

August 251, 1995

Revision Marks added to the IRD CLASS FROM RTM

SUMMARY OF CHANGES WITH CM PEDIGREES

Editorial correction:

SCF-0010

Modified DCE requirements as approved by ECS CCB on 3/29/95 (CCR # 95-0183):

SCF-0020

SCF-0025

Deleted requirements as approved by ECS CCB on 7/5/95 (CCR # 95-457A):

SCF-0040

SCF-0050

paragraph_id	segment_allocation	req_title	text
SCF-0001	NONE	SCF Standards and Guidelines	The SCF interface platform shall adhere to requirements specified in the Data Production Software and SCF Standards and Guidelines, GSFC 423-16-01. This standards document includes SCF requirements for operating system, computer communications, e-mail protocol, and windowing protocol.
SCF-0010	NONE	ESDCIS approved computing platform	The SCF interface shall consist of an ESDIS approved computing platform that shall have a C compiler. To access FORTRAN routines in the ECS Toolkits, the platform shall also have a FORTRAN compiler.

SCF-0020	NONE	SCF's DCE client and TCP/IP	The SCF interface platform shall supply the DCE client and have an I/O communication port and the ability to run TCP/IP software for communication to the ECS.
SCF-0025	NONE	SCF's DCE or Kerberos	The SCF interface platform shall provide one of the following levels of security for interoperation with ECS: a. Kerberized authentication for bi-directional file transfers. b. User of Distributed Computing Environment (DCE) for authentication of users, authorization of users for access to services such as remote file access, and provision for integrity of data being transferred.
SCF-0030	NONE	SCFs support ECS supplied software	The SCF interface platform shall have adequate computing resources for the storage, compilation, linking, and execution of ECS supplied software resident on the platform.
SCF-0040	SDPS	ECS sends Requirements	The ECS shall have the capability to send to the SCFs the Data Production Software Specification Requirements describing what is required for completing the Initial Data Production Software Specifications.

SCF-0050	SDPS	ECS accepts software Specifications	The ECS shall have the capability to accept from the SCF a set of Initial Data Production Software Specifications that provides the software design description and operations concepts of the data production software to be delivered and estimates storage and processing resources required for the data production software to operate successfully in the ECS operational environment. These specifications are described in the Data Production Software Specification Requirements.
SCF-0060	SDPS	Toolkit Delivery and Update Package	The ECS shall have the capability to provide to the SCF the Toolkit Delivery and Update Package. This package includes the PGS toolkit which supplies tools for the emulation of the ECS production environment and contains a ECS-standardized software routines to aid in science data production software development.

SCF-0070	SDPS	Integration and Test Specifications	The ECS shall have the capability to provide Integration and Test Specifications to the scientist at the SCF. These specifications are defined by the Data Processing Focus Team. These specifications are implemented in the Data Production Software Delivery Package and support smooth integration of the data production software into the ECS production environment.
SCF-0080	SDPS	Interactive Session Dialog	The ECS shall have the capability to provide an Interactive Session Dialog with the SCF. This dialog, to aid integration and test of the data production software into the ECS production environment, shall support, at a minimum, general communications between the ECS and the SCF that include logins, mail messages, status reports, test coordination, test execution scripts, and solutions to minor problems.
SCF-0090	SDPS	Software Delivery Package	The SCF shall have the capability to provide ECS with the Data Production Software Delivery Package with "Required Items For Delivery" as specified by the Science User's Guide and Operations Procedure Handbook for the ECS Project.

SCF-0100	SDPS	ECS sends Test Products to the SCF	The ECS shall have the capability to forward Test Products to the SCF. These products generated by the science software at the ECS will require the review of the scientist at the SCF who submitted the software.
SCF-0110	SDPS	ECS receives Test Product Reviews	The ECS shall have the capability to receive Test Product Reviews from the SCF. These reviews shall include the comments and recommendations of the scientist at the SCF who has reviewed the Test Products.
SCF-0120	SDPS	ECS receives Software Updates	The ECS shall have the capability to receive Data Production Software Updates from the SCF. These Data Production Software Updates include modifications to any data production software already submitted to the ECS by the SCF. The Data Production Software Updates may include some or all the items required in the Data Production Software Delivery Package.
SCF-0130	SDPS	ECS receives special products	The ECS shall have the capability to receive Special Products from the SCF. These shall include L1 - L4 Special Products.
SCF-0140	SDPS	ECS receives Metadata	The ECS shall have the capability to receive Metadata, related to Special Products, from the SCF.

