SGLI User Tool
Operation Manual

Revision B

September, 2019

Revision record (1/1)

Rev.	Date	Page	Details of revision
-	2018.12	-	First Release
A	2019 March	4	Table 1.3-1 Relation between products and functions The following data types of CSV and CSV (Latitude/longitude) were changed from "available" (●) to the following status: Global EQR: (○) Tile: Future expansion plan (○) Global EQA: Future expansion plan (○) Northern Hemisphere PS: Not applicable (-) Southern Hemisphere PS: Not applicable (-)
		43	"4.1.4. Save as Binary Format" was added.
		43 to 46	"4.1.5. Save as CSV Format" was added.
		49	"4.1.8 Save as GeoTiff format" Overview of the Figure 4.1.8-1 was modified.
		117 to 119	"5.1 Appendix A.1 Binary File Format" was added.
		120 to 123	"5.2 Appendix A.2 CSV File Format" was added.
B	2019 September	P16	"(*) It works as a 32bit application even on a 64bit PC." was deleted.
		P20	"URL: http://ffmpeg.zeranoe.com/builds/win64/static/" was added.

Contents

1 Introduction

This document describes the operation method of the SGLI User Tool (hereinafter, referred to as "this user tool").

1.1. Overview

This user tool is to project the earth observation data (SGLI) on to the map. This data is provided by Japan Aerospace Exploration Agency (hereinafter, referred to as "JAXA").

The functions of this user tool is shown in Table 1.1-1.

Table 1.1-1 SGLI User Tool functions

Function	Description
Data display	The observational data and latitude and longitude information are read from each product of SGLI, and data is displayed on a screen by the map projection according to each product. Drag & drop operation is available for specifying the file to display.
Zoom In / Out Move	The arbitrary parts of the picture displayed on the map are zoomed in / out. Moreover, a picture can be moved by the mouse operation.
Data clip	The arbitrary area where the clip was done can be output to the file by the form supported by the format conversion function.
Format conversion	The data of the area specified by the product on the map is output to the file in the form of the following. ・Binary　　　・CSV ・KML(KMZ)　・Image (JPEG, TIFF, BMP, PNG) ・GeoTiff　　　・NetCDFMoreover, this function is able to copy a displayed image to clipboard.
Animation	Each product of SGLI is read, and Animation file (AVI format/KML (KMZ)/MPEG2) format is output.
Annotation information	The meta information stored in the product on the map is displayed. And the product information (channel, observation time range; only case of single channel) and the latitude and longitude information (and observation values) specified by mouse will be appeared at the frame under screen .
Help	The document and FAQ that describes the operation method of this user tool by the menu operation are displayed on a browser. Moreover, the information that relates to the earth observation data is displayed on a browser.
Bat	The operation of this user tool is recorded, and it outputs in a history file. You can read a history file and execute.

1.2. References

The format of each SGLI product is described in the following document.

(1) GCOM-C SGLI Level 1 product format description

(2) GCOM-C SGLI higher level processing product format description

1.3. Data

The map projection that can be displayed depends on the types of the SGLI product.

Also, the types of formats that can be extracted and converted are determined.

Relation between products and functions is listed Table 1.3-1.

Table 1.3-1 Relation between products and functions (1/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○ = Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
L1	L1A	VNR-NP	Scene	◎	●	●	●	●	●	●	●	●	–	–	–	●	●	●	●
		VNR-PL	Half orbit	◎	●	●	●	●	●	●	●	●	–	–	–	●	●	●	●
		IRS(SWI+TIR)	Scene	◎	●	●	●	●	●	●	●	●	–	–	–	●	●	●	●
	L1B	VNR-NP	Scene	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		VNR-PL	Half orbit	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		IRS(SWI+TIR)	Scene	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	L1B' (Resampling)	VNR-NP	Scene	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		IRS(SWI+TIR)	Scene	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
L2	Normalized water leaving radiance - Atmospheric correction parameter - Photosynthetically active radiation	NWLR	Scene	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Table 1.3-1 Relation between products and functions (2/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
	Chlorophyll-a concentration - Suspended solid concentration - Colored dissolved organic matter light absorption coefficient	IWPR	Scene	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Sea surface temperature	SSTD	Scene	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		SSTN	Scene	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Okhotsk sea-ice distribution	OKID	Scene	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Snow and ice covered area	SICE	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Snow and ice surface temperature - Snow grain size of shallow layer	SIPR	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
L2 Statistics	Snow and ice covered area	SICE	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Snow and ice surface temperature	SIST	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Snow grain size of shallow layer	SGSL	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
L2	Top of atmosphere radiance	LTOA	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Land surface reflectance	RSRF	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●

5

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Table 1.3-1 Relation between products and functions (3/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
	Normalized vegetation index - Enhanced vegetation index - Shadow index	VGI_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Fraction of absorbed PAR - Leaf area index	LAI_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Above-ground biomass - Vegetation roughness index	AGB_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Land surface temperature	LST_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
L2 Statistics	Top of atmosphere radiance	LTOA	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Land surface reflectance	RV01	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RV02	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RV03	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RV04	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RV05	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RV06	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RV07	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RV08	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RV09	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RV10	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●

A

9

Table 1.3-1 Relation between products and functions (4/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
	A	RV11	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RS01	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RS02	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RS03	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RS04	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RT01	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RT02	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		GEOV	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		GEOI	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RN08	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RN11	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RP01	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		RP02	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
		GEOP	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Normalized vegetation index	NDVI	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Enhanced vegetation index	EVI_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Shadow index	SDI_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●

Table 1.3-1 Relation between products and functions (5/12)

8

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
	Fraction of absorbed PAR (Photosynthetically Active Radiation)	FPAR	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Leaf area index	LAI_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Above-ground biomass	AGB_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Vegetation roughness index	VRI_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Land surface temperature	LST_	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
L2	Cloud flag	CLFG	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Classified cloud fraction - Cloud top temperature - Cloud top height - Water cloud optical thickness - Water cloud effective radius - Ice cloud optical thickness	CLPR	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Aerosol over the ocean - Land aerosol (near ultra violet)	ARNP	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Land aerosol (polarization)	ARPL	Tile	◎	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
	Top of atmosphere radiance (fair sky)	LCLR	Global EQA	●	●	●	●	◎	●	○	○	●	–	–	–	●	●	●	●

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Table 1.3-1 Relation between products and functions (6/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
	Top of atmosphere radiance	LTOA	Global EQA	●	●	●	●	◎	●	○	○	●	–	–	–	●	●	●	●
	Cloud flag	CLFG	Global EQA	●	●	●	●	◎	●	○	○	●	–	–	–	●	●	●	●
	Classified cloud fraction - Cloud top temperature - Cloud top height - Water cloud optical thickness - Water cloud effective radius - Ice cloud optical thickness	CLPR	Global EQA	●	●	●	●	◎	●	○	○	●	–	–	–	●	●	●	●
	Aerosol over the ocean - Land aerosol (near ultra violet)	ARNP	Global EQA	●	●	●	●	◎	●	○	○	●	–	–	–	●	●	●	●
	Land aerosol (polarization)	ARPL	Global EQA	●	●	●	●	◎	●	○	○	●	–	–	–	●	●	●	●
L3 (MAP)	Normalized water leaving radiance	L380	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		L412	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		L443	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		L490	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		L530	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		L565	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		L670	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Atmospheric correction	T865	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

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9

Table 1.3-1 Relation between products and functions (7/12)

10

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
	parameter Photosynthetically active radiation	T670	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Chlorophyll-a concentration	PAR_	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Suspended solid concentration	CHLA	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Colored dissolved organic matter light absorption coefficient	TSM_	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Sea surface temperature	CDOM	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Atmospheric correction parameter	SST_	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Snow and ice covered area Snow and ice surface temperature	SICE	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
			Northern Hemisphere PS	●	◎	●	●	●	●	–	–	●	–	–	–	●	●	●	●
			Southern Hemisphere PS	●	◎	●	●	●	●	–	–	●	–	–	–	●	●	●	●
	Snow grain size of shallow layer	SIST	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
			Northern Hemisphere PS	●	◎	●	●	●	●	–	–	●	–	–	–	●	●	●	●
			Southern Hemisphere PS	●	◎	●	●	●	●	–	–	●	–	–	–	●	●	●	●

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Table 1.3-1 Relation between products and functions (8/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
	Snow and ice covered area	SGSL	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
			Northern Hemisphere PS	●	◎	●	●	●	●	–	–	●	–	–	–	●	●	●	●
			Southern Hemisphere PS	●	◎	●	●	●	●	–	–	●	–	–	–	●	●	●	●
	Atmospheric corrected reflectance	RV01	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV02	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV03	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV04	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV05	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV06	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV07	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV08	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV09	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV10	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RV11	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RS01	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RS02	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RS03	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

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Table 1.3-1 Relation between products and functions (9/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
		RS04	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RT01	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RT02	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RN08	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RN11	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RP01	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RP02	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		SNZV	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		SLZV	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RLAV	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		SNZP	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		SLZP	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RLAP	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		SNZI	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		SLZI	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		RLAI	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Normalized difference vegetation index	NDVI	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Enhanced vegetation index	EVI_	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Table 1.3-1 Relation between products and functions (10/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
	Shadow index	SDI_	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Fraction of absorbed PAR (Photosynthetically Active Radiation)	FPAR	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Leaf area index	LAI_	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Above-ground biomass	AGB_	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Vegetation roughness index	VRI_	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Land surface temperature	LST_	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Classified cloud fraction	CFR1	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFR2	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFR3	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFR4	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFR5	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFR6	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFR7	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFR8	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFR9	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFRA	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFRH	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Table 1.3-1 Relation between products and functions (11/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
		CFRM	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CFRL	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Cloud top temperature	CLTT	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Cloud top height	CLTH	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Water cloud optical thickness	COTW	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Water cloud effective radius	CERW	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Ice cloud optical thickness	COTI	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Aerosol over the ocean optical thickness (near ultra violet)	AOTO	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Land aerosol optical thickness (near ultra violet)	AOTL	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Aerosol over the ocean Ångström exponent (near ultra violet)	AAEO	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Land aerosol Ångström exponent (near ultra violet)	AAEL	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Land aerosol optical thickness (polarization)	AOTP	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

14

Table 1.3-1 Relation between products and functions (12/12)

Level	Product		Data Type	Map projection (*1) (● = Available (◎: Default))					Output file format (● = Available ○= Future expansion is planed)								Animation Format		
				EQR	PS	Ortho	MER	EQA	Binary	CSV	(Latitude/ Longitude) CSV(*2)	Image (*3)	HDF (*5)	NetCDF (*5)	GepTiff (*5) (*6)	KML/ KMZ (*4)	AVI	KML/ KMZ	MPEG2
	Land aerosol Ångström exponent (polarization)	AAEP	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Land aerosol single scattering albedo (polarization)	ASSA	Global EQR	◎	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

(*1) EQR, PS, Ortho and MER mean Equi-Rectangular Map Projection, Polar Stereo projection, Ortho Projection and Mercator projection, respectively.

(*2) Specified range when the image is displayed by EQR and MER is output.

(*3) Output method: JPEG, TIFF, BMP, PNG

(*4) Due to the limitation of KML/KMZ file, only the product projected by EQR will be converted.

(*5) The part specified by the range is output when displaying in EQR and MER projection. However, the coordinate information of L1A differs depending on the channel. This is not applicable. Also for tile product/EQR product, product display after extracting is not applicable.

(*6) Projection method is EQR on the file.

1.4. Environment

The required environment for this user tool is shown in Table 1.4-1. The required disk space for saving the products is not included.

Table 1.4-1 Environment

Items	Conditions
Processor	Intel Core2Duo(1.06GHz) (32bit) or more
Operating System	Windows7, 8.1, 10 (32bit/64bit (*))
Memory	4GB or more
Hard Disk Space	2GB or more
Display Unit	1024 pixels by 768 lines, High Color (24 bits mode) or more
Others	Mouse or Pointing device PDF Viewer and Web Browser

B

This user tool reads various information (observation data, latitude and longitude value, etc.) from HDF file, and stores them in the memory of PC. Please install this user tool in PC equipped with an enough memory when displaying a big size data.

1.5. Install

Install this user tool by the following steps.

(1) Setup

Execute the Installer [SGLIUserToolInstaller.msi]. The screen as shown in Figure 1.5-1 is displyaed.

Click the [Next] button.

※ If you don't install this user tool, click the [Cancel] button.
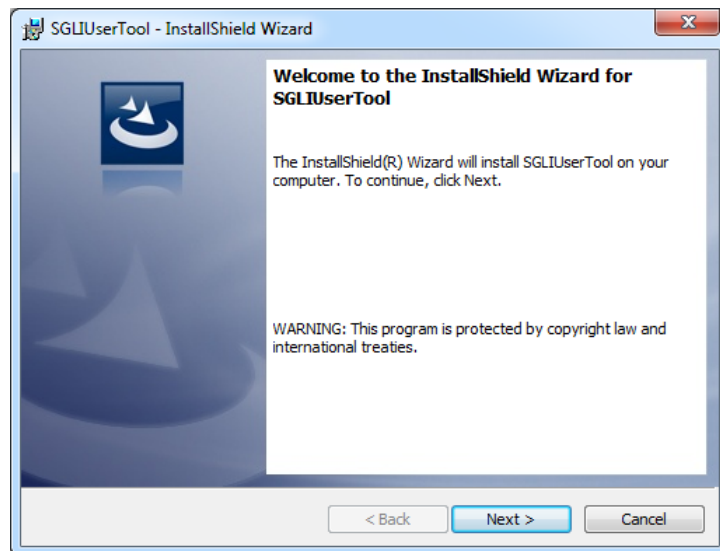
Figure 1.5-1 Setup Wizard

(2) Register Customer Information

Register the customer information. Enter your user name and organization, then click the [Next] button. The screen of [Customer Information] is shown in Figure 1.5-2.
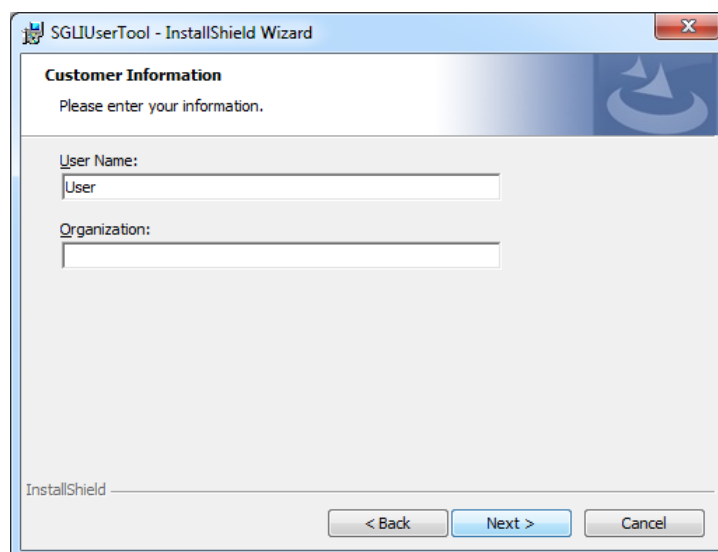
Figure 1.5-2 Customer Information

(3) Select Destination Folder

Select a folder in which you want to install this user tool, then click the [Next] button.

The screen of [Select Destination Folder] is shown in Figure 1.5-3.
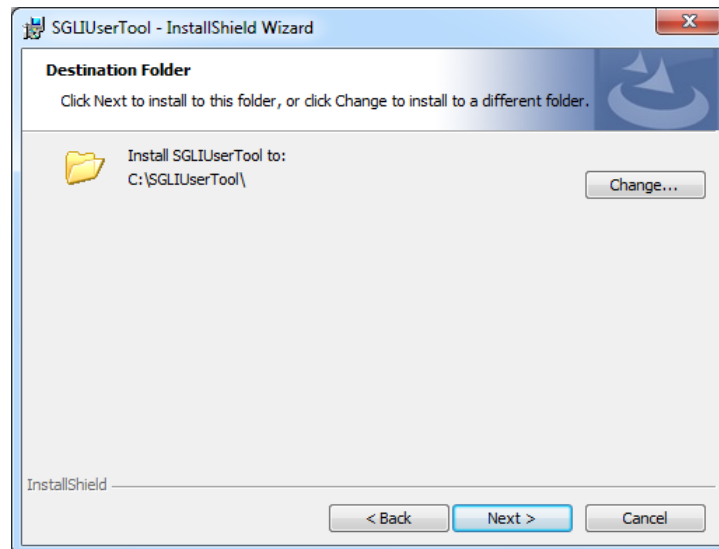
Figure 1.5-3 Destination Folder

(4) Confirm Installation

Confirm the installation is ready. If you start installing, click the [Next] button.

If you change the configuration, click the [Back] button.

The screen of [Confirm Installation] is shown in Figure 1.5-4.
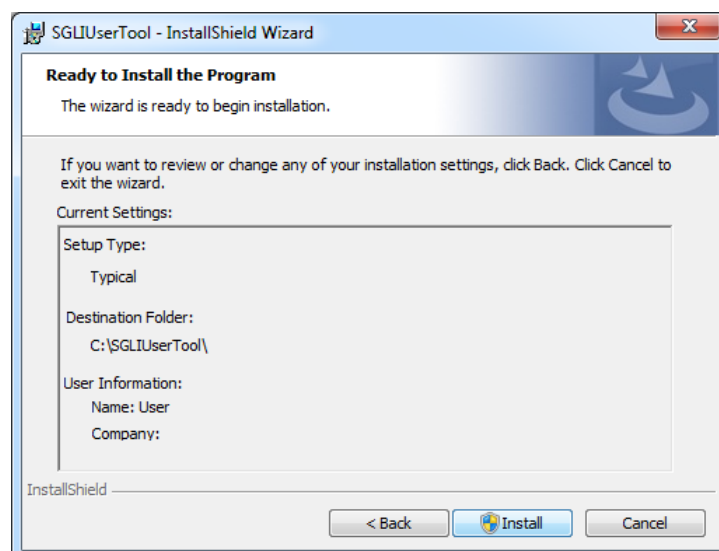
Figure 1.5-4 Confirm Installation

(5) Installing SGLI UserTool

The screen of [Installing] is shown in Figure 1.5-5.

If you stop the installation, click the [Cancel] button.
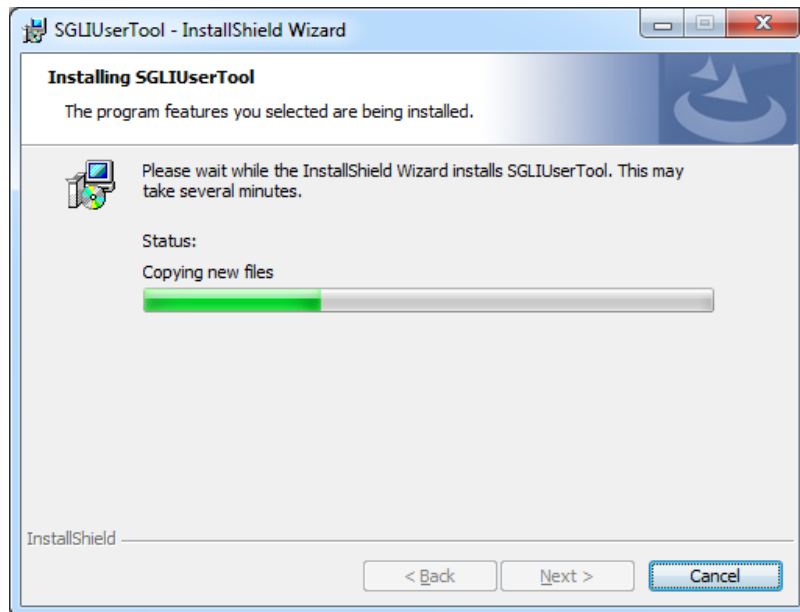
Figure 1.5-5 Installing SGLI User Tool

(6) Installation Completed

When the installation of this user tool is completed, the screen of [Installation Completed] as shown in Figure 1.5-6 is displayed.
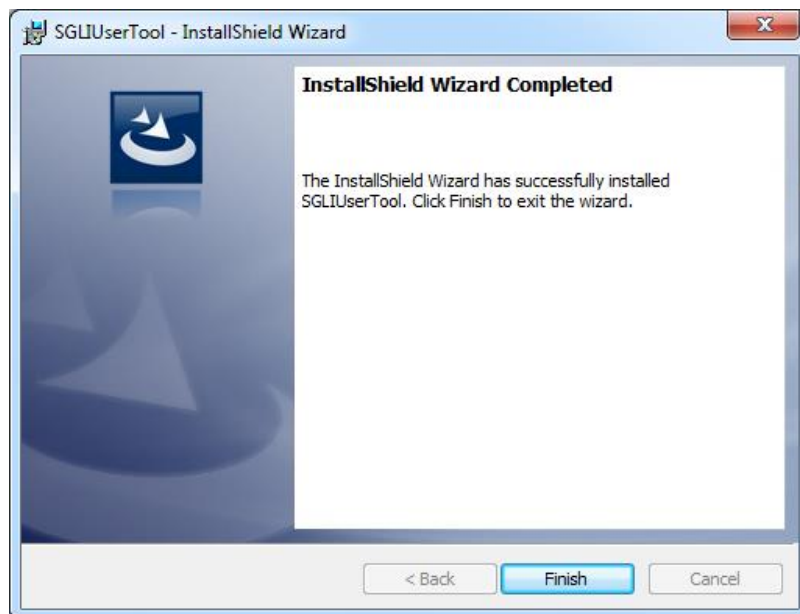
Fig 1.5-6 Installation Complete

(7) Confirmation after the installation

Confirm that the installation has been completed.

Installation is successful if [SLGIUserTool] is displayed in the start item as shown in Figure 1.5-7.
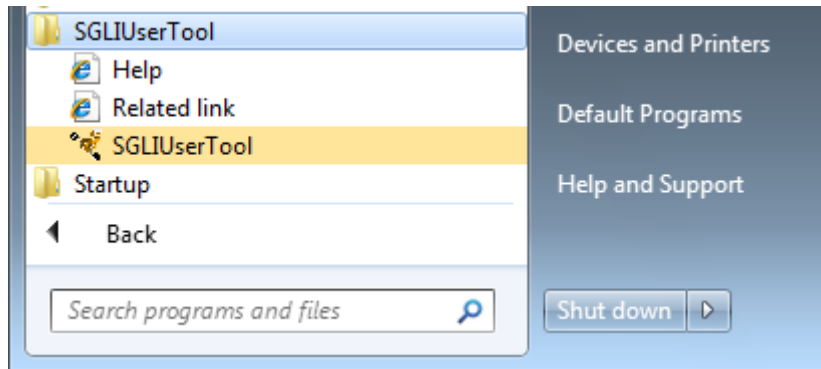
Figure 1.5-7 Start Menu

(8) Installation of MPEG2 encoder

To execute the video output by MPEG2 format in this user tool, you need to install the MPEG2 encoder (ffmpeg.exe). Download the download file from the following URL, and extract the file to use. Store the MPEG2 encoder (ffmpeg.exe) to the destination folder of this user tool (the folder where SGLUserTool exe. is stored.).

   URL: http://ffmpeg.zeranoe.com/builds/win32/static/

   URL: http://ffmpeg.zeranoe.com/builds/win64/static/

B

  Download file: Please get the latest version.

*Remarks

If the error message "Program has not been started because msvcp110.dll doesn't exist. Re-install the program to solve the problem." appears at the startup, install msvcp110.dll from the following URL.

URL: https://www.microsoft.com/ja-jp/download/details.aspx?id=30679

Download and Executable file.

・VSU4¥vcredist_x64.exe

・VSU4¥vcredist_x86.exe

Execute the above files to install the program. You install "VSU4¥vcredist_x64.exe" first, then follow "VSU4¥vcredist_x86.exe".

20

1.6. Uninstall

The Following explanations show how to uninstall this user tool.

(1) Open the [Control Panel] and click the [Uninstall Programs].

(2) Choose the SGLIUserTool, and click the [Uninstall] button.

(3) When the message box to confirm uninstall is displayed, click the [Yes] button.

2. Configuration

To set the system configuration is necessary before starting up this user tool. The parameter (GCOMUser Tool.ini) file in the installation folder is set up using the text editor of Windows system.

Folder definition information and User definition information are stored in the parameter file. Set each of them to the specified environment.

For more detailed information of the parameter, please refer to the "5.11 Appendix A.11 Initial Parameter File".

(1) Folder definition Information

The folder which is necessary to run this user tool is defined.

(2) User definition Information

Information (Data Display/Save as Binary/Save as CSV) peculiar to users is defined.

This information can be set up using "User Setting Dialog" besides the method of editing the parameter file directly.

For the detail on the operation of user setting dialog, please refer to "4.3.3 User Setting".

3. Window Composition

This user tool is composed of the window called from the main window and the menu.

The window compositions and details are shown in Table 3-1.

Table 3-1 Window Details (1/2)

No.	Window	Conditions
1.	Main Window	Window where map of data is displayed. PAN Mode, SELECT Mode Zoom In/Zoom Out of an image is specified.
2.	File Open Dialog (SGLI)	This dialog where SGLI data input are done. When data is input, the input product specification and Channel /color table/look-up table is specified.
3.	Output HDF File Open Dialog	This dialog is used to output the HDF file product. The HDF file is stored the image that is cut off part of the whole image.
4.	Create Animation Dialog (SGLI)	This dialog is specified the SGLI product used for the animation creating, and is specified Channel /color table.
5.	Animation Output Setting Dialog	This dialog chances Various settings of title display / background display color, etc. in the animation output.
6.	Display map & products Window	Window where the product data is projected in the map.
7.	User Setting Dialog	This dialog sets up initial information on this user tool.
8.	Image Output Setting Dialog	This dialog sets up the layout of saving a picture.
9.	A Narrow Line Dialog	This dialog sets indication color of coastline and latitude and longitude lines. Display color setting/ Thickness of line/ Interval in Longitude/latitude is selected.
10.	Map File Mode Dialog	This dialog sets up a map file.
11.	Edit Color Bar Table Dialog	This dialog sets up a color bar table and makes newly.
12.	Edit Look Up Table Dialog	This dialog sets up a look up table, and makes newly.
13.	Select Area Dialog	This dialog inputs the latitude and longitude of the upper left and the lower right, and specifies a domain.
14.	Meta Information Dialog	This dialog displays the core meta data of the picture.
15.	Version Information Window	This window displays the version information and copyright holder of this user tool.
16.	Help Window	Operation explanation of this user tool is displayed on a browser
17.	Related Information Window	Operation explanation of this user tool is displayed on a browser
18.	Batch File Selection Window	Batch File is selected on this window. The command in the file is analyzed when "Opening (O)" button is clicked after the file selected. And batch-process is done.

Table 3-1 Window detail (2/2)

No.	Window	Conditions
19	Batch Command History Window	Window where operation that user did is memorized as command and displayed. However, the processing history of the function that the batch processing doesn't support it is not displayed.

4. How to operate

For the detail on the operation of this user tool, please refer to the explanation of the following file menus.

4.1. File Menu

File menu provides the following 12 subsidiary menus.

(1) Open

(2) Animation

(3) Save as Image

(4) Save as KML (KMZ)

(5) Save as Binary (This function is planned for expansion in the future.)

(6) Save as CSV (This function is planned for expansion in the future.)

(7) Copy to Clipboard

(8) Save as HDF

(9) Save as GeoTiff

(10) Save as NetCDF

(11) Batch processing

(12) Quit

The file menu is shown in Figure 4.1-1, and each menu is described in the following section.
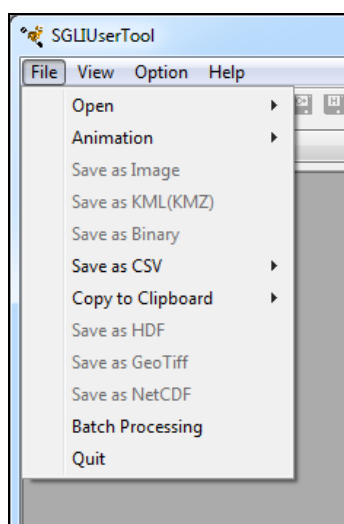
Figure 4.1-1 File Menu Pull Down

4.1.1. Open/Animation

There are two methods for selecting the product to be displyaed:

  (1) Using the [File Open] dialog and [Create Animation] dialog.

  (2) Dragging product file(s) and dropping onto the shortcut icon.

The outline is explained as follows.

[Using the [File Open] dialog and [Create Animation] dialog]

There are two subsidiary menus to open the file.

(1) SGLI Products

    This is the window to input SGLI data for displaying on the screen. It is possible to display multiple products.

(2) SGLI Products for HDF output

    This is the window to input SGLI data for executing format conversion of SGLI data.

    It is not possible to input multiple products. For the products of format conversion, refer to the Table 1.3-1 "Relation between products and functions".

There is the subsidiary menus to create animation.

(1) SGLI Product

Subsidiary menu of the [Open] and the [Animation] are shown in Figure 4.1.1-1 and Figure 4.1.1-2 respectively. Select the product file by using the [File open] or the [Creat animation] dialog displayed when selecting these subsidiary menus. Each subsidiary menu is explained in section 4.1.1.1 to 4.1.1.6.
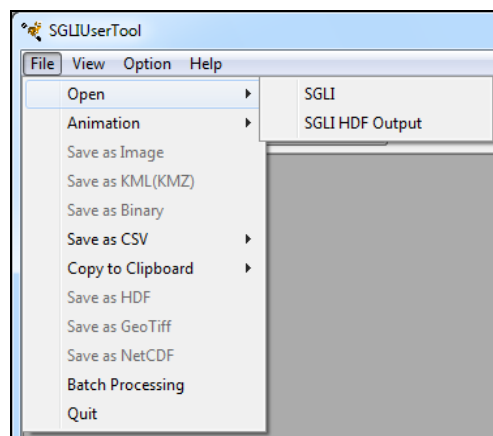
Figure 4.1.1-1 [Open] Subsidiary Menu
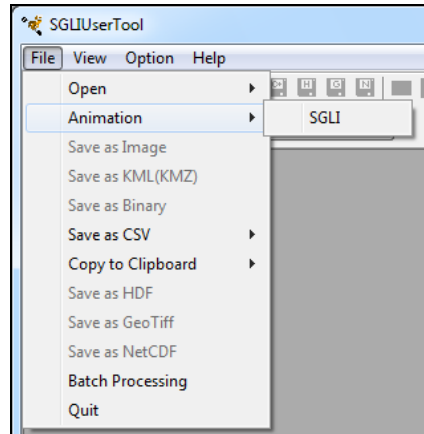
Figure 4.1.1-2 [Animation] Subsidiary Menu

[Dragging product file(s) and dropping onto the shortcut icon]

The product file to be displayed can be opened by dragging and dropping its file to the shortcut icon of this user tool as shown in Figure 4.1.1-3. After installing this user tool, the shortcut icon appears on the desktop. This function is available for only displaying images.
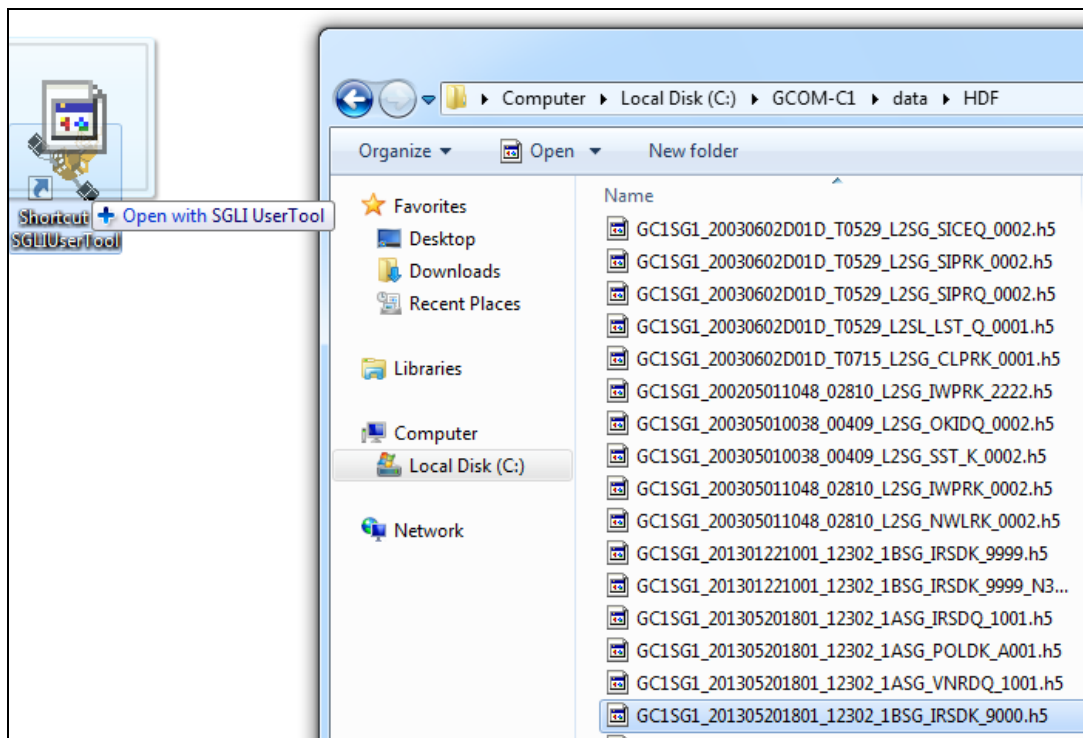
Figure 4.1.1-3 Drag & Drop to the Shortcut Icon

In this operation, the [File Open] dialog and the [Display map & products] window corresponding to the specified file type are displayed on the screen as shown in Figure 4.1.1-4.
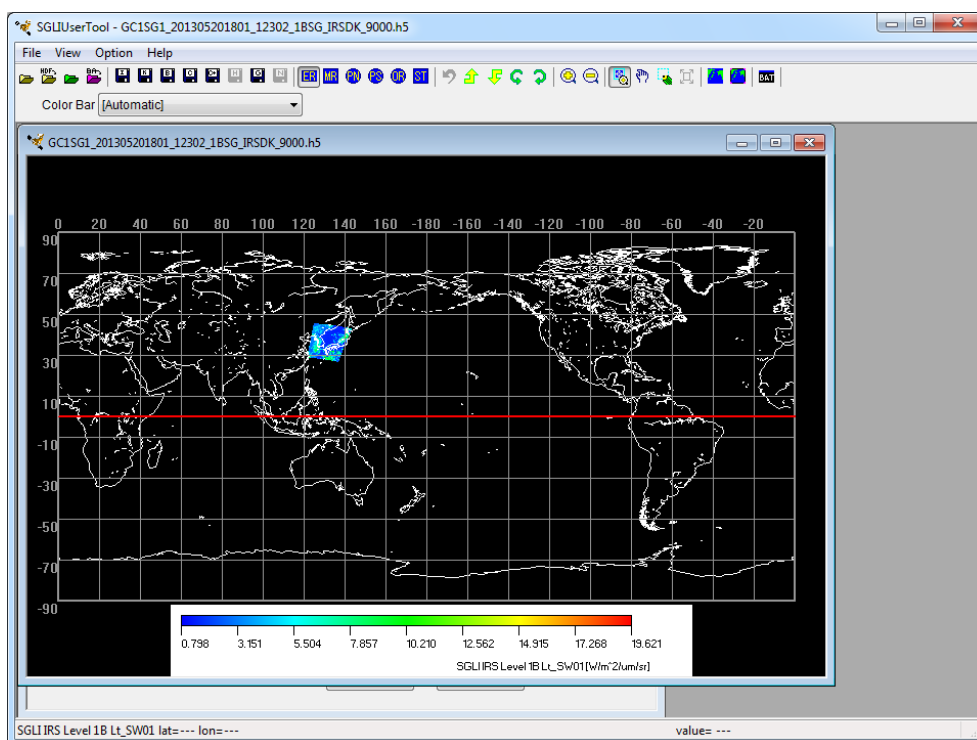
Figure 4.1.1-4 Example of Image Display by Drag & Drop Operation to the Shortcut Icon

Even if you specify multiple files of the same product level at the same time, not all files are displayed in the following case.

- If the number of the specified files exceeds the maximum number, the [File Open] dialog is only displayed on the screen, and the subsequent dialogs are not displayed.

4.1.1.1. Read SGLI Product

When you select this subsidiary menu, [File Open Dialog (SGLI)] is displayed to read SGLI product.

This section describes how to read SGLI product.

[File Open Dialog (SGLI)] layout is shown in Figure 4.1.1.1-1.
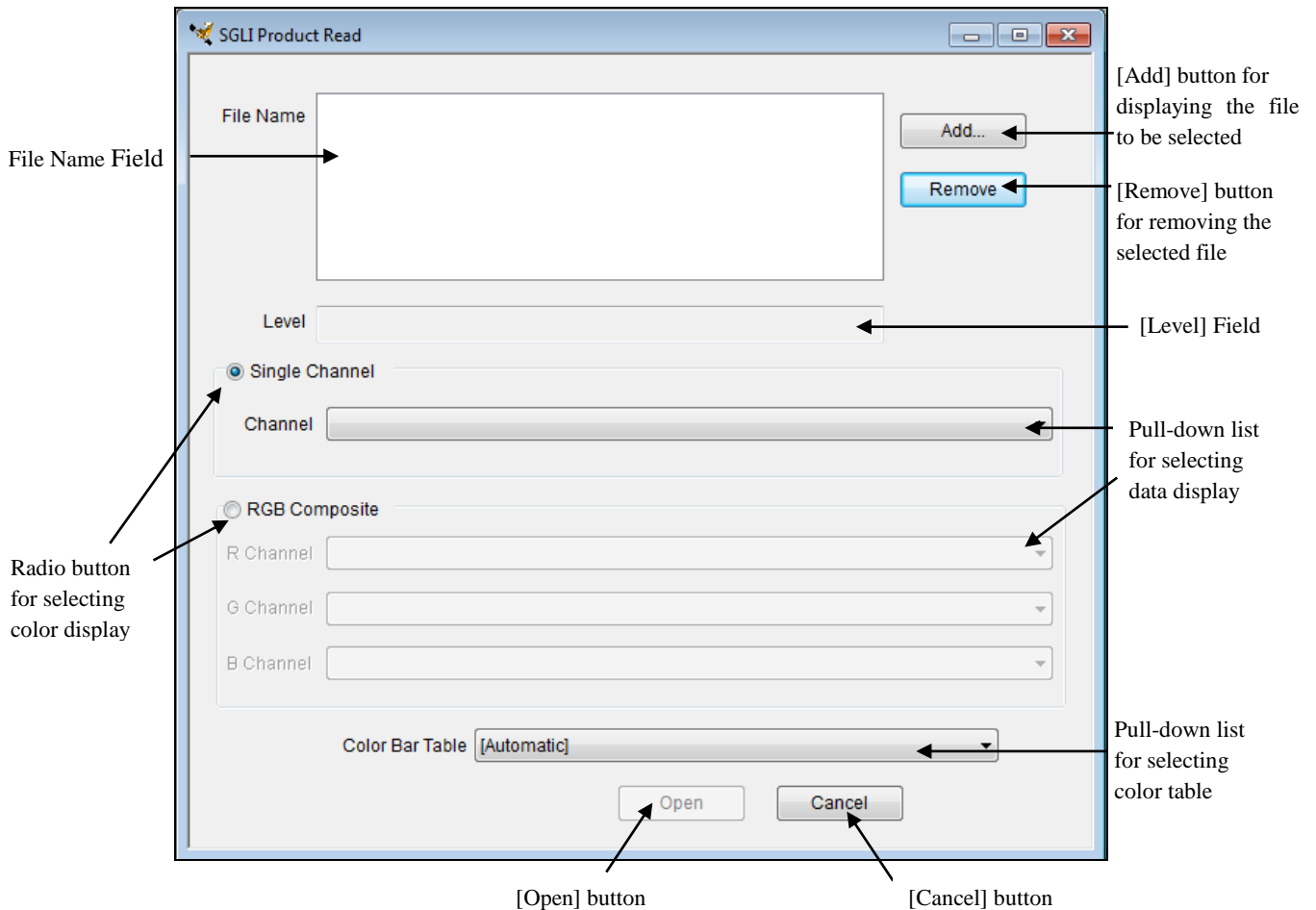
Figure 4.1.1.1-1 File Open Dialog (SGLI)

■ File Name Field

This field displays the file name of SGLI product to be read. You can specify the files by using the [Add] button or drag & drop operation as shown in Figure 4.1.1.1-2.
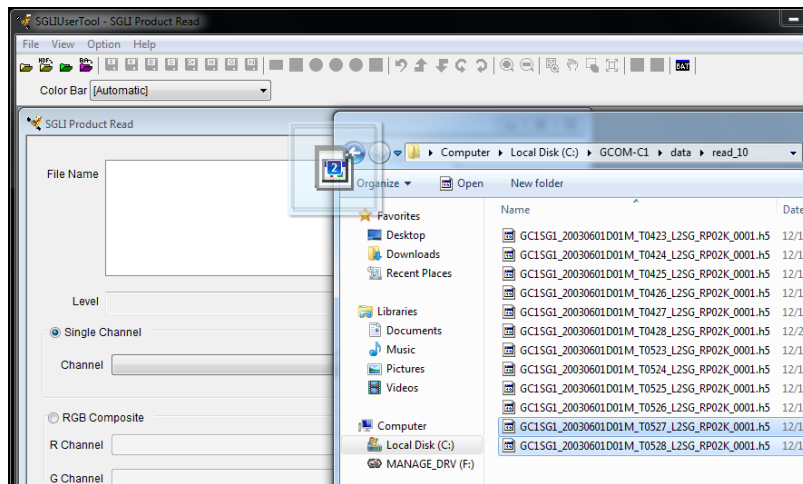
Figure 4.1.1.1-2 Drag & Drop Operation

You must specify only the SGLI product (L1B product or L2 scene product) of the same level in this field. The specified product level is displayed on the [Level] field as shown in Figure 4.1.1.1-3.

