



Quick-Guide to SATAID

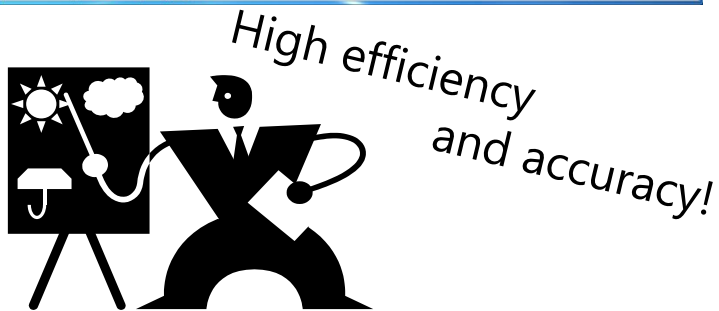
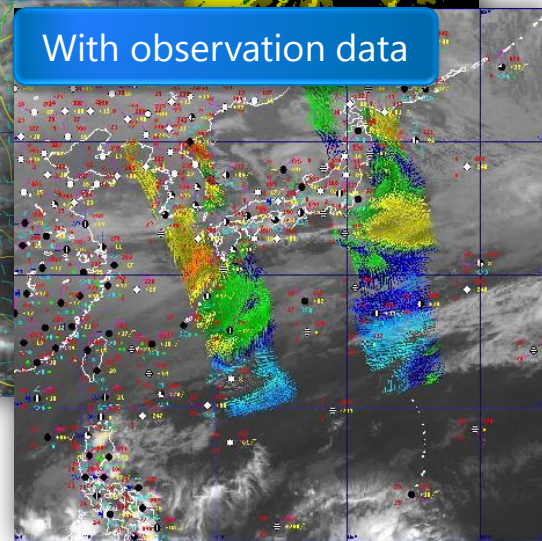
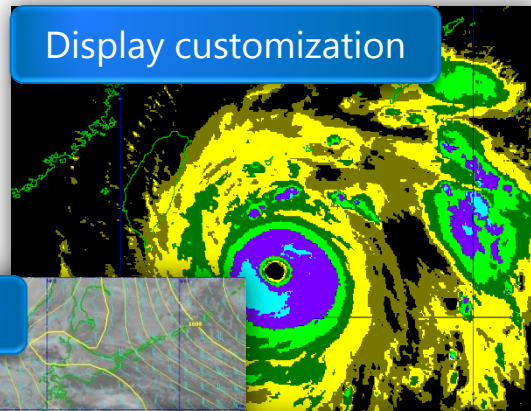
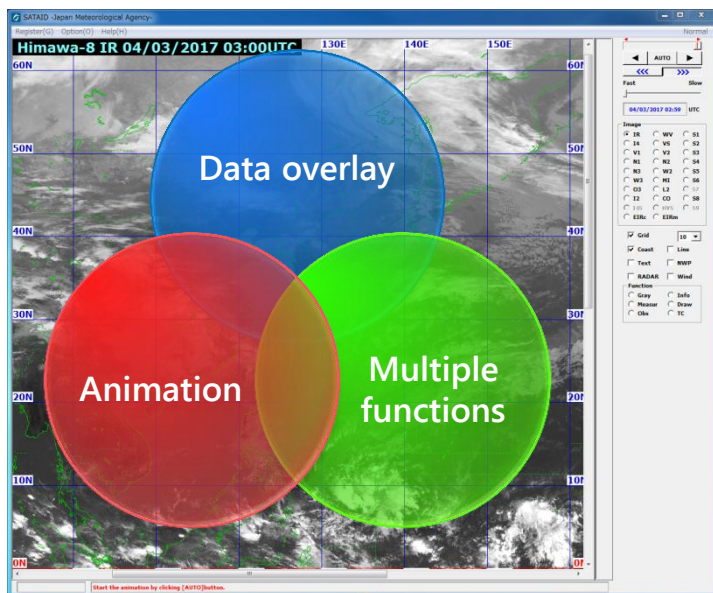
Japan Meteorological Agency

Updated as of 2017/07/24



What is SATAID?

SATAID (**SAT**ellite **A**nimation and **I**nteractive **D**iagnosis) is a sophisticated display program that enables visualization of meteorological information in multiple spatial and temporal dimensions. This helps forecasters to continually analyze and monitor weather parameters and phenomena for improved meteorological services.





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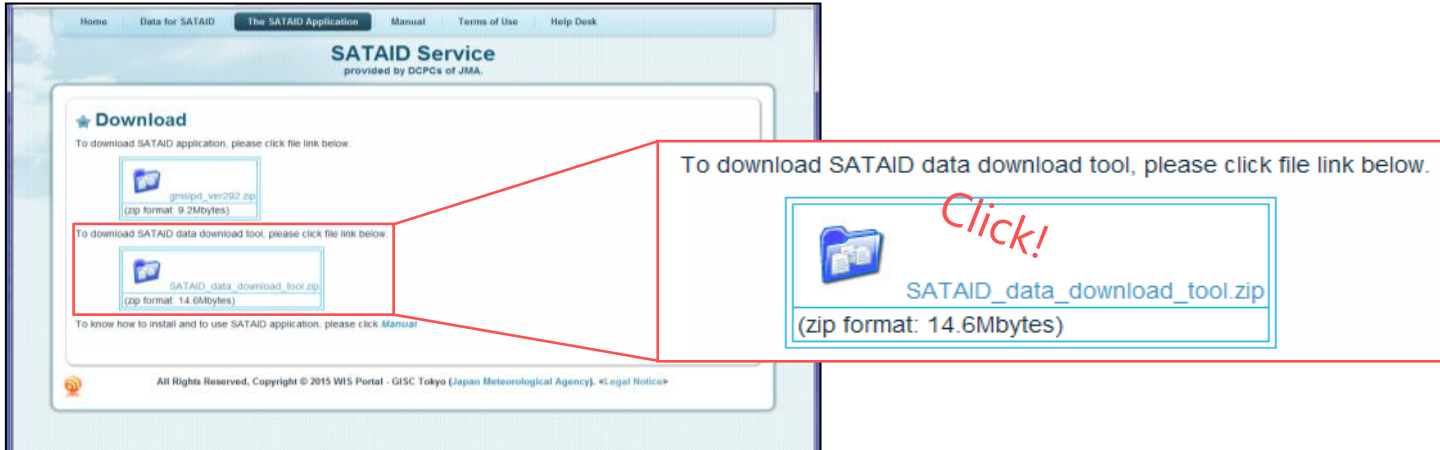
1. Installing SATAID and Downloading Data



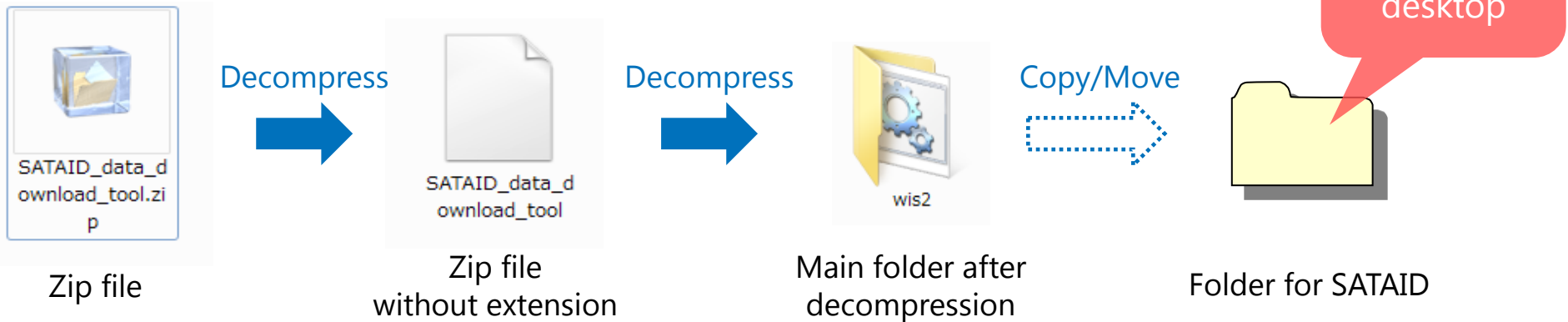
Installing SATAID

1. Download **SATAID_data_download_tool.zip** from the SATAID Service website (ID/Password required).

<http://www.wis-jma.go.jp/cms/sataid/app/download/>



2. Decompress the zip file and copy/move the folder to the desired location.





Downloading Data Using WIS Downloader

Download and install SATAID

If you already have the WIS.ini file, it can be made readable by putting it in the wis2 folder before STEP 1 below.

*The file should be backed up, as it will be overwritten when a new initial file is made using MakaIniFile.hta.

STEP 1: Make the WIS.ini file using MakeIniFile.hta.

STEP 2: Download the data and activate the SATAID application using Sataid_Loop_V2.hta.

**Start SATAID.
(Automatic activation)**



Downloading Data Using WIS Downloader

1. Make an initial file for WIS Downloader.

* If you already have the WIS.ini file, it can be made readable by clicking Read button.

“MakeIniFile.hta” file

Automatic Downloader for SATAID Ver.2

Making Initial File

*If you already have "WIS.ini" file, you can read it.

Image Area Settings (1)

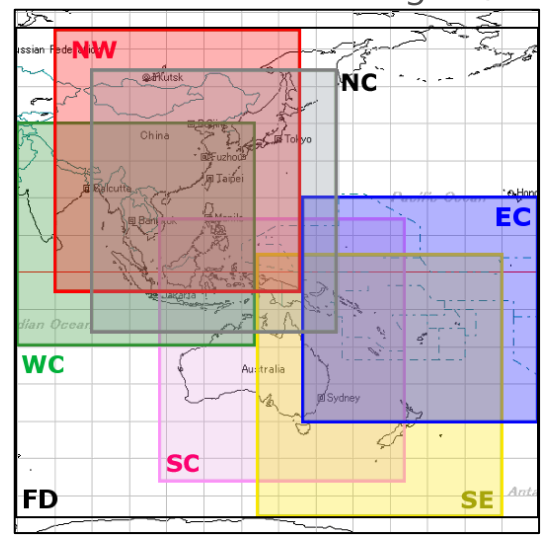
- Select Himawari image area (see image area)
- Set cutout area (latitude/longitude)
 - North:
 - West: East:
 - South:

Other Settings (2)

- Time difference from UTC: (hours)
- Data prior to (days) will be deleted automatically
- WIS-ID:
- Password:
- Use proxy?
- Https-proxy: Port:

(1) Image Area Settings

- ✓ Select Himawari image area
- ✓ Select cutout area using Lat/Lon



(2) Other Settings

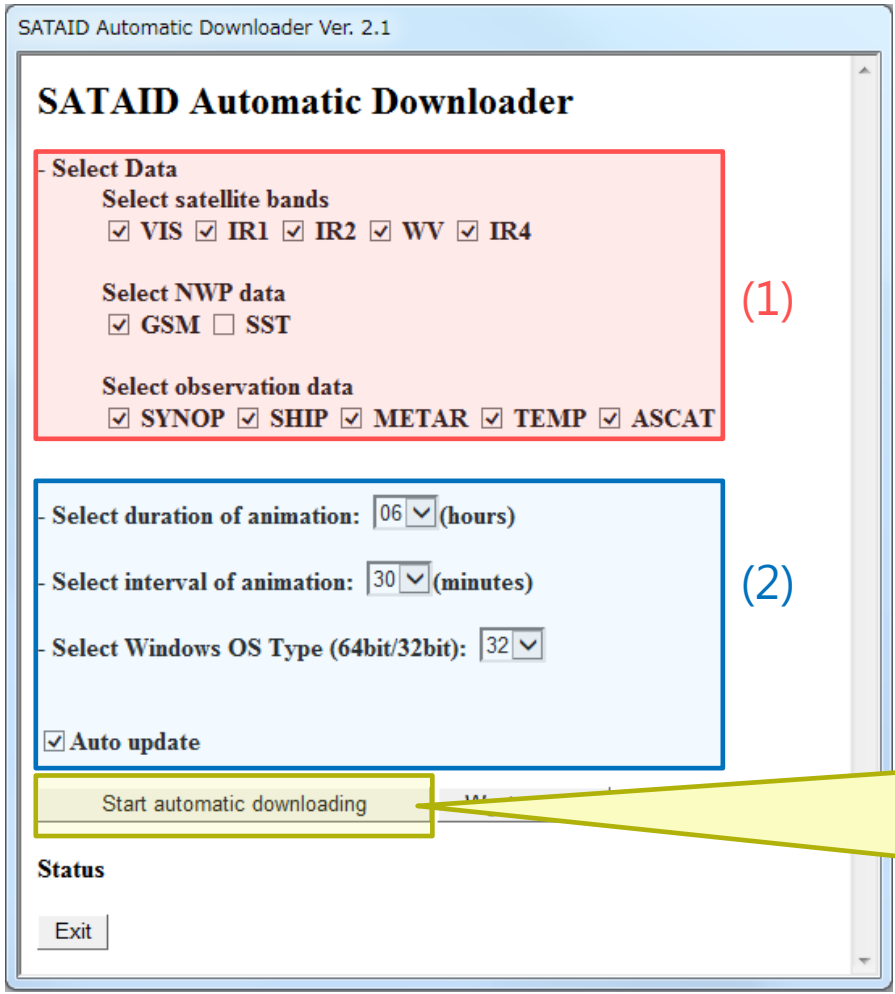
- ✓ Time difference from UTC
- ✓ Time of file deletion
- ✓ WIS ID, Password
- ✓ Proxy



Downloading Data Using WIS Downloader

2. Download data from the WIS server.

* Close SATAID (GMSLPD) before using the SATAID Automatic Downloader.



(1) Select Data.

- ✓ Himawari-8 bands
- ✓ NWP data
- ✓ Other observation data

(2) Set up details.

