAdEsodUpdateTemplate**

/ecs/formal/IOS/AdvService/src/Progs

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh

- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GISH -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh

- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdEsodWhatsNew**

/ecs/formal/IOS/AdvService/src/Progs

CGI program for finding advertisements that are less than "certain days" old.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh

- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh

- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process IoAdInstallForm**

/ecs/formal/IOS/AdvService/src/Progs

Main program for both showing install forms for services and processes the form when complete.

#### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcHtSh -- This library provides classes that contain operations to handle all HTML tags.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.

- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeAuthnSh -- The security authentication library allows a server to obtain a DCE login key via user input.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContextSh -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdHtmlCoreSh
- IoAdHtmlSubsSh
- IoAdInstallBaseSh -- The installer allows one to install a compressed tar file containing some kind of application (modelled through a "IoAdInstallableServiceAdv") or a URL to get to a WWW service (modelled through a "IoAdMimeServiceAdv") onto a users workstation.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.

- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

## Subsystem PLS

The Planning Subsystem (PLS) supports the operations staff in managing the data productions activities at a site. It assists with two major functions:

- \* Defining the data processing tasks (processes to run) to be performed at a site.
- \* Generating efficient data productions plans for the scheduling of those tasks.

In addition, PLS coordinates the procedure with the Data Server and Data processing subsystems to achieve a highly automated productions system.

### process EcPIOnDemand

/ecs/formal/PDPS/PLS/PLANG/src/OnDemand

#### Classes

- MyManagedServer -- This is an example how an application can use Process Frame Work to create a managed server.
- OndemandPR\_1\_0\_ABS
- OndemandPR\_1\_0\_Mgr
- PIOnDemandPR

#### Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.

- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(ODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.

- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PlUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcPlOnDemandClient**

/ecs/formal/PDPS/PLS/PLANG/src/OnDemand

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.

- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GI -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcPIPReEditor**

/ecs/formal/PDPS/PLS/PLANG/src/PRE\_GUI

The production request editor GUI is a utility which provides operations personnel with the capability to define Production Requests (PRs) that are used as part of the planning process. This GUI is constructed with the aid of

Builder xcessory and combined with custom code which interfaces to the planning database for storage of PRs.

This utility application allows the users to enter production requests into the PDPS production system. The production requests are "exploded" into data processing requests, which may then be inspected within the GUI.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.

- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcPIPReEditor IF**

/ecs/formal/PDPS/PLS/PLANG/src/PRE\_GUI

The Planning User Interface (Production Request Editor) allows the Operations staff to submit production requests to describing the data products to generate. The production request uses the

PGE descriptions (profiles) entered during Algorithm Integration and Test (AI&T) to define the Data Processing Requests. The request adds, modifies, and deletes Production Requests, and reviews and modifies the resulting Data Processing Requests. The user specifies rules for producing the individual DPRs for the reprocessing requests. The production request editor is a distinct application and separate from the workbench because defining a production request is unrelated to the planning of a production request.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.

- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.

- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PLSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcPIPREditor SUB**

/ecs/formal/PDPS/PLS/PLANG/src/PRE\_GUI

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcPIProdStrat**

/ecs/formal/PDPS/PLS/PLANG/src/PIGui

The EcPIProdStrat GUI allows the user/operator to have control over the strategies used to determine priorities of the Data Processing Requests that are in a plan. Each plan will have a particular set of production strategies that are keyed to it, but the same production strategies can be used in multiple plans.

This GUI is developed with the aid of Builder xcessory (BX) and combined with custom code which interfaces to the planning database.

Production Strategies work on two levels. First the operator can update lists of DPR attributes such as PGE Type, Production Request Type and User Type. Each value an attribute can have is tied to a particular priority. Next the operator can change the weight that each attribute's priority is given. A weight is also given to the priority selected by the user who entered the request. In this way, a priority can be calculated for each DPR. There are number of deltas that can be added to the calculated priority

based on certain conditions. For example, an operator may select to increase the priority of all jobs that produce data that is needed by other DAACs or that have been waiting in the production queue for more than a day.

## Classes

- PIProdStratActive
- PIProdStratClient
- PIProdStratClusterPriority
- PIProdStratDelete
- PIProdStratExit
- PIProdStratMainForm
- PIProdStratOpen
- PIProdStratSaveAs
- UIComponent -- Base class for all C++/Motif UI components.

## Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl

- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.

- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PlUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

## **process EcPIRm**

/ecs/formal/PDPS/PLS/PLANG/src/PWB/rm/src

### **Classes**

- PIRmAppl -- Instances of PIRmAppl are resource model applications.
- PIRmCatalog -- An instance of PIRmCatalog is owned by a PIRmSrm client.
- PIRmSigHand -- Instances of PIRmSigHand are signal catchers for a resource model to detect termination signals and save our resource model states.
- PIRmSrm -- Instances of PIRmSrm are resource model editors that know about ecs notions, plan accesses, etc.
- PIRmSrmNoid -- The PIRmSrmNoid is an ipc msgAgent that services resource model requests.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPrelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.

- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.

- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- plac
- plcl
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- pldb
- plip
- plmi
- plpl
- plrc
- plrm
- plsc
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

## **process EcPIRpre**

/ecs/formal/PDPS/PLS/PLANG/src/RPL/sre

The Resource Planning Workbench prepares a schedule for the resources at each respective site, and forecasts the start and completion times of the ground events and the impact on the resources used within the schedule. The workbench allows the Operations staff to:

- \* Edit the resources currently available at a site.
- \* Associate the resources with production strings (logical groupings of resources used by AutoSys and Data Processing) when allocating resources for a particular PGE.
- \* Create ground events (maintenance, etc.) on the allocated resources.

### **Classes**

- PIRpreAppl -- Instances of PIRpreAppl are derived PIRpreDiAppl's capable of using it's noid to request resources from the resource model.
- PIRpreAutosysWin -- An instance of this class provides a view of the details associated with the selected Autosys resource.
- PIRpreComputerWin -- An instance of this class provides a view of the details associated with the selected computer (host) resource.
- PIRpreConfirmWin
- PIRpreDateDlg
- PIRpreDiskWin -- An instance of this class provides a view of the details associated with the selected disk partition resource.
- PIRpreHardwareWin -- An instance of this class provides a view of the details associated with the selected hardware resource.
- PIRpreMsgBox -- An instance of this provides a message popup box for displaying information to the user.
- PIRpreNoid -- Instances of PIRpreNoids handle resource planning related client noid messages.
- PIRpreRealComputerWin -- An instance of this class provides a view of the details associated with the selected realComputer resource.
- PIRpreSelBox -- An instance of this provides a message popup box for displaying information to the user.
- PIRpreStringWin -- An instance of this class provides a view of the details associated with the selected string resource.
- PIRpreWin -- This class is Motif Window for controlling the setup and display of the resource planning workbench.
- PIRpreWinAbs -- PIRpreWinAbs establishes protocol for System Resource Editor Windows.

## **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpDeletionClient -- The library containing the client side operations to issue requests to the deletion server.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrJM -- The Job Management library provides service routines for the Job Management Server to use to manage the flow of jobs in all AutoSys instances for a mode.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.

- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- plac
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...

- PCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- plip
- plmi
- plpl
- PIRpAc -- Manages the scheduling activities.
- PIRpCl -- Manages the resource model clients.
- PIRpDb -- Accesses and modifies the database.
- PIRpDi -- A resource model client display application.
- PIRpRc -- Manages resources.
- PIRpRe -- Manages the Resource Editor GUI.
- PIRpRm -- Manages the resource model.
- PIRpSc -- Manages schedulable resources.
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcPIRpRm**

/ecs/formal/PDPS/PLS/PLANG/src/RPL/srm

#### **Classes**

- PIRpRmAppl -- Instances of PIRpRmAppl are resource model applications.
- PIRpRmCatalog -- An instance of PIRpRmCatalog is owned by a PIRpRmSrm client.
- PIRpRmSigHand -- Instances of PIRpRmSigHand are signal catchers for a resource model to detect termination signals and save our resource model states.
- PIRpRmSrm -- Instances of PIRpRmSrm are resource model editors that know about ecs notions, plan accesses, etc.
- PIRpRmSrmNoid -- The PIRpRmSrmNoid is an ipc msgAgent that services resource model requests.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReLA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.

- DpPrDbPf
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed

- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- plac
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- plip
- plmi
- plpl
- PIRpAc -- Manages the scheduling activities.
- PIRpCl -- Manages the resource model clients.
- PIRpDb -- Accesses and modifies the database.
- PIRpRc -- Manages resources.
- PIRpRm -- Manages the resource model.
- PIRpSc -- Manages schedulable resources.
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

## **process EcPIRpSi**

/ecs/formal/PDPS/PLS/PLANG/src/RPL/si

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.

- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- plac
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...

- plip
- plmi
- plpl
- PIRpAc -- Manages the scheduling activities.
- PIRpCI -- Manages the resource model clients.
- PIRpDb -- Accesses and modifies the database.
- PIRpDi -- A resource model client display application.
- PIRpRc -- Manages resources.
- PIRpRm -- Manages the resource model.
- PIRpSc -- Manages schedulable resources.
- PIRpSi -- Manages the Resource Scheduler GUI.
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcPIRpTI**

/ecs/formal/PDPS/PLS/PLANG/src/RPL/tl

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCI -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.

- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

- GI -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- plac
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- plip
- plmi
- plpl
- PIRpAc -- Manages the scheduling activities.
- PIRpCl -- Manages the resource model clients.
- PIRpDb -- Accesses and modifies the database.
- PIRpRc -- Manages resources.
- PIRpSc -- Manages schedulable resources.
- PIRpTl -- Manages the scheduled Resources' Timeline GUI.
- PLSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcPISubMgr**

/ecs/formal/PDPS/PLS/PLANG/src/SubsMgr

The Subscription Manager (EcPISubMgr) is used to manage the receipt of subscription notifications from the Data Server.

These notifications inform Planning of the arrival of input data required by a given PGE through Universal References to the data which is stored on the Data Server. The Subscription Manager updates data availability information within the PDPS database based on this notification, and

releases jobs defined by Data Processing Request to the Processing Subsystem when all input data for a job becomes available. The Subscription Manager can also resubmit a subscription when a cancellation notification for that subscription is received, if the PDPS database indicate this data is still in need.

The Subscription Manager also has a "delayed query" feature which allows it to set up a timer for a query if the data is not available at the moment. Then when the timer goes off, the tool will query the Data Server for the data. The Subscription Manager can also support various production rules.

### **Classes**

- PInotification -- This object encapsulates the persistent storage of Subscription notification for PDPS.
- PISubMsgCb -- This class provides the main command logic to the subscription manager.
- PISubscriptionManager -- This class is the main application class for the subscription manager.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.

- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size.
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcPISubMgr NoDSS**

/ecs/formal/PDPS/PLS/PLANG/src/SubsMgr

#### **Classes**

- PINotification -- This object encapsulates the persistent storage of Subscription notification for PDPS.
- PISubMsgCb -- This class provides the main command logic to the subscription manager.
- PISubscriptionManager -- This class is the main application class for the subscription manager.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.

- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.

- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
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- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
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- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1IF
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PlUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcPISubMgr ResetDB**

/ecs/formal/PDPS/PLS/PLANG/src/SubsMgr

#### **Classes**

- PlNotification -- This object encapsulates the persistent storage of Subscription notification for PDPS.

- PISubMsgCb -- This class provides the main command logic to the subscription manager.
- PISubscriptionManager -- This class is the main application class for the subscription manager.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
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- DpPrDM -- This library supplies utility operations to manage data within DPS.
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- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
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- EcCf
- EcDcMsgPsng1
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- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
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- PlCore1IF
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...

- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcPISubsEdit**

/ecs/formal/PDPS/PLS/PLANG/src/SubsEdit

The Subscription Editor is an PDPS/PLS tool for submitting the subscriptions to the Subscription Server.

The Subscription Editor(EcPISubsEdit) can submit subscriptions for the Subscription Manager or a general user who would like to be notified through e-mail. This tool looks for the advertisement of subscribable events through the Advertisement Server and then submit the subscription for that event to the Subscription Server. This is a command-line tool used as a backup for automatic submission of subscription by the Production Request Editor.

#### **Classes**

- PISubsEditProc

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
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- EcDcMsgPsng1
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- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
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- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
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- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcPITI**

/ecs/formal/PDPS/PLS/PLANG/src/PWB/tl/src

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.

- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- plac
- plcl
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- pldb
- pldi
- plip
- plmi
- plpl
- plrc
- plrm
- plsc
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- pltl
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

## **process EcPIWb**

/ecs/formal/PDPS/PLS/PLANG/src/PWB/wb/src

The Production Planning Workbench prepares a schedule for the production at a site, and forecasts the start and completion times of the activities within the schedule.

Specifically, the Workbench allows:

- \* Candidate Plan Creation-from the production requests prepared by the Production Request Editor.
- \* Plan Activation-activating a candidate plan.
- \* Update of the Active Plan-feedback from the DPS activities are incorporated into the active plan.
- \* Cancellation/Modification of the Active Plan.

Activating a plan entails rolling a portion of a selected plan into the AutoSys COTS via the DPS. The "schedule" is managed within the DPS. The forecast times generated by the planner are used to set up operator alerts to gross departures from the predicted schedule.

### **Classes**

- PIWbAppl -- Instances of PIWbAppl are derived PIDiAppl's capable of using it's noid to request resources, plan names and activities from the resource model.
- PIWbCatalog -- The PIWbCatalog is a local process update catalog for updating the Scheduling System Interface pools.
- PIWbMotifNotifier
- PIWbNoid -- Instances of PIWbNoids handle planning workbench related client noid messages.
- PIWbOppGen -- Instances of PIWbOppGen are opportunity generators for the production planning workbench.
- PIWbPlanWin -- A PIWbPlanWin is a dialog which allows selection of a plan.
- PIWbPriorityWin -- A PIWbPriorityWin is a window which allows selection of a priority production requests.
- PIWbQuestionWin
- PIWbScheduler -- The PIWbScheduler is the scheduler for the production planning workbench.
- PIWbTimer -- Instances of PIWbTimer are timers used for scheduling timeouts and control.
- PIWbWin -- This class represents the main Motif Window for the production planning workbench.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.

- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).

- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- plac
- plcl
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- pldb
- pldi
- plip
- plmi
- plpl

- plrc
- plrm
- plsc
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- plwb
- plac
- plcl
- PICore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PICore1IF
- PICore1Sub
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- pldb
- pldi
- PIGUI
- PIGUIError -- This library contains the objects needed for SSIT and QA Monitor GUIs to display error messages.
- plip
- plmi
- PIOPrClient
- PIOPrClientStub
- PIOPrClientStubPrint
- plpl
- plrc
- plrm
- PIRpAc -- Manages the scheduling activities.
- PIRpCl -- Manages the resource model clients.
- PIRpDb -- Accesses and modifies the database.
- PIRpDi -- A resource model client display application.
- PIRpRc -- Manages resources.
- PIRpRe -- Manages the Resource Editor GUI.

- PIRpRm -- Manages the resource model.
- PIRpSc -- Manages schedulable resources.
- PIRpSi -- Manages the Resource Scheduler GUI.
- PIRpTl -- Manages the scheduled Resources' Timeline GUI.
- plsc
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- pltl
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- plwb
- PREGui -- This library contains the objects needed for the PReDitor GUI application..

## Subsystem DPS

The Data Processing Subsystem (DPS) executes Data Processing actions and manages the data processing resources at a provider site.

### **process DpPrMachine**

/ecs/formal/PDPS/DPS/PRONG/src/Tools

This program is a wrapper to unix "gethostname" function. When executed, this program will print the name of the current machine

### **Libraries (static)**

- DpPrException -- This library provides APIs to catch and handle signals.
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtNoPF -- EcUtNoPF is a utility library for all the ECS applications that do not use Process Framework.

### **process EcDpAtBadFunc**

/ecs/formal/PDPS/DPS/SSIT/src/PRO

This program is the command-line version of the Prohibited Function Checker tool. It allows the user to specify a source code file and checks for any prohibited functions within that file.

The Prohibited Function Checker Tool (GUI or command line) uses the files named "prohibitedFunctions" (with the language appended) to determine the list of prohibited functions for a given source code file. It parses the source file, and compares non-commented code against the prohibited function files.

The output file from the command-line version of the Prohibited Function Checker Tool is placed in the destination specified in the Process Control File (PCF) for SSIT.

To learn how to run the Prohibited Function Checker, see the file `DpAtMgr_pro.html` in ClearCase under `SSIT/src/PRO`, or on a machine where SSIT is installed under `/usr/ecs/<MODE>/CUSTOM/WWW/DPS`.

## Classes

- `DpAtMgrDirectory` -- This class manages directory information.
- `DpAtMgrProhibited` -- This class manages prohibited function data.
- `DpAtMgrSource` -- This class holds parsed source code information.

## Libraries (static)

- `agentevent` -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- `CsFtFTPReIA` -- This library provides a Wrapper for FTP.
- `CsFtFTPSchedObj` -- This library provides functions to use FTP at a scheduled time by the User.
- `DpAt` -- This `DpAt` library holds the SSIT classes that are called by various SSIT tools and programs.
- `EcAgInstrm` -- This library contains the instrumentation code which is linked into all ECS managed servers.
- `EcCf`
- `EcDcMsgPsng1`
- `EcDnDir` -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- `EcFh` -- This library provides fault handling capabilities to ECS applications.
- `EcNsServiceLoc` -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- `EcNsServiceLocator` -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- `EcPf`
- `EcPoDbRW`
- `EcPtSpecialLock` -- This library provides classes for mutex operations and thread IDs.
- `EcSeCmi` -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- `EcSeServerKeyMgmt` -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- `EcSeSybSecurityStubbed`

- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcDpAtBadFuncGui**

/ecs/formal/PDPS/DPS/SSIT/src/PRO

This program is the graphical interface version of the Prohibited Function Checker tool. It allows the user to select one or more source code files and performs a check for any prohibited functions within those file(s).

The Prohibited Function Checker Tool (GUI or command line) uses the files named "prohibitedFunctions" (with the language appended) to determine the list of prohibited functions for a given source code file. It parses the source file, and compares non-commented code against the prohibited function files.

The output from the GUI version of the Prohibited Function Checker Tool appears in a window display and allows the user to cycle through any prohibited functions found. This output may also be written to a file.

To learn how to run the Prohibited Function Checker, see the file DpAtMgr\_pro.html in ClearCase under SSIT/src/PRO, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

### **Classes**

- DpAtMgrDirectory -- This class manages directory information.
- DpAtMgrProhibited -- This class manages prohibited function data.
- DpAtMgrProhibitedFunctionGui
- DpAtMgrSource -- This class holds parsed source code information.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcDpAtBinDiffGui**

/ecs/formal/PDPS/DPS/SSIT/src/DIF

The Binary Difference Assistant GUI provides the SSIT operator with a graphical interface to create programs in C, FORTRAN, IDL and shell script for determining differences between binary files.