The specified files to be read

Display the level of the specified files
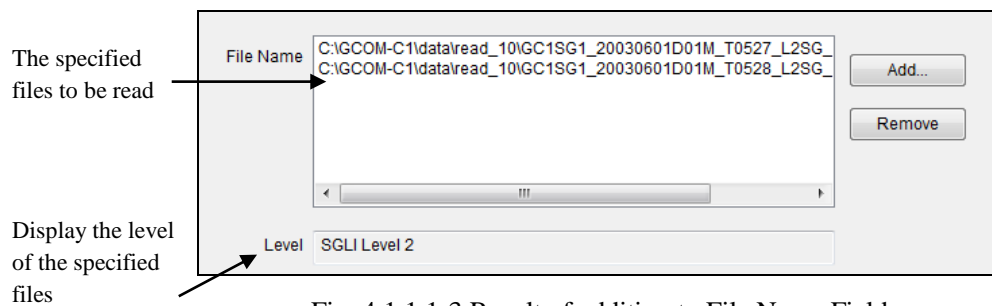
Fig. 4.1.1.1-3 Result of addition to File Name Field

The number of files that can be specified in this field is decided depending on the number of maximum files set in the configuration setting.

■ **[Add]** button

(1) Click the [Add] button.

(2) [File select window] is displayed.

(3) You can select the SGLI product file to be added to the [File Name Field].

■ **[Remove]** button
　(1) Select the file to be deleted from the [File Name Field].
　(2) Click the [Remove] button.
　(3) You can delete the file from the [File Name Field].

■ **[Single Channel] / [RGB Composite]** radio button
　(1) Select either Single Channel mode or RGB Composite Image mode.
　(2) Specify the channel from the pull down for selecting data display.

　　When specifying the radio button for selecting the color display, title display of the pull-down list
　for selecting the color table is switched.

　[Single Channel]
　　　When the [Single Channel] is selected, title display of the pull-down list is switched to the [Color
　　Bar Table].
　　　Select the arbitrary color table from the pull-down list.
　　　All the files with the extension "clt" which are stored in the SGLI folder of the color table folder
　　are displayed in this pull-down list. It is possible to select the [Automatic] that automatically
　　adjusts the maximum/minimum value of product and nine-color palet.
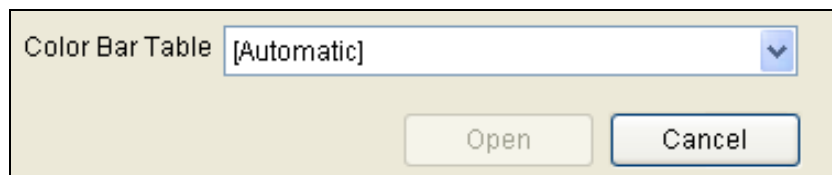
Figure 4.1.1.1-4 [Color Bar Table] Pull-down

　[RGB Composite]
　　　When the [RGB Composite] is selected, title display of the pull-down list is switched to the
　　[Look Up Table].
　　　Select the arbitrary look up table from the pull-down list.
　　　All the files with the extension "lut" which are stored in the SGLI folder of the color table folder
　　are displayed in this pull-down list.
　　　It is possible to select the [Automatic] that automatically calculate the correspondence between
　　the maximum/minimum value of each RGB and the maximum/minimum value of each product.
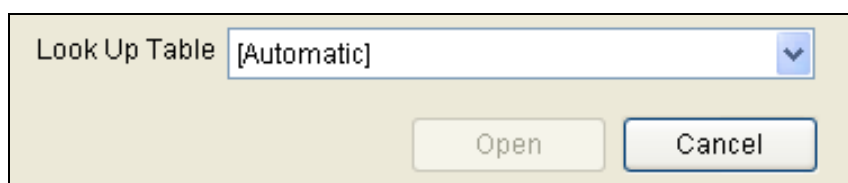
Figure 4.1.1.1-5 [Look Up Table] Pull-Down

■ **[Open]** button

(1) Click the [Open] button.

(2) The screen of product and map display as shown in Figre 4.1.1.1-6 is displayed.
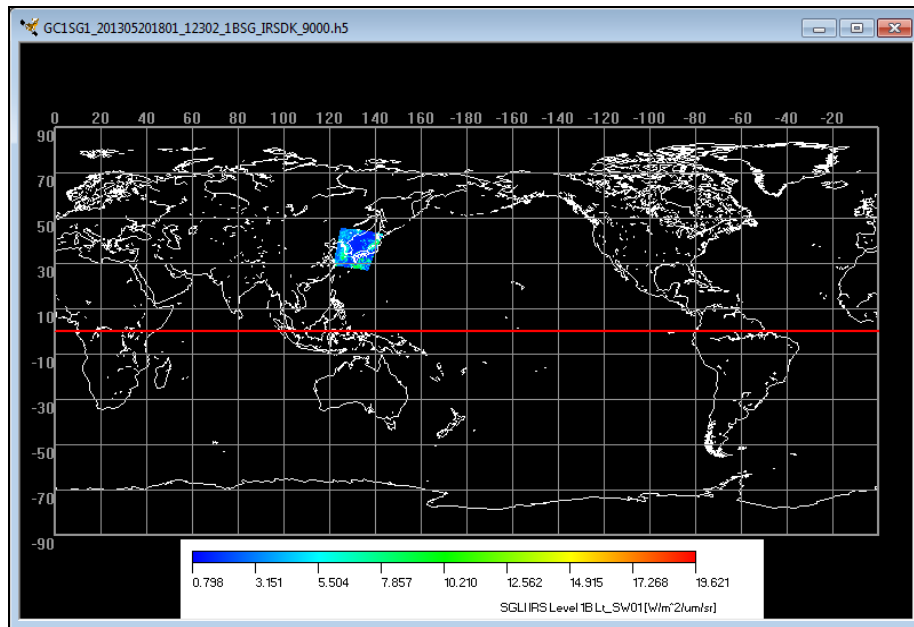
Fig. 4.1.1.1-6 Product and Map Display

■ **[Cancel]** button

(1) Click the [Cancel] button.

(2) All settings shown in the dialog is canceled and the [File Open Dialog (SGLI)] is closed.

4.1.1.2. Open SGLI Product with HDF Output Mode

When you select this subsidiary menu, the [File Open Dialog (SGLI HDF Output)] is displayed to read SGLI product. This section explains how to read SGLI product.

[File Open Dialog (SGLI HDF Output)] layout is shown in Figure 4.1.1.2-1.
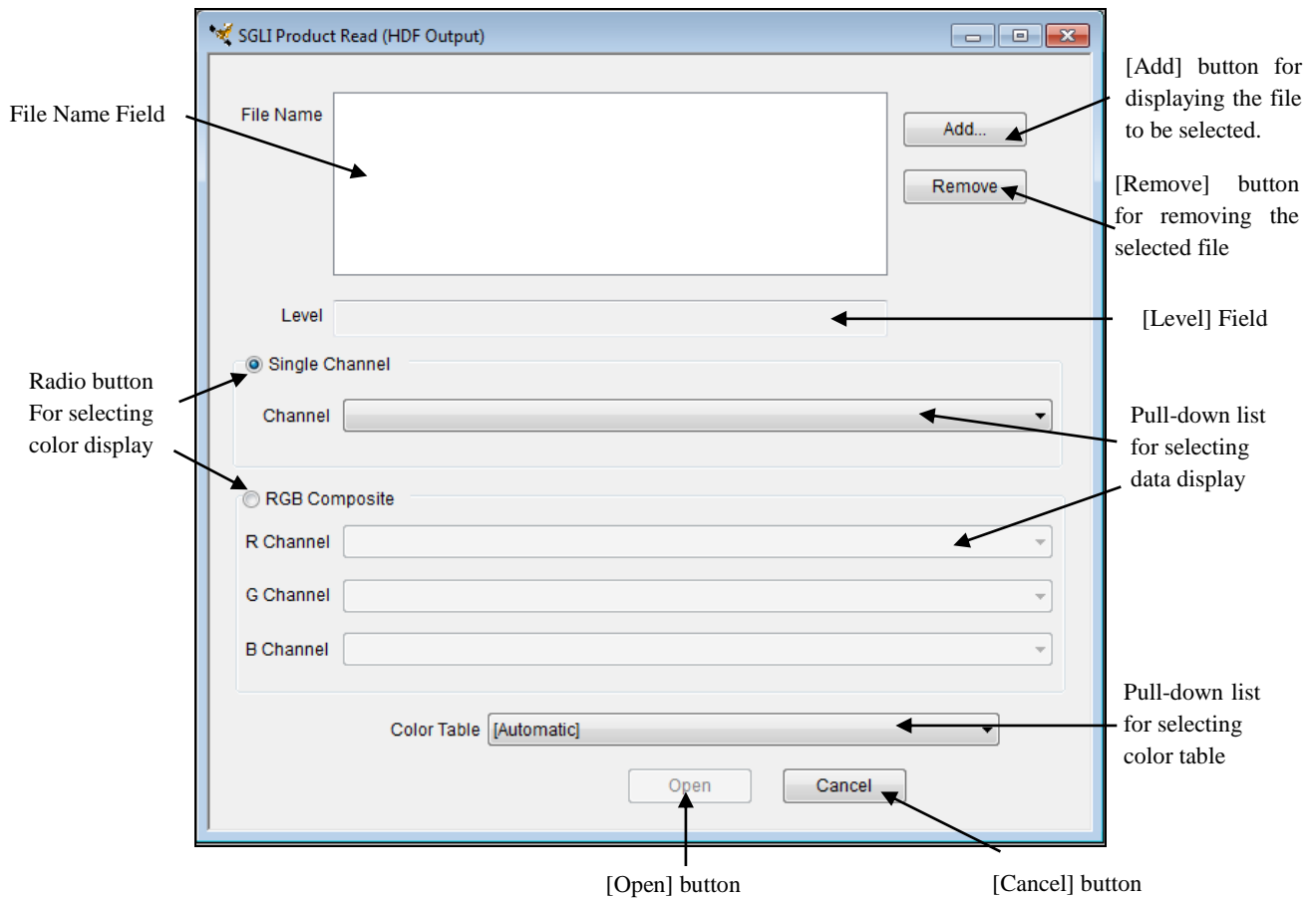
Fig. 4.1.1.2-1 File Open Dialog (SGLI HDF Output)

Please refer to "4.1.1.1. Read SGLI Product" to use these buttons on this dialog.

4.1.1.3. Make SGLI Product Animation

When you select this subsidiary menu, the [Make SGLI Product Animation Dialog] is displayed to make SGLI product animation. This section describes how to make SGLI product animation.

[Make SGLI Product Animation Dialog] layout is shown in Figure 4.1.1.3-1.

File Name Field

[Add button]

[Remove] button

[up/down] button

[Level] Field

[Frequency/Modulation] pull down

[Color Table] pull down

[Ref] button

[Select] button   [Make] button   [Cancel] button
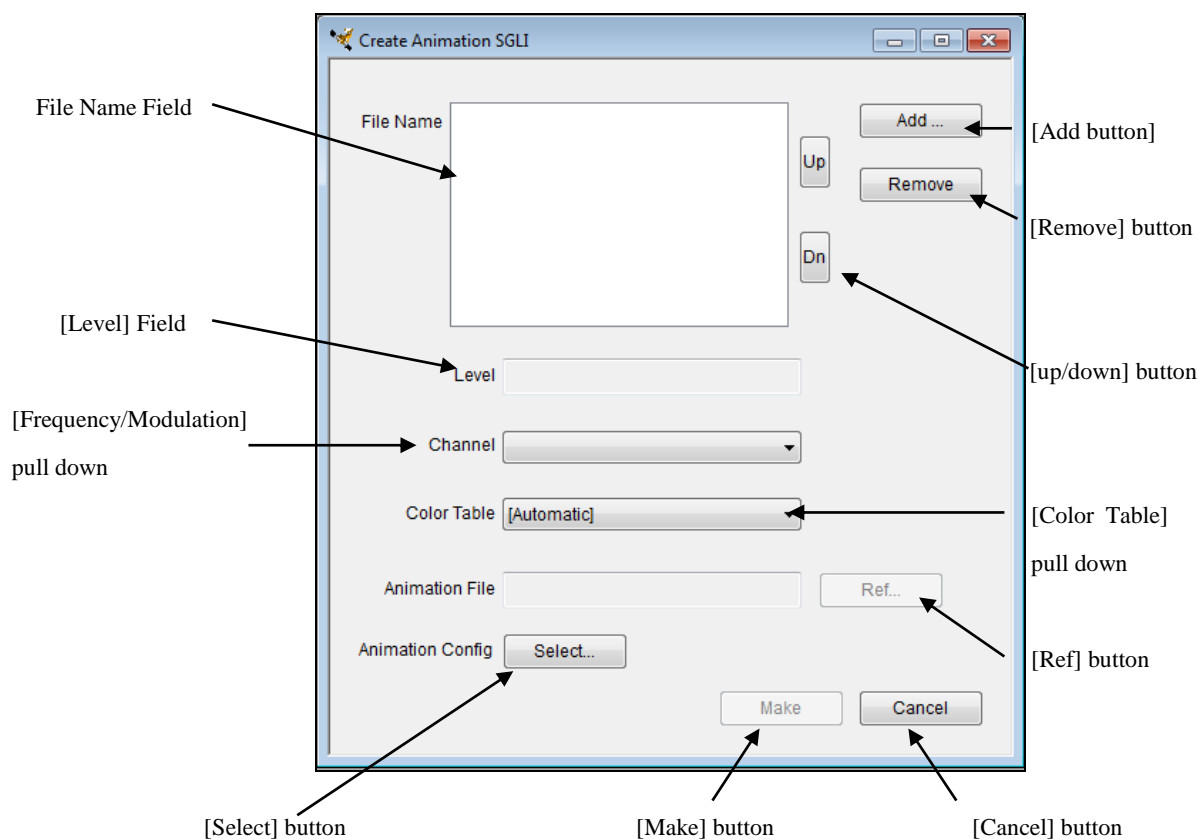
Figure 4.1.1.3-1 Make SGLI Product Animation Dialog

■ File Name Field

(1) This field displays the specified file name of SGLI product.

(2) You can specify files by clicking the [Add] button or executing the drag & drop operation as shown in Figure 4.1.1.3-2.
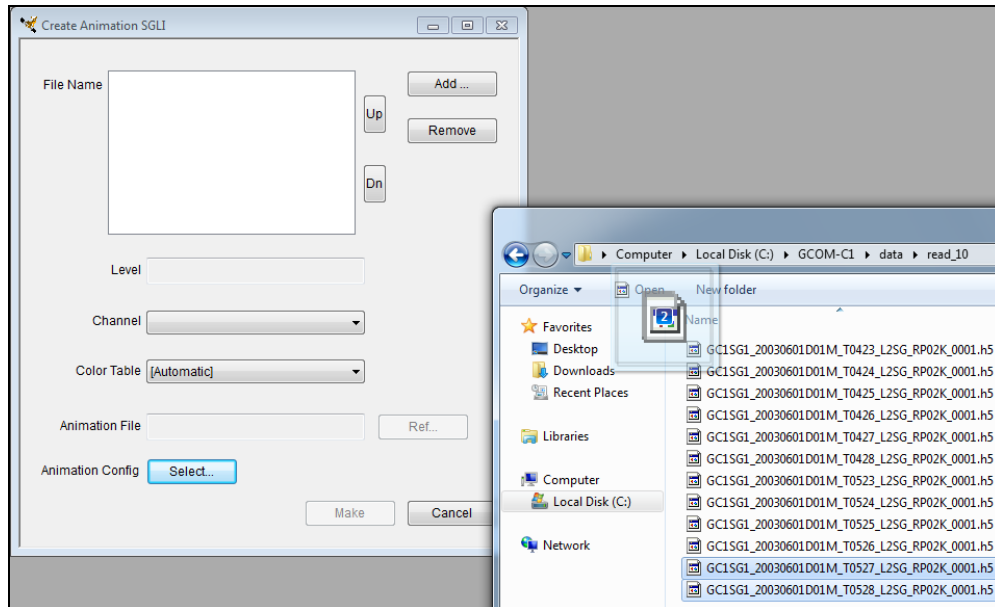
Figure 4.1.1.3-2 Drag & Drop Operation (Image)

You must specify only the same level's product. The selected product level is displayed on the [Level] field as shown in Figure 4.1.1.3-3.
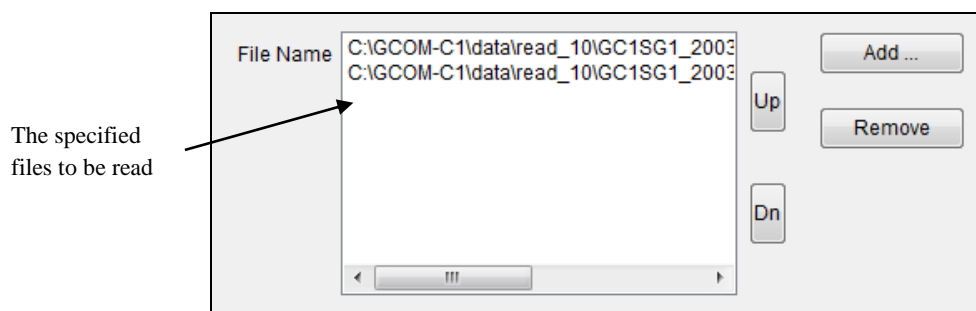
Fig. 4.1.1.3-3 Result of Addition to the File Name Field

The number of files that can be specified in this field is decided depending on the number of maximum files set in the configuration setting.

■ **[Add]** button

(1) Click the [Add] button.

(2) [File select window] is displayed.

(3) You can select the SGLI product file to be added to the [File Name Field].
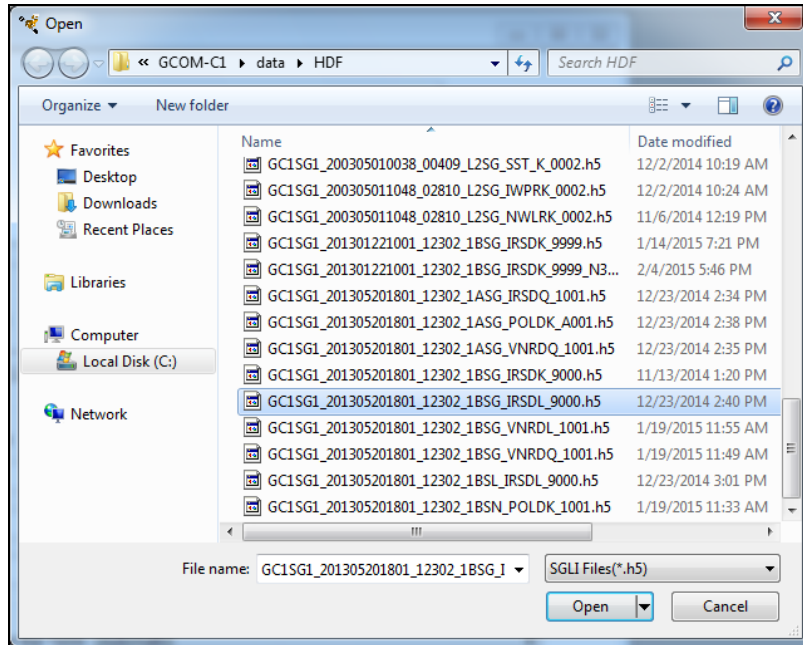
Figure 4.1.1.3-4 File Select Dialog

■ **[Remove]** button

(1) Select the file to be removed from the [File Name Field].

(2) Click the [Remove] button.

(3) You can delete the file from the [File Name Field].

■ **[up/down]** button

(1) Select the file to be changed the order from the [File Name Field].

(2) Click the [up/down] button.

(3) You can change the file order in the [File Name Field].

■ **[Color Table]** pull down

(1) It is possible to select the color table file to be displayed from this pull down.

■ **[Select]** button

(1) Click the [Select] button.

(2) [Animation Output Setting] dialog is displayed.
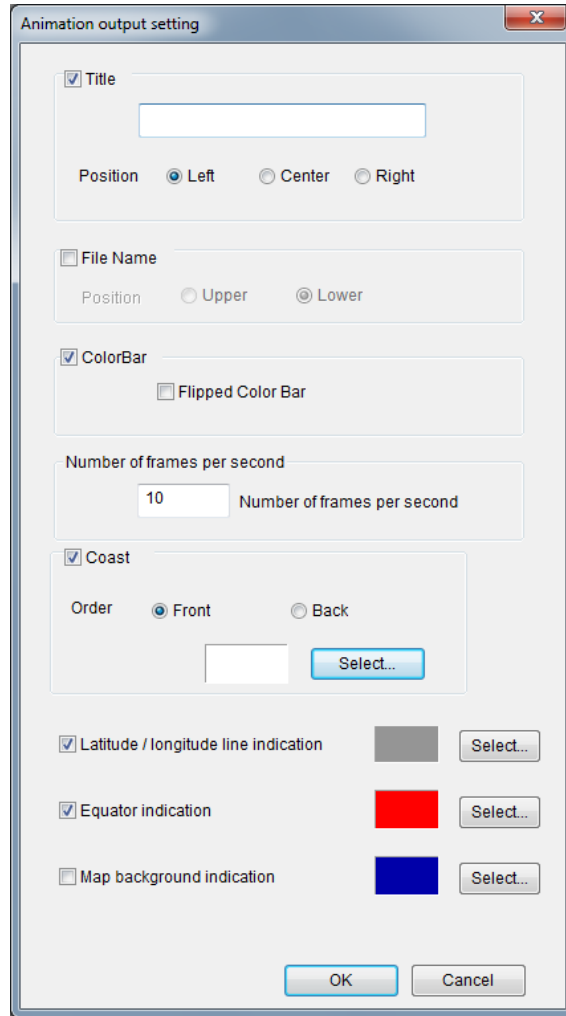
Figure 4.1.1.3-5 [Animation Output Setting] Dialog

If you want to display the [Title], [Color Bar], [File Name], [Coast], and [Latitude and longitude] information, please mark each check box.

Moreover, you can specify the color of each line, display position of the [Title] and the [File Name], and the order of displaying the [Coast]. The display position of the [File Name] is specified from the following two examples.

For the detailed information, please refer to "4.3.4 Image Output Setting" and "4.3.5 Map Layer".

[Upper]
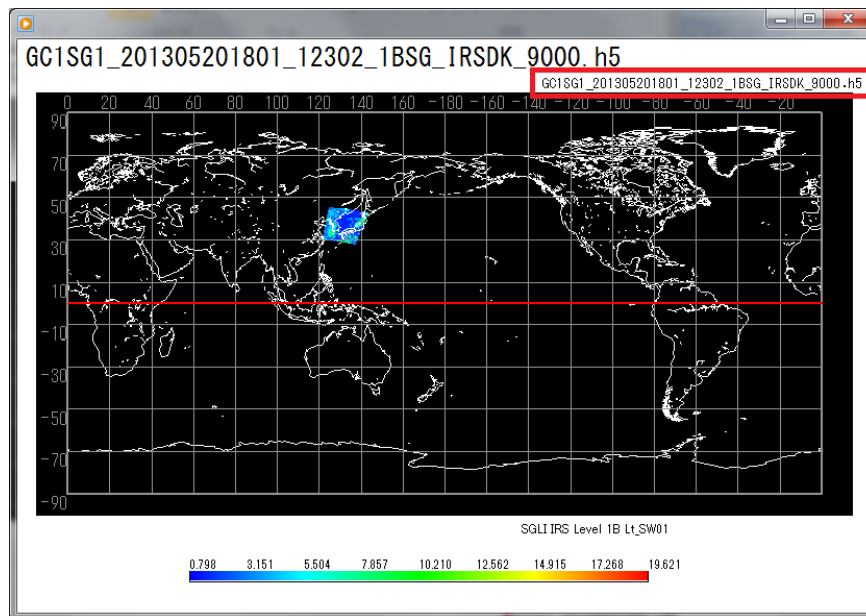
Figure 4.1.1.3-6 Example of File Name Display Position (upper right)

[Lower]
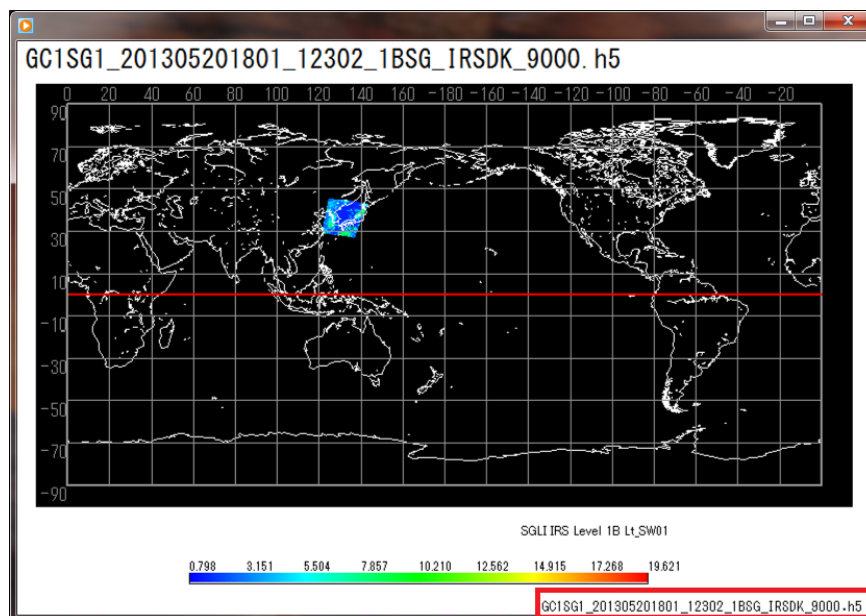
Figure 4.1.1.3-7 Example of File Name Display Position (lower right)

■ **[Ref]** button

　(1) Click the [Ref] button.

　(2) You can specify the files to be saved.

　　　You can select the format of an animation file by the file extension as shown in Figure 4.1.1.3-8.

　　　The animation format that can be selected depends on product.

　　　For the detail, please refer to Table 1.3-1.
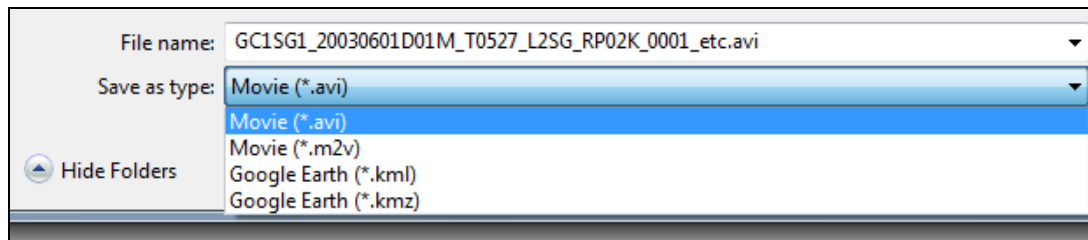
Figure 4.1.1.3-8 Selection of the File Extension of Animation file

　AVI (Audio Video Interleave) is used as movie or animation file format for Windows. In this tool, AVI file of no compression can be made. Please use the media player such as Windows Media Player for the reproduction of AVI file.

　MPEG2 (Moving Picture Experts Group phase 2) format is compression and coding standard of video and audio that are used in digital television broadcasting and DVD video.

　You can reproduce the MPEG2 files that are created by this function in media player such as Windows Media Player by installing the MPEG2 encoder.

　KML (Keyhole Markup Language) is a file format used to display geographic data on Google Earth™. The KML file made by this function corresponds to the function of timeline of Google Earth™.

　For more information of Google Earth™, please refer to Google Earth™ Web page.

　(http://earth.google.com/intl/en/)

　KMZ file format is zipped KML files and their related images.

　KMZ file format can be displayed by the correspondence application such as Google Earth™ as well as KML.

■ **[Make]** button

　(1) Click the [Make] button.

　(2) Create an animation file of the SGLI product.

■ **[Cancel]** button

　(1) Click the [Cancel] button.

　(2) All settings shown in the dialog are canceled and close the dialog.

4.1.2. Save as Image Format

When you select this menu, you can save the displayed image on a file with JPEG, TIFF, PNG or Bitmap format. Default output format is [JPEG].

Selecting this menu, [Image File Dialog] shown in Figure 4.1.2-1 is displayed on the screen.

Specify the file name to be saved, select the output format from [Save as Image] pull down menu and click the [Save] button.

The default output format is [JPEG] and the default file name is [GRANULE_ID.jpg].
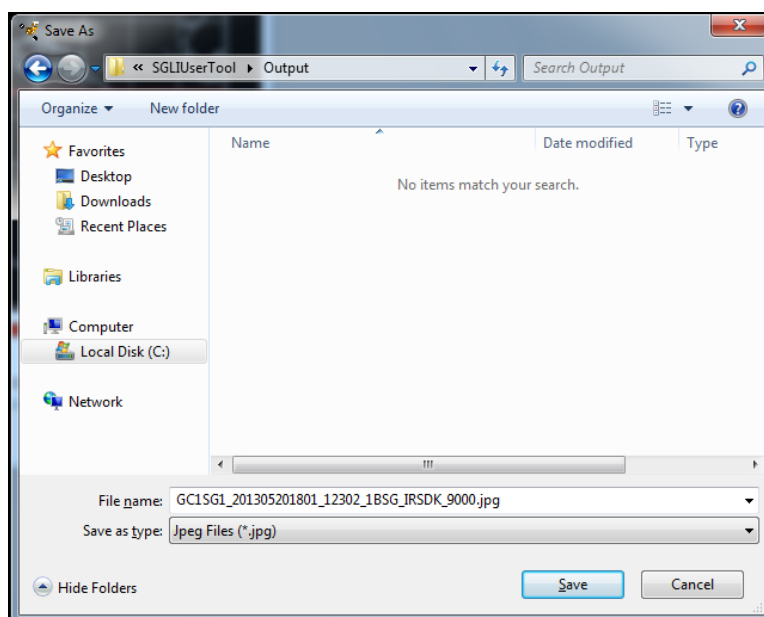
Figure 4.1.2-1 Image File Dialog

The example of the saved image is shown in Figure 4.1.2-2.
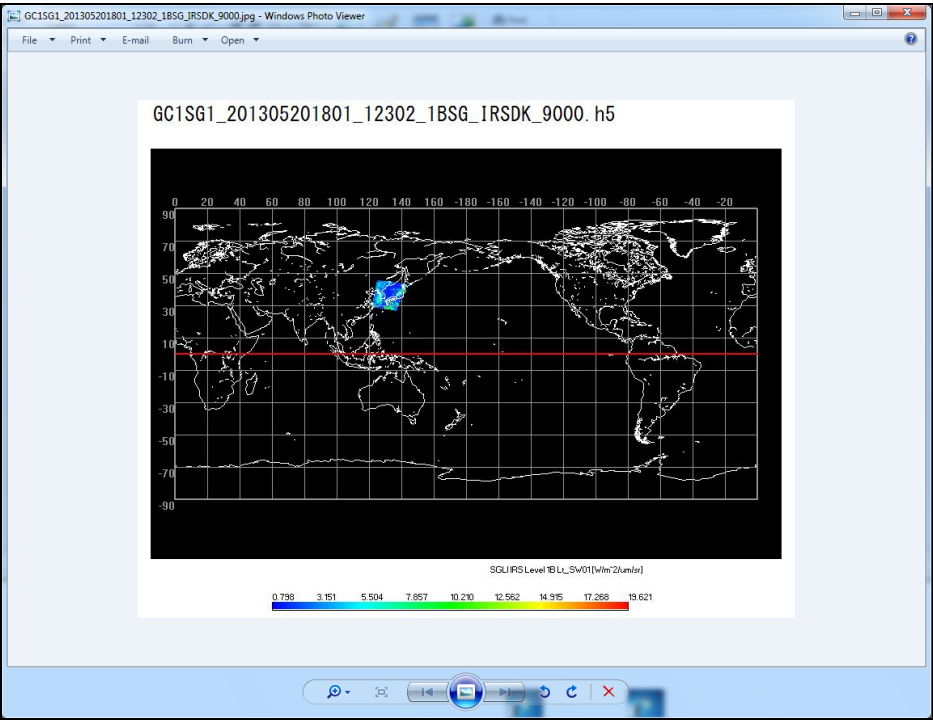
Figure 4.1.2-2 Example of Saved Image

4.1.3. Save as KML (KMZ) Format

When you select this menu, you can save the displayed image on a file with KML Format (Note 1).

Moreover, when the area is specified by SELECT mode, the image within the selected area can be saved with KML format. About SELECT mode, please refer to "4.2.9 SELECT Mode".

For the product type that can be saved with KML format, please refer to Table 1.3-1.

Selecting this menu, [KML File Save] dialog shown in Figure 4.1.3-1 is displayed on the screen.

Specify the file name, select either KML or KMZ format (Note 2) from the [Save as type] pull down menu, and click the [Save] button.

For the KML file format, please refer to "appendix A.3 KML file".
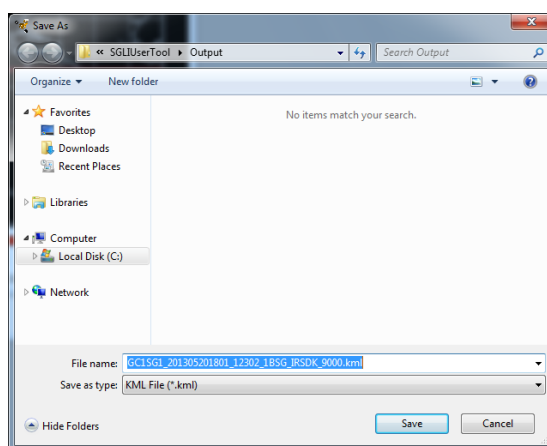
Figure 4.1.3-1 KML File Save Dialog

Note 1) KML (Keyhole Markup Language)

It is the file which stored the KML tag necessary for displaying the image file of SGLI product (Combined) on Google Earth Client(R).

Note 2) KMZ format

It is the format in which the file with KML format (and the related image file, etc) is compressed and archived.

KMZ file format can be displayed by the correspondence application such as Google Earth™ as well as KML.

4.1.4. Save as Binary Format

When you select this menu, you can save the displayed image on a file with Binary Format. The byte order of saved data can be specified from big endian and little endian.

For selecting the byte order, please refer to "4.3.3 User Setting".

Selecting this menu, [Binary File Save] dialog shown in Figure 4.1.4-1 is displayed on the screen.

Specify the file name and click the [Save] button.

The Default file name is **[GRANULE_ID.jpg]**.

For the binary file format, please refer to "appendix A.1 Binary file".

When you save the product, "product and map display" on the screen will be closed. If you want to display the image again, follow the procedure of "4.1.1 Open/Animation" to select product.
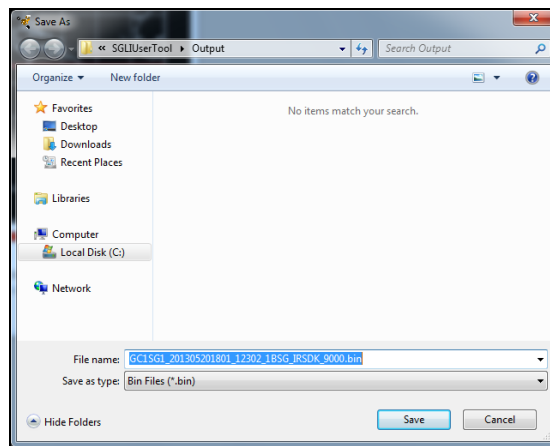
Fig. 4.1.4-1 Binary File Save Dialog

4.1.5. Save as CSV Format

When you click this menu, you can save the observation data of the selected area to the file with CSV format. This menu provides the following two subsidiary menus.

(1) Save value only

(2) Save value with Latitude and Longitude

Subsidiary menu is shown in Figure 4.1.5-1, and each of them is described in the following section.
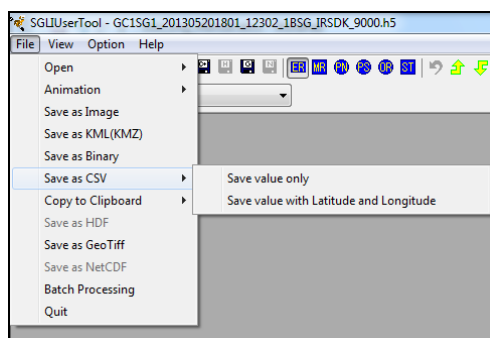
Figure 4.1.5-1 [Save as CSV] Subsidiary Menu

43

4.1.5.1. Save value only

When you select this subsidiary menu, **[Save as CSV]** shown in Figure 4.1.5-2 is displayed to output the CSV file without latitude and longitude of the selected area's observation data.

However, depending on the display method such as map projection, resolution, etc., there are some cases where the file can not be saved as this format. In this case, change the display method according to the error message of the saving condition.

The default of the file name to be saved is set to **[GRANULE_ID.csv]**.

For the format of the CSV file, please refer to "appendix A.2 CSV file".

When you save the product, "product and map display" on the screen will be closed. If you want to display the image again, follow the procedure of "4.1.1 Open/Animation" to select product.
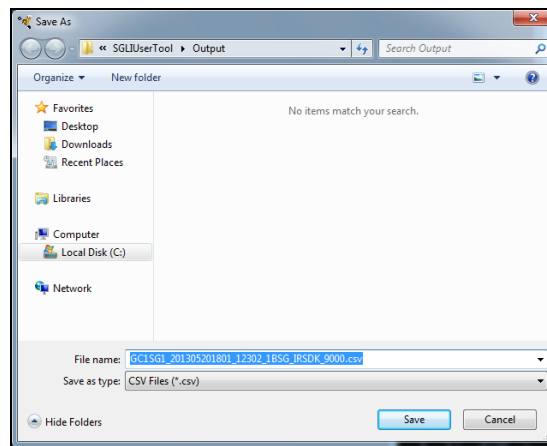
Fig. 4.1.5-2 Save as CSV Dialog

4.1.5.2. Save value with Latitude and Longitude

When you select this subsidiary menu, **[CSV File Saving Condition]** is displayed to output the CSV file with latitude and longitude of the selected area's observation data.

However, depending on the display method such as map projection, resolution, etc., there are some cases where the file can not be saved as this format. In this case, change the display method according to the error message of the saving condition.

Fig. 4.1.5-3 shows an example of the error message.

For the format of the CSV file, please refer to "appendix A.2 CSV file".

When you save the product, "product and map display" on the screen will be closed. If you want to display the image again, follow the procedure of "4.1.1 Open/Animation" to select product.
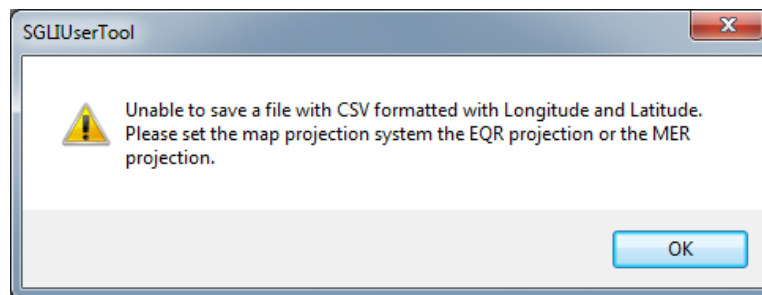
Fig. 4.1.5-3 CSV File Saving Condition Dialog

4.1.6. Copy to Clipboard

This menu allows you to copy the image displayed on product/map display window to the clipboard.

