

Appendix A: V0 IMS Data Dictionary

Note: Keywords containing a tilde (~) are variants. The part following the ~ is not an actual part of the keyword but is used to distinguish conflicting definitions in the data dictionary. Only the part before the tilde is used in actual ODL messages.

ABORT	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	An abort message is sent by the client to request abortion of various searches. There is no literal abort message per se; in reality, it is a QUIT message with STATUS_CODE = 1000.
Parent Groups:	
Children:	

ACCOUNT_COMMENT	Maximum length: 256
Possible values:	ODL Type: Sequence String
Definition:	Notes on the status of the account.
Parent Groups:	VALID_ACCOUNT
Children:	

ACCOUNT_NUMBER	Maximum length: 80
Possible values:	ODL Type: String
Definition:	Account identifier provided by a DAAC.
Parent Groups:	VALID_ACCOUNT
Children:	

ACCOUNT_STATUS_REQUEST	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	Provides data for query of account status for all accounts for the user described by the CONTACT_ADDRESS at data center.
Parent Groups:	
Children:	[AUTHENTICATOR], CONTACT_ADDRESS, DATA_CENTER_ID, [ECS_AUTHENTICATOR], MESSAGE_ID, MONITOR, VERSION

ACCOUNT_STATUS_RESULT	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	Result of status request for this user.
Parent Groups:	
Children:	DATA_CENTER_ID, MESSAGE_ID, MONITOR, STATUS_CODE, [STATUS_CODE_COMMENT], [VALID_ACCOUNT], VERSION

ACKNOWLEDGE**Possible values:****Definition:**

Message sent to acknowledge receipt by client of inventory search chunk or inventory browse file.

*Used on inventory browse only with ASTER extensions for multiple browse files per granule.***Parent Groups:****Children:**

[MESSAGE_ID], MONITOR, VERSION

Maximum length:**ODL Type:** Aggregate

ADDITIONAL_INFO**Possible values:****Definition:**

User supplied information about order, applied to each package (line item).

Parent Groups: LINE_ITEM**Children:****Maximum length:** 80**ODL Type:** String

ADDRESS**Possible values:****Definition:**

Mailing (street) address for parent group, up to three lines.

*Should be no more than 3 strings in the sequence.***Parent Groups:**

BILLING_ADDRESS, CONTACT_ADDRESS, DAAC_CONTACT_ADDRESS, DATA_SET_CONTACT, SHIPPING_ADDRESS

Children:**Maximum length:** 32**ODL Type:** Sequence String

APPROX_COST**Possible values:** 0.0 to 99999999999999.99**Definition:**

Estimated cost for the selected data package.

Parent Groups: MEDIA_FORMAT~1**Children:****Maximum length:** 16**ODL Type:** Real

AUTHENTICATION_KEY**Possible values:****Definition:**

Password provided by user for accessing restricted data.

*identified on profile screen as "Restricted Data Access Key."***Parent Groups:****Children:****Maximum length:** 16**ODL Type:** String

AUTHENTICATOR **Maximum length:** 16
Possible values: **ODL Type:** String
Definition: Encrypted value from authentication key, last name, first name. Passed with every request (if authentication key is not blank).
If AUTHENTICATION_KEY is null, so will this be. Encryption is blind to case and non-alphanumeric characters.
Parent Groups: ACCOUNT_STATUS_REQUEST, BROWSE_REQUEST, DIRECTORY_SEARCH, INVENTORY_SEARCH, PRODUCT_CANCEL_REQUEST, PRODUCT_REQUEST, PRODUCT_STATUS_REQUEST, QUIT
Children:

BALANCE **Maximum length:** 16
Possible values: **ODL Type:** Real
Definition: Dollar amount remaining for a particular account.
Parent Groups: VALID_ACCOUNT
Children:

BILLING_ADDRESS **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Billing address for data order.
Parent Groups: PRODUCT_REQUEST
Children: [ADDRESS], CITY, COUNTRY, [EMAIL], [FAX], FIRST_NAME, LAST_NAME, [MIDDLE_INITIAL], [ORGANIZATION], PHONE, [STATE], [TITLE], [ZIP]

BILLING_ID **Maximum length:** 80
Possible values: **ODL Type:** String
Definition: Account number that the user enters or selects from the ACCOUNT_NUMBERS in one of the VALID_ACCOUNTS.
Parent Groups: LINE_ITEM
Children:

BROWSE **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Indicates what kinds of browse products are available from the archive for this data set.
Used for documentation only. Not a part of dependent valids support files nor in V0 protocol messages.
Parent Groups: DATASET-4
Children: FTP, INTEGRATED

BROWSE_GRANULES**Possible values:****Maximum length:****ODL Type:** Aggregate**Definition:** Granules of browse request.

In spite of name, a single granule is identified for the browse request. Each file, whether ftp or integrated, is specified in it's own request. The capability to request multiple ftp browse with a single message was discussed but never fully implemented.

Parent Groups: BROWSE_REQUEST**Children:** DATASET_ID, GRANULE_ID

BROWSE_HEADER**Possible values:****Maximum length:****ODL Type:** Aggregate**Definition:** Header information prefixed to browse file.
*Not used in V0 protocol messages.***Parent Groups:****Children:**

BROWSE_ONLY**Possible values:** Y**Maximum length:** 1**ODL Type:** Symbol**Definition:** Indicates only granules having associated browse images should be returned from the inventory search.**Parent Groups:** INVENTORY_SEARCH**Children:**

BROWSE_PRODUCT_DESCRIPTION**Possible values:****Maximum length:** 80**ODL Type:** Sequence String**Definition:** Browse product (image) description.**Parent Groups:** DATASET-1**Children:**

BROWSE_REQUEST**Possible values:****Maximum length:****ODL Type:** Aggregate**Definition:** Message requesting transfer of browse image(s).
*In fact, no V0 system sends or requires USER_AFFILIATION in BROWSE_REQUESTs.***Parent Groups:****Children:** [AUTHENTICATOR], BROWSE_GRANULES, BROWSE_TYPE, CONTACT_ADDRESS, DATA_CENTER_ID, [ECS_AUTHENTICATOR], MESSAGE_ID, MONITOR, [USER_AFFILIATION], VERSION

BROWSE_TYPE**Maximum length: 8****Possible values:** Y, N, FTP_Only**ODL Type:** Symbol**Definition:** Type of delivery for browse image.

In a BROWSE_REQUEST, FTP_ONLY means "send ftp browse" and Y means "send integrated browse." In a GRANULE, N means "not available," FTP_ONLY means "available only as FTP," and Y means "available as integrated" (and if INTEGRATED_BROWSE_ONLY=Y, then browse is available by integrated but not ftp, otherwise it is available by both).

Parent Groups: BROWSE_REQUEST, GRANULE**Children:**

BROWSE_URL**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Web URL providing access to browse images.**Parent Groups:** DATASET-1, DATASET-2, GRANULE**Children:** URL, URL_COMMENT

CAMPAIGN**Maximum length: 80****Possible values:****ODL Type:** String or Sequence
String**Definition:** Name(s) of campaign/project that gathered data associated with a dataset, granule, or search.

For backward compatibility, a single campaign value uses a string, multiple use a sequence string.

Parent Groups: DATASET-1, DATASET-4, DIRECTORY_SEARCH, GRANULE, INVENTORY_SEARCH**Children:**

CATEGORY**Maximum length: 7****Possible values:** USA, NOT USA**ODL Type:** String**Definition:** Affiliation category (USA or non-USA) for a user.**Parent Groups:** USER_AFFILIATION**Children:**

CENTROID_LAT**Maximum length: 9****Possible values:****ODL Type:** Real**Definition:** Latitude of center point coordinate where coverage is described as a quadrilateral or G-ring.**Parent Groups:** G_RING_LOC, POLYGON_LOC-2**Children:**

CENTROID_LON **Maximum length: 9**
Possible values: **ODL Type: Real**
Definition: Longitude of center point coordinate where coverage is described as a quadrilateral or G-ring.
Parent Groups: G_RING_LOC, POLYGON_LOC-2
Children:

CITY **Maximum length: 30**
Possible values: **ODL Type: String**
Definition: City of the address.
Parent Groups: BILLING_ADDRESS, CONTACT_ADDRESS, DAAC_CONTACT_ADDRESS, SHIPPING_ADDRESS
Children:

CLOUD_COVERAGE **Maximum length: 3**
Possible values: **ODL Type: Integer**
Definition: Percent of cloud coverage for granule.
(ASTER/ECS only.) This keyword is used as user's search parameter. This value is for quadrant scene. (Used by ASTER/ECS only. Presumably this is the maximum cloud cover value to be returned, though current ASTER documentation doesn't make this clear. VO extended search capabilities provide a more flexible search mechanism that was developed in parallel.)
Parent Groups: INVENTORY_SEARCH
Children:

COLORBAR **Maximum length: 3**
Possible values: **ODL Type: Sequence Integer**
Definition: May be provided to supply information needed to construct a continuous colorbar.
Each min, max pair represents a range of colors (0 through 255) used in the image. Each max must be not less than its corresponding min, but the pairs need not be in order.
Parent Groups: LEGEND
Children:

COMMENT **Maximum length: 60**
Possible values: **ODL Type: Sequence String**
Definition: Arbitrary text information about corresponding granule, dataset, or package provided by the data center.
Parent Groups: DATASET-1, GRANULE, PACKAGE, SPECIALIZED_CRITERIA-1
Children:

COMPLETION_DATE**Maximum length:** 10**Possible values:** yyyy-mm-dd**ODL Type:** String**Definition:** Actual date order was completed.

Present when STATUS_CODE=COMPLETED. ASTER GDS does not return COMPLETION_DATE under SUB_REQUEST_STATUS_INFO.

Parent Groups: ORDER_STATUS_INFO, SUB_REQUEST_STATUS_INFO**Children:**

CONTACT_ADDRESS**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** The address portion of a user's contact information.**Parent Groups:** ACCOUNT_STATUS_REQUEST, BROWSE_REQUEST, PRODUCT_REQUEST**Children:** ADDRESS, CITY, COUNTRY, EMAIL, [FAX], FIRST_NAME, LAST_NAME, [MIDDLE_INITIAL], [ORGANIZATION], PHONE, [STATE], [TITLE], [ZIP]

CONTACT_NAME**Maximum length:** 80**Possible values:****ODL Type:** String**Definition:** Name of contact at the Data Center.**Parent Groups:** DAAC_CONTACT_ADDRESS**Children:**

COUNTRY**Maximum length:** 30**Possible values:****ODL Type:** String**Definition:** Country of the address.**Parent Groups:** BILLING_ADDRESS, CONTACT_ADDRESS, DAAC_CONTACT_ADDRESS, SHIPPING_ADDRESS**Children:**

CRITERIA_DEFAULT**Maximum length:** 30**Possible values:****ODL Type:** Sequence (Real, Integer, Date, or Integer)**Definition:** Default value(s) for criterion.

Type must match type specified in CRITERIA_TYPE. If SELECT_NUM=MANY, then CRITERIA_DEFAULT can be any number of the CRITERIA_VALUES. If RANGE=Y, then CRITERIA_VALUE should be a sequence of two which will be the default minimum and maximum respectively. Otherwise CRITERIA_DEFAULT should be a single value.