Templates for C, FORTRAN, IDL and shell scripts are provided with the program and are accessible through the interface. The GUI allows the user to create and compile programs to compare binary files of various formats.

To learn how to run the Binary Difference Assistant GUI, see the file `DpAtMgr_bidiff.html` in ClearCase under `SSIT/src/DIF`, or on a machine where SSIT is installed under `/usr/ecs/<MODE>/CUSTOM/WWW/DPS`.

### Classes

- `DpAtMgrBinDiffGuiEnterUniqueIDFORM`
- `DpAtMgrBinDiffGuihelpFORM`
- `DpAtMgrBinDiffGuiMainBBoard`
- `DpAtMgrBinDiffGuiScrollWindow`

### Libraries (static)

- `agentevent` -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- `CsFtFTPReIA` -- This library provides a Wrapper for FTP.
- `CsFtFTPSchedObj` -- This library provides functions to use FTP at a scheduled time by the User.
- `DpAt` -- This `DpAt` library holds the SSIT classes that are called by various SSIT tools and programs.
- `EcAgInstrm` -- This library contains the instrumentation code which is linked into all ECS managed servers.
- `EcCf`
- `EcDcMsgPsng1`
- `EcDnDir` -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- `EcFh` -- This library provides fault handling capabilities to ECS applications.
- `EcNsServiceLoc` -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- `EcNsServiceLocator` -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- `EcPf`
- `EcPoDbRW`
- `EcPtSpecialLock` -- This library provides classes for mutex operations and thread IDs.
- `EcSeCmi` -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- `EcSeServerKeyMgmt` -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- `EcSeSybSecurityStubbed`
- `EcSeUtilityDbStubbed`

- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcDpAtCheckODL**

/ecs/formal/PDPS/DPS/SSIT/src/Metadata

The Check ODL tool is a program that takes in a PGE name, version and Profile ID, and checks the ODL for that PGE for errors.

The Check ODL Tool takes in information about the PGE: name, version and Profile ID, and searches the directories specified in the configuration file for ODL location, for PGE, ESDT and Production Rule specific ODL files. If the files are found they are are parsed and any errors displayed on the screen.

To learn how to run the Check ODL tool, see the file DpAtMgr\_checkodl.html in ClearCase under SSIT/src/Metadata, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

### **Classes**

- DpAtDatabase -- This class's methods update the PDPS/SSIT database with PGE and ESDT operational and science metadata..
- DpAtOperationalMd -- This class's methods are callbacks for the PDPS/SSIT Database Update GUI, which updates the database with PGE operational metadata..
- DpAtScienceMd -- This class is used for access and manipulation of PGE and ESDT SCIENCE metadata, contained in ODL files.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- DpPrDbPf
- DpPrException -- This library provides APIs to catch and handle signals.

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.

- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

## **process EcDpAtCheckPCF**

/ecs/formal/PDPS/DPS/SSIT/src/PCF

The PCF Checker tool is a GUI that allows the user to select a PGE's Process Control File (PCF) and have it checked for syntax errors. Any errors found are displayed to the screen or can be written to a file.

The PCF Checker uses a Toolkit program to actually perform the check of the user-selected PCF. The SSIT portion of the PCF Checker is the GUI interface and the ability for the user to select files to be "checked" and to have the output sent to a window or a file.

To learn how to run the PCF Checker, see the file DpAtMgr\_pcf.html in ClearCase under SSIT/src/PCF, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

### **Classes**

- DpAtMgrCheckPcfInputFORM
- DpAtMgrCheckPcfOutputFORM

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf

- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcDpAtCreateODLTemplate**

/ecs/formal/PDPS/DPS/SSIT/src/Metadata

The Create ODL Template tool is a program that takes as an argument a Process Control File (PCF) and generates a template version of the PGE ODL file.

The Create ODL Template Tool takes in information about the PGE: name, version and Profile ID, along with the location of the PCF and where the output PGE ODL template file is to be placed. It then takes the inputs, outputs and runtime parameter information from the PCF and puts it in ODL format, leaving blank such things as ESDT names and versions, and scheduling information, anything that cannot be determined from the PCF. The user must then edit the produced template file to create a valid PGE ODL file.

To learn how to run the Create ODL Template tool, see the file DpAtMgr\_createodl.html in ClearCase under SSIT/src/Metadata, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

#### **Classes**

- DpAtDatabase -- This class's methods update the PDPS/SSIT database with PGE and ESDT operational and science metadata..
- DpAtOperationalMd -- This class's methods are callbacks for the PDPS/SSIT Database Update GUI, which updates the database with PGE operational metadata..
- DpAtScienceMd -- This class is used for access and manipulation of PGE and ESDT SCIENCE metadata, contained in ODL files.

## **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- DpPrDbPf
- DpPrException -- This library provides APIs to catch and handle signals.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PlUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcDpAtGetMCF**

/ecs/formal/PDPS/DPS/SSIT/src/Dsrv

The Get MCF tool is a program that acquires a Metadata Control File (MCF) from the Data Server for a given ESDT and version.

The Get MCF Tool takes in information about the ESDT for which the MCF is for, it's name and version, along with the directory where the MCF is to be placed. The tool then contacts the Data Server and requests the MCF for the specified ESDT. The MCF is placed in the directory specified by the caller.

To learn how to run the Insert Exe Tar File tool, see the file DpAtMgr\_getMCF.html in ClearCase under SSIT/src/Dsrv, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- DpAtDsrv -- This library holds the object through which almost all SSIT calls to interface with the Data Server.
- DpAtMetadata -- This library holds the objects (DpAtDatabase and DpAtOperationalMd) through which most SSIT PDPS database updates are performed.
- DpPrDbPf

- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).

- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechansim for the application to communicate asynchronously with another application.

## **process EcDpAtInsertExeTarFile**

/ecs/formal/PDPS/DPS/SSIT/src/Dsrv

The Exe Tar File tool is a program that inserts PGE Tar files (the executable and any required Toolkit message files) into the Data Server.

The Insert Exe Tar File Tool takes in information about the tar file and the PGE it is for, the PGE name and Science Software version, the name of executable within the tar file, and the name and location of the tar file and its metadata. It then checks the information, verifying that the PGE name and Science Software version exist in the PDPS database, that the file and metadata exist on the local disk and that the PGE executable exists in the tar file. If all information is valid, the tool contacts the Data Server and inserts the file. If the insert succeeds, the entry for the PGE Executable in the PDPS database (already created by another SSIT tool) is updated with the UR returned by Data Server. The PGE can then be acquired later when it is scheduled to run.

To learn how to run the Insert Exe Tar File tool, see the file `DpAtMgr_exetar.html` in ClearCase under `SSIT/src/Dsrv`, or on a machine where SSIT is installed under `/usr/ecs/<MODE>/CUSTOM/WWW/DPS`.

### **Libraries (static)**

- `agentevent` -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- `CsFtFTPRelA` -- This library provides a Wrapper for FTP.
- `CsFtFTPSchedObj` -- This library provides functions to use FTP at a scheduled time by the User.
- `DpAt` -- This `DpAt` library holds the SSIT classes that are called by various SSIT tools and programs.
- `DpAtDsrv` -- This library holds the object through which almost all SSIT calls to interface with the Data Server.
- `DpAtMetadata` -- This library holds the objects (`DpAtDatabase` and `DpAtOperationalMd`) through which most SSIT PDPS database updates are performed.
- `DpPrDbPf`
- `DpPrDM` -- This library supplies utility operations to manage data within DPS.
- `DpPrDssIF` -- This library contains the helper object for PDPS to interact with science data server.
- `DpPrEM` -- This library supplies utility operations to manage PGE execution within PRONG.
- `DpPrException` -- This library provides APIs to catch and handle signals.
- `DpPrRM` -- This library supplies utility operations to manage computer resources for PDPS.
- `DpPrTools` -- This library contains global utility functions.
- `DsCl` -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.

- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.

- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GI -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1IF
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PlUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDpAtInsertStaticFile**

/ecs/formal/PDPS/DPS/SSIT/src/Dsrv

The Insert Static File tool is a program that inserts Static Files (files that do not usually change from one run of the PGE to the next) into the Data Server.

The Insert Static File Tool takes in information about the file, its ESDT name and version, the science group its associated with (how static files are linked with PGEs), the name and location of the file and its metadata. It then checks the information, verifying that the ESDT name and version, along with the science group exist in the PDPS database, and that the file and metadata exist on the local disk. If all information is validated, it contacts the Data Server and inserts the file. If the insert succeeds, a granule entry for the file will be created in the PDPS database. The file can then be acquired later when a PGE that requires it as input is scheduled to run.

To learn how to run the Insert Static File tool, see the file `DpAtMgr_static.html` in ClearCase under `SSIT/src/Dsrv`, or on a machine where SSIT is installed under `/usr/ecs/<MODE>/CUSTOM/WWW/DPS`.

## Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- DpAtDsrv -- This library holds the object through which almost all SSIT calls to interface with the Data Server.
- DpAtMetadata -- This library holds the objects (DpAtDatabase and DpAtOperationalMd) through which most SSIT PDPS database updates are performed.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.

- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.

- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDpAtMgr**

/ecs/formal/PDPS/DPS/SSIT/src/MGR

The SSIT Manager GUI is the primary interface to all SSIT tools. It is a graphic interface with an SSIT Checklist and menu choices for other SSIT programs.

There is no web page for the SSIT Manager itself, but under the Help menu there are pages for most other SSIT functions, including one on how to use the checklist.

#### **Classes**

- DpAtMgrLog -- This class manages SSIT Manager log information.
- DpAtMgrLogGuiMainWindow

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.

- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcDpAtMgrLogDump**

/ecs/formal/PDPS/DPS/SSIT/src/MGR

The SSIT Manager Log Dump tool allows a user to dump the SSIT Manager GUI checklist entries to a file for documentation purposes.

The checklist is stored using the UNIX ndbm flat-file database utility, so the files that make up the checklist are not man-readable. The SSIT Manager Log Dump tool allows the user to dump the checklist information to an ASCII file that can be read, printed or stored to show the steps of SSIT that had been completed.

To learn how to run the SSIT Manager Log Dump Tool, see the file DpAtMgr\_log.html in ClearCase under SSIT/src/MGR, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

### **Classes**

- DpAtMgrLog -- This class manages SSIT Manager log information.

## Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

## **process EcDpAtOpDbGui**

/ecs/formal/PDPS/DPS/SSIT/src/MdGui

The SSIT Operational Metadata GUI is a graphic interface that allows the user to enter and update information about the PGE, including performance and memory requirements and Toolkit initialization strings. It also provides a mechanism to delete a PGE and to view the ODL for a PGE and any ESDTs that it uses.

To learn how to run the SSIT Operational Metadata GUI, see the file `DpAtMgr_opnlupdate.html` in ClearCase under `SSIT/src/MdGui`, or on a machine where SSIT is installed under `/usr/ecs/<MODE>/CUSTOM/WWW/DPS`.

### **Classes**

- `DpAtOpDbMW`
- `DpAtOpDbTextDisMW`
- `UIComponent` -- Base class for all C++/Motif UI components.

### **Libraries (static)**

- `agentevent` -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- `CsFtFTPRelA` -- This library provides a Wrapper for FTP.
- `CsFtFTPSchedObj` -- This library provides functions to use FTP at a scheduled time by the User.
- `DpAt` -- This `DpAt` library holds the SSIT classes that are called by various SSIT tools and programs.
- `DpAtMetadata` -- This library holds the objects (`DpAtDatabase` and `DpAtOperationalMd`) through which most SSIT PDPS database updates are performed.
- `DpDeletionClient` -- The library containing the client side operations to issue requests to the deletion server.
- `DpPrDbPf`
- `DpPrDM` -- This library supplies utility operations to manage data within DPS.
- `DpPrDssIF` -- This library contains the helper object for PDPS to interact with science data server.
- `DpPrEM` -- This library supplies utility operations to manage PGE execution within PRONG.
- `DpPrException` -- This library provides APIs to catch and handle signals.
- `DpPrJM` -- The Job Management library provides service routines for the Job Management Server to use to manage the flow of jobs in all AutoSys instances for a mode.
- `DpPrRM` -- This library supplies utility operations to manage computer resources for PDPS.
- `DpPrTools` -- This library contains global utility functions.

- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(ODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDpAtOrbitCalculator**

/ecs/formal/PDPS/DPS/SSIT/src/Metadata

The Orbit Calculator tool is a non-delivered program that takes in information about the orbit of a satellite and calculates times, orbit numbers and path numbers for a sequence of orbits.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.

- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- DpPrDbPf
- DpPrException -- This library provides APIs to catch and handle signals.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

- PICore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

## **process EcDpAtPrologs**

/ecs/formal/PDPS/DPS/SSIT/src/PRO

The Prolog Extractor takes a source code file as input and extracts from it the comment prolog and places this prolog in a separate file.

The Prolog Extractor expects the prolog to be in a very specific format. See the html page mentioned below for where that format is specified.

To learn how to run the Prolog Extractor, see the file DpAtMgr\_prolog.html in ClearCase under SSIT/src/PRO, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

### **Classes**

- DpAtMgrDirectory -- This class manages directory information.
- DpAtMgrSource -- This class holds parsed source code information.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.

- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

### **process EcDpAtRegisterPGE**

/ecs/formal/PDPS/DPS/SSIT/src/Metadata

The Register PGE tool is a program that takes in a PGE name, version and Profile ID, and parses the ODL for that PGE. If no errors are found it stores the information in the PDPS database.

The Register PGE Tool takes in information about the PGE: name, version and Profile ID, and searches the directories specified in the configuration file for ODL location, for PGE, ESĐT and Production Rule specific ODL files. If the files are found they are are parsed and any errors displayed on the screen. If no errors are found, the information is stored in the PDPS database.

To learn how to run the Register PGE tool, see the file DpAtMgr\_sciupdate.html in ClearCase under SSIT/src/Metadata, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

### **Classes**

- DpAtDatabase -- This class's methods update the PDPS/SSIT database with PGE and ESĐT operational and science metadata..
- DpAtOperationalMd -- This class's methods are callbacks for the PDPS/SSIT Database Update GUI, which updates the database with PGE operational metadata..

- DpAtScienceMd -- This class is used for access and manipulation of PGE and ESDT SCIENCE metadata, contained in ODL files.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- DpPrDbPf
- DpPrException -- This library provides APIs to catch and handle signals.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.

- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PlUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcDpAtSSAPGui**

/ecs/formal/PDPS/DPS/SSIT/src/SsapGui

The SSAP Editor is a GUI that allows the user to create, delete and update Science Software Archive Packages (SSAPs).

The SSAP Editor displays all SSAPs stored at the Data Server, has buttons to create a new SSAP or copy an existing one, allows the user to add and delete files from the componenets of an SSAP, and allows for creation of or updates to an SSAPs metadata. Once updates are made the GUI allows the user to submit the SSAP to the Data Server for storage.

The SSAP Editor has interfaces with IOS and the Data Server. IOS is used to get the Data Server UR if not already present in the PDPS database. The SSAP Editor then queries Data Server for a list of all existing SSAPs, and will request (from Data Server) Inserts of new or updated SSAPs, Acquires of existing SSAPs (for viewing or updating) and Deletes of existing SSAPs. Storage Management and Data Distribution are needed (though the SSAP Editor doesn't interface with them directly) for Inserts (just Storage Management for storage of the inserted files) and Acquires (both Storage Management and Data Distribution, to retrieve the desired files and place them on the local machine for the SSAP Editor).

Note that SSAPs are made up of 2 separate ESDTs: AP and SSAPC. The AP ESDT contains the metadata for the entire SSAP. The SSAPC is used to store the files that make up the components of an SSAP (such as Source Code and Test Data). Each component of an SSAP is stored as a tar file in Data Server as a separate granule in the SSAPC ESDT. Tables in Data Server and the SSAP Editor link SSAPC granules to the AP granule that holds the metadata for a specific SSAP(s) that the component is associated with.

## Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- DpAtDsrv -- This library holds the object through which almost all SSIT calls to interface with the Data Server.
- DpAtSSAP -- This library contains the objects needed for the SSAP Editor application.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.

- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.

- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDpAtStageDAP**

/ecs/formal/PDPS/DPS/SSIT/src/Dsrv

The Stage DAP tool is a program that acquires a granule (usually a DAP, but the tool will acquire anything) given the location of a flat file with a UR for that granule and a location where the granule is to be staged.

The Stage DAP tool takes in a file and parses it for the Universal Reference (UR) of a granule. It then contacts the Data Server and gets the granule (along with its metadata) copied to the command-line specified directory. The tool will check to make sure that the directory exists and is writeable.

To learn how to run the Stage DAP, see the file DpAtMgr\_dap.html in ClearCase under SSIT/src/Dsrv, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

### **Classes**

- DpAtDsrv -- The DpAtDsrv class provides insert, acquire and query interfaces.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- DpAtDsrv -- This library holds the object through which almost all SSIT calls to interface with the Data Server.
- DpAtMetadata -- This library holds the objects (DpAtDatabase and DpAtOperationalMd) through which most SSIT PDPS database updates are performed.

- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
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- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).

- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechansim for the application to communicate asynchronously with another application.

## **process EcDpPrAm1AncillaryDPREP**

/ecs/formal/PDPS/DPS/PRONG/src/PreProcess

### **Classes**

- DpPrAm1AncillaryPacket -- Data type representing an EOS-AM1 telemetry packet having an APID = 4 This type of packet contains ephemeris and attitude data for the AM1 spacecraft.
- DpPrAm1AncPacketProcessor -- This class coordinates quality checking and the generation of HDF and native data sets for ephemeris and attitude data from the AM1 ancillary packets.
- DpPrAm1AncQaParameters -- Parameters used for EOS-AM1 ephemeris and attitude preprocessing.
- DpPrAm1DataQualityFlags -- DpPrAm1DataQualityFlags handles the data quality flags for ephemeris and attitude preprocessing for the EOS-AM1 spacecraft.
- DpPrAttitudeDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet attitude data.
- DpPrCcsdsPacket -- DpPrCcsdsPacket interface .
- DpPrDataQualityFlags -- The class DpPrDataQualityFlags encapsulates the data quality flags used in ephemeris and attitude preprocessing.
- DpPrEphemerisDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet ephemeris data.
- DpPrEphemerisRecord -- This class represents the time-ordered set of reformatted ephemeris records parsed from the FDF Ephemeris Dataset EPHEM format record.
- DpPrPcfParameters -- Retrieves parameters from the current PCF.

### **Templates**

- DpPrPacketVector

## **process EcDpPrAm1EphemerisGapFillDPREP**

/ecs/formal/PDPS/DPS/PRONG/src/PreProcess

### **Classes**

- DpPrAttitudeDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet attitude data.
- DpPrCcsdsPacket -- This is an abstract class for telemetry packets that conform to the Consultive Committee for Space Data Systems standard for the Version 1 Telemetry Source Packet format.
- DpPrDataGaps -- This class represents the time-ordered set of reformatted ephemeris records, parsed from the TRMM L0 Ancillary Dataset ephemeris packet, undergoing gap filling.

