

G-Portal

User's manual

Revision A

September 2, 2019
Japan Aerospace Exploration Agency

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Revision History

Revision	Date	Description
1.0	March 9, 2018	First Edition
A	September 2, 2019	Add the recommended OS and browsers that have been checked for operation.

1. What is the G-Portal

Globe Portal System (G-Portal) is online dissemination service of valuable products acquired from sensors on Earth Observation Satellites of Japan Aerospace Exploration Agency (hereafter, JAXA).

All you can use the service to cross-search products from JAXA's many earth observation satellites and sensors, and registered users can acquire products.

1.1. Data Policy

Precautions when using G-Portal data are as follows.

- Data is provided via the internet/an online environment.
- The offer target is a free distribution product. (Products with paid distribution are not handled)
- Costs for providing the data are free of charge provided that no additional costs are incurred by JAXA.
- Anybody is free to use the system, including those interested in the global environment, or those interested in making a positive contribution to society through the use of earth observation data.

Privacy policy when you register a user is handled in the following manner.

Your registered personal information is used to identify how the service is being used, and to implement improvements to the service into the future. This information may also be used to notify or contact users when JAXA conducts survey (questionnaires) regarding improvements to system functionality.

Please refer to the Term of Use for further information of usage. And also please refer to the JAXA site policy (http://www.jaxa.jp/policy_j.html) for further details on the data policy and handling of privacy policy.

1.2. G-Portal user types

User types for G-Portal is outlined in Table 1.2-1. You are recommended to complete user registration first in order to acquire products without restrictions (See “2. Register User”).

Table 1.2-1 User Type

User Type	Definition	Services Available
Guest User	Users who have not completed user registration	Search and browse data online. Note that guest users are unable to order or acquire products.
Registered User	Users who have completed user registration	Search, browse, produce, process and acquire standard products online. Acquire standard products and near real-time products directly from the FTP server.
Specified User	Register users, collaborator specially permitted by JAXA	Search, browse, produce, process and acquire standard products online. In addition to the products that registered users can download, acquire special products being available to those who are JAXA-approved directly from the SFTP server.

1.3. User types and service content

The service content of G-Portal is outlined in Table 1.3-1 below. The type of service content differs depending on user types.

Table 1.3-1 Product Services for Each Type of User

Provided Service	Chapter, Section	Applicable Users		
		Guest Users	Registered Users	Specified Users
User Authentication	2.2	—	○	○
User Registration	2.1	○	—	—
Change user information	5.2	—	○	○
Delete user information	5.3	—	○	○
Change password	5.4	—	○	○
Reissue password	2.3.2	—	○	○
Public key registration	3.3.1	—	—	○
Browse notifications (system maintenance information, release information, Web page update information)	6.5	○	○	○
Search and browse products	4.1	○	○	○
Download products(WEB)	4.3	—	○	○
Download products(FTP/SFTP)	3.2 3.3	—	○	○(*1)
Produce the product	4.4	—	○	○
Process a product	4.5 4.6	—	○	○
Browse and acquire spacecraft sensor operating information (such as quality information, data missing information, TLE information, orbit information)	6.2.1	○	○	○
Browse and acquire product documentation (such as user's manual, format definitions)	6.3	○	○	○
Browse and acquire tools related to products	6.4	○	○	○

Use SFTP to download products	3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Send inquiries to the support desk	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

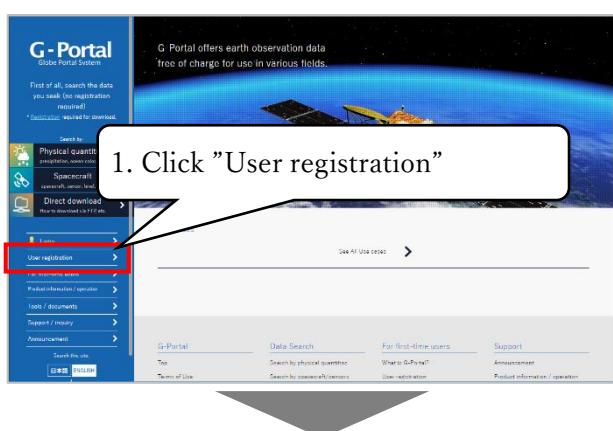
*1 In addition to the products that all registered users can download, there are other products that are available for download through JAXA approval.

2. Register User

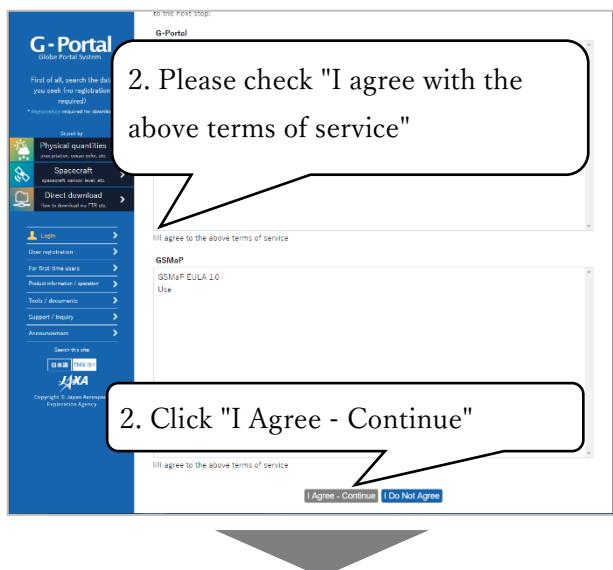
2.1. User registration

You must complete user registration to order and download products using this service.

The following outlines the procedures required for user registration.



1) Click "User registration" from the menu.



2) To register a user, you must agree to the terms of use. Read through the terms and click the "I Agree - Continue" button. The page will move to the "User Registration window".

User registration is not possible if you do not agree to these terms, and use the service as a guest user.

*If you check "I agree to the above terms of service" for all terms of use, you will be able to click the "I Agree - Continue" button.

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2 Register User

3. Enter user registration information

Please complete all the following items and press "Confirm Registration Information".

User account (Required):

Password (Required):

Name (Required):

Email address (Required):

Email address (reconfirm) (Required):

Organization:

Department:

Country: Afghanistan

Language (Required): English

Purpose (Required): Analysis Algorithm Development Data Validation Applied Research Education Calibration

Information of ordered products and user registration: If you do not receive such email, or if you receive an unexpected email, please contact the Support Desk. If you use a free email address (like @gmail.com, @outlook.com) or private email, our email may not reach you.

*Be aware of phishing scams
Avoid filling out forms contained in email messages that request personal information. We will never send any email requesting your user account or password.

4. Click "Next"

Email Delivery Preference (Required): By order By e-mail

*Handling of email addresses
On this row, we strongly recommend using your corporate or institutional information of ordered products and user registration. If you do not receive such email, please contact the Support Desk. If you use a free email address (like @gmail.com, @outlook.com) or private email, our email may not reach you.

*Be aware of phishing scams
Avoid filling out forms contained in email messages that request personal information. We will never send any email requesting your user account or password.

Next **Cancel**

5. Confirm user registration information

Confirm the information you entered and click "Register", to correct the information, click "Back".

User account: sat_taro_en
Name: T.S.
Email address: ts.on@gmail.com
Organization: xxx Organization
Department: xxx Department
Country: Afghanistan
Language: English
Purpose: Analysis
Email Delivery Preference: Algorithm Development

6. Click "Register"

3) Enter all user information to be registered (user account, password, name, email address, organization, department, country, language, purpose of use, email delivery preference).

4) Click the “Next” button to move to the window to check the information you've entered. If you want to cancel the input contents, please click “Cancel” button.

*The “Register Confirmation Screen” button can be clicked by entering all the items labeled (Required).

5) The entered user information will be displayed, so check if there is any mistake in the contents. To correct, please click the “return” button. You will return to the screen for entering user information.

6) Click the “Register” button to perform the provisional registration procedure.

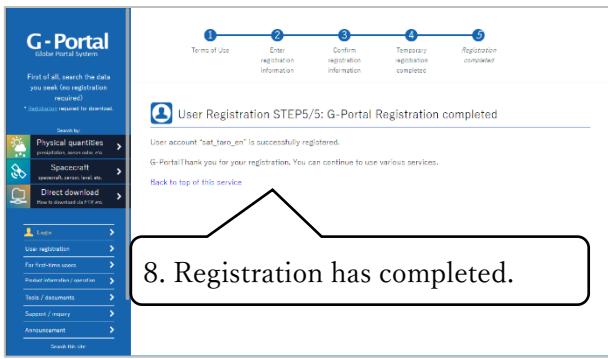
G-Portal (General) User's manual

2 Register User



7. tentative registration has done.

7) The temporary registration procedure is completed. "Temporary registration notification mail" will be sent to the email address you entered. Registration is completed by accessing the URL described in the mail. At the time of provisional registration, you can not log in because user registration has not been completed yet.



8. Registration has completed.

8) Access the URL included in the "Temporary registration notification mail". The final Registration window will be displayed. Your user account is sent to the email address you registered ("User Registration Complete Email"). User registration is complete and you can now login to the G-Portal.

2.2. Login to the system

You can login to the system using a user account that has been registered in advance (see “2.1 User registration” for the registration method) to order and download products using G-Portal. See “1.2 G-Portal user types” for user type and usage restrictions.

2.2.1. Login on the top window



- 1) Click "login" at menu on a left pane of the top window. Appear the window for the login.

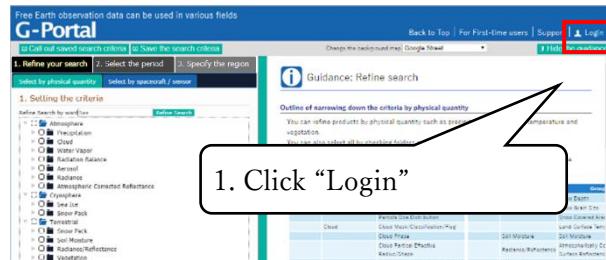


- 2) Input your user accounts and password as the login window is displayed. Click "login" button.



- 3) After login successfully, The "login" button at menu on left pane of the top window switches "logoff: 【account name】"button.

2.2.2. Login on the search window



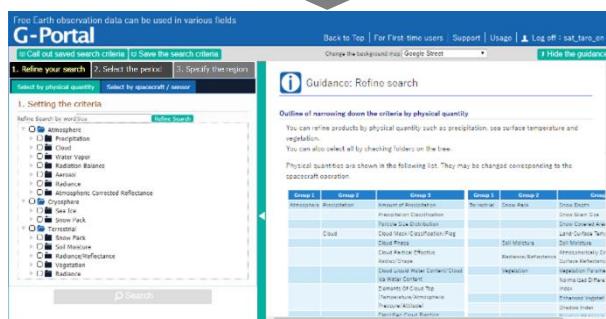
1. Click "Login"

- 1) Click the login button on the search header and appears the pop-up login dialog.



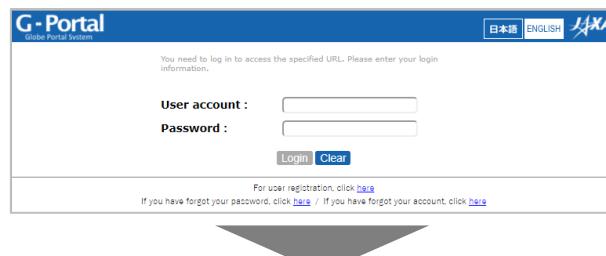
2. Click "Login"

- 2) Input your user account and password while login dialog is appeared.



- 3) "Login" button on the header of the search window switches after login successfully.

2.2.3. Login on a pop-up window



- 1) The pop-up "login" window appears through

<https://gportal.jaxa.jp/gpr/auth>



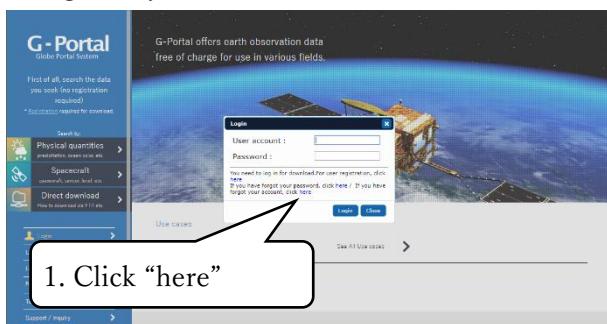
2) Input your user account and password and click the login button.



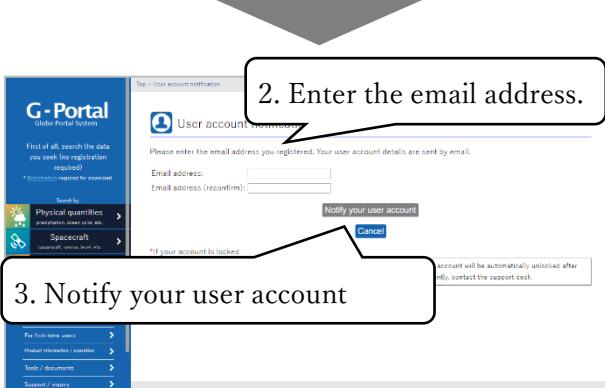
2.3. Troubleshoot for login

2.3.1. If you have forgotten your user account

The G-Portal can automatically resend User Account Notification Email if you have forgotten your user account.



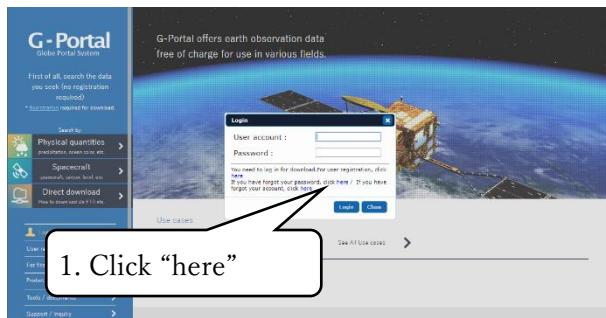
1) Click "login dialog" or "Here, you lose your user account information." link and appear the window for informing your account information again.



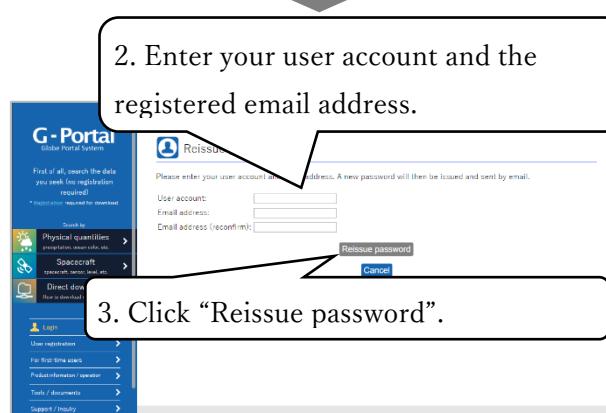
2) Input the registered e-mail address on the G-Portal application.
3) Click the button "notify the user account" and the notification to the e-mail address sent.

2.3.2. If you have forgotten your password

The system can reissue a password if you have forgotten your password.



- 1) Click “login dialog” or “Here, you lose your password.” link and appears the window for informing your account information again.



- 2) Input your user account and the registered e-mail address.
- 3) Click the button “Reissue your password”, a notification for the reissued password is sent to your e-mail address.

2.3.3. If your account has become locked

Your user account will be locked if you have entered an incorrect password five times. You will not be able to login to the system when your account is locked.

Your user account is locked when you entered an incorrect password. The system will unlock accounts automatically once a hour. Try login the system after a while.

3. How to download products directly

It describes the procedure to download the product directly using FTP or SFTP protocols. Using SFTP is permitted only for specific users.

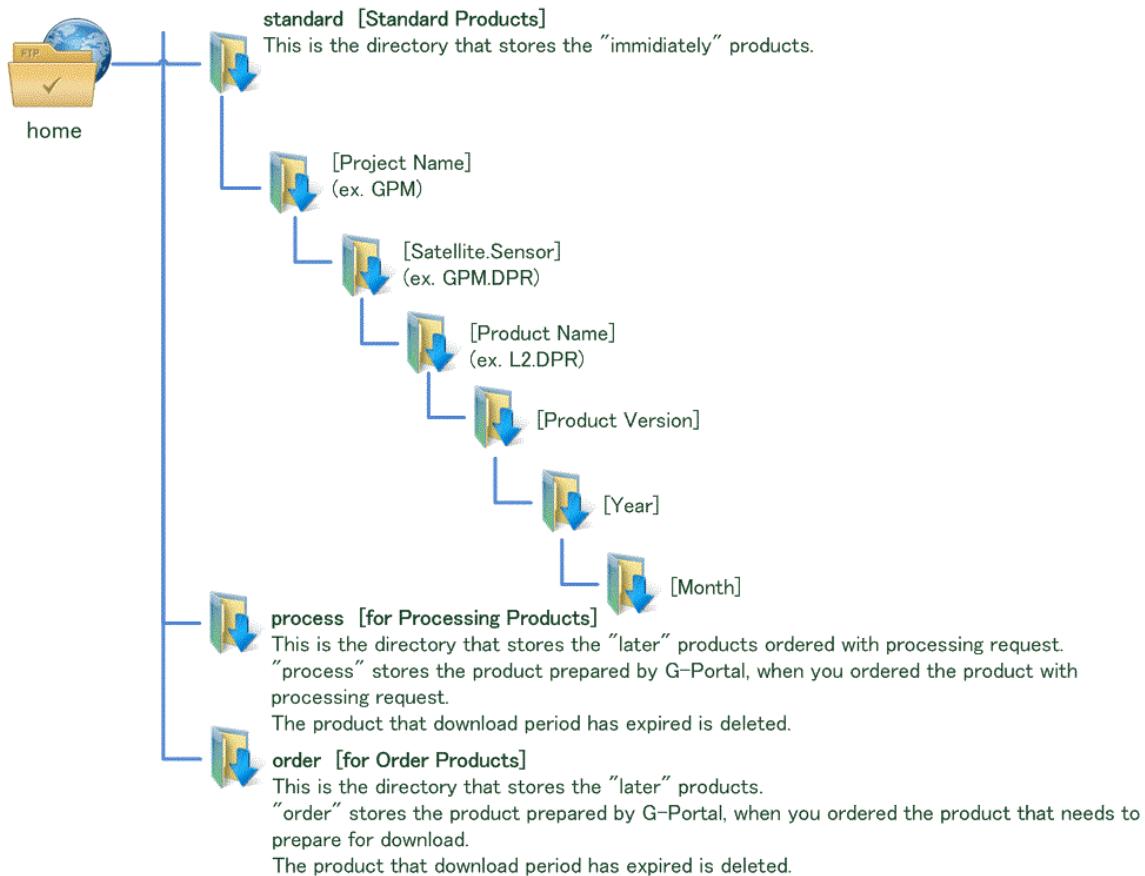
3.1. Products that can be downloaded by FTP or SFTP

For FTP or SFTP, products to be downloaded are "standard product" and "near real time product". Regarding "standard product" and "Near real time products", the range that can be referred to differs depending on the belonging group. The password used for FTP authentication is "anonymous".

