

ASTER

- 1** DAR Support
- 2** Backward Chaining
- 3** Expedited Data

ASTER Goals

- *DAR Tool Usage*
- *Backward Chaining Workaround*
- *SCF QA Metadata Update Workaround*
- *Simplified ASTER Expedited Data Support*
- *Data Tape Ingest*

ASTER Preconditions

ASTER ESDTs inserted into ECS

- *AST_ANC, AST_EXP, AST_L1BT,*
- *AST_09T, AST_04, AST_04, AST_05, AST_09, GDAS_QZF*

ASTER PGEs passed SSI&T and installed

- *ACT, ETS, BTS*

Ancillary data inserted into Data Server

Start



External
Data Provider

PRODUCTION

User

DAR Support

DAR Submission

Data Subscription

Data Insertion

Data Notification

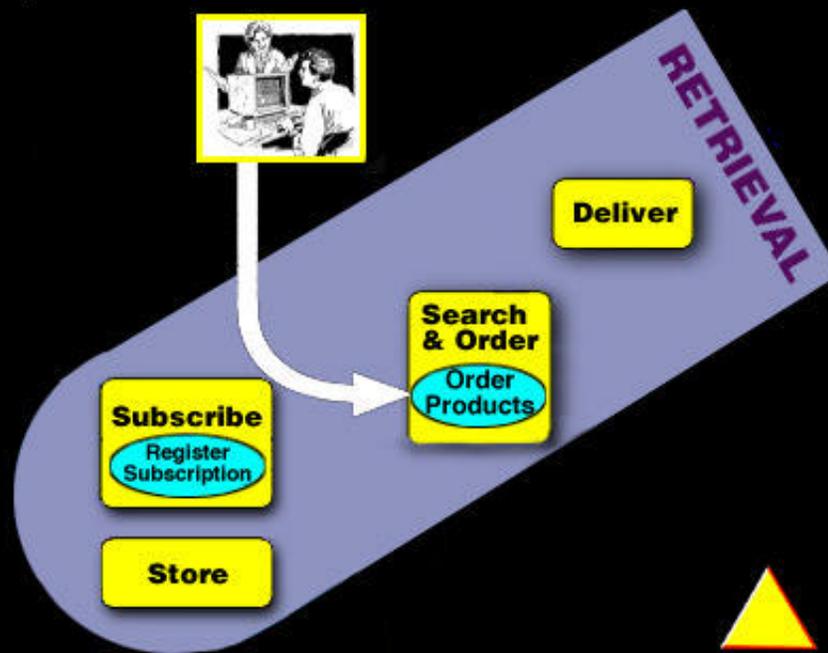
INSERTION

RETRIEVAL

Main



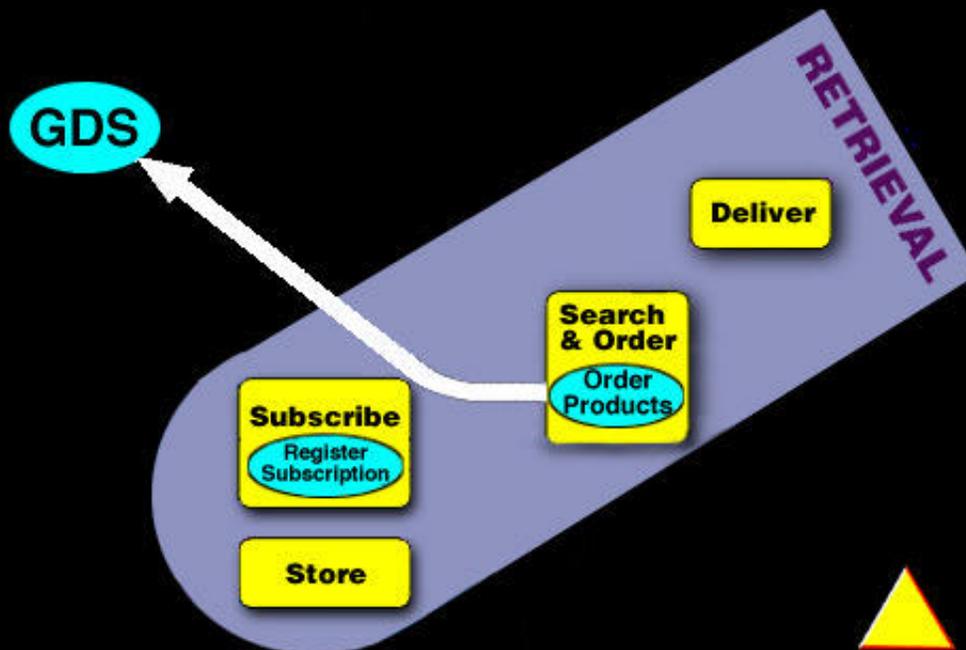
ASTER Scientist decides to request ASTER data requiring a Data Acquisition Request



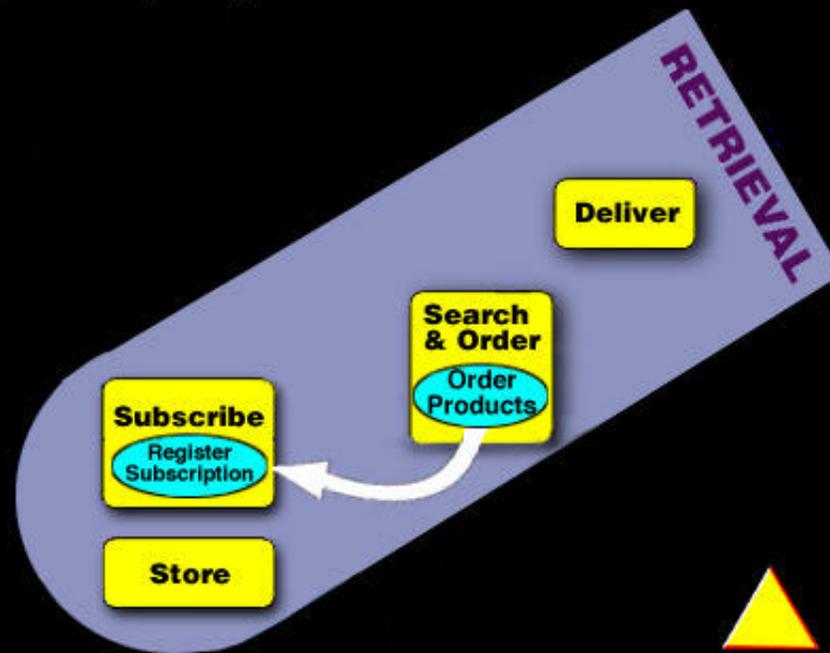
Main 



ECS submits DAR to ASTER Ground Data System (GDS) in Japan receiving a DARid in return

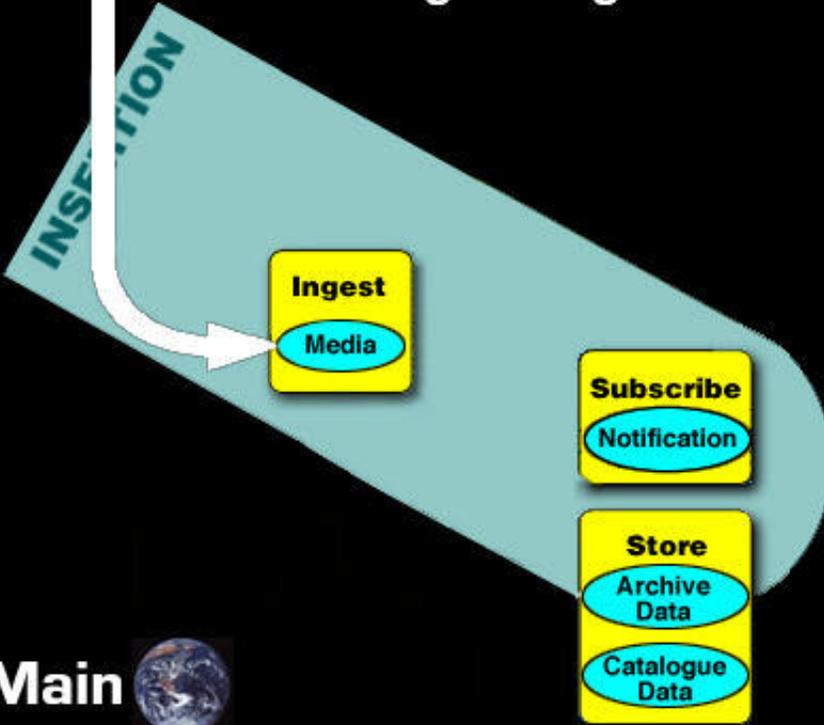


Subscription is submitted on behalf of user for notification on receipt of AST_L1BT (TIR) data