- ✓ Animation duration
- ✓ Interval between animation frames*
- ✓ OS type (32/64bit)
- ✓ Auto-update function

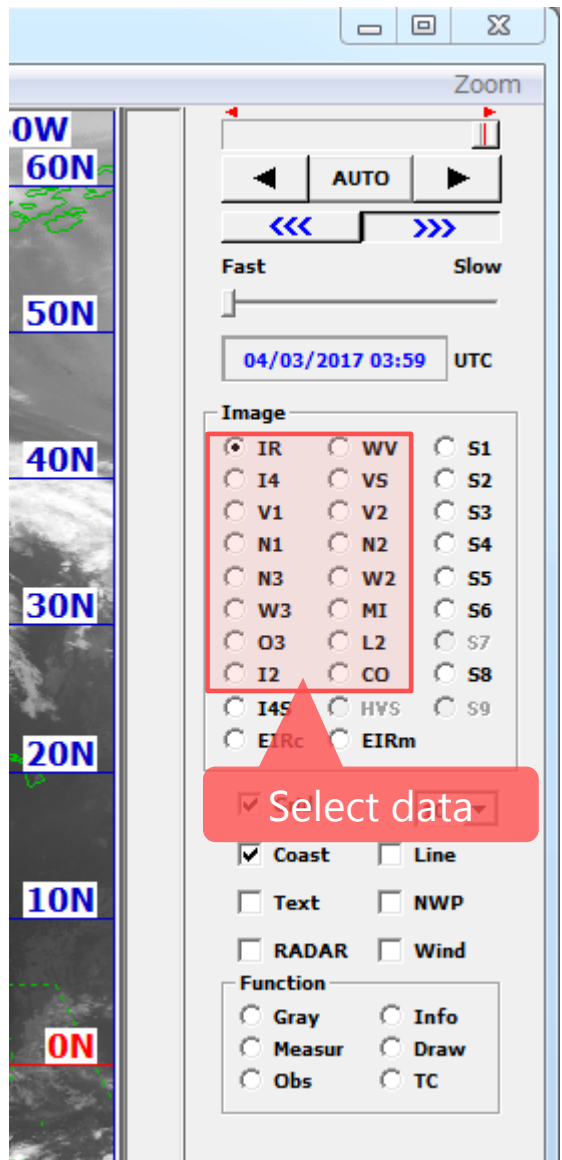
* Depending on PC memory capacity, a short animation may need to be specified if 10-min intervals are selected.

After the data download, SATAID will start automatically.

2. Controlling and Displaying Satellite Images



Selecting Satellite Images

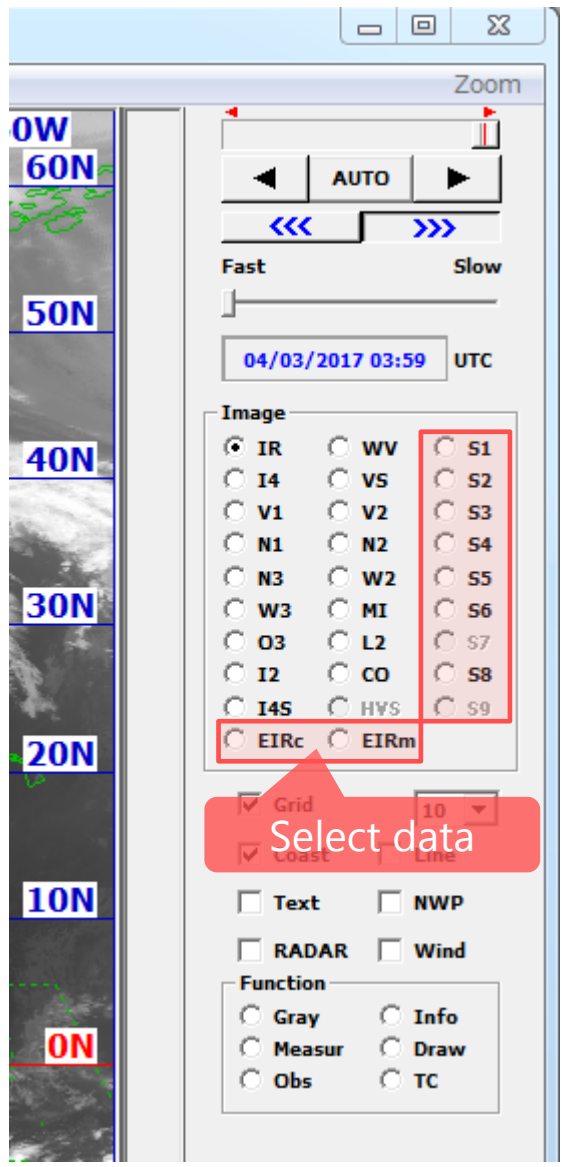


Band		Wavelength [μm]	Himawari Cloud*	Himawari Cast*	WIS*
V1	Visible	0.46	○ (1 km)		
V2		0.51	○ (1 km)		
VS		0.64	○ (0.5 km)	○ (1 km)	○ (4 km)
N1	Near Infrared	0.86	○ (1 km)	○ (4 km)	
N2		1.6	○ (2 km)	○ (4 km)	
N3		2.3	○ (2 km)	○ (4 km)	
I4	Infrared	3.9	○ (2 km)	○ (2 or 4 km)	○ (4 km)
WV		6.2	○ (2 km)	○ (4 km)	○ (4 km)
W2		7.0	○ (2 km)	○ (4 km)	
W3		7.3	○ (2 km)	○ (4 km)	
MI		8.6	○ (2 km)	○ (4 km)	
O3		9.6	○ (2 km)	○ (4 km)	
IR		10.4	○ (2 km)	○ (4 km)	○ (4 km)
L2		11.2	○ (2 km)	○ (4 km)	
I2		12.3	○ (2 km)	○ (4 km)	○ (4 km)
CO		13.3	○ (2 km)	○ (4 km)	

*(): spatial resolution



Selecting Satellite Images



◆ Differential Images

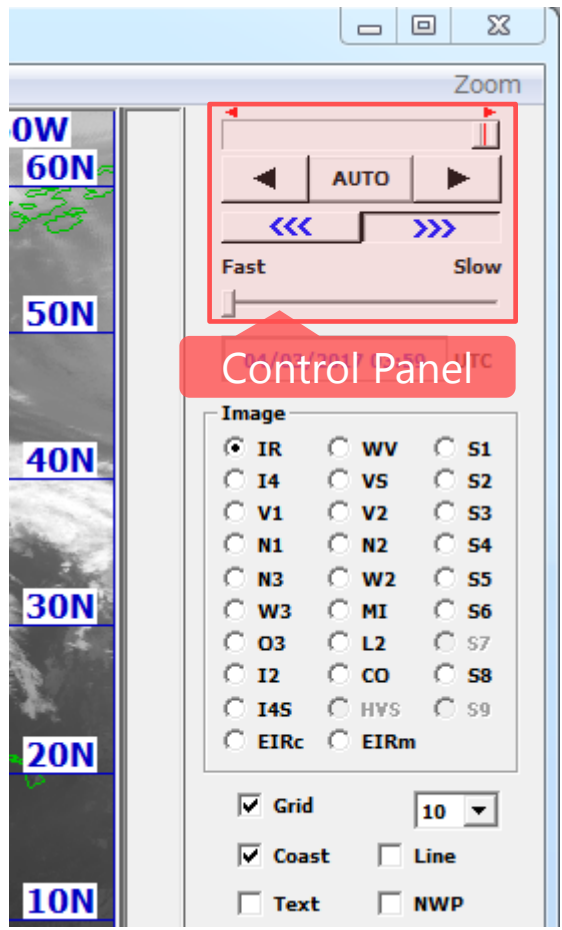
- S1: Differential images 1 (IR – I2)
- S2: Differential images 2 (I4 – IR)
- S3: Differential images 3 (IR-WV)
- etc...

◆ Enhanced Images

- EIRc: Colored enhanced infrared images
- EIRm: Monochrome enhanced infrared images



Controlling animation



Drag to change animation duration (first/last image).

Start/Stop Animation.



Display previous image.



Display next image.



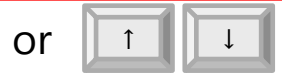
Play in reverse sequence.



Play in normal sequence.



Adjust animation speed.



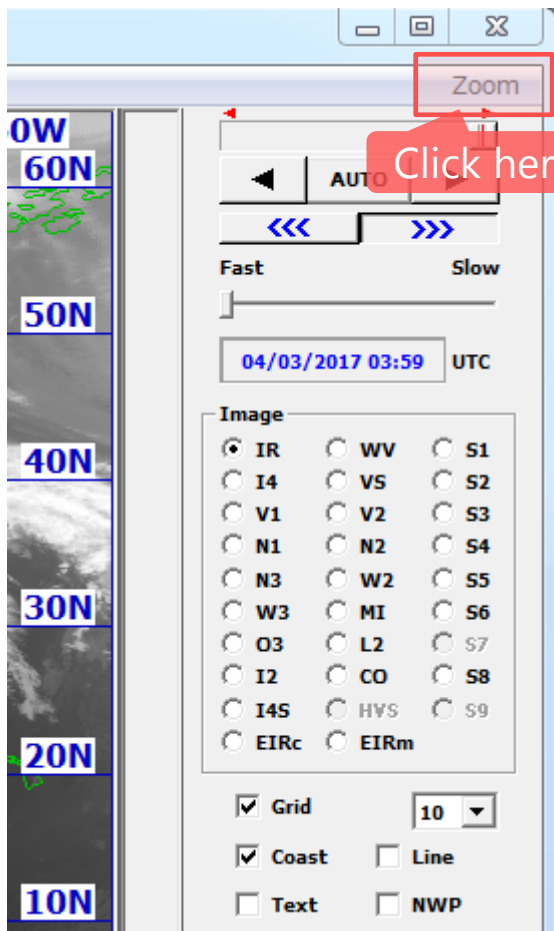
Tips

" " + or

: Specify current image as the first/last image of animation.









Zooming In/Out



◆ Method 1

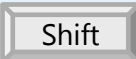
- **Display enlarged area.**
Click [Zoom] button and drag area.
- **Return to whole image.**
Click [Normal] button.

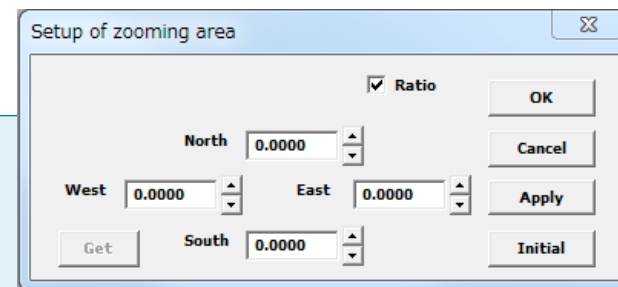
◆ Method 2

- Zoom in:  +  +  **Left-Click**
- Zoom out:  +  +  **Right-Click**

Tip

Areas can be digitally designated with longitude/latitude information.

 +  + [Zoom]





Displaying RGB Images

1. Select Option.

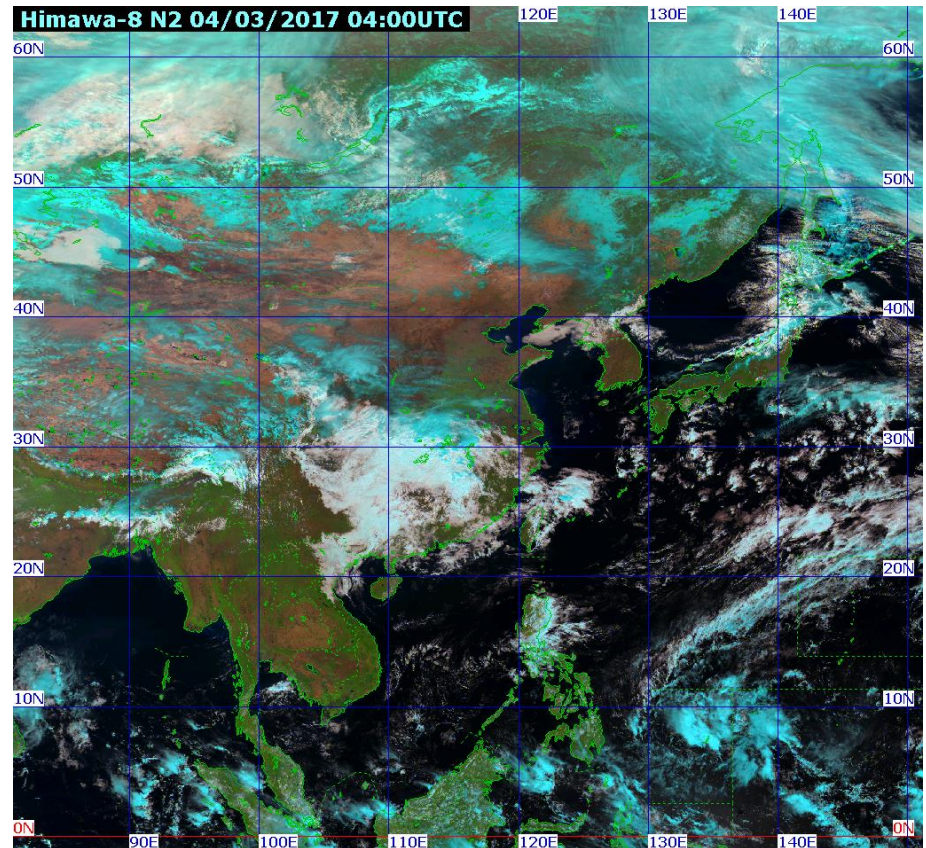


2. Click RGB list.



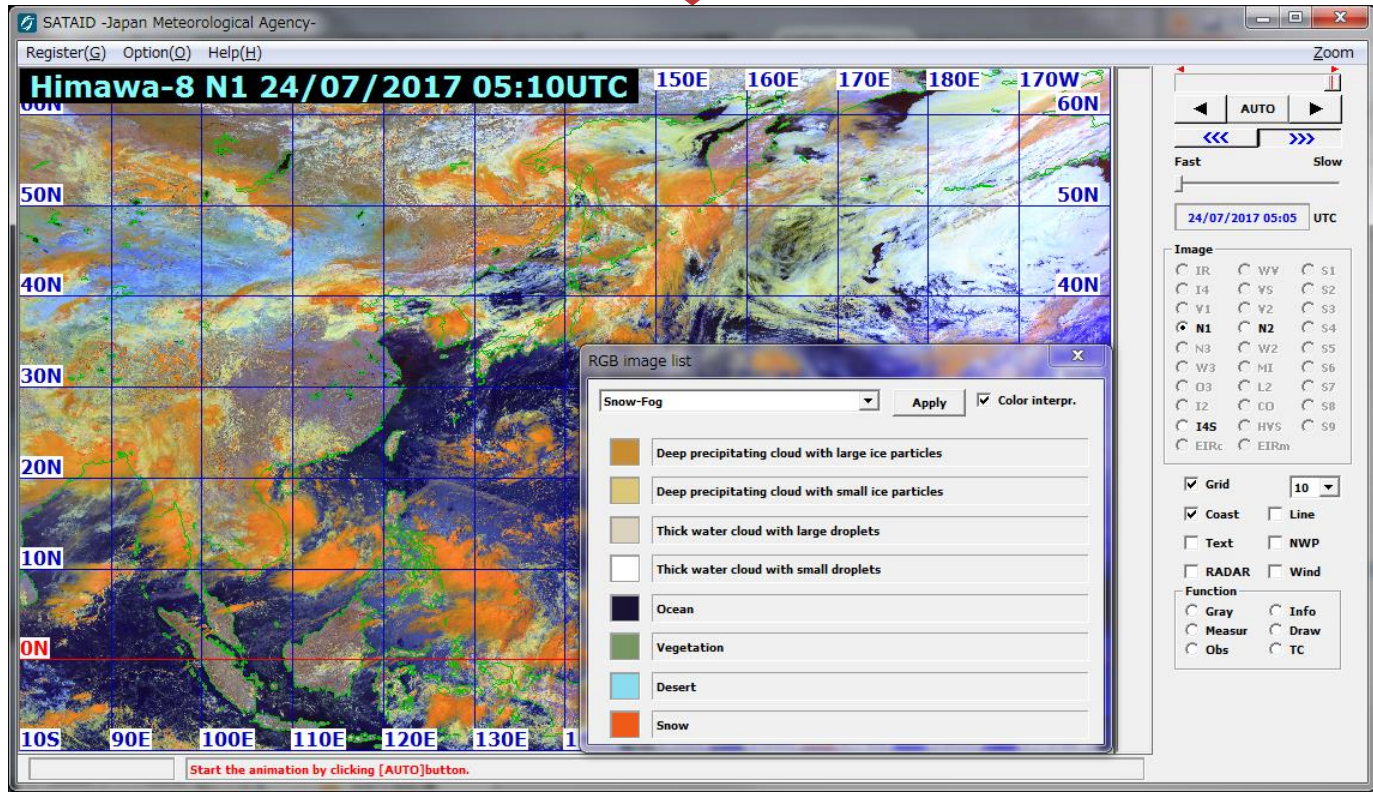
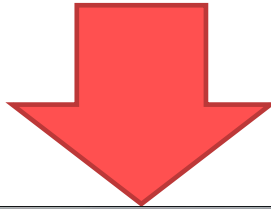
3. Select RGB image.

