MINX Document 2

MISR - Tools for Ordering and Viewing Data

David Nelson

Raytheon Company, Jet Propulsion Laboratory,
California Institute of Technology

May, 2012

Copyright 2012 California Institute of Technology.
Government sponsorship acknowledged.

Contents

- Browse tool
- Data pool (ftp)
- Order and customization tool
- Other tools

MISR Tools and Data

http://eosweb.larc.nasa.gov/PRODOCS/misr/table_misr.html

Notices, Features, and Latest News:	• MISR Wildfire and Volcano Plume Data - updated interface and new data (announcement) • Featured MISR Imagery: Mystery Quiz #27 • NASA Press Release: NASA Partnership Sends Earth Science Data To Africa • Giovanni data visualization for: Daily Level 3 Aerosol data | Monthly Level 3 Aerosol data	• Join MISR News List • MISR Home Page ∘ MISR publications

MINX plume database

Very useful information

Obtaining Data and Tools	Documentation		Relevant Links

• Data Products: New | Current | Special
• MISR Order and Customization Tool
• Data Pool
• AMAPS Services
• Reverb Search Tool | Tutorial
 	
Tools:
• Software for working with the data
• Orbit/Date Conversion
• Lat/Lon to Path/Block Conversion
• MISR Paths (kml) (get Google Earth)
	Introductory Material - New Users Start Here:
	• Frequently Asked Questions
	  ∘ FAQ - how to order
	• Project Handbook
	• Overview
	  ∘ Observation Concept
	• How to obtain MISR data (PPT)
	• Workshop Presentations
		Data Product Details:
		• Current Data Product Content (DPS)
		• New Data Product Content (DPS)
		• Current Data Product Quality
		• New Data Product Quality
		• Current Data Product Versioning
		• New Data Product Versioning
		
		Detailed Theory:
		• Algorithm Theoretical Basis Documents
			
			• View All Imagery
			• View Level 3 Imagery
			• MISR Browse Tool
			
			• Tropical Cyclone Information
			
			• Terra Spacecraft Record
			• Overpass Calculator
			
			• Feature Articles

1 2 3 4

MISR product file formats

Enables showing MISR paths in Google Earth

MISR product algorithm descriptions

New Data Products

Product	Description	Processing Information	
New Level 2 Products	Cloud Motion Vectors, Cloud Top Heights, Cloud Masks New stereo height product	**Production Reports:** • Level 2 New	**Processing Status / Collections:** • Level 2 Products New

Current Data Products

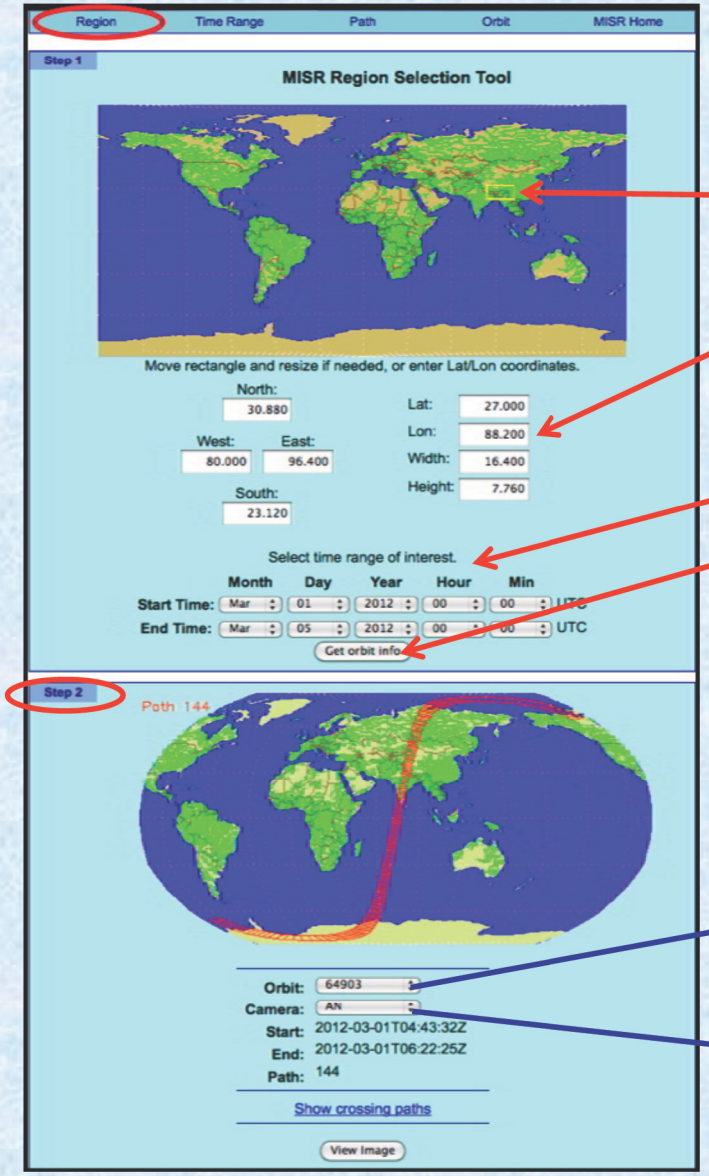
Product	Description	Processing Information	
Level 3 Products	Globally gridded statistical summaries (daily, monthly, quarterly, and yearly) of select Level 1 and Level 2 Radiances, Aerosol, Land/Surface, and TOA Albedo parameters. Special regional products for select areas. Cloud Fraction by Altitude. Cloud Motion Vector.	**Production Reports:** • Level 1 • Local Mode • Level 2 Current • Level 3 Daily • Level 3 Monthly, Seasonal, Yearly	**Processing Status / Collections:** • Level 1B2, LM, Geometric • Level 2 Current • Level 3 Radiance • Level 3 Aerosol/Land • Level 3 Albedo/Cloud
Level 2 Products	Aerosol, Land/Surface, Cloud Mask, and TOA Cloud Stereo, Albedo and Classifier Products		
Level 1 Products	Georectified Radiances, Browse, and Geometric Products		
Ancillary Products	Static Ancillary Products		

Contents

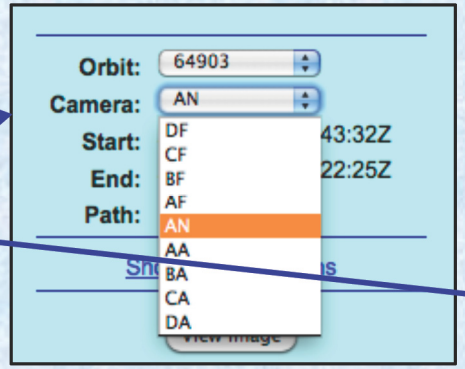
- Browse tool
- Data pool (ftp)
- Order and customization tool
- Other tools