D3
Tape

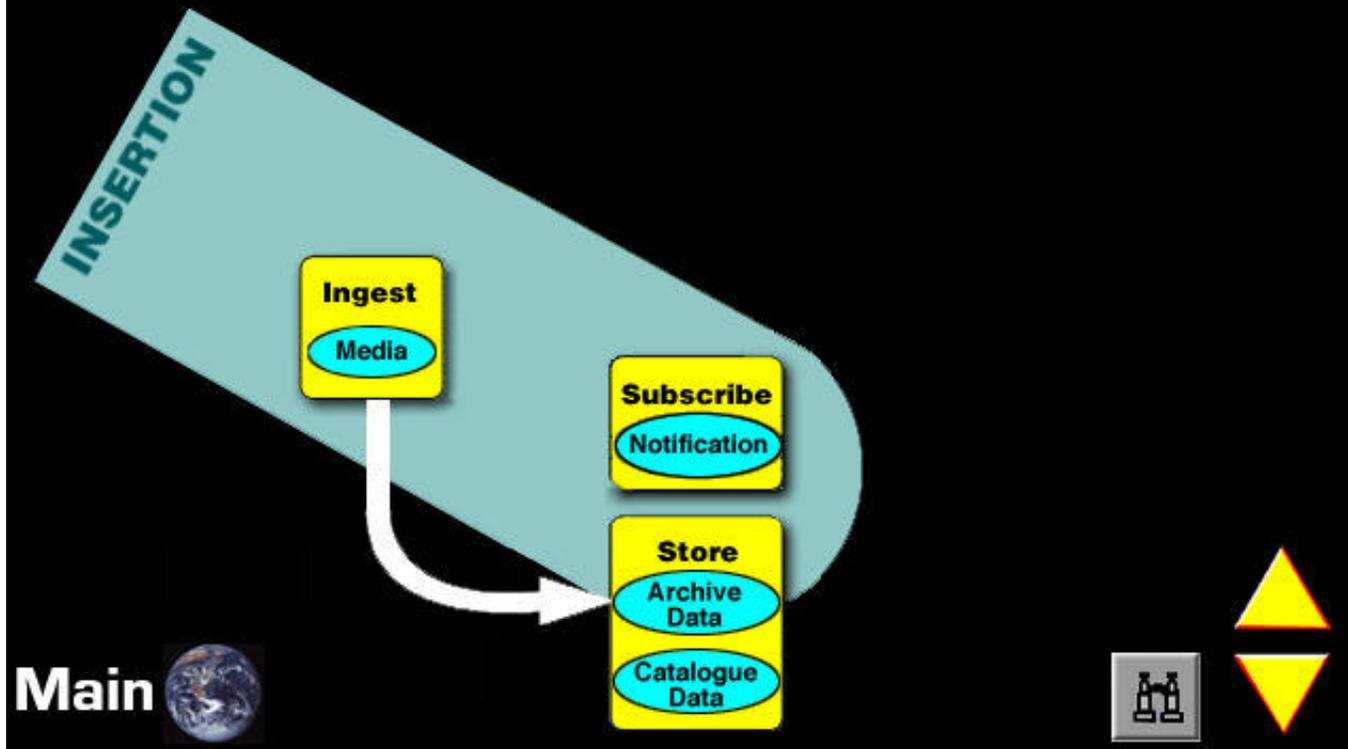
After receiving D3 tape from
GDS, operator mounts tape
and begins ingestion of data



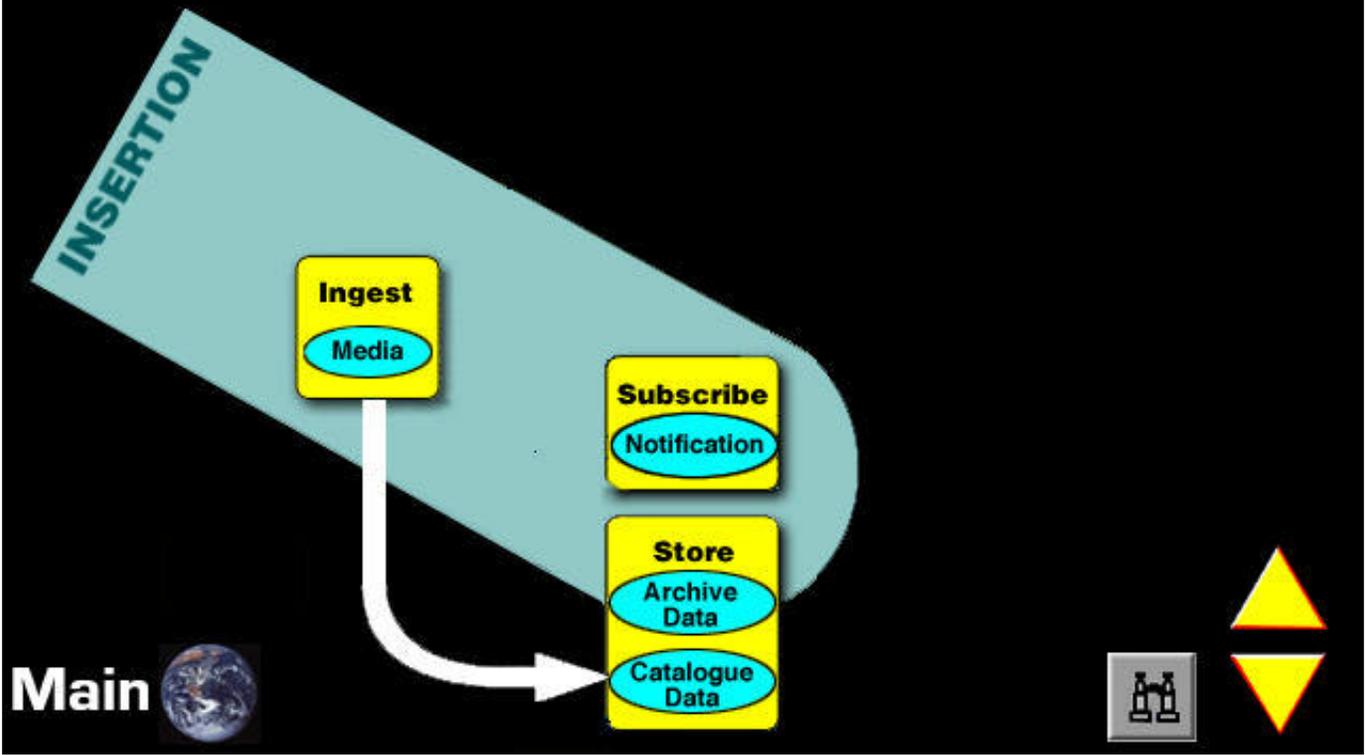
Main 



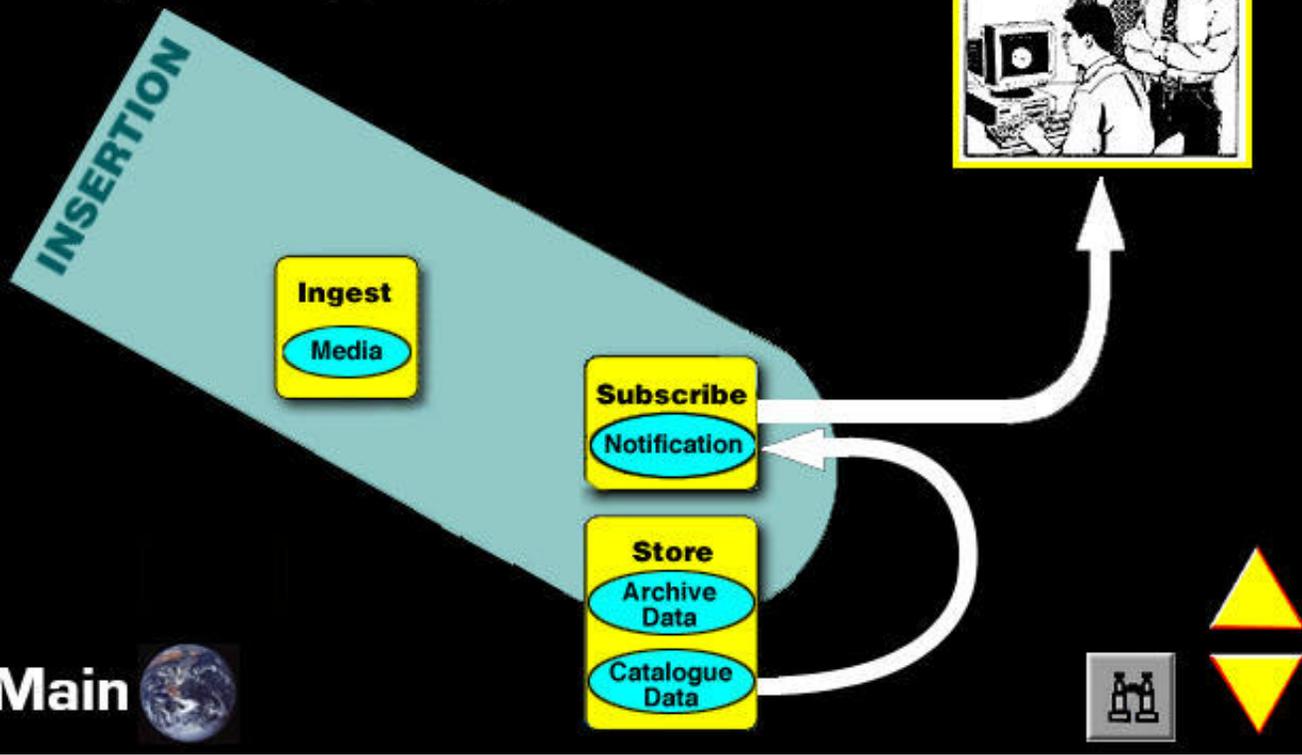
Ingested AST_L1BT data is archived



Update catalog with reference to new AST_L1BT data



Insert terminates with an insert event notification to Subscribe.
Subscribe e-mails ASTER Scientist of a completed AST_L1BT granule insert



