

TerraLook

Free Satellite Images for Busy People or the Technologically Disinterested

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TerraLook provides easy access to satellite images for users that lack prior experience with remote sensing. Formerly known as the Protected Area Archive, TerraLook combines collections of georeferenced JPEG images with simple visualization and analysis tools to help users explore and utilize the data.

TerraLook has two components:

1) Image Selection and Ordering.

Users choose which images they want to include in their image collection. They select from:

- ASTER (2000-present; 15 m pixels)
- Landsat 2000 (30 m)
- Landsat 1990 (30 m)
- Landsat 1975 (80 m)

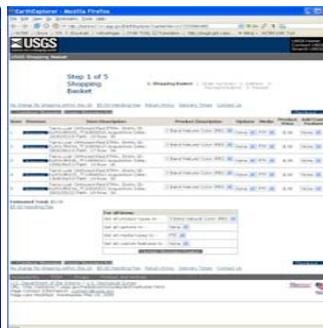
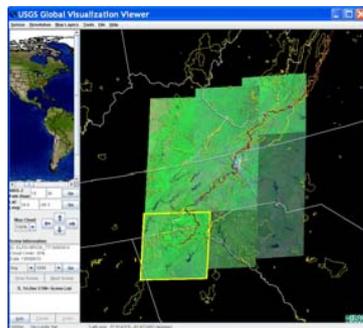
This is done using a USGS image selection tool.

2) Viewer/Toolkit.

This is a simple and intuitive desktop application that runs on Windows. It is convenient for finding the images of interest in a collection, and then doing useful things with them. Major capabilities include:

- Image find, roam, and zoom
- Image annotation (adding text, arrows, etc.)
- Image enhancement
- View, edit, and create overlay files
- Distance and area measurement
- Image mosaicking
- Multi-lingual support
- Change analysis support
- Multi-band dataset support (many formats)
- Classification
- 3-D viewing capability

TerraLook is a collaborative project with NASA and USGS as the primary sponsors.



Overlay Manager

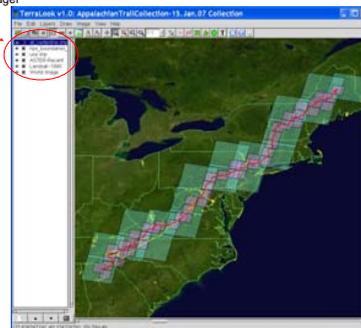
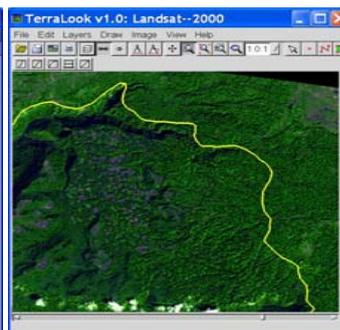
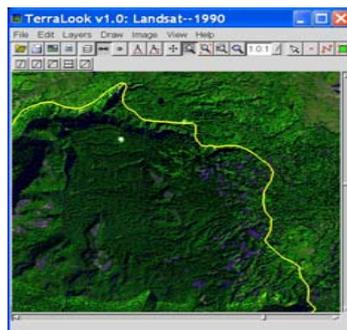
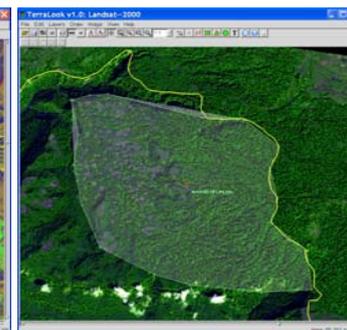
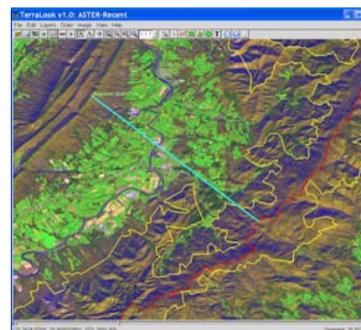


Image Selection and Ordering. The USGS Glovis tool is used to preview images before selecting them for inclusion in a collection (left image). Various overlays can be displayed to help the user get oriented; here, state boundaries (white), protected area boundaries (yellow), and the Appalachian Trail centerline (red) are displayed. After pressing the Order button to add the desired images to the Shopping Basket (right) the order is submitted, the collection built, and the user notified so it can be downloaded.

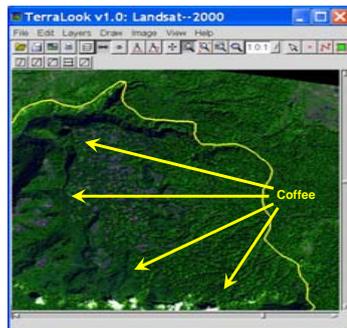
Viewing Images. The free Viewer/Toolkit provides a simple means to display and utilize the images and related information. When the collection is opened the image footprints are displayed (left, showing ASTER and Landsat 2000 footprints). Other overlays can also be added and visibility controlled with the Overlay Manager. An image is opened by clicking on it, and can then be roamed and zoomed, such as this image of Shenandoah National Park (right, with park outline and Appalachian Trail centerline also displayed).



Change Analysis. Images from different dates can be compared by placing them side by side, or by "Flickering" between them. This image pair show agricultural encroachment into a protected area in southern Laos: Left image from 1990 shows mostly intact forest inside the PA boundary; Right image from 2000 shows patchwork of encroachment.



Measure. Distances and areas can be measured with a simple tool. Left: measuring distance from Appalachian Trail viewpoint to George Washington National Forest. Right: measuring area of forest lost to agriculture in a PA in Laos.



Annotation. Images can be annotated to enhance their use for communication.



<http://edc2.usgs.gov/terralook/>
<http://asterweb.jpl.nasa.gov/terralook>