Using this function, the displayed image can copy to another application easily.

There are two kinds of function on this menu, each of which can be selected from the subsidiary menu.

(1) Copy (the whole window)

Copy the whole window displayed on the product/map display window to the clipboard.

(2) Copy (Selected Area)

Copy the image of selected area to the clipboard.

For the selecting method of the range, please refer to "4.2.9 SELECT Mode".

4.1.7. Save as HDF Format

When you select this subsidiary meny, the [File Saving] dialog shown in Figure 4.1.7-2 is displayed to output the selected area's observation data in HDF format file.

Select the output range using rectangle from the image displayed on the window. The data included in a selected area is extracted by the scanned unit, and is saved in the file.

The image for extracting data is shown in Figure 4.1.7-1

Selected area
[Extracted area]

Scanned data included in a part of the rectangle are output.

HDF5 format contents
・Metadata (Some of contents are redescribed.)
・Dataset (All contents are output)
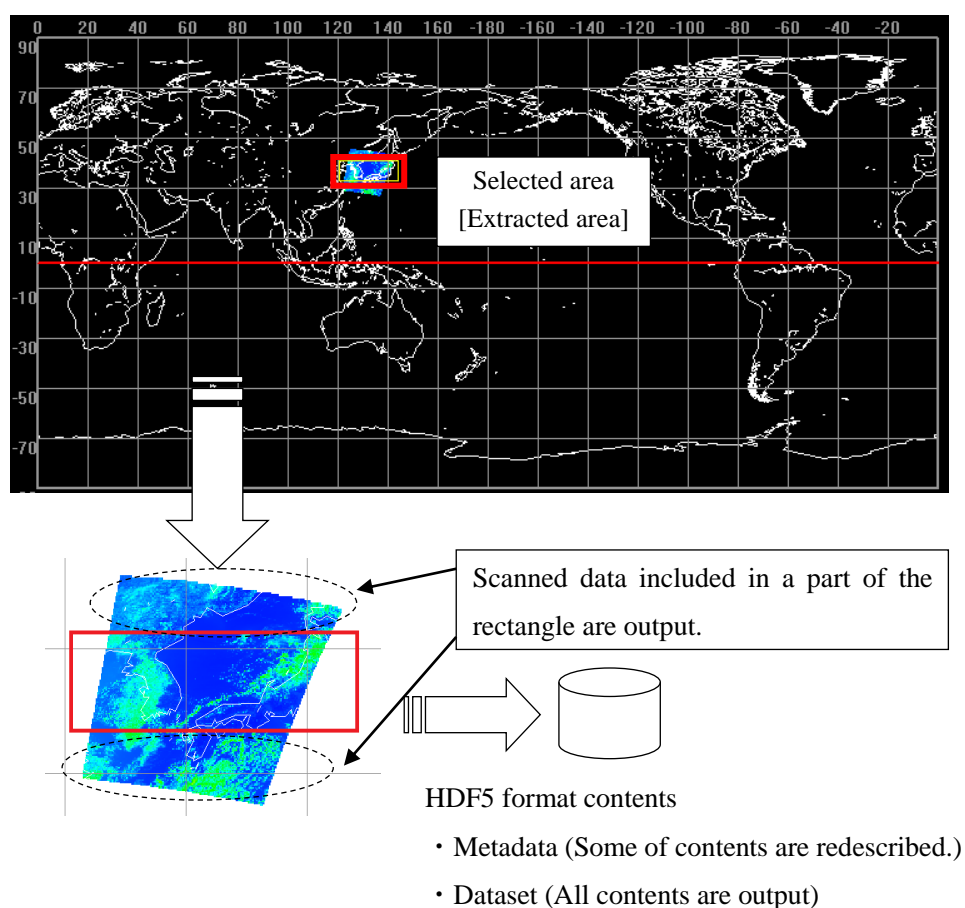
Figure 4.1.7-1 The Image for Extracting HDF Product Data

The default output HDF file name is shown as below.

[Granule ID Latitude of upper left, Longitude of upper left, Latitude of upper right, Longitude of upper right.h5]

Example: GC1SG1_201305201801_12302_1BSG_IRSDK_9000_N36E138N34E140.h5

The value of latitude and longitude is shown by the first letter. (North latitude: N, South latitude: S, East longitude: E, West longitude: W)

The latitude and longitude are shown as double digits, triple digits, respectively.

For the HDF file format, refer to "Appendix A.5 HDF Format".
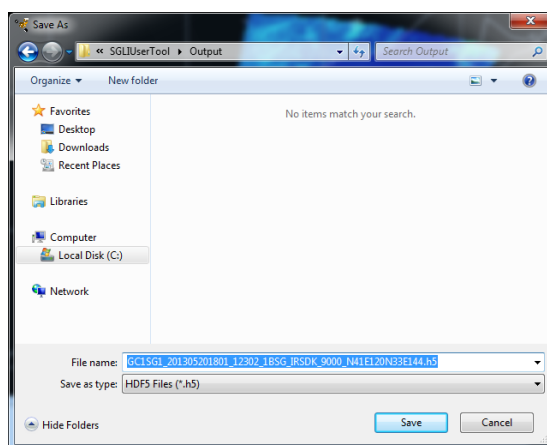
Fig. 4.1.7-2 HDF File Saving Dialog

4.1.8. Save as GeoTiff Format

When you select this menu, you can save the observation data on the selected area to GeoTiff format.

Select the output range using rectangle from the image displayed on the window. The data included in a selected area is extracted by the scanned unit, and is saved in the file.

The image for extracting data is shown in Figure 4.1.8-1.
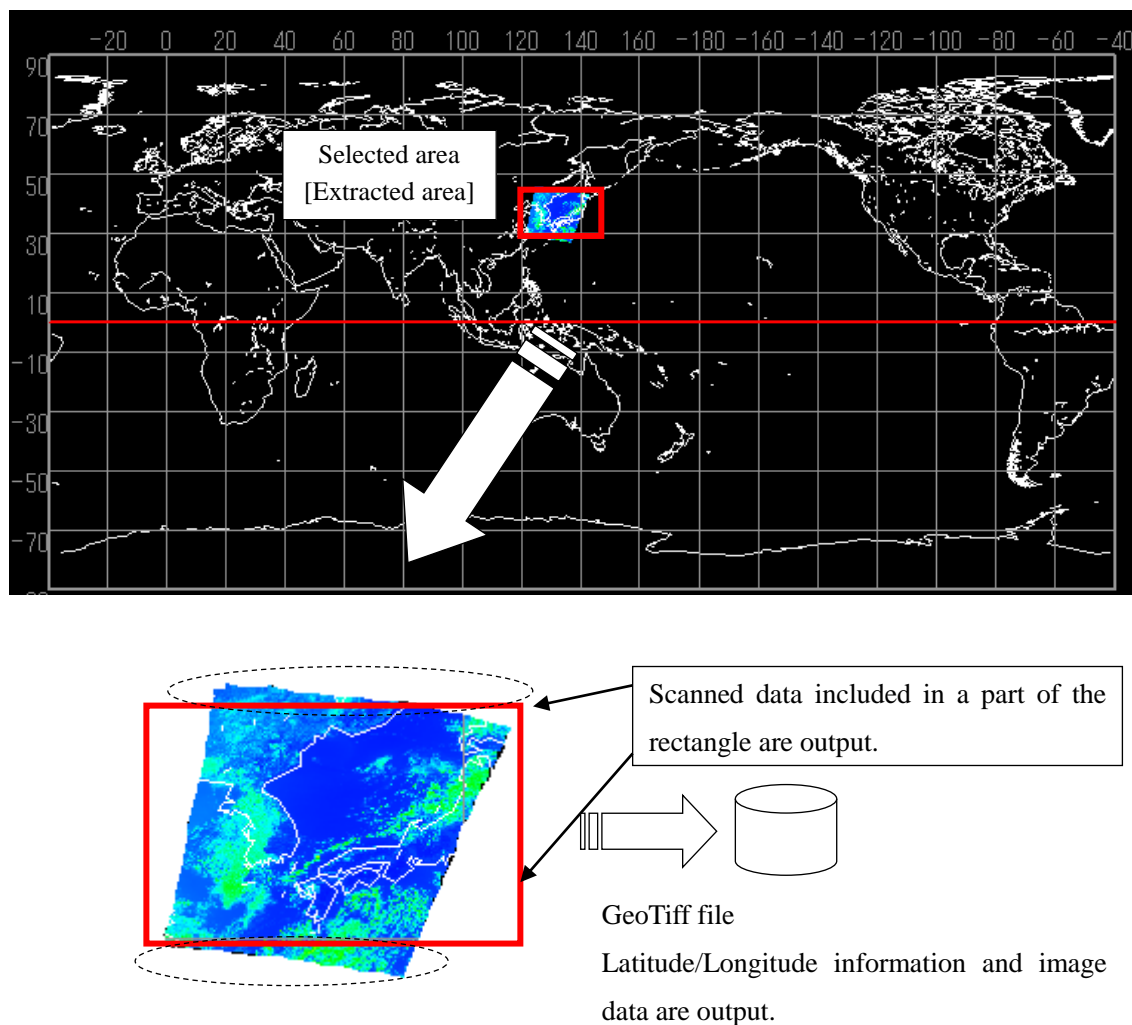
Figure 4.1.8-1 The Image for Extracting Product Data

The default file name is [Granule ID.tif].

Example: GC1SG1_201305201801_12302_1BSG_VNRDL_1001.tif

For the GeoTiff file format, refer to "Appendix A.6 GeoTiff format".
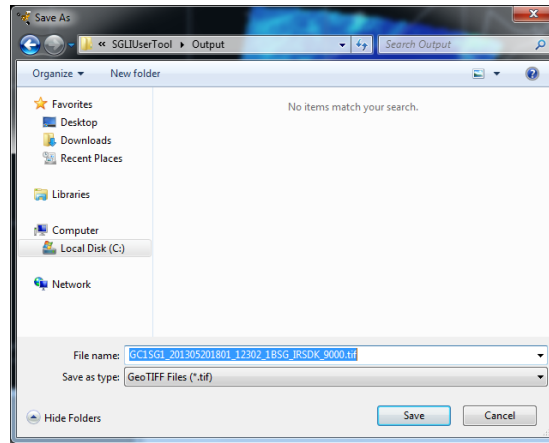
Figure 4.1.8-1 GeoTiff File Saving Dialog

4.1.9. Save as NetCDF Format

When you select this menu, you can save the observation data on the selected area to NetCDF format.

Select the output range using rectangle from the image displayed on the window. The data included in a selected area is extracted by the scanned unit, and is saved in the file.

The image for extracting data is shown in Figure 4.1.9-1.

Selected area
[Extracted area]

Scanned data included in a part of the rectangle are output.

NetCDF format contents
・Metadata (Some of contents are redescribed.)
・Dataset (All contents are output)
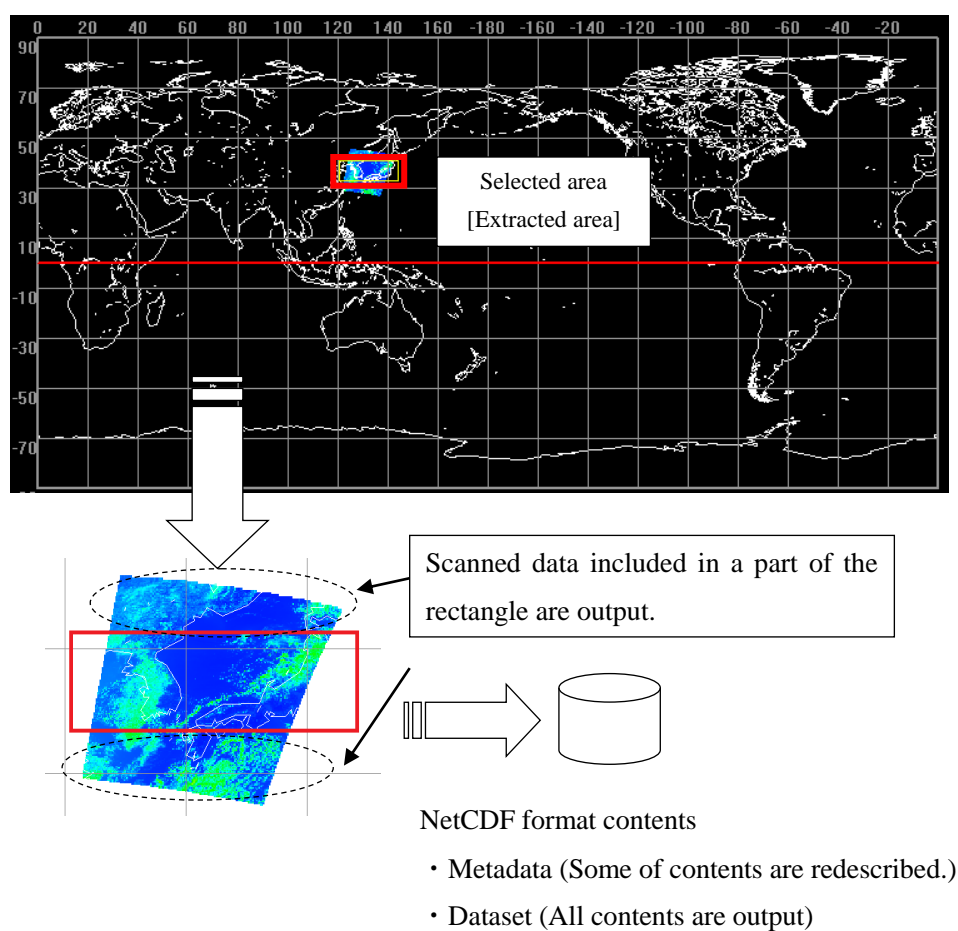
Fig. 4.1.9-1 The Image for Extracting NetCDF product file

The default output HDF file name is shown as below.

[Granule ID Latitude of upper left, Longitude of upper left, Latitude of upper right, Longitude of upper right.nc]

Example: GC1SG1_201305201801_12302_1BSG_VNRDL_1001_N46E127N31E139.nc

The value of latitude and longitude is shown by the first letter. (North latitude: N, South latitude: S, East longitude: E, West longitude: W)

The latitude and longitude are shown as double digits, triple digits, respectively.

For the NetCDF file format, refer to "Appendix A.7 NetCDF format".
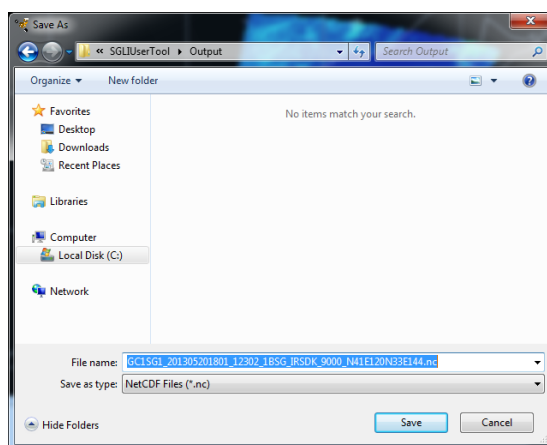
Figure 4.1.9-2 NetCDF File Saving Dialog

4.1.10. Execution of Batch Processing

When you select this subsidiary menu, "file open window" shown in Figure 4.1.10-1 is displayed.

This subsidiary menu is possible to:

- read the batch file selected on the window

- analyze the contents of the command described in the file

- execute the above processing continuously

With this function you can easily repeat the same processing.

For the batch file format, please refer to [appendix A.10 batch file].
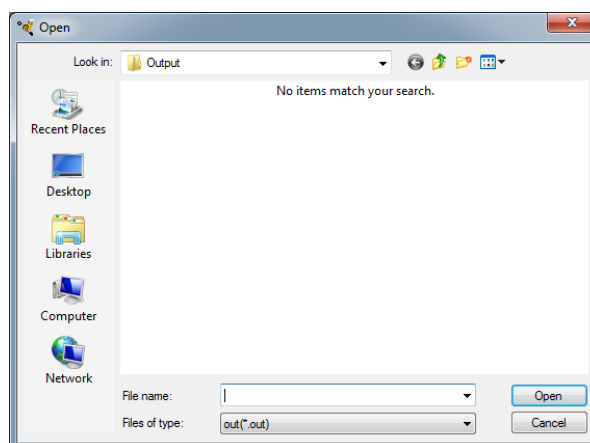
Figure 4.1.10-1 File Open Dialog

4.1.11. Quit

If you want to terminate this user tool, please select the [Quit] pull-down from the File Menu.

4.2. View Menu

This menu provides the following 11 subsidiary menus.

(1) Tool Bar

(2) Status Bar

(3) Zoom

(4) Map Projection

(5) Meta Data

(6) Color Bar Position

(7) Zoom Mood

(8) Pan Mood

(9) SELECT Mode

(10) Select Area

(11) Batch Command History

View menu is shown in Figure 4.2-1, and each menu is described in the following section.
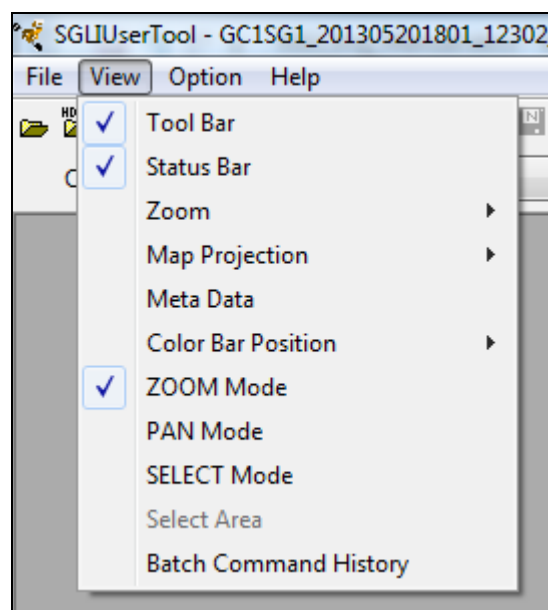
Figure 4.2-1 View Menu

4.2.1. Tool Bar

When you selct this menu, you can set display/non-display of the tool bar.

The window with toolbar layout is shown in Figure 4.2.1-1, and the window without tool bar layout is shown in Figure 4.2.1-2 respectively.

[The window with tool bar layout]
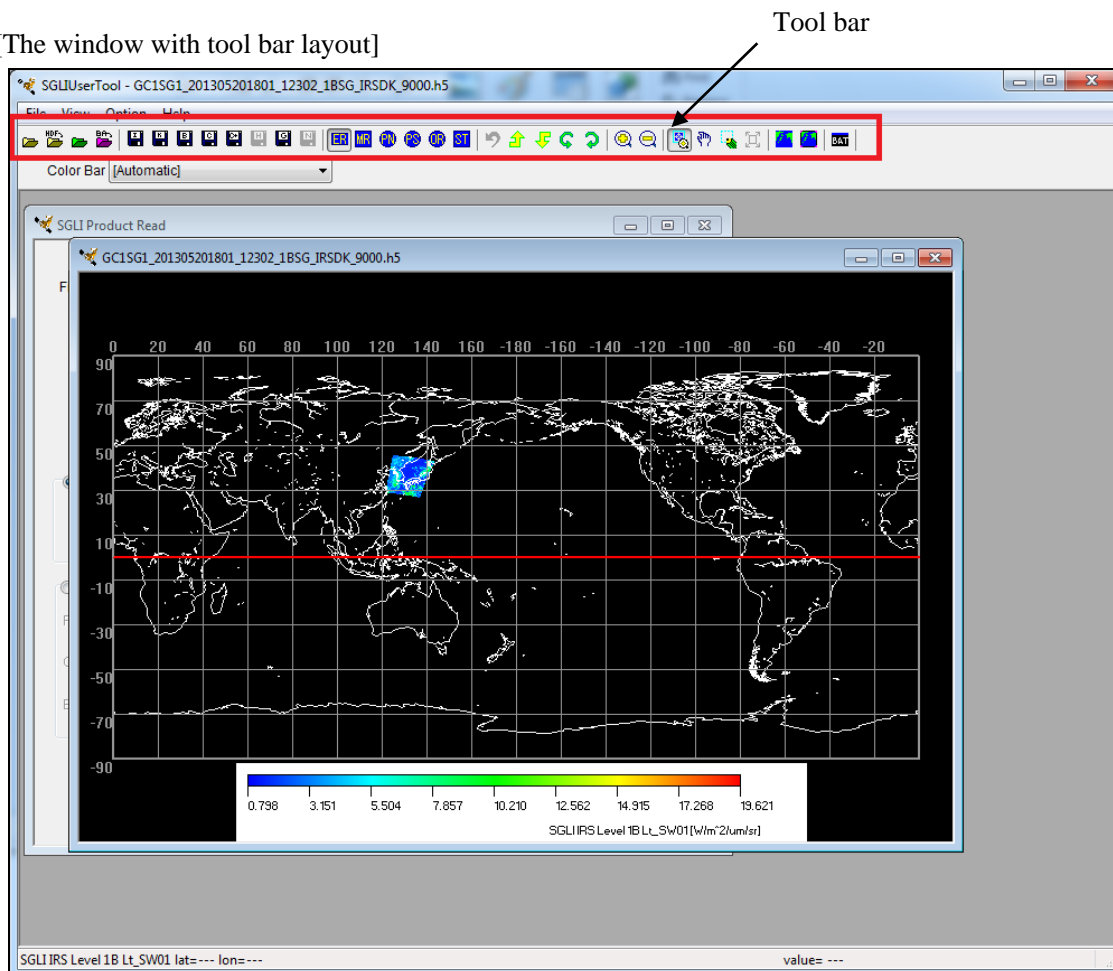
Tool bar

Figure 4.2.1-1 The Window with Tool Bar Layout

[The window without tool bar layout]
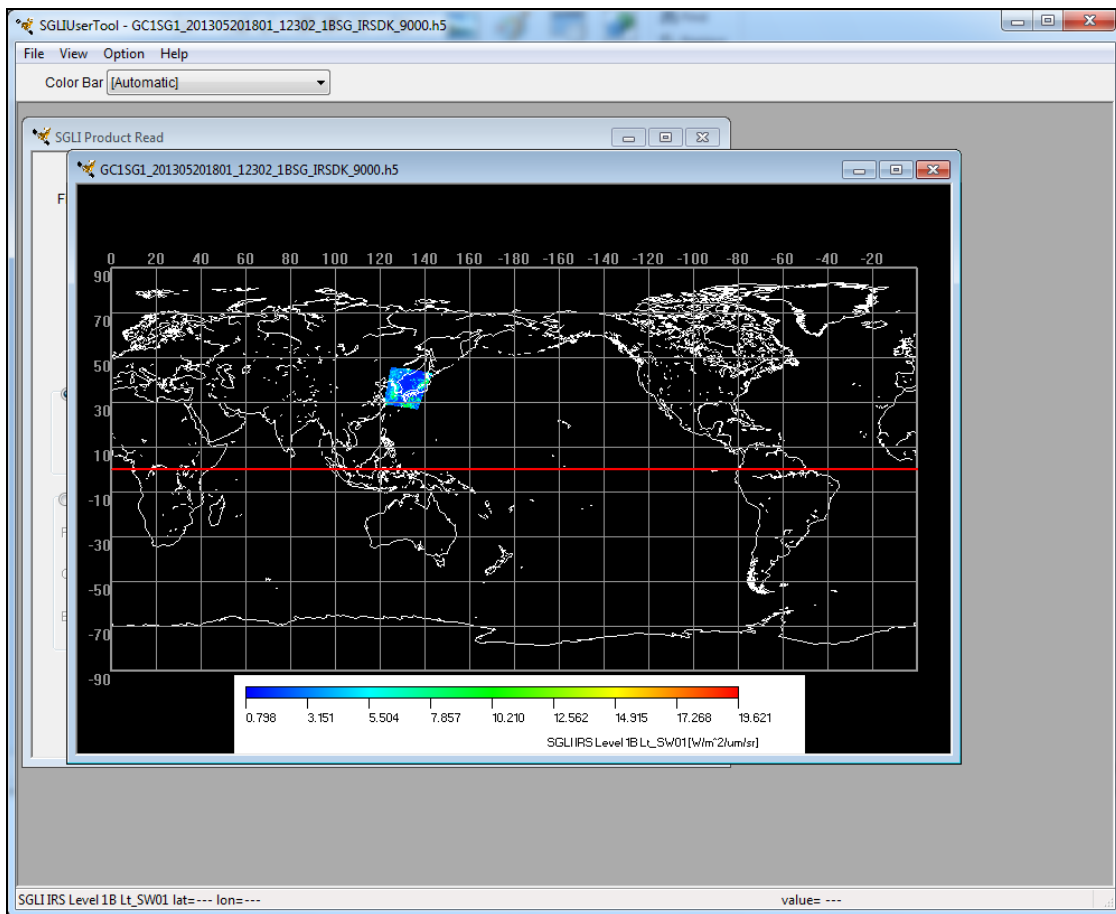
Figure 4.2.1-2 The Window without Tool Bar

Tool bar is shown in Figure 4.2.1-3
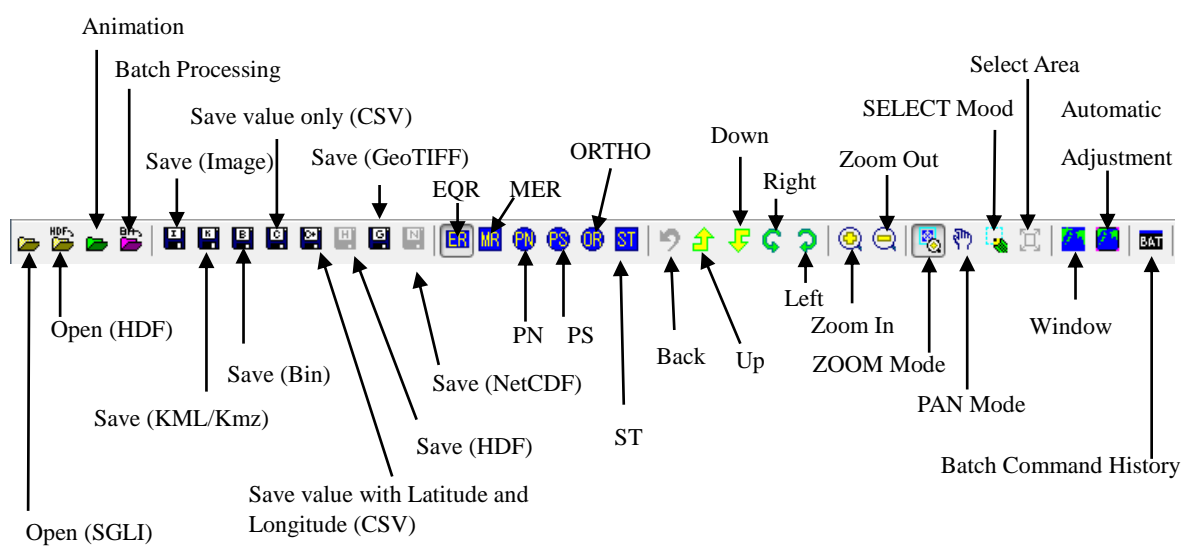
Figure 4.2.1-3 Tool bar

The display of the tool bar differs depending on whether or not the image window is displayed.

[Image Window is Displaying]
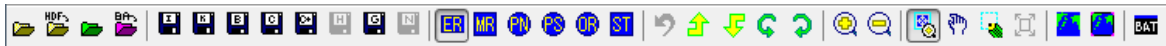
Figure 4.2.1-4 Image Window is Displaying

[No Image Window]

Figure 4.2.1-5 No Image Window

Each icon of the tool bar is described as follows.

(1) **[Open (SGLI)]** icon
   1) Click the [Open (SGLI)] icon.
   2) You can read the SGLI product.
  For the detail on the reading of SGLI Products, please refer to "4.1.1.1 Read SGLI Product".

(2) **[Open (HDF)]** icon
   1) Click the [Open (SGLI)] icon.
   2) You can read the SGLI product.
  For the detail on the reading of SGLI Products, please refer to "4.1.1.2 Open SGLI Product with HDF Output Mode".

(3) **[Make Animation (SGLI)]** icon
   1) Click the [Make Animation (SGLI)] icon.
   2) You can create animation file from SGLI products.
  For the detail on the creating animation, please refer to "4.1.1.3 Make SGLI Product Animation".

(4) **[Batch File Selection]** icon
   1) Click the [Batch File Selection] icon.
   2) You can execute the batch processing.
  For the detail on the executing batch processing, please refer to "4.1.10 Execution of Batch Processing".

(5) **[Save (Image)]** icon

   1) Click the [Save (Image)] icon.

   2) The displayed image on the window can be saved in JPEG/TIFF/BMP/PNG format.

  For the detail on the saving image, please refer to "4.1.2 Save Image".

(6) **[Save (KML/KMZ)]** icon

   1) Click the [Save (KML/KMZ)] icon.

   2) The displayed image on the window can be saved in KML (KMZ) format.

  For the detail on the saving image (KML), please refer to "4.1.3 Save as KML (KMZ) Format".

(7) **[Save (Binary)]** icon

   1) Click the [Save (Binary)] icon.

   2) The displayed image on the window can be saved in binary format.

  For the detail on the saving image with binary format, please refer to "4.1.4 Save as Binary Format".

(8) **[Save value only (CSV)]** icon

   1) Click the [Save value only (CSV)] icon.

   2) The displayed image on the window can be saved in CSV format without latitude and longitude information.

  For the detail on the saving image (CSV), please refer to "4.1.5 Save as CSV Format".

(9) **[Save value with Latitude and Longitude (CSV)]** icon

   1) Click the [Save value only (CSV)] icon.

   2) The displayed image on the window can be saved in CSV format with latitude and longitude information.

  For the detail on the saving image (CSV), please refer to "4.1.5 Save CSV Format".

(10) **[Save (HDF)]** icon

   1) Click the [Save (CSV)] icon.

   2) The displayed image on the window can be saved in HDF format.

  For the detail on the saving image (HDF), please refer to "4.1.7 Save as HDF Format".

(11) **[Save (GeoTiff)]** icon

   1) Click the [Save (GeoTiff)] icon.

   2) The displayed image on the window can be saved in GeoTiff format.

  For the detail on the saving image (GeoTiff), please refer to "4.1.8 Save as GeoTiff Format".

(12) **[Save (NetCDF)]** icon

    1) Click the [Save (NetCDF)] icon.

    2) The displayed image on the window can be saved in NetCDF format.

    For the detail on the saving image (NetCDF), please refer to "4.1.9 Save as NetCDF Format".

(13) **[Reset Image Window]** icon

    1) Click the [Reset Image Window] icon.

    2) The enlarged and reduced map display can be changed to the default display. But the image window size is not changed.

    For the detail on the reset of image, please refer to "4.2.3 Zoom".

(14) **[Automatic Adjustment]** icon

    1) Click the [Automatic Adjustment] icon.

    2) The image window size can be adjusted automatically.

    For the detail on the Automatic Adjustment, please refer to "4.2.3 Zoom".

(15) **[Zoom In]** icon

    1) Click the [Zoom In] icon.

    2) The image can be enlarged.

    For the detail on enlargement of the image, please refer to "4.2.3 Zoom".

(16) **[Zoom Out]** icon

    1) Click [Zoom Out] icon.

    2) The image can be reduced.

    For the detail on reduction of the image, please refer to "4.2.3 Zoom".

(17) **[Move Right]** icon

  1) Click the [Move Right] icon.

  2) The view point can be scrolled to the right by 24 degrees. (The map rotates minus 24 degrees)

  Rotation to the right is shown in Figure 4.2.1-6.
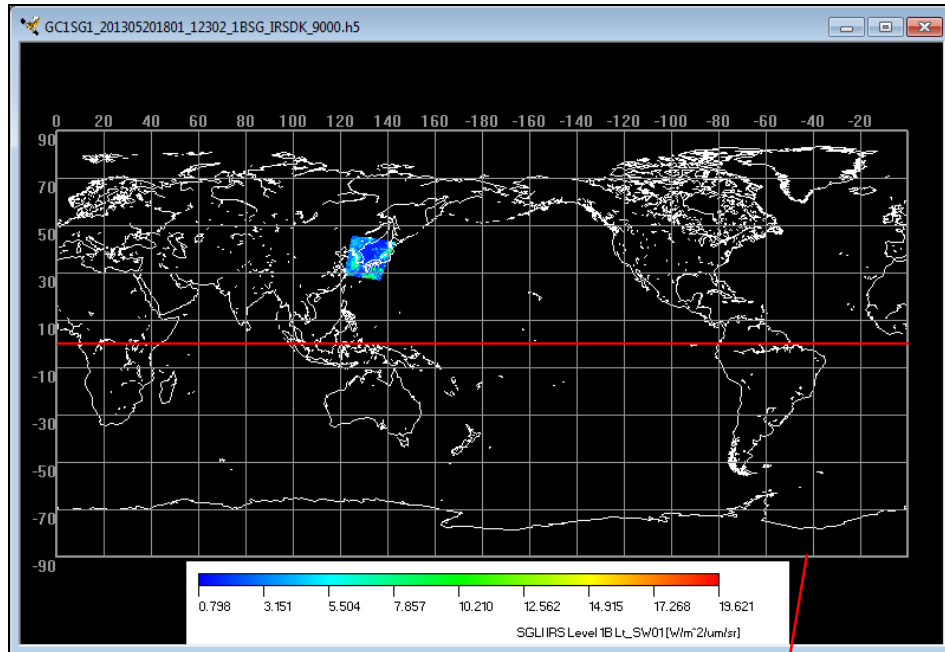
Click the [Move Right] icon

The map rotates minus 24 degrees
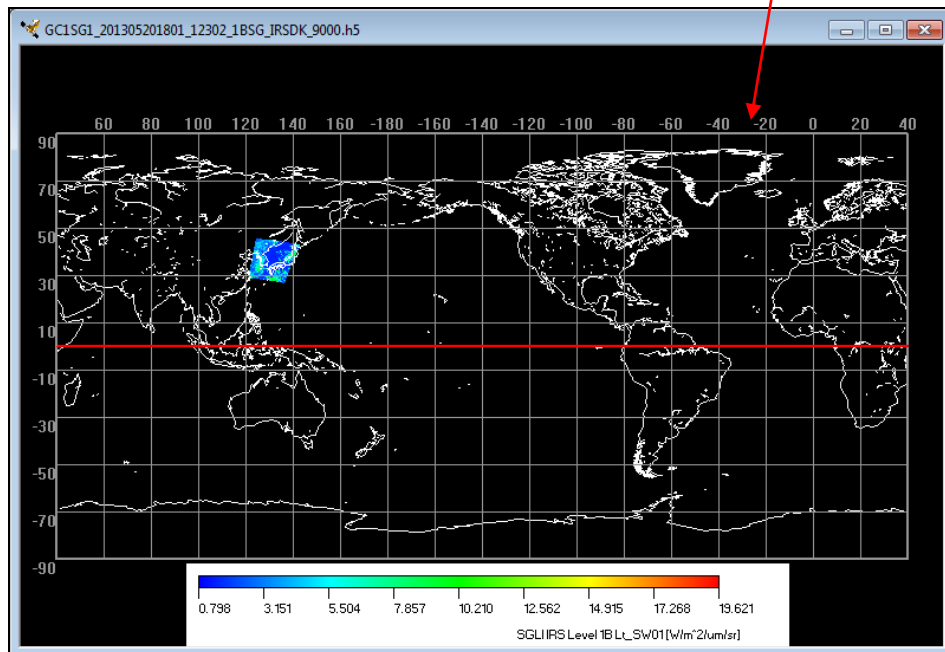
Figure 4.2.1-6 Move Right

(18) **[Move Left]** icon

  1) Click the [Move Left] icon.

  2) The view point can be scrolled to the left by 24 degrees. (The map rotates 24 degrees)

  Rotation to the left is shown in Figure 4.2.1-7.
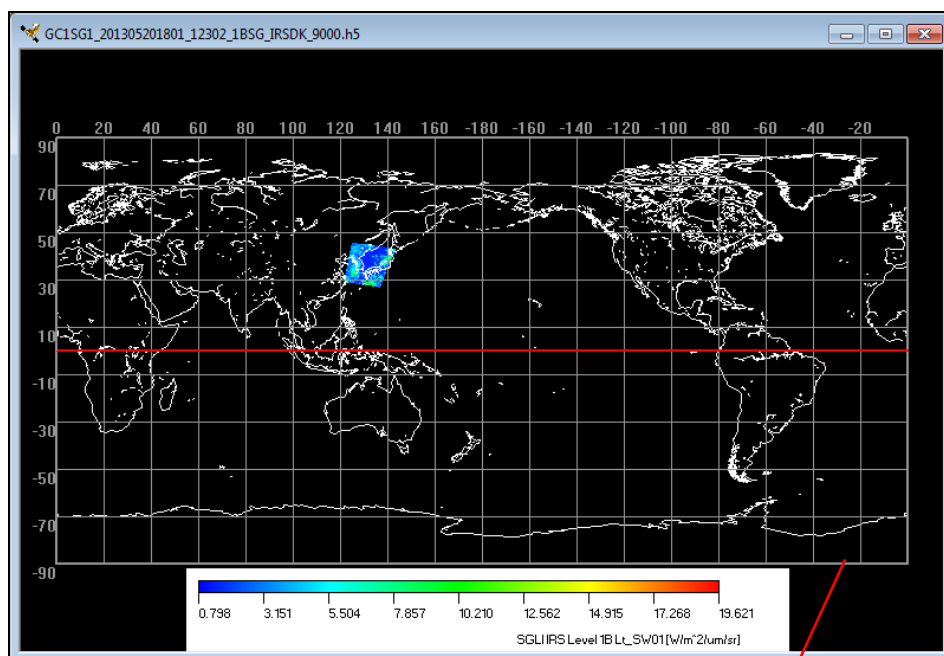
Click the [Move Left] icon   The map rotates 24 degrees.
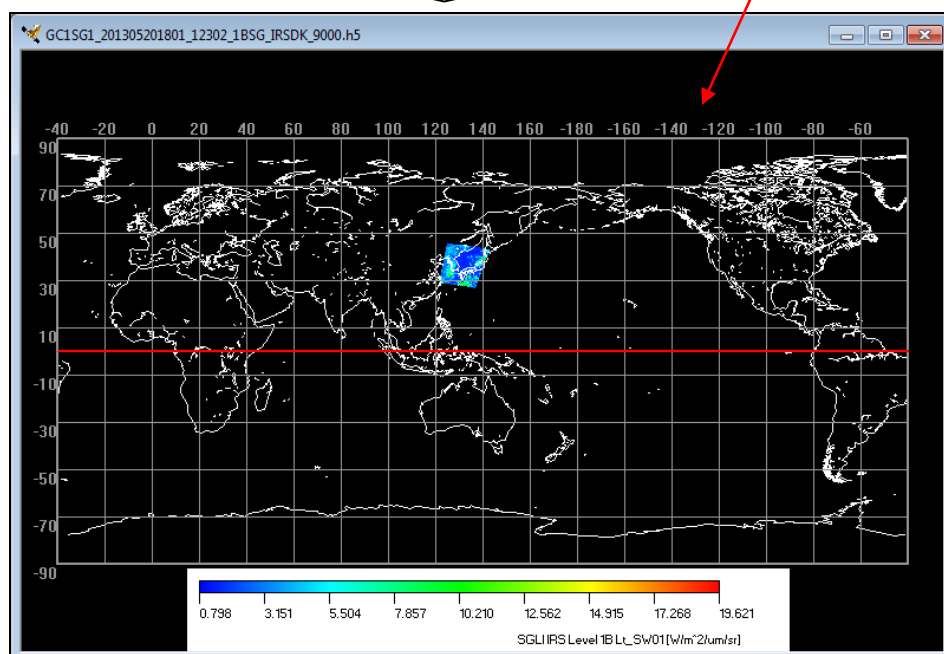
Figure 4.2.1-7 Move Left

(19) **[Move Up]** icon

　　1) Click the [Move Up] icon.

　　2) The map can be moved to the upper direction.