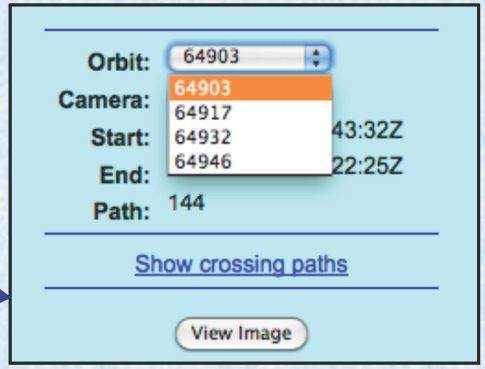
Browse Tool – 1

http://l0dup05.larc.nasa.gov/MISR_BROWSE/



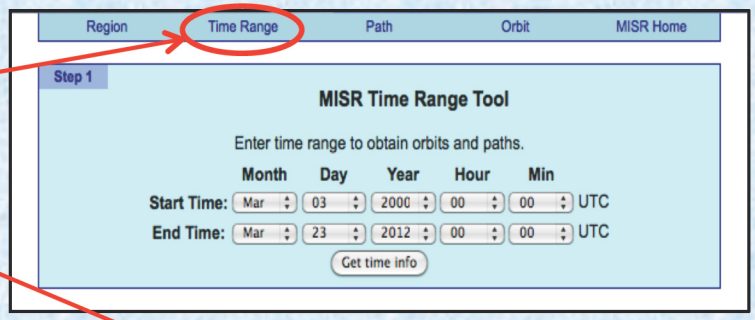
- Use mouse to fit yellow rectangle over area of interest
- Or specify rectangle Lat/Lon coordinates in text boxes either by edge coordinates or by center coordinates and size
- Enter starting and ending date and time
- Clicking "Get Orbit Info" opens Step 2
- Then select a camera and an orbit from the dropdown list boxes
- Finally click "View Image" to continue

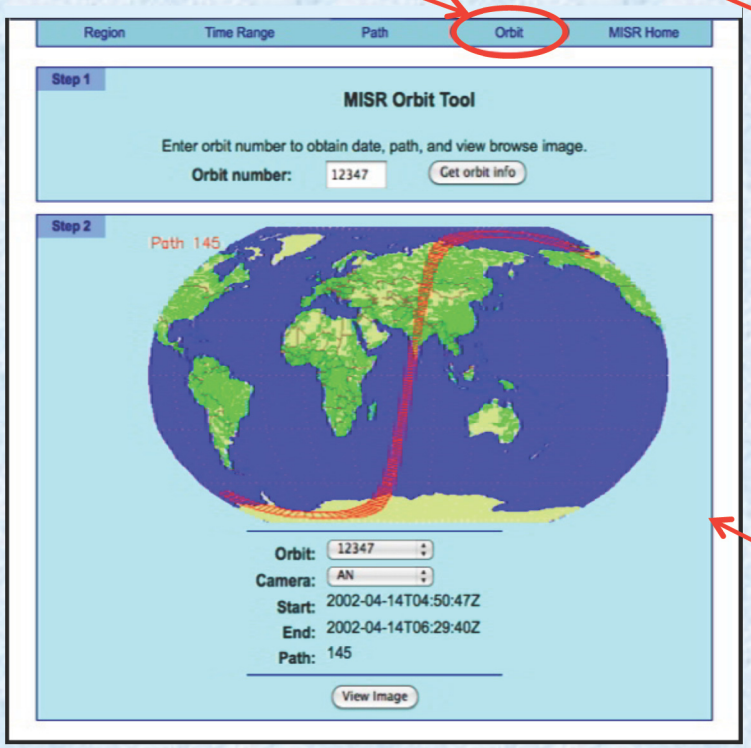


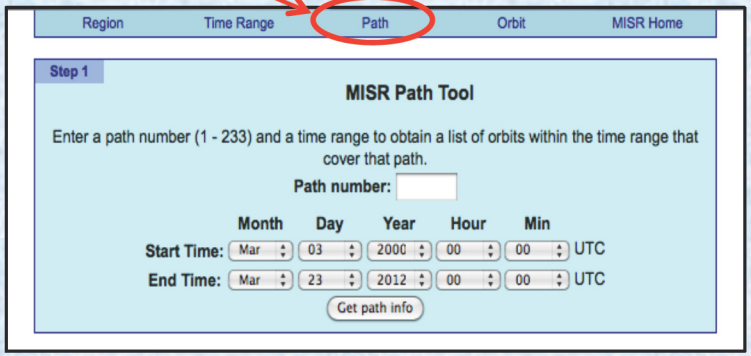


Browse Tool – 2

Three additional options for finding orbits: Orbit number, Path number, Time Range





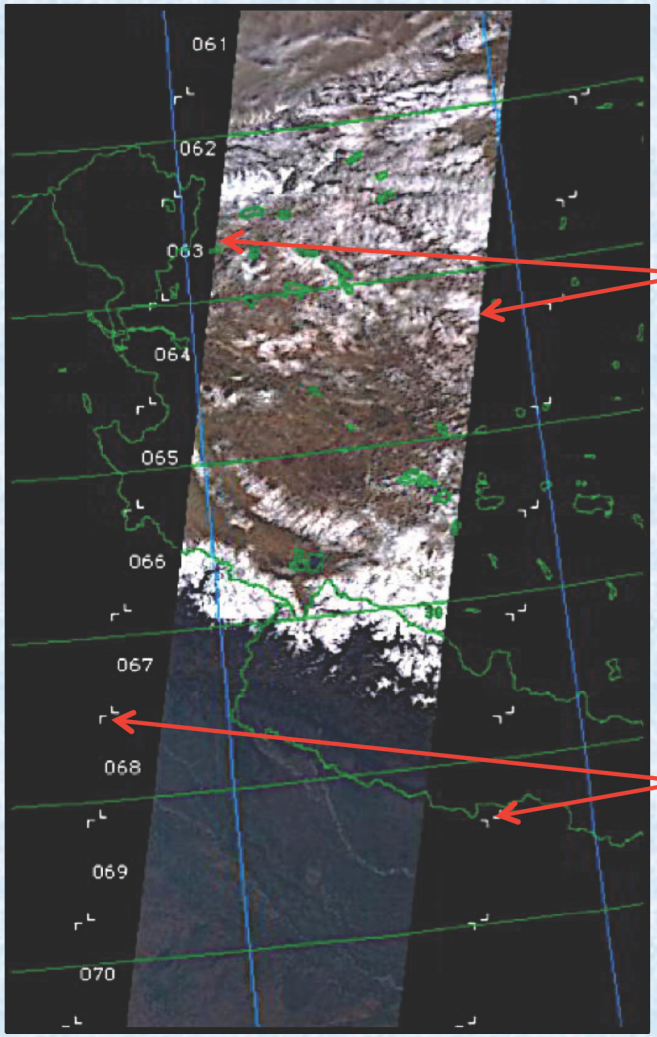


All four options produce the same map display and Orbit and Camera dropdown lists in Step 2