Parent Groups: SPECIALIZED_CRITERIA-1**Children:**

CRITERIA_MAX **Maximum length:** 30
Possible values: **ODL Type:** Real, Integer, or Date
Definition: Maximum value acceptable for criterion, or maximum value of range specified.
Type must match type specified in CRITERIA_TYPE.
Parent Groups: SPECIALIZED_CRITERIA~1, SPECIALIZED_CRITERIA~2
Children:

CRITERIA_MIN **Maximum length:** 30
Possible values: **ODL Type:** Real, Integer, or Date
Definition: Minimum value acceptable for criterion, or minimum value of range specified.
Type must match type specified in CRITERIA_TYPE.
Parent Groups: SPECIALIZED_CRITERIA~1, SPECIALIZED_CRITERIA~2
Children:

CRITERIA_NAME **Maximum length:** 80
Possible values: **ODL Type:** String
Definition: Name used by data center to identify specific criterion.
Parent Groups: SPECIALIZED_CRITERIA~1, SPECIALIZED_CRITERIA~2
Children:

CRITERIA_TYPE **Maximum length:** 7
Possible values: STRING, REAL, INTEGER, DATE, GEO **ODL Type:** String
Definition: ODL type (or GEO) allowed for this criterion.
CRITERIA_MAX, CRITERIA_MIN, and CRITERIA_VALUE must be of this type for all but GEO. If GEO, CRITERIA_VALUE in SPECIALIZED_CRITERIA~1 will be a sequence string specifying allowable geographic types.
Parent Groups: SPECIALIZED_CRITERIA~1, SPECIALIZED_CRITERIA~2
Children:

CRITERIA_VALUE **Maximum length:** 30
Possible values: **ODL Type:** Sequence (Real, Integer, Date, or Integer)
Definition: List of values acceptable for criterion, or value(s) specified by user for criterion.
If CRITERIA_TYPE=GEO, then CRITERIA_VALUE in SPECIALIZED_CRITERIA~1 must be a sequence string containing one or more of "BY_POINT_LOC", "BY_RANGE_LOC", and "BY_POLYGON_LOC"; and the returning SPECIALIZED_CRITERIA~2 in the SUBSET_SPEC, ORDER_SPEC, or DATASET_ORDER_SPEC can contain a geographic specification of one of the matching types. Otherwise, type of CRITERIA_VALUE in both SPECIALIZED_CRITERIA~1 and SPECIALIZED_CRITERIA~2 must match type specified in CRITERIA_TYPE (or a sequence of that type).
Parent Groups: SPECIALIZED_CRITERIA~1, SPECIALIZED_CRITERIA~2
Children:

DAAC_CONTACT_ADDRESS**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** User Support contact information (including DAAC order id) for one or more data sets.

Information associated with one or more datasets. Group may be repeated in an FTP_BROWSE_RESULT or PRODUCT_RESULT, though older clients display only the first.

Parent Groups: FTP_BROWSE_RESULT, PRODUCT_RESULT, PRODUCT_STATUS_INFO, SUB_REQUEST_STATUS_INFO**Children:** [ADDRESS], CITY, CONTACT_NAME, COUNTRY, [DAAC_ORDER_ID], [DATASET_ID], [EMAIL], [FAX], ORGANIZATION, PHONE, [STATE], [ZIP]

DAAC_ORDER_ID**Maximum length:** 70**Possible values:****ODL Type:** String**Definition:** Optional identifier for order provided by data center.**Parent Groups:** DAAC_CONTACT_ADDRESS**Children:**

DATA_CENTER_ID**Maximum length:** 10**Possible values:** Must match (case blind) IMS valids name for DAAC.**ODL Type:** Sequence String**Definition:** Name of data center targeted by request or transmitting results.

Not included in INTEGRATED_BROWSE_RESULT for ASTER/ECS only.

Parent Groups: ACCOUNT_STATUS_REQUEST, ACCOUNT_STATUS_RESULT, BROWSE_REQUEST, DIRECTORY_RESULT, DIRECTORY_SEARCH, FTP_BROWSE_RESULT, GCMD_SEARCH, INTEGRATED_BROWSE_RESULT, INVENTORY_RESULT, INVENTORY_SEARCH, PACKAGE, PRICE_ESTIMATE_REQUEST, PRICE_ESTIMATE_RESULT, PRODUCT_CANCEL_RESULT, PRODUCT_REQUEST, PRODUCT_RESULT, PRODUCT_STATUS_INFO, QUIT**Children:**

DATA_CENTER_ID-2**Maximum length:** 10**Possible values:****ODL Type:** String**Definition:** Data center whose dependent valids are being submitted.

Not used in V0 protocol messages.

Parent Groups: VALIDS**Children:**

DATA_CENTER_LONGNAME**Maximum length:** 20**Possible values:****ODL Type:** String**Definition:** The name of the Data Center that archives the data set.

(ASTER/ECS only.) Examples of this would be GSFC, LaRC, etc. (Obviously the "long" is a misnomer.) Returned by ECS in ASTER directory searches.

Parent Groups: DATA_SET_CONTACT**Children:**

DATA_CENTER_URL**Possible values:****Definition:**

The Universal Reference Locator for accessing the data center.
(*ASTER/ECS only.*)

Parent Groups: DATA_SET_CONTACT**Children:****Maximum length:** 64**ODL Type:** String

DATA_SET_CONTACT**Possible values:****Definition:**

Information for contacting data center for a particular data set.
(*ASTER/ECS only.*)

Parent Groups: DATASET-3**Children:**

ADDRESS, DATA_CENTER_LONGNAME, [DATA_CENTER_URL], EMAIL,
[FAX], [FIRST_NAME], [LAST_NAME], [MIDDLE_INITIAL], PHONE

Maximum length:**ODL Type:** Aggregate

DATA_URL**Possible values:****Definition:**

Web URL providing additional data access.

Parent Groups:

DATASET-1, DATASET-2, FTP_BROWSE_RESULT, GRANULE,
MEDIA_FORMAT-1, PRODUCT_RESULT, SUB_REQUEST_STATUS_INFO

Children:

URL, URL_COMMENT

Maximum length:**ODL Type:** Aggregate

DATASET_COVERAGE**Possible values:****Definition:**

Spatial and temporal coverage of full data set.

Used for documentation only. Not a part of dependent valids support files nor V0 in protocol messages.

Parent Groups:

DATASET-4

Children:

SPATIAL, TEMPORAL

Maximum length:**ODL Type:** Aggregate

DATASET_HOME_PAGE**Possible values:****Definition:**

URL for a dataset's home page (distinct from a Guide document).

Parent Groups:

DATASET-1, DATASET-2

Children:

URL, URL_COMMENT

Maximum length:**ODL Type:** Aggregate

DATASET_ID **Maximum length:** 80
Possible values: **ODL Type:** Sequence String
Definition: Names of valid IMS datasets associated with requests or results.
Each value returned in INVENTORY_RESULTS and DIRECTORY_RESULTS must match (case blind) IMS valids name for some data set.
Parent Groups: BROWSE_GRANULES, DAAC_CONTACT_ADDRESS, DATASET~1, DATASET~2, DATASET~3, DIRECTORY_SEARCH, GCMD_SEARCH, IMAGE, INVENTORY_SEARCH, LINE_ITEM, PACKAGE, PRODUCT_DELIVERY, SUB_REQUEST_STATUS_INFO
Children:

DATASET_ID~2 **Maximum length:** 80
Possible values: **ODL Type:** String
Definition: Name of dataset whose dependent valids are being provided.
Not used in V0 protocol messages.
Parent Groups: DATASET~4
Children:

DATASET_ORDER_OPTIONS **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Indicates special order parameters for ordering dataset as a whole (including the possibility of limiting the dataset to just granules in a particular time range or geographic area)..
Used in a way similar to order or subset options but dataset-based ordering. Note that a geographic specification within DATASET_ORDER_OPTIONS would presumably be used to limit to whole granules within a geographic area; but there could also be a SUBSET_OPTIONS to further subset the individual granules ordered.
Parent Groups: PACKAGE
Children: [REQUIRED], SPECIALIZED_CRITERIA~1

DATASET_ORDER_SPEC **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Order processing/generation parameters selected by user from DATASET_ORDER_OPTIONS applicable to the dataset as a whole..
Parent Groups: LINE_ITEM
Children: [SPECIALIZED_CRITERIA~2]

DATASET-1**Possible values:****Maximum length:****ODL Type:** Aggregate**Definition:**

Information about granules of a single data set in an inventory result.

Parent Groups:

INVENTORY_RESULT

Children:[BROWSE_PRODUCT_DESCRIPTION], [BROWSE_URL], [CAMPAIGN],
[COMMENT], [DATASET_HOME_PAGE], DATASET_ID, [DATA_URL],
[DAY_NIGHT], [EXTENDED_CRITERIA_USED], [GRANULE], [MD_ENTRY_ID],
[MISC_URL], [NUMBER_OF_GRANULE_HITS], [PACKAGE], [PACKAGE_ID],
[PARAMETER-1], [PROCESSING_LEVEL], [RESTRICTION], [SENSOR_NAME],
[SOURCE_NAME], [SPECIALIZED_SEARCH_URL], STATUS_CODE,
[VALID_ACCOUNT]

DATASET-2**Possible values:****Maximum length:****ODL Type:** Aggregate**Definition:**

Data set information used to find directory information in GCMD.

Parent Groups:

DIRECTORY_RESULT

Children:[BROWSE_URL], [DATASET_HOME_PAGE], DATASET_ID, [DATA_URL],
MD_ENTRY_ID, [MISC_URL], [ORG_CENTER], [PACKAGE], [PACKAGE_ID],
[RANGE_LOC], [SPECIALIZED_SEARCH_URL], [START_DATE], [STOP_DATE]

DATASET-3**Possible values:****Maximum length:****ODL Type:** Aggregate**Definition:**Directory information about a single dataset returned by ECS to ASTER GDS user.
(*ASTER/ECS only.*)**Parent Groups:**

DIRECTORY_RESULT

Children:DATASET_ID, [DATA_SET_CONTACT], DESCRIPTION, DISCIPLINE,
SENSOR_NAME, SOURCE_NAME, [SPATIAL_COVERAGE], [START_DATE],
[STOP_DATE], TERM, TOPIC, VARIABLE

DATASET-4**Possible values:****Maximum length:****ODL Type:** Aggregate**Definition:**Contains dependent valids for a single data set being submitted by an archive.
*Not used in V0 protocol messages.***Parent Groups:**

VALIDS

Children:BROWSE, [CAMPAIGN], DATASET_COVERAGE, DATASET_ID-2,
[DATE_AVAILABLE], [DAY_NIGHT_FLAG], [DEPENDENCY],
FTP_PRODUCT_AVAILABLE, GRANULE_COVERAGE, MD_ENTRY_ID,
[PARAMETER-1], PROCESSING_LEVEL, [SOURCE], [SENSOR]

DATE_AVAILABLE**Possible values:****Maximum length:****ODL Type:** String**Definition:**Date (in no particular format) when dataset will become available.
*Not used in V0 protocol messages.***Parent Groups:**

DATASET-4

Children:

DAY_NIGHT **Maximum length:** 1
Possible values: D, N **ODL Type:** Symbol
Definition: Flag requesting or specifying data gathered during daylight only or nighttime only.
Support not provided for this field by all data centers for all data sets.
Parent Groups: DATASET~1, GRANULE, INVENTORY_SEARCH
Children:

DAY_NIGHT_FLAG **Maximum length:** 5
Possible values: "DAY", "NIGHT" **ODL Type:** Sequence String
Definition: Indicates whether dataset is wholly daytime data, nighttime, or both.
Used for documentation only. Not a part of dependent valids support files nor in V0 protocol messages.
Parent Groups: DATASET~4
Children:

DEPENDENCY **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Groups of parameters, sources, and sensors that are logically dependent within a dataset's valids. Presence in a dependency group or a DATASET~4 determines what values are compatible for client selection.
Not used in V0 protocol messages.
Parent Groups: DATASET~4
Children: [PARAMETER~1], [SENSOR], [SOURCE]

DESCRIPTION **Maximum length:** unlimited
Possible values: **ODL Type:** String
Definition: Identifies the major emphasis of the content of the collection. This can be a long textual description, therefore it is left unbounded at this time.
(ASTER/ECS only.)
Parent Groups: DATASET~3
Children:

DIRECTORY_RESULT **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Provides result of directory level query against data center.
V0 uses DATASET~2 and queries the GCMD for dataset information corresponding to the MD_ENTRY_IDs. ASTER/ECS uses DATASET~3 to display the information directly.
Parent Groups:
Children: DATASET~2, DATASET~3, DATA_CENTER_ID, MESSAGE_ID, MONITOR, NUMBER_OF_DATASETS, [PACKAGE], STATUS_CODE, [STATUS_CODE_COMMENT], VERSION

DIRECTORY_SEARCH**Possible values:****Maximum length:****Definition:**

Provides data for directory level search of data center.