External
Data Provider

PRODUCTION

User

Backward Chaining

Product Subscription

On-Demand Production

Standing Order Delivery

QA Update

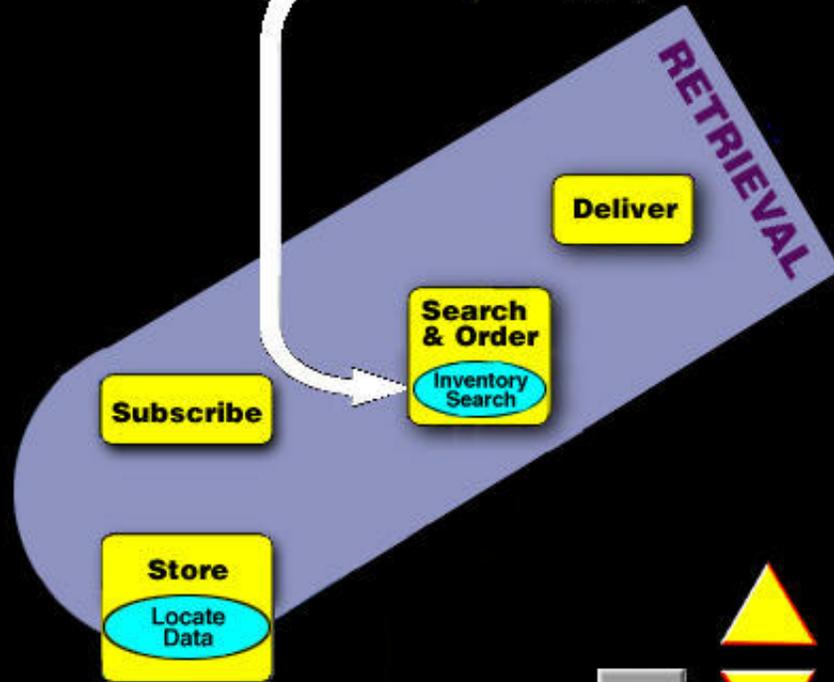
INSERTION

RETRIEVAL

Main



ASTER Scientist searches for newly ingested AST_L1BT granules, verifying attributes

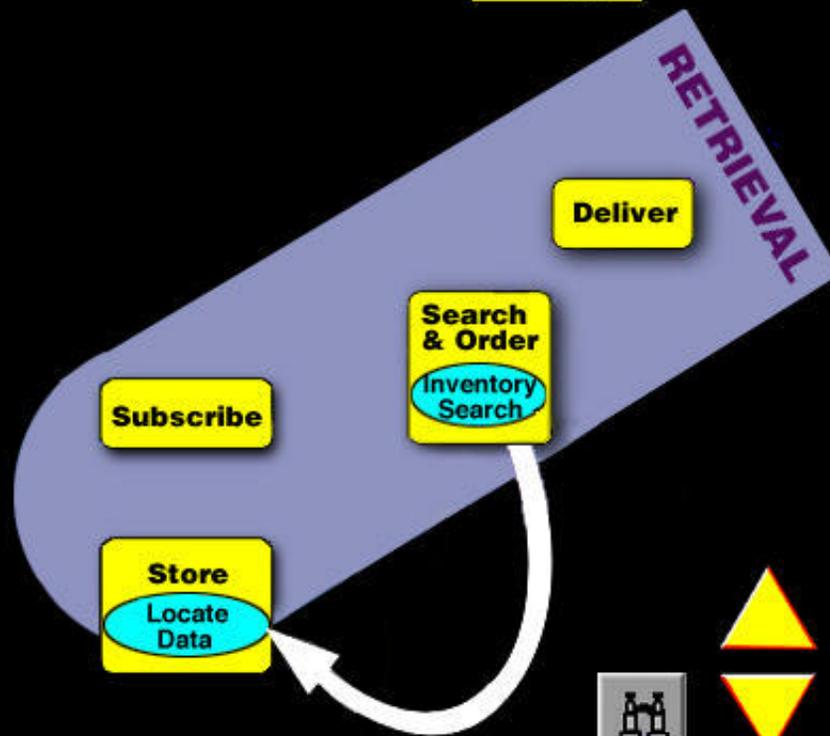


Main 



Locate AST_L1BT granules of interest.

ASTER 11



Main





**ASTER Scientist
calls DAAC
requesting
AST_08 to be
produced from
AST_L1BT using
ETS algorithm**

PRODUCTION

Process
On-Demand



Subscribe

Notification Register Subscription

Store

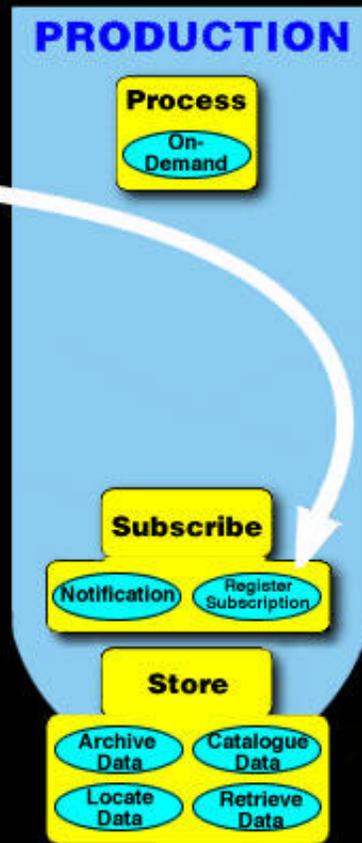
Archive Data Catalogue Data
Locate Data Retrieve Data

Main



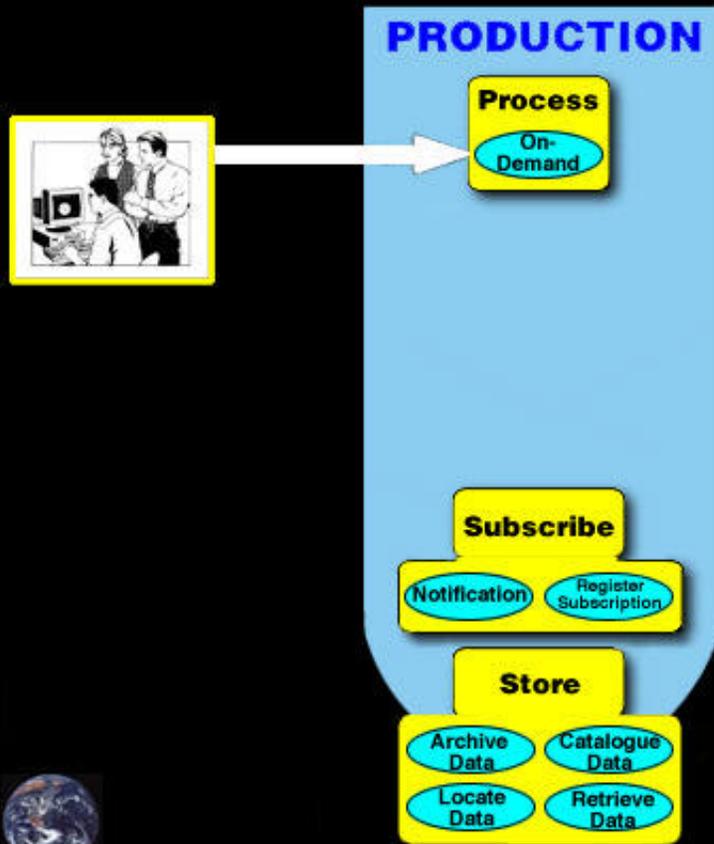


DAAC submits
subscription on
behalf of scientist
for delivery of
AST_08 via
ftpPush