　　Moving to the upper direction is shown in Figure 4.2.1-8.
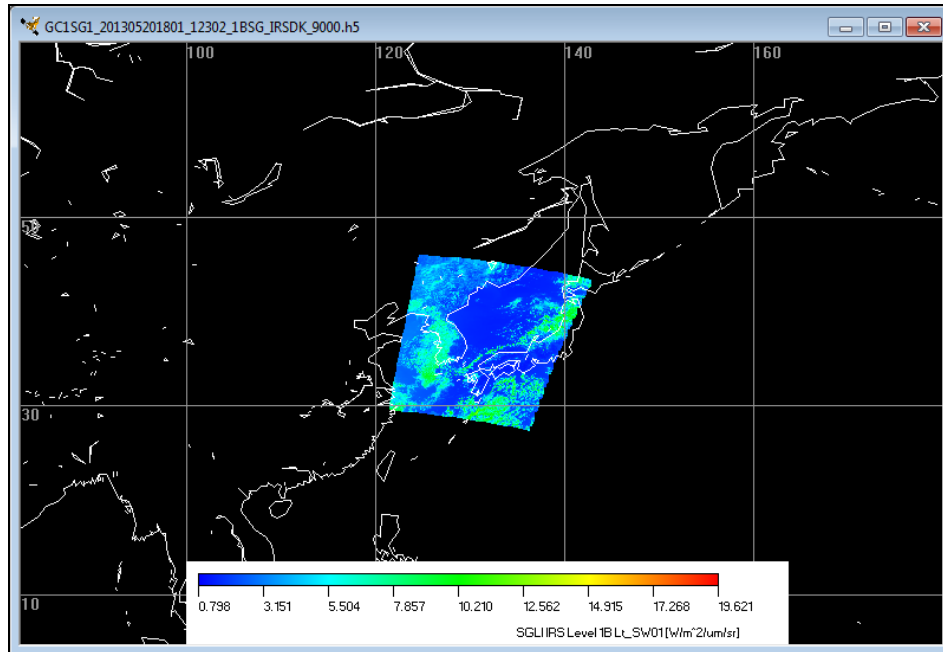
Click the [Move Up] icon.　　　　　　　　The map moves up.
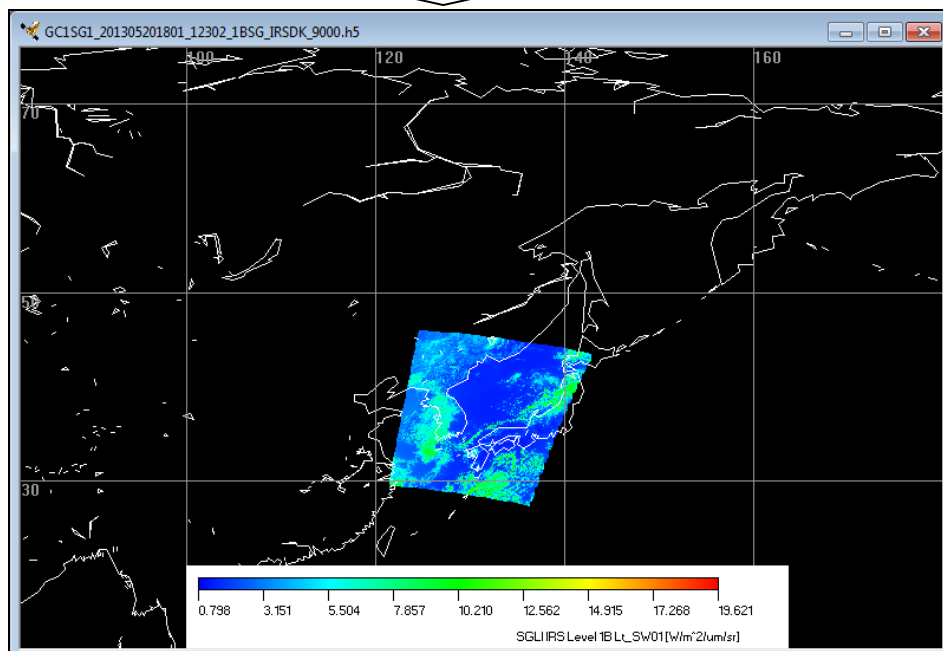
Figure 4.2.1-8 Move Up

(20) **[Move Down]** icon

   1) Click the [Move Down] icon.

   2) The map can be moved to the lower direction.

  Moving to the lower direction is shown in Figure 4.2.1-9.
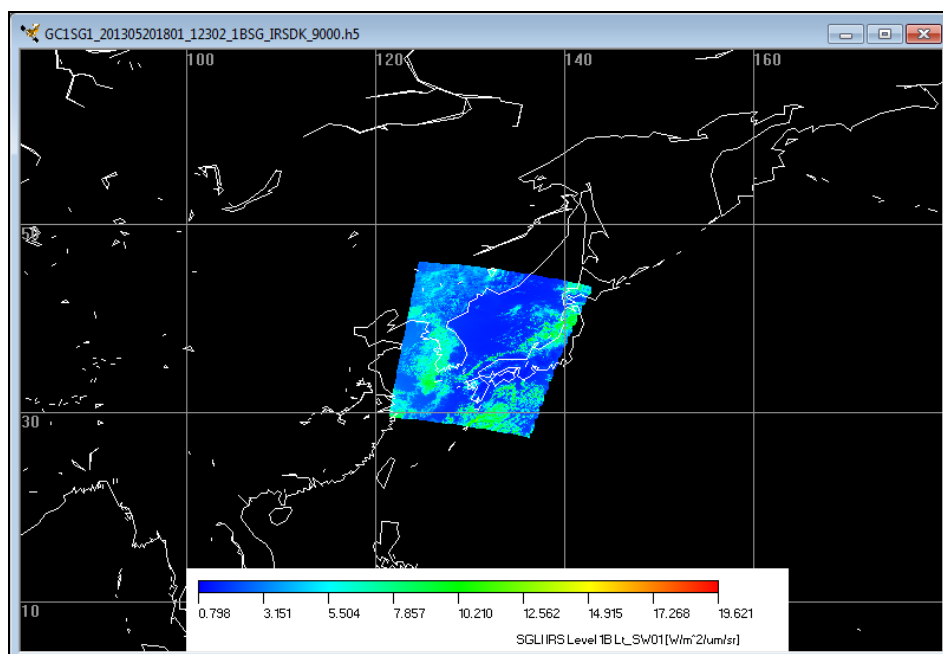
Click the [Move Down]   The map moves down.
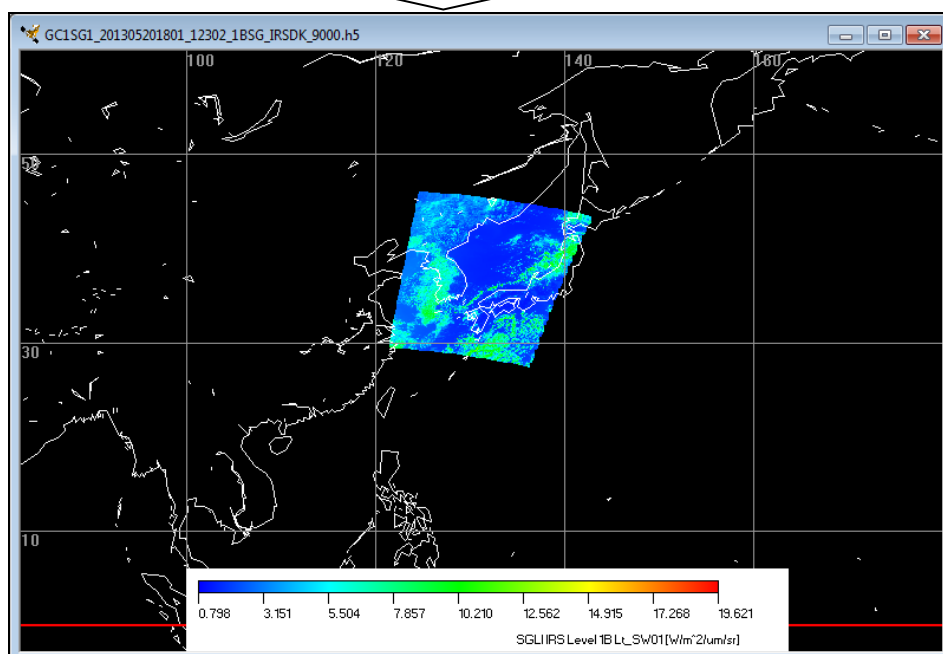
Figure 4.2.1-9 Move Down

(21) **[Back to Previous]** icon

  1) Click the [Back to Previous] icon.

  2) The map display can be returned to the state before the operation. But the window size is not changed.

(22) **[Equidistant Geographic]** icon

  1) Click the [Equidistant Geographic] icon.

  2) The image can be displayed in equidistant geographic.

  For the detail on the projection mapping, please refer to "4.2.4 Map Projection".

(23) **[Mercator Geographic]** icon

  1) Click the [Mercator Geographic] icon.

  2) The image can be displayed in Mercator projection.

  For the detail on the projection mapping, please refer to "4.2.4 Map Projection".

(24) **[PS North]** icon

  1) Click the [PS North] icon.

  2) The image can be displayed in Polar stereo projection (northern hemisphere).

  For the detail on the projection mapping, please refer to "4.2.4 Map Projection".

(25) **[PS South]** icon

  1) Click the [PS South] icon.

  2) The image can be displayed in in Polar stereo projection (southern hemisphere).

  For the detail on the projection mapping, please refer to "4.2.4 Map Projection".

(26) **[Orthographic]** icon

  1) Click the [Orthographic] icon.

  2) The image can be displayed in in Orthographic projection.

  For the detail on the projection mapping, please refer to "4.2.4 Map Projection".

(27) **[Sinusoidal Tile]** icon

  1) Click [Sinusoidal Tile] icon.

  2) The image can be displayed in in EQA (sinusoidal equal area) projection.

  For the detail on the projection mapping, please refer to "4.2.4 Map Projection".

(28) **[ZOOM Mode]** icon

  1) Click the [ZOOM Mode] icon.

  2) The area pointed by mouse can be enlarged.

  For the detail on enlarging the image, please refer to "4.2.7 ZOOM Mode".

(29) **[PAN Mode]** icon

　　1) Click the [PAN Mode] icon.

　　2) The map can be moved by pushing the left button of mouse

　　For the detail on moving the image, please refer to "4.2.8 PAN Mode".

(30) **[SELECT Mode]** icon

　　1) Click the [SELECT Mode] icon.

　　2) The area to be extracted can be selected by mouse.

　　For the detail on selecting the area, please refer to "4.2.9 SELECT Mode".

(31) **[Select Area]** icon

　　1) Click the [Select Area] icon.

　　2) The selected area can be specified by latitude and longitude.

　　For the detail on specifying the area, please refer to "4.2.10 Select Area".

4.2.2. Status Bar

When you select this menu, you can set the display/non-display of the status bar.

The window with status bar layout is shown in Figure 4.2.2-1, and the window without status bar layout is shown in Figure 4.2.2-2 respectively.
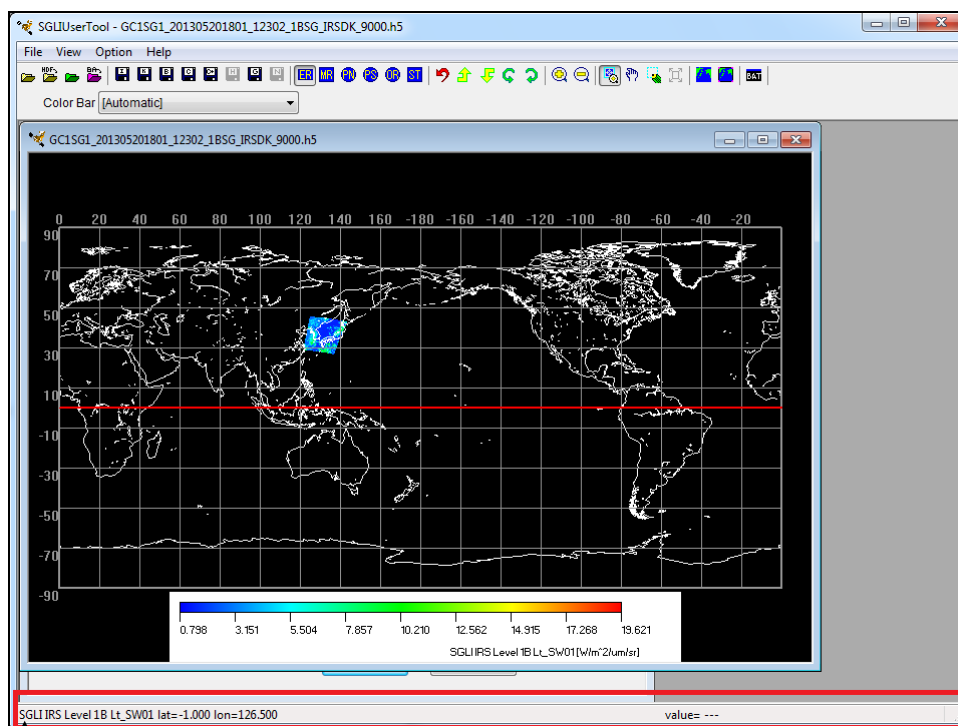
Status Bar   Figure 4.2.2-1 The Window with Status Bar Layout
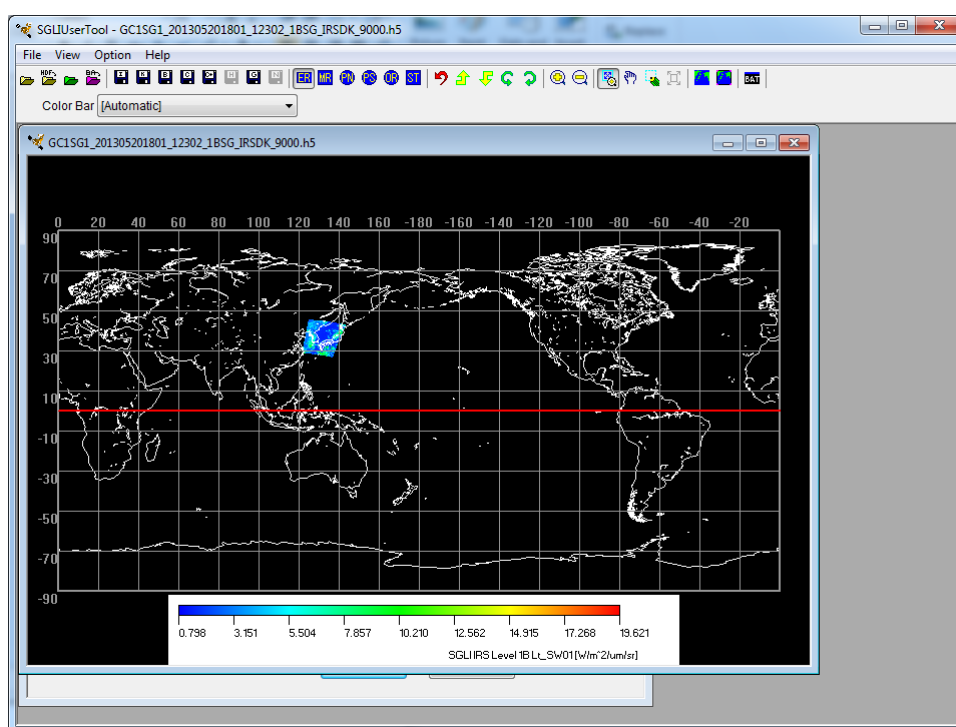
Figure 4.2.2-2 The Window without Status Bar Layout

The status bar displays the latitude and longitude value of the point on the map pointed by mouse operation and the observation value (converted value to physical quantity by scale factor).

The observation data is displayed only when the setting of resolution is mesh display. However, since the observation data value is not displayed when the image display is wide range, enlarge the area where observation data is confirmed.

When displaying the single channel, information of the displayed product such as sensor name, product level, and channel is displayed.

[The product information and Latitude/Longitude]

SGLI IRS Level 1B Lt_SW01 lat=--- lon=---	value= ---	

[The product information, Latitude/Longitude and observation data]

SGLI IRS Level 1B Lt_SW01 lat=43.900 lon=130.000	value= 2.842	

Table 4.2.2-1 Correspondence between the Display Method and Status Bar Display Item

Status bar display item	Single channel		RGB composite	
	-	Mesh display	-	Mesh display
Sensor name	○	○		
Product level	○	○		
Channel	○	○		
Observation Latitude/Longitude	○	○	○	○
Observation data		○		○

4.2.3. Zoom

When you click this menu, you can enlarge and reduce the map.

This menu provides the following five subsidiary menus as shown in Figure 4.2.3-1.

    (1) Automatic Adjustment

    (2) Zoom In

    (3) Zoom Out

    (4) Reset Image Window

    (5) Back to Previous
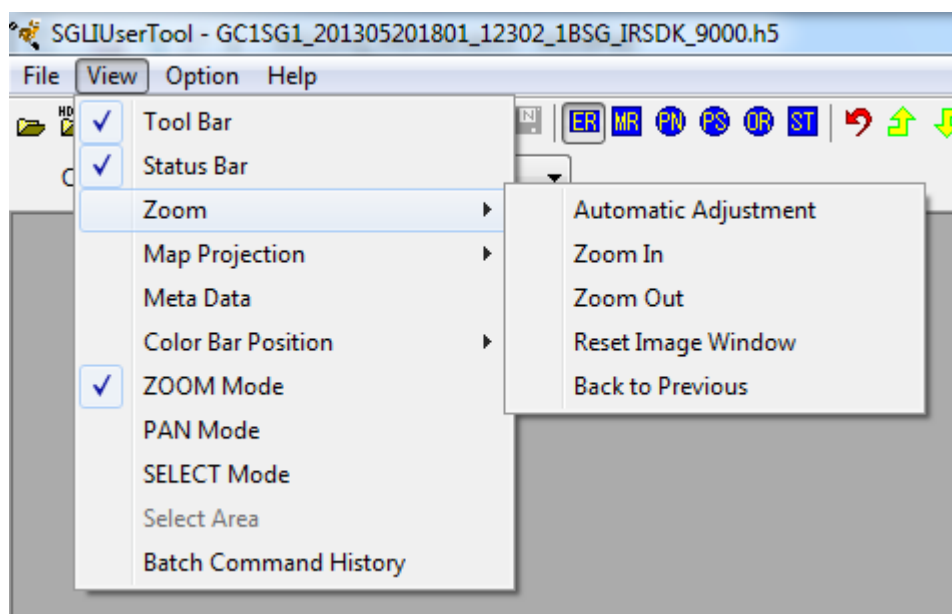
Figure 4.2.3-1 [Zoom] Subsidiary Menu

This menu corresponds to the following icons of the tool bar as shown in Figure 4.2.3-2.

Figure 4.2.3-2 [Zoom] Menu and Tool Bar

Each menu is described in the following section.

4.2.3.1. Automatic Adjustment

This subsidiary menu changes the enlargement ratio of the map automatically so that the display area of the map becomes the whole window.

If there is a margin in the display area, change the size of the window so that there is no margin.

Automatic adjustment is shown in Figure 4.2.3.1-1.
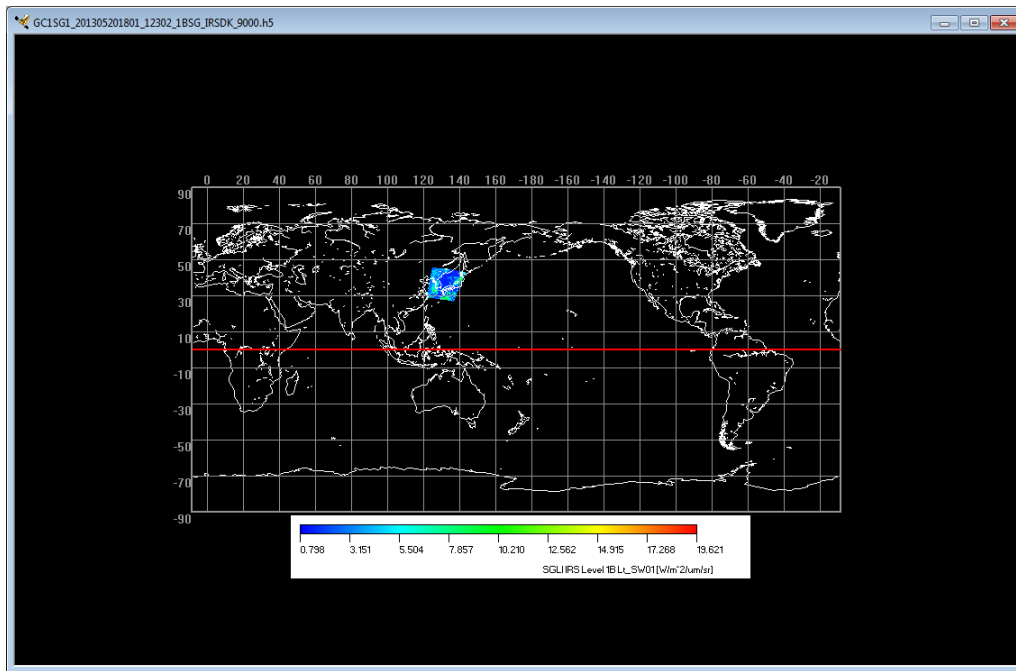
Adjusts the image to window size
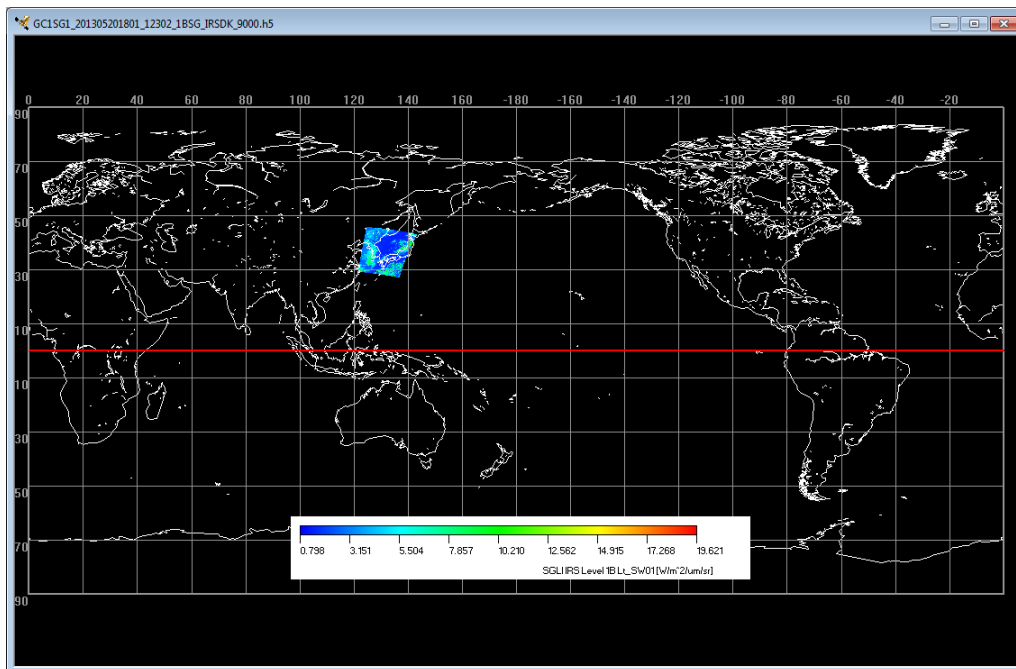
Figure 4.2.3.1-1 Automatic Adjustment

4.2.3.2. Zoom In

This subsidiary menu allows you to enlarge the map without changing the center of the displayed map.

Map displays of before and after enlargement are shown in Figure 4.2.3.2-1.

The highest magnification (for the initial displayed image) that can be enlarged is 250 times.
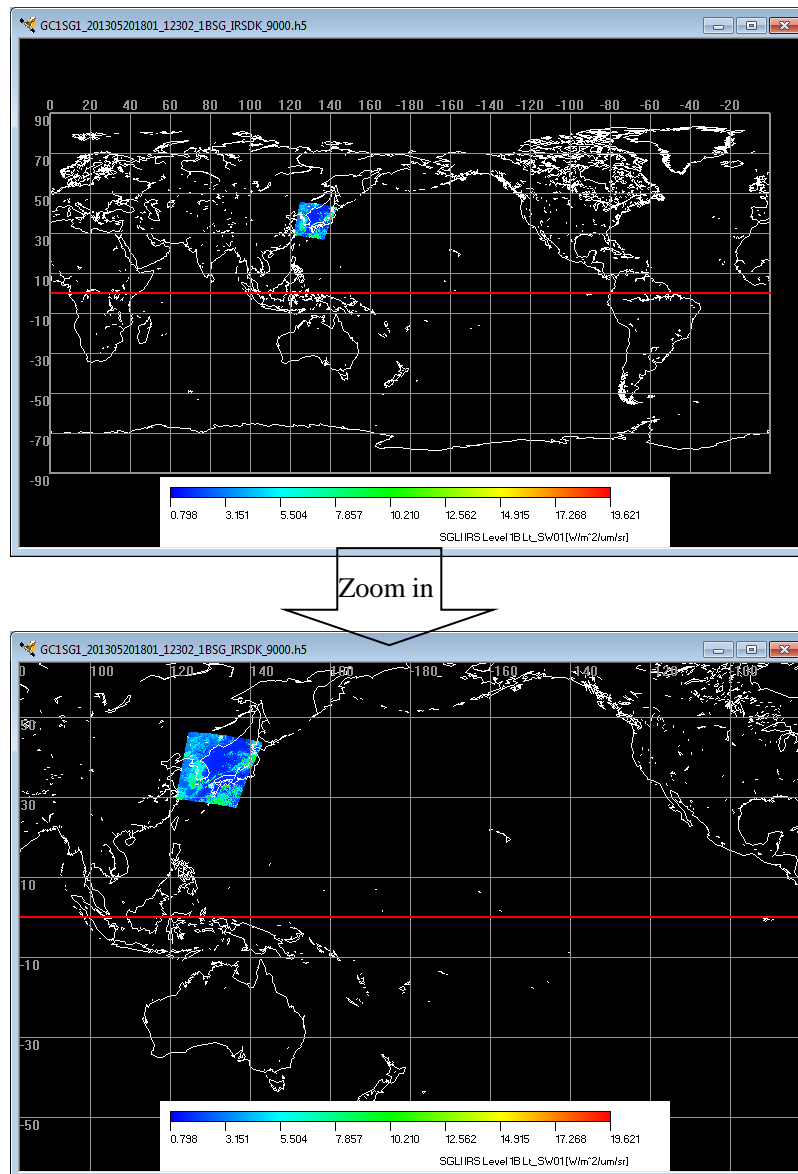
Figure 4.2.3.2-1 Zoom In

4.2.3.3. Zoom Out

This subsidiary menu allows you to reduce the map without changing the center of the displayed map.

Map displays of before and after reduction are shown in Figure 4.2.3.3-1
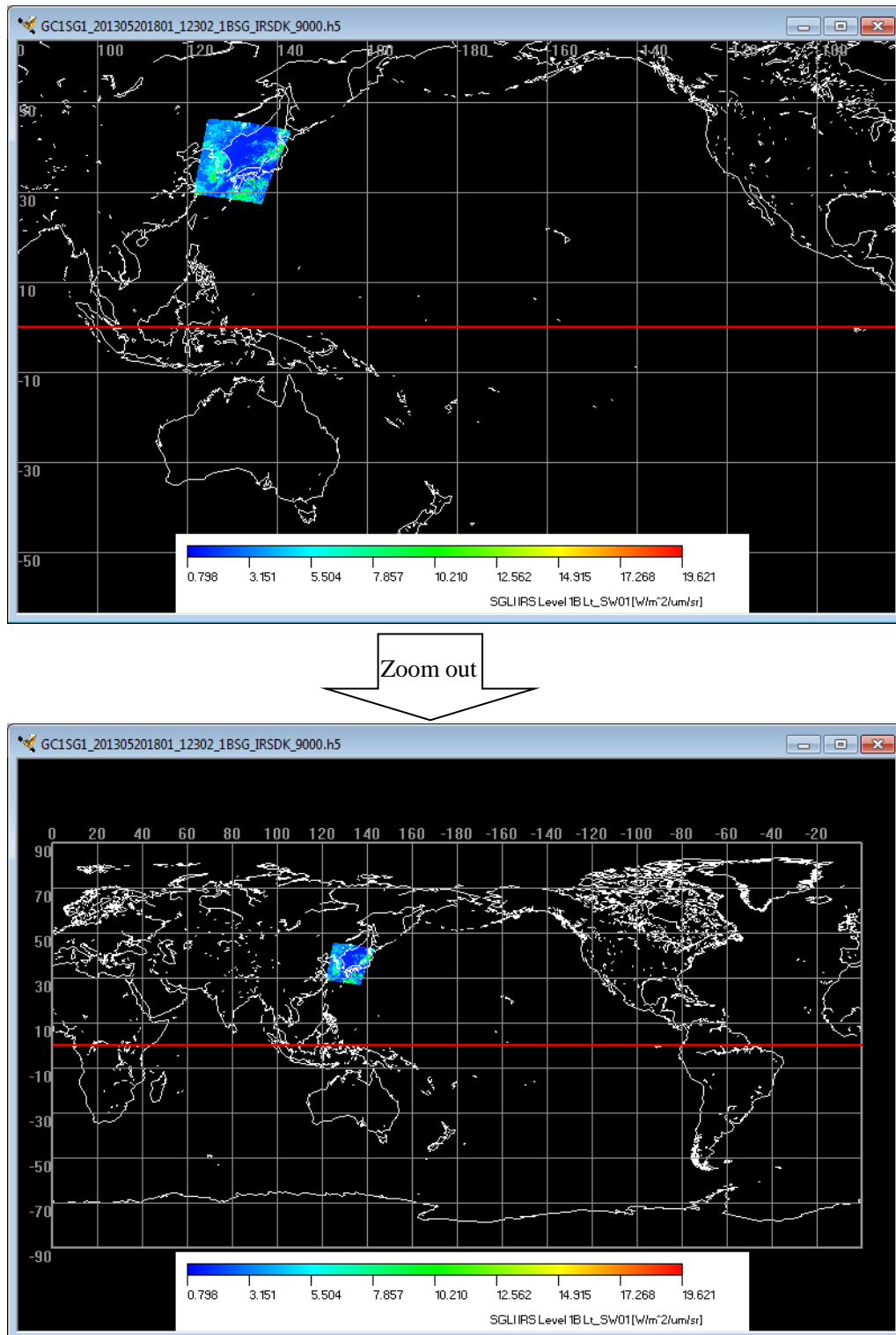
Figure 4.2.4.3-1 Zoom Out

4.2.3.4. Reset Image Window

This subsidiary menu allows you to redraw the map in the default display of specified map projection method. But the image window size is not changed.

4.2.3.5. Back to Previous

This subsidiary menu allows you to undo the display operation executed to the map display. But the image window size is not changed.

4.2.4. Map Projection

When you select this menu, you can specify the map projection to the map to be displayed on the product/map display window.

This menu provides the following five subsidiary menus.

(1) Equidistant Geographic
(2) Orthographic
(3) Polar Stereo Geographic
(4) Mercator Geographic
(5) Sinusoidal Tile

Subsidiary menu of this menu is shown in Figure 4.2.4-1 and each of them is described in the following section.
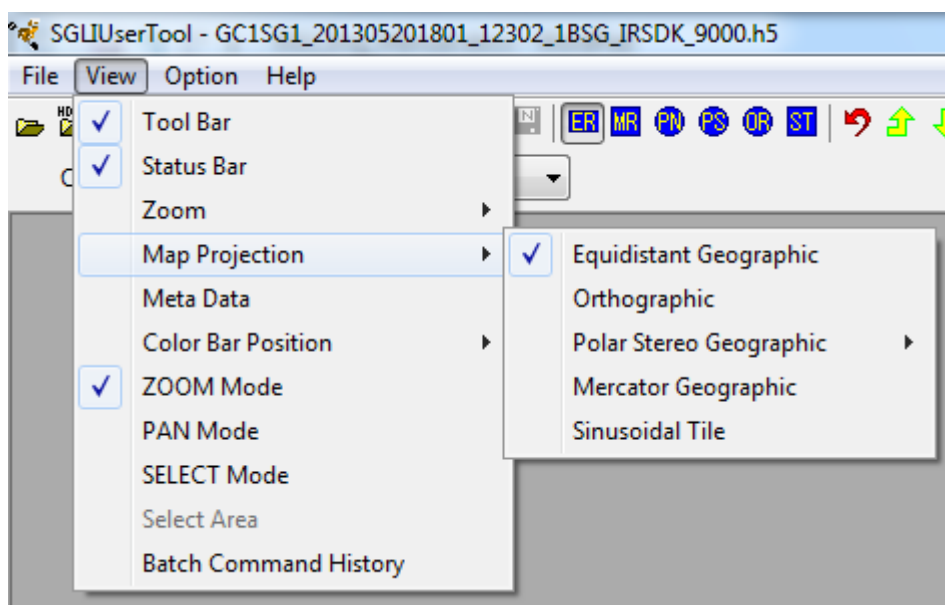
Figure 4.2.4-1 [Map Projection] Subsidiary Menu

This menu corresponds to the following icons of the tool bar as shown in Figure 4.2.4-2.
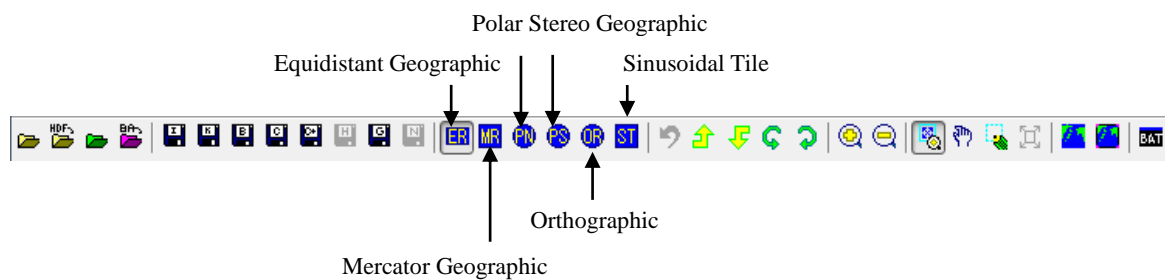
Figure 4.2.4-2 [Map Projection] Menu and Tool bar

For the map projection of SGLI product, please refer to "1.3 Data".

4.2.4.1. Equidistant Geographic

This subsidiary menu allows you to display the map by equidistant projection as shown in Figure 4.2.4-3.
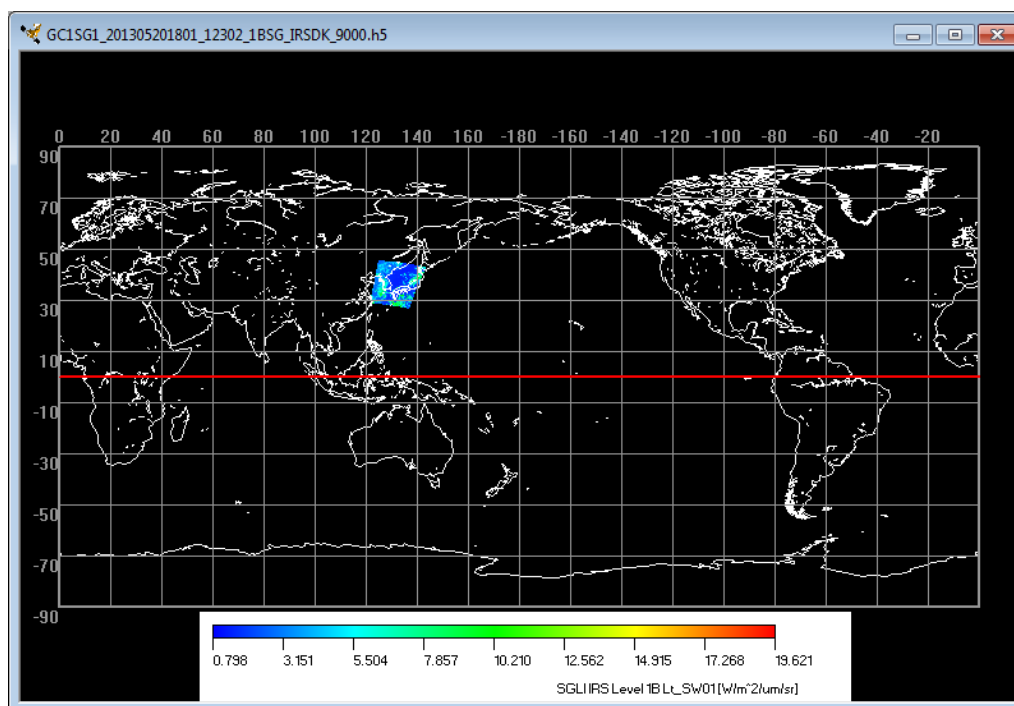

Figure 4.2.4-3 Sample Image of Equidistant Geographic

4.2.4.2. Orthographic

This subsidiary menu allows you to display the map by orthographic projection as shown in Figure 4.2.4-4.
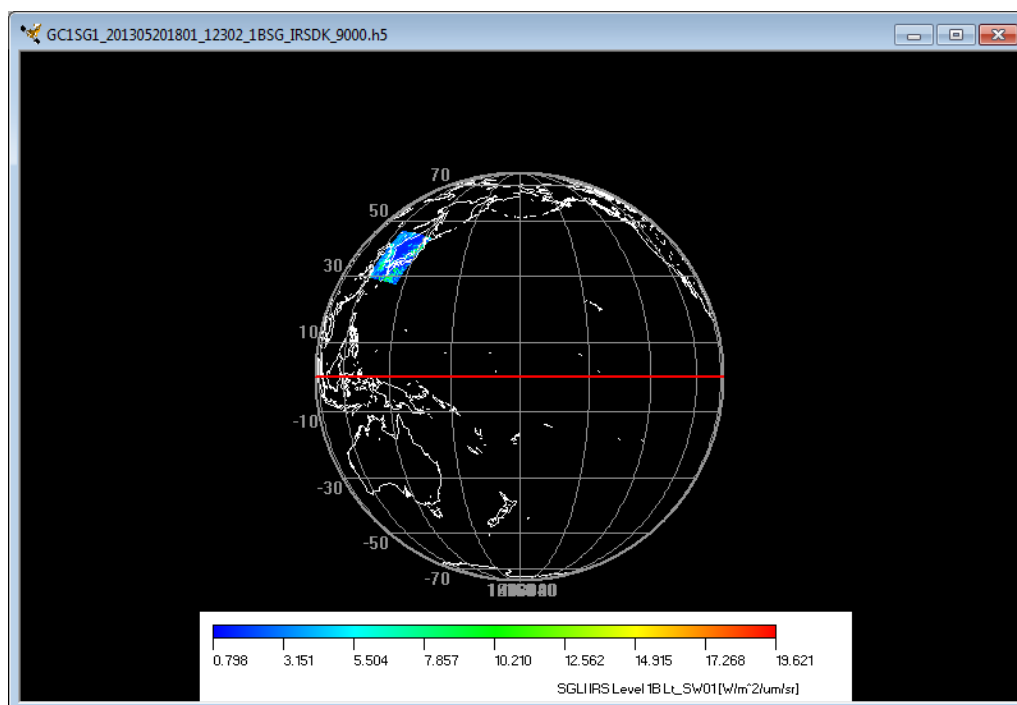
Figure 4.2.4-4 Sample Image of Orthographic

4.2.4.3. Polar Stereo Geographic

This subsidiary menu allows you to display the map by polar stereo as shown in Figure 4.2.4-5.

This menu provides the following four subsidiary menu, and each of them is described in the following section.

    (1) Northern Hemisphere

    (2) Southern Hemisphere

    (3) Both

    (4) Standard longitude
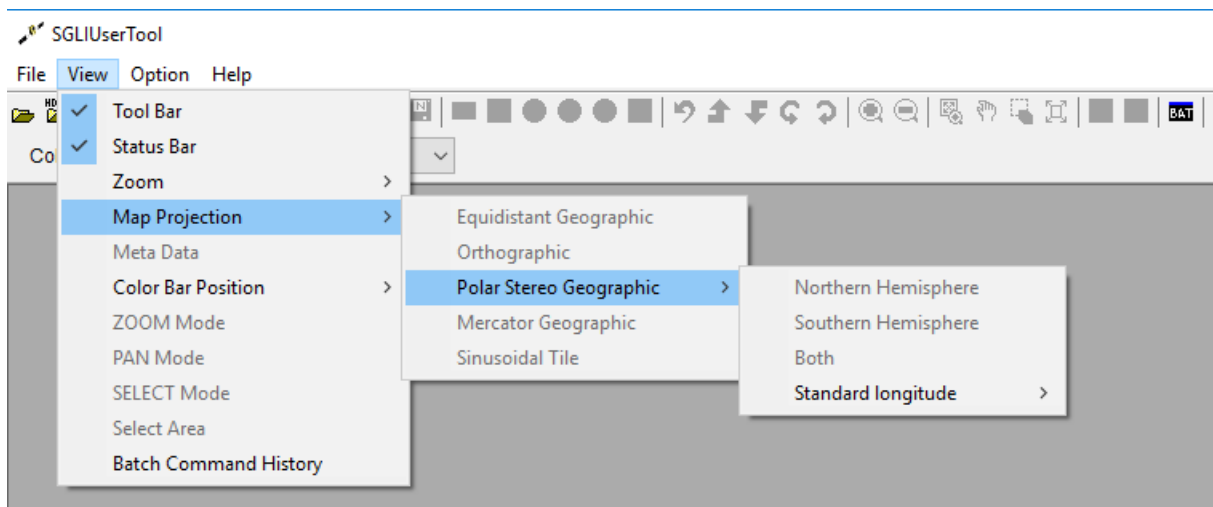
Figure 4.2.4-5 [Polar Stereo Geographic] Subsidiary Menu

(1) Northern Hemisphere

This subsidiary menu allows you to display the map of Northern hemisphere by polar stereo.