ODL Type: Aggregate**Parent Groups:****Children:**[AUTHENTICATOR], [CAMPAIGN], [DATA_CENTER_ID], [DATASET_ID], [ECS_AUTHENTICATOR], MESSAGE_ID, MONITOR, [PARAMETER-1], [PROCESSING_LEVEL], [RANGE_LOC], [SENSOR_NAME], [SOURCE_NAME], [START_DATE], [STOP_DATE], VERSION

DISCIPLINE**Possible values:****Maximum length:** 24**Definition:**Keyword(s) used to describe the general discipline area of the collection. A collection can conceivably cover several disciplines. Examples include Earth Science, Space Science, etc.
(ASTER/ECS only.)**ODL Type:** Sequence String**Parent Groups:**

DATASET-3

Children:

DISCRETE**Possible values:****Maximum length:** 30**Definition:**

Labels for individual colorbar entries and/or to specify discrete values.

ODL Type: Sequence String*Actually sequence of pairs of integer, string, integer, string.... Each value/text pair specifies a color value (0 through 255) and its corresponding text label. If a discrete value is in one of the colorbar ranges, it will be labeled on the colorbar; otherwise, a discrete color block is created and labeled.***Parent Groups:**

LEGEND

Children:

EAST_LONGITUDE**Possible values:**

-180.0000 to +180.0000

Maximum length: 9**Definition:**

Easternmost longitude for a range on the globe.

ODL Type: Real**Parent Groups:**

RANGE_LOC

Children:

EASTBOUNDINGCOORDINATE**Possible values:**

-180.0 to +180.0

Maximum length: 11**Definition:**

Easternmost limit of coverage expressed in longitude.

ODL Type: Real

(ASTER/ECS only.)

Parent Groups:

SPATIAL_COVERAGE

Children:

ECS_AUTHENTICATOR**Maximum length:** 100**Possible values:****ODL Type:** String**Definition:** Optional in every outgoing client message. Used for interfacing with ECS registration.**Parent Groups:** ACCOUNT_STATUS_REQUEST, BROWSE_REQUEST, DIRECTORY_SEARCH, INVENTORY_SEARCH, PRODUCT_CANCEL_REQUEST, PRODUCT_REQUEST, PRODUCT_STATUS_REQUEST, QUIT**Children:**

EMAIL**Maximum length:** 128**Possible values:****ODL Type:** String**Definition:** Internet e-mail address for associated person.**Parent Groups:** BILLING_ADDRESS, CONTACT_ADDRESS, DAAC_CONTACT_ADDRESS, DATA_SET_CONTACT, SHIPPING_ADDRESS**Children:**

ERROR**Maximum length:** 80**Possible values:****ODL Type:** Sequence String**Definition:** Data center-provided text information about VALID_ACCOUNT details.**Parent Groups:** VALID_ACCOUNT**Children:**

EST_COST**Maximum length:** 16**Possible values:** 0.0 to 99999999999999.99**ODL Type:** Real**Definition:** Estimated cost of package, calculated from package's APPROX_COST.**Parent Groups:** LINE_ITEM**Children:**

ESTIMATED_PRICE**Maximum length:** 10**Possible values:****ODL Type:** Integer**Definition:** Estimated total price of products.
(ASTER/ECS only.) The unit is Yen.**Parent Groups:** PRICE_ESTIMATE_RESULT**Children:**

EXTENDED_CRITERIA_AVAIL**Maximum length:** 80**Possible values:****ODL Type:** Sequence String**Definition:**

Extended search criteria applicable to a dataset.

Data centers provide EXTENDED_CRITERIA_AVAIL as a part of their valids submission to give CRITERIA_NAMES of the EXTENDED_CRITERIA that may be used for each dataset. Not used in V0 protocol messages.

Parent Groups: DATASET~4**Children:**

EXTENDED_CRITERIA_USED**Maximum length:** 80**Possible values:** CRITERIA_NAMES from
INVENTORY_SEARCH**ODL Type:** Sequence String**Definition:**

Extended search criteria used in search at data center.

Parent Groups: DATASET~1**Children:**

EXTENDED_SEARCH**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

Extended criteria requested by user for search.

Multiple EXTENDED_SEARCHs within an INVENTORY_SEARCH should be ANDed along with standard fields. Multiple SPECIALIZED_CRITERIA~2 within the EXTENDED_SEARCH aggregate are normally variants to be ORed (unless several are combined to make a multiple valued criteria).

Parent Groups: INVENTORY_SEARCH**Children:** SPECIALIZED_CRITERIA~2

EXTENDED_SEARCH_MASTER_LIST**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

List of all approved EXTENDED_SEARCH alternatives, maintained by science team.

Not used in V0 protocol messages. Used by clients/gateways to present search alternatives.

Parent Groups:**Children:** [SPECIALIZED_CRITERIA~1]

FAX**Maximum length:** 22**Possible values:****ODL Type:** String**Definition:**

Fax phone number for associated person.

Parent Groups:BILLING_ADDRESS, CONTACT_ADDRESS, DAAC_CONTACT_ADDRESS,
DATA_SET_CONTACT, SHIPPING_ADDRESS**Children:**

FIRST_NAME	Maximum length: 20
Possible values:	ODL Type: String
Definition:	First name for addressed person.
Parent Groups:	BILLING_ADDRESS, CONTACT_ADDRESS, DATA_SET_CONTACT, SHIPPING_ADDRESS
Children:	
FORMAT_ID	Maximum length: 30
Possible values:	ODL Type: String
Definition:	A valid value for media distribution format for this package. <i>MEDIA_FORMAT-2 is one of the FORMAT_ID strings listed in the MEDIA_FORMAT-1 group.</i>
Parent Groups:	MEDIA, MEDIA_FORMAT-1, SUB_REQUEST_STATUS_INFO
Children:	
FTP	Maximum length: 5
Possible values:	ODL Type: String
Definition:	Indicates whether data center provides ftp browse for some granules of this dataset. <i>Not used in V0 protocol messages.</i>
Parent Groups:	BROWSE
Children:	
FTP_BROWSE_RESULT	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	Results from a BROWSE_REQUEST for BROWSE_TYPE = FTP_ONLY.
Parent Groups:	
Children:	DAAC_CONTACT_ADDRESS, DATA_CENTER_ID, [DATA_URL], MESSAGE_ID, MONITOR, STATUS_CODE, [STATUS_CODE_COMMENT], TOTAL_FILE_SIZE, VERSION
FTP_PRODUCT_AVAILABLE	Maximum length: 5
Possible values:	ODL Type: String
Definition:	Indicates whether the archive delivers dataset products via ftp. <i>Used for documentation only. Not a part of dependent valids support files nor in V0 protocol messages.</i>
Parent Groups:	
Children:	

G_RING_LOC **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Granule coverage described by one or more polygons, each of at least 3 sides and which contain zero or more holes, each of which is a polygon of at least 3 sides. All connecting lines are presumed to be arcs of great circles.
For backward compatibility, coverage must also be described by either a RANGE_LOC or POLYGON_LOC-2.
Parent Groups: GRANULE
Children: CENTROID_LAT, CENTROID_LON, OUTER_RING

GCMD_SEARCH **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Internal ODL tree used in GCMD search.
Not a part of dependent valids support files nor in V0 protocol messages.
Parent Groups:
Children: DATASET_ID, DATA_CENTER_ID, MD_ENTRY_ID, ORG_CENTER

GLOBAL_GRANULE **Maximum length:** 1
Possible values: Y **ODL Type:** Symbol
Definition: Granule has global coverage.
Used in place of xxx_LOC keywords for granules with global coverage.
Parent Groups: GRANULE
Children:

GLOBAL_GRANULES_ONLY **Maximum length:** 1
Possible values: Y **ODL Type:** Symbol
Definition: Only granules with global coverage should be returned in the result.
Parent Groups: INVENTORY_SEARCH
Children:

GRANULE **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Collection of metadata about a single data granule.
If SENSOR_NAME and SOURCE_NAME are not given in DATASET-1, they must be included in GRANULE. If GRANULE contains no PACKAGE_ID, it cannot be ordered.
Parent Groups: DATASET-1
Children: [BROWSE_TYPE], [BROWSE_URL], [CAMPAIGN], [COMMENT], [DATA_URL], [DAY_NIGHT], [G_RING_LOC], GLOBAL_GRANULE, GRANULE_ID, [INTEGRATED_BROWSE_ONLY], [PACKAGE_ID], [PARAMETER-1], [PATH_ROW_LOC], POINT_LOC, POLYGON_LOC-2, [PROCESSING_LEVEL], [QUADRANT_CLOUD_COVERAGE], RANGE_LOC, [SCENE_CLOUD_COVERAGE], [SENSOR_NAME], [SOURCE_NAME], [SPECIALIZED_RESULTS], START_DATE, STOP_DATE, [XAR_ID]

GRANULE_COVERAGE**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Spatial and temporal coverage of individual granules of a dataset.
*Used for documentation only. Not a part of dependent valids support files nor in V0 protocol messages.***Parent Groups:** DATASET~4**Children:** SPATIAL, TEMPORAL

GRANULE_ID**Maximum length:** 50**Possible values:****ODL Type:** String**Definition:** Granule's ID from inventory.**Parent Groups:** BROWSE_GRANULES, GRANULE, IMAGE**Children:**

GRANULE_ID_REQ**Maximum length:** 80**Possible values:****ODL Type:** Sequence String**Definition:** ID of granule requested in search message (possibly containing wild card characters).*If GRANULE_ID_REQ is present in INVENTORY_SEARCH, DATASET_ID is also required; if omitted, geographic specification (GLOBAL_GRANULES_ONLY, POINT_LOC, POLYGON_LOC~1, or RANGE_LOC) is required.***Parent Groups:** INVENTORY_SEARCH**Children:**

GRANULE_LIMIT**Maximum length:** 10**Possible values:** 1 to 2147483647**ODL Type:** Integer**Definition:** Number of granules requested per dataset.**Parent Groups:** INVENTORY_SEARCH**Children:**

IMAGE**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Provides attributes of an integrated browse (image) file being transferred.**Parent Groups:** INTEGRATED_BROWSE_RESULT**Children:** DATASET_ID, GRANULE_ID, IMAGE_ID, IMAGE_SIZE

IMAGE_ID**Maximum length:** 50**Possible values:****ODL Type:** String**Definition:** Image identifier from data center.**Parent Groups:** IMAGE**Children:**

IMAGE_SIZE	Maximum length: 10
Possible values: 1 to 2147483647	ODL Type: String
Definition: Image size in bytes.	
Parent Groups: IMAGE	
Children:	
IMS_STAFF	Maximum length: 10
Possible values:	ODL Type: String
Definition: Sent with every client message. Usually blank unless the client was run by a member of the IMS Staff. <i>In the X client, copied from the IMS staff environment variable (as set in the shell script). In the Web gateway, set to "1" if the group "WWW_DEVELOPER" is present when loaded in the User Preferences.</i>	
Parent Groups: VERSION	
Children:	
INFO_PROMPT	Maximum length: 80
Possible values:	ODL Type: String
Definition: Data center-supplied string to describe use of "additional info" when ordering. <i>Data center can provide usage or point to URL for help on ADDITIONAL_INFO's use.</i>	
Parent Groups: PACKAGE	
Children:	
INITIAL_USER_KEY	Maximum length: 12
Possible values:	ODL Type: String
Definition: Original password used at the data center when first registering a user for data center-hosted clients. <i>Set by shell for data center-hosted clients. Originally intended to help user support groups distinguish individuals with similar names. May not be used much any more.</i>	
Parent Groups: PRODUCT_REQUEST	
Children:	
INITIATOR_REQUEST_ID	Maximum length: 30
Possible values:	ODL Type: Sequence String
Definition: ID assigned by the ASTER Gateway or ASTER GDS IMS to track Product Request. This is a single value when passed in a Product Request message. <i>(ASTER/ECS only.) When ECS client submits Product Request, ASTER Gateway generates this ID. When ASTER GDS client submits Product Request, ASTER GDS IMS generates this ID.</i>	
Parent Groups: ORDER_STATUS_INFO, PRODUCT_CANCEL_REQUEST, PRODUCT_CANCEL_RESULT, PRODUCT_REQUEST, PRODUCT_STATUS_REQUEST	
Children:	

INNER_RING**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

Data describing a ring (polygon) that is a hole in an OUTER_RING.
LATITUDE and LONGITUDE must be sequences of three or more values; both must have the same number of values. Order of points must be clockwise from a satellite view.