4. Click Apply to display.



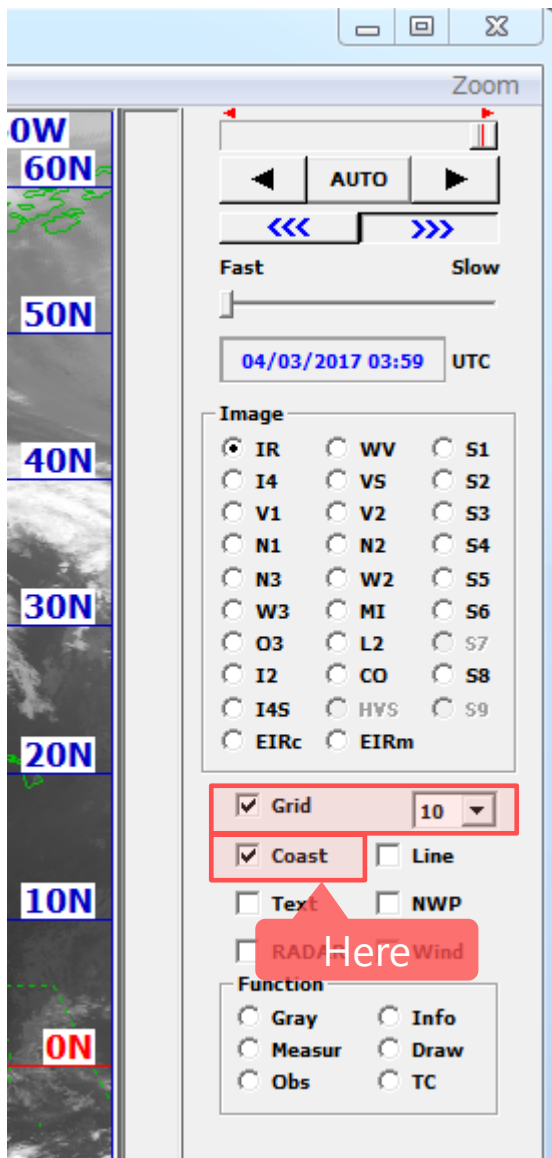


Displaying color legends





Displaying Coast/Grid Lines

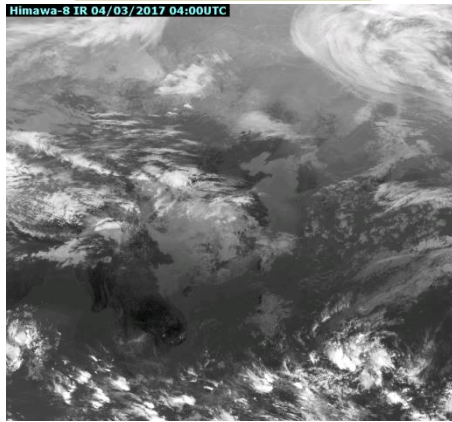


Checkbox activation with [Ctrl] pressed: **larger font for latitude/longitude figures**
Checkbox activation with [Shift] pressed: **with background color for latitude/longitude figures**
Checkbox activation with [Ctrl] + [Shift] pressed: **larger font with background color**

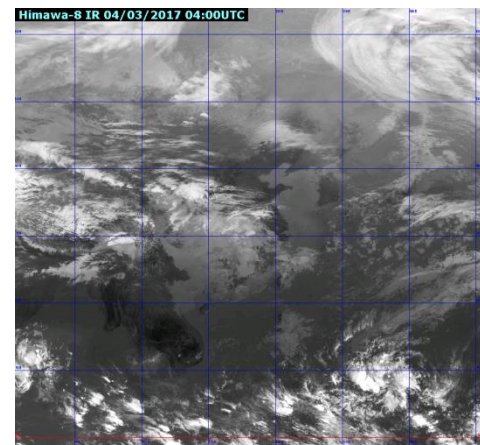
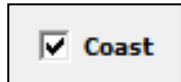
Check!



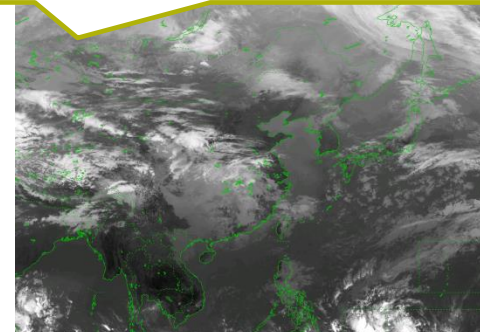
Select latitude/longitude intervals.



Check!



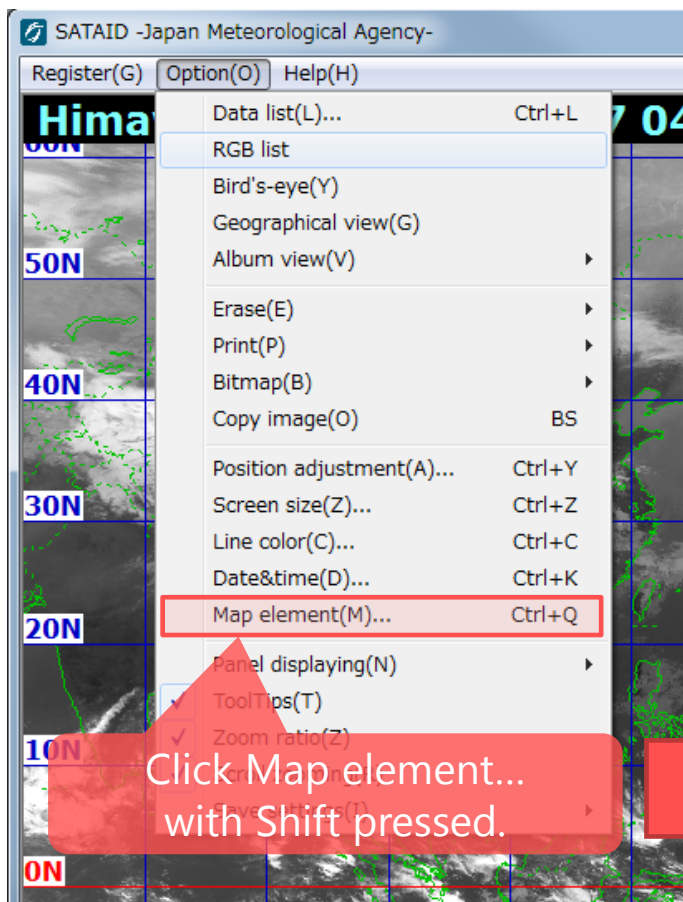
[Map element] can be selected from the [Option] menu to add rivers/lakes/borders, etc.



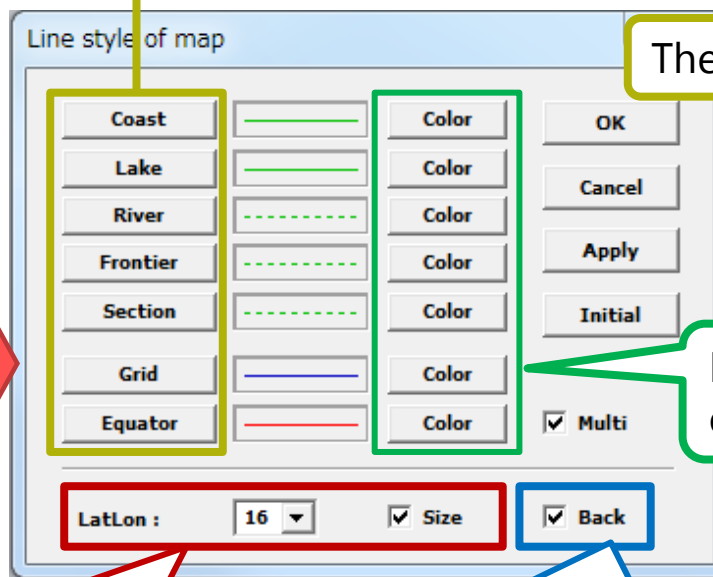
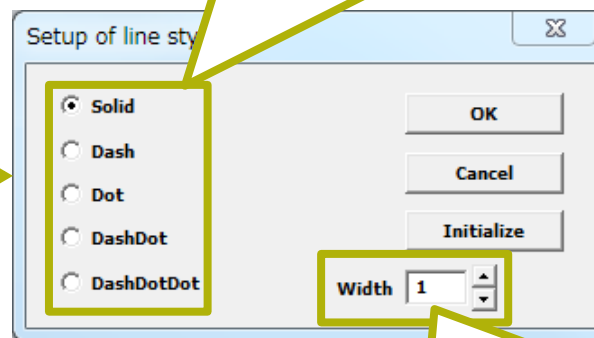
The colors of these lines can be changed using [Line color] in the [Option] menu.



Changing Line Style



Click Map element... with Shift pressed.



The line width can be set here.

Multi can be checked to enable line color change.

Latitude and longitude character size can be changed here.

Latitude/longitude background can be toggled on and off here.

3. Displaying NWP Data



Displaying NWP data

Available NWP data

4. Click Exec to display

2. Select NWP model

Shrink/extend window

3. Select the desired elements

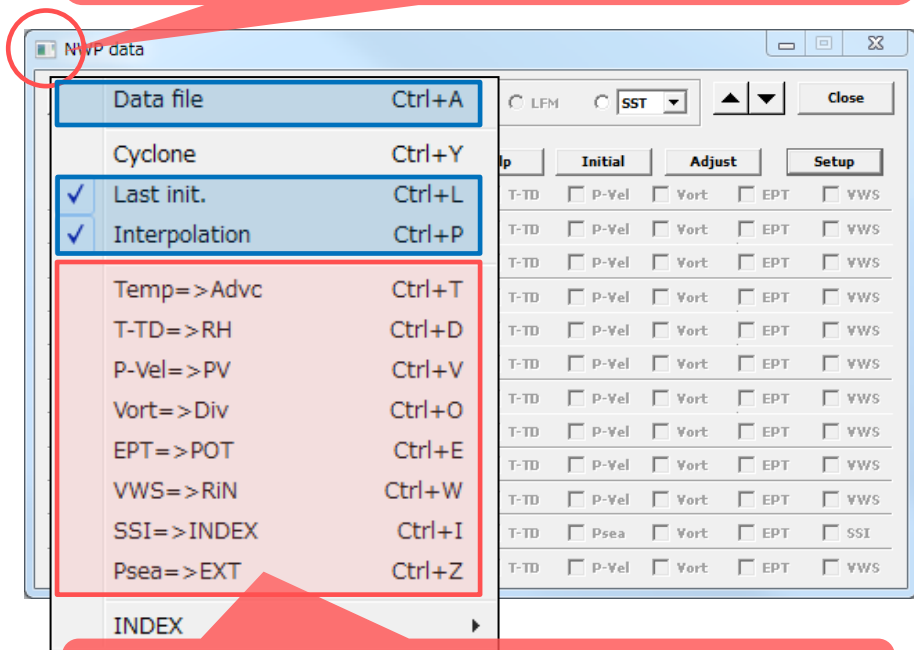
1. Check NWP to display a pop-up window

Symbol	Content	Unit
Height	Altitude	gpm
Wind	Wind barb	kt
Isotac	Isotach	kt
Temp	Air temperature	°C
T-TD	Dew-point depression	°C
P-Vel	Vertical p-velocity	hPa/h
Vort	Relative vorticity	10 ⁻⁶ /s
EPT	Equivalent potential temperature	K
VWS	Vertical wind shear	kt/1000ft
Rain	Precipitation (3 hours)	mm/3h
Psea	Sea level pressure	hPa
SSI	Showalter stability index	°C
RH	Relative humidity	%
Div	Horizontal divergency	10 ⁻⁶ /s
POT	Potential temperature	K
RiN	Richardson number	-
CAPE	Convective available potential energy	J/kg
PV	Potential vorticity	0.1PVU
Avor	Absolute vorticity	10 ⁻⁶ /s
Adv	Temperature advection	10 ⁻⁶ /s/h
Vadv	Relative vorticity advection	0.1°C/h
SH	Specific humidity	0/1g/kg
EXT	Extra element (diff. between levels)	undefined