- DpPrDataQualityFlags -- The class DpPrDataQualityFlags encapsulates the data quality flags used in ephemeris and attitude preprocessing.
- DpPrEphemerisDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet ephemeris data.
- DpPrEphemerisRecord -- This class represents the time-ordered set of reformatted ephemeris records parsed from the FDF Ephemeris Dataset EPHEM format record.
- DpPrGapProcessingSet -- This class represents the set of ephemeris datasets involved in data gap filling.
- DpPrPcfParameters -- Retrieves parameters from the current PCF.

### Templates

- DpPrPacketVector

## **process EcDpPrAm1FddAttitudeDPREP**

/ecs/formal/PDPS/DPS/PRONG/src/PreProcess

### Classes

- DpPrAm1DataQualityFlags -- DpPrAm1DataQualityFlags handles the data quality flags for ephemeris and attitude preprocessing for the EOS-AM1 spacecraft.
- DpPrAm1FddAttitudeRecord -- Data type representing an FDD definitive attitude record.
- DpPrAm1FddQaParameters -- Parameters used for EOS-AM1 attitude preprocessing.
- DpPrAm1FddRecordProcessor -- This class coordinates quality checking and the generation of HDF and native data sets for ephemeris and attitude data from the AM1 ancillary records.
- DpPrAttitudeDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet attitude data.
- DpPrCcsdsPacket -- This is an abstract class for telemetry packets that conform to the Consultive Committee for Space Data Systems standard for the Version 1 Telemetry Source Packet format.
- DpPrDataQualityFlags -- The class DpPrDataQualityFlags encapsulates the data quality flags used in ephemeris and attitude preprocessing.
- DpPrEphemerisDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet ephemeris data.
- DpPrEphemerisRecord -- This class represents the time-ordered set of reformatted ephemeris records parsed from the FDF Ephemeris Dataset EPHEM format record.
- DpPrFddAttRecordVector -- This class handles a vector of DpPrCcsdsRecords.
- DpPrPcfParameters -- Retrieves parameters from the current PCF.

### Templates

- DpPrPacketVector

## **process EcDpPrAm1FddReplaceEphemerisDPREP**

/ecs/formal/PDPS/DPS/PRONG/src/PreProcess

### **Classes**

- DpPrAttitudeDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet attitude data.
- DpPrCsdsPacket -- This is an abstract class for telemetry packets that conform to the Consultive Committee for Space Data Systems standard for the Version 1 Telemetry Source Packet format.
- DpPrDataQualityFlags -- The class DpPrDataQualityFlags encapsulates the data quality flags used in ephemeris and attitude preprocessing.
- DpPrEphemerisDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet ephemeris data.
- DpPrEphemerisMetadata -- This class represents the ephemeris metadata that are associated with the native and HDF format ephemeris datasets.
- DpPrEphemerisRecord -- This class represents the time-ordered set of reformatted ephemeris records parsed from the FDF Ephemeris Dataset EPHEM format record.
- DpPrEphemRecord -- This class represents the time-ordered set of FDF Ephemeris Dataset EPHEM format records.
- DpPrFdfProcessingSet -- This class represents the FDF Ephemeris Dataset from which the ephemeris dataset is derived and the set of derived ephemeris datasets.
- DpPrPcfParameters -- Retrieves parameters from the current PCF.

### **Templates**

- DpPrPacketVector

## **process EcDpPrAm1ToolkitToHdfDPREP**

/ecs/formal/PDPS/DPS/PRONG/src/PreProcess

### **Classes**

- DpPrAttitudeDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet attitude data.
- DpPrCsdsPacket -- This is an abstract class for telemetry packets that conform to the Consultive Committee for Space Data Systems standard for the Version 1 Telemetry Source Packet format.
- DpPrDataQualityFlags -- The class DpPrDataQualityFlags encapsulates the data quality flags used in ephemeris and attitude preprocessing.
- DpPrEphemerisDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet ephemeris data.

- DpPrEphemerisRecord -- This class represents the time-ordered set of reformatted ephemeris records parsed from the FDF Ephemeris Dataset EPHEM format record.
- DpPrPcfParameters -- Retrieves parameters from the current PCF.

### Templates

- DpPrPacketVector

### **process EcDpPrDeletion**

/ecs/formal/PDPS/DPS/PRONG/src/DataMgmt/DeletionPF

This DCE server accepts timed delete requests from clients and issues delete requests to science data server upon expiration of that timer.

The server fulfills a function to remove interim granules after a specified period of time. It handles both long and short delete request in exactly the same manner, and has a single time checker thread that sleeps for the most part, but wakes periodically to check to see if a granule's time has expired. The destaging process is the only client to the deletion server, as that is where granules are checked to see if they are interim, and if so, the DPR checks to see if it needs to issue a delete request.

### Classes

- Deletion\_1\_0\_ABS
- Deletion\_1\_0\_Mgr
- DpDeletion
- DpDeletionServer

### Templates

- DpDeletionTableIf

### Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.

- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcDpPrDM**

/ecs/formal/PDPS/DPS/PRONG/src/DataMgmt

The executable run by autosys for staging or destaging within a DPR.

This executable expects a number of command line arguments, and not only stages granules needed for the run, but also takes care of allocation of those granules, and inserting the output granules into the science data server.

The process runs in autosys as two of the job components on a DPR box - the ones ending in 'S' and 'I'. ('S'tage and 'I'nsert). Allocation occurs through calls to the resource manager library, and interaction with science data server is handled through calls to the DSS interfaces library. This process also connects with the deletion server when it needs to signal a particular interim granule for short or long delete.

## **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpDeletionClient -- The library containing the client side operations to issue requests to the deletion server.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrJM -- The Job Management library provides service routines for the Job Management Server to use to manage the flow of jobs in all AutoSys instances for a mode.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.

- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
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- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCoreIIF

- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

## **process EcDpPrDumpAttitudeDPREP**

/ecs/formal/PDPS/DPS/PRONG/src/PreProcess

### **Classes**

- DpPrAttitudeDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet attitude data.
- DpPrCcsdsPacket -- This is an abstract class for telemetry packets that conform to the Consultive Committee for Space Data Systems standard for the Version 1 Telemetry Source Packet format.
- DpPrDataQualityFlags -- The class DpPrDataQualityFlags encapsulates the data quality flags used in ephemeris and attitude preprocessing.
- DpPrEphemerisDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet ephemeris data.
- DpPrEphemerisRecord -- This class represents the time-ordered set of reformatted ephemeris records parsed from the FDF Ephemeris Dataset EPHEM format record.
- DpPrPcfParameters -- Retrieves parameters from the current PCF.

### **Templates**

- DpPrPacketVector

## **process EcDpPrDumpEphemerisDPREP**

/ecs/formal/PDPS/DPS/PRONG/src/PreProcess

### **Classes**

- DpPrAttitudeDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet attitude data.
- DpPrCcsdsPacket -- This is an abstract class for telemetry packets that conform to the Consultive Committee for Space Data Systems standard for the Version 1 Telemetry Source Packet format.
- DpPrDataQualityFlags -- The class DpPrDataQualityFlags encapsulates the data quality flags used in ephemeris and attitude preprocessing.

- DpPrEphemerisDataSet -- This class creates the HDF and native data sets and associated metadata created from the AM1 ancillary packet ephemeris data.
- DpPrEphemerisRecord -- This class represents the time-ordered set of reformatted ephemeris records parsed from the FDF Ephemeris Dataset EPHEM format record.
- DpPrPcfParameters -- Retrieves parameters from the current PCF.

## Templates

- DpPrPacketVector

## **process EcDpPrEM**

/ecs/formal/PDPS/DPS/PRONG/src/ExecMgmt

This program is responsible to manage pge execution.

This program has various command line options. Option "-alloc" is exercised by the allocation job (the first job in the job box in autosys, the one that ends with 'A'). This option will allocate the necessary computer resources to run the pge, and stage the pge executable to the machine where the pge is scheduled to run (if needed).

Option "-prep" is exercised by the Pre-Processing job (the third job in the job box in autosys, the one that ends with 'P'). This option creates the Process Control File (PCF), (See Toolkit's user manual for more information on PCF) obtains the MCF (Metadata Control File) from Science data server for each expected output of the pge. Also, other necessary files used by the PGE Wrapper executable are created. This job is run right before the pge is executed.

Option "-post" is exercised by the Post-Processing job (the fifth job in the job box in autosys, the one that ends with 'p'). This job is executed right after the pge is executed. It checks for the success/failure of the pge execution, records pge's resource usage information in the database. If the pge succeeds, then it creates production history file (which has information on the data lineage). If the pge fails, it creates a tar file which consists of pge's logs and pge's core file. This file is then archived through science data server.

Option "-dealloc" is the last job in the job box in autosys. (This ends with 'D'). This job is responsible for deallocating computer resources allocated and destroying any temporary directories/files created (such as the runtime directory). Also notifies job management server that the job box is complete and can be removed from autosys.

## **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpDeletionClient -- The library containing the client side operations to issue requests to the deletion server.
- DpPrDbPf

- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrJM -- The Job Management library provides service routines for the Job Management Server to use to manage the flow of jobs in all AutoSys instances for a mode.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg

- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1IF
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PlUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechansim for the application to communicate asynchronously with another application.

## **process EcDpPrGE**

/ecs/formal/PDPS/DPS/PRONG/src/ExecMgmt

This executable is the ground event executable.

A ground event takes a specified computer resource offline (unavailable for pges) for a specified period of time. This is accomplished by marking in the database that the resource is offline, then executing a system sleep command for the specified duration, and updating the database to reflect that the specified resource is now available.