Parent Groups: OUTER_RING**Children:** LATITUDE, LONGITUDE

INTEGRATED**Maximum length:** 5**Possible values:** "yes", "true", "no", "false", ""**ODL Type:** String**Definition:**

Indicates whether data center provides integrated browse for some granules of this dataset.
Not used in V0 protocol messages.

Parent Groups: BROWSE**Children:**

INTEGRATED_BROWSE_ONLY**Maximum length:** 1**Possible values:** Y or N**ODL Type:** Symbol**Definition:**

Indicates that an integrated browse product is available for this granule, but not an ftp browse product. If omitted, N is assumed.
Used to disambiguate BROWSE_TYPE = Y in GRANULE. Originally integrated browse availability implied ftp as well, so no "integrated only" was provided for. This field was added rather than a new value for BROWSE_TYPE to provide greater backward compatibility.

Parent Groups: GRANULE**Children:**

INTEGRATED_BROWSE_RESULT**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

Provides result of BROWSE_REQUEST where BROWSE_TYPE = Y.

Parent Groups:**Children:** DATA_CENTER_ID, IMAGE, [LAST_BROWSE], MESSAGE_ID, MONITOR, STATUS_CODE, [STATUS_CODE_COMMENT], [VERSION]

INVENTORY_RESULT**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

Provides result set from inventory query.

Parent Groups:**Children:** [DATASET-1], DATA_CENTER_ID, MESSAGE_ID, MONITOR, [NUMBER_OF_DATASETS], [PACKAGE], STATUS_CODE, [STATUS_CODE_COMMENT], [UNMAPPED_FIELD], [VERSION]

INVENTORY_SEARCH**Possible values:****Maximum length:****Definition:**

Provides data to perform inventory query.

ODL Type: Aggregate**Parent Groups:****Children:**

[AUTHENTICATOR], [BROWSE_ONLY], [CAMPAIGN], [CLOUD_COVERAGE], [DATA_CENTER_ID], [DATASET_ID], [DAY_NIGHT], [ECS_AUTHENTICATOR], [EXTENDED_SEARCH], [GLOBAL_GRANULES_ONLY], [GRANULE_ID_REQ], GRANULE_LIMIT, MESSAGE_ID, MONITOR, [PARAMETER~1], [PATH_ROW_LOC], [POINT_LOC], [POLYGON_LOC~1], [PROCESSING_LEVEL], [RANGE_LOC], [SENSOR_NAME], [SOURCE_NAME], [START_DATE], [START_DAY_OF_YEAR], [STOP_DATE], [STOP_DAY_OF_YEAR], VERSION, [XAR_ID]

LABEL**Possible values:****Maximum length:** 64**Definition:**May be specified to provide a one-line descriptive label for the browse image.
*This entry is optional and is most often used when there is more than one browse image in a single HDF browse image file.***ODL Type:** String**Parent Groups:**

LEGEND

Children:

LAST_BROWSE**Possible values:** 0, 1**Maximum length:** 1**Definition:**Indicates whether last integrated browse in a series is being transmitted.
*(ASTER/ECS only.) If LAST_BROWSE=0 is present, then the image which follows is not the last browse image in the sequence; an ACK is required by the client, and following that the server will send another INTEGRATED_BROWSE_RESULT and image file. If LAST_BROWSE=1 or is omitted, the image that follows is the last (or only) one to be transmitted.***ODL Type:** Symbol**Parent Groups:**

INTEGRATED_BROWSE_RESULT

Children:

LAST_NAME**Possible values:****Maximum length:** 20**Definition:**

Last name for addressed person.

ODL Type: String**Parent Groups:**

BILLING_ADDRESS, CONTACT_ADDRESS, DATA_SET_CONTACT, SHIPPING_ADDRESS

Children:

LATITUDE**Possible values:** -90.0000 to +90.0000**Maximum length:** 8**Definition:**

Latitude for a point or sequence of points on the globe.

ODL Type: Sequence Real**Parent Groups:**

INNER_RING, OUTER_RING, POINT_LOC, POLYGON_LOC~1, POLYGON_LOC~2

Children:

LEGEND **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Description of a legend for a RAS8 image within an HDF browse file.
Should not be in BROWSE_HEADER structure, but associated with corresponding image.
Parent Groups:
Children: [COLORBAR], DISCRETE, [LABEL], [UNITS]

LINE_ITEM **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Information needed for ordering a package.
Parent Groups: PRODUCT_REQUEST
Children: [ADDITIONAL_INFO], [BILLING_ID], DATASET_ID, [DATASET_ORDER_SPEC], [EST_COST], MEDIA_FORMAT~2, MEDIA_TYPE~2, [ORDER_SPEC], PACKAGE_ID, PROCESSING_OPTIONS, [SUBSET_SPEC]

LONGITUDE **Maximum length:** 9
Possible values: -180.0000 to +180.0000 **ODL Type:** Sequence Real
Definition: Longitude for a point or sequence of points on the globe.
Parent Groups: INNER_RING, OUTER_RING, POINT_LOC, POLYGON_LOC~1, POLYGON_LOC~2
Children:

MAP_PROJECTION_TYPE **Maximum length:** 80
Possible values: PLATE_CARREE, **ODL Type:** String
NORTH_POLAR_STEREOGRAPHIC,
ORTHOGRAPHIC,
SOUTH_POLAR_STEREOGRAPHIC
Definition: Map projection type under which polygon was defined.
Parent Groups: POLYGON_LOC~1
Children:

MAX_LEN **Maximum length:** 5
Possible values: **ODL Type:** Integer
Definition: Maximum length for an input character string
Parent Groups: SPECIALIZED_CRITERIA~1
Children:

MD_ENTRY_ID **Maximum length:** 31
Possible values: **ODL Type:** String
Definition: Global Change Master Directory entry (DIF) id.
Parent Groups: DATASET~1, DATASET~2, DATASET~4, GCMD_SEARCH
Children:

MEDIA**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Media information for Product Request.

(ASTER/ECS only.) ASTER groups product orders by media type. This aggregate is similar to V0 LINE_ITEM but assures all products for the same media type/format are grouped together within the ODL message.

Parent Groups: PRICE_ESTIMATE_REQUEST, PRODUCT_REQUEST**Children:** FORMAT_ID, PRODUCT_DELIVERY, TYPE_ID

MEDIA_FORMAT~1**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Description of distribution formats available for this package and media type.

MEDIA_FORMAT~2 is one of the FORMAT_ID strings listed in the MEDIA_FORMAT~1 group.

Parent Groups: MEDIA_TYPE~1**Children:** APPROX_COST, [DATA_URL], FORMAT_ID

MEDIA_FORMAT~2**Maximum length:** 30**Possible values:****ODL Type:** String**Definition:** Media format selected by user for order on this line item.

MEDIA_FORMAT~2 is one of the FORMAT_ID strings listed in the MEDIA_FORMAT~1 group.

Parent Groups: LINE_ITEM**Children:**

MEDIA_TYPE~1**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Description of media on which package can be distributed.

MEDIA_TYPE~2 is one of the TYPE_ID strings listed in the MEDIA_TYPE~1 group.

Parent Groups: PROCESSING_OPTION**Children:** MEDIA_FORMAT~1, NUMBER_OF_MEDIA_FORMAT, TYPE_ID

MEDIA_TYPE~2**Maximum length:** 20**Possible values:****ODL Type:** String**Definition:** Medium selected by use for this line item.

MEDIA_TYPE~2 is one of the TYPE_ID strings listed in the MEDIA_TYPE~1 group.

Parent Groups: LINE_ITEM**Children:**

MESSAGE_ID	Maximum length: 30
Possible values:	ODL Type: String
Definition:	Identifier used to track messages. <i>Generated by the client or Web gateway.</i>
Parent Groups:	ACCOUNT_STATUS_REQUEST, ACCOUNT_STATUS_RESULT, ACKNOWLEDGE, BROWSE_REQUEST, DIRECTORY_RESULT, DIRECTORY_SEARCH, FTP_BROWSE_RESULT, INTEGRATED_BROWSE_RESULT, INVENTORY_RESULT, INVENTORY_SEARCH, PRICE_ESTIMATE_REQUEST, PRICE_ESTIMATE_RESULT, PRODUCT_CANCEL_REQUEST, PRODUCT_CANCEL_RESULT, PRODUCT_REQUEST, PRODUCT_RESULT, PRODUCT_STATUS_INFO, PRODUCT_STATUS_REQUEST, QUIT
Children:	
MIDDLE_INITIAL	Maximum length: 1
Possible values:	ODL Type: String
Definition:	Middle initial of name for this address.
Parent Groups:	BILLING_ADDRESS, CONTACT_ADDRESS, DATA_SET_CONTACT, SHIPPING_ADDRESS
Children:	
MISC_URL	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	URL for additional information or services for a dataset.
Parent Groups:	DATASET-1, DATASET-2, PRODUCT_RESULT
Children:	URL, URL_COMMENT
MONITOR	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	Statistics field for this message.
Parent Groups:	ACCOUNT_STATUS_REQUEST, ACCOUNT_STATUS_RESULT, ACKNOWLEDGE, BROWSE_REQUEST, DIRECTORY_RESULT, DIRECTORY_SEARCH, FTP_BROWSE_RESULT, INTEGRATED_BROWSE_RESULT, INVENTORY_RESULT, INVENTORY_SEARCH, PRICE_ESTIMATE_REQUEST, PRICE_ESTIMATE_RESULT, PRODUCT_CANCEL_REQUEST, PRODUCT_CANCEL_RESULT, PRODUCT_REQUEST, PRODUCT_RESULT, PRODUCT_STATUS_INFO, PRODUCT_STATUS_REQUEST, QUIT
Children:	[RX_CLIENT], [RX_SERVER], [SESSION_ID], TX_CLIENT, [TX_SERVER]
NORTH_LATITUDE	Maximum length: 8
Possible values:	ODL Type: Real
Definition:	Northernmost latitude for a range on the globe.
Parent Groups:	RANGE_LOC
Children:	