Changing Elements

1. Click the upper-left corner of the window to display a pop-up window.



2. Elements can be changed on the panel.

Tips

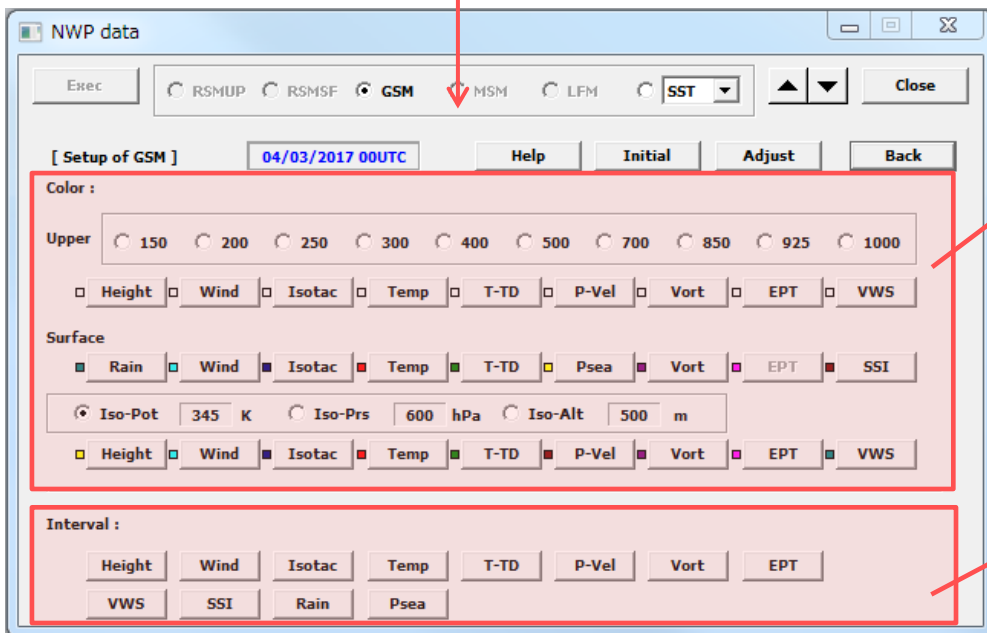
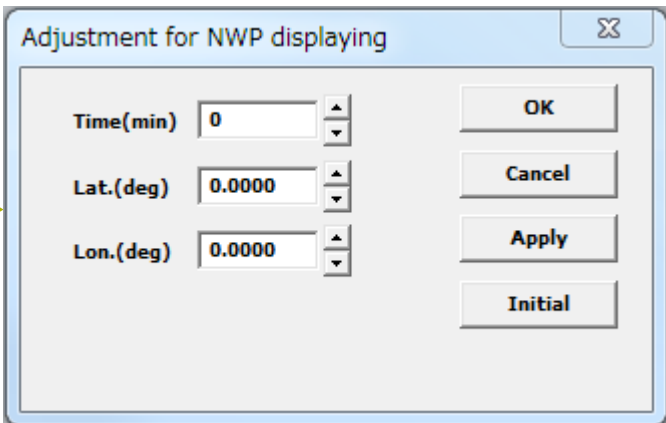
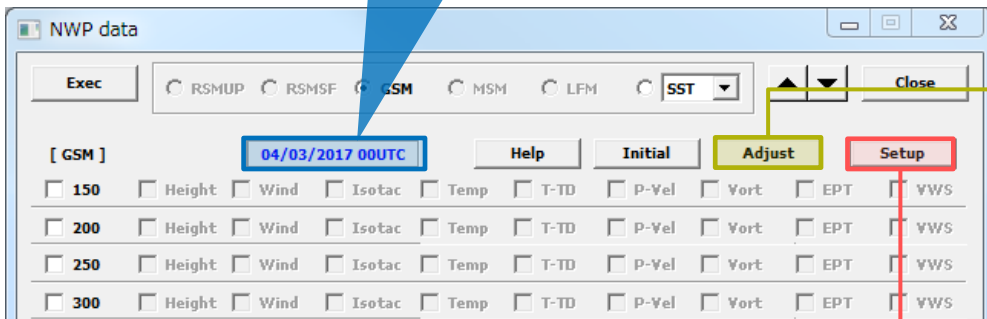
- When [Data file] is clicked, a CSV file of selected NWP elements is output.
- When [**Last init.**] is NOT selected, the previous initial NWP data is displayed.
- When [**Interpolation**] is selected, forecast fields between forecast times can be interpolated and displayed (i.e. if [Interpolation] is NOT selected, NWP data are shown only every six hours).

Symbol	Content	Unit
Height	Altitude	gpm
Wind	Wind barb	kt
Isotac	Isotach	kt
Temp	Air temperature	°C
T-TD	Dew-point depression	°C
P-Vel	Vertical p-velocity	hPa/h
Vort	Relative vorticity	10 ⁻⁶ /s
EPT	Equivalent potential temperature	K
VWS	Vertical wind shear	kt/1000ft
Rain	Precipitation (3 hours)	mm/3h
Psea	Sea level pressure	hPa
SSI	Showalter stability index	°C
RH	Relative humidity	%
Div	Horizontal divergency	10 ⁻⁶ /s
POT	Potential temperature	K
RiN	Richardson number	-
CAPE	Convective available potential energy	J/kg
PV	Potential vorticity	0.1PVU
Avor	Absolute vorticity	10 ⁻⁶ /s
Advc	Temperature advection	10 ⁻⁶ /s/h
Vadv	Relative vorticity advection	0.1°C/h
SH	Specific humidity	0/1g/kg
EXT	Extra element (diff. between levels)	undefined



Changing Colors/Line Types/Hatch Patterns

Initial time



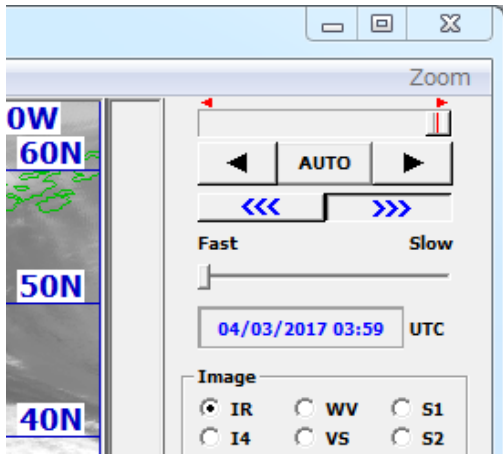
Colors can be changed here.



Intervals between contours (isolines) can be selected here.

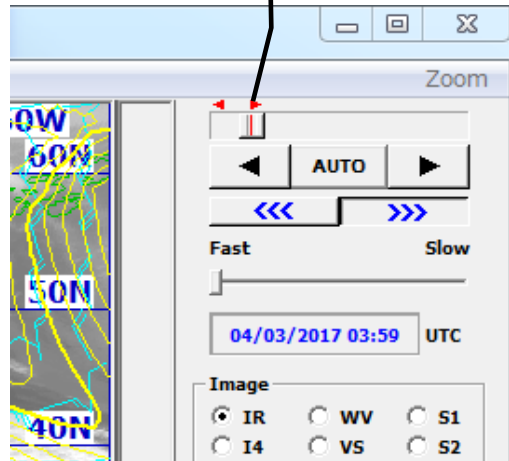


Displaying Forecast Values

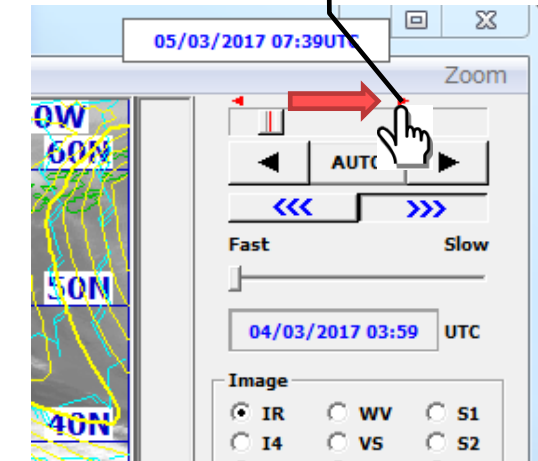


Before

Open NWP menu.

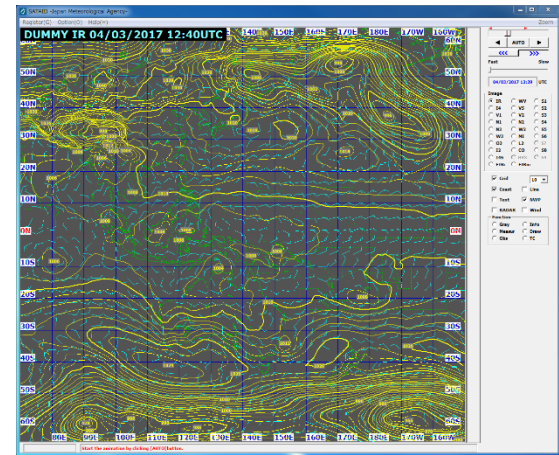
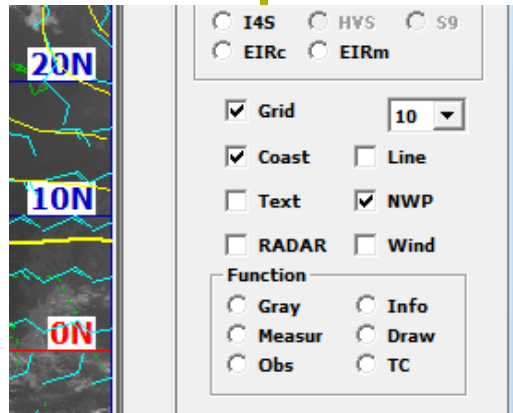


The space between the red arrows becomes shorter.



Drag the red arrow to the right to select the forecast time.

After



Satellite images are not shown while forecast time data are being displayed.



Displaying SST data

The screenshot shows the NWP data software interface. The main window displays a map of the Indian Ocean region with a grid overlay. The map is titled "NWP data" and shows SST data. A red callout box points to the "SST" dropdown menu in the top right corner of the main window, with the text "Activate this checkbox." inside it.

The "NWP data" dialog box is open, showing the following settings:

- Exec: SST
- Initial: [Initial] Setup
- Delimiter: Comma Blank
- Format: 4bytes float
- Endian: Big
- Latit.: Corner(deg) 65.0000 Interval(deg) 0.2500 Numbers 521
- Longi.: Corner(deg) 80.0000 Interval(deg) 0.2500 Numbers 481
- Invalid: -999.0000 Reference: -273.1500 Scale: 1.0000 Offset: 0 (bytes)
- File: sst%yyyy%mm%dd.f32

The main window has a control panel on the left with the following settings:

- Zoom: [Fast] [Slow]
- Image: IR WV S1 I4 VS S2 V1 V2 S3 N1 N2 S4 N3 W2 S5 W3 MI S6 O3 L2 S7 I2 CO S8 I4S HYS S9
- Coast: Coast Line
- Text: Text NWP
- RADAR: RADAR Wind
- Function: Gray Info Measur Draw Obs TC

The main window also has a control panel on the right with the following settings:

- Zoom: [Fast] [Slow]
- Image: IR WV S1 I4 VS S2 V1 V2 S3 N1 N2 S4 N3 W2 S5 W3 MI S6 O3 L2 S7 I2 CO S8 I4S HYS S9 EIRc EIRm
- Grid: Grid [10]
- Coast: Coast Line
- Text: Text NWP
- RADAR: RADAR Wind
- Function: Gray Info Measur Draw Obs TC

A red callout box points to the "NWP" checkbox in the main window's control panel, with the text "Activate this checkbox." inside it.

4. Displaying Observation Data



Displaying SYNOP/SHIP/TEMP Data

Zoom

Fast Slow

04/03/2017 03:59 UTC

Image

- IR
- I4
- V1
- N1
- N3
- W3
- O3
- I2
- I4S
- EIRc
- WV
- VS
- V2
- N2
- W2
- MI
- L2
- CO
- HYS
- EIRm
- S1
- S2
- S3
- S4
- S5
- S6
- S7
- S8
- S9

Grid 10

Coast Line

Text NWP

RADAR Wind

Function

- Gray
- Measur
- Obs
- Info
- Draw
- TC

Obs

- Synop
- AWS
- LIDEN
- WPR
- Track

Select Surf.

Synop data

Synop

- Surf
- 925
- 700
- 400
- 250
- 150
- 1000
- 850
- 500
- 300
- 200
- 100

Close

Vert

- Temp
- Pote
- Wind
- Stab

Cond Select Color

Path: D:\ANDATA Browse

SYNOP/SHIP

Click a site on the display to open a pop-up window for that site.

47678 HACHIOJIMA
Pos.: 33.10N 139.80E Alt.: 80m

07/08/2002 00UTC

Pressure: 1014.3 hPa	Tendency: +0.1 hPa
Wind: WSW 8 kt	Visibility: 20.0 km
Temp.: 28.6 °C	Dew-point: 25.0 °C
Total: 3/8	Low-level: 3/8
Clouds(LMH): 200	Past:
Weather: *	

Select a figure between 1,000 and 100.

Synop data

Synop

- Surf
- 925
- 700
- 400
- 250
- 150
- 1000
- 850
- 500
- 300
- 200
- 100

Close

Vert

- Temp
- Pote
- Wind
- Stab

Cond Select Color

Path: D:\ANDATA Browse

TEMP

Click a site on the display to open a pop-up window for that site.

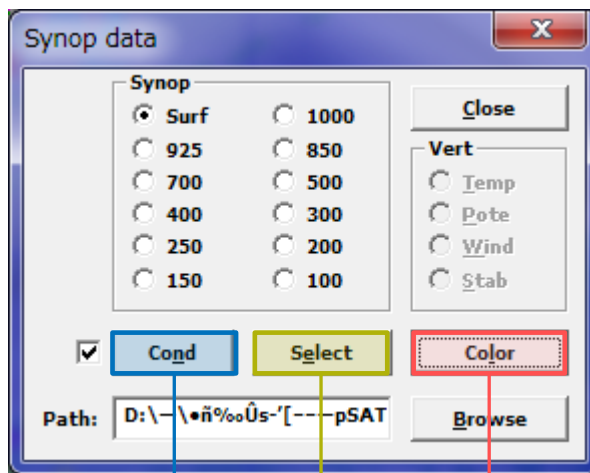
47909 NAZE
Pos.: 28.40N 129.60E Alt.: 295m

07/08/2002 00UTC

Temp. Dew-point temp.



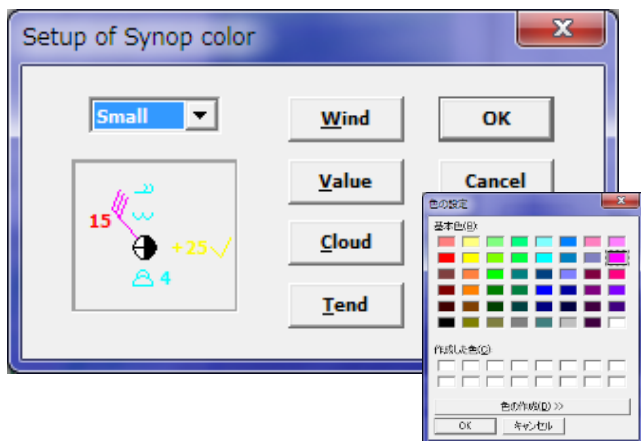
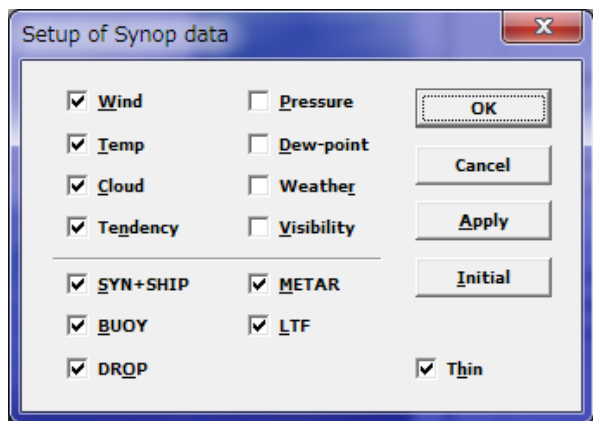
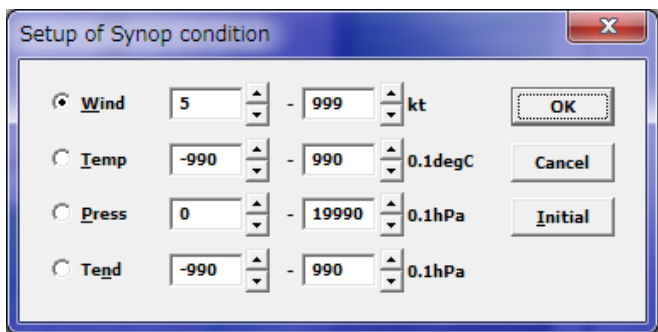
Displaying SYNOP/SHIP/TEMP Data



Set data display thresholds.