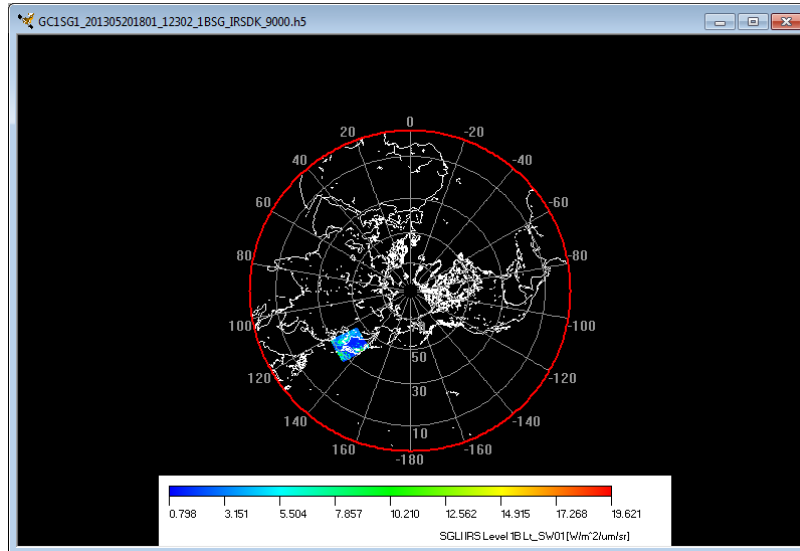Product/map display window displayed by polar stereo is shown in Figure 4.2.4-6.

Figure 4.2.4-6 Sample Image of Northern Hemisphere

(2) Southern Hemisphere

This subsidiary menu allows you to display the map of Southern hemisphere by polar stereo.

Product/map display window displayed by polar stereo is shown in Figure 4.2.4-7.
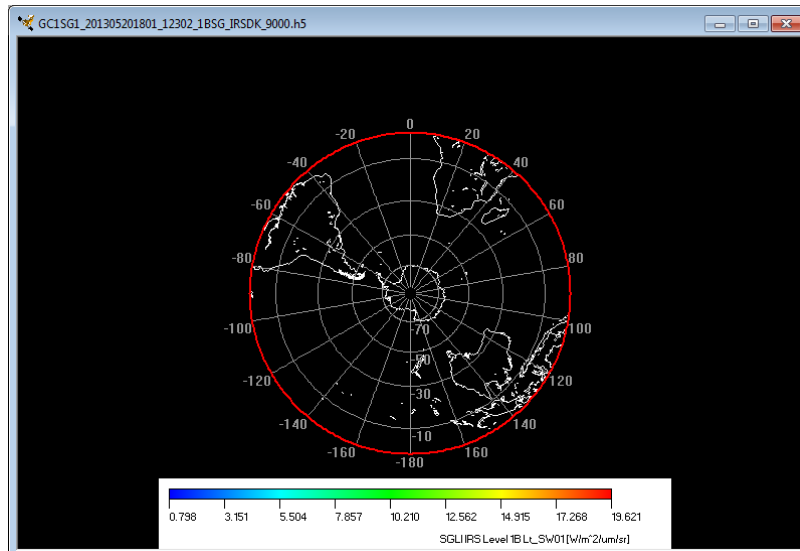

Figure 4.2.4-7 Sample Image of Southern Hemisphere

(3) Both

This subsidiary menu allows you to display the map of both hemisphere by polar stereo.

Product/map display window displayed by polar stereo is shown in Figure 4.2.4-8.
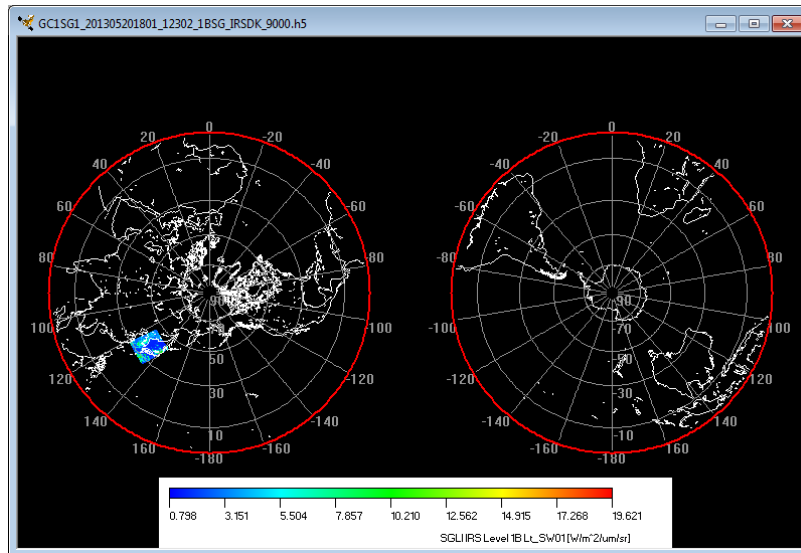

Figure 4.2.4-8 Sample Image of Southern Hemisphere and Northern Hemisphere

(4) Standard longitude

This subsidiary menu allows you to display the map by specifying the standard longitude of the map displayed by Polar stereo projection.

There are eight kinds of the standard longitude that you can select as follows:

1) 0° (default)

2) 45°

3) 90°

4) 135°

5) 180°

6) -135°

7) -90°

8) -45°

Product/map of the Northern hemisphere in standard longitude 0° (zero degree) displayed in the polar stereo projection is shown in Figure 4.2.4-9.
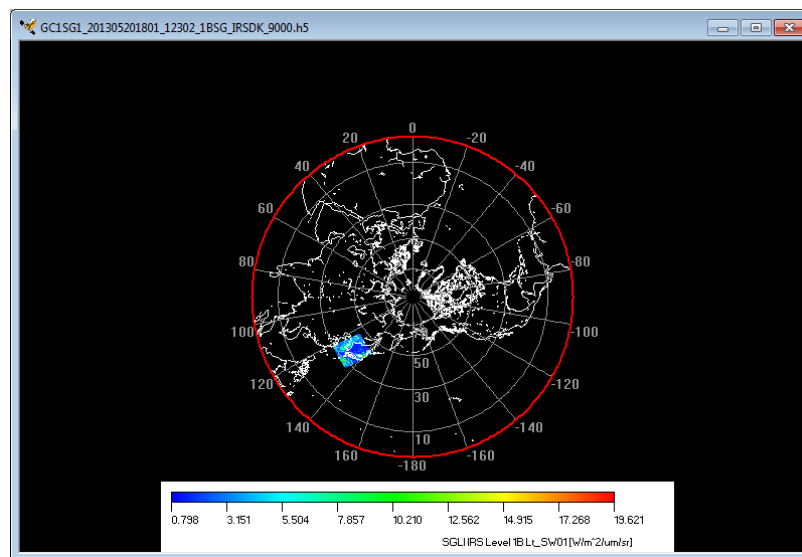

Figure 4.2.4-9 Sample Image of the Northern Hemisphere in Standard Longitude 0°

Product/map of the Northern Hemisphere in standard longitude 90° displayed in the polar stereo projection is shown in Figure 4.2.4-10.
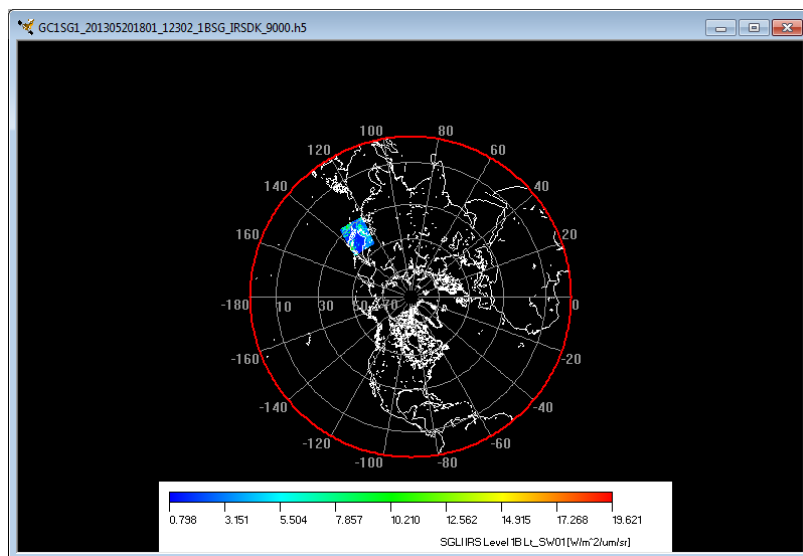

Figure 4.2.4-10 Sample Image of the Northern Hemisphere in Standard Longitude 90°

4.2.4.4. Mercator Geographic

This subsidiary menu allows you to display the map in Mercator geographic projection.

Product/map display window displayed in Mercator geographic projection is shown in Figure 4.2.4-11.
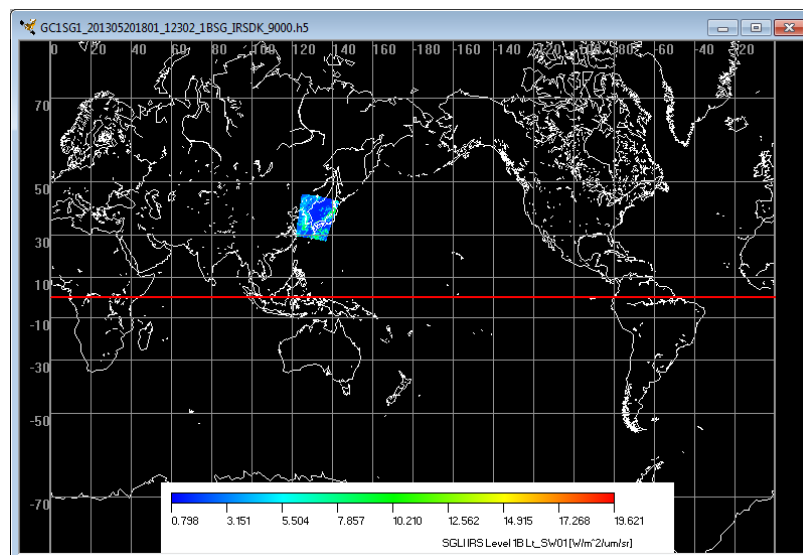

Figure 4.2.4-11 Sample Image of Mercator Geographic

4.2.4.5. Sinusoidal Tile

This subsidiary menu allows you to display the map in Sinusoidal tile projection.

Product/map display window displayed in EQA (sinusoidal equal area) projection is shown in Figure 4.2.4-12.
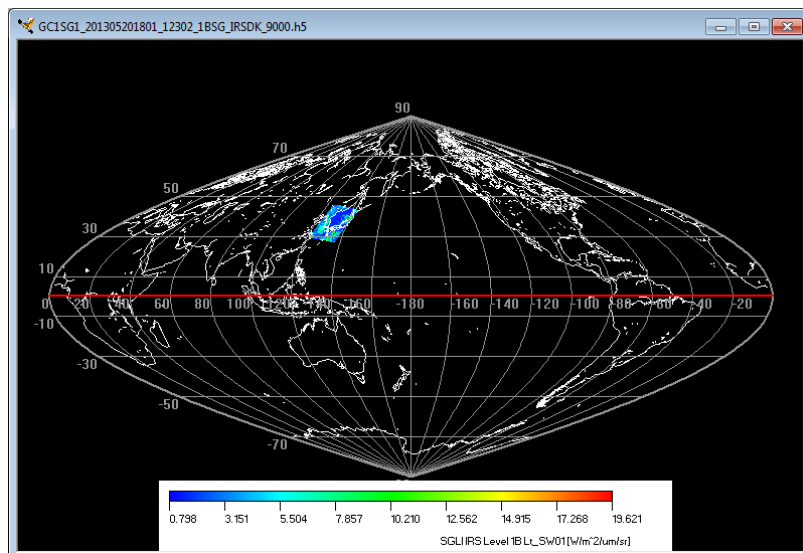
Figure 4.2.4-12 Sample Image of EQA projection

4.2.5. Meta Data

When you select this menu, [Meta Information Dialog] as shown in Figure 4.2.5-1 is displayed to confirm the Meta data of products.

[Meta Data] pull-down menu   [Close] button

Figure 4.2.5-1 Meta Information Dialog

■ **[Meta Data]** pull-down menu

   (1) Select the product file to display Meta data.

■ **[Close]** button

   (1) Click the [Cancel] button.

   (2) All settings shown in the dialog are canceled and the dialog is closed.

4.2.6. Color Bar Position
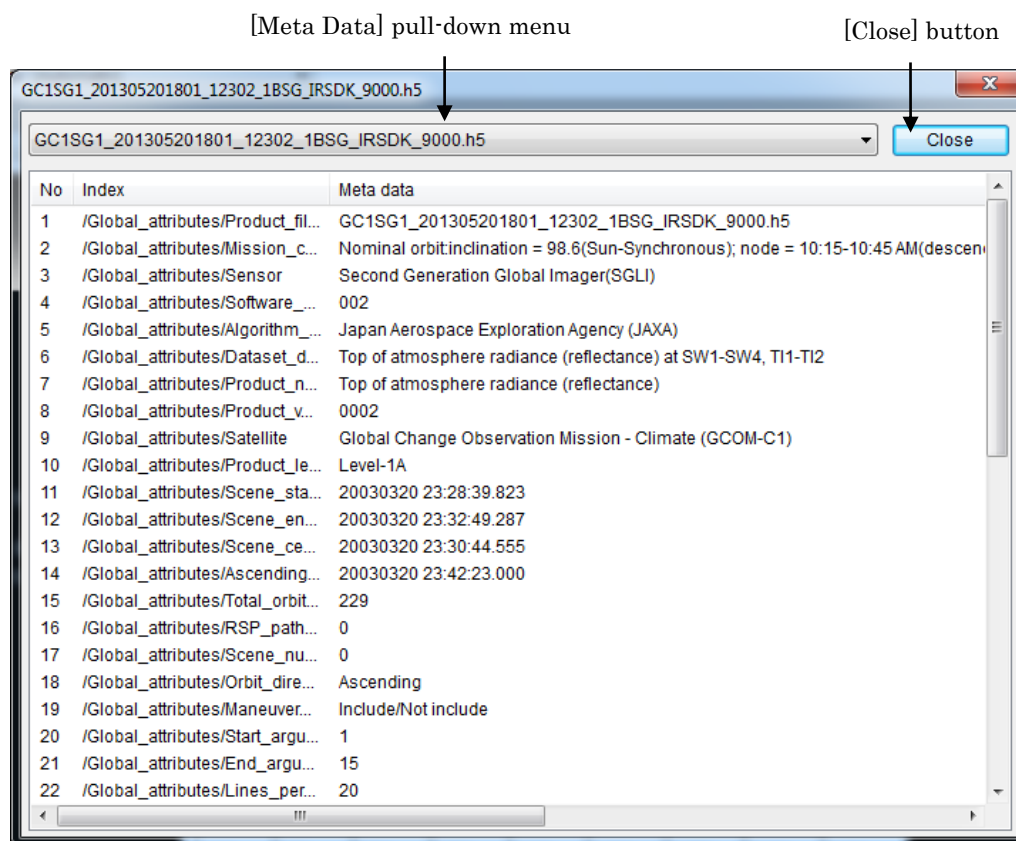
This menu allows you to change the display method of color bar.

This menu provides the following two subsidiary menus.

(1) Vertical

(2) Horizontal

(1) Vertical

You can display the color bar vertically.

Product/map display window displaying the color bar vertically is shown in Figure 4.2.6-1.
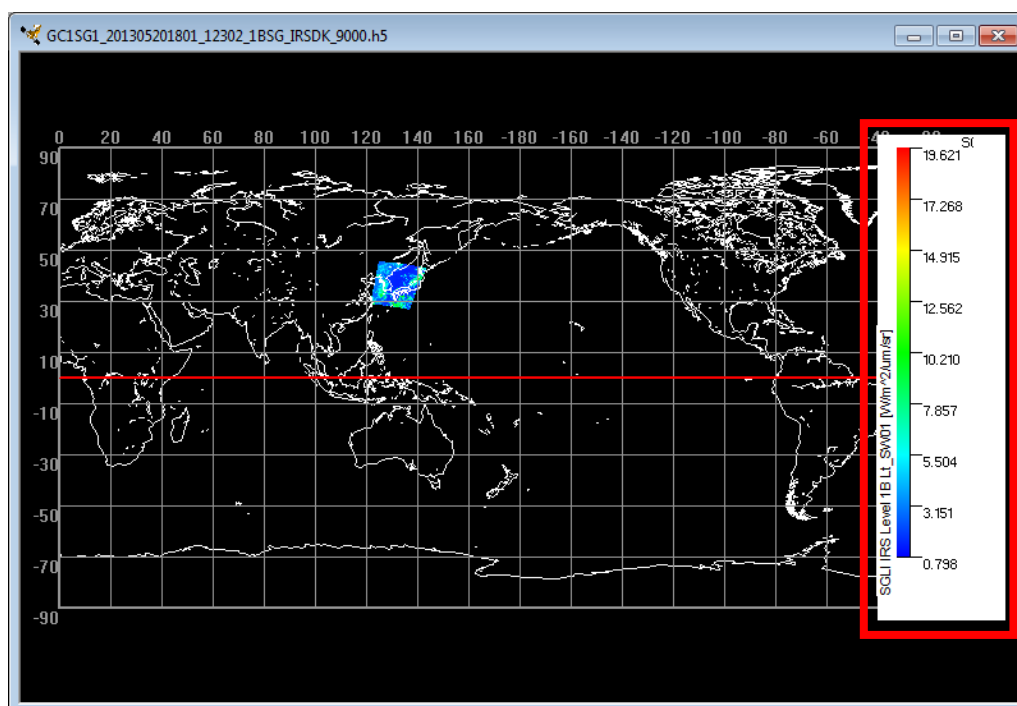

Figure 4.2.6-1 Map Display where Color Bar is Vertically Displayed

(2) Horizontal

You can display the color bar horizontally.

Product/map display window displaying the color bar horizontally is shown in Figure 4.2.6-2.
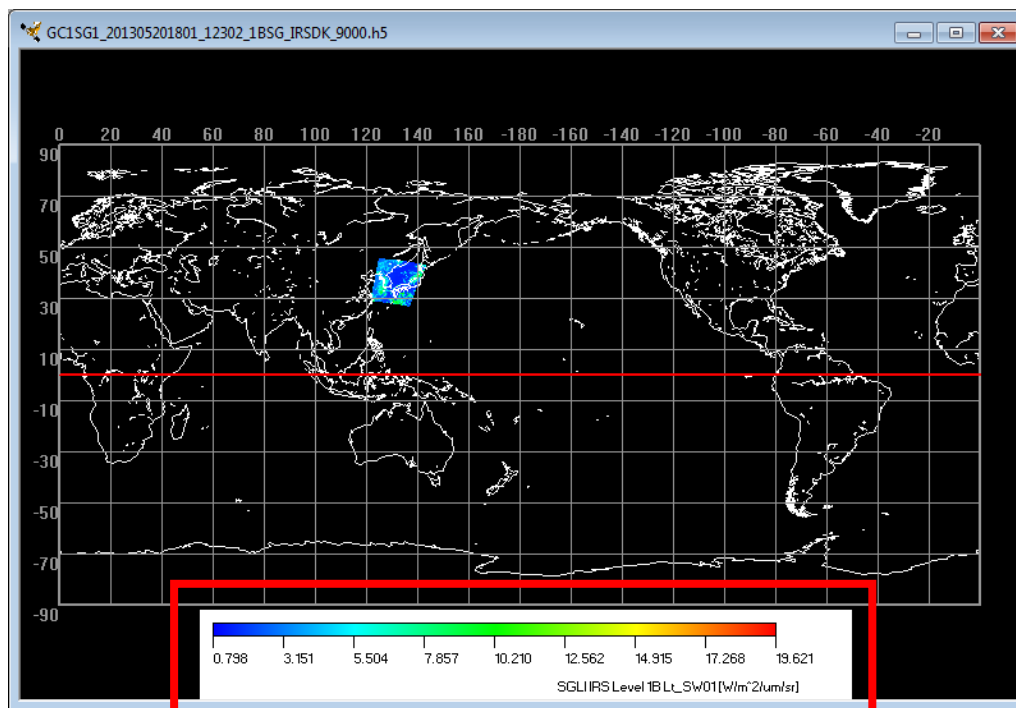
Figure 4.2.6-2 Map Display where Color Bar is Horizontally Displayed

4.2.7. ZOOM Mode

This menu allows you to enlarge the specified area by mouse operation.

When this mode is selected, the icon of the tool bar shown in Figure 4.2.7-1 is chosen.
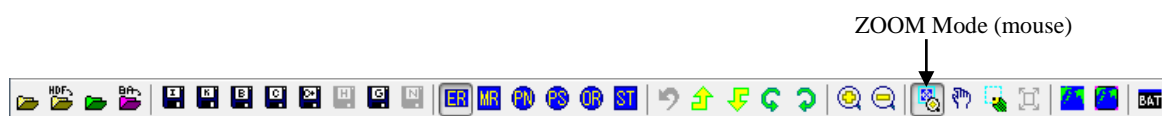
ZOOM Mode (mouse)

Figure 4.2.7-1 [Zoom Mode] Menu and Tool Bar

To enlarge the image using the mouse, drag the mouse to the end position while holding down the left button of the mouse at the specified start position, and release the left button of the mouse at the specified end position.

If the area is specified, the rectangle as shown in Figure 4.2.7-2 is displayed, and the area is enlarged automatically.
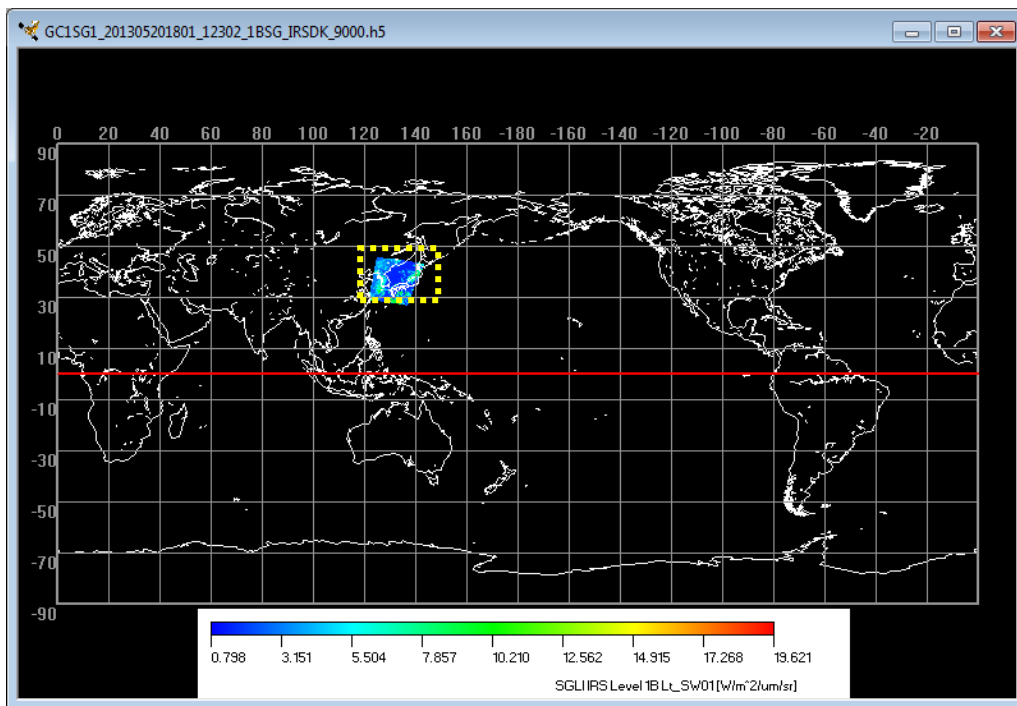
Figure 4.2.7-2 Specified Area on the Map

Zoom In
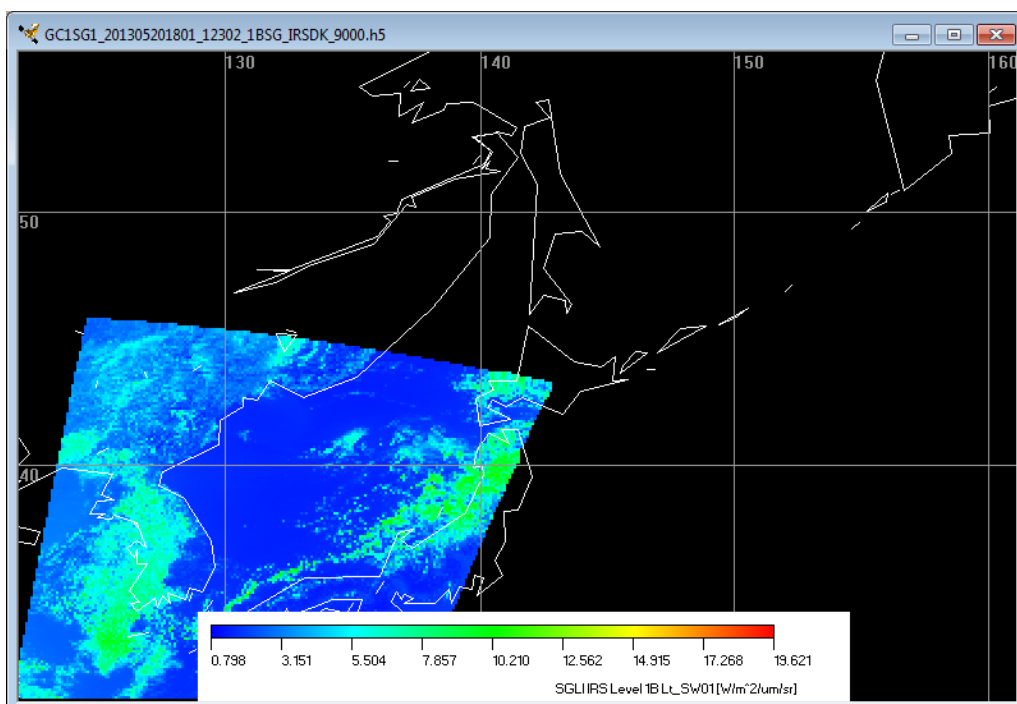
Figure 4.2.7-3 Enlarged Image

4.2.8. PAN Mode

This menu allows you to move the map vertically and horizontally using mouse.

When this mode is selected, the icon of the tool bar shown in Figure 4.2.8-1 is chosen.

PAN Mode (mouse)

Figure 4.2.8-1 [PAN Mode] Menu and Tool Bar

To move the map using the mouse, drag the mouse while holding down the left button of the mouse on the map. In this mode, the mouse pointer becomes the mark of a hand.

4.2.9. SELECT Mode

This mode allows you to specify the area to be extracted using mouse.

You can save the observation data (the area specified in this mode) to the specified format (Image/ KML/Binary/CSV/HDF/GeoTiff/NetCDF).

When this mode is selected, the icon of the tool bar shown in Figure 4.2.9-1 is chosen.

SELECT Mode (mouse)

Figure 4.2.9-1 [SELECT Mode] Menu and Tool Bar

To specify the extracted area using the mouse, drag the mouse to the end position while holding down the left button of the mouse at the specified start position, and release the left button of the mouse at the specified end position.

If the area is specified, the rectangle as shown in Figure 4.2.9-2 is displayed.
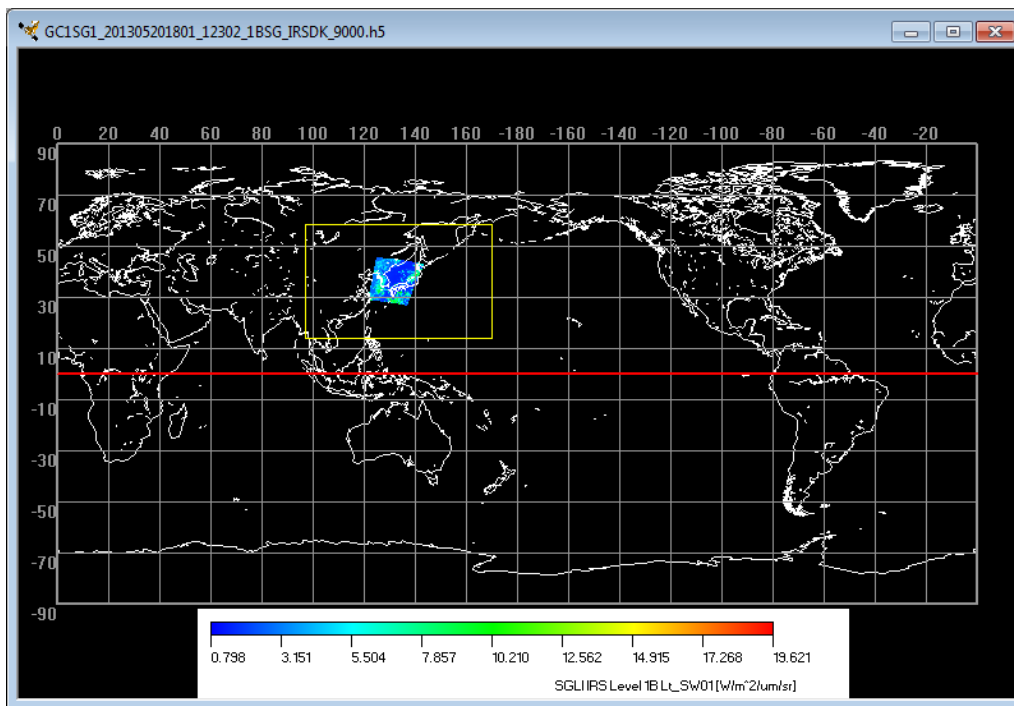
Figure 4.2.9-2 Specified Area on the Map

4.2.10. Select Area

This menu allows you to specify the selected area by latitude and longitude.

When you select this menu, the [Select Area] dialog shown in Figure 4.2.10-2 is displayed.

You can also select it from the tool bar shown in Figure 4.2.10-1.

Figure 4.2.10-1 [Map Selection Area] Menu and Toolbar

You can save the observation data (the area specified in this mode) in the specified format (Image/ KML/Binary/CSV/HDF/GeoTiff/NetCDF).
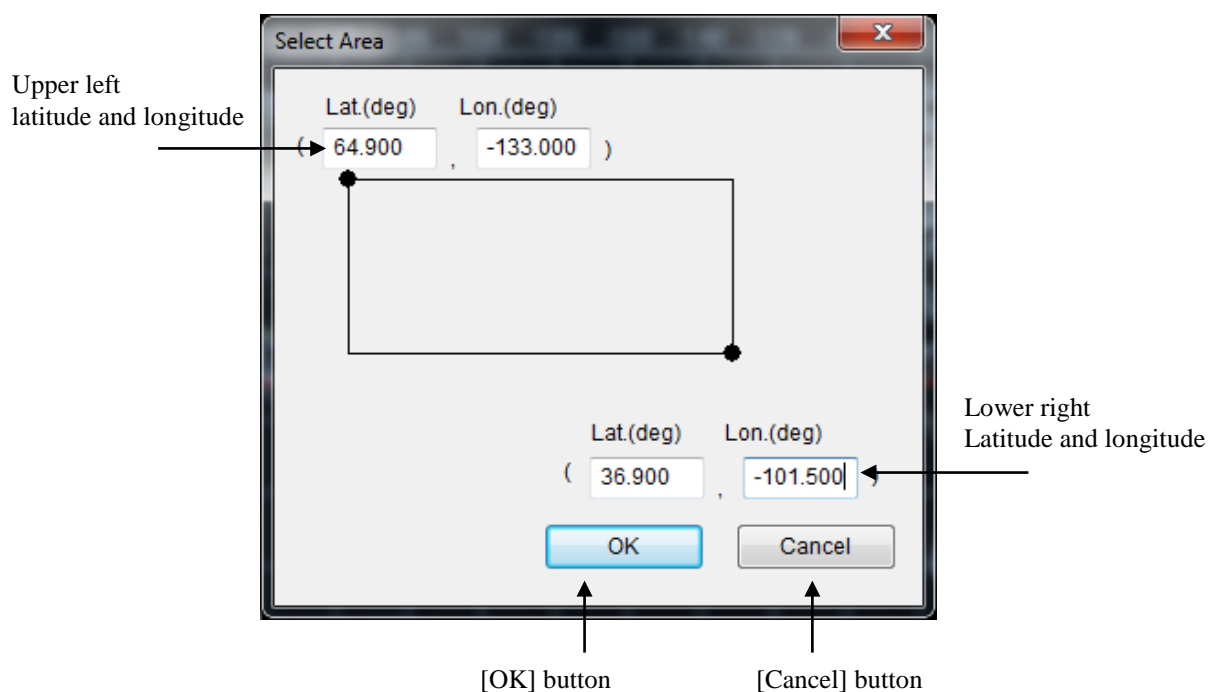
Figure 4.2.10-2 Select Area Dialog

■ **[Upper left latitude and longitude]**

  (1) Input the the latitude and longitude on the upper left of the specified range. The input unit is deg (degree).

■ **[Lower right latitude and longitude]**

  (1) Input the the latitude and longitude on the lower right of the specified range. The unit is deg (degree).

■ **[OK]** button

  (1) Click the [OK] button, the rectangle as shown in Figure 4.2.12-3 is displayed.
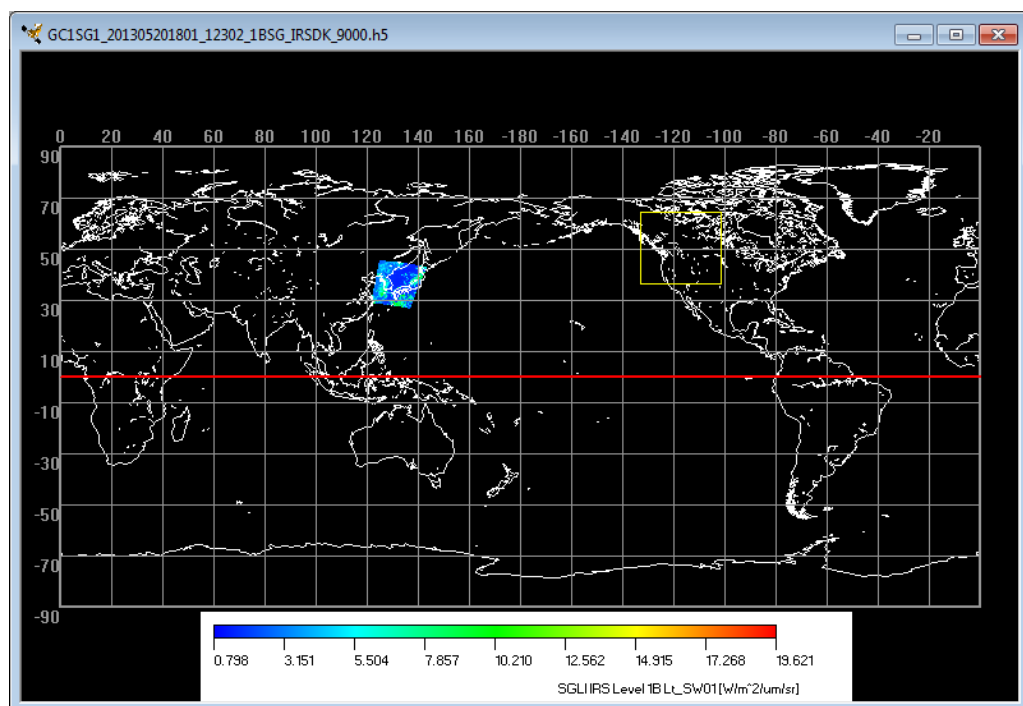
Fig. 4.2.10-3 Domain Clip

■ **[Cancel]** button

  (1) Click the [Cancel] button

  (2) All settings shown in the dialog are canceled and the dialog is closed.

4.2.11. Batch Command History

This menu allows you to display the operation history for the batch processing.

[Batch Command History] dialog is shown in Figure 4.2.11-2.

You can also choose it from the icon of the tool bar shown in Figure 4.2.11-1.

Batch Command History

Figure 4.2.11-1 [Batch Command History] Tool Bar

You can use the operation history displayed in this menu when batch processing is executing.

Figure 4.2.11-2 Batch Command History Dialog
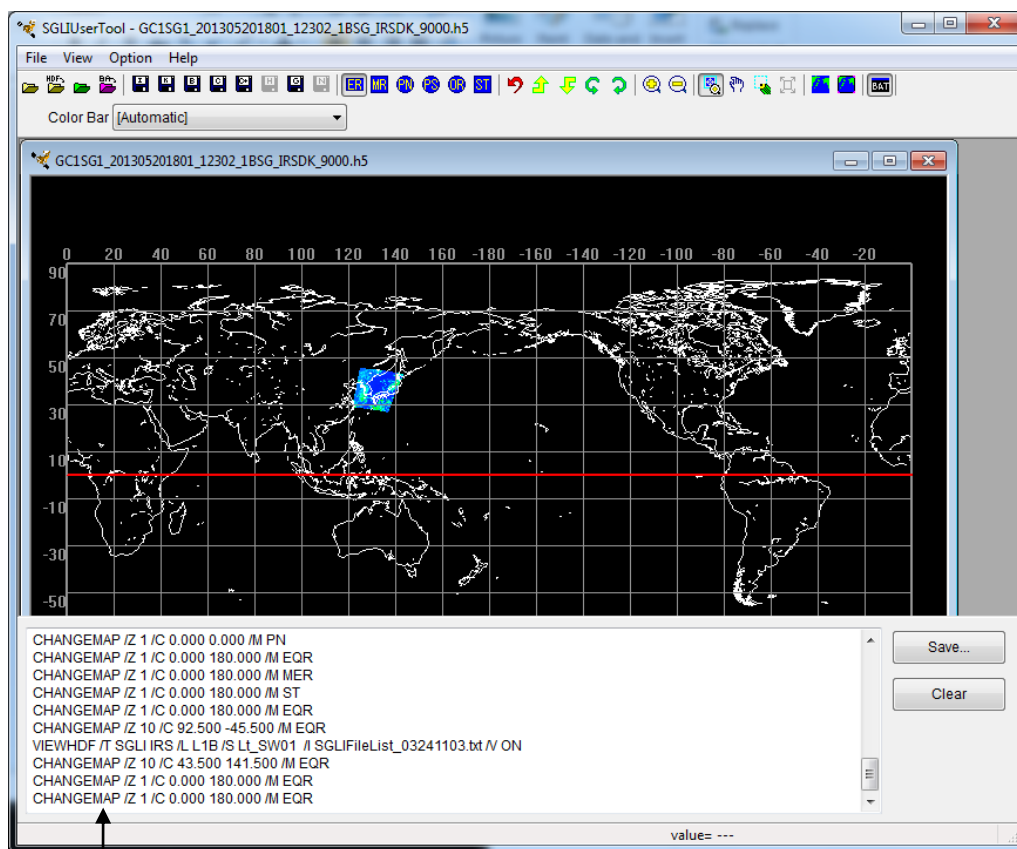
List of the
command history

■ **[Save]** button

   (1) When you click this button, the dialog for saving the content(s) listed in the [Batch command history] to the batch file is displayed.

■ **[Clear]** button

   (1) When you click this button, the content listed in the [Batch command history] is cleared.

4.3. Option Menu

This menu provides the following six subsidiary menus.