NORTHBOUNDINGCOORDINATE **Maximum length: 11**
Possible values: -90.0 to +90.0 **ODL Type: Real**
Definition: Northernmost coordinate of the limit of coverage expressed in geodetic latitude.
(*ASTER/ECS only.*)
Parent Groups: SPATIAL_COVERAGE
Children:

NUMBER_OF_DATASETS **Maximum length: 10**
Possible values: 1 to 2147483647 **ODL Type: Integer**
Definition: Number of data sets being returned in a query result set.
Parent Groups: DIRECTORY_RESULT, INVENTORY_RESULT
Children:

NUMBER_OF_GRANULE_HITS **Maximum length: 10**
Possible values: 1 to 2147483647 **ODL Type: Integer**
Definition: Number of granules (or one more than the number) for this dataset being returned in full query result set.
Should be present only in the last chunk of granules for a data set. Used to signal all granules have been returned. Some archives send value one greater than number actually returned to flag more granules were available than were returned.
Parent Groups: DATASET~1
Children:

NUMBER_OF_GRANULES **Maximum length: 10**
Possible values: 1 to 2147483647 **ODL Type: Integer**
Definition: The number of granules included in the package.
Use of this field in SUB_REQUEST_STATUS_INFO is not well defined.
Parent Groups: PACKAGE, SUB_REQUEST_STATUS_INFO
Children:

NUMBER_OF_MEDIA_FORMAT **Maximum length: 10**
Possible values: **ODL Type: Integer**
Definition: Number of MEDIA_FORMAT~1 groups to follow.
Parent Groups: MEDIA_TYPE~1
Children:

NUMBER_OF_MEDIA_TYPE **Maximum length: 10**
Possible values: **ODL Type: Integer**
Definition: Number of MEDIA_TYPE~1 groups to follow.
Parent Groups: PROCESSING_OPTION
Children:

NUMBER_OF_OPTIONS**Maximum length:** 10**Possible values:** 1 to 2147483647**ODL Type:** Integer**Definition:** Number of PROCESSING_OPTION groups to follow.**Parent Groups:** PACKAGE**Children:**

OPTION_ID**Maximum length:** 30**Possible values:****ODL Type:** String**Definition:** Description of processing option available for this package.*In spite of the name, PROCESSING_OPTIONS is one of the OPTION_ID strings listed in the PROCESSING_OPTION groups.***Parent Groups:** PROCESSING_OPTION**Children:**

ORDER_OPTIONS**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Indicates special order product generation parameters for a package can be selected.*Used in a way similar to subset options but for processing other than subsetting.***Parent Groups:** PACKAGE**Children:** [REQUIRED], SPECIALIZED_CRITERIA~1

ORDER_SPEC**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Order processing/generation parameters selected by user.**Parent Groups:** LINE_ITEM**Children:** [SPECIALIZED_CRITERIA~2]

ORDER_STATUS_CODE**Maximum length:** 10**Possible values:** PROPOSED, ACCEPTED, PROCESSING, CANCELED, FAILED, COMPLETED, REJECTED, ON HOLD, CLOSED**ODL Type:** String**Definition:** Provides the status for a order status request.*Original values proposed by ASTER/ECS: PROPOSED (received by data center), ACCEPTED (received by DADS and validated), PROCESSING (being processed for delivery), CANCELED (cancelled at user request), FAILED (could not be processed due to error condition), COMPLETED (order processing completed successfully), REJECTED (rejected by data center). VO IMS has added ON HOLD (not being processed for some reason) and CLOSED (order closed by data center).***Parent Groups:** ORDER_STATUS_INFO, PRODUCT_CANCEL_RESULT**Children:**

ORDER_STATUS_COMMENT**Maximum length:** 1000**Possible values:****ODL Type:** Sequence String**Definition:**

Ancillary information concerning status or cancellation of a product request.
ASTER ICD specified this as a 128-character string. V0 IMS raised it to 1000 and made it a sequence string to allow additional detail.

Parent Groups:

ORDER_STATUS_INFO, PRODUCT_CANCEL_RESULT

Children:

ORDER_STATUS_INFO**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

Status on an order for (usually) a single request id.
ASTER/ECS uses INITIATOR_REQUEST_ID; V0 uses REQUEST_ID-2.

Parent Groups:

PRODUCT_STATUS_INFO

Children:

[COMPLETION_DATE], INITIATOR_REQUEST_ID, ORDER_STATUS_CODE,
[ORDER_STATUS_COMMENT], [PLANNED_COMPLETION_DATE], PRICE,
RECEIVE_DATE, REQUEST_ID-2, SHIPPING_ADDRESS,
SUB_REQUEST_STATUS_INFO

ORG_CENTER**Maximum length:** 31**Possible values:****ODL Type:** String**Definition:**

Originating center for MD search.
Obsolete; being dropped.

Parent Groups:

DATASET-2, GCMD_SEARCH

Children:

ORGANIZATION**Maximum length:** 60**Possible values:****ODL Type:** String**Definition:**

Organization for address.
On DAAC_CONTACT_ADDRESS this is required field. On others, it is optional from profile.

Parent Groups:BILLING_ADDRESS, CONTACT_ADDRESS, DAAC_CONTACT_ADDRESS,
SHIPPING_ADDRESS**Children:**

OUTER_RING**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

Data describing a ring (polygon) that is part of a G-ring, containing zero or more
INNER_RING holes.
*LATITUDE and LONGITUDE must be sequences of three or more values; both
must have the same number of values. Order of points must be clockwise from a
satellite view.*

Parent Groups:

G_RING_LOC

Children:

[INNER_RING], LATITUDE, LONGITUDE

PACKAGE **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: A collection of granules which can be ordered from an archive.
All PACKAGE groups can be included before any DATASET~1 group, or they may be intermixed; or PACKAGE groups may be included inside the corresponding DATASET~1 groups. Package information in DIRECTORY_RESULT and DATASET~2 is for dataset-based ordered.
Parent Groups: DATASET~1, DATASET~2, DIRECTORY_RESULT, INVENTORY_RESULT
Children: COMMENT, DATASET_ID, [DATASET_ORDER_OPTIONS], DATA_CENTER_ID, [INFO_PROMPT], NUMBER_OF_GRANULES, NUMBER_OF_OPTIONS, [ORDER_OPTIONS], PACKAGE_ID, PROCESSING_OPTION, [SUBSET_OPTIONS]

PACKAGE_CONTACT_ADDRESS **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Contact information for the particular package where there are multiple contacts at the Data Center. (Used mostly by international partners.)
Proposed rename of DAAC_CONTACT_ADDRESS; never processed. Now obsolete.
Parent Groups:
Children:

PACKAGE_ID **Maximum length:** 50
Possible values: Identifier, "*", or "*xxx" **ODL Type:** Sequence String
Definition: Name of packages in which this granule or dataset can be ordered, or name of package being described or ordered.
Special value of "" allows a PACKAGE group to be used where granules can be ordered individually, all of which have the same characteristics. In such cases, the GRANULE_ID will be used as the PACKAGE_ID in the LINE_ITEM. "*xxx" is an asterisk followed by an identifier, which allows two or more *-type sets of package characteristics to be defined. At the time of this writing, *xxx package ids are being tested, but have not been fully deployed.*
Parent Groups: DATASET~1, DATASET~2, GRANULE, LINE_ITEM, PACKAGE, PRODUCT_DELIVERY
Children:

PACKAGE_SIZE **Maximum length:** 10
Possible values: **ODL Type:** String
Definition: String describing the size of the packages perhaps with units, e.g., "127 MB."
Parent Groups: PROCESSING_OPTION
Children:

PARAMETER~1		Maximum length: 80
Possible values:		ODL Type: Sequence String
Definition:	Geophysical term(s) associated with a dataset, granule, or search. <i>PARAMETER~1 is required for each GRANULE, but may be given instead at the DATASET~1 level if it is the same for all GRANULEs in the DATASET~1.</i>	
Parent Groups:	DATASET~1, DATASET~4, DEPENDENCY, DIRECTORY_SEARCH, GRANULE, INVENTORY_SEARCH	
Children:		
PARAMETER~2		Maximum length:
Possible values:		ODL Type: Aggregate
Definition:	Processing parameters for product generation <i>(ASTER/ECS only.)</i>	
Parent Groups:	PRODUCT_GENERATION	
Children:	PGR_CODE, PGR_VALUE	
PATH		Maximum length: 4
Possible values:	1 to 251	ODL Type: Sequence Integer
Definition:	WRS satellite path (single value or range). <i>Use one value for a single satellite path, two for a range. Any additional values will be ignored.</i>	
Parent Groups:	PATH_ROW_LOC	
Children:		
PATH_ROW_LOC		Maximum length:
Possible values:		ODL Type: Aggregate
Definition:	Satellite path and data-take row from Worldwide Reference System developed for Landsat data. <i>If selected by user for search, always accompanied by another xxx_LOC as well. If returned by data center for coverage, should be accompanied by another xxx_LOC.</i>	
Parent Groups:	GRANULE, INVENTORY_SEARCH	
Children:	PATH, ROW, WRS_TYPE	
PGR_CODE		Maximum length: 16
Possible values:		ODL Type: String
Definition:	TBD. <i>(ASTER/ECS only.) The possible value of keywords in "PARAMETER~1 group" is defined by Valid. (This appears to be intended for processing options; ASTER/ECS may want to consider the ORDER_OPTIONS capability being inserted for ASF, since it is much more flexible.)</i>	
Parent Groups:	PARAMETER~2	
Children:		

PGR_VALUE	Maximum length: TBD
Possible values:	ODL Type: TBD
Definition: TBD.	
	<i>(ASTER/ECS only.) The possible value of keywords in "PARAMETER~1 group" is defined by Valid. (This appears to be intended for processing options; ASTER/ECS may want to consider the ORDER_OPTIONS capability being inserted for ASF, since it is much more flexible.)</i>
Parent Groups: PARAMETER~2	
Children:	
PHONE	Maximum length: 22
Possible values:	ODL Type: String
Definition: Voice telephone number of associated person.	
Parent Groups: BILLING_ADDRESS, CONTACT_ADDRESS, DAAC_CONTACT_ADDRESS, DATA_SET_CONTACT, SHIPPING_ADDRESS	
Children:	
PLANNED_COMPLETION_DATE	Maximum length: 10
Possible values: yyyy-mm-dd	ODL Type: String
Definition: Date of expected completion for product order.	
Parent Groups: ORDER_STATUS_INFO	
Children:	
POINT_LOC	Maximum length:
Possible values:	ODL Type: Aggregate
Definition: Single point on the globe.	
Parent Groups: GRANULE, INVENTORY_SEARCH, SPECIALIZED_CRITERIA~2	
Children: LATITUDE, LONGITUDE	
POLE_INCLUDED	Maximum length: 1
Possible values: N, S, B	ODL Type: Symbol
Definition: Pole included in polygon (quadrilateral) region.	
	<i>Field omitted if neither pole included. Some clients cannot handle B (both poles).</i>
Parent Groups: POLYGON_LOC~1, POLYGON_LOC~2	
Children:	
POLYGON_LOC~1	Maximum length:
Possible values:	ODL Type: Aggregate
Definition: Group of four latitude longitude pairs describing the search area.	
	<i>The V0 IMS recognizes only four-sided polygons (quadrilaterals).</i>
Parent Groups: INVENTORY_SEARCH, SPECIALIZED_CRITERIA~2	
Children: LATITUDE, LONGITUDE, MAP_PROJECTION_TYPE, [POLE_INCLUDED], TANGENT_LATITUDE, TANGENT_LONGITUDE	

POLYGON_LOC-2 **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Group of four latitude longitude pairs describing a granule's coverage.
The V0 IMS recognizes only four-sided polygons (quadrilaterals).
Parent Groups: GRANULE
Children: CENTROID_LAT, CENTROID_LON, LATITUDE, LONGITUDE,
[POLE_INCLUDED]