Select elements to be displayed

Set symbol color.





Displaying ASCAT Data

Normal

Fast Slow

25/05/2015 03:26 UTC

Image

- IR
- I4
- V1
- N1
- N3
- W3
- O3
- I2
- EIRc
- WV
- VS
- V2
- N2
- W2
- MI
- L2
- CO
- EIRm
- S1
- S2
- S3
- S4
- S5
- S6
- S7
- S8

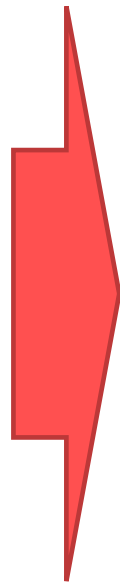
Grid Coast Text RADAR NWP Wind

Function

- Gray
- Measur
- Obs
- Info
- Draw
- TC

Obs

- Synop
- AWS
- LIDEN
- WPR
- Track



SATAID -Japan Meteorological Agency-

Register(G) Option(O) Help(H)

Himawa-8 IR 11/05/2017 21:30UTC 70E 180E 170W

ON ON

10S 10S

20S 20S

30S 30S

40S 40S

50S 50S

140E 150E 160E 170E

Zoom

Fast Slow

11/05/2017 21:29 UTC

Image

- IR
- I4
- V1
- N1
- N3
- W3
- O3
- I2
- I4S
- EIRc
- WV
- VS
- V2
- N2
- W2
- MI
- L2
- CO
- HYS
- EIRm
- S1
- S2
- S3
- S4
- S5
- S6
- S7
- S8
- S9

Grid Coast Text RADAR NWP Wind

Function

- Gray
- Measur
- Obs
- Info
- Draw
- TC

Cloud motion wind data

Wind

- Upper
- Lower
- Vapor
- Metop-B
- Metop-A
- Ext-3
- Ext-4
- Ext-5
- Ext-6
- Ext-7

Col Col Col Col Col Col Col Col Col Col

Path: F:\TEXT

Close

Cond

Altitude

Barb

Setup

Browse

Start the animation by clicking [AUTO] button.

5. Customizing Display



Adjusting Gradation and Enhancing Color

Zoom

Fast Slow

11/05/2017 21:29 UTC

Image

- IR
- I4
- V1
- N1
- N3
- W3
- O3
- I2
- I4S
- EIRc
- WV
- VS
- V2
- N2
- W2
- MI
- L2
- CO
- HVS
- S1
- S2
- S3
- S4
- S5
- S6
- S7
- S8
- S9

Grid 10

Click "Gray"

Function

- Gray
- Info
- Measur
- Draw
- Obs
- TC

Gray

Revs Color Initial

Brit

Cntr

Gray

Revs Color Initial

Brit

Cntr

1

2

3

1. Adjust brightness.
2. Change contrast.
3. Reset grayscale.

Select a radio button to change the grayscale setting.

Setting the emphasis

Mode

- 6bit
- 4bit
- Cols
- Mix
- Ext0
- Ext1
- Ext2
- Ext3

VIS

hour

Blue

43.08-C

Set Reset OK Clear

Gradation display box

- To select a range to be emphasized:
Click on two arbitrary points
- To clear the range to be emphasized:
Right-click on the first point and left-click on the second.



Adjusting Gradation



SATAID - Japan Meteorological Agency
Register(G) Option(O) Help(H)

Himawa-8 IR 09/05/2017 01:00UTC

Zoom

AUTO

Fast Slow

09/05/2017 08:55 UTC

Image

- IR WV S1
- I4 V5 S2
- V1 V2 S3
- N1 N2 S4
- N3 W2 S5
- W3 H1 S6
- O3 L2 S7
- I2 CO S8
- I4S HVS S9
- EIRc EIRm

Grid 10

Coast Line

Text NWP

RADAR Wind

Function

- Gray Info
- Measur Draw
- Obs TC

Gray

Revs Color Initial

Brit

Contr

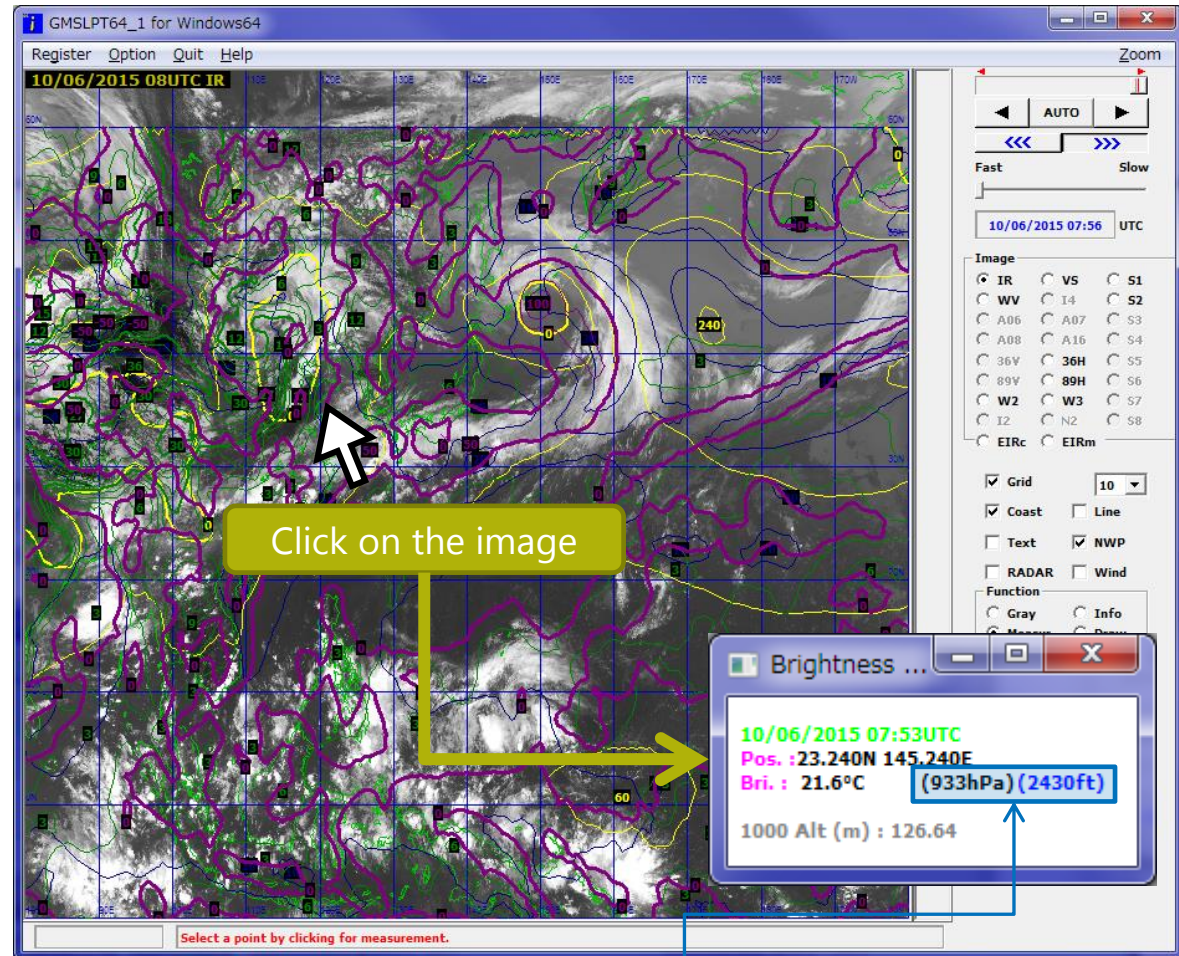
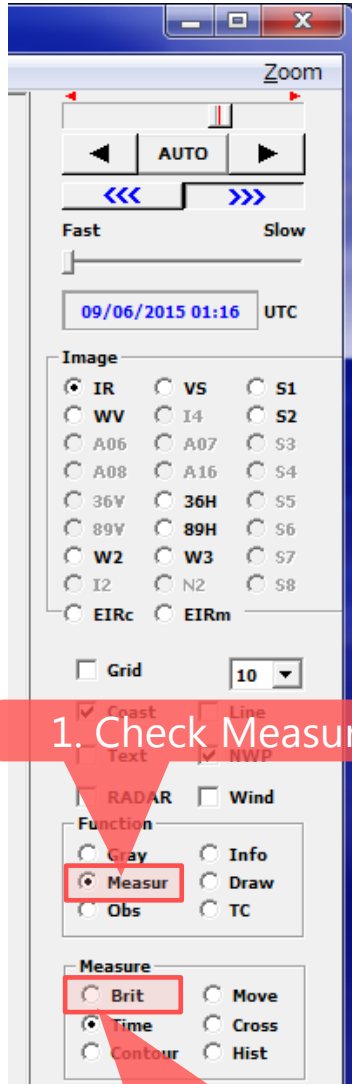
Click on the display to adjust gradation.

Change the gray scale by controlling brightness and contrast.

6. Data Evaluation



Brightness Evaluation

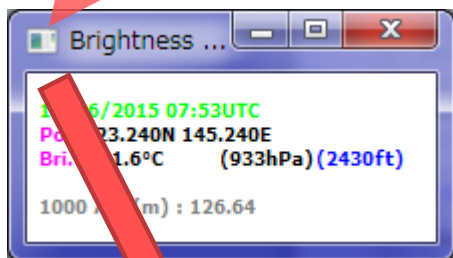


When NWP data are displayed, estimated altitudes will be shown.



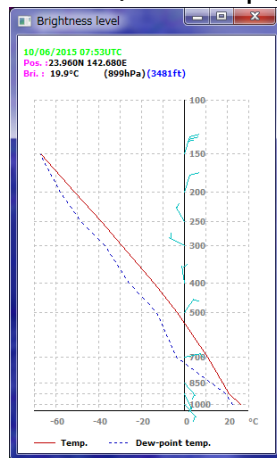
Brightness Evaluation

Click the upper-left of the window



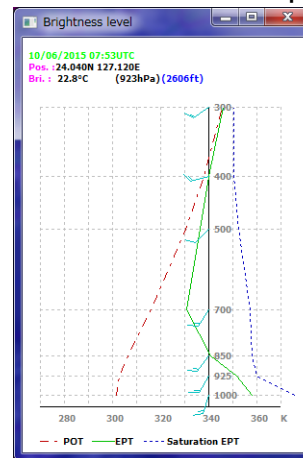
- Print Ctrl+P
- Bitmap Ctrl+O
- Copy BS
- Kelvin Ctrl+K
- Sync view Ctrl+Y
- Adjust size Ctrl+J
- Vert. 1(Temp)
- Vert. 2(Pote)
- Vert. 3(Wind)
- Vert. 4(Stab)
- Vert. 5(Traj)
- Shift setup Ctrl+E

Vert.1 (Air temp.)



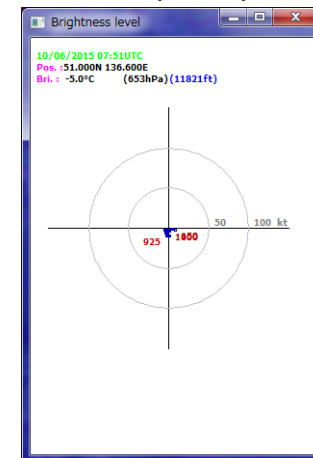
Wind, temperature and dew-point temperature

Vert.2 (Potential temp.)



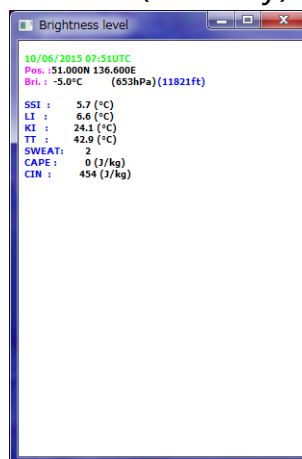
Wind, potential temperature, equivalent potential temperature and saturated equivalent potential temperature

Vert.3 (wind)



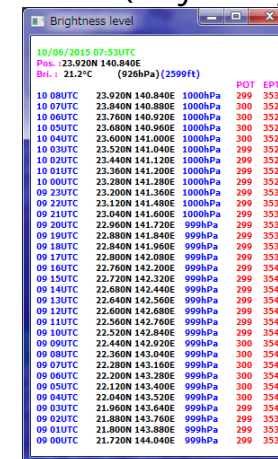
Wind hodograph or scorer number

Vert.4 (Stability)



SSI, KI, CAPE and CIN

Vert.5 (Trajectory)



Trajectories with positions, altitudes, potential temperature and equivalent potential temperature changed over time.



Movement (Vector) Evaluation

Zoom

Fast Slow

09/06/2015 01:16 UTC

Image

IR VS S1
 WV I4 S2
 A06 A07 S3
 A08 A16 S4
 36V 36H S5
 89V 89H S6
 W2 W3 S7
 I2 N2 S8
 EIRc EIRm

Grid 10

Coast Line
 Text NWP

RADAR Wind

Function

Gray Info
 Measur Draw
 Obs TC

Measure

Brit Move
 Time Cross
 Contour Hist

1. Check Measur

2. Check Move

GMSLPT64_1 for Windows64

24/06/2015 01:16 UTC MTSAT-VS

Select the first point in the first image.

Change the time as desired.

GMSLPT64_1 for Windows64

24/06/2015 04:16 UTC MTSAT-VS

Select the second point in the next image.

Movement vector is automatically calculated.

Movement speed is also calculated.

Clou...