This program has signal handling functionality built in, so that if a ground event is cancelled, then the database is updated to mark the resources online before exiting.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpDeletionClient -- The library containing the client side operations to issue requests to the deletion server.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrJM -- The Job Management library provides service routines for the Job Management Server to use to manage the flow of jobs in all AutoSys instances for a mode.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf

- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.

- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PICore1IF
- PICore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcDpPrJobMgmt**

/ecs/formal/PDPS/DPS/PRONG/src/JobMgmtPF

The Job Management Server is an ECS Managed Server program that provides services to create, cancel and release production and ground event jobs. This program accepts messages from the Job Management Client Proxy routines and provides the following services:

CreateDprJob - Creates a job directly in AutoSys, or on a queue if its data is not available.

ReleaseDprJob - Sets the state of a job to "Released" -- it is then eligible to be placed in AutoSys by the server if there is room.

CreateGEvtJob - Creates a ground event job directly in AutoSys.

CancelGEvtJob - Cancels a ground event job.

GetDprJobStatus- Gets the status of a job - started, success, failed,etc.

CancelDprJob - Cancels a job - either removes it from the queue or removes it from AutoSys if it is there, with database cleanup.

FreeAutoSys - Called whenever it is necessary to check the queue for jobs to put into Autosys -- this happens when a job is released, canceled, created or a job completes.

### **Classes**

- DpPrSchedulerDObj\_1\_0\_ABS
- DpPrSchedulerDObj\_1\_0\_Mgr
- MyManagedServer -- This is an example how an application can use Process Frame Work to create a managed server.

## **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpDeletionClient -- The library containing the client side operations to issue requests to the deletion server.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrJM -- The Job Management library provides service routines for the Job Management Server to use to manage the flow of jobs in all AutoSys instances for a mode.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
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- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.

- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...

- PLSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcDpPrJobMgmtClient**

/ecs/formal/PDPS/DPS/PRONG/src/JobMgmtPF

The Job Management Client program is used as a test tool to test the operation of the Job Management Server, and is capable of creating, cancelling and releasing jobs. Normally, these services are requested by the Planning subsystem Production Request Editor and Planning Workbench.

This program uses routines from the Job Management Client Proxy Library.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReLA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpDeletionClient -- The library containing the client side operations to issue requests to the deletion server.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
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- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
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- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.

- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.

### **process EcDpPrQaMonitorGUI**

/ecs/formal/PDPS/DPS/PRONG/src/QaMonitorGUI

#### **Classes**

- DpPrQaMmainWindow
- UIComponent -- Base class for all C++/Motif UI components.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.

- DpPrQaMonitor
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed

- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1IF
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlGUIError -- This library contains the objects needed for SSIT and QA Monitor GUIs to display error messages.
- PlSSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PlUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

## **process EcDpPrRunPGE**

/ecs/formal/PDPS/DPS/PRONG/src/PGEMgmt

## **process EcDpPrRusage**

/ecs/formal/PDPS/DPS/PRONG/src/PGEMgmt

## **process EcDpPrViewJobStates**

/ecs/formal/PDPS/DPS/PRONG/src/JobMgmtPF/JMUserInterface

This program is responsible to extract the Job Names, and states from the database.

This program is run from the Job Management Client. It is in the Ops Console GUI. You can select the Jobs Completed and the Jobs Waiting Buttons. This will then go to the database and find the appropriate jobs. Then a xemacs window is displayed with the data about the jobs.

This program can also be run by the command line by using the appropriate arguments.

### **Classes**

- DpPrListJobs -- This DpPrListJobs class is the interface class for obtaining lists of dprs requested from the Autosys Job Activity Console.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DpDeletionClient -- The library containing the client side operations to issue requests to the deletion server.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrJM -- The Job Management library provides service routines for the Job Management Server to use to manage the flow of jobs in all AutoSys instances for a mode.
- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.

- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(ODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- PlCore1 -- This library contains the first half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PlCore1IF
- PlCore2 -- This library contains the second half of Planning's core functionality. The CoreLib provides functionality for all areas of Planning. It was divided in half due to its large size...
- PISSIT -- This library manages the Science Software Integration & Test PDPS DB interfaces.
- PIUtil -- This library contains utilities dealing with current time, time periods, time boundaries, time windows, time intervals, spacecraft, orbit, instruments, and also manages their DB interfaces.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **process EcUtCopyExec**

/ecs/formal/COMMON/CSCI\_Util/src/CopyProg

EcUtCopyExec is a binary for copying a source file to destination file. The source, destination files, block size for read/write, delay for retries are passed as arguments. This binary is called by the EcUtFileCopy Class.

### **Libraries (static)**

- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.

## **process hdiff**

/ecs/formal/PDPS/DPS/SSIT/src/DIF/HDIFF

The HDF Difference Tool (hdiff) provides a mechanism to compare two binary files and display any differences.

A shell script (EcDpAtHdiff) is normally used to get the pair of files to compare from the user, as well as any flags desired for the call to the hdiff executable.

To learn how to run hdiff, see the file DpAtMgr\_hdiff.html in ClearCase under SSIT/src/DIF, or on a machine where SSIT is installed under /usr/ecs/<MODE>/CUSTOM/WWW/DPS.

## **Libraries (static)**

- hdiff -- The HDF Difference Tool (hdiff) provides a mechanism to compare two binary files and display any differences.
- DpAt -- This DpAt library holds the SSIT classes that are called by various SSIT tools and programs.
- DpAtDsrv -- This library holds the object through which almost all SSIT calls to interface with the Data Server.
- DpAtMetadata -- This library holds the objects (DpAtDatabase and DpAtOperationalMd) through which most SSIT PDPS database updates are performed.
- DpAtSSAP -- This library contains the objects needed for the SSAP Editor application.
- DpDeletionClient -- The library containing the client side operations to issue requests to the deletion server.
- DpPrDbPf
- DpPrDM -- This library supplies utility operations to manage data within DPS.
- DpPrDMStub -- This library contains stubs for the public operations called for data management within DPS.
- DpPrDssIF -- This library contains the helper object for PDPS to interact with science data server.
- DpPrDssIFStub -- This library contains the stubbed version of the helper object, which has no real interface to the external servers.
- DpPrEM -- This library supplies utility operations to manage PGE execution within PRONG.
- DpPrEMStub -- This library supplies stubbed operations to manage PGE execution within PRONG.
- DpPrException -- This library provides APIs to catch and handle signals.
- DpPrJM -- The Job Management library provides service routines for the Job Management Server to use to manage the flow of jobs in all AutoSys instances for a mode.
- DpPrQaMonitor

- DpPrRM -- This library supplies utility operations to manage computer resources for PDPS.
- DpPrTools -- This library contains global utility functions.
- EcDpJobMgmtClient -- The Job Management Client library provides the following public interfaces to the Job Management Server.
- EcDpJobMgmtClientStub
- hdiff -- The HDF Difference Tool (hdiff) provides a mechanism to compare two binary files and display any differences.

## Subsystem CSS

The Communications Subsystem (CSS) provides for the interconnection of users and service providers, transfer of information within the Earth Observing System Data and Information System (EOSDIS) Core System (ECS) and between ECS and many EOSDIS components and management of all ECS communications components. It supports and interacts with the Management Support Subsystem (MSS), Flight Operations Segment (FOS) and the other ECS subsystems.

### **process EcCsEmailParser**

/ecs/formal/CSS/DOF/src/RELB\_GATEWAY/EmailParser

EcCsEmailParser program is developed to support automated delivery of Expedited Data Set (EDS) from ECS to ASTER GDS.

EDS subscription is first issued from ECS side at GSFC DAAC on behalf of ASTER GDS. When EDS is ready, Subscription Server sends email notification to EmailParser Gateway which in turn sends EDN to ASTER GDS through email after retrieving all the necessary information from SDSRV using the granule UR parsed from email notification. Once ASTER GDS gets the EDN, they can request EDS by sending EDR to EmailParser Gateway through email. EmailParser Gateway then parse the EDR to get the granule UR, it then does Acquire to SDSRV which will FTP push the files together with a signal file to ASTER GDS.

### **Classes**

- EcCsEmailParser
- EcCsManagedServer -- This is a managed server created through Process Frame Work.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpost for Bulletin board messages.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.

- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(ODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityCtStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.

- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GI -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **process EcCsLandsat7Gateway**

/ecs/formal/CSS/DOF/src/RELB\_GATEWAY/LANDSAT\_GATEWAY

EcCsLandsat7Gateway program provides interoperability between socket based landsat Processing System(LPS) and DCE based Ingest Server within the ECS environment.

LPS and ECS work together to provide users access to data collected by the Enhanced Thematic Mapper Plus(ETM+) instrument flown on the Landsat7 satellite. The Landsat7 Project processes the raw instrument data into level 0R data and then provides the data to ECS for ingest, archive and distribution.

Landsat7 Gateway is used to pass control messages between LPS and Ingest which includes:

- Authentication Request(TCP Session Authentication from LPS).
- Authentication Response(Gateway decides if Authentication succeeds).
- Data Availability Notice(DAN from LPS to Ingest).
- Data Availability Acknowledgment(DAA from Ingest back to LPS).
- Data Delivery Notice(DDN from Ingest to LPS, Gateway needs to authenticate itself to LPS before it can open an connection to pass DDN to LPS).
- Data Delivery Acknowledgment(DDA from LPS to Ingest).