PREDICTED_COMPLETION_DATE **Maximum length:** 5
Possible values: 0 to 65335 **ODL Type:** Integer
Definition: Estimated number of days until product is ready for delivery.
(ASTER/ECS only.)
Parent Groups: PRICE_ESTIMATE_RESULT
Children:

PRICE **Maximum length:** 10
Possible values: **ODL Type:** Real
Definition: Estimated total price of products.
The unit is Yen for ECS/ASTER protocol. The unit is US\$ in V0.
Parent Groups: ORDER_STATUS_INFO
Children:

PRICE_COMMENT **Maximum length:** 128
Possible values: **ODL Type:** Sequence String
Definition: Additional information on price calculation (algorithm, etc.).
(ASTER/ECS only.)
Parent Groups: PRICE_ESTIMATE_RESULT
Children:

PRICE_ESTIMATE_REQUEST **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Requests estimated total price of products that user is about to order.
*(ASTER/ECS only.) This request is submitted prior to Product Request in
ECS/ASTER communication.*
Parent Groups:
Children: DATA_CENTER_ID, MEDIA, MESSAGE_ID, MONITOR, VERSION

PRICE_ESTIMATE_RESULT **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Estimated total price of products for user order.
(ASTER/ECS only.)
Parent Groups:
Children: DATA_CENTER_ID, ESTIMATED_PRICE, MESSAGE_ID, MONITOR,
PREDICTED_COMPLETION_DATE, [PRICE_COMMENT], STATUS_CODE,
[STATUS_CODE_COMMENT], VERSION

PROCESSING_DATA_CENTER	Maximum length: 10
Possible values:	ODL Type: String
Definition:	Data center which is handling a processing request. <i>Returned by ECS to ASTER.</i>
Parent Groups:	SUB_REQUEST_STATUS_INFO
Children:	
PROCESSING_LEVEL	Maximum length: 2
Possible values: 0, 1, 1a, 1b, 2, 3, 4	ODL Type: Symbol or Sequence String
Definition:	Level to which data has been processed associate with a dataset, granule, or search. <i>Search can specify one or more; DATASET~1 or GRANULE normally specifies only single value. If same for all GRANULEs of DATASET~1, can be given at DATASET~1 level. Usually SYMBOL for single value, sequence string if more than one.</i>
Parent Groups:	DATASET~1, DATASET~4, DIRECTORY_SEARCH, GRANULE, INVENTORY_SEARCH
Children:	
PROCESSING_OPTION	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	Repeating group listing options available for ordering this package. <i>In spite of the name, PROCESSING_OPTIONS is one of the OPTION_ID strings listed in the PROCESSING_OPTION groups.</i>
Parent Groups:	PACKAGE
Children:	MEDIA_TYPE~1, NUMBER_OF_MEDIA_TYPE, OPTION_ID, PACKAGE_SIZE
PROCESSING_OPTIONS	Maximum length: 30
Possible values:	ODL Type: String
Definition:	Processing option selected by user for this LINE_ITEM. <i>In spite of the name, PROCESSING_OPTIONS is one of the OPTION_ID strings listed in the PROCESSING_OPTION groups.</i>
Parent Groups:	LINE_ITEM
Children:	
PRODUCT_CANCEL_REQUEST	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	Requests cancellation of previous product request.
Parent Groups:	
Children:	[AUTHENTICATOR], [ECS_AUTHENTICATOR], INITIATOR_REQUEST_ID, MESSAGE_ID, MONITOR, REQUEST_ID~2, SUB_REQUEST_ID, VERSION

PRODUCT_CANCEL_RESULT**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Response to cancel request.

From ASTER GDS, a successful return code does not imply that the request will be cancelled; it simply means that ASTER GDS received the request to cancel. The user will have to check the Product Request Status periodically to see if it indeed gets cancelled.

Parent Groups:**Children:** DATA_CENTER_ID, INITIATOR_REQUEST_ID, MESSAGE_ID, MONITOR, [ORDER_STATUS_CODE], [ORDER_STATUS_COMMENT], REQUEST_ID~2, STATUS_CODE, [STATUS_CODE_COMMENT], [SUB_REQUEST_INFO], VERSION

PRODUCT_DELIVERY**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Delivered product and generated product.

(ASTER/ECS only.) When user requests delivery of product only, PRODUCT_GENERATION is omitted and DATASET_ID and PACKAGE_ID define product to be delivered. When user requests generation and delivery of product, DATASET_ID and PACKAGE_ID define source product and PRODUCT_GENERATION defines processing.

Parent Groups: MEDIA**Children:** DATASET_ID, PACKAGE_ID, [PRODUCT_GENERATION], SENSOR_TYPE

PRODUCT_GENERATION**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Processing level and parameter for product generation.

(ASTER/ECS only.)

Parent Groups: PRODUCT_DELIVERY**Children:** [PARAMETER~2], PRODUCT_TYPE

PRODUCT_REQUEST**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:** Provides data for product request (order).

ASTER/ECS use INITIATOR_REQUEST_ID and MEDIA group; V0 uses REQUEST_ID and LINE_ITEM group.

Parent Groups:**Children:** [AUTHENTICATOR], [BILLING_ADDRESS], CONTACT_ADDRESS, DATA_CENTER_ID, [ECS_AUTHENTICATOR], [INITIAL_USER_KEY], INITIATOR_REQUEST_ID, LINE_ITEM, MEDIA, MESSAGE_ID, MONITOR, REQUEST_ID~1, [SHIPPING_ADDRESS], USER_AFFILIATION, VERSION

PRODUCT_RESULT**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

Order acknowledgement, including data center contact information.
Only acknowledges receipt of order, not necessarily acceptance.

Parent Groups:**Children:**

DAAC_CONTACT_ADDRESS, DATA_CENTER_ID, [DATA_URL],
MESSAGE_ID, [MISC_URL], MONITOR, STATUS_CODE,
[STATUS_CODE_COMMENT], [VERSION]

PRODUCT_STATUS_INFO**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

Response to PRODUCT_STATUS_REQUEST.
ASTER does not provide DAAC_CONTACT_ADDRESS.

Parent Groups:**Children:**

[DAAC_CONTACT_ADDRESS], DATA_CENTER_ID, MESSAGE_ID, MONITOR,
ORDER_STATUS_INFO, STATUS_CODE, [STATUS_CODE_COMMENT],
VERSION

PRODUCT_STATUS_REQUEST**Maximum length:****Possible values:****ODL Type:** Aggregate**Definition:**

Message to request status on a product order.
ASTER uses INITIATOR_REQUEST_ID; V0 uses REQUEST_ID-2.

Parent Groups:**Children:**

[AUTHENTICATOR], [ECS_AUTHENTICATOR], INITIATOR_REQUEST_ID,
MESSAGE_ID, MONITOR, REQUEST_ID-2, VERSION

PRODUCT_TYPE**Maximum length:** 10**Possible values:** 1B00, 2A02, 2A03**ODL Type:** Symbol**Definition:**

Type of product in the case of product generation.
(ASTER/ECS only.) "1B00" means product level 1B. "2A02" and "2A03" means decorrelation stretch. Other values may be added in the future.

Parent Groups: PRODUCT_GENERATION**Children:**

PROTOCOL_VERSION**Maximum length:** 10**Possible values:****ODL Type:** Real**Definition:**

Version of message passing protocol, e.g., 3.5.
Provided to allow changes in protocol that are not backward compatible. Since most changes have been made backward compatible, has not been used much.

Parent Groups: VERSION**Children:**

QUADRANT_CLOUD_COVERAGE**Maximum length: 3****Possible values:****ODL Type: Sequence Integer****Definition:** Percent of cloud coverage for scene quadrants.*(ASTER/ECS only.) Cloud coverage percentages for 4 quarters of a scene in the order: upper left, upper right, lower left, lower right. Returned by ASTER GDS only.***Parent Groups:** GRANULE**Children:**

QUIT**Maximum length:****Possible values:****ODL Type: Aggregate****Definition:** Termination message.*QUIT with STATUS_CODE 1000 used for ABORT. QUITs sent by servers should always contain a DATA_CENTER_ID to identify the source.***Parent Groups:****Children:** [AUTHENTICATOR], [DATA_CENTER_ID], [ECS_AUTHENTICATOR], MESSAGE_ID, MONITOR, STATUS_CODE, [STATUS_CODE_COMMENT], VERSION

RANGE**Maximum length: 1****Possible values:** Y**ODL Type: Symbol****Definition:** Range of values required by user.*"RANGE = Y" cues the client to request minimum and maximum values from the user.***Parent Groups:** SPECIALIZED_CRITERIA~1**Children:**

RANGE_LOC**Maximum length:****Possible values:****ODL Type: Aggregate****Definition:** Rectangular geographic range described by latitude and longitude boundaries.*In DATASET~2 and LINE_ITEM for dataset-based ordering (under consideration).***Parent Groups:** DATASET~2, DIRECTORY_SEARCH, GRANULE, INVENTORY_SEARCH, SPECIALIZED_CRITERIA~2**Children:** EAST_LONGITUDE, NORTH_LATITUDE, SOUTH_LATITUDE, WEST_LONGITUDE

RECEIVE_DATE**Maximum length: 20****Possible values:** yyyy-mm-ddThh:mm:ss, yyyy-mm-ddThh:mm:ssZ**ODL Type: Date****Definition:** The date that the product request was received by the server.**Parent Groups:** ORDER_STATUS_INFO**Children:**

REQUEST_ID-1 **Maximum length:** 30
Possible values: **ODL Type:** String
Definition: Identifier assigned by the client for tracking a product request (order).
Displayed on the X-client's DAAC contact screen, followed by a slash and the DAAC_ORDER_ID if the PRODUCT_RESPONSE provides one.
Parent Groups: PRODUCT_REQUEST
Children:

REQUEST_ID-2 **Maximum length:** 101
Possible values: **ODL Type:** Sequence String
Definition: Order id(s) whose status is being queried/shown.
Data centers may allow queries on original REQUEST_ID-1, DAAC_ORDER_ID, or a combination, and may allow wild card queries.
Parent Groups: ORDER_STATUS_INFO, PRODUCT_CANCEL_REQUEST, PRODUCT_CANCEL_RESULT, PRODUCT_STATUS_REQUEST
Children:

REQUEST_STATUS_CODE **Maximum length:** 10
Possible values: PROPOSED, ACCEPTED, PROCESSING, **ODL Type:** String
CANCELED, FAILED, COMPLETED,
REJECTED, ON HOLD, CLOSED
Definition: Status for a sub-request associated with an order request.
Original values proposed by ASTER/ECS: PROPOSED (received by data center), ACCEPTED (received by DADS and validated), PROCESSING (being processed for delivery), CANCELED (cancelled at user request), FAILED (could not be processed due to error condition), COMPLETED (order processing completed successfully), REJECTED (rejected by data center). V0 IMS has added ON HOLD (not being processed for some reason) and CLOSED (order closed by data center).
Parent Groups: SUB_REQUEST_INFO, SUB_REQUEST_STATUS_INFO
Children:

REQUEST_STATUS_COMMENT **Maximum length:** 128
Possible values: **ODL Type:** String
Definition: Ancillary information concerning status or cancellation of a subrequest.
Parent Groups: SUB_REQUEST_INFO, SUB_REQUEST_STATUS_INFO
Children:

REQUIRED**Possible values:** Y, N**Maximum length:** 1**ODL Type:** Symbol**Definition:** Indicates whether particular criteria and/or subsetting/product generation options as a whole must be specified by the user.