23/06/2015 23:36UTC
 1st : 41.360N 139.960E
 24/06/2015 02:36UTC
 End : 40.520N 140.720E
 Dist.: 113km (61NM)
 Dire.: 145° (SE)
 Speed: 20KT



Time-series Evaluation

Zoom

AUTO

Fast Slow

09/06/2015 01:16 UTC

Image

- IR
- VS
- S1
- WV
- I4
- S2
- A06
- A07
- S3
- A08
- A16
- S4
- 36V
- 36H
- S5
- 89V
- 89H
- S6
- W2
- W3
- S7
- I2
- N2
- S8
- EIRc
- EIRm

Grid 10

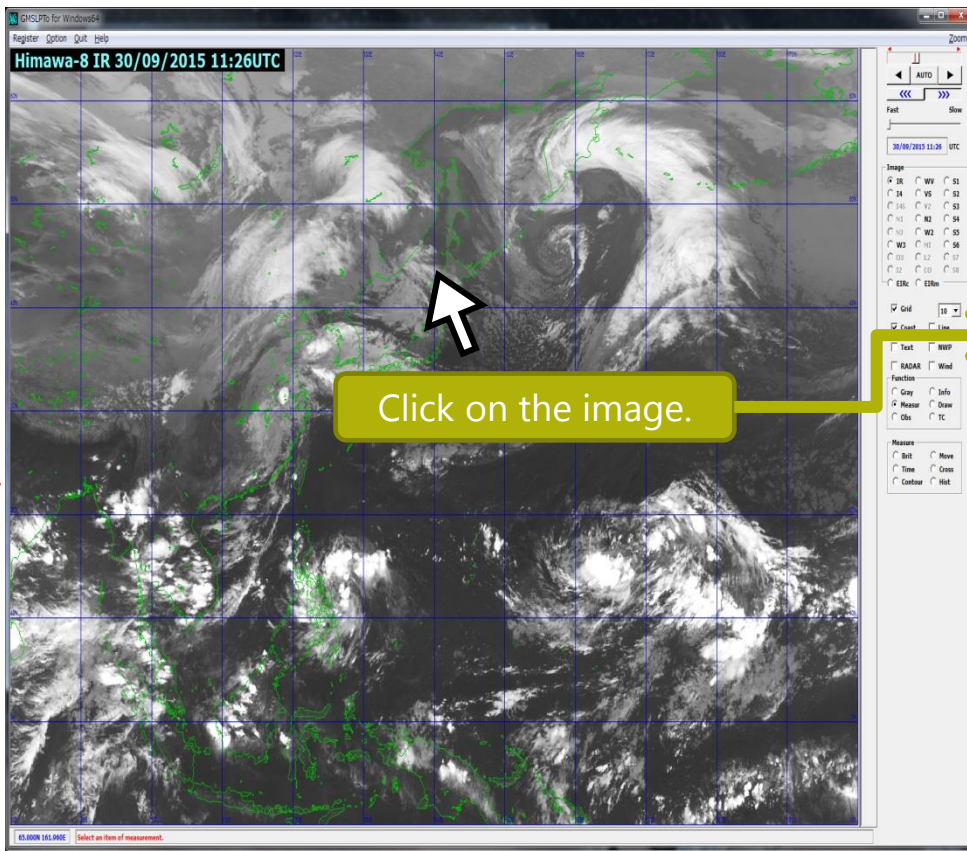
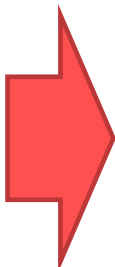
Coast Line

Function

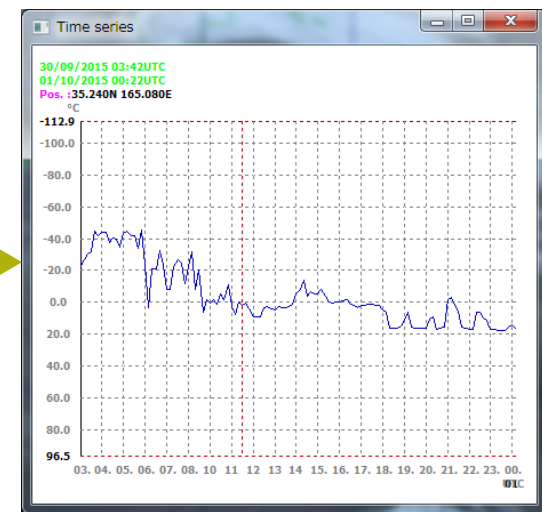
- RADAR
- Wind
- Gray
- Info
- Measur
- Draw
- Obs
- TC

Measure

- Brit
- Move
- Time
- Cross
- Contour
- Hist



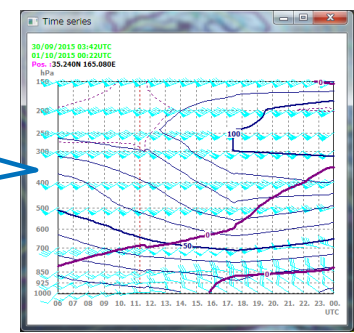
Click on the image.



1. Check Measur

2. Check Time

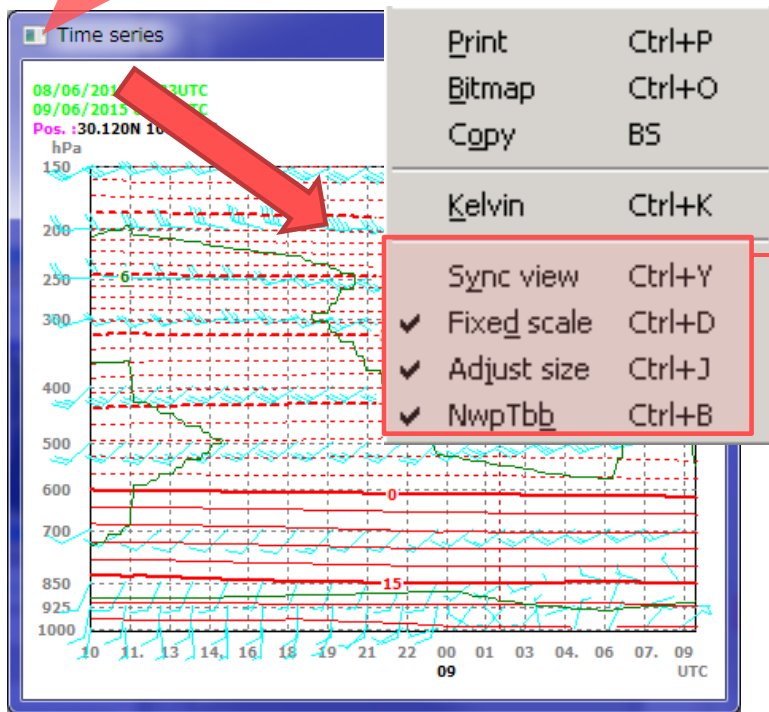
When NWP data are displayed, a time-series graph of NWP data for the selected point will be shown.





Time-series Evaluation

Click upper-left of window



Sync view:

Data in the graph are updated in synchronization with animation.

Fixed scale:

Upper- and lower-limit values on the scale are fixed, and can be changed in Scale setup. If this is left unchecked, actual maximum and minimum brightness values are shown.

Adjust size:

Graph sizes change in proportion to the window size.

NwpTbb:

If this is left unchecked, no brightness temperature graph is shown on the screen. Only NWP data are shown.



Cross-sectional Evaluation

Zoom

AUTO

Fast Slow

09/06/2015 01:16 UTC

Image

- IR
- VS
- S1
- WV
- I4
- S2
- A06
- A07
- S3
- A08
- A16
- S4
- 36V
- 36H
- S5
- 89V
- 89H
- S6
- W2
- W3
- S7
- I2
- N2
- S8
- EIRc
- EIRm

Grid 10

Coast Line

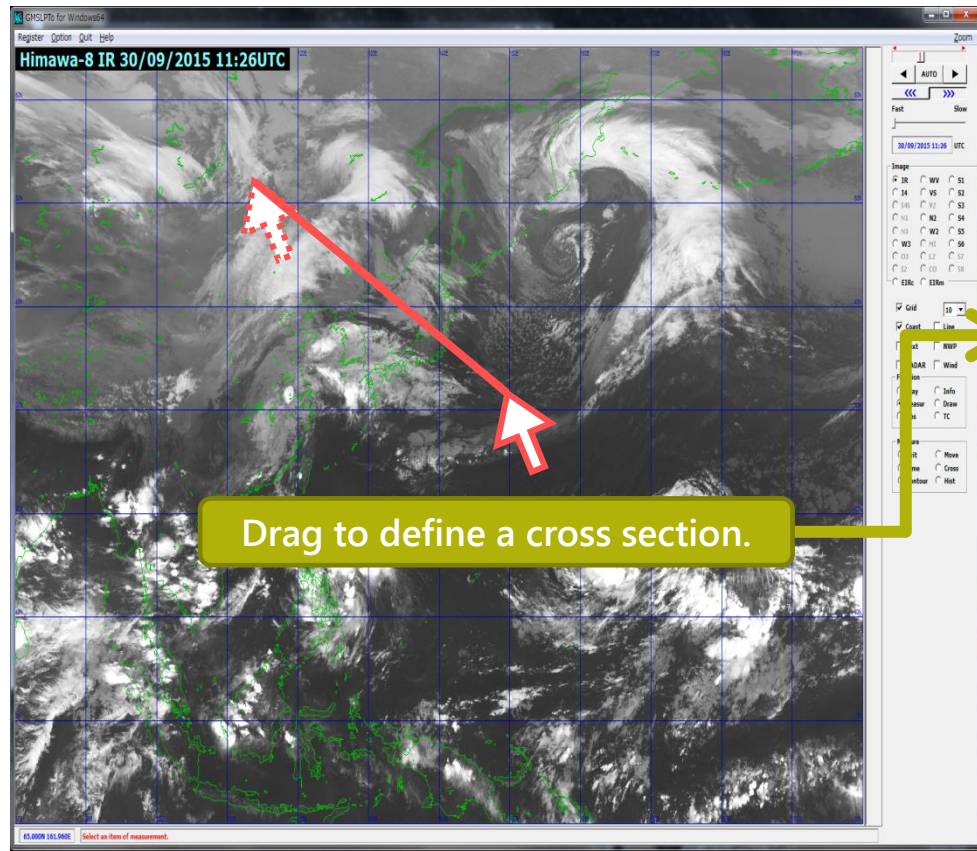
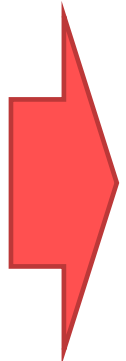
RADAR Wind

Function

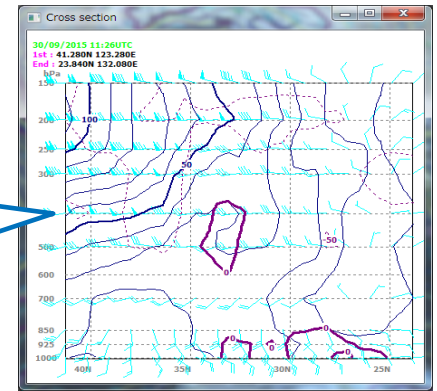
- Gray
- Info
- Measur
- Draw
- Obs
- TC

Measure

- Brit
- Move
- Time
- Cross
- Contour
- Hist



When NWP data are displayed, a cross-sectional graph of NWP data for the selected point will be shown.



1. Check Measur

2. Check Cross



Isolines (Contours)

Zoom

AUTO

Fast Slow

09/06/2015 01:16 UTC

Image

<input checked="" type="radio"/> IR	<input type="radio"/> VS	<input type="radio"/> S1
<input type="radio"/> WV	<input type="radio"/> I4	<input type="radio"/> S2
<input type="radio"/> A06	<input type="radio"/> A07	<input type="radio"/> S3
<input type="radio"/> A08	<input type="radio"/> A16	<input type="radio"/> S4
<input type="radio"/> 36V	<input type="radio"/> 36H	<input type="radio"/> S5
<input type="radio"/> 89V	<input type="radio"/> 89H	<input type="radio"/> S6
<input type="radio"/> W2	<input type="radio"/> W3	<input type="radio"/> S7
<input type="radio"/> I2	<input type="radio"/> N2	<input type="radio"/> S8
<input type="radio"/> EIRc	<input type="radio"/> EIRm	

Grid 10

Coast Line

RADAR Wind

Function

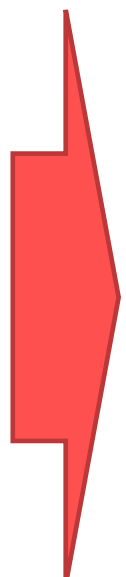
<input type="radio"/> Gray	<input type="radio"/> Info
<input checked="" type="radio"/> Measur	<input type="radio"/> Draw
<input type="radio"/> Obs	<input type="radio"/> TC

Measure

<input type="radio"/> Brit	<input type="radio"/> Move
<input checked="" type="radio"/> Time	<input type="radio"/> Cross
<input checked="" type="radio"/> Contour	<input type="radio"/> Hist

1. Check Measur

2. Check Contour



GMSLPT64_1 for Windows64

Register Option Quit Help

Normal

AUTO

Fast Slow

09/06/2015 09:56 UTC

Image

<input checked="" type="radio"/> IR	<input type="radio"/> VS	<input type="radio"/> S1
<input type="radio"/> WV	<input type="radio"/> I4	<input type="radio"/> S2
<input type="radio"/> A06	<input type="radio"/> A07	<input type="radio"/> S3
<input type="radio"/> A08	<input type="radio"/> A16	<input type="radio"/> S4
<input type="radio"/> 36V	<input type="radio"/> 36H	<input type="radio"/> S5
<input type="radio"/> 89V	<input type="radio"/> 89H	<input type="radio"/> S6
<input type="radio"/> W2	<input type="radio"/> W3	<input type="radio"/> S7
<input type="radio"/> I2	<input type="radio"/> N2	<input type="radio"/> S8
<input type="radio"/> EIRc	<input type="radio"/> EIRm	

Grid 10

Coast Line

Text NWP

RADAR Wind

Contour line

09/06/2015 09:56UTC

1st : 41.200N 138.240E

End : 32.960N 156.520E

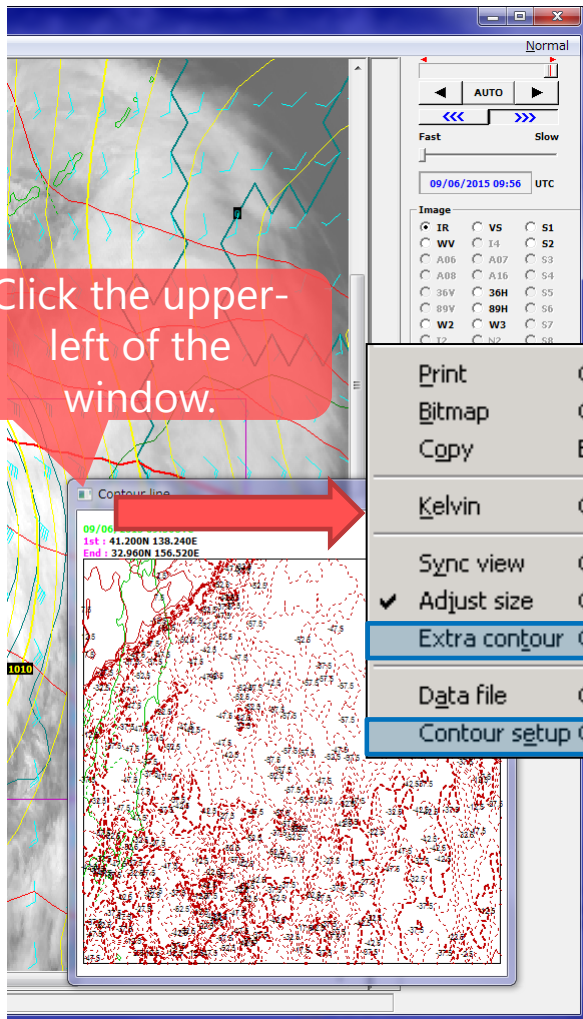
IR (°C)

48.040N 135.120E Select a region by dragging for measurement.