3.1.1. Directory structure

◆ Directory structure of standard product

The directory structure of the standard product is as follows.



◆ Directory structure of quasi real-time products

The directory structure of the near real time product is as follows.



3.2. Downloading FTP-based products

For direct retrieval using FTP, account authentication with fixed password (anonymous) is performed. For the directories that can be accessed by FTP, please refer to "Products that can be downloaded via FTP or SFTP" "Directory configuration", for download method using FTP, please refer to "Download method using FTP".

3.2.1. How to download using FTP

This section shows the download method for UNIX (including Mac OS X) and Windows.

◆ Basic information

host	ftp.gportal.jaxa.jp
port	21
protocol	FTP
user name	user account registered in G-Portal
password	anonymous

(1) UNIX (including Mac OSX)

◆ Connect FTP(Account authentication)

By entering the following command on the command line, you can access using FTP.

```
$ ftp ftp.gportal.jaxa.jp
```

When connecting properly, "Name:" will be displayed on the command line, so please enter your user account.

```
Name (ftp.gportal.jaxa.jp:test):
```

Please enter the password (anonymous) as it appears on the command line "Password:".

```
Password:
```

The following will be displayed if you have logged in successfully:

```
230 User XXXXXX logged in
```

```
Remote system type is UNIX.
```

```
Using binary mode to transfer files .
```

```
ftp>
```

is displayed.

◆ List display

Enter

```
ftp > ls
```

to display a list of files and directories

◆ Change directory

Enter:

```
ftp> cd [directory name]
```

to move to a specific directory.

◆ Download a file

Enter:

```
ftp> get [file name]
```

to get a file. The specified file will be downloaded and saved in a directory on your computer.

◆ Exit FTP

Enter:

```
ftp > bye
```

to close FTP.

(2) Windows

Here, it shows how to download with the FTP client software "WinSCP".

◆ Installation WinSCP

(1) Download WinSCP Installer from the following site.

WinSCP download site: <http://winscp.net/eng/download.php>

(2) Start the installer.

- (3) Click the [Next] button. (Image 3.2-1(3))



Image 3.2-1

- (4) In the agreement of the license agreement, select "I accept the agreement" (Image 3.2-2(4)) and click [Next]. (Image 3.2-2(5))

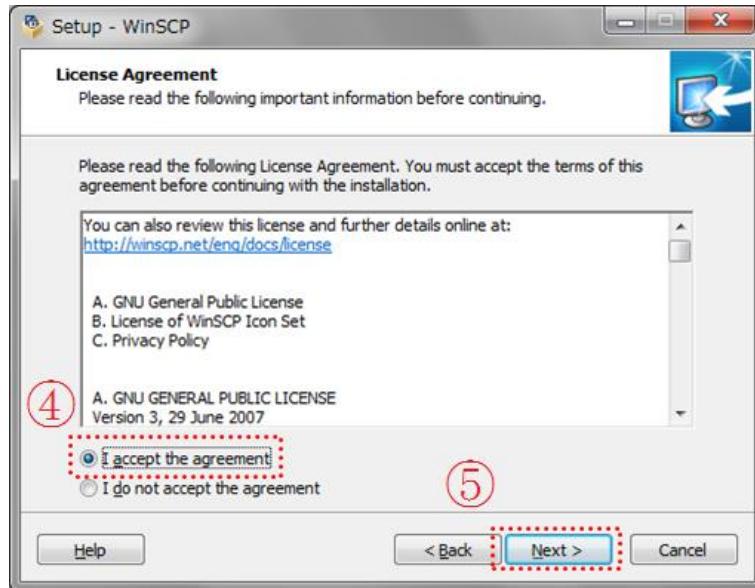


Image 3.2-2

- (5) Select "Typical installation (recommended)" (Image 3.2-3(6)) and click "Next".
(Image 3.2-3(7))

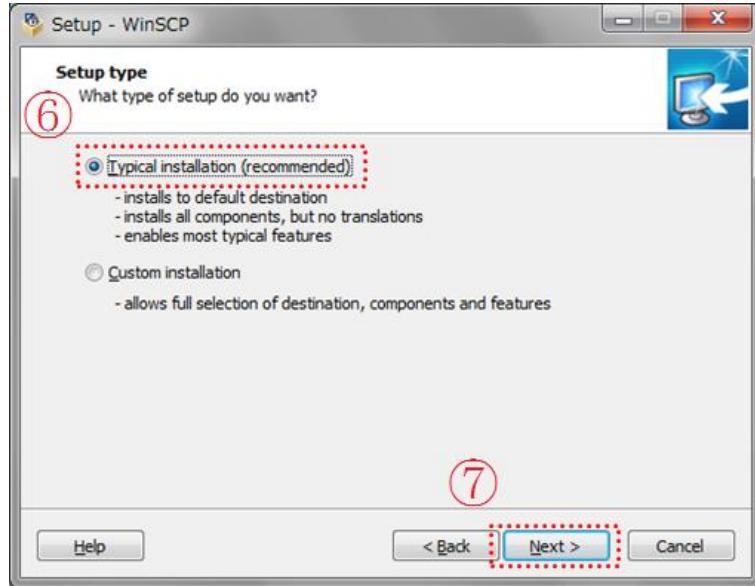


Image 3.2-3

- (6) Select "Commander" (Image 3.2-4(8)) and click "Next". (Image 3.2-4(9))

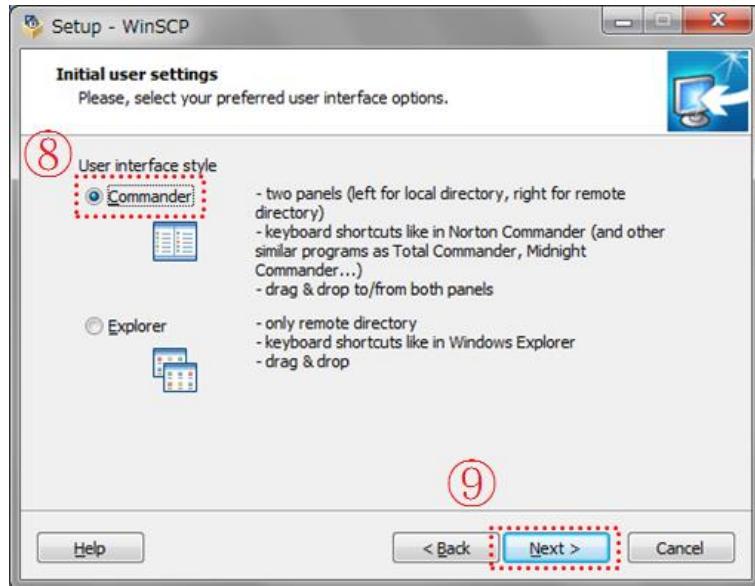


Image 3.2-4

- (7) Click [Install] to install. (Image 3.2-5(10))

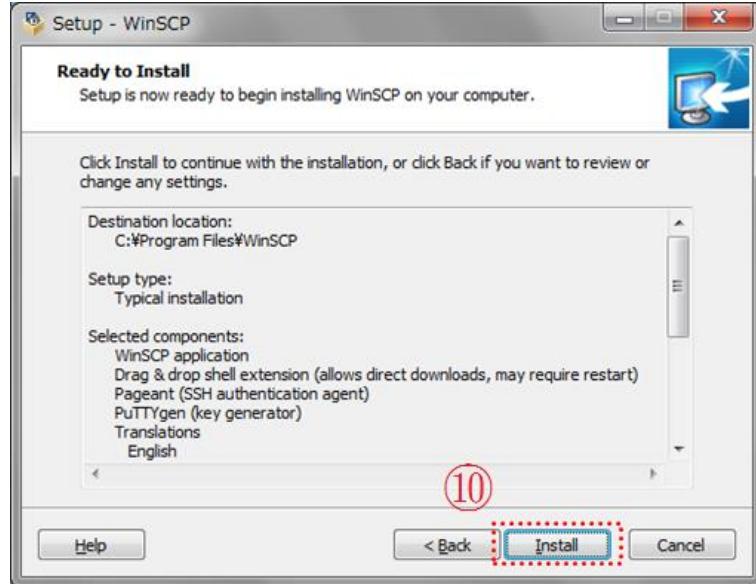


Image 3.2-5

- (8) When installation is successful, the following screen is displayed, so click [Finish].
(Image 3.2-6(11))



Image 3.2-6

◆ Connect FTP(Public key cryptographic authentication)

- (1) Start WinSCP.
- (2) Select "FTP" for the File protocol. (Image 3.2-7(1))
- (3) Select "No encryption" for encryption. (Image 3.2-7(2))
- (4) Enter "ftp.gportal.jaxa.jp" as the Host name. (Image 3.2-7(3))
- (5) Enter "21" for Port number. (Image 3.2-7(4))
- (6) Please enter the user account registered in G-Portal as User name. (Image 3.2-7(5))
- (7) Press [Login] and access FTP. (Image 3.2-7(6))

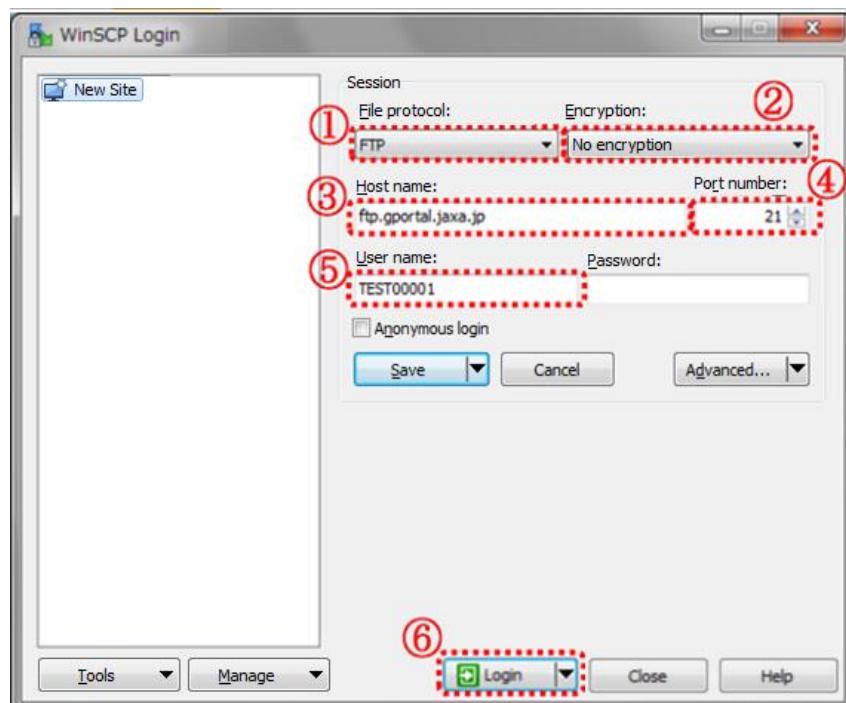


Image 3.2-7

- (8) Enter "anonymous" as the password and click [OK]. (Image 3.2-8(7))

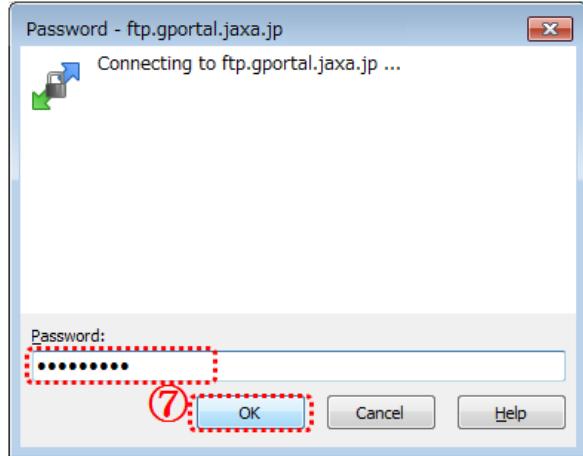


Image 3.2-8

- (9) When login is successful, the following screen will be displayed.

The left pane is your computer and the right pane is the G-Portal directory.

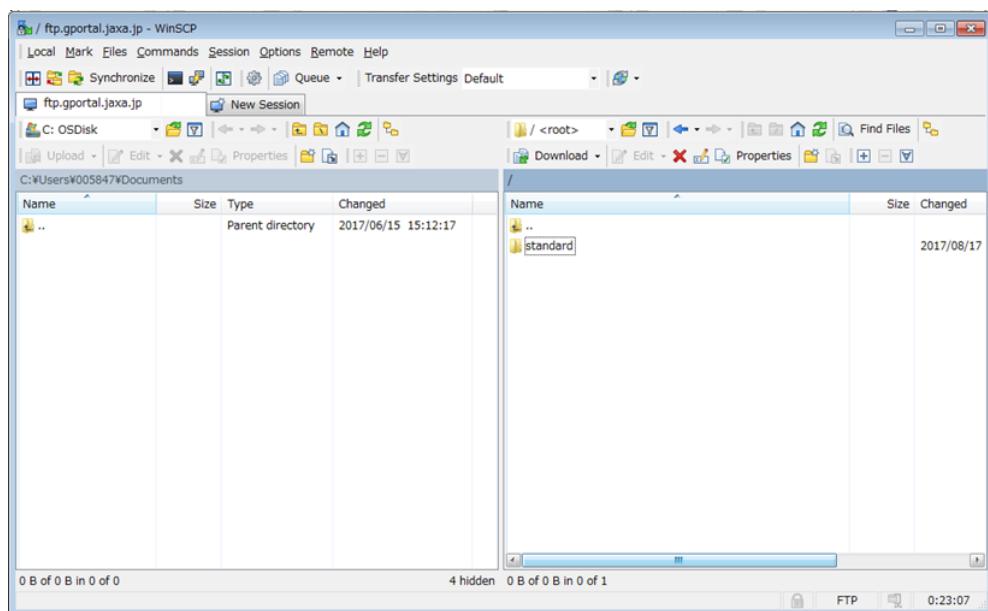


Image 3.2-9

◆ Change directories

Move the directory from the directory move button or pull-down menu.

(Image 3.2-10(8))

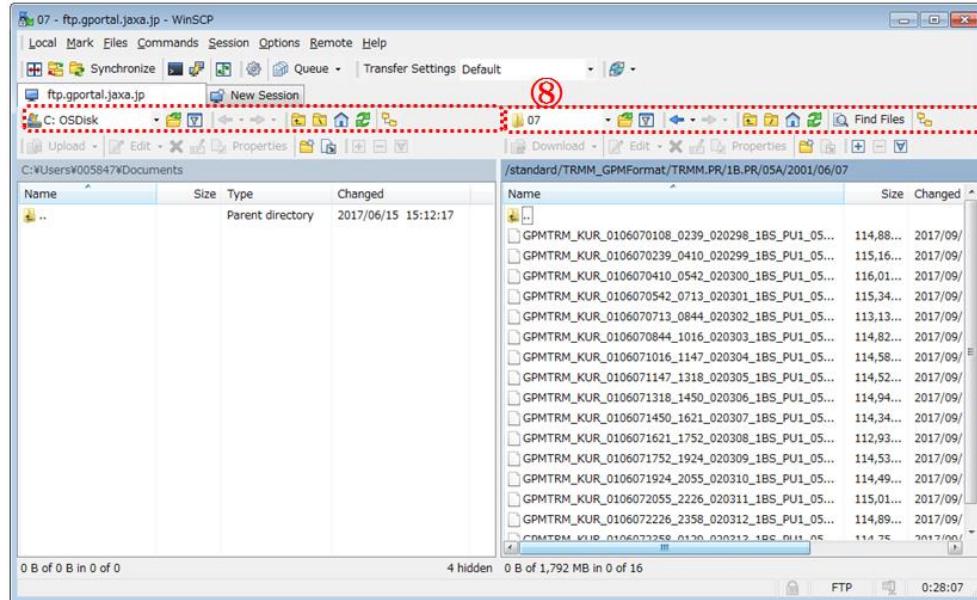


Image 3.2-10

◆ Download a file

Select the product you want to download and drag & drop it. (Image 3.2-11(9))

* Select multiple files and drag & drop them, you can download them all at once.

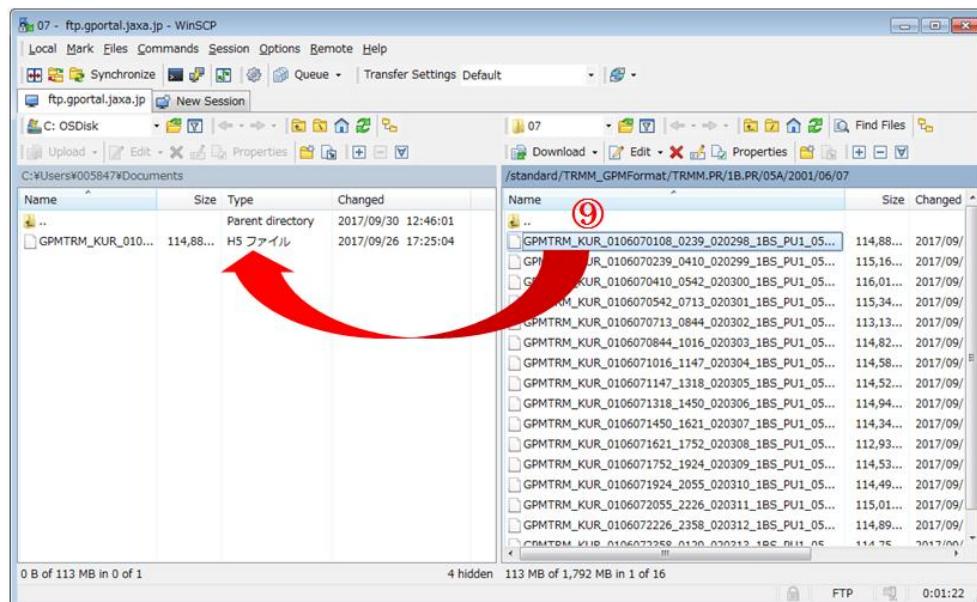


Image 3.2-11

◆ Exit WinSCP

Click [Commands]-[Quit] to close WinSCP.