If SUBSET_OPTIONS does not include REQUIRED=Y, then user need not subset; but if he does then any SPECIALIZED_CRITERIA with REQUIRED=Y must be specified. Similar interpretation used for ORDER_OPTIONS.

Parent Groups: DATASET_ORDER_OPTIONS, ORDER_OPTIONS, SPECIALIZED_CRITERIA-1, SUBSET_OPTIONS**Children:**

RESTRICTION**Possible values:****Maximum length:** 60**ODL Type:** Sequence String**Definition:** Details of any ordering restrictions placed on the dataset.**Parent Groups:** DATASET-1**Children:**

RESULT_NAME**Possible values:** Any previously defined extended search CRITERIA_NAME**Maximum length:** 80**ODL Type:** String**Definition:** Name of extended search or dataset-specific attribute returned in INVENTORY_RESULTS.**Parent Groups:** SPECIALIZED_RESULTS**Children:**

RESULT_VALUE**Possible values:****Maximum length:** 256**ODL Type:** String**Definition:** Value of extended search or dataset-specific attribute returned in INVENTORY_RESULTS.**Parent Groups:** SPECIALIZED_RESULTS**Children:**

ROW**Possible values:** 1 to 119**Maximum length:** 4**ODL Type:** Sequence Integer**Definition:** WRS data-take row (single value or range).

Use one value for a single data-take row, two for a range. Any additional values will be ignored.

Parent Groups: PATH_ROW_LOC**Children:**

RX_CLIENT **Maximum length:** 20
Possible values: **ODL Type:** Sequence String
Definition: Time stamp when the client received the server response.
First string is integer number of seconds since Unix epoch; second optional string is integer number of microseconds since last integer second.
Parent Groups: MONITOR
Children:

RX_SERVER **Maximum length:** 20
Possible values: **ODL Type:** Sequence String
Definition: Time stamp when the server received the client request.
First string is integer number of seconds since Unix epoch; second optional string is integer number of microseconds since last integer second.
Parent Groups: MONITOR
Children:

SCENE_CLOUD_COVERAGE **Maximum length:** 3
Possible values: **ODL Type:** Integer
Definition: Average percent of cloud coverage for scene.
(ASTER/ECS only.) This value is for the whole scene. Returned by ASTER GDS only.
Parent Groups: GRANULE
Children:

SEARCH_CATEGORY **Maximum length:** 80
Possible values: **ODL Type:** String
Definition: Used to associate similar variants of dataset-specific search criteria.
Presented in the user interface, assigned by science team. May be omitted when data centers initially submit new search terms to science team for consideration.
Parent Groups: SPECIALIZED_CRITERIA-1
Children:

SELECT_NUM **Maximum length:** 4
Possible values: ONE, MANY **ODL Type:** Symbol
Definition: Indicates whether one or many values must be selected from a set of alternatives (in CRITERIA_VALUE).
Parent Groups: SPECIALIZED_CRITERIA-1
Children:

SENDER_VERSION**Maximum length:** 16**Possible values:****ODL Type:** String**Definition:** String identifying the name and number of the sender (client or server) of the message.*Used for documentation and debugging only.***Parent Groups:** VERSION**Children:**

SENSOR**Maximum length:** 30**Possible values:****ODL Type:** Sequence String**Definition:** Names of sensors associated with a dataset.*Not used in V0 protocol messages.***Parent Groups:** DATASET-4, DEPENDENCY**Children:**

SENSOR_NAME**Maximum length:** 30**Possible values:****ODL Type:** Sequence String**Definition:** Names of sensors associated with a dataset, granule, or search.*SENSOR_NAME is required for each GRANULE, but may be given instead at the DATASET-1 level if it is the same for all GRANULEs in the DATASET-1.***Parent Groups:** DATASET-1, DATASET-3, DIRECTORY_SEARCH, GRANULE, INVENTORY_SEARCH**Children:**

SENSOR_TYPE**Maximum length:** 4**Possible values:** "VST", "V ", " S ", " T", "VS ", " ST", "V T"**ODL Type:** Sequence String**Definition:** TBD.*(ASTER/ECS only.) The possible value of "SENSOR_TYPE" for delivery product type is defined by Valid.***Parent Groups:** PRODUCT_DELIVERY**Children:**

SESSION_ID**Maximum length:** 86**Possible values:****ODL Type:** String**Definition:** String identifying a user session.*Used for matching purposes in SCRS statistics. Composed of the following, separated by colons: client host fully-qualified domain name, client Unix process-id, session start date and time as YYMMDD:HHMMSS. In Web gateway, every communication with servers is a unique session (INVENTORY_SEARCH will have different SESSION_ID from PRODUCT_REQUEST).***Parent Groups:** MONITOR**Children:**

SHIPPING_ADDRESS	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	Address where requested data is to be sent.
Parent Groups:	ORDER_STATUS_INFO, PRODUCT_REQUEST
Children:	[ADDRESS], CITY, COUNTRY, [EMAIL], [FAX], FIRST_NAME, LAST_NAME, [MIDDLE_INITIAL], [ORGANIZATION], PHONE, [STATE], [TITLE], [ZIP]
SOURCE	Maximum length: 30
Possible values:	ODL Type: Sequence String
Definition:	Name(s) of source/platform associated with a dataset. <i>Not used in V0 protocol messages.</i>
Parent Groups:	DATASET~4, DEPENDENCY
Children:	
SOURCE_NAME	Maximum length: 30
Possible values:	ODL Type: Sequence String
Definition:	Name(s) of source/platform associated with a dataset, granule, or search. <i>SOURCE_NAME is required for each GRANULE, but may be given instead at the DATASET~1 level if it is the same for all GRANULEs in the DATASET~1.</i>
Parent Groups:	DATASET~1, DATASET~3, DIRECTORY_SEARCH, GRANULE, INVENTORY_SEARCH
Children:	
SOUTH_LATITUDE	Maximum length: 8
Possible values:	ODL Type: Real
Definition:	Southernmost latitude for a range on the globe.
Parent Groups:	RANGE_LOC
Children:	
SOUTHBOUNDINGCOORDINATE	Maximum length: 11
Possible values:	ODL Type: Real
Definition:	Southernmost limit of coverage expressed in geodetic latitude. <i>(ASTER/ECS only.) Must be less than NORTHBOUNDINGCOORDINATE.</i>
Parent Groups:	SPATIAL_COVERAGE
Children:	
SPATIAL	Maximum length: 256
Possible values:	ODL Type: Sequence String
Definition:	Free text used to describe spatial coverage of the dataset or granules. <i>Used for documentation only. Not a part of dependent valids support files nor in V0 protocol messages.</i>
Parent Groups:	DATASET_COVERAGE, GRANULE_COVERAGE
Children:	

SPATIAL_COVERAGE**Possible values:****Definition:** TBD.
(ASTER/ECS only.)**Parent Groups:** DATASET~3**Children:** EASTBOUNDINGCOORDINATE, NORTHBOUNDINGCOORDINATE,
SOUTHBOUNDINGCOORDINATE, WESTBOUNDINGCOORDINATE**Maximum length:****ODL Type:** Aggregate

SPECIALIZED_CRITERIA~1**Possible values:****Definition:** Possible criteria that can be specified by user for searching, subsetting, or product generation.**Parent Groups:** DATASET_ORDER_OPTIONS, EXTENDED_SEARCH_MASTER_LIST,
ORDER_OPTIONS, SUBSET_OPTIONS**Children:** COMMENT, [CRITERIA_DEFAULT], [CRITERIA_MAX], [CRITERIA_MIN],
CRITERIA_NAME, CRITERIA_TYPE, [CRITERIA_VALUE], [MAX_LEN],
[RANGE], [REQUIRED], SEARCH_CATEGORY, [SELECT_NUM], VARIANT**Maximum length:****ODL Type:** Aggregate

SPECIALIZED_CRITERIA~2**Possible values:****Definition:** Specialized criteria selected by user to define search, subset, or product generation.*The Web gateway returns the CRITERIA_TYPE, although a server should probably know it.***Parent Groups:** DATASET_ORDER_SPEC, EXTENDED_SEARCH, ORDER_SPEC,
SUBSET_SPEC**Children:** [CRITERIA_MAX], [CRITERIA_MIN], CRITERIA_NAME, [CRITERIA_TYPE],
[CRITERIA_VALUE], [POINT_LOC], [POLYGON_LOC~1], [RANGE_LOC]**Maximum length:****ODL Type:** Aggregate

SPECIALIZED_RESULTS**Possible values:****Definition:** Actual values for extended search attributes for the matching granule.*This provides a structured way to return granule-specific metadata. The COMMENT field of GRANULE can be used to return unstructured free text.***Parent Groups:** GRANULE**Children:** RESULT_NAME, RESULT_VALUE**Maximum length:****ODL Type:** Aggregate

SPECIALIZED_SEARCH_URL**Possible values:****Definition:** URL for a dataset-specific search application*Data centers may also want to provide such URLs to the science team for inclusion in the Welcome screen.***Parent Groups:** DATASET~1, DATASET~2**Children:** URL, URL_COMMENT**Maximum length:****ODL Type:** Aggregate

START_DATE **Maximum length:** 20
Possible values: yyyy-mm-ddThh:mm:ss, yyyy-mm-ddThh:mm:ssZ **ODL Type:** Date
Definition: Beginning date for search or granule temporal coverage.
In DATASET~2 and LINE_ITEM for dataset-based ordering (under consideration).
Parent Groups: DATASET~2, DATASET~3, DIRECTORY_SEARCH, GRANULE, INVENTORY_SEARCH
Children:

START_DAY_OF_YEAR **Maximum length:** 3
Possible values: 1 TO 366 **ODL Type:** Integer
Definition: Beginning day of seasonal interest.
Query is for granules with start dates that are between START_DATE and STOP_DATE and are between START_DAY_OF_YEAR and END_DAY_OF_YEAR in whatever year. This could involve partial "seasons" (e.g., 2/1/93-2/28/95, days 1-90 would give Feb-Mar 93, Jan-Mar 94, Jan-Feb 95).
Parent Groups: INVENTORY_SEARCH
Children:

STATE **Maximum length:** 20
Possible values: **ODL Type:** String
Definition: US postal state or foreign equivalent, if any, for address.
Parent Groups: BILLING_ADDRESS, CONTACT_ADDRESS, DAAC_CONTACT_ADDRESS, SHIPPING_ADDRESS
Children:

STATUS_CODE **Maximum length:** 4
Possible values: 1 to 1000 **ODL Type:** Integer
Definition: Numeric code giving status of query and/or server.
See separate status code table for meanings. (Listed in appendix C of the printed document.)
Parent Groups: ACCOUNT_STATUS_RESULT, DATASET~1, DIRECTORY_RESULT, FTP_BROWSE_RESULT, INTEGRATED_BROWSE_RESULT, INVENTORY_RESULT, PRICE_ESTIMATE_RESULT, PRODUCT_CANCEL_RESULT, PRODUCT_RESULT, PRODUCT_STATUS_INFO, QUIT
Children:

STATUS_CODE_COMMENT **Maximum length: 256**
Possible values: **ODL Type: Sequence String**
Definition: Free text comment provided by data center to further describe status.
Some clients present this field in place of the fixed text associated with STATUS_CODE. Text should not be worded in a way that presumes the fixed text of the STATUS_CODE is presented as well.
Parent Groups: ACCOUNT_STATUS_RESULT, DIRECTORY_RESULT, FTP_BROWSE_RESULT, INTEGRATED_BROWSE_RESULT, INVENTORY_RESULT, PRICE_ESTIMATE_RESULT, PRODUCT_CANCEL_RESULT, PRODUCT_RESULT, PRODUCT_STATUS_INFO, QUIT
Children:

