Information integration for a sky survey by data warehousing

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The virtualization service of data system for a sky survey, LAMOST, is very important for astronomers. The service needs to integrate information from data collections, catalogs, and references, and support simple federation of a set of distributed files and associated metadata. Data warehousing has been in existence for several years, and demonstrated superiority over traditional relational database management systems by providing novel indexing schemes that supported efficient on-line analytical processing (OLAP) of large databases. Now, relational database systems (such as Oracle etc) support the warehouse capability, which including extensions to the SQL language to support OLAP operations, and a number of metadata management tools have been created. The information integration of LAMOST by applying data warehousing is to effectively provide data and knowledge on-line.