3.3. Downloading products using SFTP

For direct acquisition using SFTP, account authentication or user authentication by public key cryptography is performed.

When performing user authentication by public key cryptosystem, it is necessary to create private key / public key beforehand and register its public key in G - Portal. Please refer to "Create your private key · Public key yourself", "Register public key" or "Download private key created with G-Portal" for creating and registering private key · public key.

For the directories that can be accessed, please refer to "Products that can be downloaded via FTP or SFTP" "Directory configuration", for downloading methods using SFTP, please refer to "How to download using SFTP".

Depending on the organization to which the user belongs, access to the outside by SFTP may be prohibited by policy. In that case, please consult with your network administrator of your organization. G-Portal uses 2051 instead of normal 22 for the TCP port used for SFTP in consideration of safety.

3.3.1. How to create private key and public key by yourself (Specific use only)

This procedure is unnecessary when you take means of "Download private key created by G-Portal" to be described later. This procedure is for UNIX(including Mac OS X), Linux, Cygwin users to create private key and public key using commands.

- (1) Open the terminal and execute the following command. (If it can not be executed, check whether ssh is installed.)

```
$ ssh-keygen
```

- (2) The following message for requesting the save directory and save name of the public key / private key is displayed.

```
Enter file in which to save the key (/Users/[UserName]/.ssh/id_rsa):
```

To specify the save directory and save name, enter the directory name and save name.

If you press enter without entering anything, id_rsa (private key) and id_rsa.pub (public key) will be stored in the default directory / Users / username /.ssh.

- (3) The following message will be returned requesting the passphrase for decrypting the private key.

Enter passphrase (empty for no passphrase):

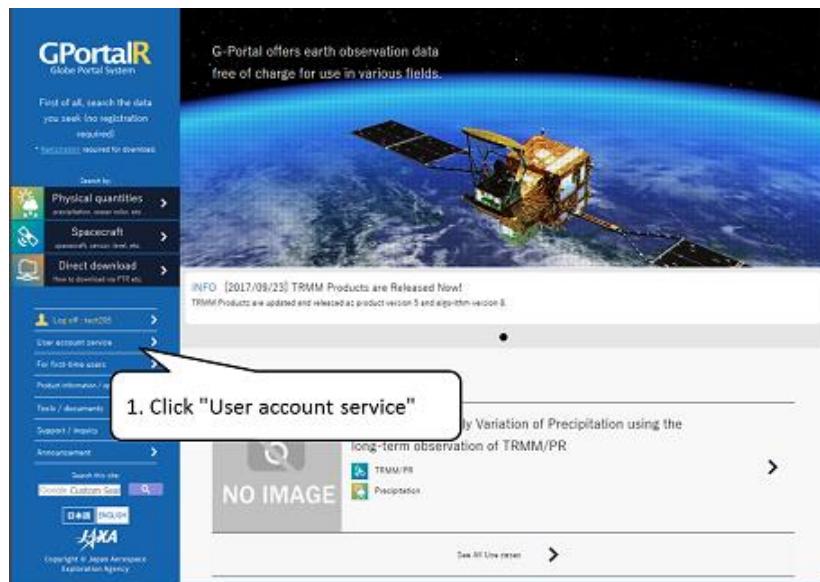
To set the password to be entered when connecting SFTP, enter the password.

This completes the creation of the public key / private key in the set directory.

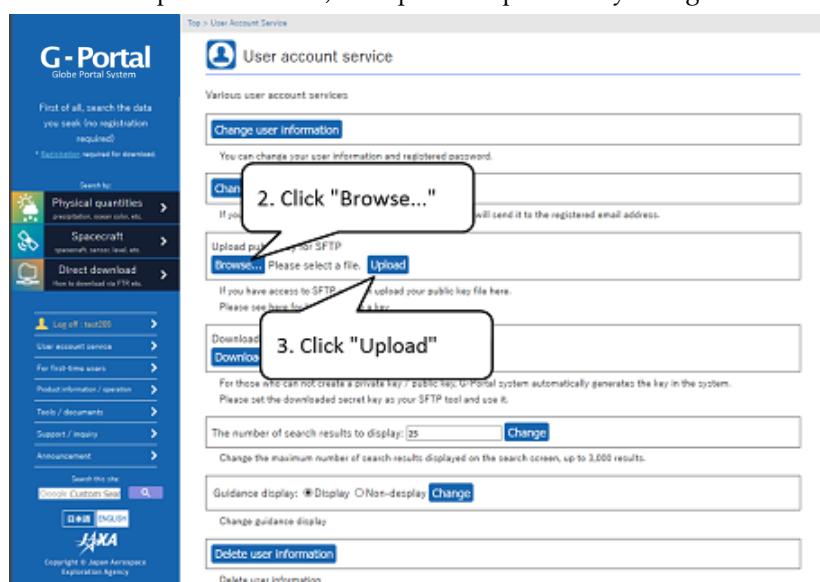
3.3.2. Register public key (Specific use only)

In order to do a direct acquisition using SFTP, register the created public key in G - Portal. (Please do not register private key. The private key is used to access SFTP server.)

- (1) After logging in to the system, click "Account service" on the menu to display the user account service screen.



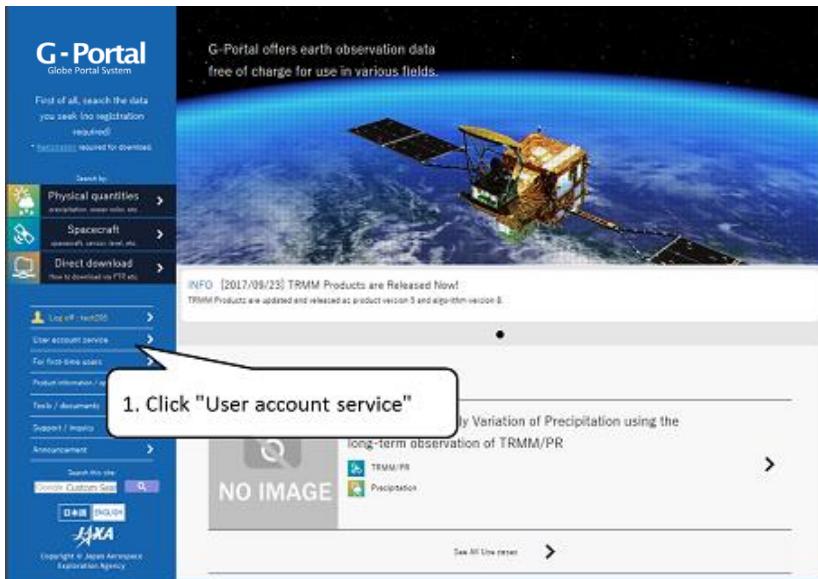
- (2) Specify the public key file from the "Browse" button.
If the public key has already been registered, it will be updated to the specified public key.
- (3) With the "Upload" button, the specified public key is registered in this system.



3.3.3. How to acquire the private key and automatically register the public key using the function of G-Portal (Specific use only)

This chapter explains how to acquire the private key and register the public key automatically using the function of G-Portal. If you take this means, your public key will be automatically register to G-Portal. Therefore, you should not register your public key by yourself. And if you take means "How to create private key and public key by yourself" and "Register public key" to be described later, you don't need to this procedure.

- (1) After logging in to the system, click "Account service" on the menu to display the user account service screen.



- (2) Click the "Download" button to generate the private key and download the private key to your computer. Also, generate a corresponding public key and register it on the GPortal.

G-Portal (General) User's manual

3 Direct Download Products

The screenshot shows the G-Portal User Account Service interface. On the left, there is a sidebar with various links such as 'Physical quantities', 'Spacecraft', 'Direct download', and 'Log off - test200'. The main content area is titled 'User account service' and contains several sections:

- Change user information**: A box containing instructions for changing user information and registered password.
- Change password**: A box containing instructions for changing password.
- Download**: A highlighted box with a callout '2. Click "Download"' pointing to it. This box contains instructions for uploading a public key file and creating a key. It also includes a link to 'How to acquire the private key and automatically register the public key using the function of G-Portal'.
- Search result**: A box showing search results with a 'Change' button.
- Guidance display**: A box with options for displaying guidance.
- Delete user information**: A box for deleting user information.

The 'Download' box also contains a link to 'How to create a key'.

3.3.4. How to download using SFTP

This section shows how to download in UNIX (including Mac OS X) and Windows.

◆ Basic information

host	ftp.gportal.jaxa.jp
port	2051
protocol	SFTP
user name	User account registered in G-Portal
password	Password registered with G-Portal (Used for account authentication)
Private key	A private key corresponding to the public key registered in G-Portal (Used in case of public key cryptographic authentication)

(1) UNIX (including Mac OSX)

◆ Connect SFTP(Account authentication)

Enter the following command into the command line to enable access using SFTP.

```
$ sftp -oPort=2051 [account]@ftp.gportal.jaxa.jp
```

"Password:" will be displayed in the command line if a proper connection to the system has been established, so enter your password.

The following will be displayed if you have logged in successfully:

```
sftp >
```

is displayed

◆ Connect SFTP(Public key cryptographic authentication)

By entering the following command on the command line, you can access SFTP using public key cryptographic authentication.

```
$ sftp -oPort=2051 -oIdentityFile=[public key path] [account]@ftp.gportal.jaxa.jp
```

The following will be displayed if you have logged in successfully:

```
sftp >
```

is displayed

◆ List

Enter:

sftp > ls

to display a list of files and directories.

◆ Change directory

Enter:

sftp> cd [directory name]

to move to a specific directory.

* Note: Due to access restrictions, you might not be able to move to a directory even if it is displayed in the list.

◆ Download a file

Enter:

sftp> get [file name]

to get a file. The specified file will be downloaded and saved in a directory on your computer.

◆ Exit SFTP

Enter:

sftp > bye

to close SFTP.

(2) Windows

The following outline is an example using the “WinSCP” software application to download via SFTP.

◆ Installation WinSCP

(1) Download WinSCP Installer from the following site.

WinSCP download site: <http://winscp.net/eng/download.php>

(2) Start WinSCP Installer.

(3) Select "English" (Image 3.3-4(1)), and click [OK]. (Image 3.3-4(2))

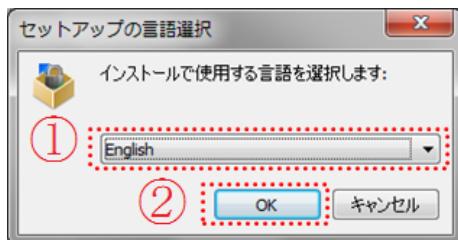


Image 3.3-4

- (4) Click [Next]. (Image 3.3-5(3))



Image 3.3-5

- (5) Select "I accept the agreement" (Image 3.3-6(4)), and click [Next]. (Image 3.3-6(5))

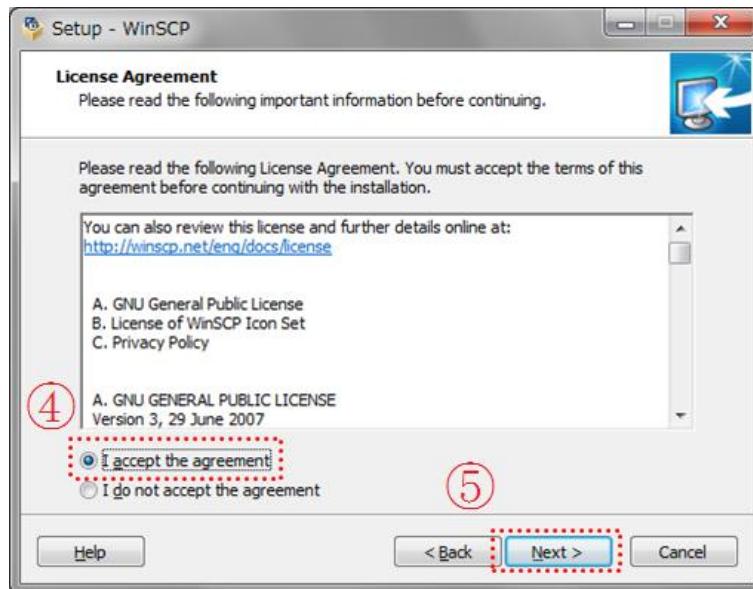


Image 3.3-6

- (6) Select "Typical installation (recommended)" (Image 3.3-7(6)), and click [Next].
(Image 3.3-7(7))

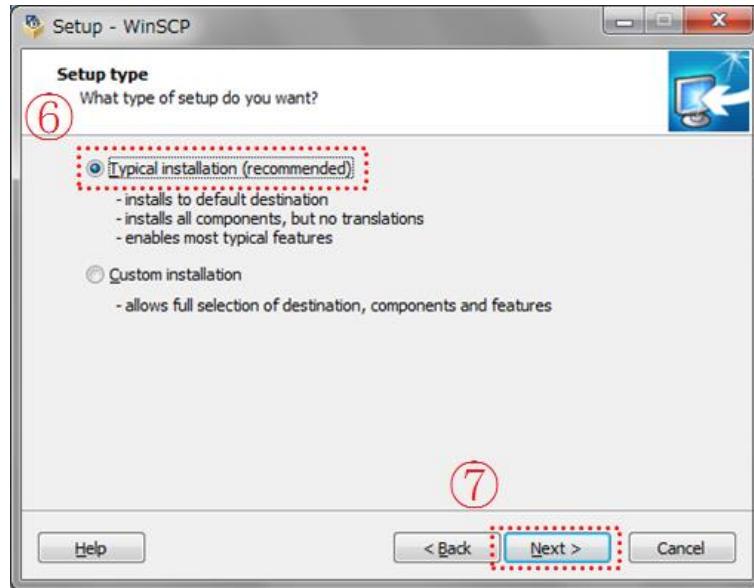


Image 3.3-7

- (7) Select "Commander" (Image 3.3-8(8)), and click [Next]. (Image 3.3-8(9))

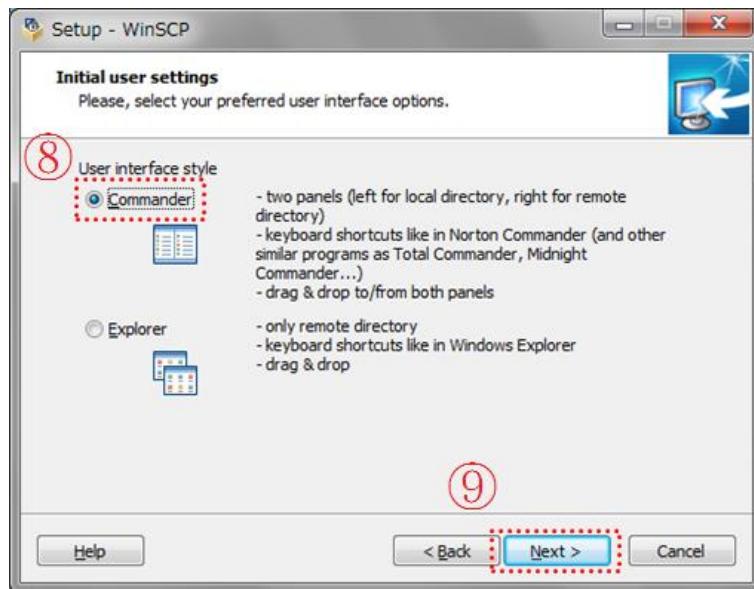


Image 3.3-8

- (8) Click [Install]. (Image 3.3-9(10))

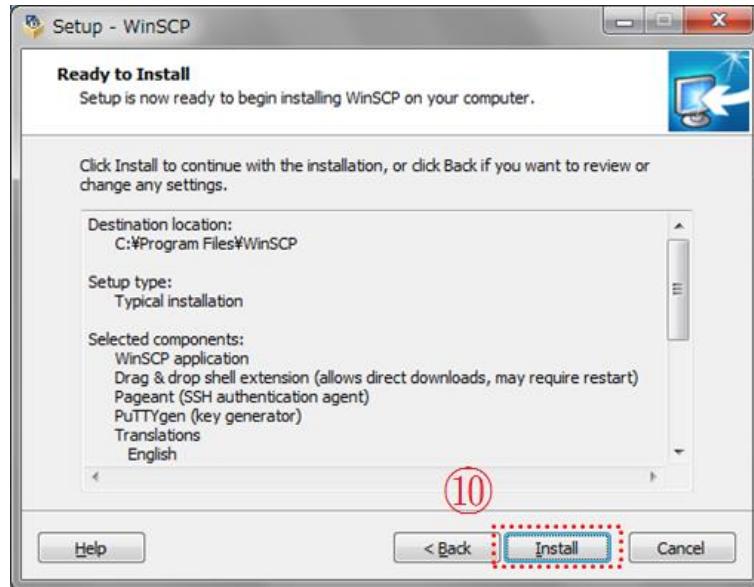


Image 3.3-9

- (9) image below will be displayed if you have logged in successfully. Click [Finish].
(Image 3.3-10(11))



Image 3.3-10

◆ Connect SFTP(Account authentication)

- (1) Start WinSCP.
- (2) Select "SFTP" for the File protocol. (Image 3.3-11(1))
- (3) Please enter "ftp.gportal.jaxa.jp" as the host name . (Image 3.3-11(2))
- (4) Enter "2051" for port number. (Image 3.3-11(3))
- (5) Please enter the user account registered in G - Portal as user name .
(Image 3.3-11(4))
- (6) Press [Login] to access SFTP. (Image 3.3-11(5))

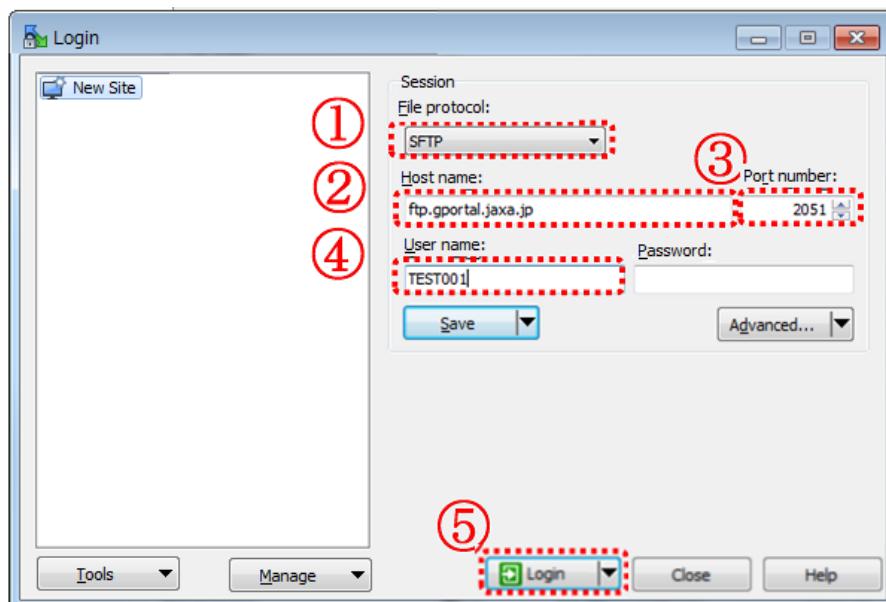


Image 3.3-11

- (7) Enter the password corresponding to the account registered on the web screen for the password and click [OK]. (Image 3.3-12(6))

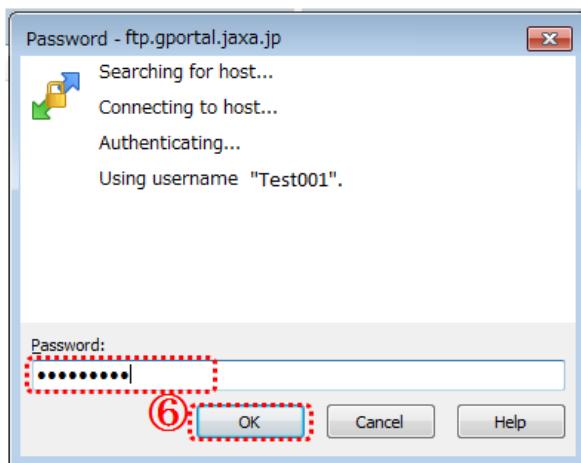


Image 3.3-12

(8) When login is successful, the following screen will be displayed.