Drag to specify a rectangular area



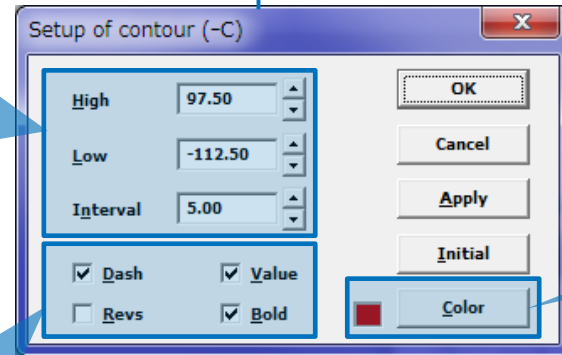
Isolines (Contours)



Click the upper-left of the window.

- Print Ctrl+P
- Bitmap Ctrl+O
- Copy BS
- Kelvin Ctrl+K
- Sync view Ctrl+Y
- Adjust size Ctrl+J
- Extra contour Ctrl+T
- Data file Ctrl+A
- Contour setup Ctrl+E

Set up counter.



Select upper/lower value and interval.

Select color.

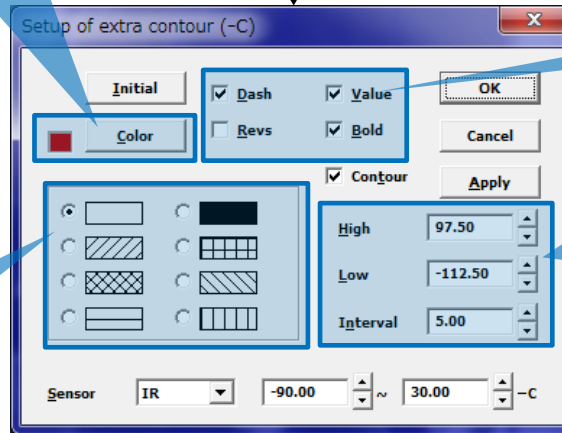
Select line type.

No (No hatch pattern shown)

Is Extra contour checked?

Yes (Hatch pattern shown)

Select color.



Select line type.

Select upper/lower value and interval.

Select hatch pattern.



Histograms

Zoom

Fast Slow

09/06/2015 01:16 UTC

Image

IR VS S1
 WV I4 S2
 A06 A07 S3
 A08 A16 S4
 36V 36H S5
 89V 89H S6
 W2 W3 S7
 I2 N2 S8
 EIRc EIRm

Grid 10

Coast Line

RADAR Wind

Function

Gray Info
 Measur Draw
 Obs TC

Measure

Brit Move
 Time Cross
 Contour Hist

1. Check Measur

2. Check Hist

GMSLPT64_1 for Windows64

Register Option Quit Help

Normal

Fast Slow

09/06/2015 09:56 UTC

Image

IR VS S1
 WV I4 S2
 A06 A07 S3
 A08 A16 S4
 36V 36H S5
 89V 89H S6
 W2 W3 S7
 I2 N2 S8
 EIRc EIRm

Grid 10

Coast Line

Text NWP

RADAR Wind

Function

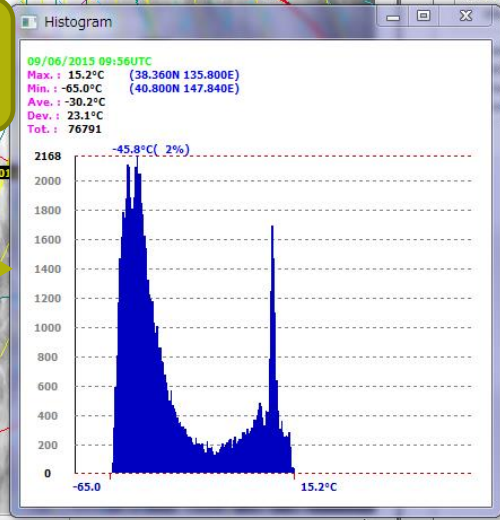
Gray Info
 Measur Draw
 Obs TC

Move
 Cross
 Hist

47.960N 145.000E Select a region by polygon and W-clicking for measurement.

Double-click the last point.

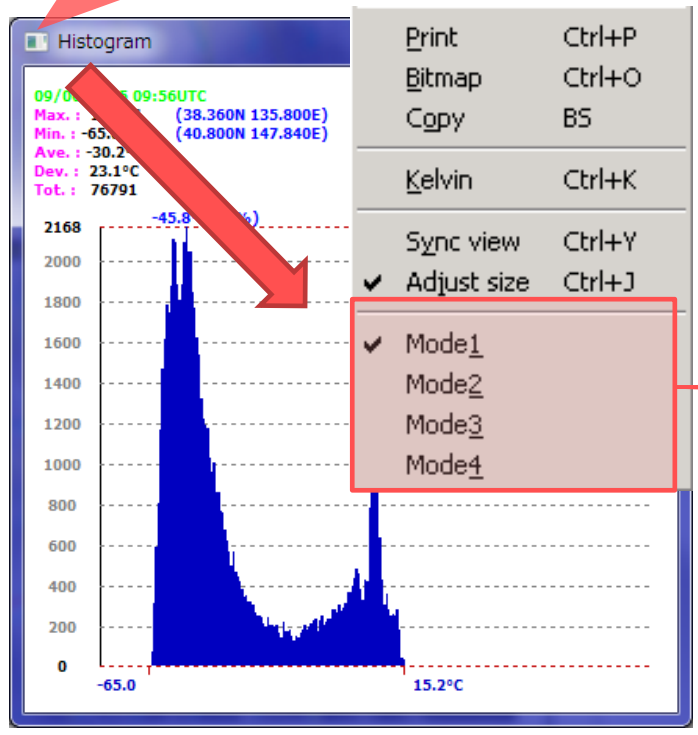
Click points on the display to specify a polygonal area.



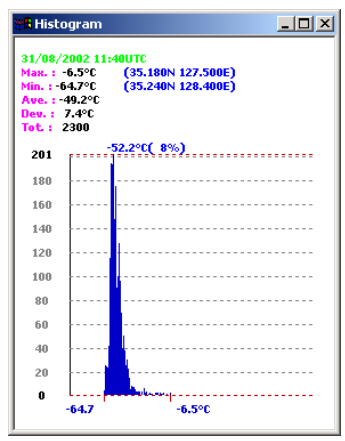


Histograms

Click the upper-left of the window.

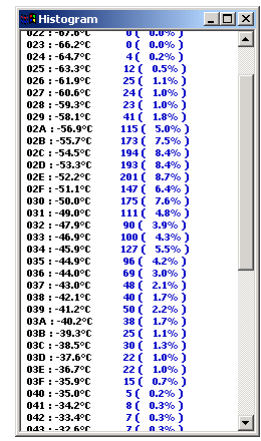


Mode1



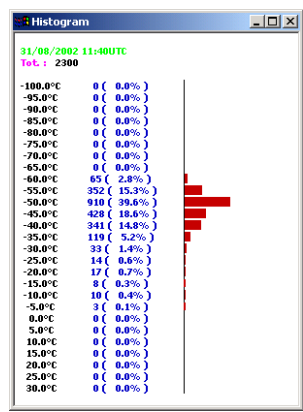
Statistical values and a histogram are shown.

Mode2



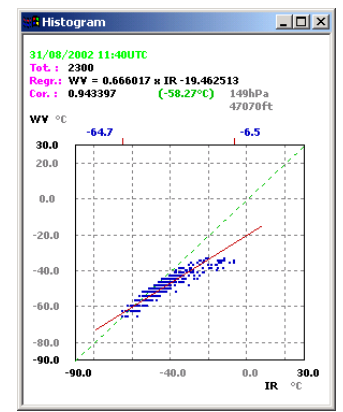
Brightness degrees (temp. for IR and reflectivity for VIS channel) are shown as numerical values.

Mode3



Frequency distribution of brightness degrees is shown (the interval can be changed on the histogram setup menu).

Mode4



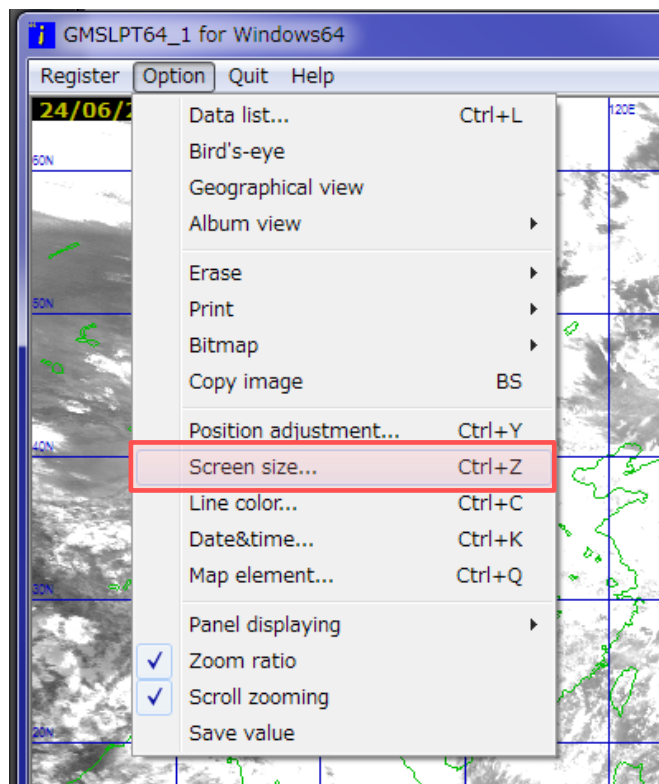
A scatter diagram of brightness temp. or reflectivity together with regression lines is shown for two different image types at the same time.

7. Other Functions

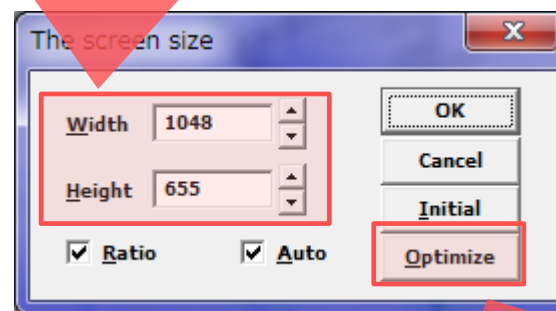


Changing Window Size

The screen size window can be opened to change the size of the SATAID window by clicking on [Screen size] in the [Option] menu.



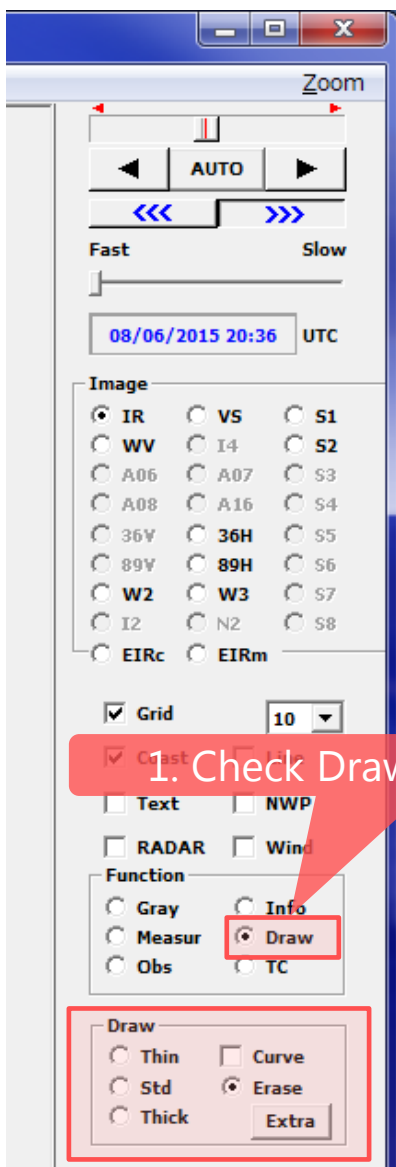
Window size can be specified using the width and height boxes (unit: pixels).



Window size is automatically adjusted to fit the display.



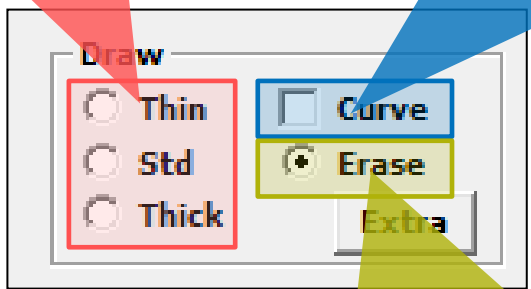
Creating Drawings



Select line width.
Select Thin, Standard or Thick.

Spline drawing

- Select the line width and check the [Curve] checkbox.
- Click on two or more points in the displayed image and double click on the end point.



Partial erasure

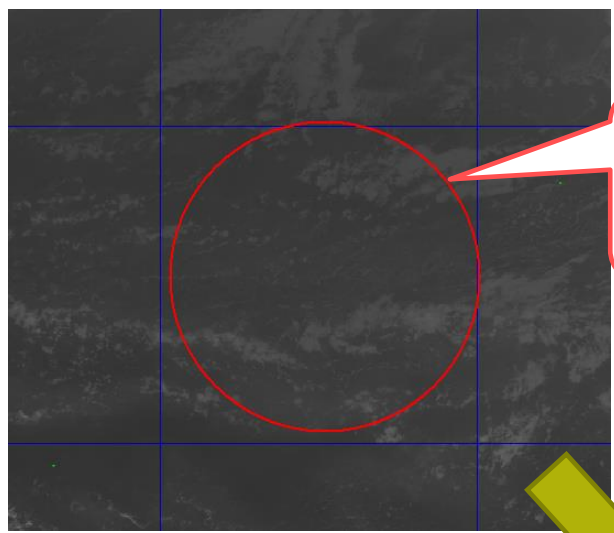
- Select the [Erase] checkbox.
- Click a line or a character string, etc. in the current image to erase it. The item will be displayed in reverse color, and will be erased if clicked again.