Browse Tool - 3

Operation menu

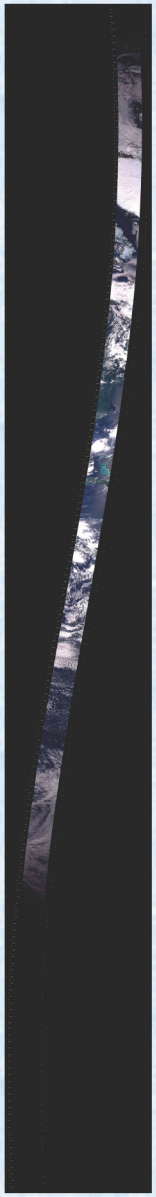
- Resolution of enlarged image is 2.2 km / pixel
- Resolution of shrunken image is 4.4 km / pixel



Limits of data swath ~75% of block width

Block corner markers

Browse image at enlarged resolution (2.2 km/pixel)



Block 1

Actual Extent of browse image

Entire swath is scrollable

Block 180

Contents

- Browse tool
- Data pool (ftp)
- Order and customization tool
- Other tools

Data Pool - 1

ftp://l4ftl01.larc.nasa.gov/MISR/

(web-based alternative at http://l4eil01.larc.nasa.gov:22000/WebAccess/drill?attrib=group&group=MISR&)

Index of ftp://l4ftl01.larc.nasa.gov/MISR/

Up to higher level directory

Name	Size	Last Modified
MB2LME.002		10/28/10 12:00:00 AM
MB2LMT.002		10/28/10 12:00:00 AM
MI1AC.001		10/28/10 12:00:00 AM
MI1AC.002		10/28/10 12:00:00 AM
MI1AENG1.001		10/28/10 12:00:00 AM
MI1AENG1.002		10/28/10 12:00:00 AM
MI1AMOT.001		10/28/10 12:00:00 AM
MI1AMOT.003		10/28/10 12:00:00 AM
MI1ANAV.001		10/28/10 12:00:00 AM
MI1ANAV.002		10/28/10 12:00:00 AM
MI1AOBC.001		10/28/10 12:00:00 AM
MI1AOBC.002		10/28/10 12:00:00 AM
MI1B1.001		10/28/10 12:00:00 AM
MI1B1.002		10/28/10 12:00:00 AM
MI1B2E.001		10/28/10 12:00:00 AM
MI1B2E.002		10/28/10 12:00:00 AM
MI1B2E.003		10/28/10 12:00:00 AM
MI1B2T.001		10/28/10 12:00:00 AM
MI1B2T.002		10/28/10 12:00:00 AM
MI1B2T.003		10/28/10 12:00:00 AM
MI3DAEF.002		10/28/10 12:00:00 AM
MI3DAENF.002		10/28/10 12:00:00 AM
MI3DAER.002		10/28/10 12:00:00 AM
MI3DALF.002		10/28/10 12:00:00 AM
MI3DALNF.002		10/28/10 12:00:00 AM
MI3DCDF.002		10/28/10 12:00:00 AM
MI3DCDNF.002		10/28/10 12:00:00 AM
MI3DCLDN.002		10/28/10 12:00:00 AM
MI3DLSF.002		10/28/10 12:00:00 AM
MI3DLSNF.002		10/28/10 12:00:00 AM
MI3DLSR.002		10/28/10 12:00:00 AM
MI3DRDF.002		10/28/10 12:00:00 AM

Click ESDT name and version number

- **ftp site for immediate download of entire MISR product files (no subsets)**
- **If your internet connection is not fast, use the MISR order tool instead and subset files to reduce volume**
- **Earth Science Data Type names (ESDT) are needed to identify products in data pool**
- **Click the desired ESDT name with the latest version number**

MISR Product Name	ESDT Name
GRP_ELLIPSOID_GM	MI1B2E
GRP_ELLIPSOID_LM	MB2LME
GRP_TERRAIN_GM	MI1B2T
GRP_TERRAIN_LM	MB2LMT
GRP_RCCM_GM	MIRCCM
GRP_RCCM_LM	MIRCCMF
GP_GMP	MIB2GEOP
AS_AEROSOL	MIL2ASAE
AS_AEROSOL_FIRSTLOOK	MIL2ASAF
AS_LAND	MIL2ASLS
AS_LAND_FIRSTLOOK	MIL2ASLF
TC_STEREO	MIL2TCST
TC_STEREO_FIRSTLOOK	MIL2TCSF
TC_CLASSIFIERS	MIL2TCCL
TC_CLASSIFIERS_FIRSTLOOK	MIL2TCCF
TC_ALBEDO	MIL2TCAL
TC_ALBEDO_FIRSTLOOK	MIL2TCAF
AGP	MIANCAGP
GRP_ELLIPSOID_BR	MISBR