The left pane is your computer and the right pane is the G-Portal directory.

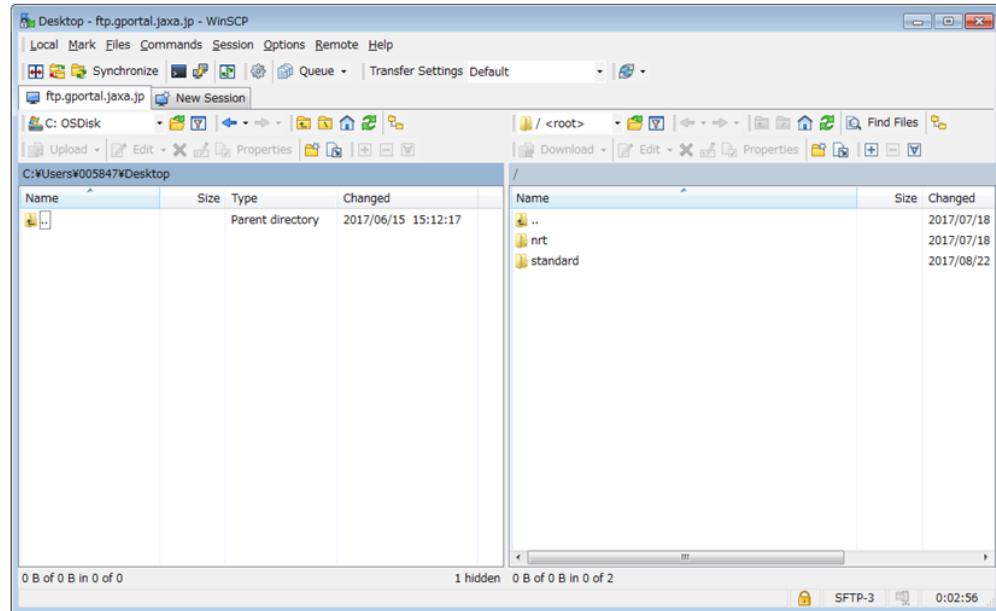


Image 3.3-13

◆ Connect SFTP(Public key cryptographic authentication)

- (1) Start WinSCP.
- (2) Enter "ftp.gportal.jaxa.jp" into "Host name". (Image 3.3-14(1))
- (3) Enter "2051" into "Port number". (Image 3.3-14(2))
- (4) Enter the user account registered in G-Portal into "User name".
(Image 3.3-14(3))
- (5) Click [Advcanced...] (Image 3.3-14(4)) to set private Key File.

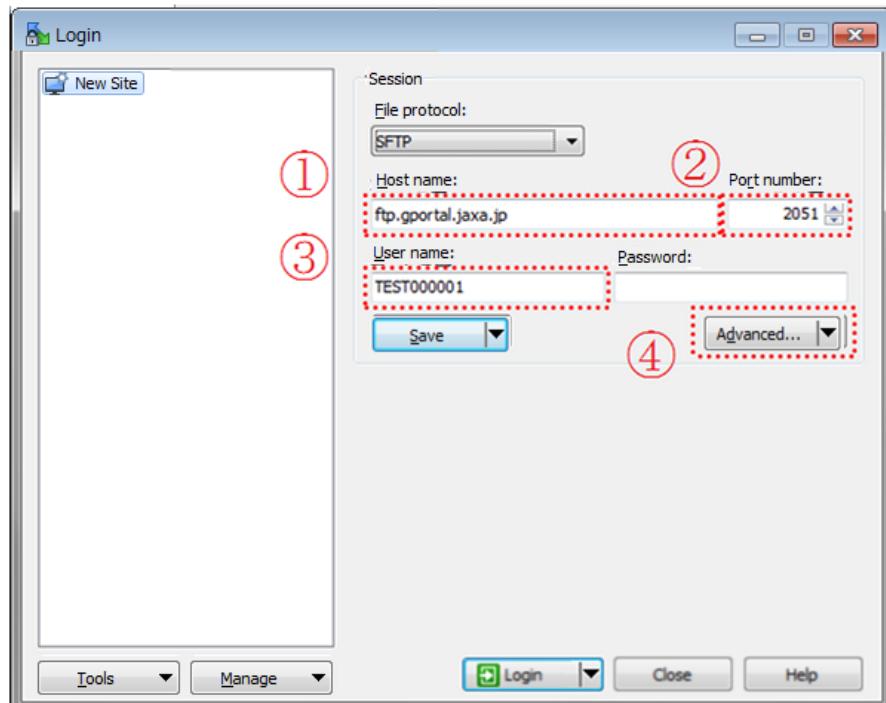


Image 3.3-14

- (6) Select "Authentication".(Image 3.3-15(5))
- (7) Select private key file that you created into "Private key file".
(Image 3.3-15(6))
- (8) Click [OK]. (Image 3.3-15(7))

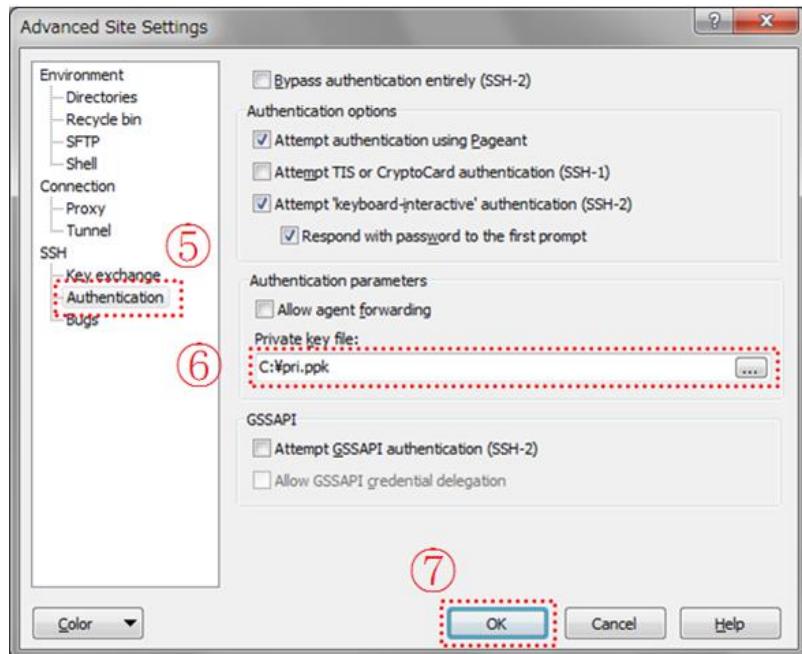


Image 3.3-15

- (9) Click [Login] (Image 3.3-16(8)) to SFTP login.

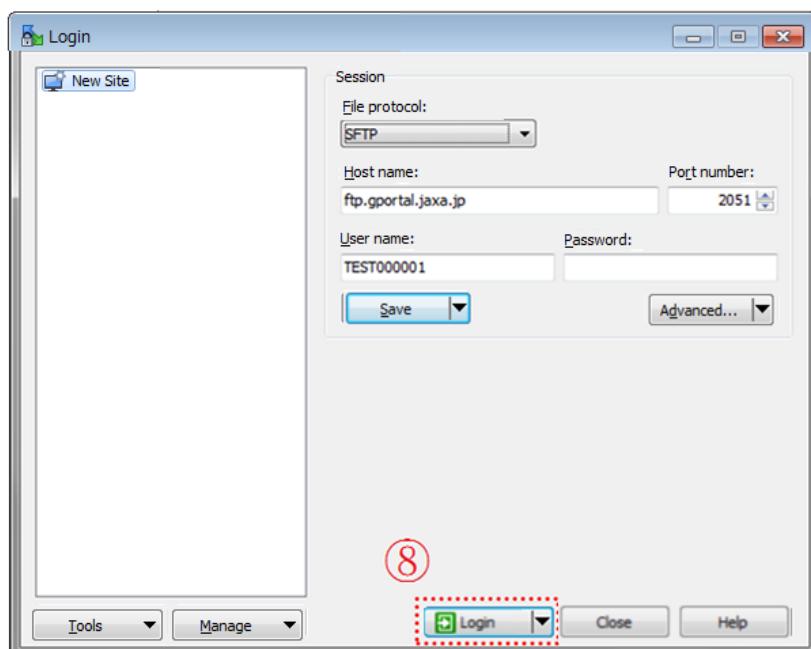


Image 3.3-16

(10) If you have set a password to decrypt the private key (Image 3.3-17(9)), click [OK] (Image 3.3-17(10)) button to enter the password that you set.

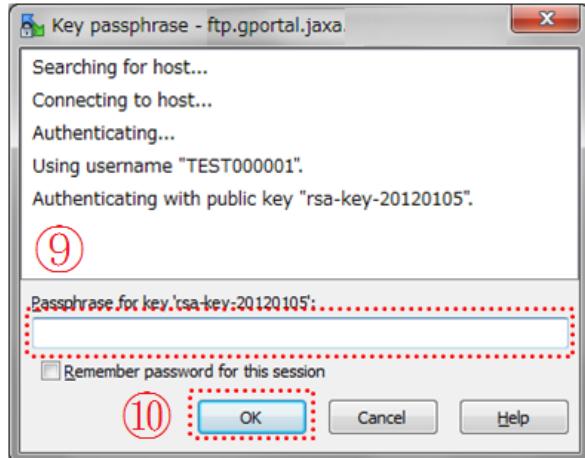


Image 3.3-17

(11) image below will be displayed if you have logged in successfully.

The left pane is your computer folder, the right is the G-Portal directory.

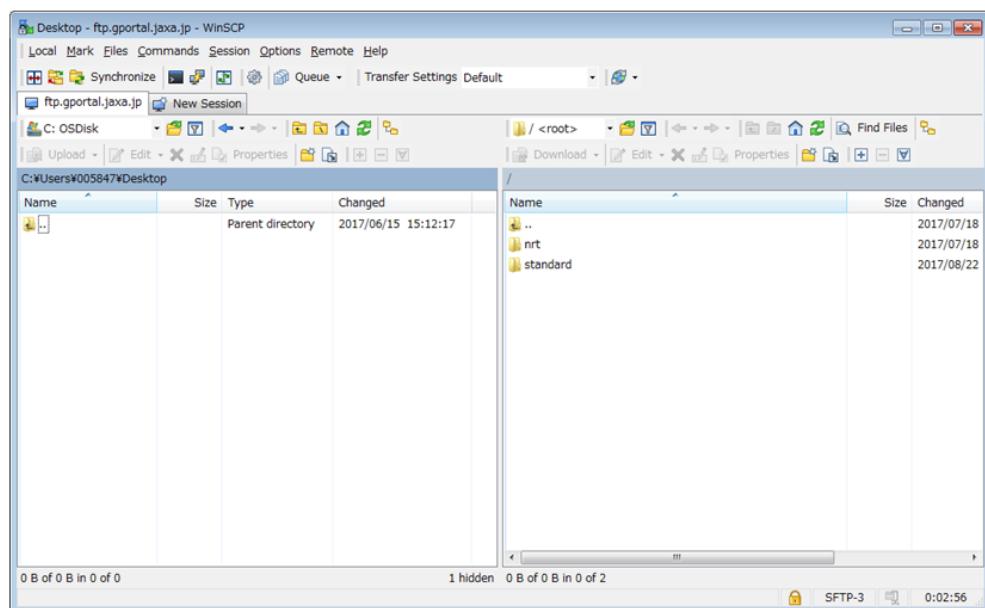


Image 3.3-18

◆ Change directories

Change directories from the pull-down menu and navigation buttons. (Image 3.3-19(11))

Note: Due to access restrictions, you might not be able to move to a directory even if it is displayed in the list.

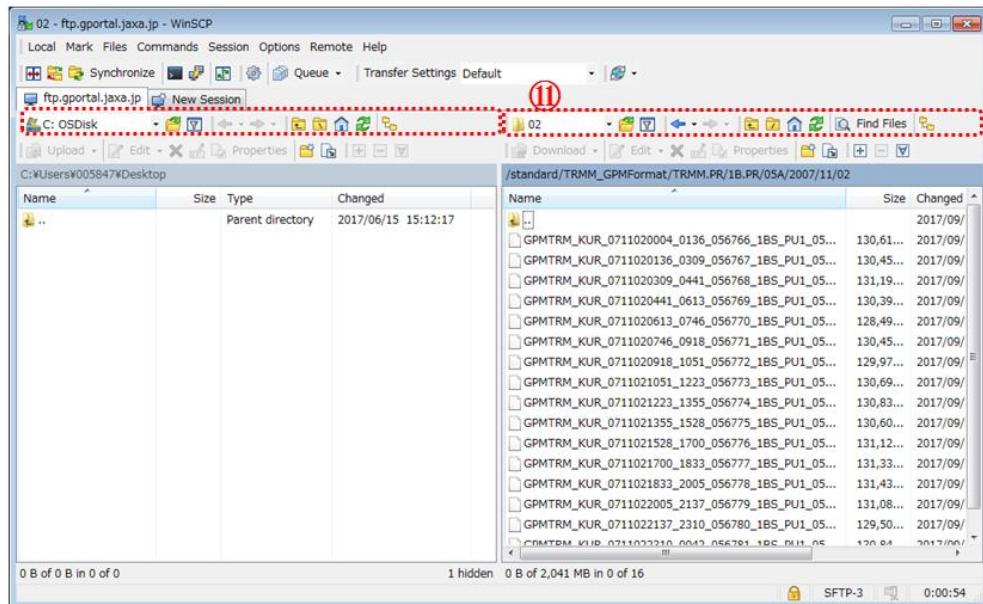


Image 3.3-19

◆ Download a file

Drag and drop the products you want to download. (Image 3.3-20(12))

Note: When you drag and drop to select multiple files, you will be able to bulk download.

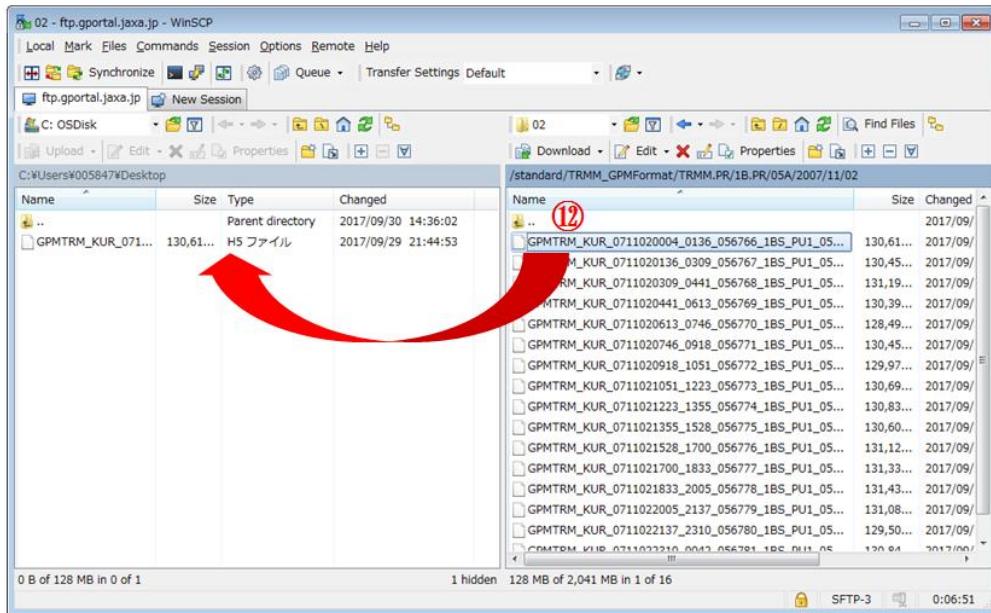


Image 3.3-20

◆ Exit SFTP

Click [Commands]-[Quit] to close WinSCP.

4. Product Search and Download

4.1. Product Search

The following are three ways to search for products.

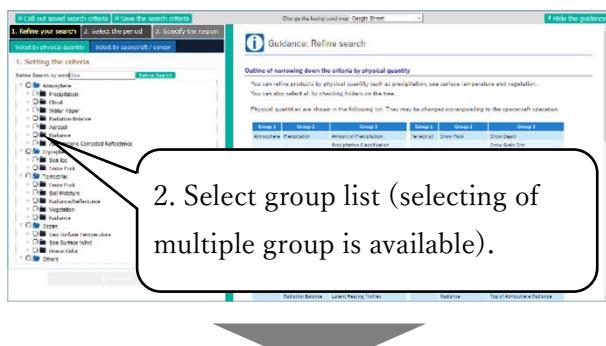
- Search by physical quantities
- Search by spacecrafts/sensors
- Search using saved search conditions(only available to registered users)

4.1.1. Search by physical quantities

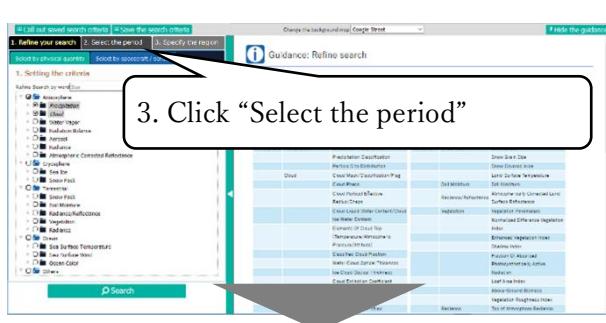
Search for products by physical quantities, and the period and region. See “6.1 Checking the provided spacecrafts/sensors and physical quantities” for further details.