Tip

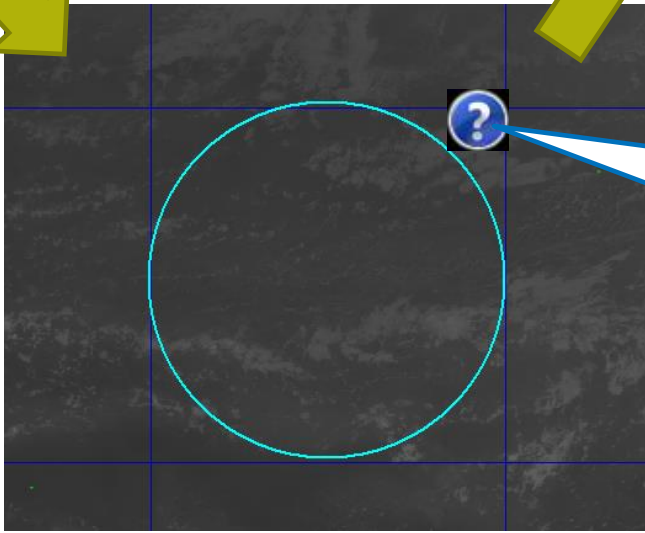
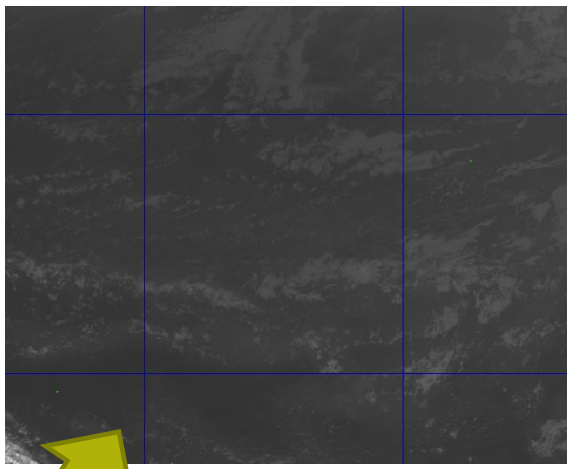
If neither [Curve] nor [Erase] is selected, freehand drawing is enabled.



Deleting Drawn Figures



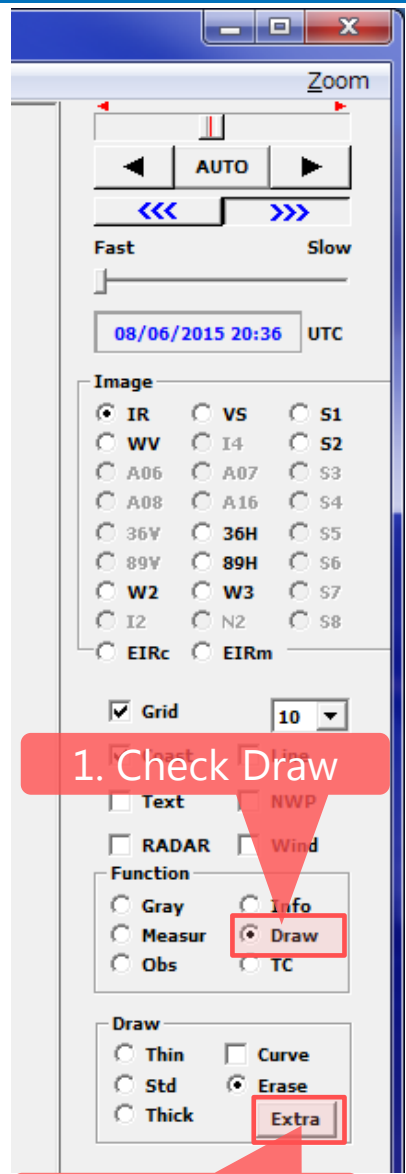
Right-click on the figure.



Left-click on the Question mark.

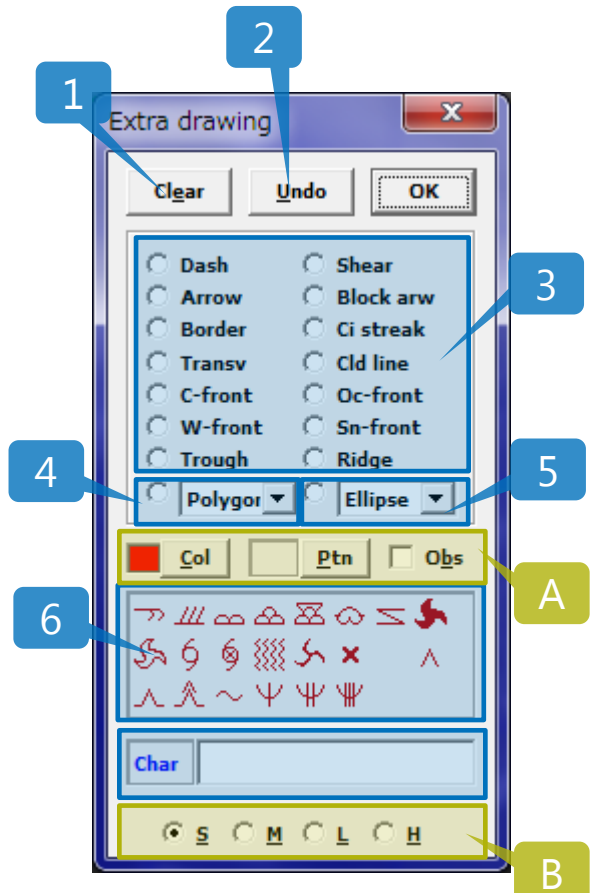


Creating Drawings



1. Check Draw

2. Click Extra

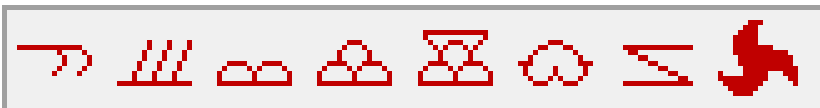


A: Change color and hatch pattern.
B: Change symbol size.

1. Delete all drawings. ([Clear] button)
2. Cancel the previous drawing operation. ([Undo] button)
3. Draw lines and arrows (fronts, troughs, or ridges), which can be created as with spline drawings.
*Click the [Sn-front] button with [Ctrl] pressed to draw a stationary front in red and blue.
4. Draw polygons, closed curves, or cloud rims, which can be created as with spline drawings. In these figures, colors and hatched patterns can be changed.
5. Draw ellipses, circles, or flex oval. Colors can be changed and hatched patterns can be used for filling.
6. Paste cloud form symbols or vortex center symbols. (Drag a symbol to the desired point. The symbol size can be changed and the symbol can be reversed from left to right by dropping it with [Ctrl] pressed.)
7. Paste character strings. (Drag [Char] to the desired point. The character size can be changed.)
8. Paste wind barbs (Drag [Char] to the desired point after inputting WIND ddd (direction in 360 deg.) and fff (velocity). The wind barb size can be changed.)



Creating Drawings



1 2 3 4 5 6 7
8

1	High-level cloud (Ci)
2	Middle-level cloud (Cm)
3	Cumulus (Cu)
4	Cumulus Congestus (Cg)
5	Cumulonimbus (Cb)
6	Stratus
7	Stratus or Fog
8	Low-level vortex
9	Upper-level vortex
10	Center of typhoon with eye
11	Center of typhoon without eye



9 10 11 12 13 14 15

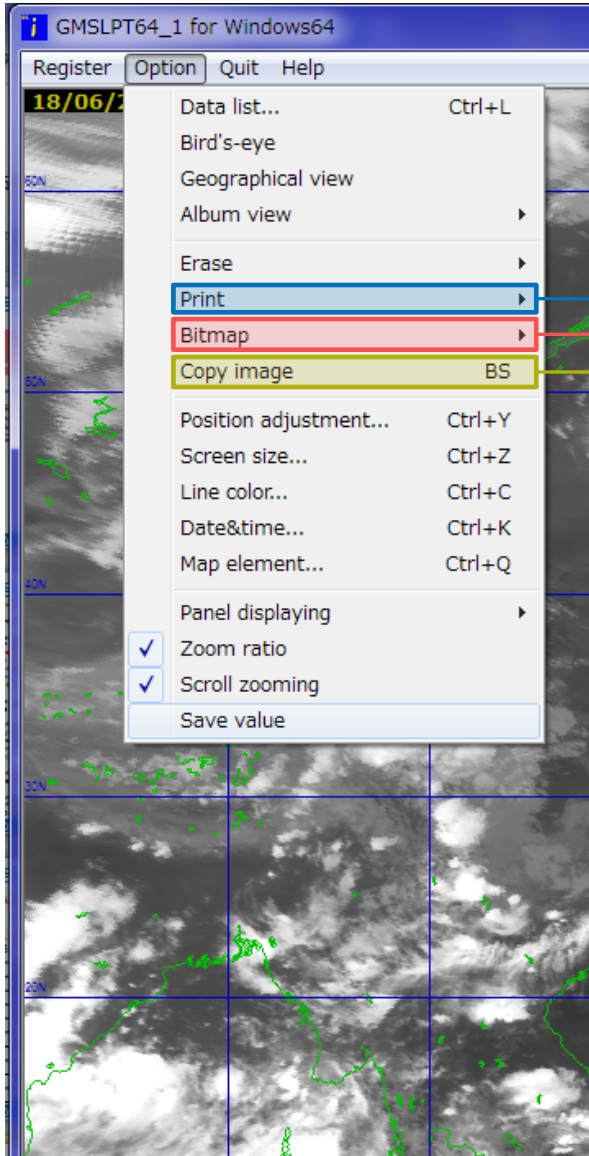


16 17 18 19 20 21

12	Waved cloud (Mountain wave)
13	Low-level vortex (Meso β -scale)
14	(Cross mark)
15	Light turbulence
16	Moderate turbulence
17	Severe turbulence
18	(Tilde mark)
19	Light icing
20	Moderate icing
21	Severe icing



Outputting Images



Print image	Ctrl+P
Print screen	Ctrl+H
Page setup...	Ctrl+U

- Print image: Output the current image to a printer
- Print screen: Output the entire screen to a printer
- Page setup: Set the margins of the printing paper

Output bitmap(B)	Ctrl+O
Output serial bitmaps(S)	
Output animation(A)	

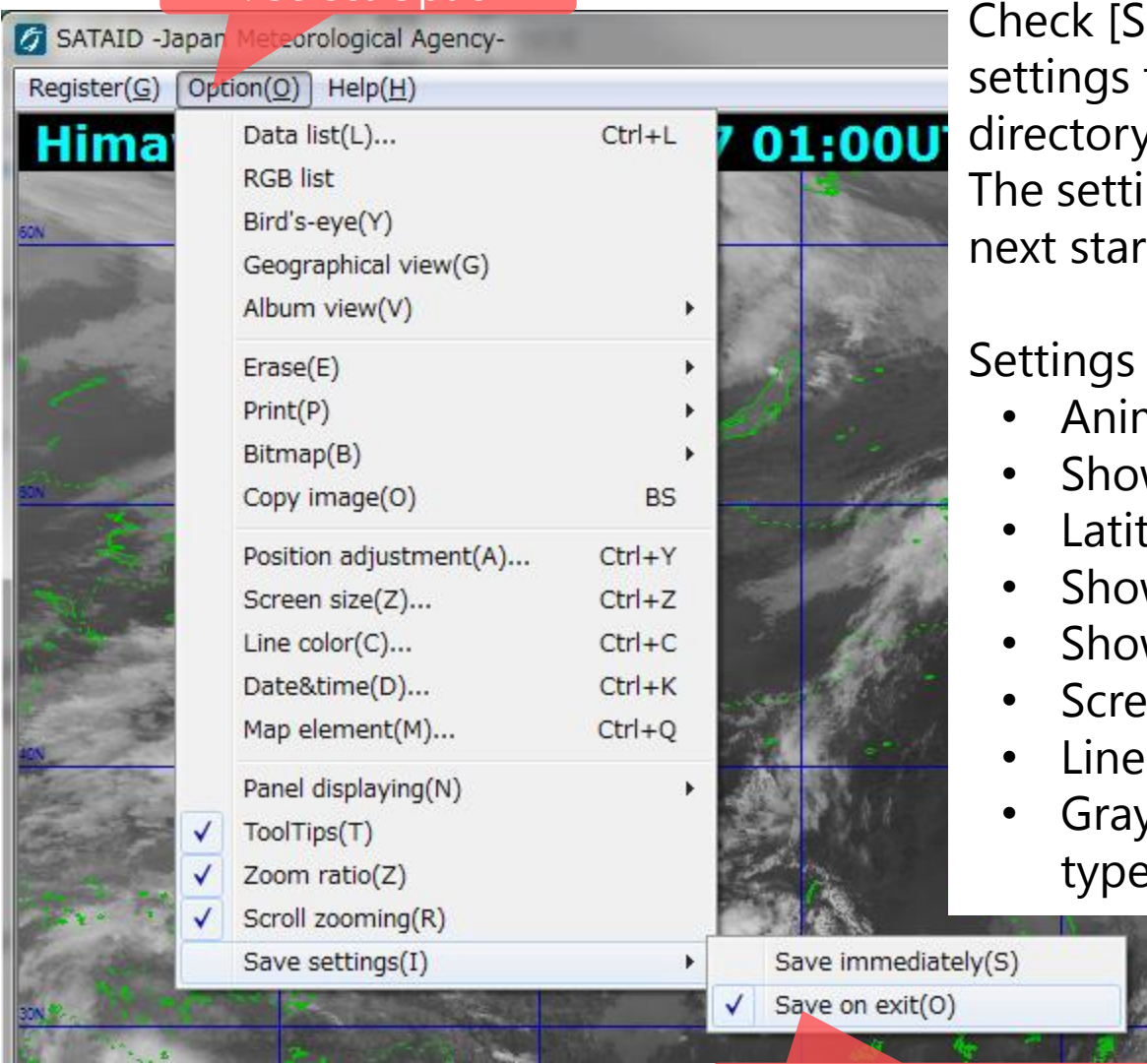
- Output bitmap*: Output the current image as a bitmap file
- Output serial bitmaps*: Output images as bitmap files
- Output animation: Output images as a Gif or Avi animation (*BMP, JPG, PNG, TIF and other formats can be used.)

Copy the current image to the clipboard



Saving New Settings

1. Select Option



Check [Save on exit(O)] to save the current settings to the initial value file in the program directory before exiting the program. The settings will be applied by default at the next startup.

Settings saved include:

- Animation speed
- Show/hide status of latitude/longitude lines
- Latitude/longitude line display intervals
- Show/hide status of coastlines
- Show/hide status of drawings
- Screen size
- Line colors
- Grayscale status set separately for image types

2. Check Save on exit