Data Pool - 2

Index of ftp://l4ftl01.larc.nasa.gov/MISR/MI1B2T.003/

Up to higher level directory

Name	Size	Last Modified	
2000.02.24		4/14/11	12:00:00 AM
2000.02.25		6/20/09	12:00:00 AM
2000.02.26		4/14/11	12:00:00 AM
2000.02.27		6/20/09	12:00:00 AM
2000.02.28		12/30/09	12:00:00 AM
2000.02.29		6/20/09	12:00:00 AM
2000.03.01		4/14/11	12:00:00 AM
2000.03.02		12/29/09	12:00:00 AM
2000.03.03		6/20/09	12:00:00 AM
2000.03.04		12/30/09	12:00:00 AM
2000.03.05		6/20/09	12:00:00 AM
2000.03.06		12/30/09	12:00:00 AM
2000.03.07		12/30/09	12:00:00 AM
2000.03.08		12/30/09	12:00:00 AM
2000.03.09		12/30/09	12:00:00 AM
2000.03.10		6/20/09	12:00:00 AM
2000.03.11		12/29/09	12:00:00 AM
2000.03.12		12/30/09	12:00:00 AM
2000.03.13		12/30/09	12:00:00 AM
2000.03.14		6/20/09	12:00:00 AM
2000.03.15		12/30/09	12:00:00 AM
2000.03.16		12/30/09	12:00:00 AM
2000.03.17		6/20/09	12:00:00 AM
2000.03.18		12/29/09	12:00:00 AM
2000.03.19		6/19/09	12:00:00 AM
2000.03.20		4/14/11	12:00:00 AM
2000.03.21		6/19/09	12:00:00 AM
2000.03.22		12/30/09	12:00:00 AM
2000.03.23		12/30/09	12:00:00 AM
2000.03.24		12/30/09	12:00:00 AM
2000.03.25		12/30/09	12:00:00 AM
2000.03.26		12/30/09	12:00:00 AM
2000.03.27		6/19/09	12:00:00 AM
2000.03.28		12/30/09	12:00:00 AM

Ellipsoid browse imagery is included in list for all products

Clicking on browse file name displays orbit image

Index of ftp://l4ftl01.larc.nasa.gov/MISR/MI1B2T.003/2000.03.20/

Up to higher level directory

Name	Size	Last Modified	
MISR_AM1_GRP_ELLIPSOID_BR_GM_P003_O001358_AA_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P003_O001358_AF_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P003_O001358_AN_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P003_O001358_BA_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P003_O001358_BF_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P003_O001358_CA_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P003_O001358_CF_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P003_O001358_DA_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P003_O001358_DF_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P019_O001359_AA_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P019_O001359_AF_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P019_O001359_AN_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P019_O001359_BA_F03_0024.jpg		6/19/09	12:00:00 AM

Orbit data listed by day of the year

Click selected files

Radiance files for 9 cameras (.xml files are not needed)

MISR_AM1_GRP_ELLIPSOID_BR_GM_P220_O001357_CF_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P220_O001357_DA_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_ELLIPSOID_BR_GM_P220_O001357_DF_F03_0024.jpg		6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_AA_F03_0024.hdf	111580 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_AA_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_AF_F03_0024.hdf	111109 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_AF_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_AN_F03_0024.hdf	331402 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_AN_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_BA_F03_0024.hdf	112514 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_BA_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_BF_F03_0024.hdf	111959 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_BF_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_CA_F03_0024.hdf	112385 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_CA_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_CF_F03_0024.hdf	113117 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_CF_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_DA_F03_0024.hdf	112341 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_DA_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_DF_F03_0024.hdf	113072 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P003_O001358_DF_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P019_O001359_AA_F03_0024.hdf	93363 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P019_O001359_AA_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P019_O001359_AF_F03_0024.hdf	94557 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P019_O001359_AF_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P019_O001359_AN_F03_0024.hdf	282596 KB	6/19/09	12:00:00 AM
MISR_AM1_GRP_TERRAIN_GM_P019_O001359_AN_F03_0024.hdf.xml	5 KB	6/19/09	12:00:00 AM

Click selected date

Contents

- Browse tool
- Data pool (ftp)
- Order and customization tool
- Other tools

MISR Order and Customization Tool – 1

http://l0dup05.larc.nasa.gov/MISR/cgi-bin/MISR/main.cgi

ATMOSPHERIC SCIENCES DATA CENTER

MISR Order and Customization Tool

MISR

Welcome to the MISR Order Tool (Version 4.7.2)

Username: guest
Password:

Login

Note: If you do not have an account, please use the name 'guest'. Obtain account. Edit Profile. Retrieve login and password.

* Version 4.7.2 includes a new non-consecutive dates temporal search capability.

This tool was tested on the following systems and browsers:

Operating System	Browsers Supported	Not Supported
Windows 2000, XP	Internet Explorer 6, Netscape 8 and 7.2, Firefox 3.X, Opera 8.5, Mozilla 1.7	
Mac OS X	Netscape 7.2, Safari, Firefox 3.X (not recommended)	
Linux	Mozilla, Firefox	

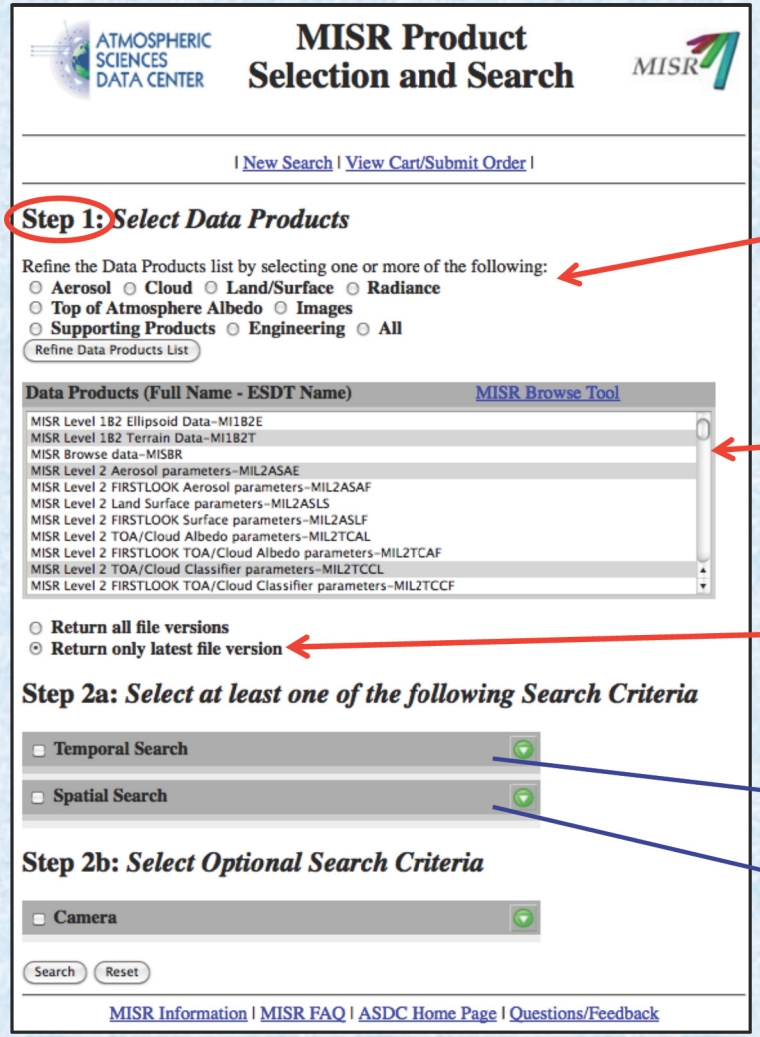
MISR Information | MISR FAQ | ASDC Home Page | Questions/Feedback