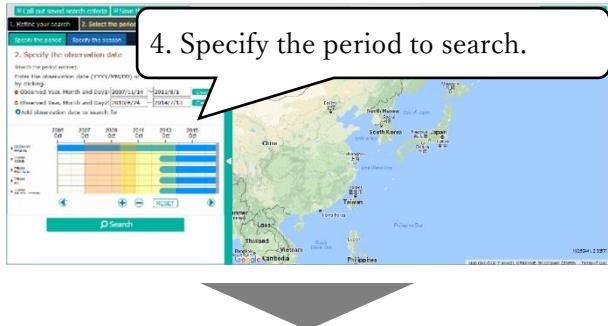
1) Click “search from physical quantities” left pane on the top menu and move to the search window shown the physical quantities tree.



2) Each category shows the group list to physical quantities to a tree format on the search window. Refer to “Checking a provided spacecrafts sensors/physical quantities” the physical quantities is included in the physical quantities’ group.
※Click ► on physical quantitites group, and physical quantities in the qroup are shown.

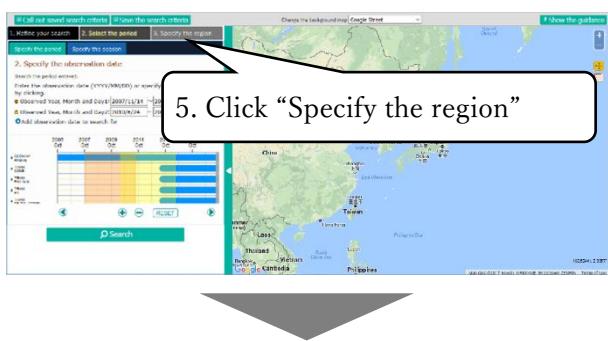


3) Click “2. Specify date ” on the top of the window with checking physical quantities.

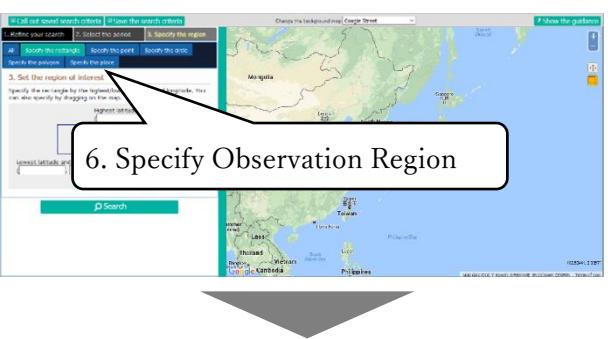


4) The left pane displaying “data range” appears. The selections are “Period” and “Season”. (Please refer “Appendix 3 Specify Observation Period”). There are three ways on “Data Range” as follow. (Please refer “Appendix 3 Specify Observation Period”)

- Input by text
- Input from the calendar UI
- Input by bar-chart to observation period



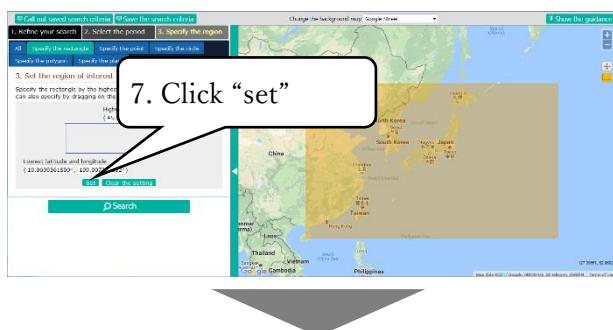
5) Click “3. Specify Area”on the top of a window.



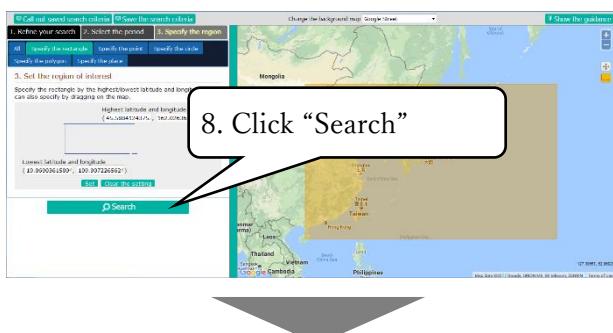
6) Appear a window specifying search field. The selections of observation area are six applications(functions?). Refer to “ Appendix 2 Specify observation region”.

- specify a globe
- specify a rectangle
- specify a point
- specify a circle
- specify a polygon
- specify a place (name)

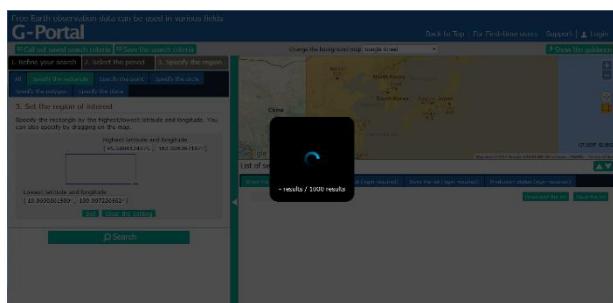
Choose a function from “text input” and “drag and drop on the map”.



7) Click “Submit” when input the searching area by text. (unnecessary on drug on the map)



8) Start search by clicking “search”button on the lower part window. “Search”button can click under setting a spacecraft sensor, physical quantities and observation data.



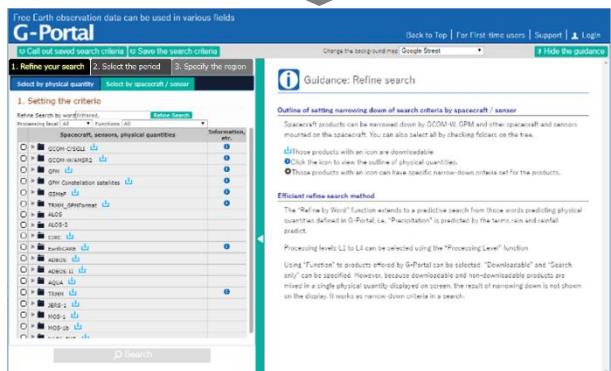
9) Loading icon and searching status are displayed during searching. “Hit number”/“Visible number”

4.1.2. Search by spacecrafts/sensors

Search for products by spacecraft/sensors and products , and specifying the period and range.

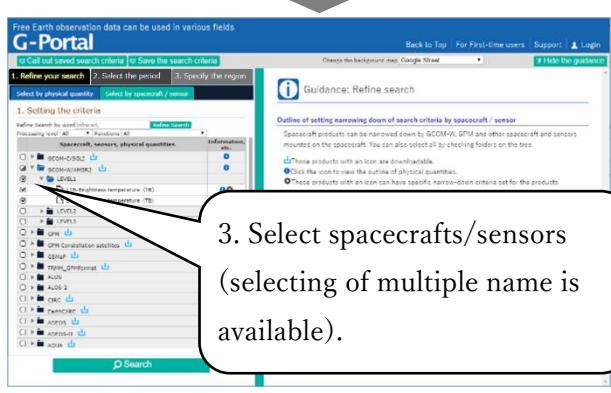


1) Click “Search by spacecraft sensors”on the top window menu and move to search window shown spacecraft seinsors tree.

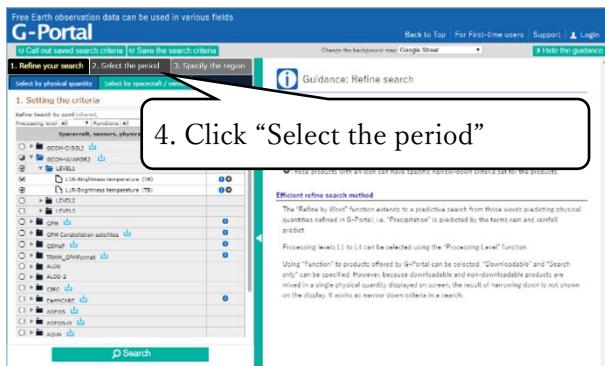


2) To “1. Refine search > aircraft, choose a sensor”on search window, spacecraft sensors provided on G-Portal is shown.

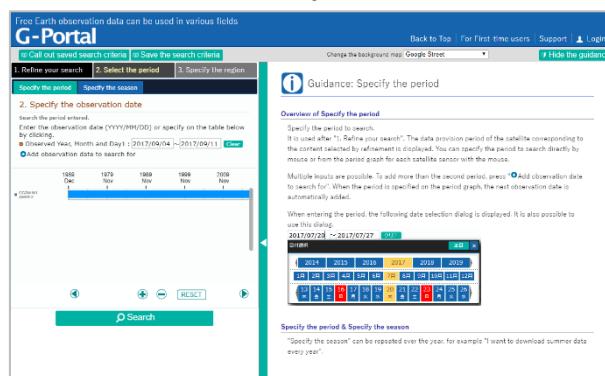
※The explanation of spacecrafts is shown with clicking “I”icon to aircraft sensors.



3) Check a searching satellite sensor.※
Click ► on spacecraft sensors bar and the products chosen by spacecraft sensor. The detail search status show about the setting avairable product on the setting icon. Click the setting icon, The detail search condition input dialog is s hown.



4). Click “Select the period”



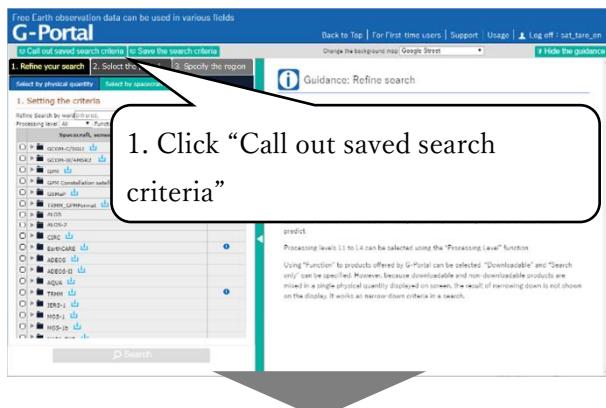
4) Check a searching spacecraft sensor and click “2 specify date” on the top of a window.

5) The product including a chosen spacecraft sensor in (4) is shown “Specify date” window on the bar-chart.

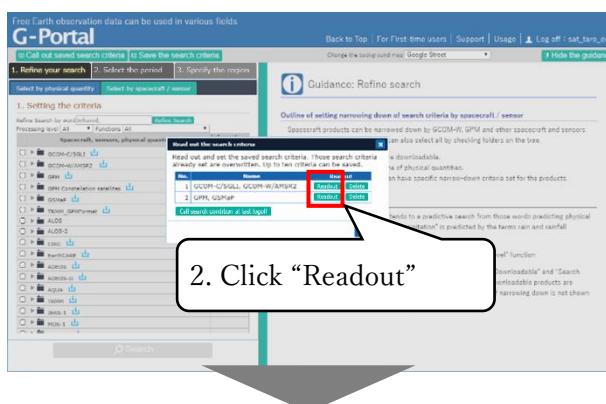
The operation is as well as “4.1.1 Search by physical quantities”. Refer to “4.1.1 Search by physical quantities”(6).

4.1.3. Search by saved condition

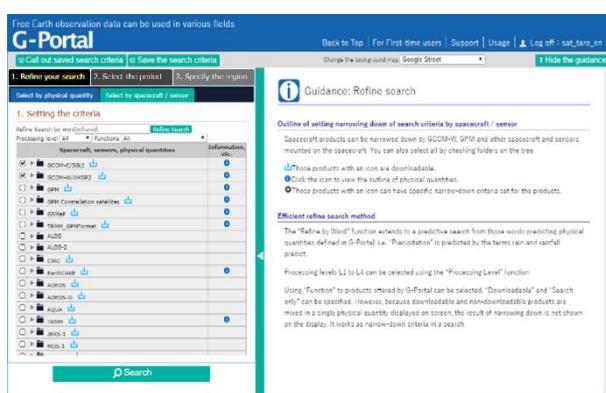
The system allows you to save search conditions, and you can load them for easy operation. However this option needs your login as registered user. (see “2.2 Login to the system”)



- 1) Click “Call out saved search criteria” and display a save criteria selection dialog window.



- 2) Click “Readout” on the chosen search criteria.



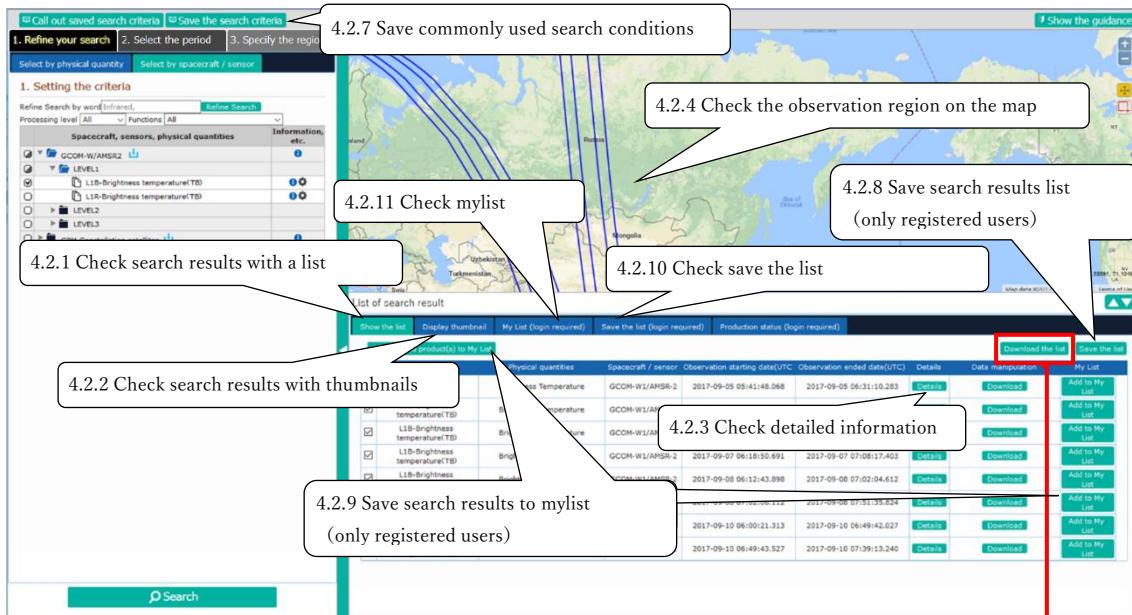
4.2. Display search results

This section outlines the procedures that are available from the search results window.

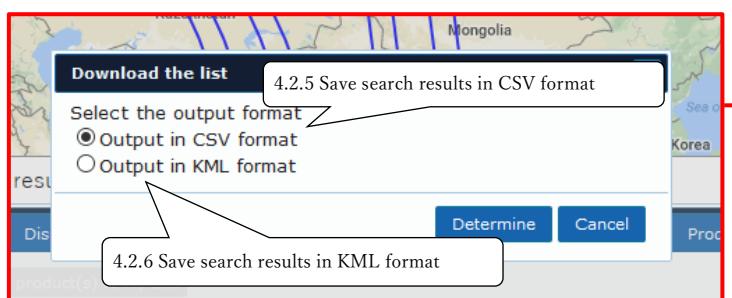
Note that “Save search conditions” is only available to registered users.

Products that have stopped delivering are not displayed as search results.

[Search results window]



[Download the list dialog]



4.2.1. Check search results with a list

[List display]

List of search result								
Show the list		Display thumbnail		My List (login required)		Save the list (login required)		Production status (login required)
Product	Physical quantities	Spacecraft / sensor	Observation starting date(UTC)	Observation ended date(UTC)	Details	Data manipulation	My List	
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)	Brightness Temperature	GCOM-W1/AMSR-2	2017-09-05 05:41:48.068	2017-09-05 06:31:10.283	Details	Download	Add to My List	
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)	Brightness Temperature	GCOM-W1/AMSR-2	2017-09-05 06:31:11.783	2017-09-05 07:20:41.496	Details	Download	Add to My List	
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)	Brightness Temperature	GCOM-W1/AMSR-2	2017-09-07 05:29:28.476	2017-09-07 06:18:49.191	Details	Download	Add to My List	
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)	Brightness Temperature	GCOM-W1/AMSR-2	2017-09-07 06:18:50.691	2017-09-07 07:08:17.403	Details	Download	Add to My List	
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)	Brightness Temperature	GCOM-W1/AMSR-2	2017-09-08 06:12:43.898	2017-09-08 07:02:04.612	Details	Download	Add to My List	
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)	Brightness Temperature	GCOM-W1/AMSR-2	2017-09-08 07:02:06.112	2017-09-08 07:51:35.824	Details	Download	Add to My List	
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)	Brightness Temperature	GCOM-W1/AMSR-2	2017-09-10 06:00:21.313	2017-09-10 06:49:42.027	Details	Download	Add to My List	
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)	Brightness Temperature	GCOM-W1/AMSR-2	2017-09-10 06:49:43.527	2017-09-10 07:39:13.240	Details	Download	Add to My List	

- 1) Click the “Show the list” tab on the search results window. The search results will be displayed as a list.

4.2.2. Check search results with thumbnails

[Thumbnail display]

List of search result						
Show the list		Display thumbnail		My List (login required)		Save the list (login required)
Product	Thumbnail	Thumbnail	Thumbnail	Thumbnail	Thumbnail	Thumbnail
L1B-Brightness temperature(TB)						
Earth physical quantity	Brightness Temperature	Brightness Temperature	Brightness Temperature	Brightness Temperature	Brightness Temperature	Brightness Temperature
Spacecraft / sensor	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2
Observation starting date and time	2017-09-05 05:41:48.068	2017-09-05 06:31:11.783	2017-09-07 05:29:28.476	2017-09-07 06:18:50.691	2017-09-08 06:12:43.898	2017-09-08 07:02:06.112
Observation ended date and time	2017-09-05 06:31:10.283	2017-09-05 07:20:41.496	2017-09-07 06:18:49.191	2017-09-07 07:08:17.403	2017-09-08 07:02:04.612	2017-09-08 07:51:35.824
Details	Details	Details	Details	Details	Details	Details
Operation	Download	Download	Download	Download	Download	Download
My List	Add to My List	Add to My List	Add to My List	Add to My List	Add to My List	Add to My List

- 1) Click the “Display thumbnail” tab on the search results window. The search results will be displayed as thumbnails.