(1) Edit Color Bar Table

(2) Edit Look Up Table

(3) User Setting

(4) Image Output Setting

(5) Map Layer Setting

(6) Map File Setting

Option menu is shown in Figure 4.3-1, and each menu is described in the following section.
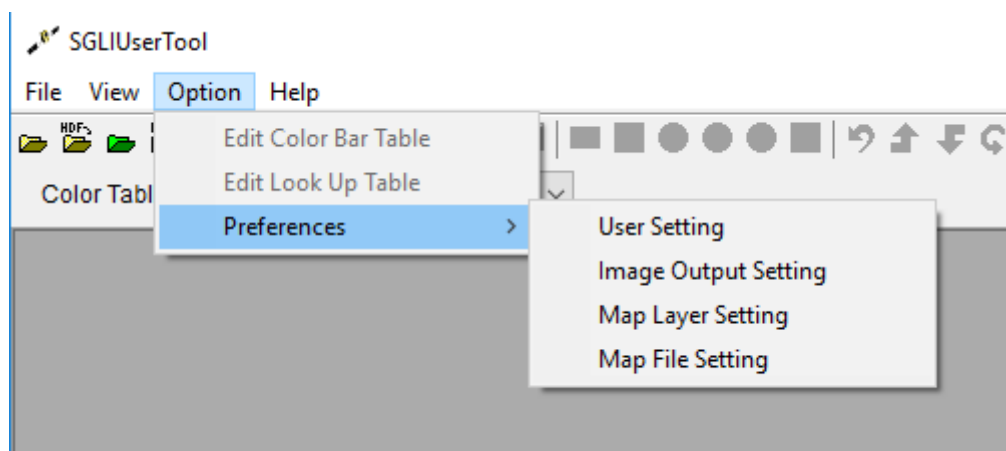
Figure 4.3-1 Option Menu Pull-Down

4.3.1. Edit Color Bar Table

When you select this menu, the [Color Bar Table Edit] dialog shown in Figure 4.3.1-1 is displayed to change settings of the color bar table and create the new table.

This menu is active only when the "Single channel" image is displayed.

[Graph Type] pull down

[No. of Points] pull down

[Color Bar Title]

[Red/Green/Blue] Color Slide

[Red/Green/Blue] Count

[Get Max/Min] button

[Linear/Log] radio button

[Get 3-sigma] button

[Color Bar Table File Name] field

[Save] button

[Ref.] button

[Interpolation] button

[OK] button   [Cancel] button

Figure 4.3.1-1 Color Bar Table Edit Dialog

■ **[No. of Points]** pull-down

Selects the number of reference points for count value from this pull-down menu.

This pull-down menu provides the following four kinds of points.

(1) 2 points

(2) 3 points

(3) 5 points

(4) 9 points

■ **[Graph Type]** pull-down

Selects the graph type of the edit color bar table from this pull-down menu.

This pull-down menu provides the following two kinds of graph type.

(1) Line Graph

(2) Bar Graph

■ **[Color Bar Table Title]**

Specifies the title of the color bar table.

■ **[Color Slide]**

Displays the element (red, green and blue) specified in each point by the graph.

The color of each point can be changed by changing the slide.

■ **[Count]** (Data value input fields)

Inputs the counter value for each reference point.

The value to be input must be within the range of image data.

You can get the range of the image data by clicking the [Get Max/Min] button or the [Get 3-sigma] button.

■ **Color table image display**

Displays the image of color table currently being set.

■ **[Linear/Log]** radio button

Ssets the display method to linear/logarithm.

■ **[Interpolation]** button

Calculates the count value except both edge by linear or logarithm interpolation.

■ **[Get Max/Min]** button

Calculates the maximum and minimum count value of the image data and sets them to the point of both ends.

■ **[Get 3-sigma]** button

  Gets the 3Σ value of the image data and sets the value to the point of both ends.

■ **[File Name]** field

  Displays the color table file name to be edited.

■ **[Ref.]** button

  When you click this button, the [Open] dialog shown in Figure 4.3.1-4 is displayed to specify the color table file name to be edited.

Figure 4.3.1-4 [Open] Dialog

■ **[Save]** button

When you click this button, the [Save As] dialog shown in Figure 4.3.1-5 is displayed.

Specify the color table file name to save the edit result.

The extension of the save file is 'clt'.
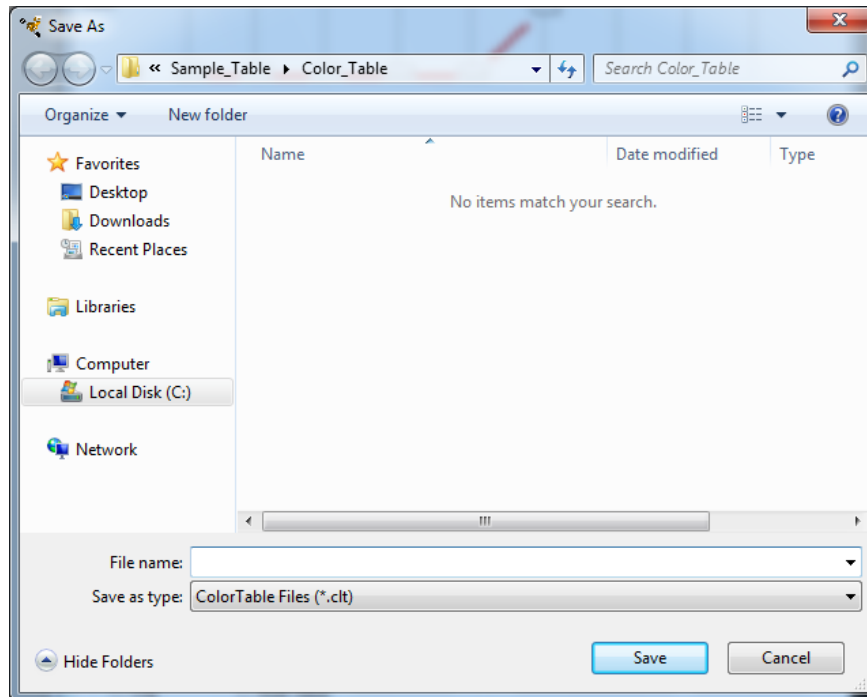
Figure 4.3.1-5 [Save As] Dialog

■ **[OK]** button

When you click this button, all settings currently shown in the dialog are saved and the dialog is closed.

■ **[Cancel]** button

When you click this button, all settings shown in the dialog are canceled and the dialog is closed.

4.3.2. Edit Look Up Table

When you select this menu, the [Look Up Table Edit Dialog] dialog shown in Figure 4.3.2-1 is displayed to change settings of the Look up table and create the new table.

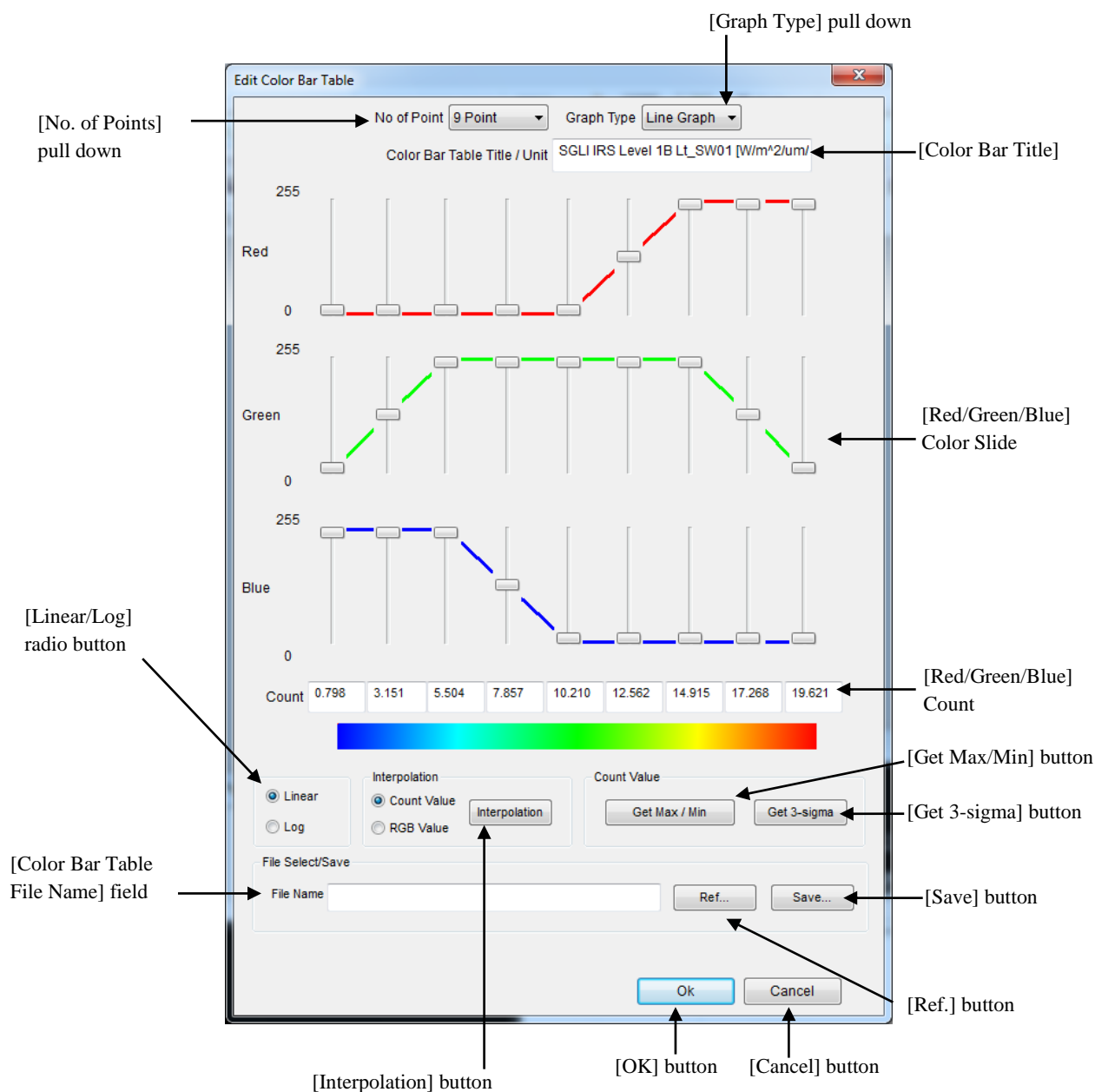This menu is active only when the "RGB composite" image is displayed.
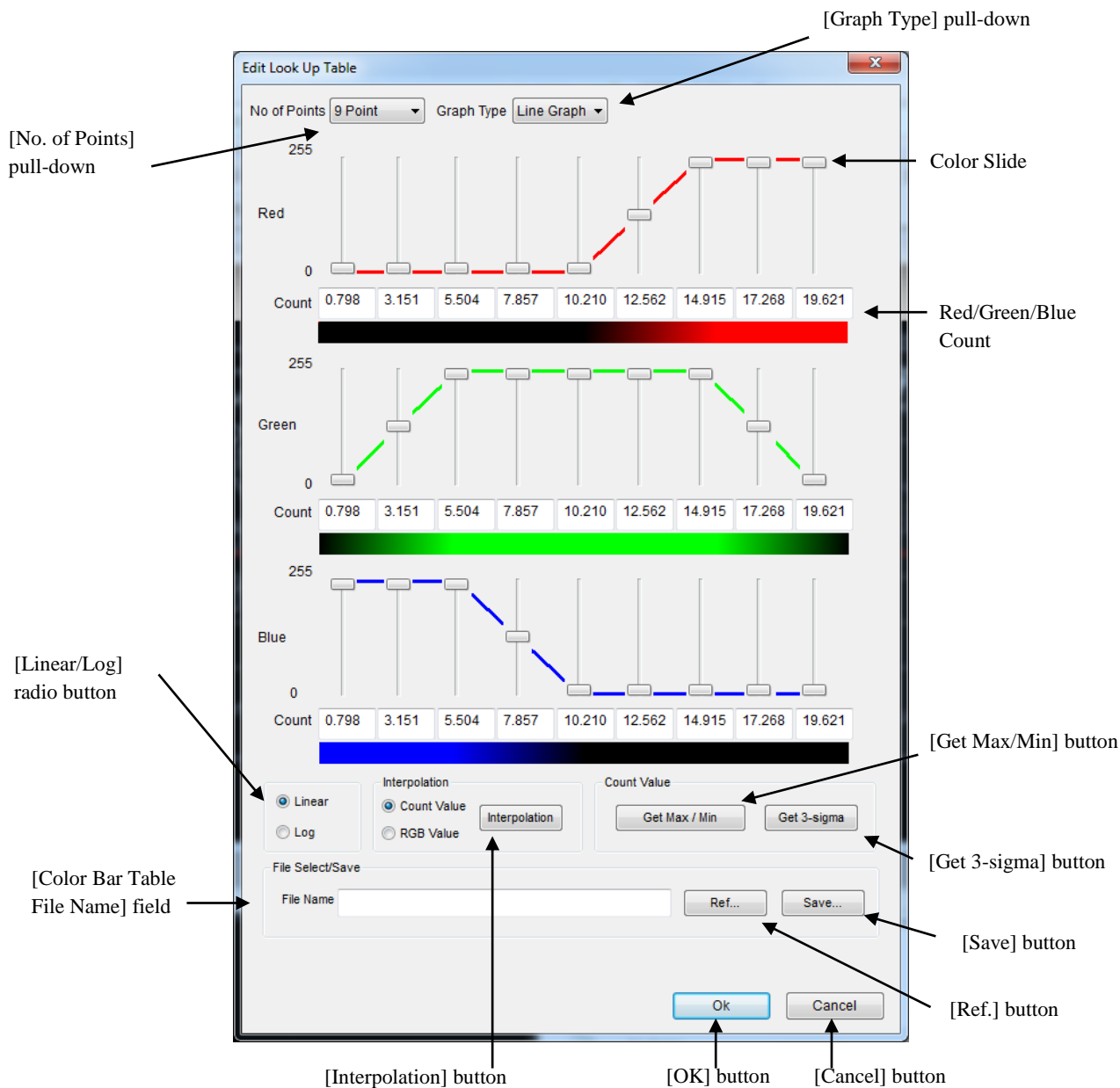
Figure 4.3.2-1 Look Up Table Edit Dialog

■ **[No. of Points]** pull down

Selects the number of reference points for count value from this pull-down menu.

This pull-down menu provides the following four points.

    (1) 2 points

    (2) 3 points

    (3) 5 points

    (4) 9 points

■ **[Graph Type]** pull-down

Selects the graph type of the edit color bar from this pull-down menu.

This pull-down menu provides the followng two kinds of graph type.

    (1) Line Graph

    (2) Bar Graph

■ [**Red/Green/Blue Color Slide]**

Displays the element (red, green, and blue) specified in each point by graph.

The color of each point (0 to 255) can be changed by changing the slide.

■ **[Red/Green/Blue Count]** field (Data value is input in this field.)

Inputs the counter value for each reference point.

The value to be input must be within the range of image data.

You can get the range of the image data by cliking the [Get Max/Min] button or the [Get 3-sigma] button.

■ **Red/Green/Blue Count**

Specifies the color (0 to 255) to red, green, and blue respectively.

■ **[Linear/Log]** radio button

Sets the display method to linear/logarithm.

■ **[Interpolation]** button

Calculates the value except both edges by linear or logarithm interpolation.

■ **[Get Max/Min]** button

Calculates the maximum and minimum count value of the image data and sets the value to the point of both ends.

■ **[Get 3-sigma]** button

Gets the 3Σ value of the image data and sets the value to the point of both ends.

■ **[File Name]** field

Displays the Look up table file name to be edited.

■ **[Ref.]** button

When you click this button, the [Open] dialog shown in Figure 4.3.2-2 is displayed to specify the Look up table file name to be edited.
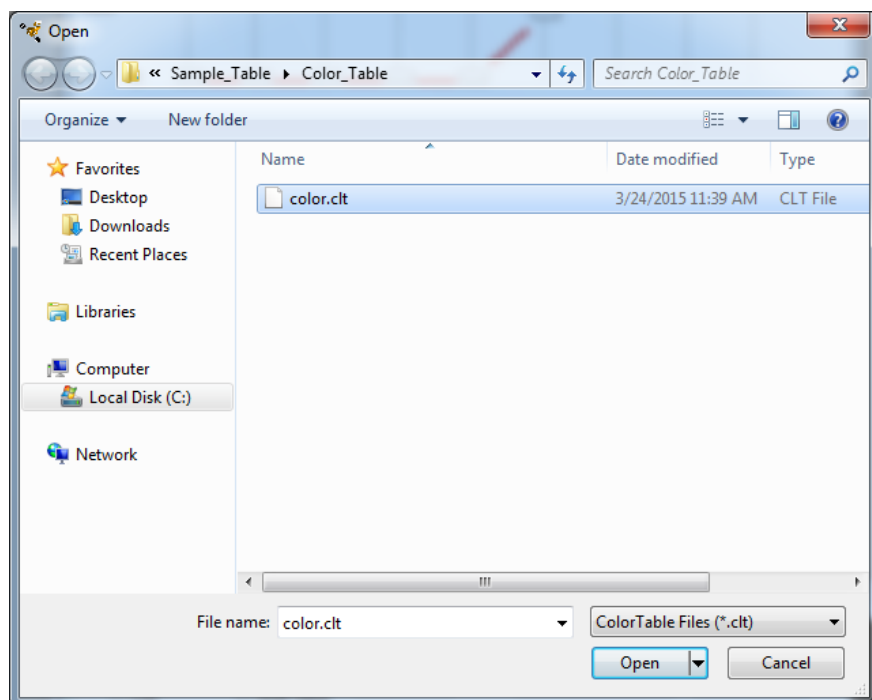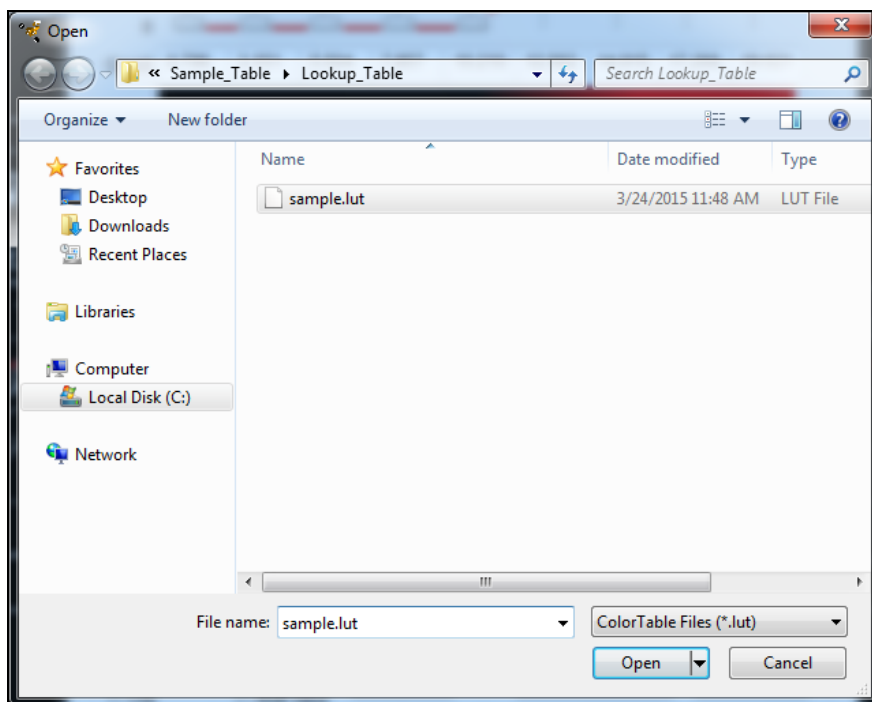

Figure 4.3.2-2 [Open] Dialog

■ **[Save]** button

When you click this button, the [Save As] dialog shown in Figure 4.3.2-3 is displayed.

Specify the Look up table file name to save the edit result.

The extension of the save file is 'lut'.
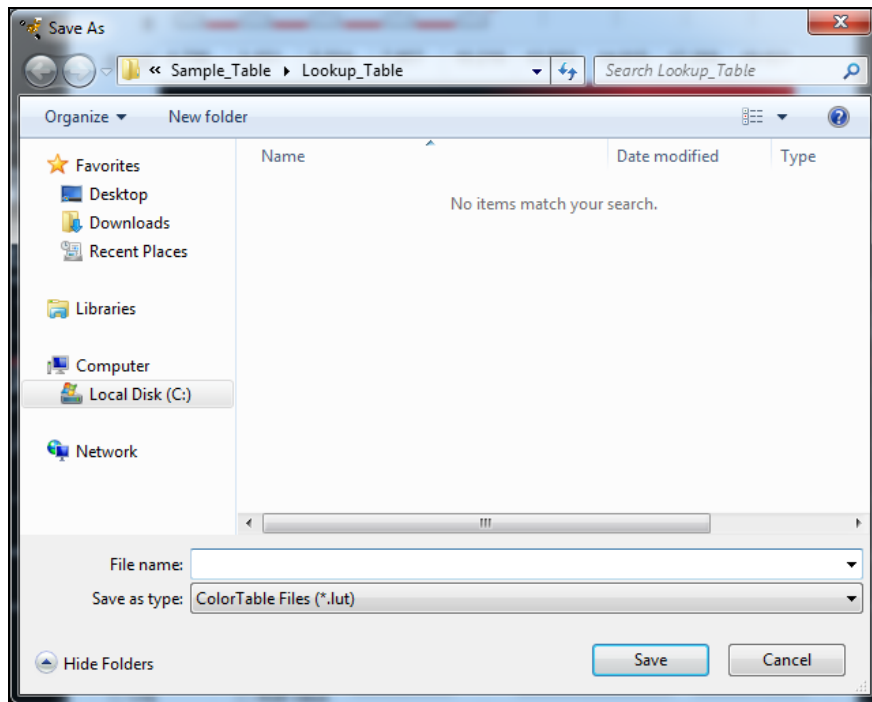
Fig. 4.3.2-3 [Save As] dialog

■ **[Preview]** button

Displays the image processed by the edited Look up table.

■ **[OK]** button

When you click this button, all settings currently shown in the dialog are saved and the dialog is closed.

■ **[Cancel]** button

When you click this button, all settings shown in the dialog are canceled and the dialog is closed.

4.3.3. User Setting

You can set the display setting of this user tool.

When you select this menu, the [User Setting] dialog shown in Figure 4.3.3-1 is displayed.
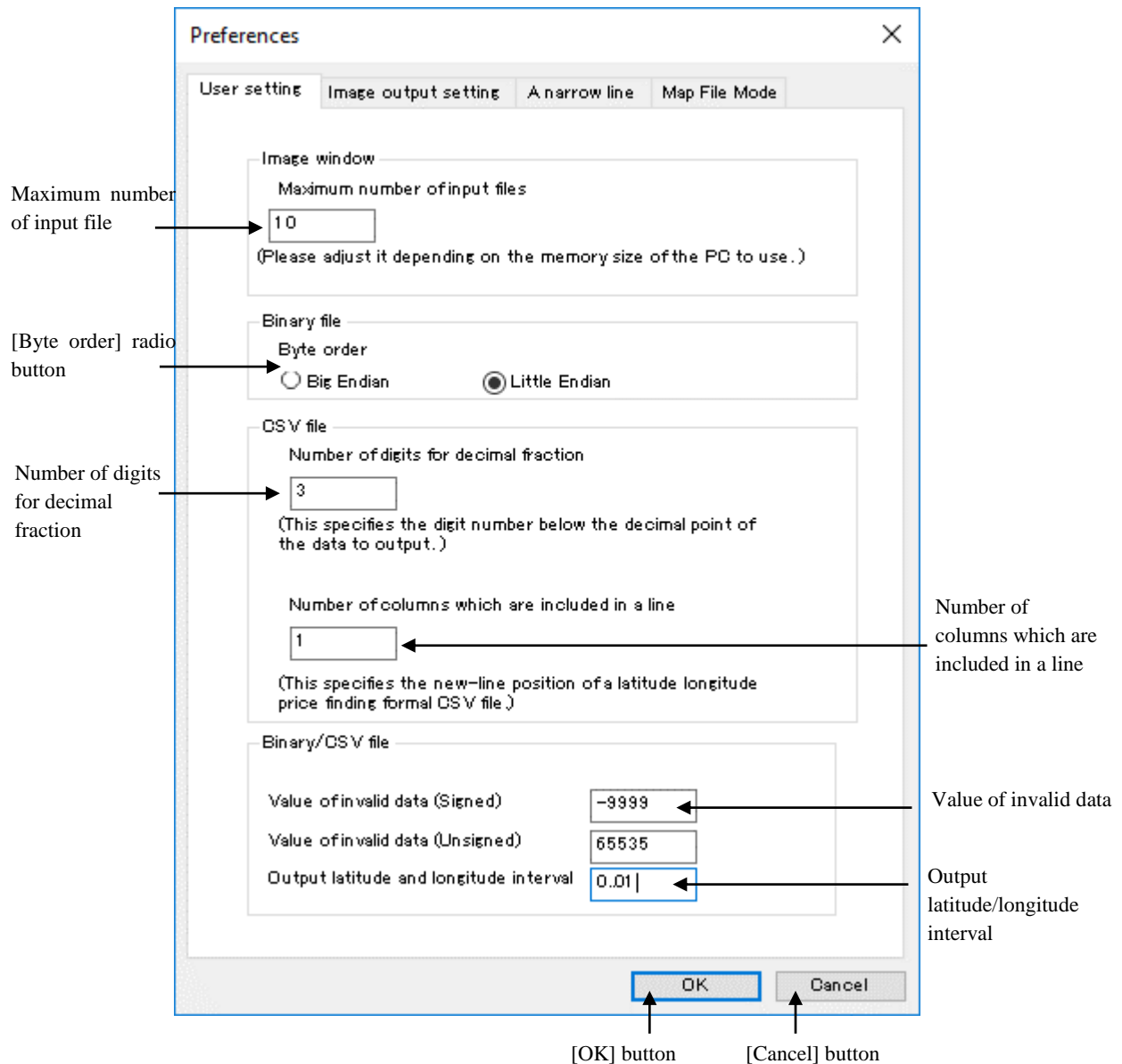
Figure 4.3.3-1 Image of User Setting Dialog

■ Maximum number of input file

Specifies the number of products that can be read at the same time.

■ **[Byte order]** radio button

Selects the byte order of the data output by binary format from "Big endian" or "Little endian".

■ Number of digits for decimal fraction

Specifies the number of decimal fraction of the data to be output to CSV file.

■ Number of columns which are included in a line

Specifies the number of columns to be stored in one record of CSV file.

■ Value of invalid data

Specifies the value to be set to invalid data when saving them in binary format and CSV format.

■ Output latitude/longitude interval

Specifies the interval of latitude and longitude to be output by deg (degree) when saving them in binary format and CSV format. Available range is 0.0022 to 10.

4.3.4. Image Output Setting

When you select this menu, the [Image Output Setting] dialog as shown in Figure 4.3.4-1 is displayed.

You can set the layout when you save images in image format such as JPEG, TIFF, BMP, BMP, PNG, GeoTiff, and NetCDF.

[Title On/Off]
check box

[Title] field

[Position]
radio button

[Color Bar
On/Off]check box

[Flip] check box

[Background
On/Off]check box

[Select] button

[Background
Color] field

[OK] button   [Cancel] button
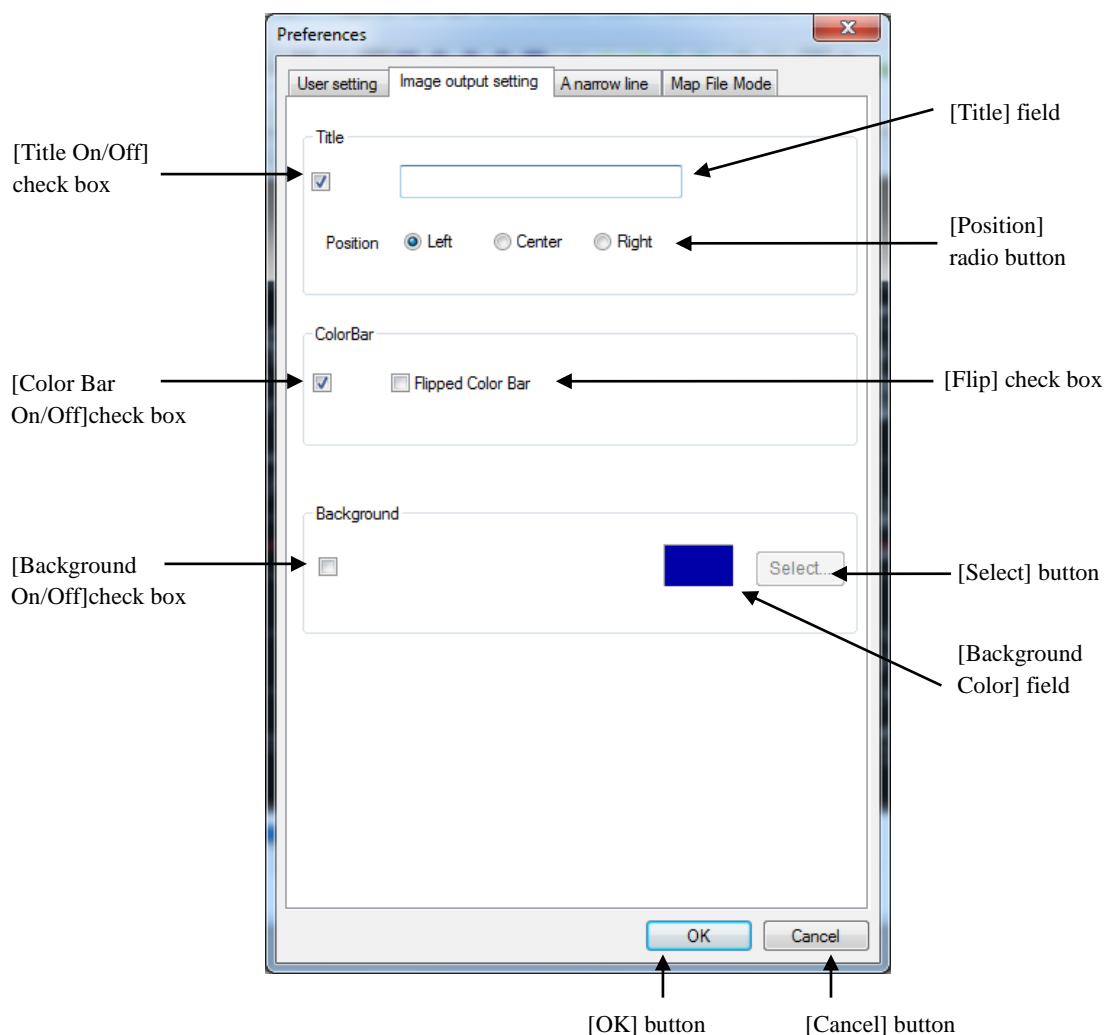
Figure 4.3.4-1 Image Output Setting Dialog

Image output setting windows differs between single channel and RGB composite as shown in Figure 4.3.4-2.

[Title On/Off] check box

[Title] field

[Position] radio button

[Background On/Off] check box

[Color Bar On/Off] check box
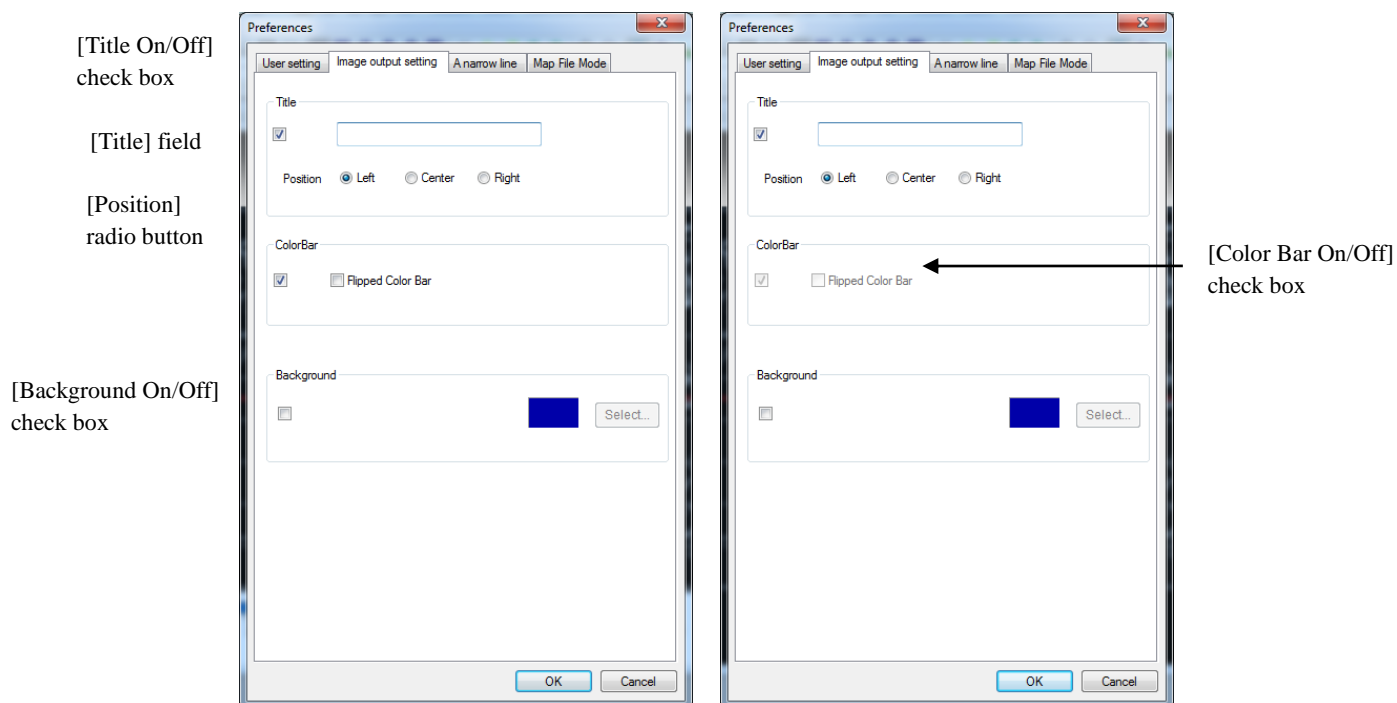
Figure 4.3.4-2 Difference between Single Channel and RGB Composite

■ **[Title On/Off]** check box

Specifies whether the title is on or off.

■ **[Title]** field

Inputs the image title. When specifying this item, the title is displayed on the map display window.
You can set this field only when you specify the the [Title On/Off] check box is on.

■ **[Position]** radio button

　　Specifies the title display position from "Left", "Center", and "Right".

　　Each image sample is shown in Figure 4.3.4-3, Figure 4.3.4-4, and Figure 4.3.4-5 respectively.

　　You can set this radio button only when you specify the [Title On/Off] check box is on.

　　[Left]
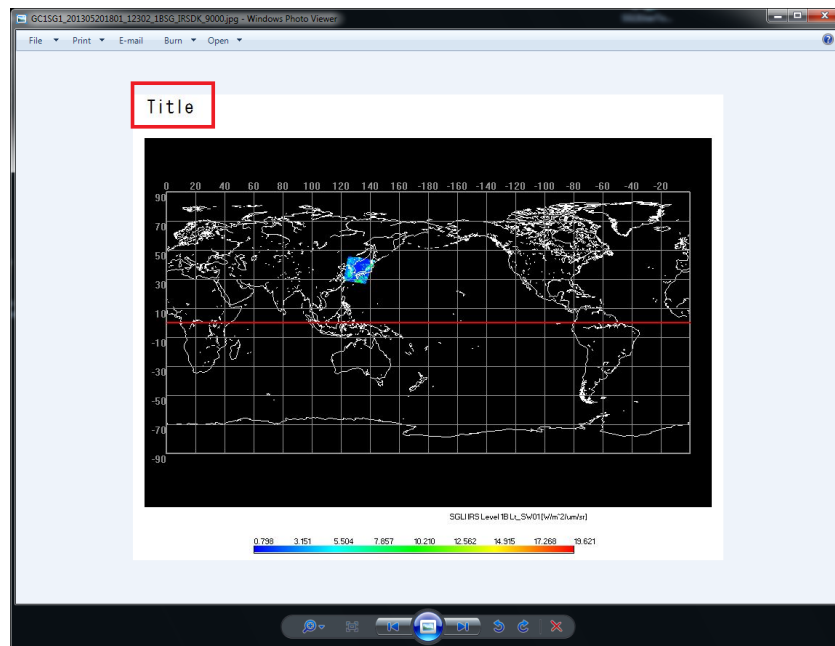
Figure 4.3.4-3 Image Sample of the Title Position "Left"

　　[Center]
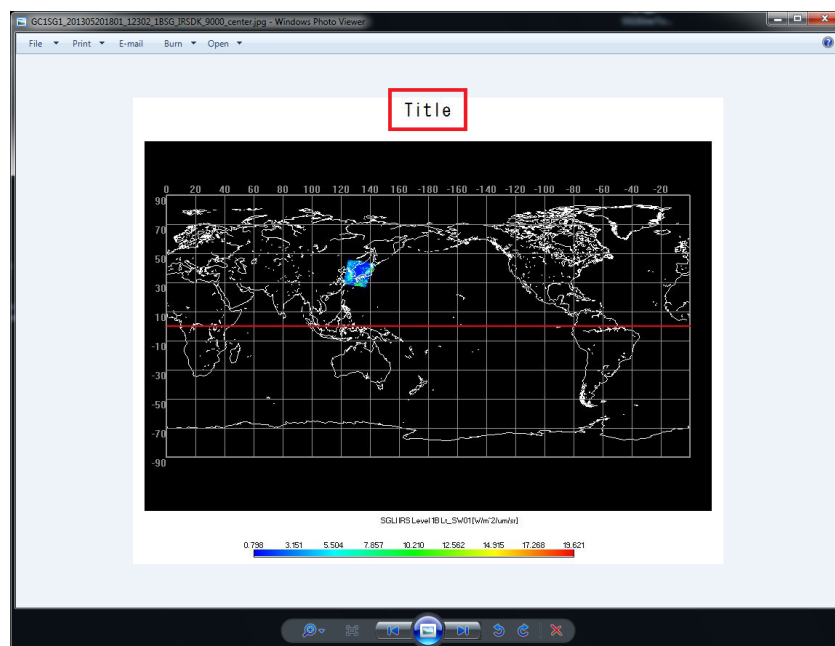
Figure 4.3.4-4 Image Sample of the Title Position "Center"

[Right]
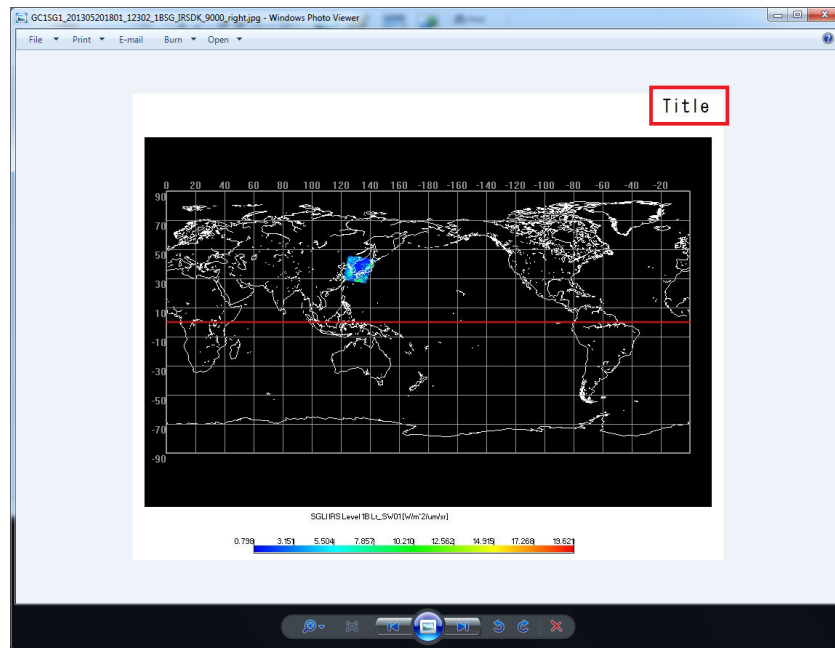
Figure 4.3.4-5 Image Sample of the Title Position "Right"

■ **[Color Bar On / Off]** Check box

Specifies whether the color bar is on or off.

You can set this check box only when single channel is selected.