- **MISR data are freely available to anyone**
- **Download bandwidth is the main concern**
- **Unlike the Data Pool the Order Tool supports extracting subsets of MISR products – can result in much smaller download volumes**

Click "Login" as "guest" without a password for one-time retrievals

If you expect to order MISR data frequently, set up an account first to save time later – there's no cost

MISR Order and Customization Tool – 2



Not needed if you can identify the Data Products you need from the list below

Hold command key (Mac) or control key (PC) to select multiple Data Products from scrollable list

Using the latest file version is almost always the correct choice

See left side of next slide

See right side of next slide

MISR Order and Customization Tool – 3

Step 2a: ***Select at least one of the following Search Criteria***

Temporal Search

Search type: Date/Time Day of Year/Time Orbit Non-Consecutive Date

Valid for dates greater than February 23, 2000.

Start time: Mar 27 2012 00:00:00

End time: Mar 27 2012 23:59:59

Spatial Search

Temporal Search

Search type: Date/Time Day of Year/Time Orbit Non-Consecutive Date

Valid for dates greater than 2000 54.

Start: **Year:** 2012 **Day:** 86 **Hour:** 00 **Min:** 00 **Sec:** 00

End: **Year:** 2012 **Day:** 86 **Hour:** 23 **Min:** 59 **Sec:** 59

Spatial Search

Temporal Search

Search type: Date/Time Day of Year/Time Orbit Non-Consecutive Date

Valid for orbits greater than 954.

Orbits: *

Tip: Use commas to separate orbits, and dashes to indicate ranges of orbits. More format help

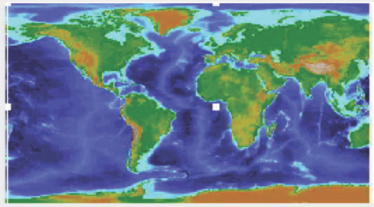
Orbit/Date Conversion Tool

Spatial Search

Temporal search options

Spatial Search

Search type: Map Geographic Bounds Path EOS Validation Sites



90.0 N

180.0 W 180.0 E

90.0 S

Zoom In Zoom Out

Spatial Search

Search type: Map Geographic Bounds Path EOS Validation Sites

North 90.0

West -180.0 180.0 **East**

-90.0 **South**

Spatial Search

Search type: Map Geographic Bounds Path EOS Validation Sites

Paths:

Tip: Use commas to separate paths, and dashes to indicate ranges of paths. More format help

Lat/Lon to Path/Block Conversion Tool

Spatial search options

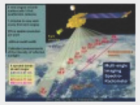
MISR Order and Customization Tool – 4

Step 2b: ***Select Optional Search Criteria***

☑ Camera

AA
AF
AN
BA
BF
CA
CF
DA
DF

Arrangement of Cameras



Search | Reset

Click and drag to select all cameras if level 1B2 files are included in order

Select all of these and proceed

Step 3: ***Select Data Products to Display***

Customizable Data Products:

Data Product	File Count
☑ MISR Level-2 Aerosol Parameters - MIL2ASAE	1
☑ MISR Level-1B2 Geometric Parameters - MIB2GEOP	1
☑ MISR Level-1B2 Global Mode Terrain-projected Radiance - MI1B2T	9

Display Selected Customizable Data Products

Found 11 files. This page (1) displays 1 to 11

Step 4: ***Select Files to Order***

Check desired files individually or click here to select all files

(Sort results by column heading)

Filename	Start Date	Stop Date	Size (MB)	Orbit	Path	Version ID	Camera	ESDT
☑ MISR_AM1_GP_GMP_P113_O012345_F03_0013.hdf	2002-04-14 01:49:00	2002-04-14 02:46:00	10.62	12345	113	13	N/A	MIB2GEOP
☑ MISR_AM1_AS_AEROSOL_P113_O012345_F12_0022.hdf	2002-04-14 01:49:00	2002-04-14 02:46:00	31.06	12345	113	22	N/A	MIL2ASAE
☑ MISR_AM1_GRP_TERRAIN_GM_P113_O012345_DF_F03_0024.hdf	2002-04-14 01:49:00	2002-04-14 02:38:00	116.08	12345	113	24	DF	MI1B2T
☑ MISR_AM1_GRP_TERRAIN_GM_P113_O012345_CF_F03_0024.hdf	2002-04-14 01:50:00	2002-04-14 02:40:00	118.10	12345	113	24	CF	MI1B2T
☑ MISR_AM1_GRP_TERRAIN_GM_P113_O012345_BF_F03_0024.hdf	2002-04-14 01:51:00	2002-04-14 02:40:00	118.16	12345	113	24	BF	MI1B2T
☑ MISR_AM1_GRP_TERRAIN_GM_P113_O012345_AF_F03_0024.hdf	2002-04-14 01:52:00	2002-04-14 02:41:00	117.29	12345	113	24	AF	MI1B2T
☑ MISR_AM1_GRP_TERRAIN_GM_P113_O012345_AN_F03_0024.hdf	2002-04-14 01:53:00	2002-04-14 02:42:00	352.88	12345	113	24	AN	MI1B2T
☑ MISR_AM1_GRP_TERRAIN_GM_P113_O012345_AA_F03_0024.hdf	2002-04-14 01:53:00	2002-04-14 02:43:00	119.23	12345	113	24	AA	MI1B2T
☑ MISR_AM1_GRP_TERRAIN_GM_P113_O012345_BA_F03_0024.hdf	2002-04-14 01:54:00	2002-04-14 02:44:00	119.11	12345	113	24	BA	MI1B2T
☑ MISR_AM1_GRP_TERRAIN_GM_P113_O012345_CA_F03_0024.hdf	2002-04-14 01:55:00	2002-04-14 02:44:00	118.62	12345	113	24	CA	MI1B2T
☑ MISR_AM1_GRP_TERRAIN_GM_P113_O012345_DA_F03_0024.hdf	2002-04-14 01:56:00	2002-04-14 02:45:00	117.06	12345	113	24	DA	MI1B2T

Select All Files | Clear All Selections

("Select All Files" and "Clear All Selections" applies across the entire search results.)