4.2.3. Check detailed information

You can check detailed information of searched products. Click the “Show detail” button in the list display or thumbnail display. Detailed information will be displayed in a separate window.

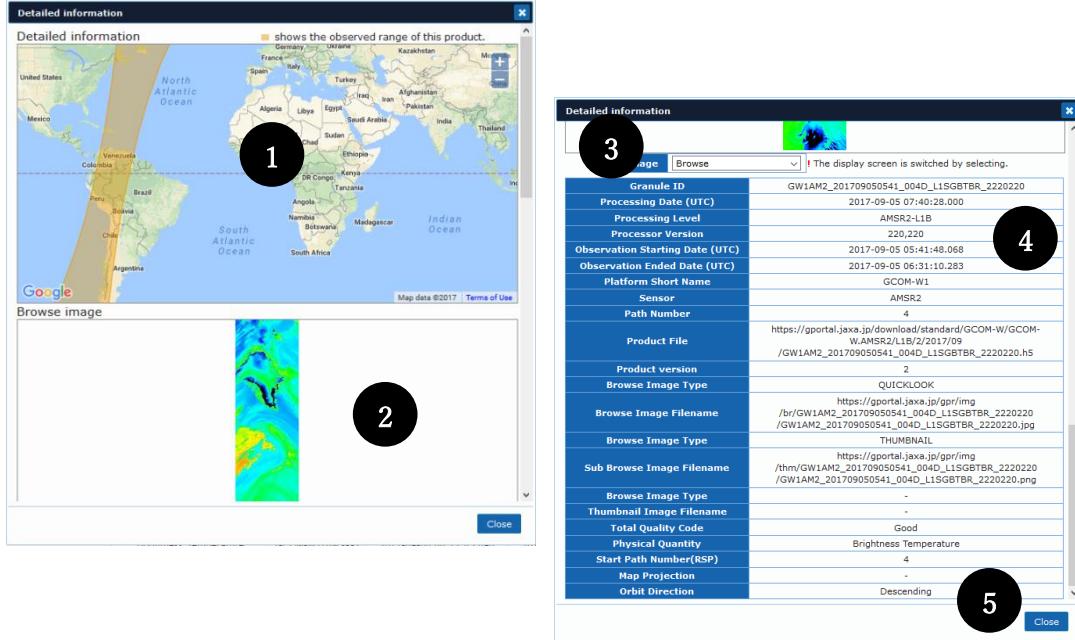
[List display]

List of search result							
<input type="checkbox"/> Product		Physical quantities	Spacecraft / sensor	Observation starting date(UTC)	Observation ended date(UTC)	<input type="button" value="Details"/>	Data manipulation
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)		Brightness Temperature	GCOM-W1/AMSR-2	2017-09-05 05:41:48.068	2017-09-05 06:31:10.283	<input type="button" value="Details"/>	<input type="button" value="Download"/> <input type="button" value="Add to My List"/>
<input checked="" type="checkbox"/> L1B-Brightness temperature(TB)		Brightness Temperature	GCOM-W1/AMSR-2	2017-09-05 06:31:11.783	2017-09-05 07:20:41.496	<input type="button" value="Details"/>	<input type="button" value="Download"/> <input type="button" value="Add to My List"/>

[Thumbnail display]

List of search result							
<input type="checkbox"/> Add selected product(s) to My List <input type="button" value="Download the list"/> <input type="button" value="Save the list"/>							
<input type="checkbox"/> Product	<input type="checkbox"/> L1B-Brightness temperature(TB)						
Thumbnail							
Earth physical quantity	Brightness Temperature						
Spacecraft / sensor	GCOM-W1/AMSR-2						
Observation starting date and time	2017-09-05 05:41:48.068	2017-09-05 06:31:11.783	2017-09-07 05:29:28.476	2017-09-07 06:18:50.691	2017-09-08 06:12:43.898	2017-09-08 07:02:06.112	
Observation ended date and time	2017-09-05 06:31:10.283	2017-09-05 07:20:41.496	2017-09-07 06:18:49.191	2017-09-07 07:08:17.403	2017-09-08 07:02:04.612	2017-09-08 07:51:35.824	
Details	<input type="button" value="Details"/>						
Operation	<input type="button" value="Download"/>						
My List	<input type="button" value="Add to My List"/>						

[Detailed information(separate window)]

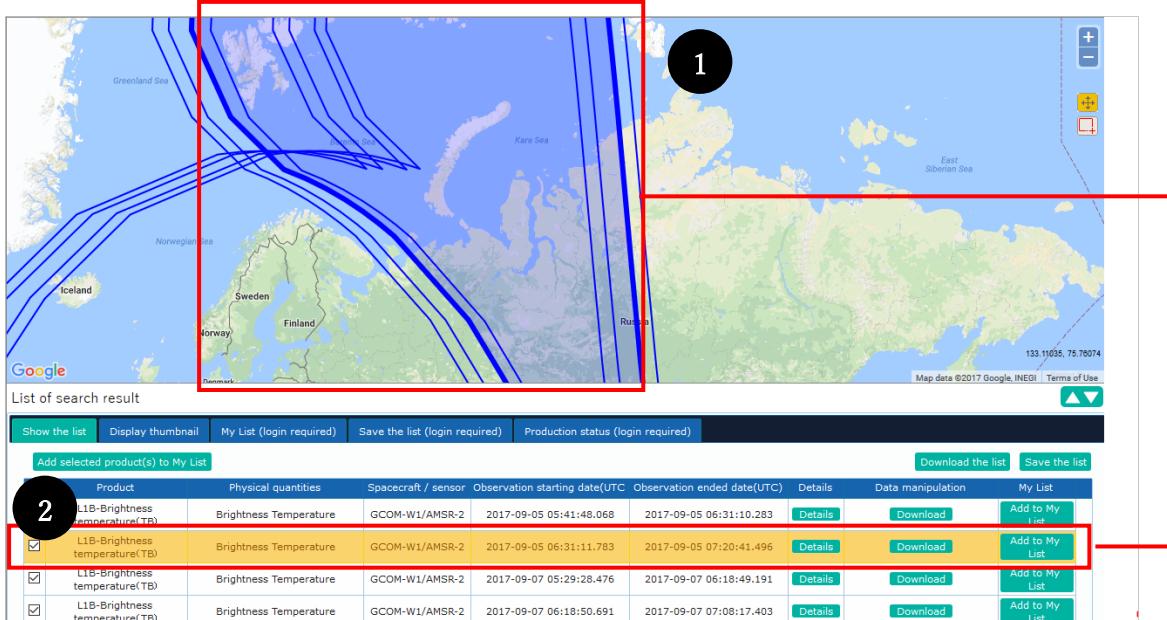


- 1) The observation region is displayed on the map.
- 2) A browse image will be displayed for products with browse images available. An image with “No Image” will be displayed if no browse images are available for that product.
- 3) To products on the browse images, the image pulldown appears. Browse(Browse or sub-browse) image switches.
- 4) Detailed information of the product will be displayed.
- 5) Click the “Close” button to close the detailed information window.

4.2.4. Check the observation region on the map

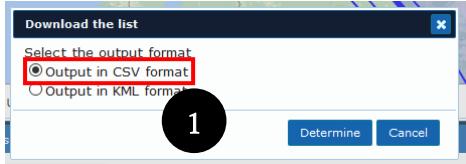
You can check the observation region of searched products on the map. Click the “Show on map” button in the list display or thumbnail display. A map will be displayed at the top right of the search results window.

[Display of observation area]



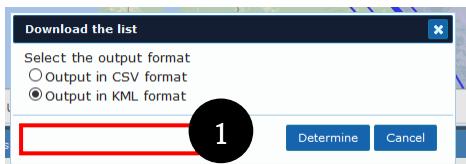
- 1) The observation area of the selected product is highlighted.
 - 2) The line of the selected product is highlighted.

4.2.5. Save search results in CSV format



- 1) Check “Output CSV”on a list of download dialog window and Click “Decision”. Save CSV format of the search result on your computer.

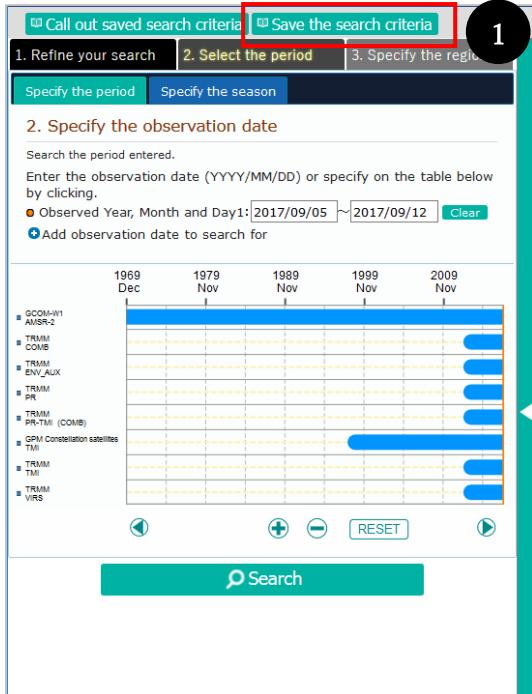
4.2.6. Save search results in KML format



- 1) Check “Output KML”on a list of download dialog window and Click on “decision”. Save KML format of the search result on your computer.

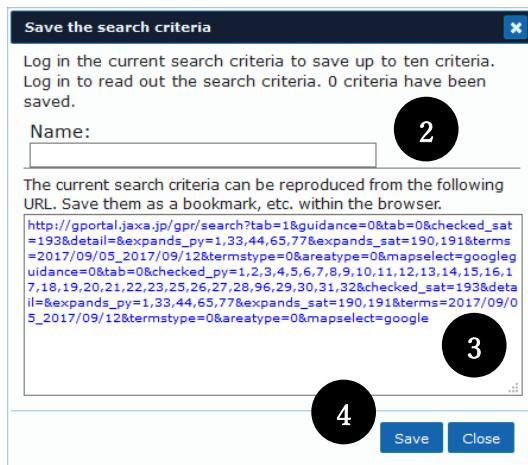
4.2.7. Save commonly used search conditions

You can save search conditions that you have configured.



- 1) Click the “Save the search criteria” button.
A dialog box allowing you to save search conditions will be displayed.

[Save the search criteria dialog box]



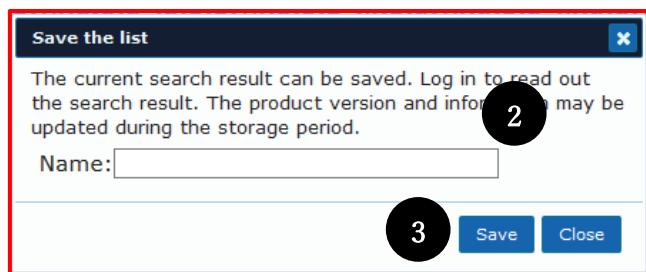
- 2) Enter a save name.
- 3) The URL to reproduce the search condition is displayed.
- 4) Click the “Save” button to complete saving the conditions and close the dialog box.
* only available to registered users

4.2.8. Save search results list

You can save search results list.

The screenshot shows a search results page with a table of products. The table columns include Product, Physical quantities, Spacecraft / sensor, Observation starting date(UTC), Observation ended date(UTC), Details, Data manipulation, My List, and Add to My List. There are 8 rows of data. The 'Add to My List' button is highlighted with a red box and a black circle labeled '1'.

Product	Physical quantities	Spacecraft / sensor	Observation starting date(UTC)	Observation ended date(UTC)	Details	Data manipulation	My List	Add to My List
L2-Precipitation(PRC)	Amount of Precipitation	GCOM-W1/AMSR-2	2017-09-05 01:34:33.002	2017-09-05 02:23:59.713	Details	Download	My List	Add to My List
L2-Precipitation(PRC)	Amount of Precipitation	GCOM-W1/AMSR-2	2017-09-05 00:45:10.784	2017-09-05 01:34:31.502	Details	Download	My List	Add to My List
L2-Precipitation(PRC)	Amount of Precipitation	GCOM-W1/AMSR-2	2017-09-05 02:24:01.213	2017-09-05 03:13:24.927	Details	Download	My List	Add to My List
L2-Integrated Water Vapor(TPW)	Integrated Water Vapor	GCOM-W1/AMSR-2	2017-09-05 00:45:10.784	2017-09-05 01:34:31.502	Details	Download	My List	Add to My List
L2-Integrated Water Vapor(TPW)	Integrated Water Vapor	GCOM-W1/AMSR-2	2017-09-05 01:34:33.002	2017-09-05 02:23:59.713	Details	Download	My List	Add to My List
L2-Integrated Water Vapor(TPW)	Integrated Water Vapor	GCOM-W1/AMSR-2	2017-09-05 02:24:01.213	2017-09-05 03:13:24.927	Details	Download	My List	Add to My List
L2-Integrated Water Vapor(TPW)	Integrated Water Vapor	GCOM-W1/AMSR-2	2017-09-05 03:13:26.427	2017-09-05 04:02:54.641	Details	Download	My List	Add to My List



- 1) On the above "List", "Thumbnail" and "My List" tab, Click "Save the list", appears "Save the list" dialog.(only registered users)
- 2) Enter a save name.
- 3) Click the "Save" button to complete saving the conditions and close the dialog box.

4.2.9. Save search results to mylist

You can register the product shown to “List” and “Thumbnail” on “My List”.

[List display]

Product	Amount of Precipitation	Spacecraft / sensor	Observation starting date(UTC)	Observation ended date(UTC)	Details	Data management	My List
<input checked="" type="checkbox"/> L2-Precipitation(PRC)	Amount of Precipitation	GCOM-W1/AMSR-2	2017-09-05 01:34:33.002	2017-09-05 02:23:59.713	Details	Download	Add to My List

[Thumbnail]

Product	L2-Precipitation(PRC)	L2-Precipitation(PRC)	L2-Precipitation(PRC)	L2-Integrated Water Vapor(TPW)	L2-Integrated Water Vapor(TPW)	L2-Integrated Water Vapor(TPW)
Thumbnail						
Earth physical quantity	Amount of Precipitation	Amount of Precipitation	Amount of Precipitation	Integrated Water Vapor	Integrated Water Vapor	Integrated Water Vapor
Spacecraft / sensor	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2	GCOM-W1/AMSR-2
Observation starting date and time	2017-09-05 01:34:33.002	2017-09-05 00:45:10.784	2017-09-05 02:24:01.213	2017-09-05 00:45:10.784	2017-09-05 01:34:33.002	2017-09-05 02:24:01.213
Observation ended date and time	2017-09-05 02:23:59.713	2017-09-05 01:34:31.502	2017-09-05 03:13:24.927	2017-09-05 01:34:31.502	2017-09-05 02:23:59.713	2017-09-05 03:13:24.927
Details	Details					
Operation	Download					
My List	Add to My List					

- 1) With clicking “Add selected product to My list”, register the product on “Add to My List”.
- 2) With clicking “Add to My list”, add your products to “My List”.

4.2.10. Check save the list

You can call / delete the search result list saved in the past.

[Save the list]

List of search result

Show the list Display thumbnail My List (0 data registered) **Save the list (3 data registered)** 1 status (0 products requested)

The list of search results saved previously. Overwrite the displays of list and thumbnail.

Name	Saved date	No. of results	Operations
Save List 1	September 12 2017	705	Readout Delete
Save List 2	September 12 2017	705	Readout Delete
Save List 3	September 12 2017	705	Readout 2 Delete 3

- 1) With clicking “save a list”, appears a saved data list in a saved search result list.
- 2) Click “Call” button and display “List”, “Thumbnail”and “List of search results”
- 3) Click “delete” button then delete the saved list.

4.2.11. Check mylist

You can check products saved to My List in the past.

[My List]

List of search result							
Show the list	Display thumbnail	My List (705 data registered)	Search (3 data registered)	Production status (0 products requested)			
<input type="checkbox"/> Exclude selected product from My List						Download the list	Save the list
Product	Physical quantities	Spacecraft / sensor	Observation starting date	Observation ended date	Details	Data manipulation	Exclude from My List
<input checked="" type="checkbox"/> L2-Cloud Liquid Water (CLW)	Not Applicable	GCOM-W1/AMSR-2	2017-04-30 22:09:24.933	2017-04-30 22:58:47.147	Details		<input type="button" value="Excluded"/>
<input checked="" type="checkbox"/> L3-Soil Moisture Content (SMC) _0.1deg	Soil Moisture	GCOM-W1/AMSR-2	2015-12-31 00:00:00.615	2015-12-31 23:36:58.462	Details		<input type="button" value="Excluded"/>
<input checked="" type="checkbox"/> L3-Soil Moisture Content (SMC) _0.25deg	Soil Moisture	GCOM-W1/AMSR-2	2015-12-31 00:00:00.615	2015-12-31 23:36:58.462	Details		<input type="button" value="Excluded"/>
<input checked="" type="checkbox"/> L3-Brightness temperature (TB) _5GHz_0.1deg	Brightness Temperature	GCOM-W1/AMSR-2	2015-12-31 00:00:00.615	2015-12-31 23:36:58.462	Details		<input type="button" value="Excluded"/>
... 11Ra/Vicinile & Near Infrared

- 1) Click “My list”, display a products list saved on “My List”.
- 2) Click“Remove a selected product on“My List”” and delete the checked product on “My List”.
- 3) Click “Remove“ button and delete an closed product on“My List”.

4.3. Order and download products

You can directly download the products on a list of researching result.

Product	Physical quantities	Spacetime / sensor	Observation starting date(UTC)	Observation ended date(UTC)	Details	Data manipulation	My List
L2-Precipitation PRC	Amount of Precipitation	GCOM-W1AMSR-2	2017-09-01 00:04:33.002	2017-09-09 02:23:59.712	Download	Downloaded	Add to My List
L2-Precipitation PRC	Amount of Precipitation	GCOM-W1AMSR-2	2017-09-01 00:04:31.784	2017-09-09 01:24:15.302	Download	Downloaded	Add to My List
L2-Precipitation PRC	Amount of Precipitation	GCOM-W1AMSR-2	2017-09-01 00:04:31.213	2017-09-09 03:31:34.807	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:31.784	2017-09-09 01:24:15.502	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:33.002	2017-09-09 02:23:59.712	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:30.213	2017-09-09 03:13:24.827	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:31.247	2017-09-09 04:02:54.642	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:32.141	2017-09-09 04:02:52.385	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:30.002	2017-09-09 02:23:59.712	Download	Downloaded	Add to My List

- 1) “Download” button displays to products that direct download is available on the list of search result and thumbnail of search results.