Main





Operator determines need to run ACT PGE before ETS. Submits production request for ACT and ETS, and then initiates production

Main



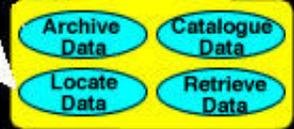
PRODUCTION



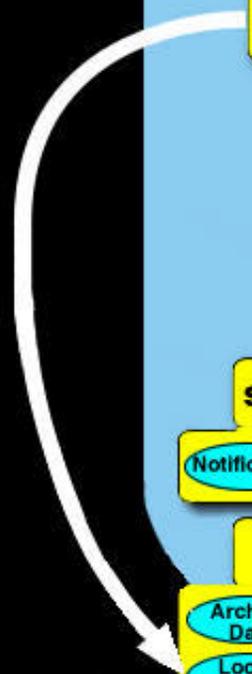
Subscribe



Store



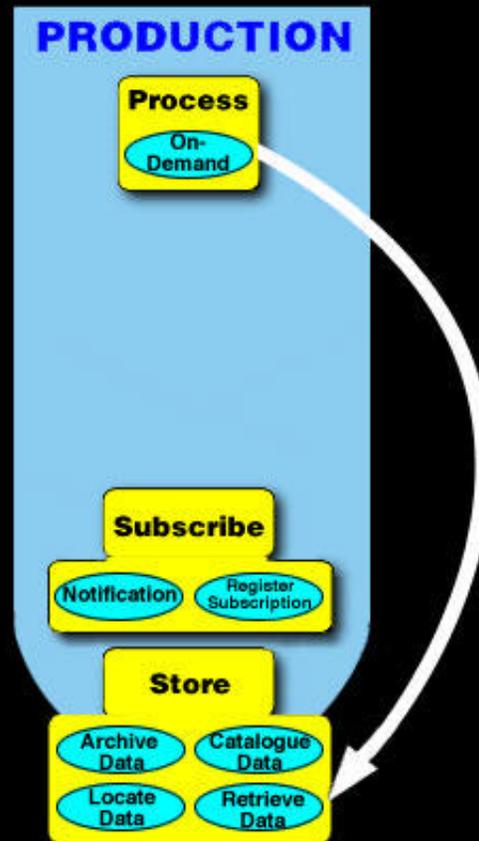
Plan locates
AST_L1BT and
GDAS_0ZF
(NCEP
ancillary) data
required for
ACT algorithm



Main



Retrieve
AST_L1BT
AST_ANC (ASTER
ancillary data set)
and GDAS_0ZF
granules as input
to ACT.
PGE execution
begins



Main



Archive newly created AST_09T (L2 Surface Radiance TIR) granule after completion of ACT PGE

PRODUCTION

Process
On-Demand

Subscribe

Notification Register Subscription

Store

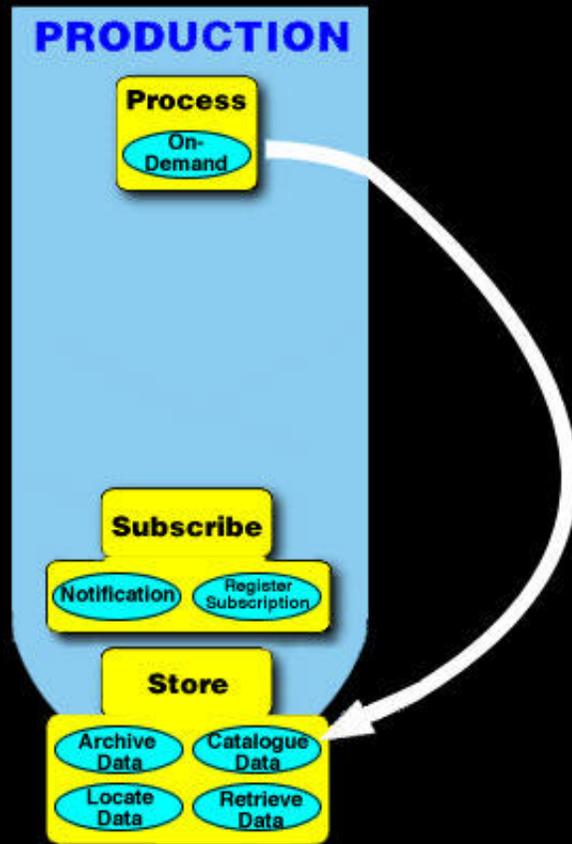
Archive Data Catalogue Data
Locate Data Retrieve Data



Main



Update catalogue
with reference to
AST_09T granule



Main



Insert terminates
with an insert
event notification
to Subscribe

ETS
algorithm
initiated by
insert
notification
from
Subscribe

Main



PRODUCTION

Process
On-Demand

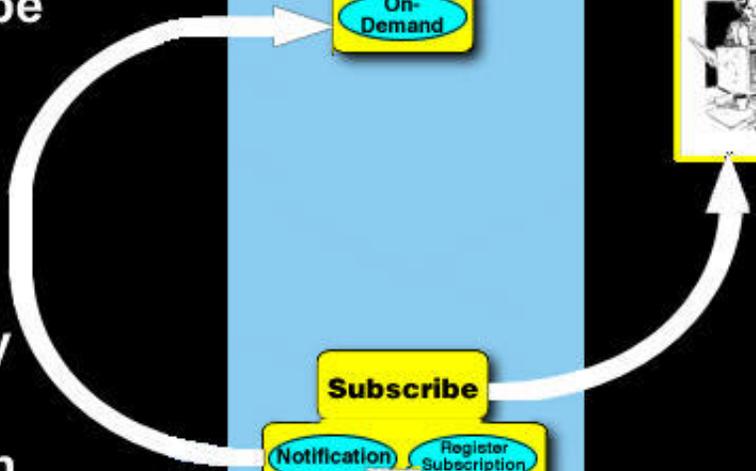


Subscribe

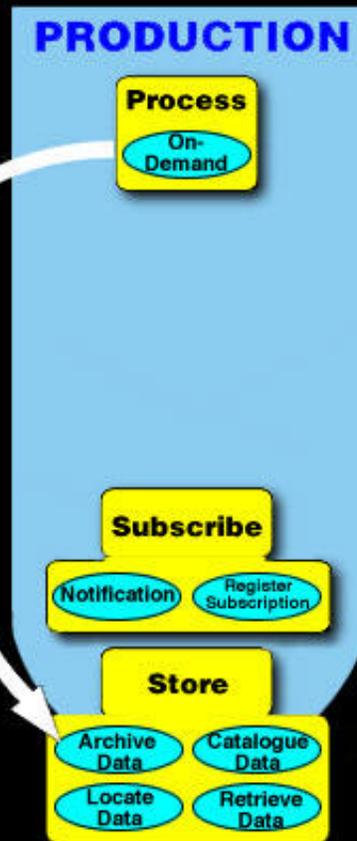
Notification Register Subscription

Store

Archive Data Catalogue Data
Locate Data Retrieve Data



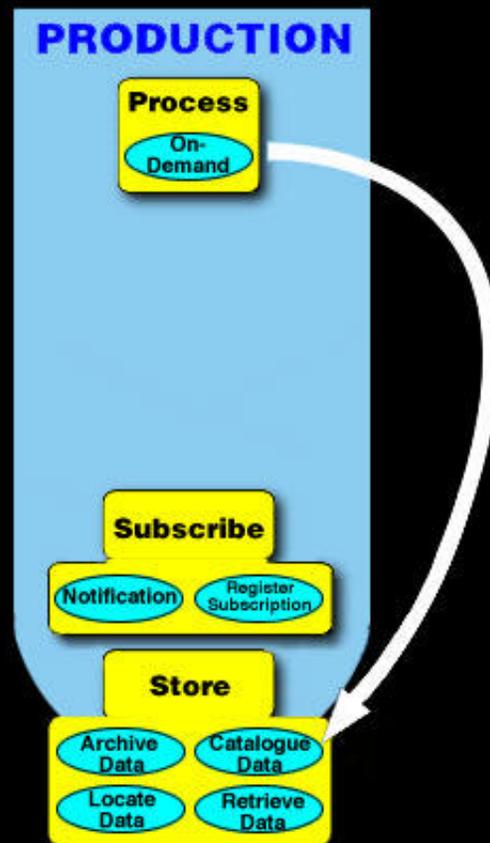
Archive newly created AST_08 (L2 Surface Temperature) and AST_05 (L2 Surface Emissivity) granules