Search Results Page: 1

Save this search as: Save Search

Step 5: ***Add Files in Cart***

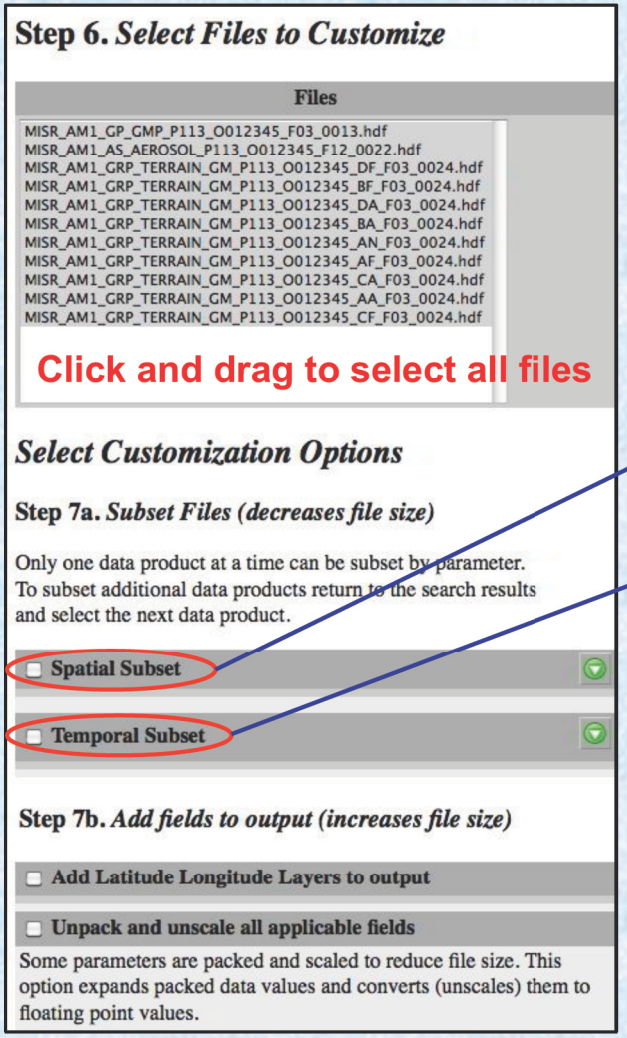
FAQ: What is customization?

Subset/Customize Selected Files OR Add Files to Cart

Order files with a subset of blocks in an additional step

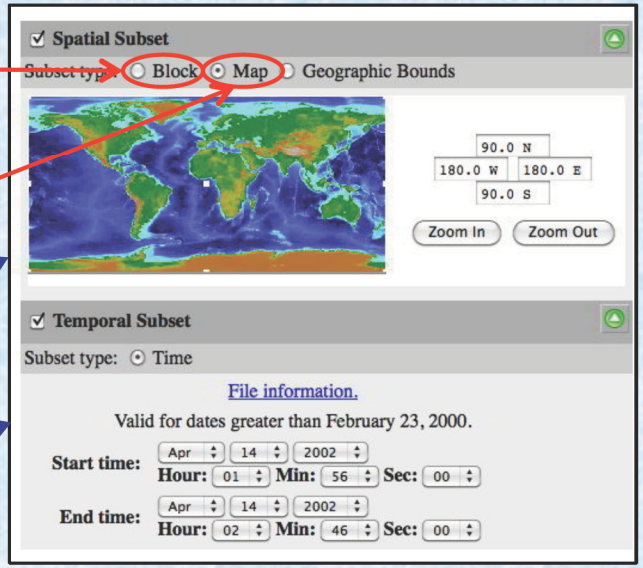
Order files containing entire orbit

MISR Order and Customization Tool – 5



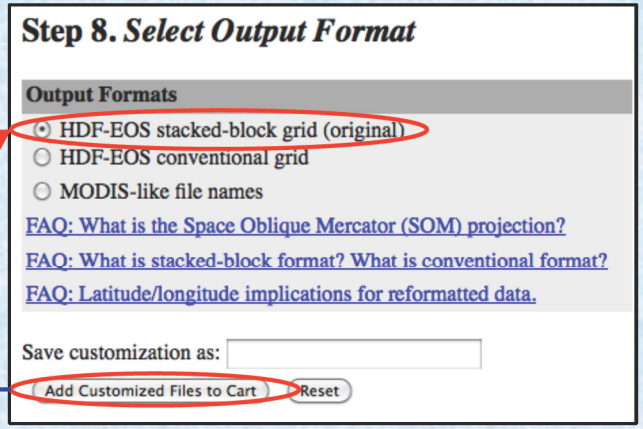
"Block" option is simplest

This image shows result of selecting "Map" option



Always choose stacked-block format for files used by MINX

On to next page



MISR Order and Customization Tool – 6

| New Search | Current Search | View Cart/Submit Order |

The customization was placed in your cart.
The tool returns to this page for further customizations, if desired.

Step 1: ***Review Your Orders***

Delete	Order Details	Customization Details
☐	View	View ☐ Remove Customization

Update Cart

Step 2: ***Select Your Delivery Method***

Delivery method: FTP Pull

Order Label (optional):

Submit Order

Once you have submitted your order, you will receive an email with further information.

Title: (none) **First Name:** (required) David **Initial:** L **Last Name:** (required) Nelson

Organization: JPL **Internet E-Mail Address:** (required) David.L.Nelson@jpl.nasa.gov

Street Address: (required) 4800 Oak Grove Drive

City: (required) Pasadena

State/Province: (required) CA

Zip/Postal Code: (required) 91109

Country: (required) USA

Telephone: (required) 393-7641 **Fax:**

Affiliation Type: (required) Government **Affiliation Category:** (required) USA

Submit Reset

ATMOSPHERIC SCIENCES DATA CENTER

Order Submitted

MISR

Your order number(s):

614459714

An email notification will be sent to David.L.Nelson@jpl.nasa.gov

We highly recommend that you review the Quality Summaries associated with the ordered data products.