Product	Physical quantities	Spacetime / sensor	Observation starting date(UTC)	Observation ended date(UTC)	Details	Data manipulation	My List
L2-Precipitation PRC	Amount of Precipitation	GCOM-W1AMSR-2	2017-09-01 00:04:33.002	2017-09-09 02:23:59.712	Download	Downloaded	Add to My List
L2-Precipitation PRC	Amount of Precipitation	GCOM-W1AMSR-2	2017-09-01 00:04:31.784	2017-09-09 01:24:15.302	Download	Downloaded	Add to My List
L2-Precipitation PRC	Amount of Precipitation	GCOM-W1AMSR-2	2017-09-01 00:04:31.213	2017-09-09 03:31:34.807	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:31.784	2017-09-09 01:24:15.502	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:33.002	2017-09-09 02:23:59.712	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:30.213	2017-09-09 03:13:24.827	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:31.247	2017-09-09 04:02:54.642	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:32.141	2017-09-09 04:02:52.385	Download	Downloaded	Add to My List
L2-Integrated water vapor	Integrated Water Vapor	GCOM-W1AMSR-2	2017-09-01 00:04:30.002	2017-09-09 02:23:59.712	Download	Downloaded	Add to My List

- 2) Click “download”button and start download.

4.4. Produce the product

For products that are compatible with production(Products transmitted via GCOM-C,E-XING), you can request production.

4.4.1. To produce individually

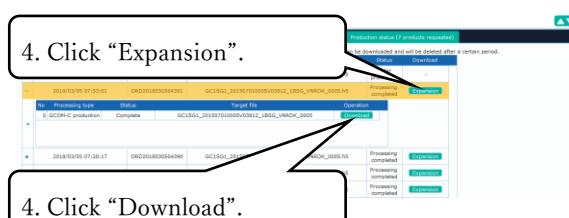
Product	Physical quantities	Spacetime / sensor	Observation starting date(UTC)	Observation ended date(UTC)	Details	Data manipulation	My List
L2-SWIR & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.84	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-SWIR & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.79	2015-01-01 00:05:19.47	Download	Downloaded	Add to My List
L2-VIS&NIR & Near Infrared	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.84	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-VIS&NIR & Near Infrared	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.79	2015-01-01 00:05:19.47	Download	Downloaded	Add to My List
L2-VIS&NIR & Near Infrared	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.84	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-BRDF & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.79	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-BRDF & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.84	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-BRDF & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.79	2015-01-01 00:05:19.47	Download	Downloaded	Add to My List

- 1) “Production” button is displayed if the images(scenes) can produce in display in List of the search result or thumbnail

Product	Physical quantities	Spacetime / sensor	Observation starting date(UTC)	Observation ended date(UTC)	Details	Data manipulation	My List
L2-SWIR & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.84	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-SWIR & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.79	2015-01-01 00:05:19.47	Download	Downloaded	Add to My List
L2-VIS&NIR & Near Infrared	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.84	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-VIS&NIR & Near Infrared	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.79	2015-01-01 00:05:19.47	Download	Downloaded	Add to My List
L2-VIS&NIR & Near Infrared	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.84	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-BRDF & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.79	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-BRDF & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.84	2015-01-01 00:05:19.42	Download	Downloaded	Add to My List
L2-BRDF & TIR	Radiance	GCOM-C1SGL2	2015-01-01 00:00:31.79	2015-01-01 00:05:19.47	Download	Downloaded	Add to My List

- 2) You can make production request by clicking “Production” button.
※ You will receive an e-mail, when you make a production request notification of product acceptance. Also, even when

List of search result			
Show the list of files	Display Production (list items)	My List (Data required)	Save the list (Data required)
Show the list of files	Display Production (list items)	My List (Data required)	Save the list (Data required)
Product	Physical quantity	Observation start date(UTC)	Observation end date(UTC)
Order number	Target product	Delivery date	Data manipulation
Date and time of request (UTC)	Production request for	Status	My List
	Target product	Under processing	Add to My List
		Processing	Download
		Completed	Notified
		Prepared	Notified
		Prepared completed	Notified
		Processing	Notified
		Preparation	Notified
		Error	Notified



production of the product is complete, a notification e-mail will be sent.

3) In the status of the production result list, you can check the progress status to each sent request.

4) When the status field to the production status is "Processing Completed", you display a list of products that have been produced by clicking the "Expansion" button. You can download the product by clicking the "download" button of the produced product list.

5) If the status field of the production status has expired, you can request the production again with clicking the "Reproduction request" button.

4.4.2 Produce at once

List of search result							
Show the list of files	Display thumbnail (list items)	My List (Data required)	Save the list (Data required)	Production status (Data required)	Download the list	Save the list	
Downloaded products selected	Downloaded products history	Add selected product(s) to My List					
Product	Physical quantity	Observation start date(UTC)	Observation end date(UTC)	Delivery	Data manipulation	My List	
Order number	Target file						
Date and time of request (UTC)	Production status						
		Under processing	Completed				
		Processing					
		Completed					
		Prepared					
		Prepared completed					
		Processing					
		Preparation					
		Error					

Batch download

Batch production request / download of the selected product is processed.

Select the download method

Batch download (zip)
Note: All the files are compressed in a single file after production.
Download of individual products is not available.

Batch download (tar)
All the files are compressed into a single file after their production.
Download of individual products is not available.

Download individually
Note: Download of each file can be prepared when their production, etc. is prepared.

Select the notification unit at the time of production completion

Notified collectively
Notified on completion of all product preparations requested.

Notified by product
Notified when each product preparation requested is completed.

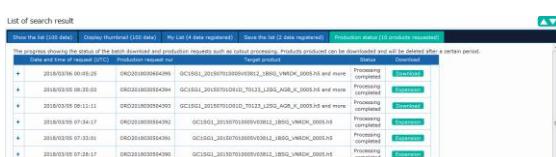
Batch processing **Close**

1) In the display to the search results list or thumbnail the "Production" button check boxes of the project name and and click the "Download products selected" button.

2) Since the dialog on the left appears, select the download method and the notification unit at the product completion . A summary of each item is shown in the table.

Table 4.4-1 Batch download dialog

Item	Summary
Batch download (zip)	Compress all files into zip files after production.
Batch download (tar)	Compress all files into a tar file after production.
Download individually	Each file can be downloaded individually from ready files for production etc.
Notified collectively	Receive notifications when all requested products are ready.
Notified by product	Receive a notification whenever preparations for each requested product are complete. ※This item can't select while you choose 'Batch download (zip)' on Batch download dialog.



3) In the status of the production result list, you can check the progress status of each sent production request.

4) With clicking the “Download” button you can download compressed files when “status” field has been “processing completed”.

4.5 Process a product

You can make processing request for cutout/shift and format conversion for products being compatible with Table 4.5-1.

Table 4.5-1 Processed Product

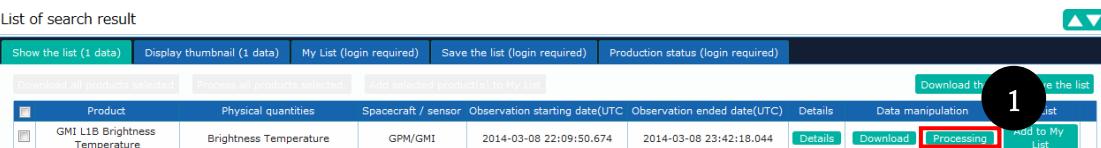
Target satellite	Target product(HDF5 only)	Target processing
GPM * V05 or later	GPM Ku L1B	<ul style="list-style-type: none"> • Cut out • Format conversion (ASCII, NetCDF)
	GPM Ka L1B	
	GPM Ku L2	
	GPM Ka L2	
	GPM DPR L2	
	GPM DPR L3 daily	
	GPM DPR L3 monthly	
	GPM GMI L1B	
	GPM GMI L2	
	GPM GMI L3 monthly	
	GPM COMB L2	
	GPM COMB L3 monthly	
GSMAP	GSMaP hourly	
	GSMaP monthly	
AQUA * AMSR-2 Format	Aqua AMSR-E L1B	
	Aqua AMSR-E L2 WV	
	Aqua AMSR-E L2 CLW	
	Aqua AMSR-E L2 AP	
	Aqua AMSR-E L2 SSW	
	Aqua AMSR-E L2 SST	
	Aqua AMSR-E L2 IC	
	Aqua AMSR-E L2 SM	
	Aqua AMSR-E L2 SWE	
	Aqua AMSR-E L3 daily TB 6GHz-V	
	Aqua AMSR-E L3 daily TB 6GHz-H	
	Aqua AMSR-E L3 daily TB 10.65GHz-V	
	Aqua AMSR-E L3 daily TB 10.65GHz-H	
	Aqua AMSR-E L3 daily TB 18.7GHz-V	
	Aqua AMSR-E L3 daily TB 18.7GHz-H	
	Aqua AMSR-E L3 daily TB 23.8GHz-V	
	Aqua AMSR-E L3 daily TB 23.8GHz-H	
	Aqua AMSR-E L3 daily TB 36.5GHz-V	
	Aqua AMSR-E L3 daily TB 36.5GHz-H	

Target satellite	Target product(HDF5 only)	Target processing
	Aqua AMSR-E L3 daily TB 89.0GHz-V	
	Aqua AMSR-E L3 daily TB 89.0GHz-H	
	Aqua AMSR-E L3 daily WV	
	Aqua AMSR-E L3 daily CLW	
	Aqua AMSR-E L3 daily AP	
	Aqua AMSR-E L3 daily SSW	
	Aqua AMSR-E L3 daily SST	
	Aqua AMSR-E L3 daily SWE(EQR only)	
	Aqua AMSR-E L3 daily SM	
	Aqua AMSR-E L3 monthly TB 6GHz-V	
	Aqua AMSR-E L3 monthly TB 6GHz-H	
	Aqua AMSR-E L3 monthly TB 10.65GHz-V	
	Aqua AMSR-E L3 monthly TB 10.65GHz-H	
	Aqua AMSR-E L3 monthly TB 18.7GHz-V	
	Aqua AMSR-E L3 monthly TB 18.7GHz-H	
	Aqua AMSR-E L3 monthly TB 23.8GHz-V	
	Aqua AMSR-E L3 monthly TB 23.8GHz-H	
	Aqua AMSR-E L3 monthly TB 36.5GHz-V	
	Aqua AMSR-E L3 monthly TB 36.5GHz-H	
	Aqua AMSR-E L3 monthly TB 89.0GHz-V	
	Aqua AMSR-E L3 monthly TB 89.0GHz-H	
	Aqua AMSR-E L3 monthly WV	
	Aqua AMSR-E L3 monthly CLW	
	Aqua AMSR-E L3 monthly AP	
	Aqua AMSR-E L3 monthly SSW	
	Aqua AMSR-E L3 monthly SST	
	Aqua AMSR-E L3 monthly SWE(EQR only)	
	Aqua AMSR-E L3 monthly SM	
GCOM-W	GCOM-W AMSR-2 L1B	
	GCOM-W AMSR-2 L1R	
	GCOM-W AMSR-2 L2 TPW Low	
	GCOM-W AMSR-2 L2 CLW Low	
	GCOM-W AMSR-2 L2 SSW Low	
	GCOM-W AMSR-2 L2 SST Low	

Target satellite	Target product(HDF5 only)	Target processing
	GCOM-W AMSR-2 L2 SND Low	
	GCOM-W AMSR-2 L2 SMC Low	
	GCOM-W AMSR-2 L2 SIC Low	
	GCOM-W AMSR-2 L2 TPW High	
	GCOM-W AMSR-2 L2 CLW High	
	GCOM-W AMSR-2 L2 SSW High	
	GCOM-W AMSR-2 L2 SST High	
	GCOM-W AMSR-2 L2 SND High	
	GCOM-W AMSR-2 L2 SMC High	
	GCOM-W AMSR-2 L2 SIC High	
	GCOM-W AMSR-2 L3 daily TB Low(EQR only)	
	GCOM-W AMSR-2 L3 daily TPW Low	
	GCOM-W AMSR-2 L3 daily CLW Low	
	GCOM-W AMSR-2 L3 daily PRC Low	
	GCOM-W AMSR-2 L3 daily SSW Low	
	GCOM-W AMSR-2 L3 daily SST Low	
	GCOM-W AMSR-2 L3 daily SND Low(EQR only)	
	GCOM-W AMSR-2 L3 daily SMC Low	
	GCOM-W AMSR-2 L3 daily TB High(EQR only)	
	GCOM-W AMSR-2 L3 daily TPW High	
	GCOM-W AMSR-2 L3 daily CLW High	
	GCOM-W AMSR-2 L3 daily PRC High	
	GCOM-W AMSR-2 L3 daily SSW High	
	GCOM-W AMSR-2 L3 daily SST High	
	GCOM-W AMSR-2 L3 daily SND High(EQR only)	
	GCOM-W AMSR-2 L3 daily SMC High	
	GCOM-W AMSR-2 L3 monthly TB Low(EQR only)	
	GCOM-W AMSR-2 L3 monthly TPW Low	
	GCOM-W AMSR-2 L3 monthly CLW Low	
	GCOM-W AMSR-2 L3 monthly PRC Low	
	GCOM-W AMSR-2 L3 monthly SSW Low	
	GCOM-W AMSR-2 L3 monthly SST Low	
	GCOM-W AMSR-2 L3 monthly SND Low(EQR only)	
	GCOM-W AMSR-2 L3 monthly SMC Low	

Target satellite	Target product(HDF5 only)	Target processing
	GCOM-W AMSR-2 L3 monthly TB High(EQR only) GCOM-W AMSR-2 L3 monthly TPW High GCOM-W AMSR-2 L3 monthly CLW High GCOM-W AMSR-2 L3 monthly PRC High GCOM-W AMSR-2 L3 monthly SSW High GCOM-W AMSR-2 L3 monthly SST High GCOM-W AMSR-2 L3 monthly SND High(EQR only) GCOM-W AMSR-2 L3 monthly SMC High	
GCOM-C	GCOM-C product	<ul style="list-style-type: none"> • Cut out /Shift • Format conversion (GeoTIFF, NetCDF)

[List of search result]



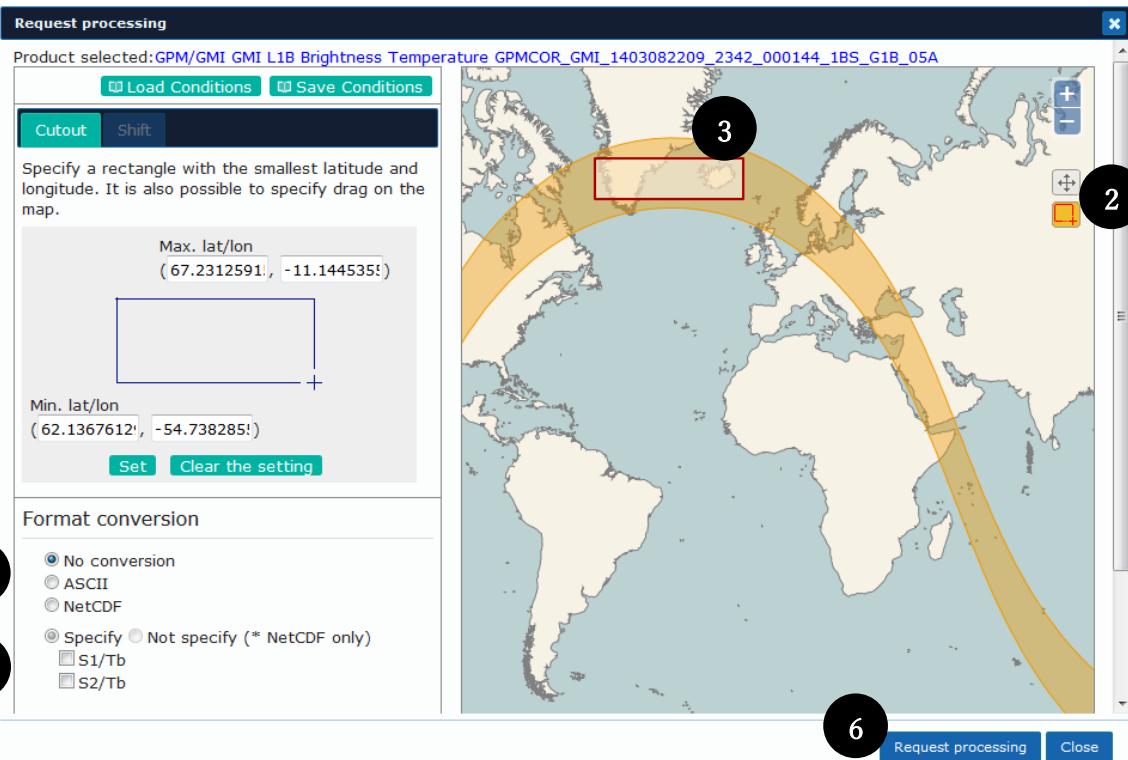
List of search result

Product	Physical quantities	Spacecraft / sensor	Observation starting date(UTC)	Observation ended date(UTC)	Details	Data manipulation	Processing	Add to My List
GMI L1B Brightness Temperature	Brightness Temperature	GPM/GMI	2014-03-08 22:09:50.674	2014-03-08 23:42:18.044	Details	Download	Processing	Add to My List

- 1) The processing request dialog displays from the “Processing” button to the search result list(Show the list tab, Display thumbnail tab and My list tab).