Main



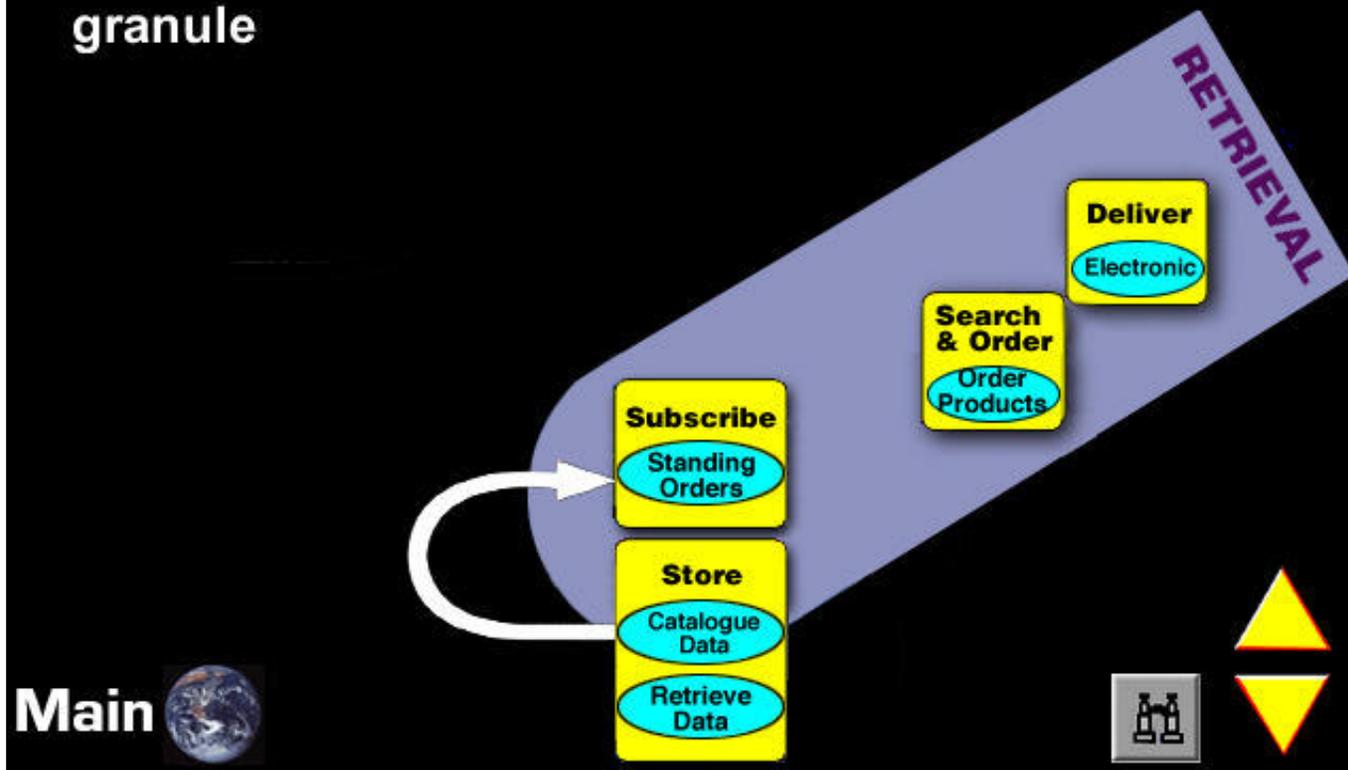
Update catalog
with references to
AST_05 and
AST_08 granules