To ensure we are meeting your data ordering needs, please provide feedback on the new MISR Order and Customization Tool larc-asdc-uds@lists.nasa.gov

| New Search |

MISR Information |MISR Tools | ASDC Home Page | Questions/Feedback

You will quickly receive an email acknowledging submission and later, when files are ready, an email with instructions for pulling the files over

MISR Order and Customization Tool – 7

- Before your order is ready to pull, either create a single directory to contain all MISR product files (if just a few orbits) or create a directory structure containing subdirectories named for the MISR product types you ordered (reduces confusion if many orbits), e.g. AGP, GRP_TERRAIN, GP_GMP, etc.
- When your order is ready to pick up:

On a MAC

- Open a terminal window and change current directory (cd) to the desired subdirectory
- Enter these commands as described in the email from the DAAC:
  - ftp <specified ftp site>
  - anonymous
  - your email address
  - cd <specified ftp directory>
  - bin
  - prompt (this is a toggle – make sure it's off!)
  - mget *GRP_TERRAIN*hdf or
    mget *GP_GMP*P146*hdf or
    mget *O032153*hdf etc. (be imaginative)

On a PC

- In the DAAC email, find the list of "Ftp Pull Download Links"
- Copy an ftp address of your choice from the list (e.g .zip) to the clipboard
- Open your browser
- Copy the ftp address into the address bar and press enter
- In the resulting dialog box, select "Save File" and click "OK"
- The file will download to your "Downloads" folder
- Move the .zip (or other) file to the desired directory and double-click to extract file(s)

Contents

- Browse tool
- Data pool (ftp)
- Order and customization tool
- Other tools

MISRView - 1

- Maps path/orbit to time and date
- Assembles MISR blocks
- Reports Lat/Lon using the AGP
- Displays true color MISR imagery
- Can reproject MISR imagery
- Requires IDL or IDL VM
- Perspective tool
- Band slider tool
- Scroll tool
- Vector overlay tool
- Reprojection tool
- Color / Contrast tools
- Includes documentation

Download MISRView from the Open Channel Foundation website:

http://www.openchannelsoftware.com/

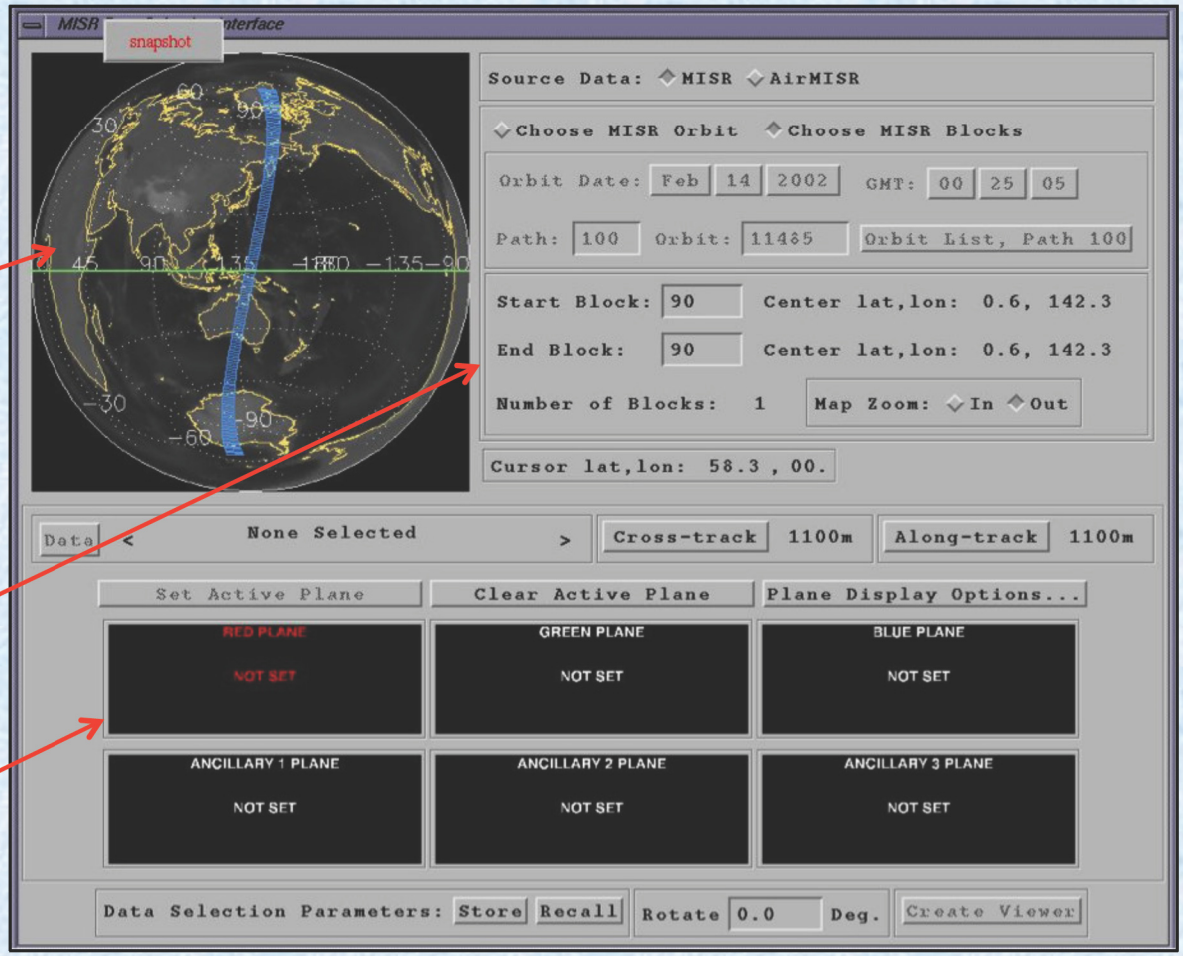
MISRView - 2

Main dialog box

Globe displays currently selected orbit and block range

Controls for selecting orbit, block range, etc.

