CERES Systems Engineering Committee

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Charter: Serve as a forum for resolving issues which affect more than one working group. Report to CERES Data Management Team

February 4, 1999 10:30am

Maria met with the DAAC Automated Product Generation System (APGS) staff to discuss the metadata (.met) file issue. Those in attendance from the DAAC were Randy Dye, Bob Ignacio, Tom Regan, Fred Byrd, Kay Rowe, Erika Byrd, and Don Rieger.

All CERES output products produce an associated metadata file, called .met, containing information about the generated file. The LaTIS system has two databases that have a requirement to store a subset of the parameters contained in the metadata file. The first is the APGS database and the second is the Information Management System (IMS) database. The APGS database is designed to store all information needed to drive the Automated Product Generation System and the IMS database is designed to store all of the information that is relevant to all of the CERES output products. The IMS database provides the V0 Web servers with certain information necessary for product retrieval and ordering requirements. Both of these databases depend on the metadata file for database population. The meeting this morning was designed to review all of the metadata and decide which metadata must be retrieved for the APGS database, and which metadata must be retrieved for the IMS database.

Listed below is the table of CERES Baseline metadata parameters contained in the .met files. The column ‘Destination’ will contain: ‘APGS’, ‘IMS’, ‘both’ or ‘none’.

Table 1: CERES Baseline Header Metadata

Item	Source	Parameter Name	Data Type	Destination
1.	PCF	DataSetName	s(8)	both
2.	PCF	VersionID	I3	both
3.	PCF (Delivered to DAAC with PGE)	CERPGEName(PSA)	s(20)	APGS
4.	PCF	SamplingStrategy(PSA)	s(20)	both
5.	PCF	ProductionStrategy(PSA)	s(20)	both
6.	PCF	CERDataDateYear(PSA)	s(4)	both

Table 1: CERES Baseline Header Metadata

Item	Source	Parameter Name	Data Type	Destination
7.	PCF	CERDataDateMonth(PSA)	s(2)	both
8.	PCF	CERDataDateDay(PSA)	s(2)	both
9.	PCF	CERHrOfMonth(PSA)	s(3)	both
10.	PGE**	RangeBeginningDate	date	IMS
11.	PGE**	RangeBeginningTime	time	IMS
12.	PGE**	RangeEndingDate	date	IMS
13.	PGE**	RangeEndingTime	time	IMS
14.	PGE**	AutomaticQualityFlag	s(64)	both
15.	PGE**	AutomaticQualityFlagExplanation	s(255)	IMS
16.	PGE*	QAGranuleFilename(PSA)	s(255)	IMS?
17.	PGE*	ValidationFilename(PSA)	s(255)	IMS?
18.	wrapper	EastBoundingCoordinate	F11.6	IMS
19.		NorthBoundingCoordinate	F11.6	IMS
20.		SouthBoundingCoordinate	F11.6	IMS
21.		WestBoundingCoordinate	F11.6	IMS
22.		GRingPointLatitude	F11.6	IMS
23.		GRingPointLongitude	F11.6	IMS
24.		GRingPointSequenceNo	I5	IMS
25.		ExclusionGRingFlag	s(1)	IMS
26.	wrapper	AssociatedPlatformShortName	s(20)	both
27.	wrapper	AssociatedInstrumentShortName	s(20)	both
28.	wrapper	ImagerShortName(PSA)	s(20)	both
29.	PCF	LocalGranuleID	s(80)	both
30.	wrapper	LocalVersionID	s(60)	IMS
31.	wrapper	InputPointer	s(255)	none
32.	wrapper	NumberInputFiles(PSA)	I4	none
33.	wrapper	PGEVersion	s(10)	APGS
34.	PGE**	CEREastBoundingCoordinate	F11.6	IMS?
35.	PGE**	CERNorthBoundingCoordinate	F11.6	IMS?
36.	PGE**	CERSouthBoundingCoordinate	F11.6	IMS?