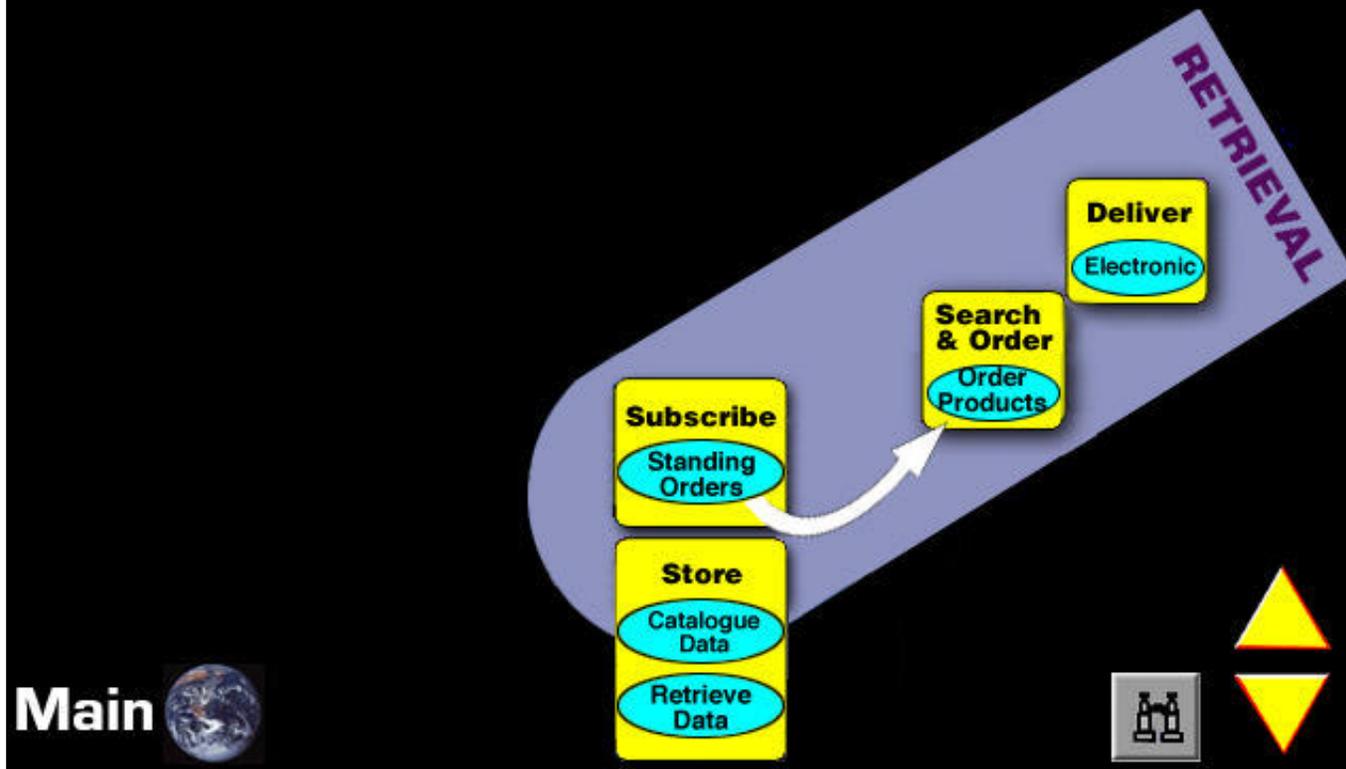
Main



Initiate Standing Order processing for new AST_08 granule

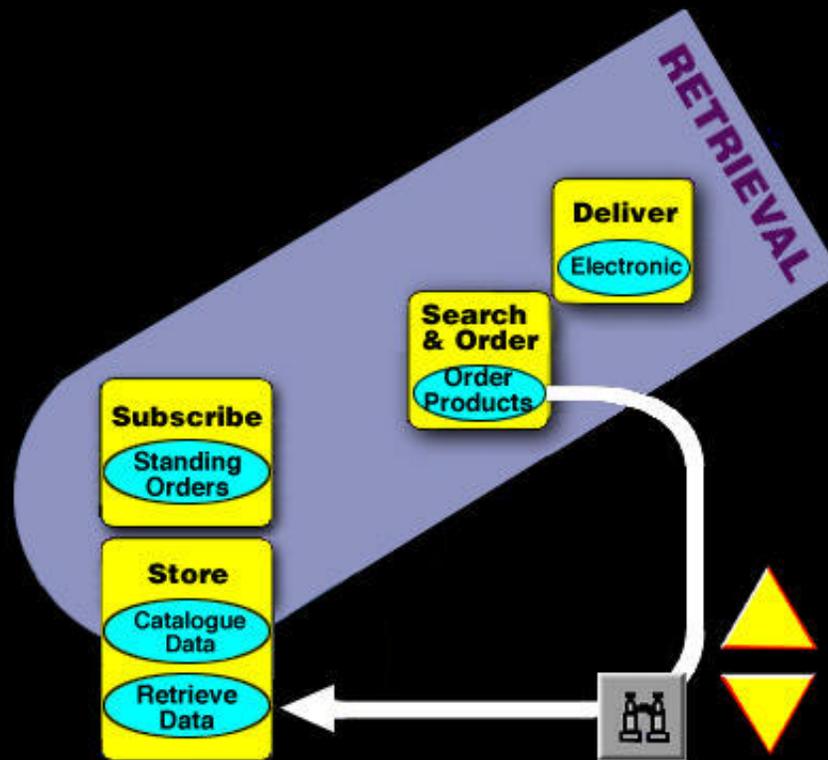


Submit order for
new AST_08 on
behalf of scientist

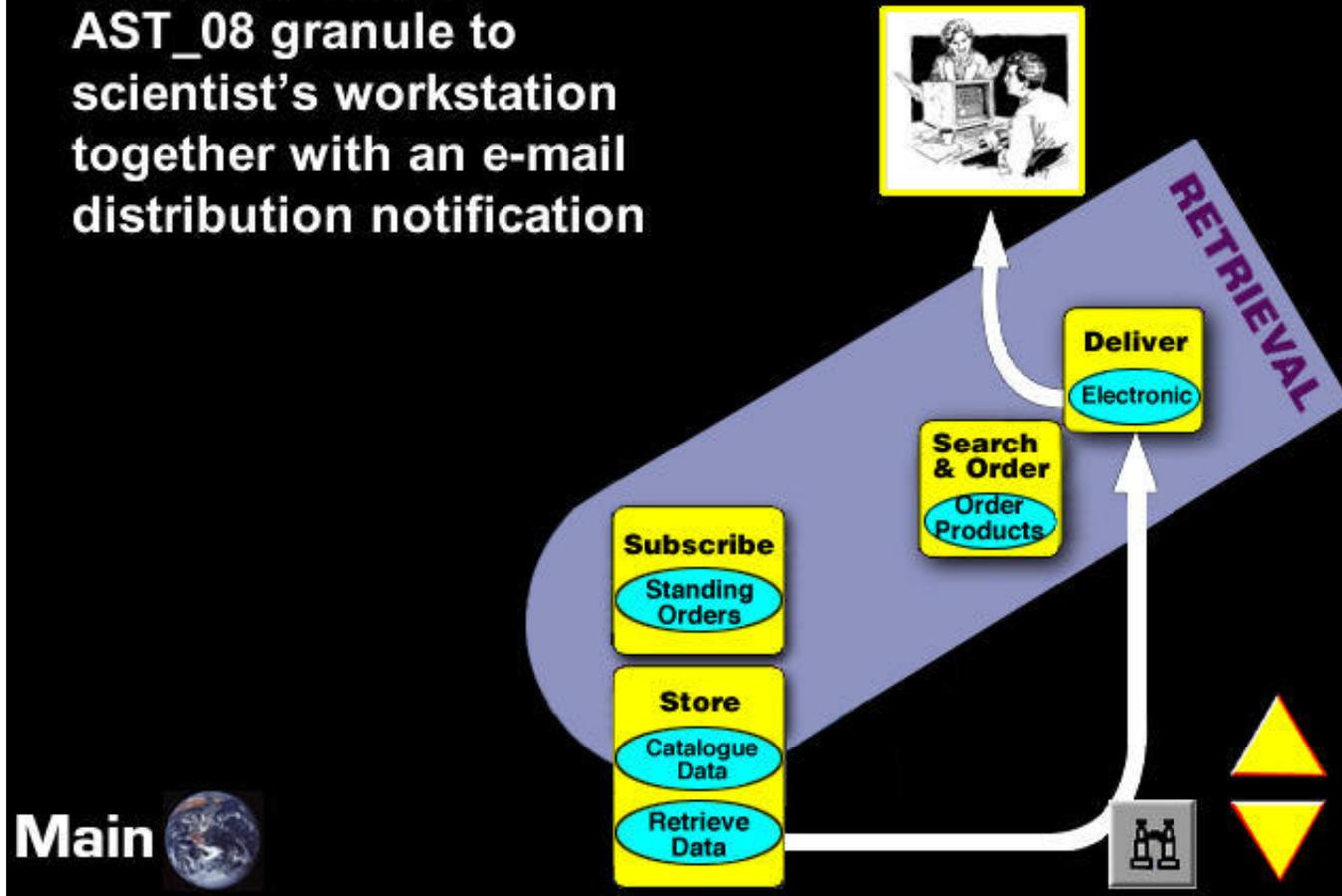


Retrieve newly
created AST_08
granule

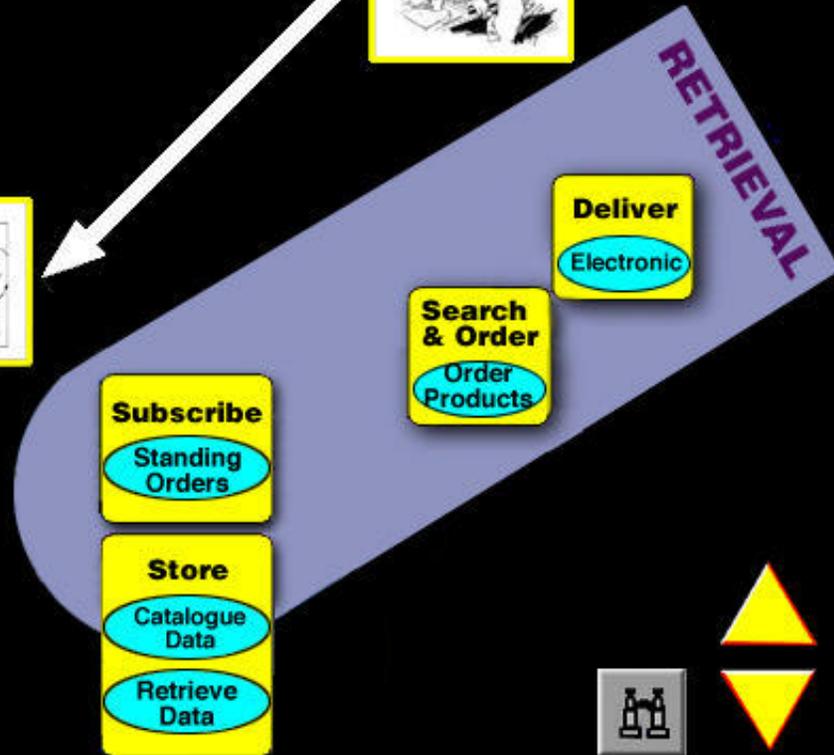
Main 



ftp newly created
 AST_08 granule to
 scientist's workstation
 together with an e-mail
 distribution notification



Scientist QAs the
AST_08 product
and e-mails DAAC
Operations



Main



DAAC Operations
updates AST_08
inventory metadata



Subscribe
Standing Orders

Store
Catalogue Data
Retrieve Data

Search & Order
Order Products

Deliver
Electronic

RETRIEVAL

Main





ASTER Scientist
calls DAAC
requesting
AST_04 to be
produced from
AST_L1BT using
BTS algorithm

Main



PRODUCTION

Process

On-Demand

Subscribe

Notification

Register Subscription

Store

Archive Data

Catalogue Data

Retrieve Data





PRODUCTION

Process

On-Demand

Subscribe

Notification

Register Subscription

Store

Archive Data

Catalogue Data

Retrieve Data

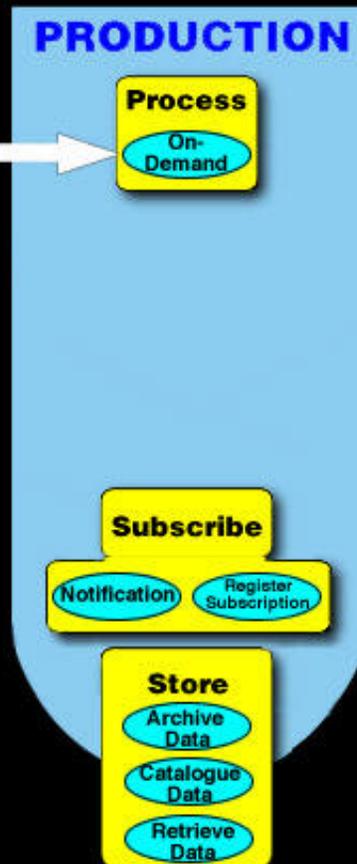
DAAC submits subscription on behalf of scientist for e-mail notification of AST_04 insertion

Main





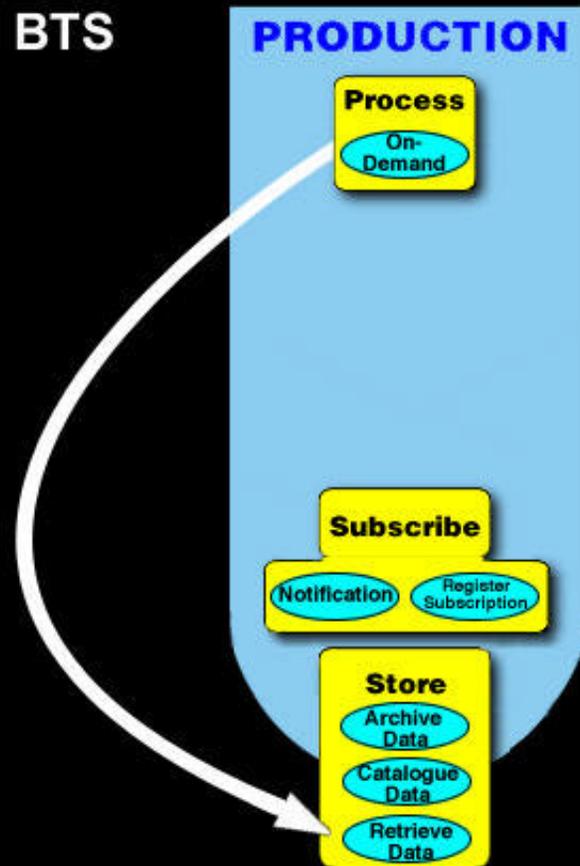
Operator submits production request for BTS algorithm to be run with the specified AST_L1BT granule