When you set the color bar in "On", it is displayed on the product/map display window. When setting the color bar in "Off", it doesn't appear on the window. Each image window is shown in Figure 4.3.4-6, and Figure 4.3.4-7 respectively.
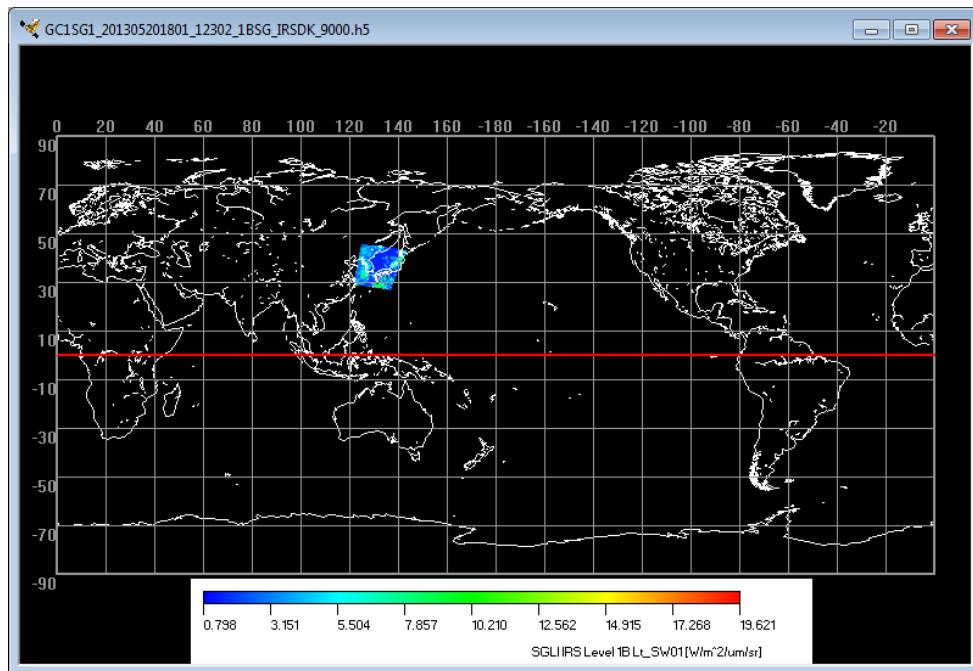
Figure 4.3.4-6 Image Window with Color Bar
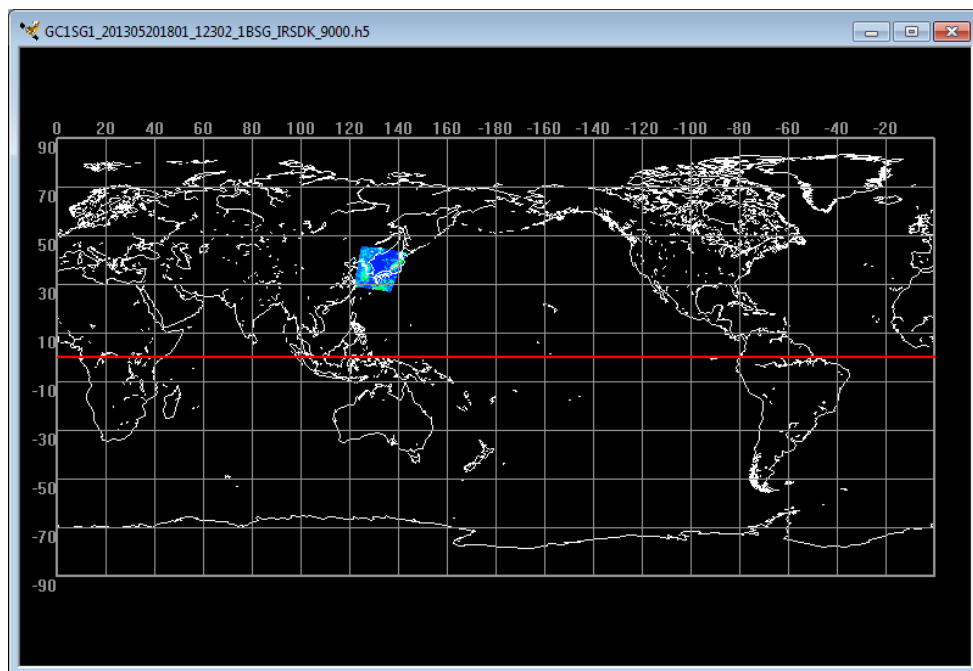
Figure 4.3.4-7 Image Window without Color Bar

■ **[Flip]** check box

Specifies this check box if you want to flip the explanatory note.

You can set this check box only when single channel is selected.

Each image sample is shown in Figure 4.3.4-8, and Figure 4.3.4-9 respectively.

[Color bar is not flipped]
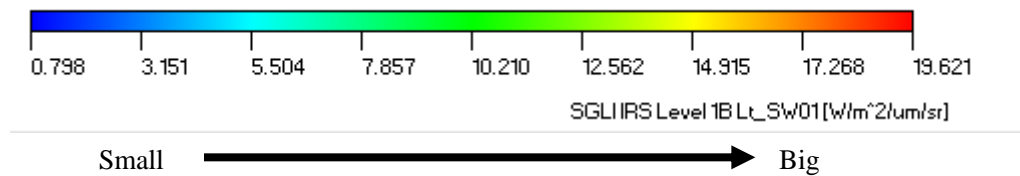
Figure 4.3.4-8 Image Sample When the Color Bar is Not Flipped

[Color bar is flipped]
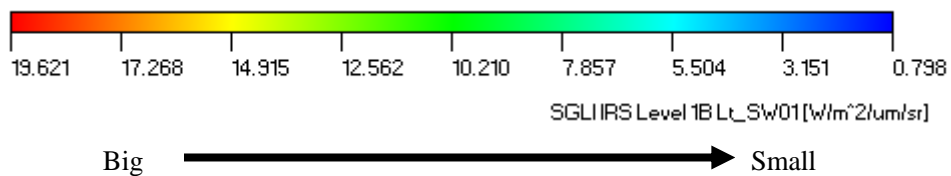
Figure 4.3.4-9 Image Sample When the Color Bar is Flipped

■ **[Background On/Off]** check box

Specifies whether the background color is used or not.

Each image sample is shown in Figure 4.3.4-10, and Figure 4.3.4-11 respectively.

[Background Color Specified]
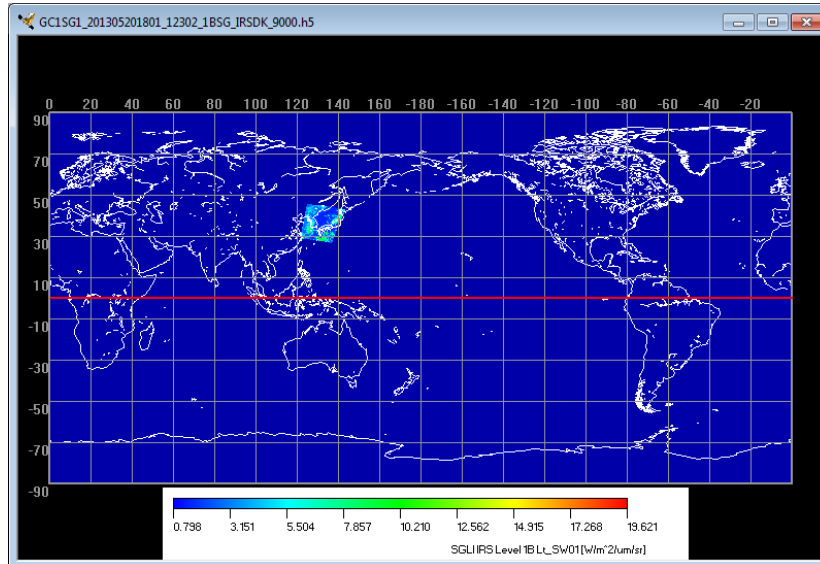
Figure 4.3.4-10 Image Sample with Background Color Specified

[Background Color not Specified]
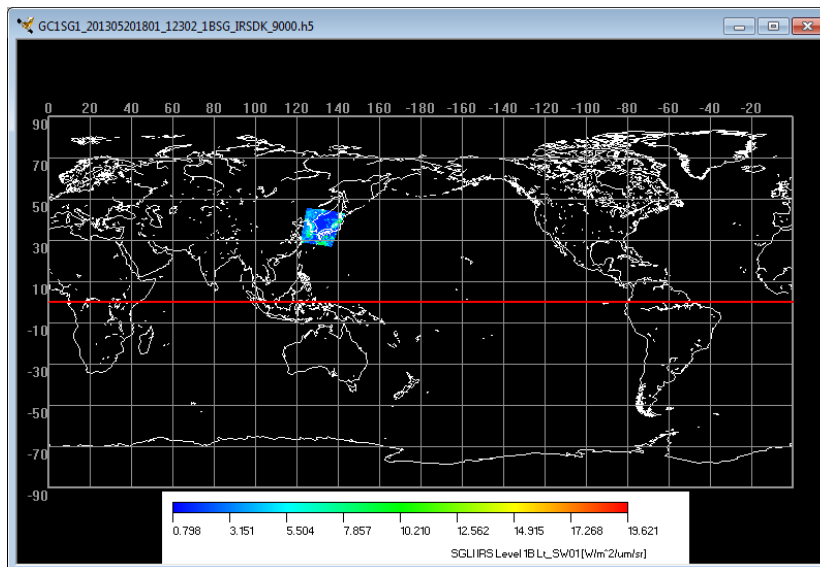
Figure 4.3.4-11 Image Sample with Background Color not Specified

■ **[Background Color]** field

Displays the color that has been selected as background.

■ **[Select]** button

When clicking this button, the [Color] dialog is displayed to select the background color.

■ **[OK]** button

When clicking this button, all settings of image output are saved and the dialog is closed.

■ **[Cancel]** button

When clicking this button, all settings of image output are canceled and the dialog is closed.

4.3.5. Map Layer Setting

When you select this menu, the [A narrow line] dialog as shown in Figure 4.3.5-1 is displayed.

[Coast On/Off]
check box

[Coast Order]
radio button

[Latitude Longitude
On/Off] check box

[Equator On/Off]
check box

[Background
On/Off:] check box

[Latitude Longitude
Width:] check box

[Select] buttons

[Color] fields

[Coast Line Type]
Pull-down

[Latitude Longitude
Line type] pull-down

[Latitude Width]
field

[Longitude Width]
field

[OK] button   [Cancel] button
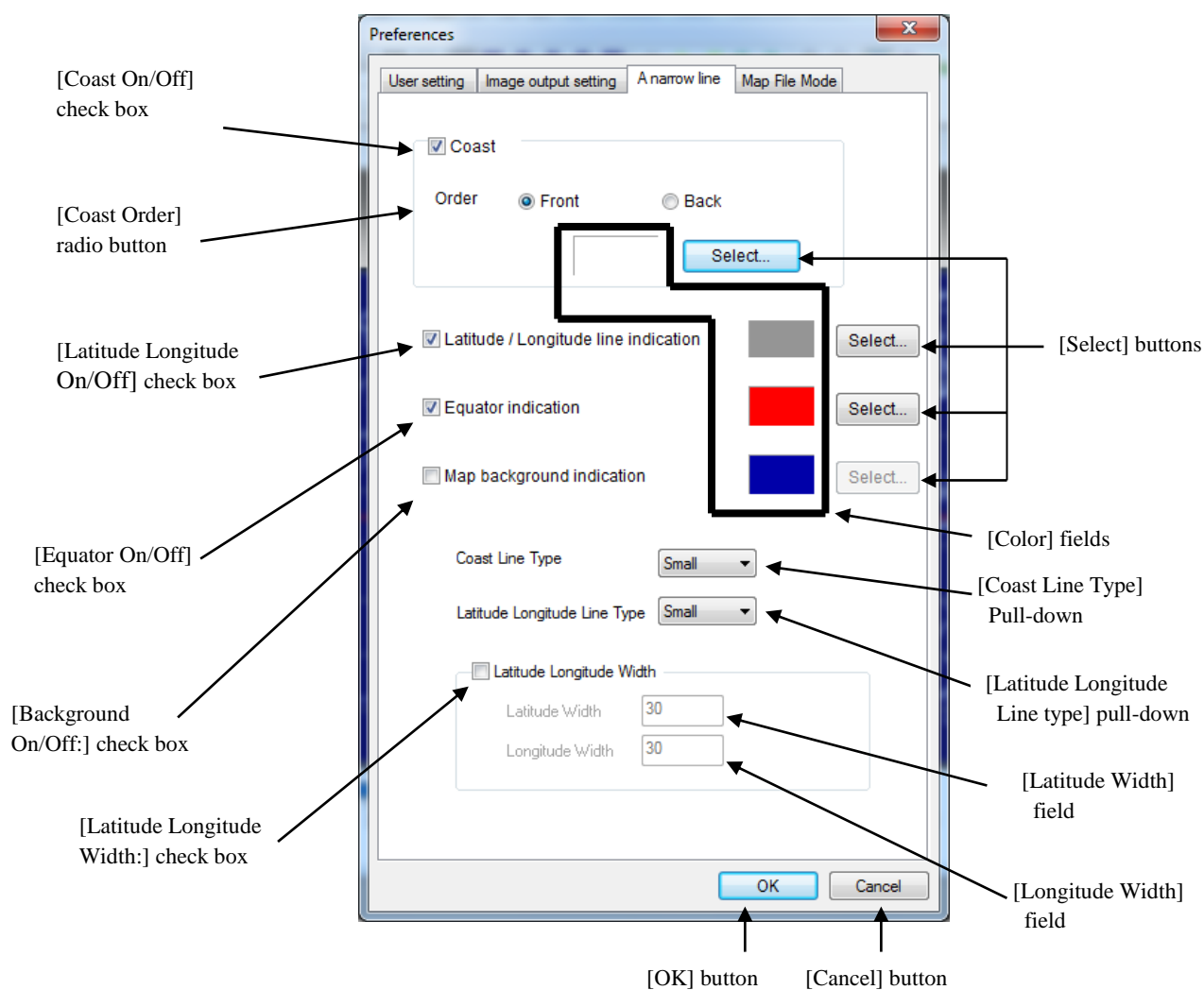
Figure 4.3.5-1 Map Layer Setting

■ **[Coast On/Off]** check box

Specifies whether the coastline is displayed or not.

■ **[Coast Order]** radio button

Specifies whether the coastline is displayed in fron or back of the data.

Each image sample is shown in Figure 4.3.5-2 and Figure 4.3.5-3 respectively.

[Front] Coastlines are displayed in front of the data.
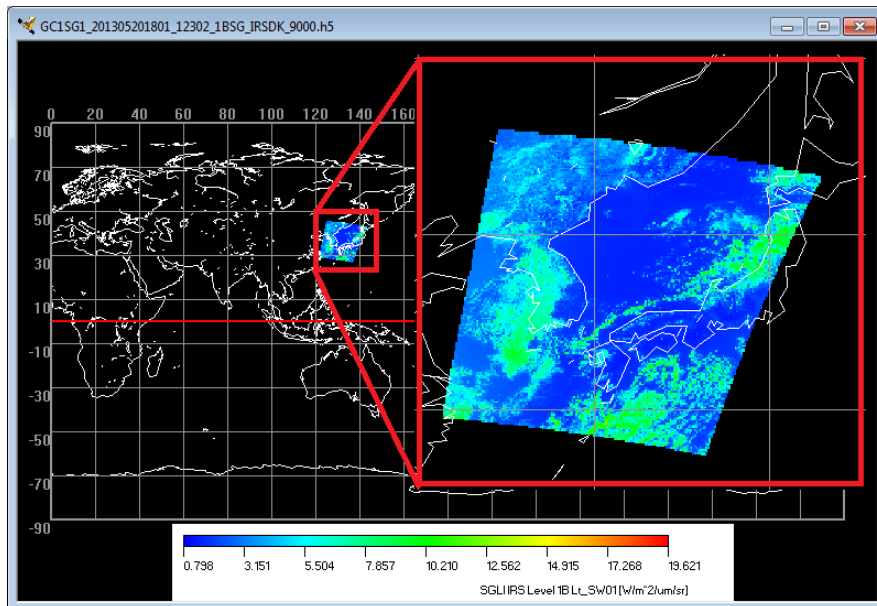
Figure 4.3.5-2 Image Sample of Displaying the Coastlines in front of the Data

[Back] Coastlines are displayed on the back of the data.
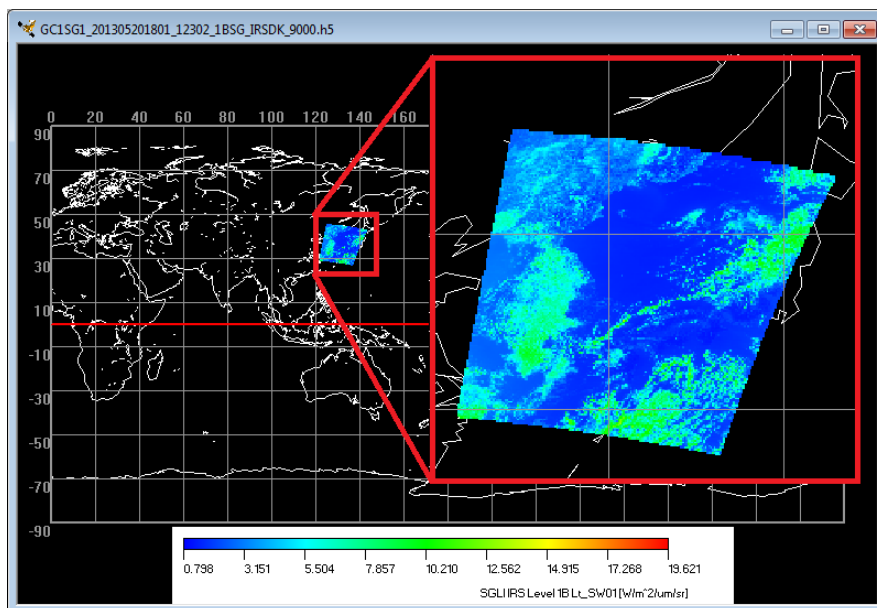
Figure 4.3.5-3 Image Sample of Displaying the Coastlines on the Back of the Data

110

■ **[Latitude and longitude On/Off]** check box

Specifies whether the latitude and longitude are displayed or not.

■ **[Equator On/Off]** check box

Specifies whether the equator is displayed or not.

■ **[Background On/Off]** check box

Specifies whether the background color is displayed or not.

■ **[Select]** buttons

When clicking this button, the [Color] dialog is displayed to select the background color.

■ **[Color]** field

Displays the color that has been selected as background.

■ **[Coast Line Type]** pull-down

Selects the thickness of the coastline from this pull-down menu.

This pull-down provides the following three points.

(1) Narrow

(2) Middle

(3) Bold

■ **[Latitude and longitude Line Type]** pull down

Selects the thickness of the latitude and longitude line from this pull-down menu.

This pull-down provides the following three points.

(1) Narrow

(2) Middle

(3) Bold

■ **[Latitude and longitude Width]** check box

Specifies whether the interval of the latitude and longitude is fixed value or not.

■ [Latitude Width] field

Specifies the interval of the latitude.

■ [Longitude Width] field

Specifies the interval of the longitude.

4.3.6. Map File Setting

When you select this menu, the [Map File Mode] dialog as shown in Figure 4.3.6-1 is displayed to change the file setting of the map to be displayed.

[Map File] radio button

[Ref…] button

[OK] button   [Cancel] button
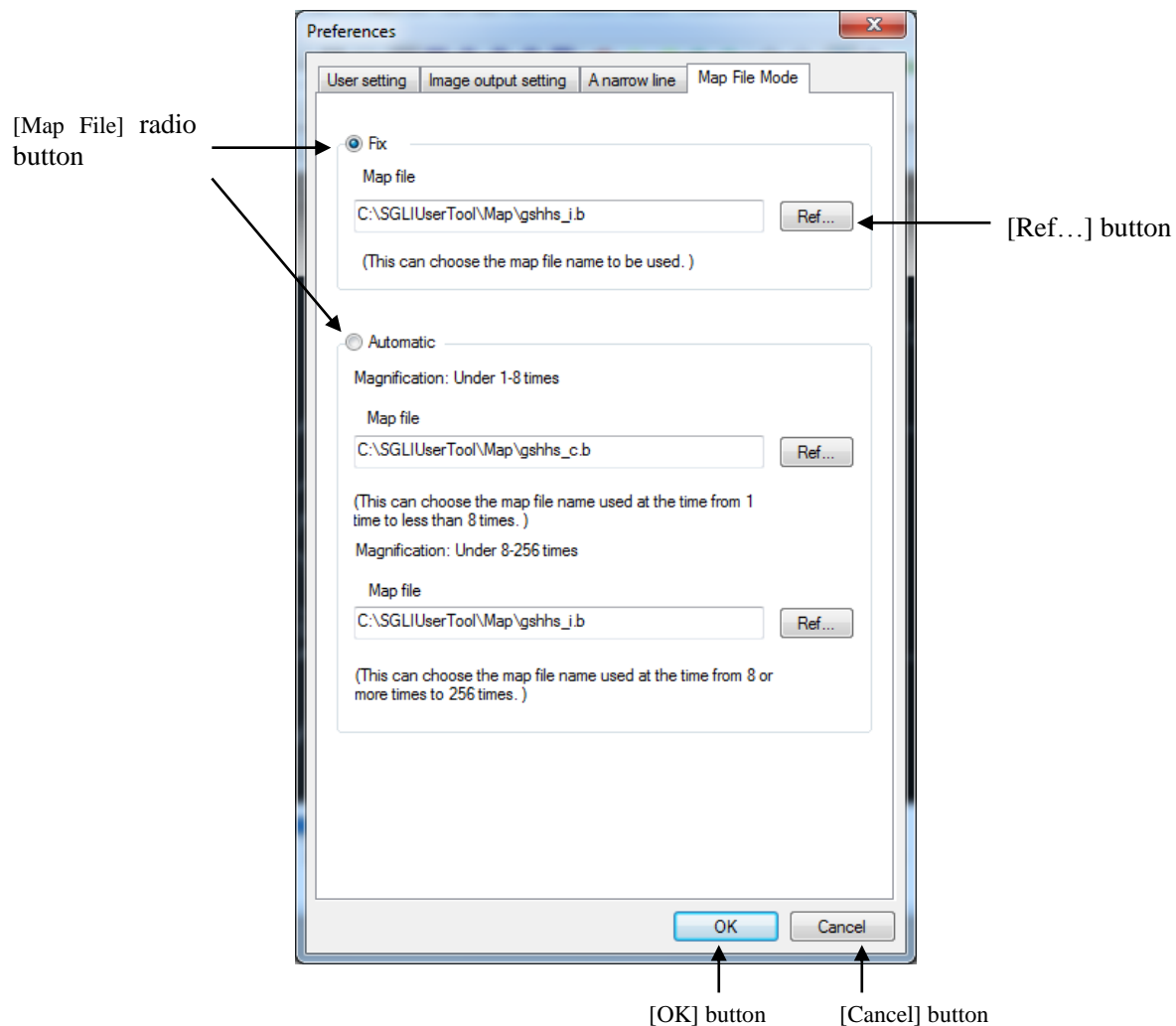
Figure 4.3.6-1 Map File Mode Dialog

■ **[Map File]** radio button

Specifies whether the display method is selected in fixed or automatic operation.

  [Fixd]

The coastline is displayed by using all the same one-map files regardless of the magnification.

[Automatic]

The coastline is displayed by switching the following two map files.

- Magnification: original size to less than eight times

- Magnification: more than eight times to 256 times

■ **[Ref…]** button

    When clicking this button, the [File Select Window] is displayed to specify the map file.

4.4. Help Menu

Help menu provides the following three menus.

(1) Help

(2) Related link

(3) Version Information

Help menu is shown in Figure 4.4-1 and each menu is described in the following section.

Figure 4.4-1 Help Menu Pull Down

4.4.1. Help

When you select the [Help] menu, this user tool is displayed on the browser as shown in Figure 4.4-2.
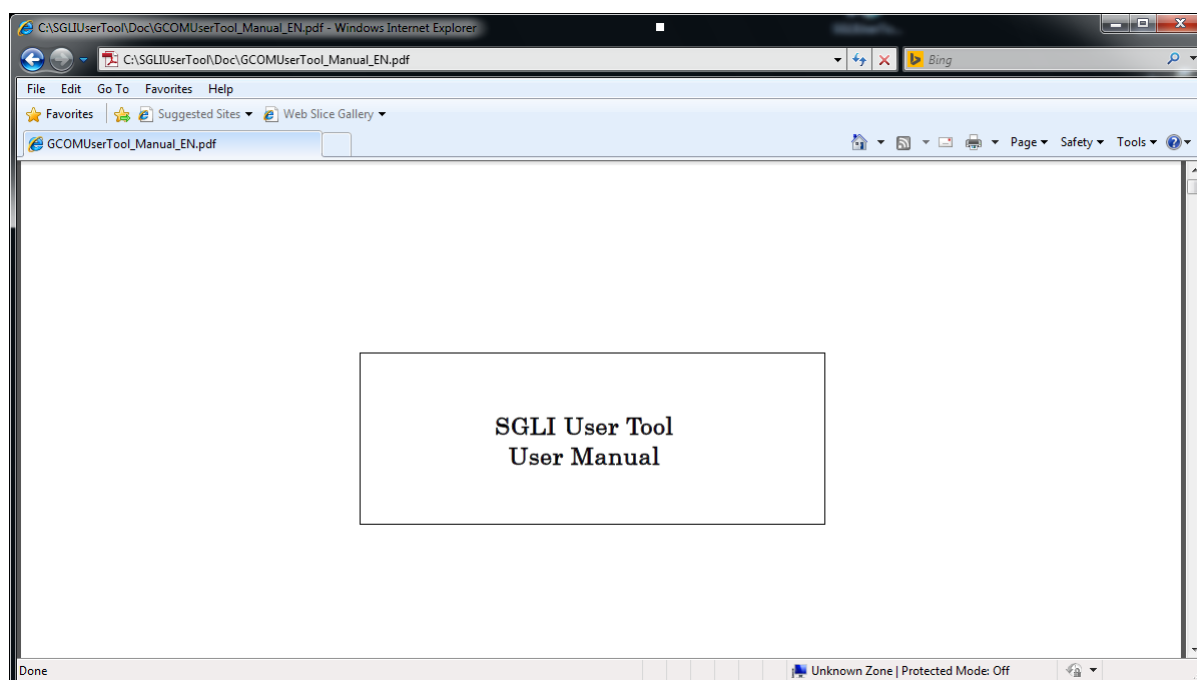
Figure 4.4-2 Help Window

4.4.2. Related link

When you select this menu, [Related link] as shown in Figure 4.4-3 is displayed on the browser.
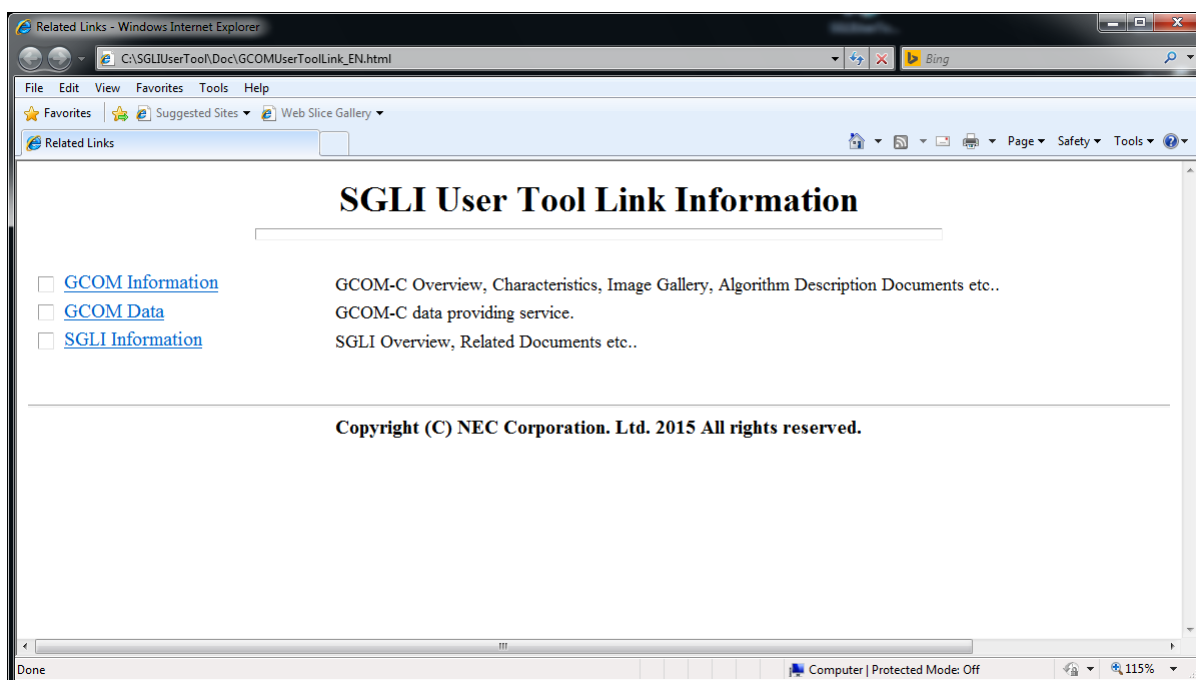
Figure 4.4-3 Related Link Window

4.4.3. Version Information

When you select this menu, [Version Information] dialog as shown in Figure 4.4-4 is displayed on the browser.
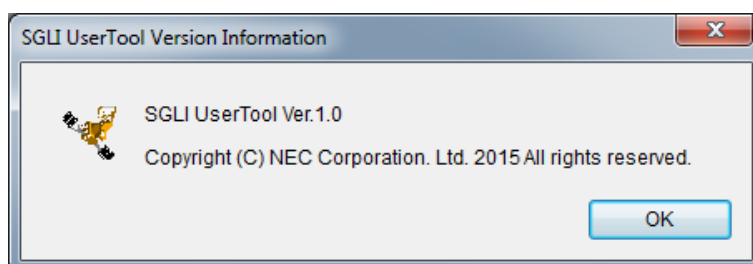
Figure 4.4-4 Version Information Dialog

115

5. Appendix A: File Format

This section describes the following file format to be output in this user tool.

(1) Binary File Format

(2) CSV File Format

(3) KML File Format

(4) KML File Format (with Timeline funciton)

(5) HDF File Format

(6) GeoTiff File Format

(7) NetCDF File Format

(8) Color Bar Table File

(9) Look Up Table File

(10) Batch File

(11) Parameter File

5.1 Appendix A.1 Binary File Format

Binary file format is shown in Figure A.1-1.
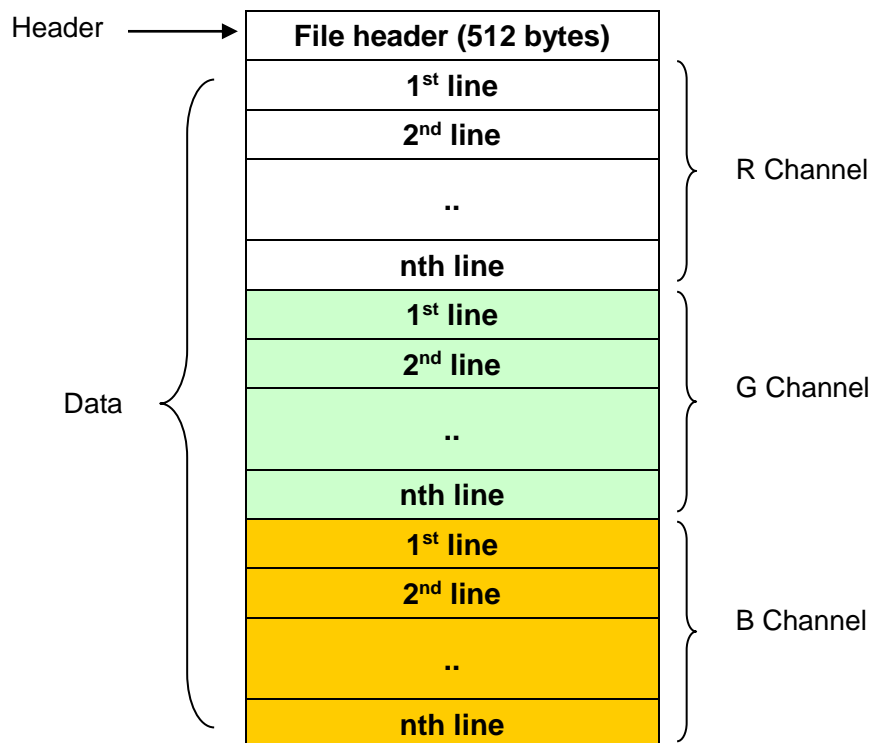
Fig. A.1-1 Binary File Format

Binary file consists of header record and data records.

    Header: Annotation information of the observational data (sensor name, the number of pixels, the number of lines, and latitude and longitude information at the four corners, etc.) is stored.

    Data: The observation data for each specified channel is stored in BSQ format.

The following section describes details on the header and the data division.

1) Details on the header format

    The format of the header is listed in Table A.1-1.

Table A.1-1 Header Format (1/2)

No.	Item	Value	Byte Position	Size [Byte]	Description	Note
1	Satellite/ Sensor	GCOM-C1/SGLI ,	0	Variable	Satellite name and sensor name. Obtained from the product file.	ASCII
2	Delimiter	","	-	1	Comma:2C[hex]	
3	Pixel	-	-	Variable	The number of pixels	ASCII
4	Delimiter	","	-	1	Comma:2C[hex]	
5	Line	-		Variable	The number of lines is stored.	ASCII
6	Delimiter	","	-	1	Comma:2C[hex]	
7	Upper left latitude	"-90.000" to "90.000"	-	Variable	Upper left latitude of the extracted area (degree)	ASCII
8	Delimiter	","	-	1	Comma:2C[hex]	
9	Upper left longitude	"-180.000" to "180.000"	-	Variable	Upper left longitude of the extracted area (degree)	ASCII
10	Delimiter	","	-	1	Comma:2C[hex]	
11	Upper right latitude	"-90.000" to "90.000"		Variable	Upper right latitude of the extracted area (degree)	ASCII
12	Delimiter	","	-	1	Comma:2C[hex]	
13	Upper right longitude	"-180.000" to "180.000"	-	Variable	Upper right longitude of the extracted area (degree)	ASCII
14	Delimiter	","	-	1	Comma:2C[hex]	
15	Lower left latitude	"-90.000" to "90.000"		Variable	Lower left latitude of the extracted area (degree)	ASCII
16	Delimiter	","	-	1	Comma:2C[hex]	
17	Lower left longitude	"-180.000" to "180.000"		Variable	Lower left longitude of the extracted area (degree)	ASCII
18	Delimiter	","	-	1	Comma:2C[hex]	
19	Lower right latitude	"-90.000" to "90.000"		Variable	Lower right latitude of the extracted area (degree)	ASCII
20	Delimiter	","	-	1	Comma:2C[hex]	
21	Lower right longitude	"-180.000" to "180.000"		Variable	Lower right longitude of the extracted area (degree)	ASCII
22	Delimiter	","	-	1	Comma:2C[hex]	

Table A.1-1 Header Format (2/2)

No.	Item	Value	Byte Position	Size [Byte]	Description	Note
23	Unit	-	-	Variable	Unit of the observation data stored in the data record. If there is no unit, no value is set.	ASCII
24	Delimiter	","	-	1	Comma:2C[hex]	
25	Scale	-	-	Variable	Scale factor of the observation data stored in the data record. If there is no scale factor, "1" is set.	ASCII
26	Delimiter	","	-	1	Comma:2C[hex]	
27	Offset	-	-	Variable	Offset of the observation data stored in the data section. If there is no offset in the observational data, "0" is set.	ASCII
28	Delimiter	","	-	1	Comma:2C[hex]	
29	Copyright	-	-	Variable	Copyright holder	ASCII
30	Delimiter	","	-	1	Comma:2C[hex]	
31	Input file name	-	-	Variable	File name of the source data. If the file name exceeds the size of the header portion, the excess portion is omitted.	ASCII
32	Blank	20[hex]	-	Variable	Space characters (20[hex]) If the recorded data size of header is less than 512 bytes, it would be filled by blank	
33	LF	0A[hex]	511	1	LF	

2) Data record

The data of a channel assigned to RGB of the specified extraction range (or pseudo color) is stored as BSQ format. Size of 1 pixel is 4 bytes. There are little endian (default) and big endian. You can specify either byte order.

5.2 Appendix A.2 CSV File Format

CSV file format is shown in Fig. A.2-1.
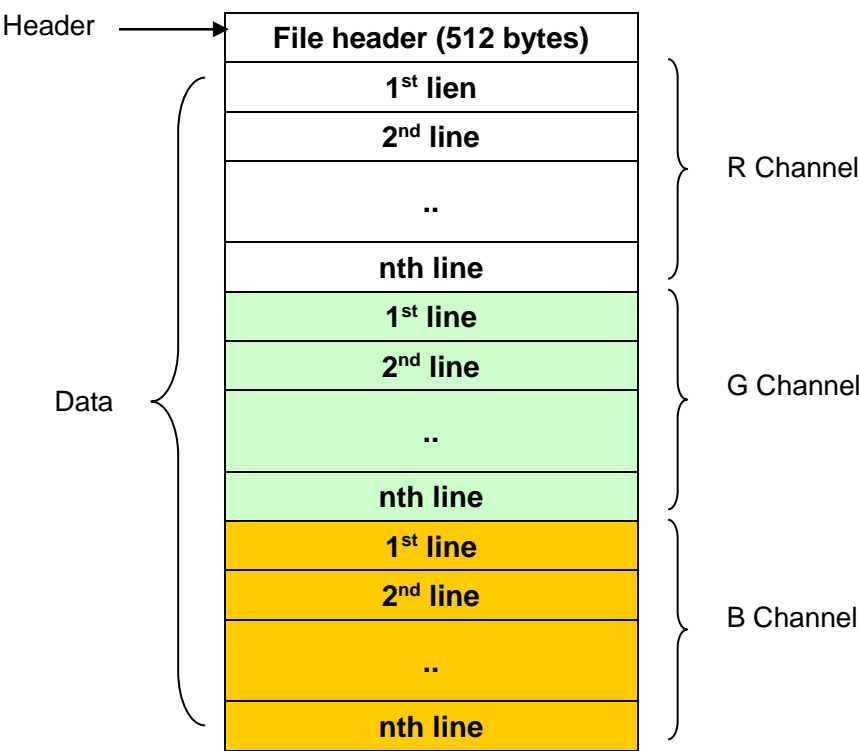
Fig. A.2-1 CSV File Format

CSV file consists of the header record and the data records.

Header: Annotation information of the observational data (sensor name, the number of pixels, the number of lines, and latitude and longitude information at the four corners, etc.) is stored.

Data: The observation data for each specified channel is stored

The following section describes details on the header and the data division.

1) Details on the header format

The format of the header is listed in Table A.2-1.

Table A.2-1 Header Format

No	Item	Value	Size[Byte]	Description
1	Satellite/ Sensor	GCOM-C1/SGLI ,	Variable	Satelline name and sensor name Obtain from the product file.
2	Pixel	–	Variable	The number of pixels
3	Line	–	Variable	The number of lines
4	Upper left latitude	"-90.000" to "90.000"	Variable	Upper left latitude of the extracted area (degree)
5	Upper left longitude	"-180.000" to "180.000"	Variable	Upper left longitude of the extracted area (degree)
6	Upper right latitude	"-90.000" to "90.000"	Variable	Upper right latitude of the extracted area (degree)
7	Upper right longitude	"-180.000" to "180.000"	Variable	Upper right longitude of the extracted area (degree)
8	Lower left latitude	"-90.000" to "90.000"	Variable	Lower left latitude of the extracted area (degree)
9	Lower left longitude	"-180.000" to "180.000"	Variable	Lower left longitude of the extracted area (degree)
10	Lower right latitude	"-90.000" to "90.000"	Variable	Lower right latitude of the extracted area (degree)
11	Lower right longitude	"-180.000" to "180.000"	Variable	Lower right longitude of the extracted area (degree)
12	Unit	–	Variable	Unit of the observation data stored in the data record. If there is no unit, no value is set.
13	Scale	–	Variable	Scale factor of the observation data stored in the data record. If there is no scale factor, "1" is set.
14	Offset	–	Variable	Offset of the observation data stored in the data record. If there is no scale factor, "0" is set.
15	Copyright	–	Variable	opyright holder
16	Input file name	–	Variable	File name of the source data. If the file name exceeds the size of the header portion, the excess portion is omitted.
17	CR+LF	0D0A[hex]	2	Line feed code (CR+LF)

2) Data record

The data of a channel assigned to RGB of the specified extraction range (or pseudo color) is stored in one of the following formats.

