August Demo

Terms/Glossary

Ingest - Ingest of data includes all activities that are required to receive data from systems external to ECS and include that data in the ECS data holdings.

Direct Protocol - (Ingest) Some systems external to ECS use specific message level protocols to communicate with ECS. These protocols convey the dialogue between the systems to stimulate, effect and manage the transfer of data into the ECS.

Media - (Ingest) ECS is equipped to receive data from external systems via various forms of hard media. ECS reads any header information provided, then copies the data into ECS data holdings.

Polling - (Ingest) ECS can poll for data being placed in a network addressable disk area by an external system. When certain flags (generally delivery record and/or signal files) are detected, ECS then begins the transfer of the data into ECS data holdings.

Store - When ECS stores data it retains the data in its permanent archive and updates the index of its data holdings.

Archive Data - (Store) This activity is when ECS copies data into its permanent data holdings. Exceptions are made for data requiring high-volume and/or high-RMA holding for a pre-determined, but not permanent, length of time.

Catalogue Data - (Store) ECS inventories all of its data holdings. In this way, ECS data is indexed for optimum searching and location of data granules.

Locate Data - (Store) This provides granule unique data location references based on inventory search criteria.

Retrieve Data - (Store) To facilitate efficient use of data archive resources while providing timely access to the data, ECS provides an intermediate data holdings capability that is accessible by other ECS functions. This function copies data from the permanent holdings to temporary storage areas.

Process - ECS generates data by running science algorithms on current data holdings. In addition to generated data product, ECS also provides mechanisms to trace production history for all production whether the algorithms were successfully executed or not..

Planning - (Process) The volume of ECS Data Production requires data generation to be planned. Planning includes assigning the proper production rules and resources to future production to allow jobs to be activated such that they will optimize the use of production resources within the time constraints imposed.

Standard - (Process) Standard (or Routine) Production is data driven production, and refers to scheduled production that is initiated each time an the input data criteria are satisfied. Nominally, this means that each time a granule is placed into the ECS data holdings (either from external sources or generated within ECS from an earlier production run), and that granule is a primary input to an algorithm that generates higher order product data, the algorithm is run, generating the higher order product.

On-Demand - (Process) On-Demand Production is user driven production, and refers to production that is initiated in response to user specified input data criteria. It is not an efficient use of ECS resources to generate some products each and every time it is possible to generate them. Using On-Demand Production, all data is made available to ECS users, while optimizing DAAC production and storage facilities.

Re-Processing - (Process) Re-Processing data is DAAC operations driven production, and refers to scheduled regeneration of products. Regeneration priorities are controlled jointly by the DAAC Operations and Instrument Teams.

Search & Order - ECS users search for data in order to locate data of interest. Users may search for types of data, or they may search for granules of data. The criteria available for searching varies depending on the type of search and the characteristics of the data being searched. Ordering data is how users specify granules to be made available to the user.

Directory Search - (Search & Order) A Directory Search allows ECS users to discover what types of data are available for access. In a Directory Search, no specific granules are referenced, rather the types and their locations are referenced.

Inventory Search - (Search & Order) Inventory Search is when a user is trying to locate specific granules of interest. The user may search on a combination of spatial, temporal or other attribute values or ranges, all in order to discover granules that meet the criteria.

Order Products - (Search & Order) A user Orders Products by specifying one or more granules that are of interest, and asking for those granules to be sent to them, either electronically or via a type of hard media. In addition, for specific products orders can be placed for future granules not yet within the ECS holdings

Advertise Data & Services - (Search & Order) In order to be able to access ECS holdings the data and services offered on the data must be advertised .

Subscribe - The ECS Subscribe activities are built on a Publish-and-Subscribe metaphor. The essence of this metaphor is that you can subscribe to the future occurrence of a specified event. Events are published (advertised) and made available for

subscription by clients. Clients may subscribe to those events, and declare an action to be taken when that event occurs.

Notification - (Subscribe) Subscribers (both internal and external) are notified when an event that they have subscribed to has occurred. If the subscription is qualified by inventory attributes, notification will only occur if the qualifications have been met.

Standing Orders - (Subscribe) A Standing Order is when a user requests that all future granules of the specified data type are delivered to the user as soon as the data is available from ECS. Standing Orders are a primary use of ECS subscription services.

Register Subscription - (Subscribe) Register of a subscriptions includes two basic capabilities. First, events must be made known to users, and make them available for subscription. Secondly, ECS users may subscribe to those events, providing a specification of either a type of notification or an action to be taken, upon the occurrence of the event. Some events are qualified with a set of attributes that the event publisher will provide values for upon each occurrence of the event. These attribute values will be matched against all subscriptions on that event, evaluating whether or not the subscription has been met.

Deliver - ECS delivers data by copying requested data from the ECS data holdings and making it accessible to the users who ordered the data. The data is made available either electronically or via media which will be shipped from the DAAC to the user.

Electronic - (Deliver) Electronic Delivery of data is accomplished using ftp services. Electronic delivery moves the specified data granules from the ECS holdings to a disk area available to the user. Electronic push moves data from ECS holdings to the user's disk resources. Electronic pull moves the data from ECS holdings to an area of ECS managed disk that the user is allowed to copy from.

Media - (Deliver) Media Delivery of data is used to copy data from ECS holdings to a user-specified form of hard media. Once copied to the hard media, the DAAC operations personnel will mail the media to the user.

Order Tracking - (Deliver) Order Tracking to facilitates the status monitoring of a user's order. Some orders have a significant lifetime (weeks to months), and the user may want to know the current status of the order. Order tracking will provide a breakdown of all the current activities that are being used to fulfill the users order. Additionally, Order Tracking will be available as an audit trail, to determine what data was accessed, by whom, and when.