Main



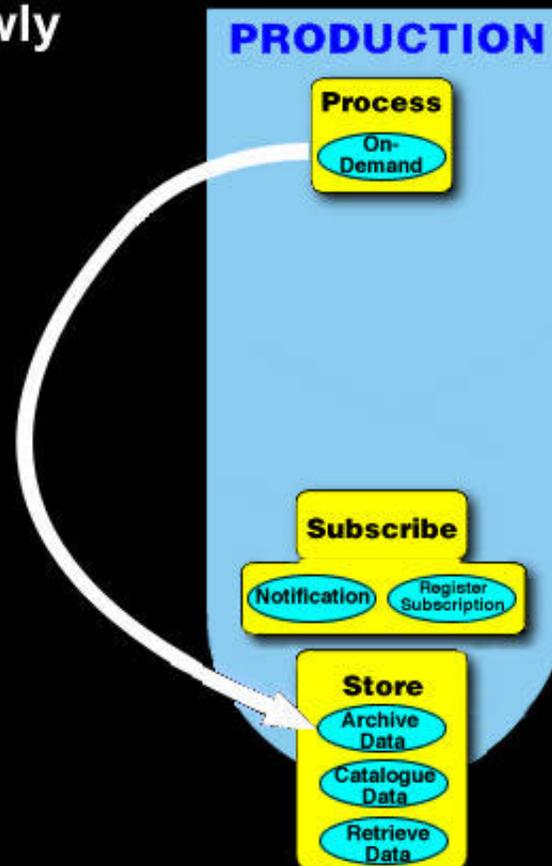
Retrieve AST_L1BT
as input to BTS



Main



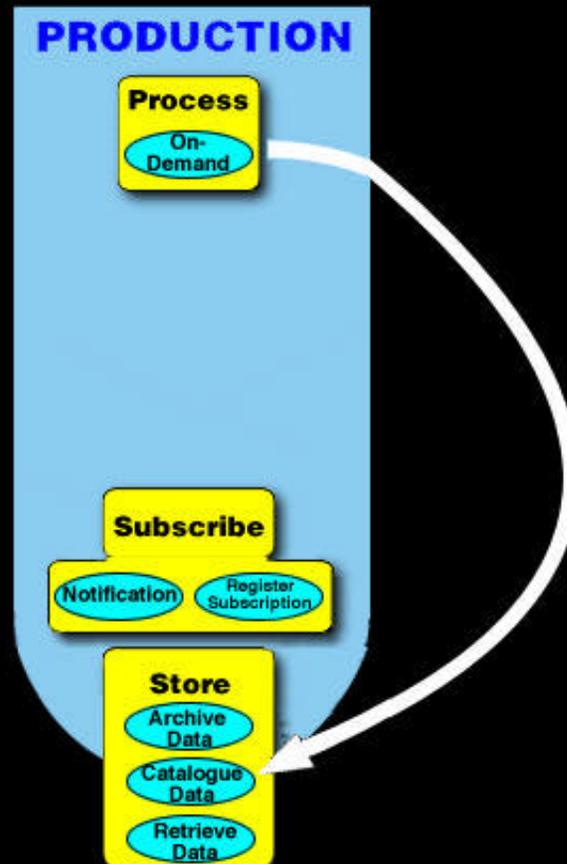
Archive newly
created
AST_04
granule



Main



Update Catalogue
with reference to
AST_04 granule



Main



Insert completes with an insert event notification to Subscribe. Subscribe e-mails Scientist of a completed AST_04 granule insert