Set different radiance data channels or products in different color planes

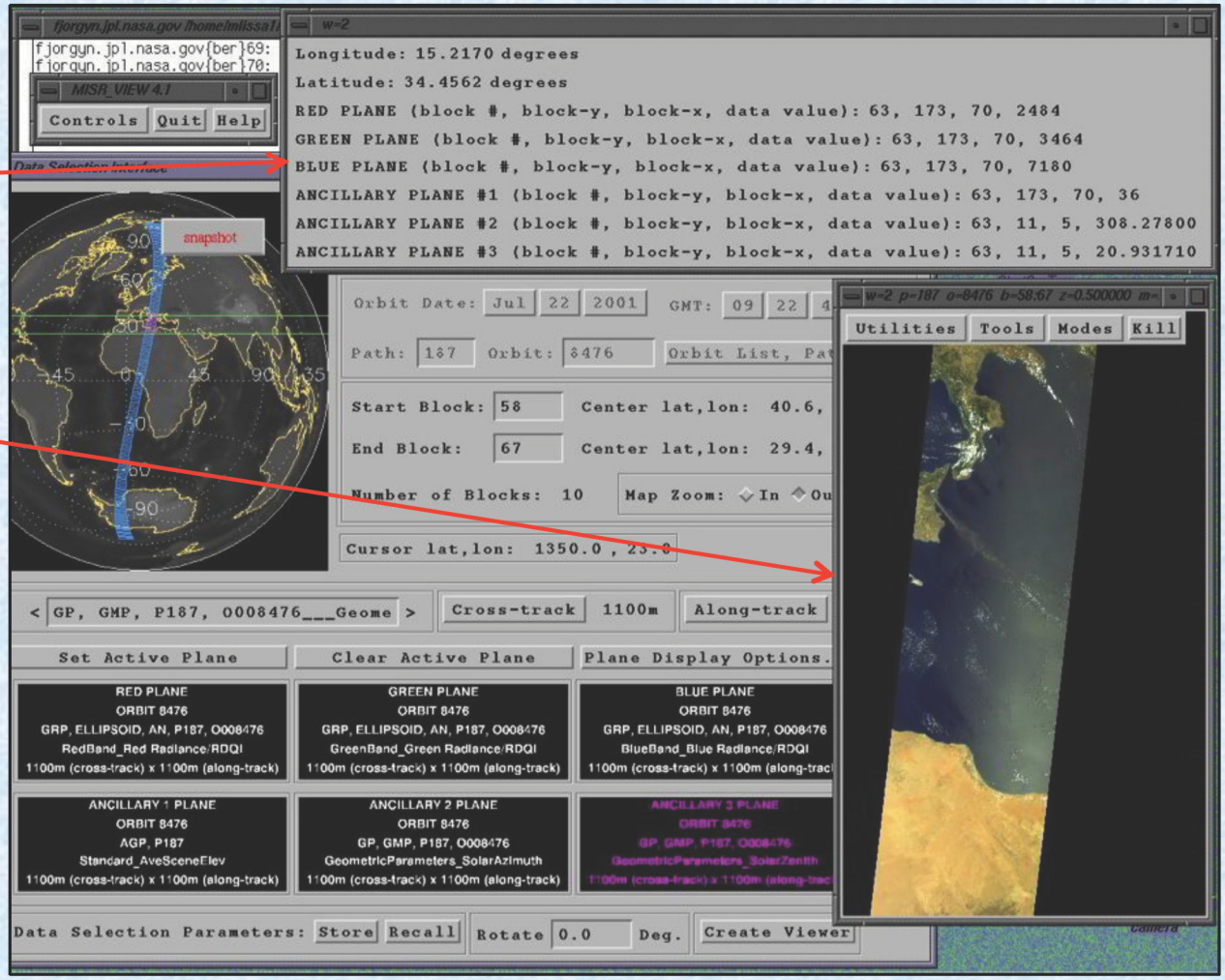


MISRView - 3

Data values at clicked point can be displayed

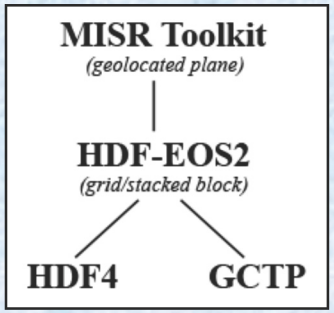
Image resolution and color can be manipulated

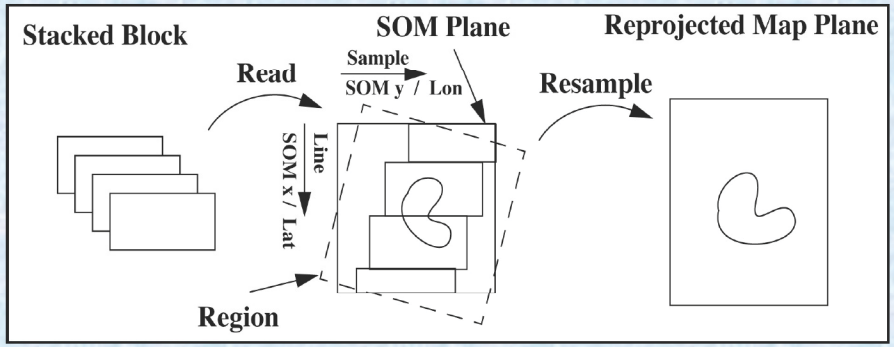
Data from different MISR channels and and/or data products can be assigned to different color planes



MISR Toolkit API - 1

- Library of 'C' functions programmers can link to their Fortran, 'C' or IDL code
- Provides simplified MISR data access and geolocation functionality utilizing metadata available in all MISR products instead of resorting to AGP file lookup
- Reads MISR Level 1B2 and Level 2 products as well as products not in stacked block format
- Unpacks and unscales MISR data and assembles blocks to a geolocated SOM-projected plane
- No other tools available that make use of MISR geolocation metadata AND handle "stacked block" format for all MISR products
- Functionality includes:
  - Perform coordinate conversions between lon, SOM x/y, block/line/sample
  - Compare MISR data with other data sets
  - Querying a MISR product file to retrieve range, file version, file type, grid list, field list (including unpacked and unscaled fields), dimension list, metadata, etc.





Download Toolkit from Open Channel Foundation website: http://www.openchannelsoftware.com/

MISR Toolkit API - 2

Partial list of available functions

Region Selection

- MtkSetRegionByUlcLrc()
- MtkSetRegionByLatLonExtent()
- MtkSetRegionByPathBlockRange()

Reading a Geolocated SOM Plane

- MtkReadData()
- MtkReadRaw()
- MtkReadBlockRange()

SOM Plane Coordinate Query

- MtkLSToLatLon()
- MtkLatLonToLS()
- MtkLSToSomXY()
- MtkSomXYToLS()

Orbit/Path Query

- MtkLatLonToPathList()
- MtkRegionToPathList()
- MtkTimeToOrbitPath()
- MtkTimeRangeToOrbitList()
- MtkPathTimeRangeToOrbitList()
- MtkOrbitToPath()

File/Grid/Field Query

- MtkMakeFilename()
- MtkFindFileList()
- MtkFileToGridList()
- MtkFileGridToFieldList()

Coordinate Conversion

- MtkPathToProjParam()
- MtkLatLonToBls()
- MtkBlsToLatLon()
- MtkSomXYToBls()
- MtkBlsToSomXY()
- MtkLatLonToSomXY()
- MtkSomXYToLatLon()

Unit Conversion

- MtkDmsToDd()
- MtkDdToDms()
- MtkDdToRad()
- MtkRadToDd()
- MtkDmsToRad()
- MtkRadToDms()