Master Metadata Repository and Metadata-Management System

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A master metadata repository (MMR) software system manages the storage and searching of metadata pertaining to data from national and international satellite sources of the Global Ocean Data Assimilation Experiment (GODAE) High Resolution Sea Surface Temperature Pilot Project [GHRSST-PP]. These sources (see figure) produce a total of hundreds of data files daily, each file classified as one of more than ten data products representing global sea-surface temperatures. The MMR is a relational database wherein the metadata are divided into granule-level records [denoted file records (FRs)] for individual satellite files and collection-level records [denoted data set descriptions (DSDs)] that describe metadata common to all the files from a specific data product. FRs and DSDs adhere to the NASA Directory Interchange Format (DIF). The FRs and DSDs are contained in separate sub-databases linked by a common field.

The MMR is configured in MySQL database software with custom Practical Extraction and Reporting Language (PERL) programs to validate and ingest Extensible Markup Language (XML). A Web interface enables users to search for availability of data from all sources.

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