Main



External
Data Provider

PRODUCTION

User

Expedited Data

Data Subscription

Data Insertion

Data Notification

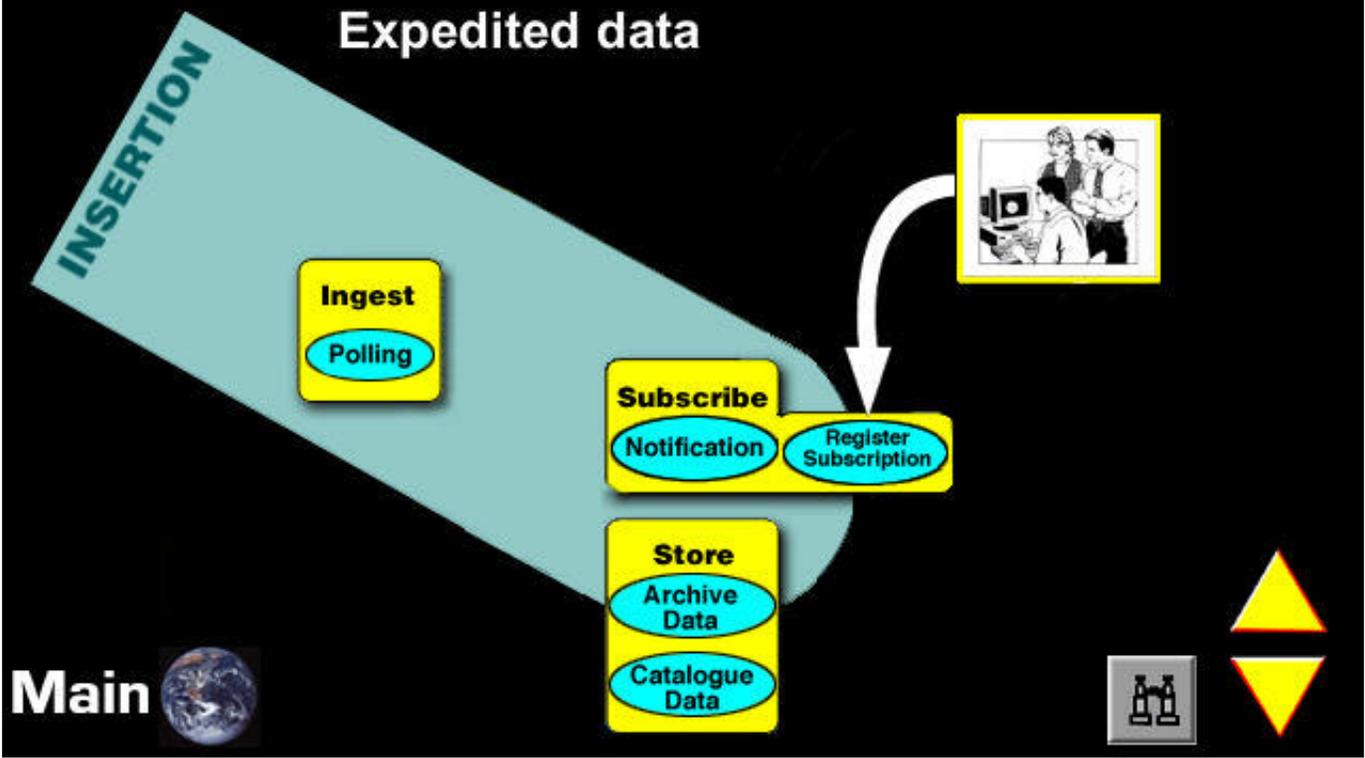
INSERTION

RETRIEVAL

Main

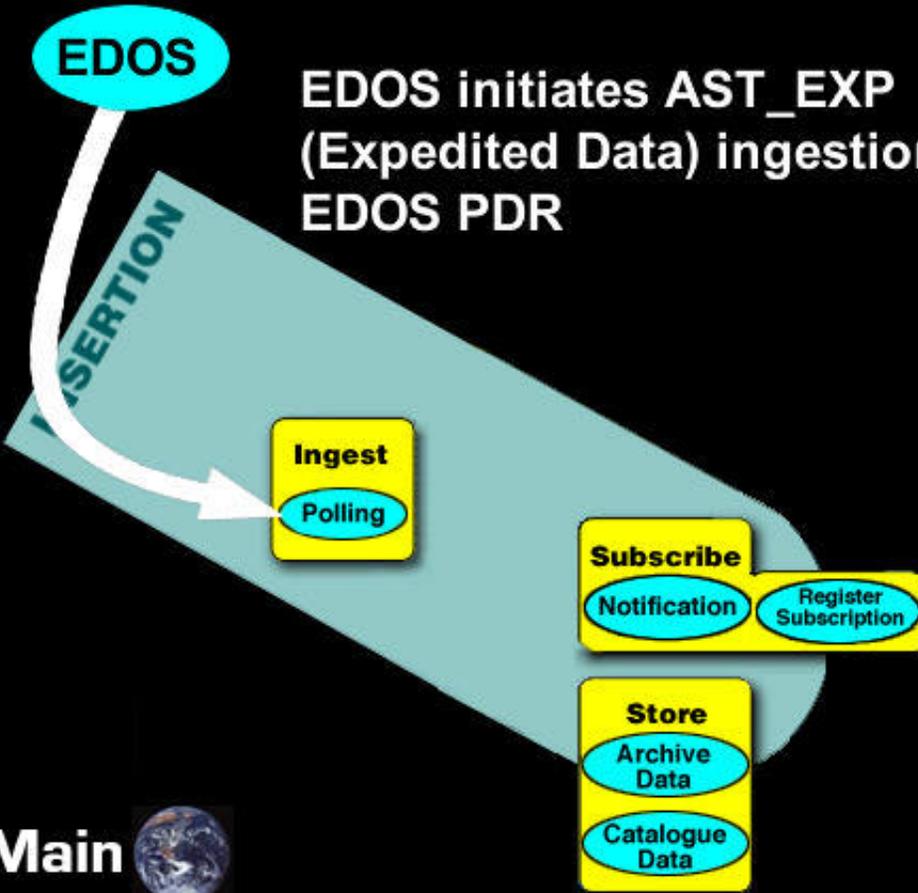


DAAC submits subscription, on behalf of scientist for notification of new ASTER Expedited data



EDOS

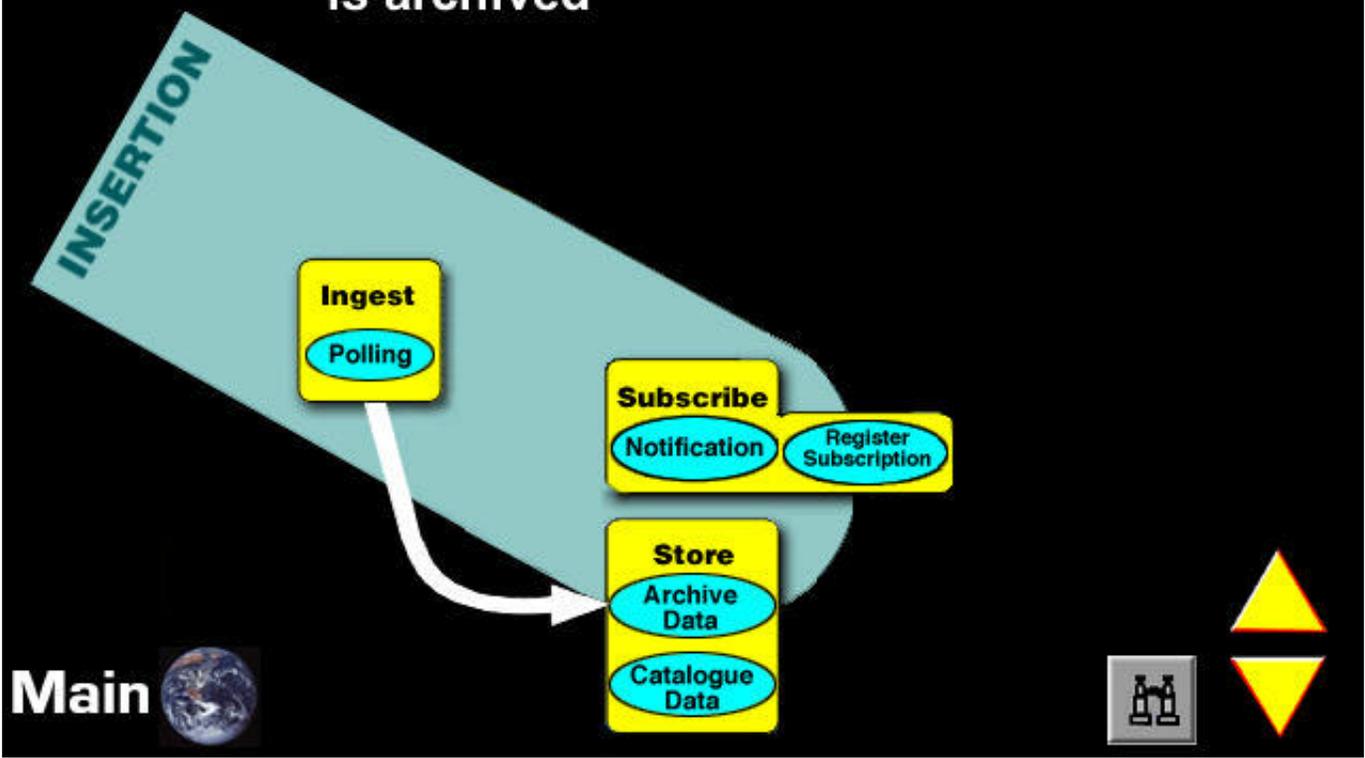
EDOS initiates AST_EXP
(Expedited Data) ingestion via
EDOS PDR



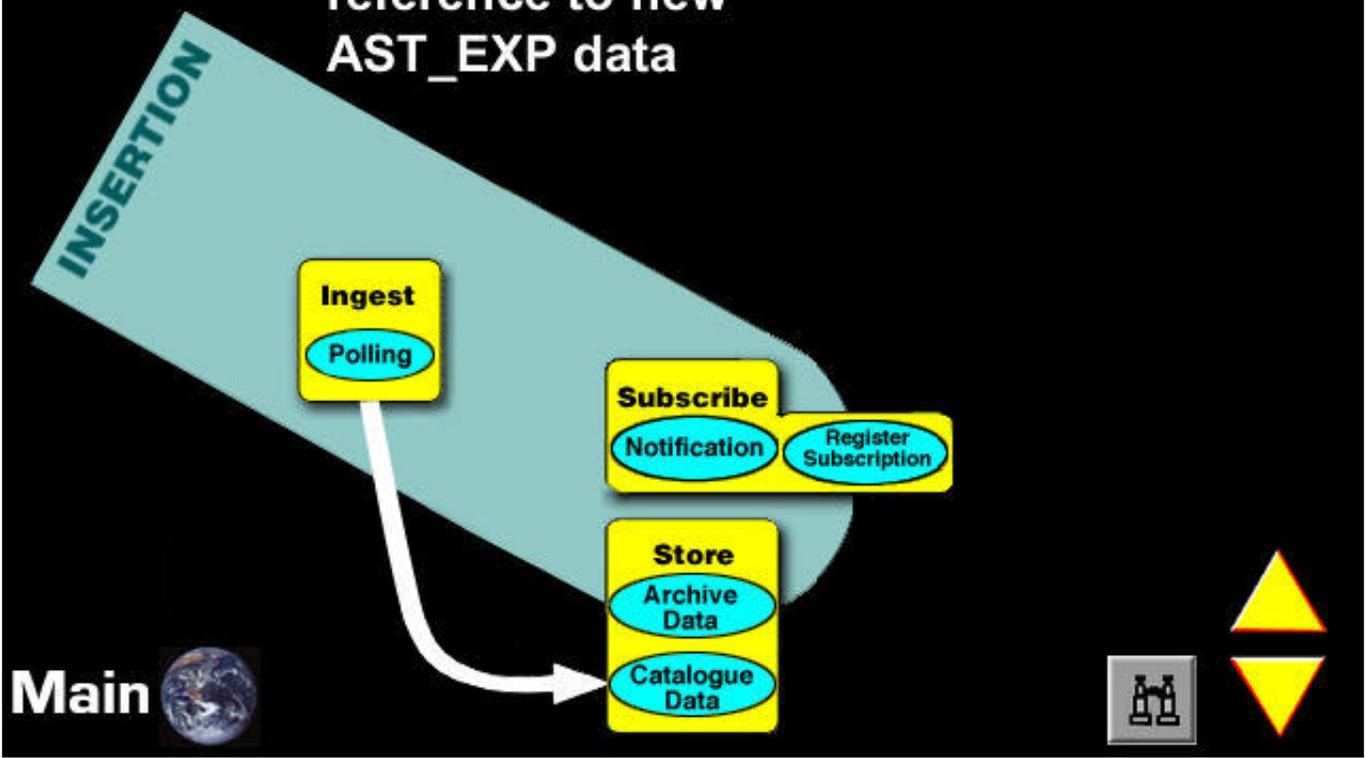
Main



Ingested AST_EXP data
is archived



Update catalog with
reference to new
AST_EXP data



Insert terminates with an insert event notification to Subscribe
 Subscribe e-mails Scientist of a completed AST_EXP granule insert

