

Use Case Name

Access Data

Revision History

Date	Description	Author

Brief Description

The User wants to determine the land cover classification of a geographic area, e.g., wetlands, urban, etc., using Landsat data. The user is familiar with Landsat data and classification schemes. The user wants a graphical image of the analysis which can be used in a presentation or document. The user wants to include a USGS map as a base map in the image.

IIMS Unique Features

This Use Case implies a number of capabilities that may be unique to the IIMS domain. Providing access to products (granules) that are ordered by users, before they are available seems unique. This is important because users may want to transform this data using services executed on provider resources, in an interactive basis.

Precondition

Based on the Search for Data Use Case, the User has identified Landsat scenes over a specific geographic area of interest, e.g., Atlantic coastal wetlands of South Carolina. The user accesses IIMS and the Data Provider over the Internet using an Industry standard browser.

Flow of Events

1. User accesses the IIMS Service Registry. The user interacts with the service registry to find land cover classification services. Included in the result is a unsupervised classification routine applicable to Landsat images. The user reviews a description of the service and determines that it meets the user's needs.
2. User reviews the list of services available from the provider of the Landsat granules as described in the metadata from the Search for Data Use Case. The available services from the data provider include, sub-selection on bands and compression.
3. The user requests that the Landsat granules be subsetted on bands 1-5, compressed, and be made available as grid data for on-line retrieval.
4. The user accesses the Classification routine that a data provider makes available. The user provides the analysis routine with a reference to the data created in step 3.
5. The Classification routine accesses the data from step 3, performs the classification, and creates an output available for on-line retrieval. For example, the resulting file could be a vector or point file indicating the land classification for areas in the Landsat images.
6. Using the Search for Data Use Case, the user locates a USGS 7.5' Quadrangle Map of the geographic area of interest to be used as a base map.
7. The user accesses the IIMS WWW Portrayal service. The user provides the WWW Portrayal service with references (e.g. URLs) for the Landsat images (step 3 output), the Classification results (step 5 output) and for the base map (step 6 output)
8. The user provides the IIMS WWW Portrayal service with parameters relating to the rendering and generation of an image, e.g., registration error limits.
9. The Portrayal service creates the image and makes a file available for access by the User's browser.

Post Conditions

Image file is on User's computer that can be viewed, printed, or integrated into other desktop applications.

Special Requirements

Scenarios

- TBD

Links to Related Sites

1. "GMU Independent Architecture Study", Part 2: Research Issues, Chapter 3: Terrestrial Scenarios, By Berrien Moore III (<http://www.ceosr.gmu.edu/indy-study/part2/part2ch3.html>)
- "2. The Classification and Mapping of a Naturally Occurring Phenomena in Coastal Environments Using Remote Sensing and Geographic Systems", John Althausen, Jr., Dissertation for Department of Geography, University of South Carolina, 1994
(<http://www.utexas.edu/depts/grg/virtdept/workshops/1997/test/althausen/diss.html>)
3. RFT In Support of a Web Mapping Technology Testbed" Open GIS Consortium, Issue Date: October 27, 1998 (<http://www.opengis.org/wwwmap/webmaptestbed.htm>)
4. ISO 15046-17 Geographic Information Portrayal", Committee Draft, 1998, ISO/TC 211/WG 4.

Responsibility allocation

IIMS is responsible for establishing the dialog between the user and the provider. It is not clear how much the IIMS will be responsible for once this "connection" is established.