STOP_DATE **Maximum length: 20**
Possible values: yyyy-mm-ddThh:mm:ss, yyyy-mm-ddThh:mm:ssZ **ODL Type: Date**
Definition: Ending date for search or granule temporal coverage.
In DATASET~2 and LINE_ITEM for dataset-based ordering (under consideration).
Parent Groups: DATASET~2, DATASET~3, DIRECTORY_SEARCH, GRANULE, INVENTORY_SEARCH
Children:

STOP_DAY_OF_YEAR **Maximum length: 3**
Possible values: 1 to 366 **ODL Type: Integer**
Definition: Ending day of seasonal interest.
Query is for granules with start dates that are between START_DATE and STOP_DATE and are between START_DAY_OF_YEAR and END_DAY_OF_YEAR in whatever year. This could involve partial "seasons" (e.g., 2/1/93-2/28/95, days 1-90 would give Feb-Mar 93, Jan-Mar 94, Jan-Feb 95).
Parent Groups: INVENTORY_SEARCH
Children:

SUB_REQUEST_ID **Maximum length: 10**
Possible values: **ODL Type: Sequence String**
Definition: The identifier of a lower level request. This can be used to get status or cancel a portion of an order rather than the entire order.
In ECS this is a character string in order to provide uniqueness across sites. Since in ASTER GDS this is an integer, ASTER can just convert the integer to an ASCII string.
Parent Groups: PRODUCT_CANCEL_REQUEST, SUB_REQUEST_INFO, SUB_REQUEST_STATUS_INFO
Children:

SUB_REQUEST_INFO **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Aggregate describing the result of the cancel attempt for the subrequest (as opposed to the entire order).
Parent Groups: PRODUCT_CANCEL_RESULT
Children: [REQUEST_STATUS_CODE], [REQUEST_STATUS_COMMENT], SUB_REQUEST_ID

SUB_REQUEST_STATUS_INFO **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: The status of a sub request.
Optional DATA_URL group added for V0.
Parent Groups: ORDER_STATUS_INFO
Children: [COMPLETION_DATE], [DAAC_CONTACT_ADDRESS], DATASET_ID, [DATA_URL], FORMAT_ID, [NUMBER_OF_GRANULES], [PROCESSING_DATA_CENTER], REQUEST_STATUS_CODE, [REQUEST_STATUS_COMMENT], SUB_REQUEST_ID, TYPE_ID

SUBSET_OPTIONS **Maximum length:** PACKAGE
Possible values: **ODL Type:** Aggregate
Definition: Indicates subsetting parameters for a package if subsetting is available.
Parent Groups: PACKAGE
Children: [REQUIRED], SPECIALIZED_CRITERIA~1

SUBSET_SPEC **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Subsetting parameters selected by user for ordering.
Parent Groups: LINE_ITEM
Children: [SPECIALIZED_CRITERIA~2]

TANGENT_LATITUDE **Maximum length:** 8
Possible values: -90.0000 to +90.0000 **ODL Type:** Real
Definition: Current tangent (center) latitude of projection map.
Parent Groups: POLYGON_LOC~1
Children:

TANGENT_LONGITUDE **Maximum length:** 9
Possible values: -180.0000 to +180.0000 **ODL Type:** Real
Definition: Current tangent (center) latitude of projection map.
Parent Groups: POLYGON_LOC~1
Children:

TEMPORAL**Maximum length: 256****Possible values:****ODL Type: Sequence String****Definition:**

Free text used to describe temporal coverage of the dataset or granules.
Used for documentation only. Not a part of dependent valids support files nor in V0 protocol message.

Parent Groups: DATASET_COVERAGE, GRANULE_COVERAGE**Children:**

TERM**Maximum length: 50****Possible values:****ODL Type: Sequence String****Definition:**

Keyword used to describe the science parameter area of the collection. A collection can conceivably cover many such parameters.
(ASTER/ECS only.)

Parent Groups: DATASET~3**Children:**

TITLE**Maximum length: 5****Possible values:****ODL Type: String****Definition:**

Title for name of addressee.

Parent Groups: BILLING_ADDRESS, CONTACT_ADDRESS, SHIPPING_ADDRESS**Children:**

TOPIC**Maximum length: 32****Possible values:****ODL Type: Sequence String****Definition:**

Keyword used to describe the general topic area of the collection. A collection can conceivably cover several topics. Examples include: Atmospheric Science, Biosphere, Land Surface, etc.
(ASTER/ECS only.)

Parent Groups: DATASET~3**Children:**

TOTAL_FILE_SIZE**Maximum length: 10****Possible values:** 1 to 2147483647**ODL Type: String****Definition:**

Combined uncompressed byte size of all FTP requests (may be exact or approximated).

Parent Groups: FTP_BROWSE_RESULT**Children:**

TX_CLIENT **Maximum length:** 20
Possible values: **ODL Type:** Sequence String
Definition: Time stamp when client transmitted the request..
First string is integer number of seconds since Unix epoch; second optional string is integer number of microseconds since last integer second.
Parent Groups: MONITOR
Children:

TX_SERVER **Maximum length:** 20
Possible values: **ODL Type:** Sequence String
Definition: Time stamp when server transmitted the response.
First string is integer number of seconds since Unix epoch; second optional string is integer number of microseconds since last integer second.
Parent Groups: MONITOR
Children:

TYPE **Maximum length:** 15
Possible values: GOVERNMENT, COMMERCIAL, UNIVERSITY, K-12, ACADEMIC, OTHER **ODL Type:** String
Definition: Affiliation categories: Government, Commercial, University, K-12, Other.
"University" and "K-12" replace the older "academic" value which should no longer be used.
Parent Groups: USER_AFFILIATION
Children:

TYPE_ID **Maximum length:** 30
Possible values: **ODL Type:** String
Definition: A valid value for media types for this PROCESSING_OPTION.
MEDIA_TYPE~2 is one of the TYPE_ID strings listed in the MEDIA_TYPE~1 group.
Parent Groups: MEDIA, MEDIA_TYPE~1, SUB_REQUEST_STATUS_INFO
Children:

UNITS **Maximum length:** 30
Possible values: **ODL Type:** String
Definition: String displayed as part of the legend to specify the units of the values.
Parent Groups: LEGEND
Children:

UNMAPPED_FIELD

Possible values: any keyword contained in the INVENTORY_SEARCH group

Definition: Fields given in query but not used by the server in an inventory search.

Parent Groups: INVENTORY_RESULT

Children:

Maximum length: 80

ODL Type: Sequence String

URL

Possible values:

Definition: Data center-supplied URL for special processing.

Parent Groups: DATASET_HOME_PAGE, DATA_URL, MISC_URL, SPECIALIZED_SEARCH_URL

Children:

Maximum length: 200

ODL Type: String

URL_COMMENT

Possible values:

Definition: Description of corresponding URL.

Parent Groups: DATASET_HOME_PAGE, DATA_URL, MISC_URL, SPECIALIZED_SEARCH_URL

Children:

Maximum length: 60

ODL Type: Sequence String

USER_AFFILIATION

Possible values:

Definition: User's self-classification from profile screen for statistics.

Was once expected in BROWSE_REQUESTs but never implemented there. Has been left as "optional" but no V0 system provides or expects it.

Parent Groups: BROWSE_REQUEST, PRODUCT_REQUEST

Children: CATEGORY, TYPE

Maximum length:

ODL Type: Aggregate

VALID_ACCOUNT

Possible values:

Definition: Accounting alternative for this user in general or for a dataset for this user.

Omitted from a DATASET-1 means accounting not required. If account required for this DATASET-1 but the user has no valid account, then one VALID_ACCOUNT group should be sent containing only the ERROR parameter with information to the user. Where multiple accounts are valid, the group is repeated, with each containing mandatory account number and optional balance and error fields. Also used in ACCOUNT_STATUS_RESULT to return accounting information for the user.

Parent Groups: DATASET-1, ACCOUNT_STATUS_RESULT

Children: [ACCOUNT_COMMENT], [ACCOUNT_NUMBER], [BALANCE], [ERROR]

Maximum length:

ODL Type: Aggregate

VALIDS **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Contains dependent valids for all data sets being submitted by a single archive for use in client support files.
One or more valids groups (followed by a single line containing "END") are used to build the dependency bitmap files used to support the IMS clients. Alternatively, VALIDS group itself can be omitted in file and just contents of the group (the DATA_CENTER_ID followed by one or more DATASET~4's) can be included in the valids file submitted. Not used in V0 protocol messages.
Parent Groups:
Children: DATA_CENTER_ID, DATASET~4

VARIABLE **Maximum length:** 80
Possible values: **ODL Type:** Sequence String
Definition: Keyword used to describe the specific science parameter content of the collection. A collection can conceivably cover many specific parameters.
(ASTER/ECS only.)
Parent Groups: DATASET~3
Children:

VARIANT **Maximum length:** 50
Possible values: **ODL Type:** String
Definition: Name displayed in user interface to distinguish among various EXTENDED_SEARCHs in the same SEARCH_CATEGORY.
Assigned by the science team; can change as new variants are added to categories. Not passed to server.
Parent Groups: SPECIALIZED_CRITERIA~1
Children:

VERSION **Maximum length:**
Possible values: **ODL Type:** Aggregate
Definition: Message version information.
Parent Groups: ACCOUNT_STATUS_REQUEST, ACCOUNT_STATUS_RESULT, ACKNOWLEDGE, BROWSE_REQUEST, DIRECTORY_RESULT, DIRECTORY_SEARCH, FTP_BROWSE_RESULT, INTEGRATED_BROWSE_RESULT, INVENTORY_RESULT, INVENTORY_SEARCH, PRICE_ESTIMATE_REQUEST, PRICE_ESTIMATE_RESULT, PRODUCT_CANCEL_REQUEST, PRODUCT_CANCEL_RESULT, PRODUCT_REQUEST, PRODUCT_RESULT, PRODUCT_STATUS_INFO, PRODUCT_STATUS_REQUEST, QUIT
Children: [IMS_STAFF], PROTOCOL_VERSION, SENDER_VERSION

WEST_LONGITUDE	Maximum length: 9
Possible values: -180.0000 to +180.0000	ODL Type: Real
Definition: Westernmost longitude for a range on the globe.	
Parent Groups: RANGE_LOC	
Children:	
WESTBOUNDINGCOORDINATE	Maximum length: 11
Possible values: -180.0 to +180.0	ODL Type: Real
Definition: Westernmost coordinate of the limit of coverage expressed in longitude. (ASTER/ECS only.) Must be less than EASTBOUNDINGCOORDINATE.	
Parent Groups: SPATIAL_COVERAGE	
Children:	
WRS_TYPE	Maximum length: 10
Possible values: "WRS-1", "WRS-2"	ODL Type: String
Definition: Used to distinguish WRS coordinates for Landsat 1-3 from those for Landsat 4-5. WRS_TYPE="WRS-1" for Landsat 1-3, ="WRS-2" for Landsat 4-5.	
Parent Groups: PATH_ROW_LOC	
Children:	
XAR_ID	Maximum length: 4
Possible values:	ODL Type: Sequence Integer
Definition: ID for xAR that produced the granule. (ASTER/ECS only.)	
Parent Groups: GRANULE, INVENTORY_SEARCH	
Children:	
XHAIRS	Maximum length:
Possible values:	ODL Type: Aggregate
Definition:	
<i>Obsolete. Never implemented.</i>	
Parent Groups:	
Children:	
ZIP	Maximum length: 15
Possible values:	ODL Type: String
Definition: US Postal ZIP code or foreign equivalent for this address.	
Parent Groups: BILLING_ADDRESS, CONTACT_ADDRESS, DAAC_CONTACT_ADDRESS, SHIPPING_ADDRESS	
Children:	