Table 1: CERES Baseline Header Metadata

Item	Source	Parameter Name	Data Type	Destination
37.	PGE**	CERWestBoundingCoordinate	F11.6	IMS?
38.	PGE**	CERGRingPointLatitude	F11.6	IMS?
39.	PGE**	CERGRingPointLongitude	F11.6	IMS?
40.	wrapper	CERProductionDateTime	datetime	IMS
41.	PGE*	NumberofRecords	I10	IMS
42.	wrapper	ProductGenerationLOC	s(255)	IMS

Note: Those items of Destination followed by '?' will be further checked by Maria to confirm that the destination is valid.

The following table contains additional metadata that will be stored in the APGS database - to be supplied by the APGS system.

Table 2: Metadata supplied by the DAAC for the APGS Database

Item	Parameter Name	Description
1.	ExitCode	CODINE 'exit code'
2.	DAACArchivaLocation	directory path stored in Archives

The following table contains additional metadata that will be stored in the IMS database - to be supplied by the DAAC.

Table 3: Metadata Supplied by the DAAC for the IMS Database

Item	Parameter Name	Description
1.	DAACArchiveLocation	directory path stored in Archives
2.	OperationalQualityFlag	default = 'Passed', product will **not** be stored if PGE failed.
3.	OperationalQualityFlagExplanation	default = 'APGS' or ('manual')
4.	ArchivalDateTime	TBD
5.	SizeMBECSDataGranule	size of data granule in Megabytes

Table 3: Metadata Supplied by the DAAC for the IMS Database

Item	Parameter Name	Description
6.	SizeCOMPDataGranule	Compressed size of Data Granule
7.	ProcessingHistoryPointer	TBD - Filename of Processing History
8.	ScienceQAFlag	supplied by the Science Team {Passed, Failed, BeingInvestigated, Validated, NotInvestigated, default = NotInvestigated}
9.	ScienceQualityFlagExplanation	TBD
10.	VisibleID	{DAAC, SCF, ST, World, default = SCF}

Meeting adjourned at 12:30pm mvm

March 16, 1999 1:00pm

The Systems Engineering Committee members met with Alice Fan to discuss a comparison of the ECS and LaTIS MCF files for the CERES archival products which include the following ESDTs: CBBDS_AB, CDS4HFAB, CGSSF_AB, CIFSW_AB, CLAVG_AB, CMSFC_AB, CNSRB2AB, CCES8HAB, CDS9HFAB, CHCRSHAB, CKSYNHAB, CLZAVGAB, CNSRB1AB. The MCF files need to match metadata completely in order to be inserted into ECS. It is probably acceptable if ECS is set to False and LaTIS is True; however, LaTIS must be True if ECS is True. The follow differences were noted:

ESDT	Attribute	ECS MCF	LaTIS MCF
All	LocalGranuleID	Mandatory = FALSE	Mandatory = TRUE
All	LocalVersionID	Mandatory = FALSE	Mandatory = TRUE
All	InputPointer	NUM_VAL = various numbers	NUM_VAL = 800
All	OperationMode	Mandatory = TRUE	Mandatory = FALSE
All	AdditionalAttributesContainer	Mandatory = FALSE	Mandatory = TRUE
All	AdditionalAttributeName	Mandatory = FALSE	Mandatory = TRUE
All	ParameterValue	Mandatory = FALSE	Mandatory = TRUE
All	AncillaryInputType	NOT INCLUDED	(see note)
All	AncillaryInputPinter	NOT INCLUDED	(see note)

NOTE: CERES may not actually be using these attributes under investigation so this may not be a problem.

CHCRSHAB - Spatial Domain represented in ECS by Bounding Rectangle, in LaTIS by GRING info.
CKSYNHAB - No LaTIS MCF to compare against as this product has not been produced yet.

Alice will find out if anyone is using ancillary input granule, pointer and type. If not, we can remove it from the MCF file template. She will also check on the meaning of mandatory.

Meeting adjourned at 3pm ses.