(1) The format with latitude and longitude information.

```
#Red Channel
Lon1,lat1,data1,Lon2,lat2,data2, ········· ,LonN,latN,dataN<LF*>
:
:
Lon1,lat1,data1,Lon2,lat2,data2, ········· ,LonN,latN,dataN<LF*>
#Green Channel
Lon1,lat1,data1,Lon2,lat2,data2, ········· ,LonN,latN,dataN<LF*>
:
:
Lon1,lat1,data1,Lon2,lat2,data2, ········· ,LonN,latN,dataN<LF*>
#Blue Channel
Lon1,lat1,data1,Lon2,lat2,data2, ········· ,LonN,latN,dataN<LF*>
:
:
Lon1,lat1,data1,Lon2,lat2,data2, ········· ,LonN,latN,dataN<LF*>
```

*LF code: (CR+LF)0D0A[hex]

(2) The format without latitude and longitude information

```
#Red Channel
data1, data2, ········· ,dataN<LF*>
:
:
data1, data2, ········· ,dataN<LF*>
#Green Channel
data1, data2, ········· ,dataN<LF*>
:
:
data1, data2, ········· ,dataN<LF*>
#Blue Channel
data1, data2, ········· ,dataN<LF*>
:
:
data1, data2, ········· ,dataN<LF*>
```

*LF code: (CR+LF)0D0A[hex]

5.3 Appendix A.3 KML File Format

KML (Keyhole Markup Language) file is the file that stores the KML tag for displaying the image file of SGLI on Google Earth Client(R). This file is created when saved in the [Save KML Format] of the [File] menu. KML file format is shown in Figure A.3-1.

```
<?xml version="1.0" encoding="UTF-8"?>
<kml xmlns="http://earth.google.com/kml/2.0">     (1)KML Header Tag
<Document>
<name> Cloud/SGLI </name>     (2)Name Tag
<description>     (3)Description Tag
<![CDATA[GranuleID: P1AME090228179MD_P01A0000000.00 : Copyright @ Japan Aerospace
Exploration Agency/Earth Observation Research Center]]>

</description>
<GroundOverlay>     (4)Ground Overlay Tag

    <name> Cloud/SGLI </name>
    <visibility>1</visibility>     (5)Visibility Tag
    <Icon>     (6)Icon Tag
    <href>./P1AME090228179MD_P01A0000000.png </href>
    </Icon>
    <LatLonBox>     (7)LatLonBox Tag
    <north>90</north>
    <south>-90</south>
    <east>0</east>
    <west>-360</west>
    </LatLonBox>
    <LookAt>     (8)LookAt Tag
    <heading>0</heading>
    <latitude>0</latitude>
    <longitude>140</longitude>
    <tilt>0</tilt>
    <range>18000000</range>
    </LookAt>
    <TimeSpan>     (11)TimeSpan Tag
    <begin>2003-01-01T00:00:00Z</begin> <end>2003-02-01T00:00:00Z</end>
    </TimeSpan>
</GroundOverlay>
<ScreenOverlay>     (9)ScreenOverlay Tag
```

```
  <name>Color Scale Bar</name>

  <Icon>

  <href>./ P1AME090228179MD_P01A0000000_bar.png </href>

  </Icon>

  <overlayXY x="0.5" y="0" xunits="fraction" yunits="fraction"/>

  <screenXY x="0.5" y="10" xunits="fraction" yunits="pixels"/>

  <size x="0" y="0" xunits="fraction" yunits="fraction"/>

  <TimeSpan>    (11)TimeSpan Tag

  <begin>2003-01-01T00:00:00Z</begin> <end>2003-02-01T00:00:00Z</end>

  </TimeSpan>

</ScreenOverlay>

<LookAt>    (10)LookAt Tag

  <heading>0</heading>

  <latitude>0</latitude>

  <longitude>140</longitude>

  <tilt>0</tilt>

  <range>18000000</range>

</LookAt>

</Document>

</kml>
```

Figure A.3-1 KML File Format

1) KML Tag

KML tag described in Figure A.3-1 is listed in Table A.3-1.

Table A.3-1 KML Tag

No.	Tag	Description	Note
1	KML Header Tag	KML2.0 is specified	
2	Name Tag	The label displayed on the window of Google Eart(R) is defined. * SGLI: GCOM-C/SGLI	
3	Description Tag	The following information displayed on the window of Google Earth@ is defined. * Granule ID * Copyright	
4	Ground Overlay Tag	Attribute of overlay image is defined.	
5	Visibility Tag	A default setup is set to ON (= 1).	
6	Icon Tag	Image file name is defined.	The display image is assumed to be an image projected by EQR.
7	LatLonBox Tag	The latitude and longitude of the four corners of an image.	
8	LookAt Tag	The following values are defined as a default viewpoint. * latitude=0 (deg) * longitude=140 (deg) * range=18000000 (m) * tilt=0 (deg) * heading=0 (deg)	
9	ScreenOverlay Tag	The image of color scale is defined.	
10	LookAt Tag	(Initial viewpoint) * latitude=0 (deg) * longitude=140 (deg) * range=18000000 (m) * tilt=0 (deg) * heading=0 (deg)	
11	TimeSpan Tag	The period that overlay image displays is defined.	

5.4 Appendix A.4 KML File Format (The Timeline Function)

Google Earth™ provides timeline function that changes the geospatial information to be displayed according to the specified time. You can create KML file corresponding to this function.

This file is created when saved in the [KML Format] of [Make SGLI product Animation] dialog.

KML file format corresponding to this function is shown in Figure A.4-1.

```
<?xml version="1.0" encoding="UTF-8"?>
<kml xmlns="http://earth.google.com/kml/2.0">    (1) KML Header Tag
<Document>
        <name> Cloud/SGLI </name>    (2) Name Tag
        <description>    (3) Description Tag
        <![CDATA[GranuleID: P1AME090228179MD_P01A0000000.00 : Copyright @ Japan
        Aerospace Exploration Agency/Earth
        Observation Research and application Center]]>
        </description>
        <GroundOverlay>    (4) Ground Overlay Tag
        <name> Cloud/SGLI </name>
        <visibility>1</visibility>    (5) Visibility Tag
        <Icon>    (6) Icon Tag
        <href>./ P1AME090228179MD_P01A0000000.png </href>
        </Icon>
        <LatLonBox>    (7) LatLonBox Tag
        <north>90</north>
        <south>-90</south>
        <east>0</east>
        <west>-360</west>
        </LatLonBox>
        <LookAt>    (8) LookAt Tag
        <heading>0</heading>
        <latitude>0</latitude>
        <longitude>140</longitude>
        <tilt>0</tilt>
        <range>18000000</range>
        </LookAt>
        <TimeSpan>    (11) TimeSpan Tag
        <begin>2003-01-01T00:00:00Z</begin> <end>2003-02-01T00:00:00Z</end>
        </TimeSpan>
        </GroundOverlay>
        <GroundOverlay>    (12) Plural Ground Overlay Tags
```

```
...(repeat)...

<TimeSpan>

<begin>2003-02-01T00:00:00Z</begin><end>2003-03-01T00:00:00Z</end>

</TimeSpan>

</GroundOverlay>

...(repeat)...

<ScreenOverlay>     (9) ScreenOverlay Tag

<name>Color Scale Bar</name>

<Icon>

<href>./ P1AME090228179MD_P01A0000000_bar.png </href>

</Icon>

<overlayXY x="0.5" y="0" xunits="fraction" yunits="fraction"/>

<screenXY x="0.5" y="10" xunits="fraction" yunits="pixels"/>

<size x="0" y="0" xunits="fraction" yunits="fraction"/>

<TimeSpan>     (11) TimeSpan Tag

<begin>2003-01-01T00:00:00Z</begin> <end>2003-02-01T00:00:00Z</end>

</TimeSpan>

</ScreenOverlay>

<LookAt>     (10) LookAt Tag

<heading>0</heading>

<latitude>0</latitude>

<longitude>140</longitude>

<tilt>0</tilt>

<range>18000000</range>

</LookAt>

</Document>

</kml>
```

Figure A.4-1 KML File Format (The Timeline Function)

1) KML Tag

KML tag described in Figure A.4-1 is listed in Table A.4-1.

Description of the same items as in Figure A.3-1 is omitted.

Table A.4-1 KML Tag

No.	Tag	Description	Note
1	TimeSpan Tag	The period that overlay image displays is defined.	
2	Plural Ground Overlay Tags	Two or more displayed overlay images are defined. The structure is the same as the overlay image definition including TimeSpan Tag.	

5.5 Appendix A.5 HDF Format

Select the output range from the image displayed on the screen with rectangle. Extract the data including the selected range by the scanned unit and output it in the HDF format.

- File format: HDF5 format

- Contents
 (1) Metadata
   Metadata to be output is listed in Table A.5-1.

 (2) Dataset
   All data included in dataset are stored by extracting in the scanned unit.

Table A.5-1 Metadata List (1/2)

No.	Metadata	Explanation	change ("-" means no change)
Global_attributes
1	Product_file_name	Product file name	–
2	Mission_characteristics	Mission characteristics	–
3	Sensor	Sensor name	–
4	Software_version	Software version	–
5	Algorithm_developer	Algorithm version	–
6	Dataset_description	Dataset description	–
7	Product_name	Product name	–
8	Product_version	Product version	–
9	Satellite	Satellite name	–
10	Product_level	Product level	–
11	Scene_start_time	Scene start time	○: Change to the start time of the data range.
12	Scene_end_time	Scene end time	○: Change to the end time of the data range.
13	Scene_center_time	Scene center time	○: Change to the center time of the data range.
14	Ascending_node_crossing_time	Crossing time of ascending node	–
15	Total_orbit_number	Total orbit number	–
16	RSP_path_number	RSP path number	–
17	Scene_number	Scene number	–
18	Orbit_direction	Orbit direction	–
19	Maneuver_status	Maneuver flag	–
20	Start_argument_of_latitude	Argument of latitude of the scene start	–
21	End_argument_of_latitude	Argument of latitude of the scene end	–
22	Lines_per_scan	The number of lines per one scan	–
23	Missing_lines	The number of missing_lines	○: *2
24	Missing_lines_rate	Missing lines rate	○: *2
25	Saturated_pixels_rate	Saturated pixels rate	–
26	Abnormal_positions_rate	Abnormal data rate of satellite position	–
27	Abnormal_velocities_rate	Abnormal data rate of satellite velocity	–
28	Abnormal_attitudes_rate	Abnormal data rate of satellite attitude	–
29	Geometric_information_error_rate	Error rate of the calculated result of geometric information	–

Table A.5-1 Metadata List (2/2)

No.	Metadata	Explanation	change ("-" means no change)
30	Stray_light_collected_pixels_rate	Pixel rate of stray light correction	–
31	Radiance_error_pixels_rate	Error pixel rate of spectral radiance	–
32	Representative_channel	Representative channel	–
33	Latitude_units	Latitude units	–
34	Longitude_units	Longitude units	–
35	Scene_center_latitude	Center latitude of the scene	○: Change to fit the data range.
36	Scene_center_longitude	Center longitude of the scene	○: Change to fit the data range.
37	Upper_left_latitude	Upper left latitude of the scene	○: Change to fit the data range.
38	Upper_left_longitude	Upper left latitude of the scene	○: Change to fit the data range.
39	Upper_right_latitude	Upper left latitude of the scene	○: Change to fit the data range.
40	Upper_right_longitude	Upper left latitude of the scene	○: Change to fit the data range.
41	Lower_left_latitude	Upper left latitude of the scene	○: Change to fit the data range.
42	Lower_left_longitude	Upper left latitude of the scene	○: Change to fit the data range.
43	Lower_right_latitude	Upper left latitude of the scene	○: Change to fit the data range.
44	Lower_right_longitude	Upper left latitude of the scene	○: Change to fit the data range.
	Processing_attributes		
45	Contact_point	Contact point	–
46	Input_files	Input file name	–
47	Processing_UT	Processing time of the product	–
48	Processing_result	Processed result (returned value)	–
49	Processing_organization	Processing organization	–

*1 No.2, 7, 8, 11 to 44 and 48 aren't output since these are not defined in Level2 product.

*2 The value calculated from Data_quality_flag/Qf_scan is stored.

5.6 Appendix A.6 GeoTiff File Format

GeoTiff file format is shown in Figure A.6-1.

1) Detail on the header record

The header format of the GeoTiff file format is listed in Table A.6-1.

2) Image data record

Image data record stores image information of the specified extraction range in RGB.

Table A.6-1 Header Record of GeoTiff File Format (1/2)

No	Tag	Description	Note
1	Artist	Image creator JAXA/GCOM-C science project (fixed)	
2	BitsPerSample	The number of bits per component. L1A: 16 L1B: 16 Others: The same size as a data.	
3	Compression	Image compression 1: No compression (fixed).	
4	Copyright	Copyright Copyright, JAXA, 2017. All rights reserved (fixed)	
5	DateTime	Date and time of image creation YYYY:MM:DD HH:MM:SS 24-hour notation	
6	ImageDescription	Description of the image. Granule ID is set.	
7	ImageLength	Image length Height (vertical length) of an image expressed in line units. The number of scan lines in an image.	
8	ImageWidth	Image width Width (horizontal length) of an image expressed in pixel units.	
9	Make	Manufacture JAXA/GCOM-C project (fixed)	
10	Model	Model name or number of the scanner Second-generation Global Imager (SGLI) (fixed)	
11	Orientation	Scan direction Direction of the image to the row or column 1: TopLeft (image is saved as displayed on the window) (fixed)	
12	PhotometricInterpretation	Photometric type Code indicating color information of bit map image data. 1: BlackIsZero (used in Bilevel or Grayscale) (fixed)	

Table A.6-1 Header Record of GeoTiff File Format (2/2)

No	Tag	Description	Note
13	PlanarConfiguration	Order of storing image data. When the tag SamplePerPixel is 2 or larger, this code indicates if the bitmap image data is stored via the pixel priority mode or plane priority mode. 2: Plane priority mode ("plane-by-plane") (fixed) E.g. RRR……GGG……BBB……	
14	SampleFormat	Type of pixel data. 2: Signed integer data (Two's complement)	
15	SamplesPerPixel	Number of samples per pixel. The value that indicates the number of data types included in a pixel. Bilevel、Grayscale、palette-color images: 1 (fixed)	
16	Software	Name and version of the software used to create the image. GCOM-C SGLI Processing System ver.X.XX X.XX: Software version	
17	ModelTiepointTag	Tie point information.This tag is used to set the tie point (i.e. the point of overlap) between raster image Products in which latitude and longitude are stored: Maximum tie point is 10922 (If exceeding this point, it is stored by thinning out.) Products in which latitude and longitude are not stored: Tie point at the four corners of the image.	
18	GTModelTypeGeoKey	Defines the general type of model coordinate system. 2: ModelTypeGeographic (Latitude-longitude coordinate system) (fixed)	
19	GTRasterTypeGeoKey	Type of raster (image information) 2 RasterPixelIsPoint (One pixel represents a point in the real world) (fixed)	
20	GTCitationGeoKey	Citation on the general structure of the GeoTIFF file. L1: Product level_Sensor type_CH number Others: Product level_Data set name	
21	GeographicTypeGeoKey	The geographic coordinate system code used for mapping the latitude-longitude coordinate system to a certain ellipsoid. 4326: WGS84 (fixed)	
22	GeogCitationGeoKey	Citation and reference for coordinate system parameters. WGS84 (fixed)	

5.7 Appendix A.7 NetCDF File Format

NetCDF (Network Common Data Form) keeps the data in the same tag/structure as HDF5 format.

For the data contents, please refer to"5.5 Appendix A.5 HDF Format".

5.8 Appendix A.8 Color Bar Table File Format

Color bar table file manages the information of the color bar table.

You can edit these files and save your own color bar table, and also edit it in the text editor such as WordPad or Notepad. The file format is listed in Table A.8-1.

Table A.8-1 Color Bar Table File Format

Parameters	Format	Descriptions
Title	//character string	The default is " SGLI UserTool COLOR TABLE DEFINE "
Number of Points	N = n	n is an integer selected from 2, 3, 5 or 9.
Setting Graph mode	GRAPH_MODE= *value*	*Value* is set 0 or 1 0: Line Graph 1: Histogram
Logarithm Interpolation	LOG_MODE = *value*	*Value* is set "ON" or "OFF". ON: Logarithm interpolation OFF: Linear interpolation
Inserting Color Bar mode	REVERS_MODE=*value*	*Value* is set "ON" or "OFF. ON: Reverse Off: Not reverse
Setting Color Bar Title	TITLE_NAME= *value*	*Value* is up to 250 characters. E.g.) TITLE_NAME = [SGLI Brightness Temperature [K]]
Relation between Data Valueand RGB Color Value at point 1	VAL = real value. [TAB] COLOR = n1, n2, n3 *[TAB] means Tab key.	Real value is -9999,000 to 9999,000 n1, n2 and n3 are Color Value of red, green and blue respectively and its value is between 0 and 255. *Data value and color value are ouput in one line. They are separated by tab.
Relation between Data Valueand RGB Color Value at pointN	Same as above	Same as above

```
// SGLI UserTool COLOR TABLE DEFINE


N = 9
LOG_MODE = OFF
REVERSE_MODE = OFF
TITLE_NAME = [SGLI Brightness Temperature [K] ]
VAL = 154.800003 COLOR = 0,0,255
VAL = 176.225006 COLOR = 0,128,255
VAL = 197.649994 COLOR = 0,255,255
VAL = 219.074997 COLOR = 0,255,128
VAL = 240.500000 COLOR = 0,255,0
VAL = 261.924988 COLOR = 128,255,0
VAL = 283.350006 COLOR = 255,255,0
VAL = 304.774994 COLOR = 255,128,0
VAL = 326.200012 COLOR = 255,0,0
```

Figure A.8-1 Sample of Color Bar Table

5.9 Appendix A.9 Look Up Table File Format

Look up table file manages the information of the look up table.

You can edit these files and save your own look up table, and also edit it using the text editor such as WordPad or Notepad. The file format is listed in Table A.9-1.

Table A.9-1 Look Up Table File Format

Parameters	Format	Descriptions
Title	//character string	The value is " SGLI UserTool LOOKUP TABLE "
Number of Points	N = n	n is an integer selected from 2, 3, 5 or 9.
Setting Graph mode	GRAPH_MODE= *value*	*Value* is set 0 or 1. 0: Line Graph 1: Histogram
Logarithm Interpolation	LOG_MODE = *value*	*Value* is set "ON" or "OFF".
Red Color Value	R△= △Rn1,Rn2,n1,n2 △is space Rn is real number	Rn1 = Arbitrariness Rn2 = Arbitrariness n1 = 0 to 255 n2 = 0 to 255
Green Color Value	G△= △Rn1,Rn2,n1,n2 △is space Rn is real number	Rn1 = Arbitrariness Rn2 = Arbitrariness n1 = 0 to 255 n2 = 0 to 255
Blue Color Value	B△= △Rn1,Rn2,n1,n2 △is space Rn is real number	Rn1 = Arbitrariness Rn2 = Arbitrariness n1 = 0 to 255 n2 = 0 to 255

*Data value and color value are ouput in one line. They are separated by tab.

E.g.) VAL_R = 40.000000 <tab> COLOR_R = 0

```
// SGLIUserTool LOOKUP DEFINE


N = 9
LOG_MODE = OFF
VAL_R = 154.800003 COLOR_R = 0
VAL_R = 176.225006 COLOR_R = 31
VAL_R = 197.649994 COLOR_R = 63
VAL_R = 219.074997 COLOR_R = 95
VAL_R = 240.500000 COLOR_R = 127
VAL_R = 261.924988 COLOR_R = 159
VAL_R = 283.350006 COLOR_R = 191
VAL_R = 304.774994 COLOR_R = 223
VAL_R = 326.200012 COLOR_R = 255
```

Figure A.9-1 Sample of Look Up Table

5.10 Appendix A.10 Batch File

Batch file manages the information the batch processing executed in this user tool.

You can edit these files using the text editor such as WordPad or Notepad.

Use en space (half -width space) to separate the format, because em space (full size width) cannot be recognized as separation.

Batch file format is listed in the Table A.10-1.

Table A.10-1 Batch File Format (8/7)

Parameters	Format	Descriptions

Data display	VIEWHDF [T] [/L] [/S │ /RGB] [/M] [/C] [/I] [/V]
	
	*/M,/C,/V is possible to omit.
		/T
		  Sensor type: NP, PL, IRS
		〔Ex: /T NP〕
		
		/L
		  Product：L1A, L1B, L1R (L1B (resampling)),
		  L2, L3
		〔Ex: /L L1A〕
		
		/S*5
		(Not possible to specify simultaneously with RGB)
		  Display channel (L1:NP)
		    [L1A]
		      VN01_X～VN11_X
		      (X:Lens No[1～3])
		    [L1B]
		      Lt_VN01～Lt_VN11
		    [L1R（L1B resampling）]
		      Lt_VN01～Lt_VN11,
		      Statistic_data
		
		  Display channel (L1: PL)
		    [L1A]
		      P1_p60, P1_0, P1_m60,
		      P2_p60, P2_0, P2_m60
		    [L1B]
		      Lt_P1_p60,Lt_P1_0,
		      Lt_P1_m60, Lt_P2_p60,
		      Lt_P2_0, Lt_P2_m60,
		      Lt_PI01, Lt_PQ01, Lt_PU01, Lt_PI02,
		      Lt_PQ02, Lt_PU02
		
		  Display channel (L1: IRS):
		    [L1A]
		      SW1～SW4, TI1～TI2
		    [L1B]
		      Lt_SW1～Lt_SW4,
		      Lt_TI01～Lt_TI02
		
		  Display channel (L2):
		      AAE_land, AAE_ocean,
		      AAE_pol, ADY_443
		      AGB, AOT_land,
		      AOT_ocean, AOT_pol,
		      ARI_pol, Bit_Field,
		      CHLA, Cloud_type,
		      COT_I, COT_W, EVI,FAPAR,
		      Height, LAI, LST, Lt_PI01, Lt_PI02,
		      Lt_PQ01, Lt_PQ02, Lt_PU01, Lt_PU02,
		      Lt_SW01, Lt_SW02,
		      Lt_SW03, Lt_SW04,
		      Lt_TI01, Lt_TI02, STD_SW, STD_TI,
		      Lt_VN08P, Lt_VN11P,
		      Lt_VN01～Lt_VN11,
		      NDVI, NWLR_380,
		      NWLR_412, NWLR_443,
		      NWLR_490, NWLR_530,
		      NWLR_565, NWLR_670,

Parameters	Format	Descriptions
		OKID, PAR, Reff, Relative_azimuth_AVE, Relative_azimuth_PL_AVE, Rs_PI01, Rs_PI02, Rs_PI01_AVE, Rs_PI02_AVE, Rs_SW01～Rs_SW04, Rs_SW01_AVE～Rs_SW04_AVE, Rs_VN01～Rs_VN11, Rs_VN01_AVE～Rs_VN12_AVE, Rs_VN08P, Rs_VN11P, Rs_VN08P_AVE, Rs_VN11P_AVE, Sensor_zenith_AVE, Sensor_zenith_PL_AVE, SGSL, SI, SICE, SIST, Solar_zenith_AVE, Solar_zenith_PL_AVE, SS, SST, TAUA_L, TAUA_S, Tb_TI01, Tb_TI02, Top_temp, VRI 〔Ex：/S SW1〕 /RGB*5(Not possible to specify simultaneously with /S) The channel is specified in order of RGB. 〔Ex：/RGB SW1 SW2 SW3〕 /M Map projection: EQR, ORTHO, PN, PS, PNS*8、MER, ST When omitting it, it displays it by the default map projection of each product type. 〔Ex: /M EQR〕 /C The color bar or the look-up table file name is specified. When omitting it, it becomes Automatic. 〔Ex：/C SGLIL1A.clt〕 /I*4 Product file list name (*1) is specified. 〔Ex: /I amsr2Filelist.txt〕 /V Display/non-display: ON, OFF Display/non-display under the batch processing is specified. When omitting it, it becomes turning on(display). 〔Ex: /V OFF〕
Image Output	OUTIMG [/R] [/F] [/O] */R is possible to omit.	R*2 Display range: Latitude on the left, Longitude on the left, Latitude under the right and longitude under the right is specified. 〔Ex: /R 36 138.9 34.9 140.28〕 /F Format: BMP, JPEG, TIFF, PNG 〔Ex: /F JPEG〕

Table A.10-1 Batch File Format (10/7)

Parameters	Format	Descriptions
		/O*4 *6 The output file name is specified. 〔Ex: /O output.jpg〕

Animation	OUTMOV [/T] [/L] [/F] [/S] [/C] [/I] [/O]
	
	*/C is possible to omit.
		/T
		  Sensor type：NP, PL, IRS
		〔Ex: /T NP〕
		
		/L
		  Product: L1A, L1B, L1R (L1B (resampling)),
		  L2, L3
		〔Ex: /L L1A〕
		
		/S*5
		(Not possible to specify simultaneously with RGB)
		  Display channel (L1: NP)
		   [L1A]
		      VN01_X〜VN11_X
		      (X: Lens No[1〜3])
		   [L1B]
		      Lt_VN01〜Lt_VN11
		   [L1R（L1B resampling）]
		      Lt_VN01〜Lt_VN11,
		      Statistic_data
		
		  Display channel (L1：PL)
		   [L1A]
		      P1_p60, P1_0, P1_m60,
		      P2_p60, P2_0, P2_m60
		   [L1B]
		      Lt_P1_p60, Lt_P1_0,
		      Lt_P1_m60, Lt_P2_p60,
		      Lt_P2_0, Lt_P2_m60,
		      Lt_PI01, Lt_PQ01, Lt_PU01, Lt_PI02,
		      Lt_PQ02, Lt_PU02
		
		  Display channel (L1: IRS) :
		   [L1A]
		      SW1〜SW4, TI1〜TI2
		   [L1B]
		      Lt_SW1〜Lt_SW4,
		      Lt_TI01〜Lt_TI02
		
		  Display channel (L2) :
		      AAE_land, AAE_ocean,
		      AAE_pol, ADY_443
		      AGB, AOT_land,
		      AOT_ocean,AOT_pol,
		      ARI_pol, Bit_Field,
		      CHLA, Cloud_type,
		      COT_I, COT_W, EVI,FAPAR,
		      Height, LAI, LST, Lt_PI01, Lt_PI02,
		      Lt_PQ01, Lt_PQ02, Lt_PU01, Lt_PU02,
		      Lt_SW01, Lt_SW02,
		      Lt_SW03, Lt_SW04,
		      Lt_TI01, Lt_TI02, STD_SW, STD_TI,
		      Lt_VN08P, Lt_VN11P,

144

Parameters	Format	Descriptions
		Lt_VN01〜Lt_VN11, NDVI, NWLR_380, NWLR_412, NWLR_443, NWLR_490, NWLR_530, NWLR_565, NWLR_670, OKID, PAR, Reff, Relative_azimuth_AVE, Relative_azimuth_PL_AVE, Rs_PI01, Rs_PI02, Rs_PI01_AVE, Rs_PI02_AVE, Rs_SW01〜Rs_SW04, Rs_SW01_AVE〜Rs_SW04_AVE, Rs_VN01〜Rs_VN11, Rs_VN01_AVE〜Rs_VN12_AVE, Rs_VN08P, Rs_VN11P, Rs_VN08P_AVE, Rs_VN11P_AVE, Sensor_zenith_AVE, Sensor_zenith_PL_AVE, SGSL, SI, SICE, SIST, Solar_zenith_AVE, Solar_zenith_PL_AVE, SS, SST, TAUA_L, TAUA_S, Tb_TI01, Tb_TI02, Top_temp, VRI 〔Ex: /S SW1〕 /C The color bar Table file name is specified. When omitting it, it becomes Automatic. 〔Ex: /C SGLIL1A.clt〕 /I*4 Product file list name is specified.。 〔Ex: /I SGLIFilelist.txt〕 /O*4 *6 The output file name is specified. 〔Ex: /O MovieFile.avi〕
CSV output	OUTCSV [/R] [/G] [/O] */G is possible to omit. */R is possible to omit when /G was omitted.	/R*2 Display range: Latitude on the left, Longitude on the left, Latitude under the right and longitude under the right is specified. 〔Ex: /R 36 138.9 34.9 140.28〕 /G Latitude and longitude existence: When omitting it, it becomes it if there is no latitude and longitude. /O*4 *6 The output file name is specified. 〔Ex: /O output.csv〕
Binary	OUTBIN [/R] [/O] */R is possible to omit.	/R*2 Display range: Latitude on the left, Longitude on the left, Latitude under the right and longitude under the right is specified. 〔Ex: /R 36 138.9 34.9 140.28〕

Table A.10-1 Batch File Format (12/7)

Parameters	Format	Descriptions
		/O*4 *6 　The output file name is specified. 〔Ex: /O BinaryFile.bin〕
Zoom in/Zoom out,Pan	CHANGEMAP [/Z] [/C] [/W] */W is possible to omit.	/Z 　Expansion rate: The integral value from 1 to 256 is specified. 〔Ex: /Z 128〕 /C*2 　Center coordinates of image: Center latitude, Center longitude 〔Ex: /C 36 140.28〕 /W*3 　Window size: It specifies it in order of X coordinates and Y coordinates. When omitting it, it doesn't change. 〔Ex: /W 800 500〕
HDF Output	OUTHDF [/T] [/L] [/S｜/RGB] [/M] [/C] [/I] [/V] [/R] [/O] */M, /C, /V, /O are possible to omit.	/T 　Sensor type: NP, PL, IRS 〔Ex: /T NP〕 /L 　Product: L1A, L1B, L1R (L1B (resampling)), 　L2, L3 〔Ex: /L L1A〕 /S*5 (Not possible to specify simultaneously with RGB) 　Display channel (L1: NP) 　　[L1A] 　　　VN01_X～VN11_X 　　　(X: Lens No[1～3]) 　　[L1B] 　　　Lt_VN01～Lt_VN11 　　[L1R（L1B resampling）] 　　　Lt_VN01～Lt_VN11, 　　　Statistic_data 　Display channel (L1: PL) 　　[L1A] 　　　P1_p60, P1_0, P1_m60, 　　　P2_p60, P2_0, P2_m60 　　[L1B] 　　　Lt_P1_p60, Lt_P1_0, 　　　Lt_P1_m60, Lt_P2_p60, 　　　Lt_P2_0, Lt_P2_m60, 　　　Lt_PI01, Lt_PQ01, Lt_PU01, Lt_PI02, 　　　Lt_PQ02, Lt_PU02 　Display channel (L1: IRS) : 　　[L1A] 　　　SW1～SW4, TI1～TI2

146

Parameters	Format	Descriptions

		[L1B]
		    Lt_SW1～Lt_SW4,
		    Lt_TI01～Lt_TI02
		
		Display channel (L2) :
		    AAE_land,AAE_ocean,
		    AAE_pol, ADY_443
		    AGB, AOT_land,
		    AOT_ocean, AOT_pol,
		    ARI_pol, Bit_Field,
		    CHLA, Cloud_type,
		    COT_I, COT_W, EVI, FAPAR,
		    Height, LAI, LST, Lt_PI01, Lt_PI02,
		    Lt_PQ01, Lt_PQ02, Lt_PU01, Lt_PU02,
		    Lt_SW01, Lt_SW02,
		    Lt_SW03, Lt_SW04,
		    Lt_TI01, Lt_TI02, STD_SW, STD_TI,
		    Lt_VN08P, Lt_VN11P,
		    Lt_VN01～Lt_VN11,
		    NDVI, NWLR_380,
		    NWLR_412, NWLR_443,
		    NWLR_490, NWLR_530,
		    NWLR_565, NWLR_670,
		    OKID, PAR, Reff,
		    Relative_azimuth_AVE,
		    Relative_azimuth_PL_AVE,
		    Rs_PI01, Rs_PI02,
		    Rs_PI01_AVE, Rs_PI02_AVE,
		    Rs_SW01～Rs_SW04,
		    Rs_SW01_AVE～Rs_SW04_AVE,
		    Rs_VN01～Rs_VN11,
		    Rs_VN01_AVE～Rs_VN12_AVE,
		    Rs_VN08P, Rs_VN11P,
		    Rs_VN08P_AVE, Rs_VN11P_AVE,
		    Sensor_zenith_AVE,
		    Sensor_zenith_PL_AVE,
		    SGSL, SI, SICE, SIST,
		    Solar_zenith_AVE,
		    Solar_zenith_PL_AVE,
		    SS, SST, TAUA_L, TAUA_S,
		    Tb_TI01, Tb_TI02, Top_temp, VRI
		〔Ex：/S SW1〕
		
		/RGB*5 (Not possible to specify simultaneously with /S)
		  The channel is specified in order of RGB.
		〔Ex: /RGB 6V 10V 18V〕
		
		/M
		  Map projection: EQR, ORTHO, PN, PS, PNS*8, MER
		  When omitting it, it displays it by the default map projection of each product type.
		〔Ex: /M EQR〕
		
		/C
		  The Look Up Table file name is specified.
		When omitting it, it becomes Automatic.

147

Table A.10-1 Batch File Format (14/7)

Parameters	Format	Descriptions

		〔Ex: /C AM2L1A.clt〕
		
		/I*4
		  Product file list name is specified.
		   〔Ex: /I amsr2Filelist.txt〕
		
		/O*4 *6
		  The output file name is specified.
		〔Ex: /O MovieFile.avi〕
		
		/V
		   Display/non-display: ON, OFF
		Display/non-display under the batch processing is specified. When omitting it, it becomes turning on (display).
		〔Ex: /V OFF〕
		
		R*2
		  Display range: Latitude on the left, Longitude on the left, Latitude under the right and longitude under the right is specified.
		〔Ex: /R 36 138.9 34.9 140.28〕

*1 Text file storing product file path. (Refer to Table A.12-1 Product File List.)

*2 Latitude is specified within the range of -90 to 90°. Longitude is specified within the range of -180 to 180°.

*3 Window size is specified in the range of the maximum size 1600×1200 and minimum size 100×100. Window size can not be changed using the command created automatically by the operation of this user tool. This can be changed only when user specifies the size by manual.

*4 It is alos possible to specify the file name with a full path.

*5 When the product identification is Level 2 (L2) and Level 3 (L3), specification of the channel is unnecessary.

*6 If the extension is not described, it is added automatically. If the extension is incorrect, correct extension is added to the described file name.

*7 The northern hemisphere and the southern hemisphere of the Pola stereographic projection are displayed on the same window side by side.

*8 The product to be processed as a product to be modified (created by GeoTiff/NetCDF/HDF5) is also included.

5.11 Appendix A.11 Initial Parameter File

Initial parameter file (GCOM User Tool.ini) manages the information necessary to execute this user tool.

This file is stored in install folder in this user tool.

The parameter file format is listed in Table A.11-1.

Table A.11-1 Paramter File Format (1/4)

Parameter	Format	Descriptions
Descriptor	**[DIR]**	**Fixed.**
Parameter Folder Name	DEF_FILE=folder_name	The folder name for saving parameter file. (absolute path)
Input SGLI Data Folder Name	INPUT_DIR=folder_name	The folder name of the SGLI data input destination. (absolute path)
Input SGLI Data Folder Name	InpFldrName=folder_name	The folder name of the SGLI data input destination. (absolute path)
Output SGLI Data Folder Name	OutFldrName=folder_name	The folder name of the SGLI data output destination. (absolute path)
Intput SGLI animation Folder Name	AnmInpFldrName= folder_name	The folder name of the SGLI animatio input destination. (absolute path)
Output SGLI animation Folder Name	AnmOutFldrName =folder_name	The folder name of the SGLI animatio output destination. (absolute path)
Descriptor	**[GENERIC]**	**Fixed.**
Number of read file	NumReadFiles=10	The maximum number of the reading files.
Endian	BytOrdrSetting=1	Byte order for binary file. 0: BIG ENDIAN 1: LITTLE ENDIAN
Non-Observation data value.(Signed)	NnObsValMrk=-9999	Non-Observation data value when binary form is output.
Non-Observation data value.(Unsigned)	NnObsVal=65535	Non-Observation data value when binary form is output.
Number of the points	OneRcrdOut=1	The number of the points to output to one record in the CSV file.
Decimal place of output data	DecSetting=3	Decimal place of output data to a CSV file.
Interval of latitude and longitude when outputting file.	LatLonInterval=0.01	Interval of latitude and longitude when outputting CSV format. (degree)
Color of the coastline	ShrIndClr=00FFFFFF	Display color of the coastline (The value is hexadecimal 8-digit [ABGR])
Color of the helpline	LatLonIndiClr=00959595	Display color of latitude/longitude (The value is hexadecimal 8-digit [ABGR])
Color of the equator	QuaIndiClr=000000FF	Display color of the equator (The value is hexadecimal 8-digit [ABGR])

Table A.11-1 Paramter File Format (2/4)

Parameter	Format	Descriptions
Color of the background.	BckIndiClr=00A90000	Display color of the background (The valueis hexadecimal 8-digit [ABGR])
Presence/absence of a coastline	ShrIndiFlg=TRUE	Specify whether a coastline is displayed or not. TRUE: display FALSE: doesn't display
Presence/absence of a helpline	LatLonIndiFlg=TRUE	Specify whether latitude/longitude are displayed or not. TRUE: display FALSE doesn't display
Presence/absence of the equator display	QuaIndiFlg=TRUE	Specify whether the equator is displayed or not. TRUE: display FALSE: doesn't display
Presence/absence of background	BckIndiFlg=FALSE	Specify whether the background is displayed or not. TRUE: display FALSE: doesn't display
Presence/absence of the specification of latitude and longitude line intervals	LatLonMode=FALSE	Presence/absence of the specification of latitude and longitude line intervals TRUE: manual setting FALSE: automatic setting
Interval of latitude line	LatWidth=30	Interval of latitude line The latitude line is displayed at intervals of (Value÷10°)
Interval in longitude line	LonWidth=30	Interval in longitude line The longitud line is displayed at intervals of (Value÷10°)
Setting a coastline on the upper side or lower side of image	DrwSherLine=TRUE	Set whether the coastline is displayed above or below the image. Default: upper side
Width of coastline	PenWidth=0	Width of coastline
Width of latitude and longitude	PenWidth2=0	Width of coastline

Table A.11-1 Paramter File Format (3/4)

Parameter	Format	Descriptions
Presence/absence of the color table's explanatory notes.	ExpIndiFlg=TRUE	Specify whether the legend is displayed or not. TRUE: display FALSE: doesn't display
Presence/absence of the title when outputting image file.	OutTtlIndiFlg=TRUE	Specify whether the title is displayed or not when outputting image file. TRUE: display FALSE: doesn't display
Presence/absence of flipping the color table's explanatory notes vertically.	ExpIndiRevFlg=FALSE	Specify whether the color table's explanatory notes is flipped vertically or not. TRUE: filp vertically FALSE: doesn't flip vertically
Presence/absence of the title when outputting animation file.	AnmOutTtlIndiFlg=TRUE	Specify whether the title is displayed or not when outputting animation file. TRUE: display FALSE: doesn't display
Title position to be displayed when outputting animation file.	AnmOutTtlIndiPnt=0	Title position to be displayed when outputting animation file.
Presence/absence of the file name when outputting animation file.	AnmOutFileNameFlg=FALSE	Specify whether the file name is displayed or not when outputting animation file. TRUE: display FALSE: doesn't display
File name position when outputting animation file.	AnmOutFileNamePnt＝1	File name position when outputting animation file.
The number of frame rates of animation file.	FrmRtNum=10	The number of frame rates of animation file.
Generic Descriptor	**[MAP]**	**Fixed.**
Automatic change setting of map file	MAP_MODE= 0	Set automatic change of the map file 0: Fixed 1: Automatic

Table A.11-1 Paramter File Format (4/4)

Parameter	Format	Descriptions
Map file definition	MAP_FILE=file name	When the map file is set for automatic switching, the map file name to be used when the magnification is of the original size to less than eight times. (Absolute path)
Map file definition 2	MAP_FILE2= file name	When the map file is set for automatic switching, the map file name to be used when the magnification is more than eight times to less than 256 times the size. (Absolute path)
Map file definition 3	MAP_FILE3= file name	The map file name to be used when the map file is set in the fixed.

5.12 Appendix A.12 Product file list

The product file name to be read in the batch processing is saved in a text file and it is used to display data. Each product file name is described as one file in one line with a full path and CR+LF is used for the new line character.

The product file list is shown in Figure A.12-1.

C:/sgli/_sample_file1.h5
C:/sgli/_sample_file2.h5
C:/sgli/_sample_file3.h5

Figure A.12-1 Product File List

6 Appendix B Licenses

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