SCF-0150	SDPS	ECS receives Ancillary Data	The ECS shall have the capability to receive Ancillary Data, related to Special Products, from the SCF.
SCF-0160	SDPS	ECS receives Calibration Data	The ECS shall have the capability to receive Calibration Data, related to Special Products, from the SCF.
SCF-0170	SDPS	ECS receives Correlative Data	The ECS shall have the capability to receive Correlative Data, related to Special Products, from the SCF.
SCF-0180	SDPS	ECS receives documents	The ECS shall have the capability to receive Documents from the SCF that are related to Special Products and deemed necessary by the contributing scientist.
SCF-0190	SDPS	ECS receives software	The ECS shall have the capability to receive Data Production Software, related to Special Products, from the SCF.
SCF-0200	SDPS	ECS receives QA specification	The ECS shall have the capability to receive from the SCF a QA Notification Specification. This specification, submitted by the scientist at the SCF, describes the conditions under which data should be forwarded to the SCF for QA.

SCF-0210	SDPS	Data Quality Request Notification	The ECS shall have the capability to send a Data Quality Request Notification to the SCF. This notification is sent when QA notification criteria are met during routine ECS processing. The notification states the data product and the time by which a notification, and optionally data, must be evaluated and returned to the ECS for inclusion as an update to the product metadata.
SCF-0220	SDPS	SCF requests Data to QA	The ECS shall have the capability to receive from the SCF a Request for Data to QA. This request may be a standing request specified in the QA Notification Specification and may include the data product specified in the Data Quality Request Notification, or other data required by the scientist to QA the data product.
SCF-0230	SDPS	ECS sends Data for QA	The ECS shall have the capability to send Data Delivered for QA to the SCF. This data includes the data requested by the scientist needed for the QA of data products.

SCF-0240	SDPS	SCF receives On Time QA	The ECS shall have the capability to receive an On Time QA from the SCF. This shall consist of the science QA codes describing the results of product QA and any further instructions to the ECS. The ECS shall accept the On Time QA when it is received within the time-out period specified in the Data Quality Request Notification. ECS shall accept post-time-out QA updates as Metadata Updates as specified by Requirement SCF-0250.
SCF-0250	SDPS	ECS receives Metadata Updates	The ECS shall have the capability to receive Metadata Updates from the SCF. These shall include the science QA codes and optionally a report describing the results of product QA and any further instructions to the ECS. The ECS shall only accept Metadata Updates when they are received after the time allotment specified in the Data Quality Request Notification.
SCF-0260	SDPS	Reprocessing Request Template	The ECS shall have the capability to make a Reprocessing Request Template available to the SCF. This template will be used by the scientist at the SCF to prepare a Reprocessing Request.

SCF-0270	SDPS	ECS receives reprocessing request	The ECS shall have the capability to receive a Reprocessing Request from the SCF. This request, at a minimum, contains the following, a list of all the products to be generated, the version numbers of the science software and calibration coefficients, a list of all ancillary data, and data start and stop times.
SCF-0280	SDPS	ECS supplies reprocessing status	The ECS shall have the capability to supply a Reprocessing Status to the SCF. This status that includes the reprocessing schedule informs the scientist at the SCF the status of his reprocessing request and provides notification upon completion of the reprocessing by the ECS.
SCF-0290	SDPS	Local Data Access Services Delivery	The ECS shall have the capability to send the Local Data Access Services Delivery Package to the SCF. This package shall provide management of, search of, and access to local metadata.
SCF-0300	NONE	SCF operates COTS products	The SCF shall have the capability to install and make operational in the SCF environment all COTS products that are required by Local Data Access Services.

SCF-0310	SDPS	Calibration Coefficient Requests	The ECS shall have the capability to receive Calibration Coefficient Requests from the SCF. The current or past calibration coefficients used in processing of instrument data may be requested by the scientist from the ECS.
SCF-0320	SDPS	ECS sends Calibration Coefficients	The ECS shall be capable of sending to the SCF Calibration Coefficients. These shall include the calibration coefficients requested by the scientist at the SCF in the Calibration Coefficient Request.
SCF-0330	SDPS	ECS receives Coefficient Updates	The ECS shall have the capability to receive a Calibration Coefficient Update Package from the SCF. This package shall include a calibration coefficient file and other documentation needed to implement the updated coefficients.
SCF-0340	SDPS	SCF requests processing status	The SCF shall have the capability to send a Request for Processing Status to the ECS for the status of SCF-requested data processing.
SCF-0350	SDPS	ECS provides Processing Status	The ECS shall have the capability to provide SCF with the Processing Status of SCF-requested data processing.

SCF-0360	SDPS	SCF request for Resource Usage	The SCF shall have the capability to send a Request for Resource Usage to the ECS for information about ECS resource usage during SCF-requested data processing.
SCF-0370	SDPS	ECS provides Resource Usage	The ECS shall have the capability to provide SCF with information about ECS Resource Usage during SCF-requested data processing.
SCF-0380	SDPS	SCF requests Product History	The SCF shall have the capability to send a Request for Product History (including the algorithms used) to the ECS for the history of data products that the SCF specifies.
SCF-0390	SDPS	ECS provides Product Histories	The ECS shall have the capability to provide SCF with the Product History of data products that the SCF specifies.