## Classes

- CsGwELG
- CsGwLandsatMsg -- This derived class adds more functionality to the CsGwMessage class as needed in processing messages for landsat7 gateway.
- CsGwLEG
- CsGwManagedServer -- This is a managed server created through Process Frame Work.

## Libraries (static)

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcCsGateway
- EcDcMsgPsngl
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityCtStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.

- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

## **process EcCsMojoGateway**

/ecs/formal/CSS/DOF/src/RELB\_GATEWAY/MOJO/mojo

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPo -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.

- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeLoginContext -- This library uses the key obtained from either the EcSeServerKeyMgmt or EcSeAuthn library to establish a login context for a process.
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMisc -- This library contains miscellaneous utilities.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCore -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxy -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearch
- IoAdServer -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubs -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process EcGwDARServer**

/ecs/formal/CSS/DOF/src/RELB\_GATEWAY/DAR/dar

This is the DAR Communications Gateway server executable, which will accept DAR submit, modify, and query requests and pass them on to GDS.

The main functionality of the ASTER DAR Gateway is to provide interoperability between the DAR Client GUI Tool and the DAR API which interfaces to the ASTER servers. The DAR Client GUI Tool is DCE compatible and based on X/Motif, while the DAR API is based on TCP/IP sockets. The DAR Communications Gateway receives calls from the DAR Client GUI Tool and dispatches them to the appropriate DAR API operations for remote services.

#### **Classes**

- EcGwDARGatewayDispatcher -- This class is the specialized dispatcher at the server side, which accepts a request and dispatches it to the appropriate method.
- EcGwDARGatewayManagedServer
- EcGwDARGatewayRequest\_S -- This class represents the server side of DARGateway.
- getSubxARStatusSrfRequest -- This message class, which is derived from the EcUtStreamable class, is used to transport the getSubxARStatus request message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- getSubxARStatusSrfResult -- This message class, which is derived from the EcUtStreamable class, is used to transport the getSubxARStatus result message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- getSubxARStatusSrfStatus -- This message class, which is derived from the EcUtStreamable class, is used to transport the getSubxARStatus status message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- getxARStatusSrfRequest -- This message class, which is derived from the EcUtStreamable class, is used to transport the getxARStatus request message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE communication.

- `getxARStatusSrfResult` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `getxARStatus` result message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE communication.
- `getxARStatusSrfStatus` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `getxARStatus` status message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE communication.
- `modifyDarSrfRequest` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `modifyDar` request message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE communication.
- `modifyDarSrfResult` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `modifyDar` result message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE communication.
- `modifyDarSrfStatus` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `modifyDar` status message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE communication.
- `queryxARContentsSrfRequest` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `queryxARContents` request message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- `queryxARContentsSrfResult` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `queryxARContents` result message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- `queryxARContentsSrfStatus` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `queryxARContents` status message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- `queryxARScenesSrfRequest` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `queryxARScenes` request message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- `queryxARScenesSrfResult` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `queryxARScenes` result message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- `queryxARScenesSrfStatus` -- This message class, which is derived from the `EcUtStreamable` class, is used to transport the `queryxARScenes` status message by the Server Request

Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .

- queryxARSummarySrfRequest -- This message class, which is derived from the EcUtStreamable class, is used to transport the queryxARSummary request message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- queryxARSummarySrfResult -- This message class, which is derived from the EcUtStreamable class, is used to transport the queryxARSummary result message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- queryxARSummarySrfStatus -- This message class, which is derived from the EcUtStreamable class, is used to transport the queryxARSummary status message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE .
- submitDarSrfRequest -- This message class, which is derived from the EcUtStreamable class, is used to transport the submitDar request message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE communication.
- submitDarSrfResult -- This message class, which is derived from the EcUtStreamable class, is used to transport the submitDar result message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE communication.
- submitDarSrfStatus -- This message class, which is derived from the EcUtStreamable class, is used to transport the submitDar status message by the Server Request Framework (SRF), which is utilized by the ASTER DAR Gateway client library and server for DCE communication.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.

- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- IcDarApi -- This is the ASTER GDS client library which the DAR Communications Gateway links with to provide communication to the ASTER servers.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- srf -- The SRF library provides the necessary mechansim for the application to communicate asynchronously with another application.

## **process EcSbGui**

/ecs/formal/CSS/DOF/src/SUBSCRIPTION/OperatorGui

### **Classes**

- EcSbGui
- EcSbGuiEvent
- EcSbGuiMW
- UIComponent -- Base class for all C++/Motif UI components.

### **Libraries (static)**

- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsSh -- This library provides underlying DCE(ODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcPoDbRW
- EcSbCl -- This library contains all the classes for Subscription Server client.
- EcSbMsg
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- EcUtMisc -- This library contains miscellaneous utilities.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- EcCfSh
- EcDcMsgPsnglSh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.

- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process EcSbSubServer**

/ecs/formal/CSS/DOF/src/SUBSCRIPTION/sb

EcSbSubServer is subscription server program to provide subscription service. Subscription service defines three major roles for objects:

- 1) Publisher role: Publishers produce event data. Subscription server stored them persistently and made them available through Advertisement Service. Therefore, subscribers use event data to register interest in products and services.
- 2) Subscriber role: Accept subscription requests that specify an action to be taken and an event to initiate the action. Accept subscription update request to update stored subscriptions, validate subscription requests.
- 3) Process subscriptions upon Event Notification: Identify all subscriptions of the specified event. Process any actions defined in the subscriptions, then notify subscribers.

### **Libraries (static)**

- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- DmDdMsg
- DsCl -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCn -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsDb -- This library encapsulates the Sybase Open Client calls from the rest of the SDSRV.
- DsSh -- This library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- DsSr -- This is an internal library for Science Data Server.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcDcMsgPsng1
- EcDcNotify
- EcDmDdClient -- The library establishes and maintains a session with the DDICT server.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcPoDbRW
- EcSbMsg
- EcSbSr -- This library consists of all subscription server side class objects.
- EcUtMisc -- This library contains miscellaneous utilities.
- Gl -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- srf -- The SRF library provides the necessary mechanism for the application to communicate asynchronously with another application.

## Libraries (shared)

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityDbStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

### **process EcSeAuthnProg**

/ecs/formal/CSS/DOF/src/AUTHN/authnprog

The AuthnProg GUI uses the EcSeCmi library to generate a randomized password for administration purposes. The GUI's only input is the seed. The tool is used primarily by administrators and M&O staff when setting up accounts for non-DCE components (i.e.: Sybase).

#### **Classes**

- Form -- This class implements a portion of the user interface.
- UIComponent -- Base class for all C++/Motif UI components.

#### **Libraries (static)**

- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtNoPF -- EcUtNoPF is a utility library for all the ECS applications that do not use Process Framework.

### **process EcSeLoginProg**

/ecs/formal/CSS/DOF/src/SEC/login/loginprog

This utility uses the EcSeLogin library to perform a DCE login.

#### **Libraries (static)**

- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeLogin -- This library creates a DCE login context for a process.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtNoPF -- EcUtNoPF is a utility library for all the ECS applications that do not use Process Framework.

## **process ftp\_popen**

/ecs/formal/CSS/DOF/src/FTP/ftp\_popen

This Executable is started by CsFtFTPReIA class for the FTP needs. This process acts as interface for the FTP Wrapper class and actual FTP process. FTP commands are read/write using socket.

### **Libraries (static)**

- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtNoPF -- EcUtNoPF is a utility library for all the ECS applications that do not use Process Framework.

## **Subsystem MSS**

The System Management Subsystem (MSS) provides support software services in the fault, configuration, accountability, performance, and security management areas. It is implemented using some custom software but relies heavily on standards-based COTS products. In many cases, a COTS product needs no custom software to meet requirements. Where custom software is required it is saved in these directories.

## **process EcMsAcOrderGUI**

/ecs/formal/MSS/MCI/Ac/src/EcAcOrderUI

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.

- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtHelpg\_mt\_eh\_tp
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **process EcMsAcOrderSrvr**

/ecs/formal/MSS/MCI/Ac/src

The Data Order Tracking capability provides the means to tracking the order status throughout the life circle of an order, it centralize the order status in MSS database instead of go through each subsystem to collect the order and its associate request status. The Data Order Tracking Server provides public interfaces to other subsystem and capable to update order and request status in real time.

#### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpost for Bulletin board messages.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.

- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- ECSAuthn
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MD5Encrypt

## **process EcMsAcRegUserGUI**

/ecs/formal/MSS/MCI/Ac/src/MsAcRegUserUI

### **Classes**

- EcAcTabState -- Create one instance of this for each tab in a tabstack.
- MsAcErrorMsgBox
- MsAcErrorMsgBoxDerived
- MsAcInfoMsgBox
- MsAcInformation
- MsAcInformationDerived
- MsAcManageExistingAcctMW
- MsAcManageExistingAcctMWDerived -- This class does all the operations that needs to manage the existing accounts.
- MsAcProcessAcctReqMW
- MsAcProcessAcctReqMWDerived -- This class does all the operations that needs to process an request account.
- MsAcRegUsrUtl -- The MsAcRegUsrUtl class is a set of static functions of general utility to the Regsiter User GUI.
- MsAcUserAccountMngmtMW
- MsAcUserAccountMngmtMWDerived -- This class represents the main window.
- MsAcViewProfileDialog
- MsAcViewProfileDialogDerived
- UIComponent -- Base class for all C++/Motif UI components.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsngl

- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtGUIg\_mt\_eh\_tp
- EcUtHelpg\_mt\_eh\_tp
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsAcClnt -- The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of
- MsAcComm -- This library contains class used for both Accountability Server and Client

### **process EcMsAcRegUserSrvr**

/ecs/formal/MSS/MCI/Ac/src

User registration server provides the operators the capability to create ECS user accounts against requests submitted by guest users wishing to become authorized ECS users. The registration service provides the capabilities for the creation, modification and maintenance of accounts with user profiles. The user profile replicated to all DAAC. Other DAAC capable to browse foreign user profile, but only capable to modify user profile belongs to the local DAAC. The

Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem, information such as the user's electronic mail address and the shipping address, which are used for the distribution of data products ordered.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelA -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- ECSAuthn
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MD5Encrypt

## **process EcMsAgGenProxy**

/ecs/formal/MSS/MACI/src

The Proxy agent is provided by the Management Agent Services for the purposes of managing non-SNMP manageable COTS products. Its front-end has the MSS instrumentation code to communicate with the subagent. Its back-end communicates with the COTS.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DeputyClient -- This library provides the client side of the deputy agent to subagent.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityCtStubbed

- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsMdaClnt

## **process EcMsAgSubAgent**

/ecs/formal/MSS/MACI/src

The subagent is used to monitor and control ECS custom and COTS applications running on its host. The ECS subagent communicates management requests and responses from the master agent and the Deputy agent to either an ECS developed application or to a COTS application via the Proxy Agent. It supports the MIB extensions and performs local polling on the resources on the host. The subagent is custom developed code that uses some COTS libraries such as PEER tools to make itself remotely manageable.

### **Classes**

- MsAgSubAgent -- MsAgSubAgent is a container class which instantiates an event manager, a monitor, a table manager, a subagent config, a deputy gate, a port monitor, and a discoverer class.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReLA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- DeputyClient -- This library provides the client side of the deputy agent to subagent.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.

- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityCtStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsMdaClnt

### **process EcMsMdDBArchiveGUI**

/ecs/formal/MSS/MCI/Md/src/MsMdDBArchiveUI

#### **Classes**

- MsMdDateEntryF
- MsMdDateEntryFDerived
- MsMdDBArchiveInterfaceMW
- MsMdDBArchiveInterfaceMWDerived -- This class contains functions for the main window of the database archive gui.
- MsMdErrorDialog
- MsMdErrorDialogDerived -- This class contains functions for popup message box when there's error occured..
- MsMdInsertArchiveMWF
- MsMdInsertArchiveMWFDerived -- This class contains functions for the Insert archive tab.
- MsMdRetrieveArchiveMWF

- MsMdRetrieveArchiveMWFDerived -- This class contains functions for the retrieve archive tab.
- MsMdTimeEntryF
- MsMdTimeEntryFDerived
- UIComponent -- Base class for all C++/Motif UI components.

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcDcMsgPsng1
- EcUtHelpg\_mt\_eh\_tp
- MsMdaArchive -- MsMdaArchive contains classes used for the archiving tasks performed by MDA.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDcNotifySh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.

- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityCtStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

## **process EcMsMdLogBwsrGUI**

/ecs/formal/MSS/MCI/Md/src/MsMdLogBrowserUI

### **Classes**

- MsMdErrorMD
- MsMdErrorMDDerived
- MsMdEventFieldMD
- MsMdEventFieldMDDerived -- This class represents a discription of an event.
- MsMdEventListE18L
- MsMdEventListE18LDerived -- This class represents an event in a row and displays events onto the extended list widget screen.
- MsMdFileSelectMD
- MsMdFileSelectMDDerived -- This class represents the file selection box.
- MsMdGlobalGUI -- This class represents a discription of common variables used in GUI.
- MsMdLogBrowserMW
- MsMdLogBrowserMWDerived
- MsMdLogBrowserMwF
- MsMdLogBrowserMwFDerived -- The main window widget which control the user interface.
- MsMdSelectEventMD
- MsMdSelectEventMDDerived -- This class represents filtering process of events.
- MsMdSortEventMD
- MsMdSortEventMDDerived -- This class represents sorting process for events.
- MsMdTimeEntry
- MsMdTimeEntryDerived
- MsMdTimeStampF
- MsMdTimeStampFDerived -- This class represents a discription of selecting time.
- UIComponent -- Base class for all C++/Motif UI components.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcAgMda
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityCtStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtHelpg\_mt\_eh\_tp
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsMdaCInt
- MsMdaMisc -- MsMdaMisc contains classes used by MDA GUIs.

## **process EcMsMdMdaGUI**

/ecs/formal/MSS/MCI/Md/src/MsMdMdaUI

### **Libraries (static)**

- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcAgMda
- EcDcMsgPsng1
- EcUtHelpg\_mt\_eh\_tp
- MsMdaArchive -- MsMdaArchive contains classes used for the archiving tasks performed by MDA.
- MsMdaClnt
- MsMdaMisc -- MsMdaMisc contains classes used by MDA GUIs.

### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpost for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(OODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsng1Sh
- EcDcNotifySh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.

- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityCtStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

## **process EcMsMdMdaServer**

/ecs/formal/MSS/MCI/Md/src

EcMsMdMdaServer is the MDA server that extracts data from ECS, Tivoli, HTTP, and HPOV event logs for storage in MSS's data base. For each server in it's configuration file it FTPs logs to be processed, extracts data from the logs and stores it into MSS SYBASE database, and schedules the archiving of each of the processed log files.

### **Classes**

- MdaManager\_1\_0\_ABS
- MdaManager\_1\_0\_Mgr
- MsMdManagedServer -- The MsMdManagedServer class provides a concrete implementation of an EcPfmanagedServer.
- MsMdMdaManagerS

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPRelA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcAgMda
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).

- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.
- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- MsMdaArchive -- MsMdaArchive contains classes used for the archiving tasks performed by MDA.
- MsMdaClnt
- MsMdaMisc -- MsMdaMisc contains classes used by MDA GUIs.

#### **Libraries (shared)**

- agenteventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsEmMailRelASh -- This Library is used for the emails using sendmail utility and the nnpst for Bulletin board messages.
- CsFtFTPRelASh -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObjSh -- This library provides functions to use FTP at a scheduled time by the User.
- DsClSh -- This library contains classes which make up the Science Data Server's (SDSRV) public interface. These classes are used by clients to connect, build commands, and submit requests to the SDSRV.
- DsCnSh -- This library was used to generate files which install ESDT configuration information for each ESDT previously.
- DsShSh -- This internal library provides underlying DCE(ODCE) mechanism and fundamental implementation for both client and server side of SDSRV.
- EcCfSh
- EcDcMsgPsnglSh
- EcDcNotifySh
- EcDnDirSh -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFhSh -- This library provides fault handling capabilities to ECS applications.

- EcNsServiceLocatorSh -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcNsServiceLocSh -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcPfSh
- EcPoDbRWSH
- EcPoSh -- The Persistent CSC provides a set of abstract and base classes for approved advertisements and requests.
- EcPtSpecialLockSh -- This library provides classes for mutex operations and thread IDs.
- EcSeCmiSh -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmtSh -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbedSh
- EcSeUtilityCtStubbedSh
- EcTiTimeSh -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUrSh -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUtFactorySh -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- EcUtMiscSh -- This library contains miscellaneous utilities.
- EcUtSh -- EcUt is a utility library for all the ECS applications.
- eventSh -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- GlSh -- This library is used by many subsystems to provide a general purpose list object for storing various scalar and complex datatypes.
- IoAdCoreSh -- The CoreLib CSC provides a set of functionalities for describing a generic advertisement, parsing and validating attributes that support the ECS Core meta data model, and requesting and moderating advertisements.
- IoAdProxySh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSearchSh
- IoAdServerSh -- The ServerLib CSC provides classes for process framework DCE server and client.
- IoAdSubsSh -- The SubsLib CSC provides a set of derived classes which represent different types of advertisements: products, services, and providers.

## **process MsCsSurveyMgrServer**

/ecs/formal/MSS/MCI/Cs/src

The MsAcSuveyClientMain is a common survey server that used to tranfer data between the common survey database and client, including create, retrieve and update functionality for CLS subsystem.

### **Libraries (static)**

- agentevent -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.
- CsFtFTPReIA -- This library provides a Wrapper for FTP.
- CsFtFTPSchedObj -- This library provides functions to use FTP at a scheduled time by the User.
- EcAgInstrm -- This library contains the instrumentation code which is linked into all ECS managed servers.
- EcCf
- EcDcMsgPsng1
- EcDnDir -- This provides classes to manipulate CDS entries, and operations on their attributes using XDS APIs.
- EcFh -- This library provides fault handling capabilities to ECS applications.
- EcNsServiceLoc -- This library contains both the client and server side APIs to allow servers to advertise their services and to allow clients to locate the servers.
- EcNsServiceLocator -- The Service Locator library provides an implementation independent mechanism for specifying service locations.
- EcPf
- EcPoDbRW
- EcPtSpecialLock -- This library provides classes for mutex operations and thread IDs.
- EcSeCmi -- Cryptographic Management Interface (CMI) provides a means for processes to obtain randomized passwords with which to gain access to non-DCE services (e.g., Sybase).
- EcSeServerKeyMgmt -- This library provides a mechanism for servers to read their DCE login key from a keytab file.
- EcSeSybSecurityStubbed
- EcSeUtilityDbStubbed
- EcTiTime -- This library is used to obtain the current time in various formats, and manipulate the time.
- EcUr -- A Universal Reference (UR) is created as a logical reference to a extant ECS object.
- EcUt -- EcUt is a utility library for all the ECS applications.

- EcUtFactory -- The EcUtFactory should be used when you dynamically create objects based on the a class identifier.
- event -- Purpose of this library is to provide a framework for MSS Agent to store information to the MSS log file and rename the file when the file is full.

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