[Request processing dialog]

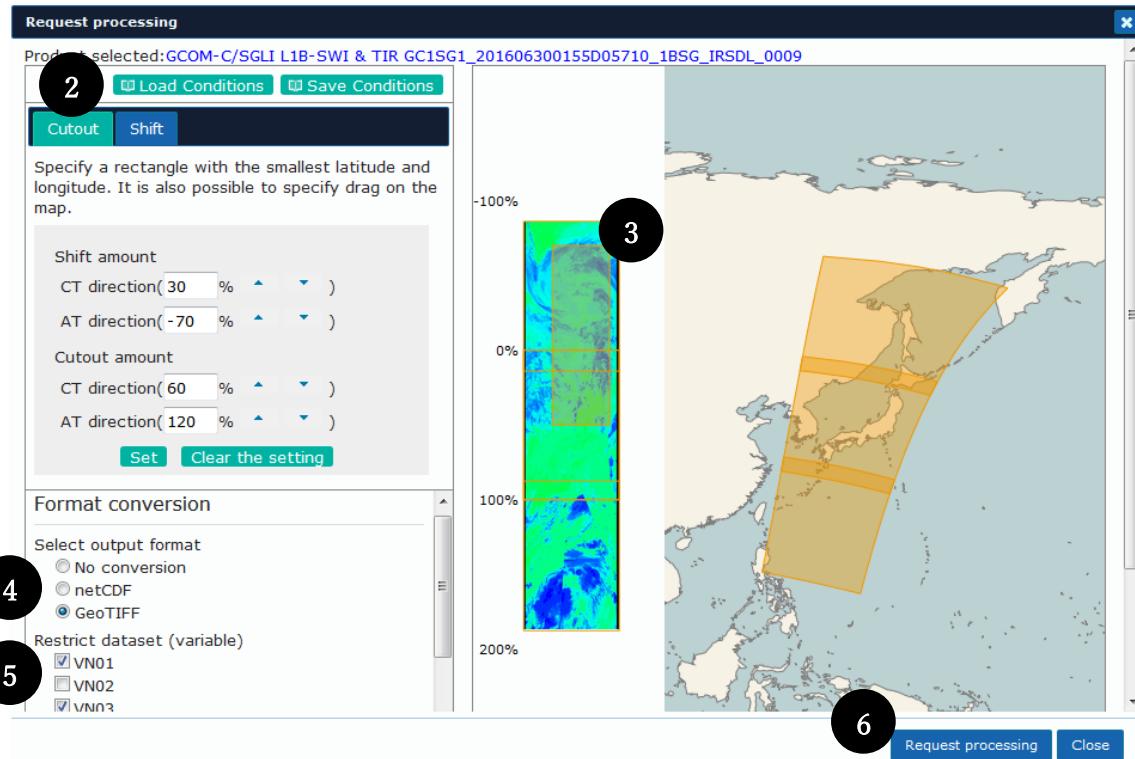
For GPM, GSMAP, AQUA, GCOM-W products



- 2) To extract the area, press the “Select Rectangle” button.
- 3) Select the rectangle of the region to cut out when you trim the region.(※1)
- 4) Select the output format from the radio box when you convert the format.
- 5) Select the check box for the data set variable to make output file. . While the output format is NetCDF, the dataset variable “Not specify” can be selected, in which case all dataset variables of the original structure will be output.
- 6) Click“Request processing” button and process the request according to 3) to 5) condition .

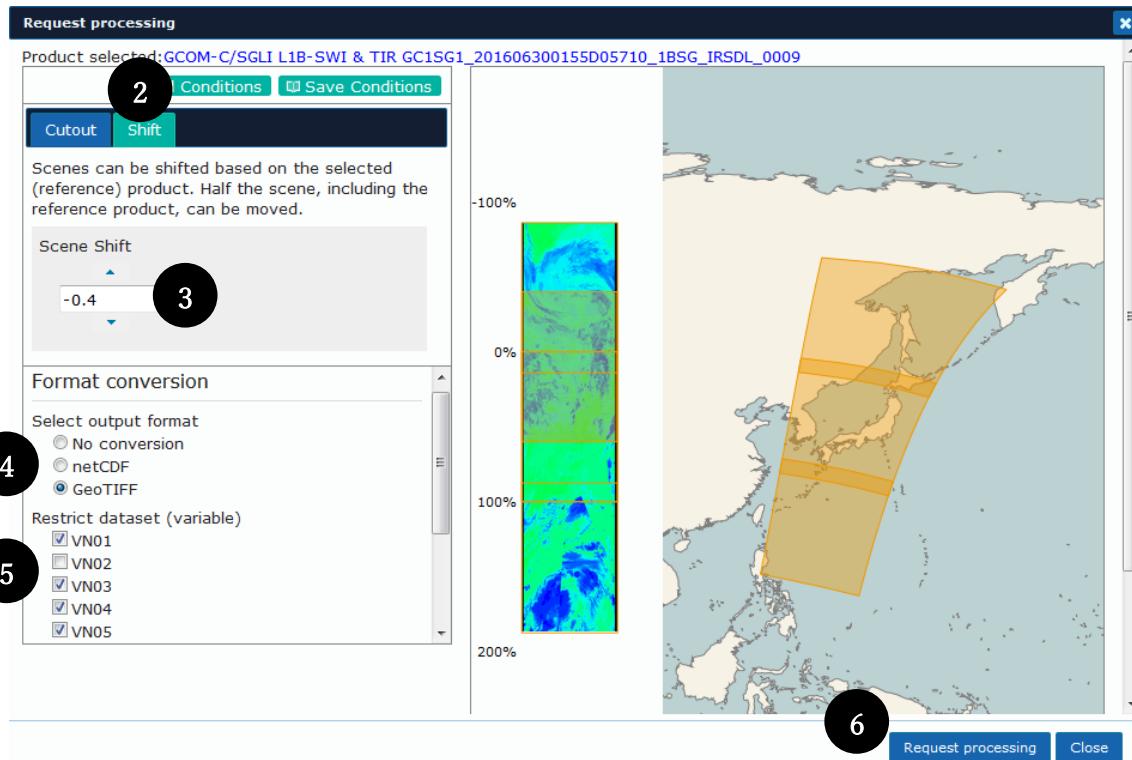
※1…Please refer to Appendix 6 for the rectangle selected on the screen in the area extraction and the range of products actually cut out.

In case of GCOM-C scene product extraction / shift request.



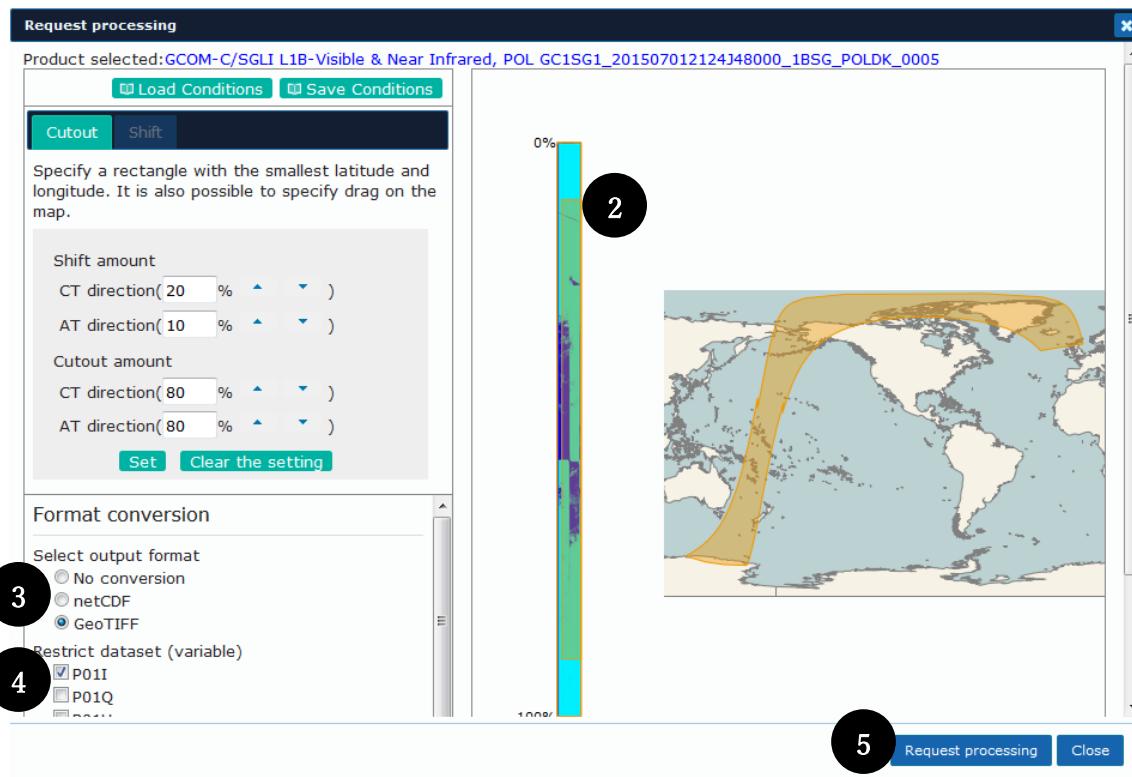
- 2) Select the cutout tab.
- 3) If you trim the region, select the rectangle of the region to cut out.
- 4) If you convert the format, select the output format from those radio boxes.
- 5) Select the output target channel from those check boxes.
- 6) Click "Request processing" button and processa request according to 3) to 5)condition.

Case of shift request of GCOM-C scene product



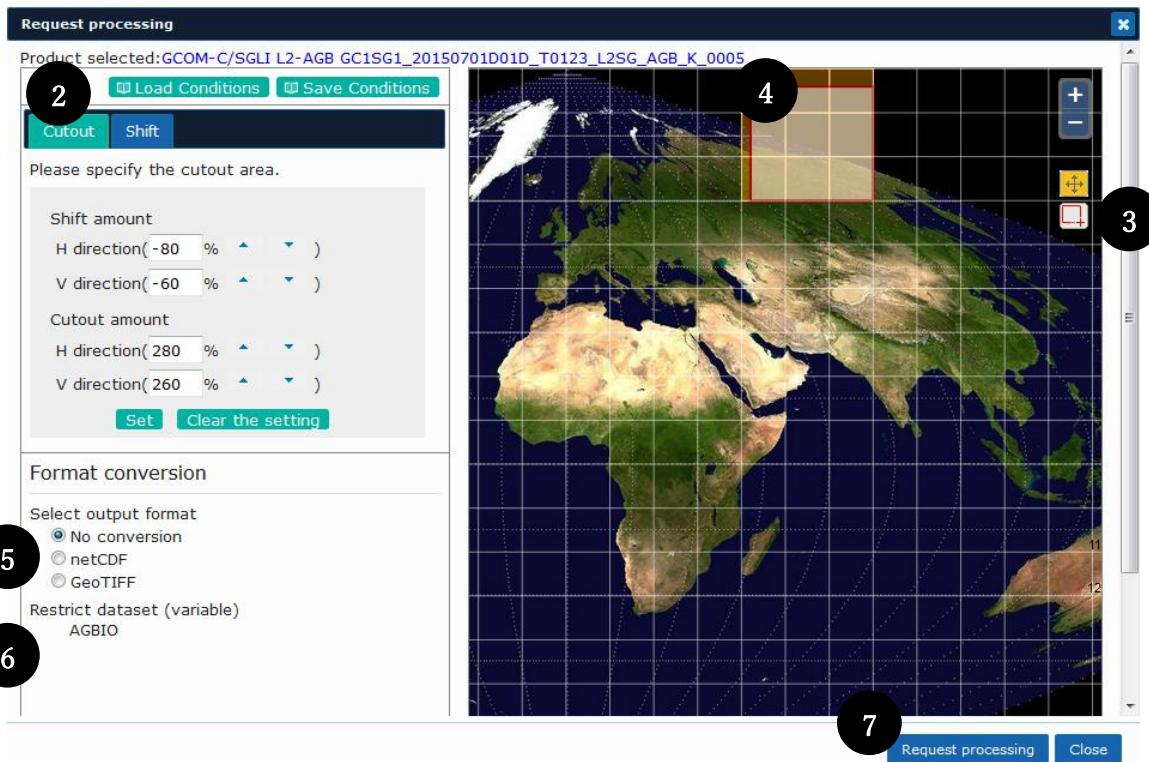
- 2) Select Shift tab.
- 3) With the **▲▼**button, select the rectangular area you want to shiftin the scene.
- 4) If you convert the format, select the output format from the radio boxes.
- 5) Select the output target channel from these check boxes.
- 6) Click “Request processing” button, process the request according to 3) to 5) condition.

In the case of GCOM-C one-turn product extraction/shift request.



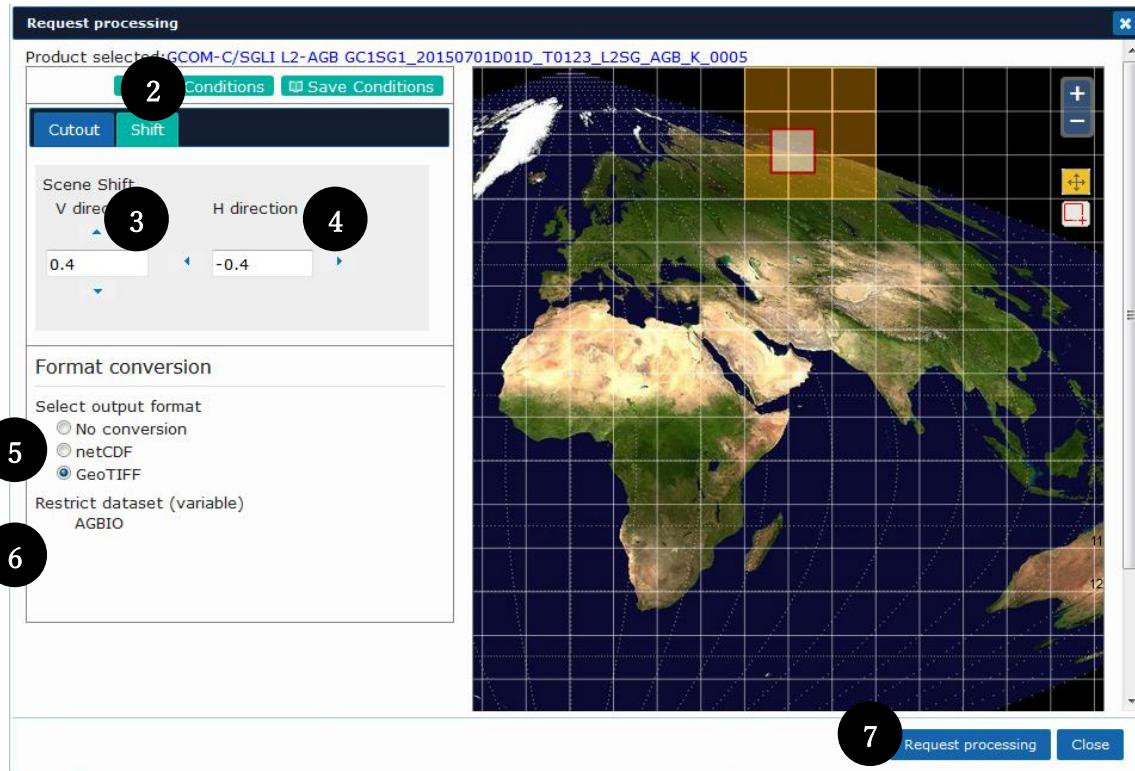
- 2) If you trim the region, select the rectangle of the region to cut out.
- 3) If you convert the format, select the output format from those radio boxes.
- 4) Select the output target channel from those check boxes.
- 5) Click “Request processing” button, process the request according to 2) to 4) condition.

In the case of GCOM-C tile product extraction/shift request.



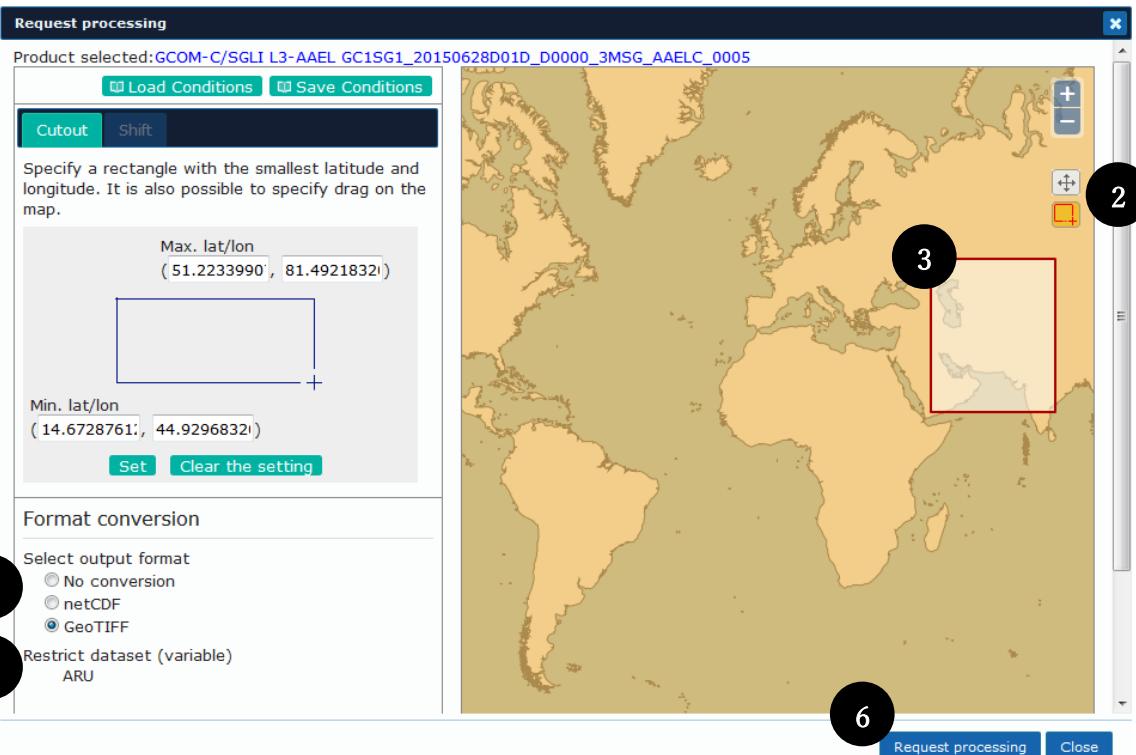
- 2) Select the “Cutout” tab.
- 3) To extract the area, press the “Select Rectangle” button.
- 4) If you trim the region, select the rectangle of the region to cut out.
- 5) If you convert the format, select the output format from the radio boxes.
- 6) Select the output target channel from the check boxes.
- 7) Click “Request processing” button, process the request according to 4) to 6) condition.

Case of shift request of GCOM-C tile product



- 2) Select Shift tab.
- 3) 4) With the ▲▼, ◀▶ button, select the rectangular area you want to shift in the scene.
- 5) If you convert the format, select the output format from those radio boxes.
- 6) Select the output target channel from those check boxes.
- 7) Click "Request processing" button and process request according to 3) to 6) condition.

In the case of GCOM-C global product extraction/shift request.



- 2) To extract the area, press the “Select Rectangle” button.
- 3) If you trim the region, select the rectangle of the region to cut out.
- 4) If you convert the format, select the output format from the radio boxes.
- 5) Select the data set variable to be output from those check boxes.
- 6) Click “Request processing” button, process the request according to 3) to 5) condition.

4.6. Download production and processed products

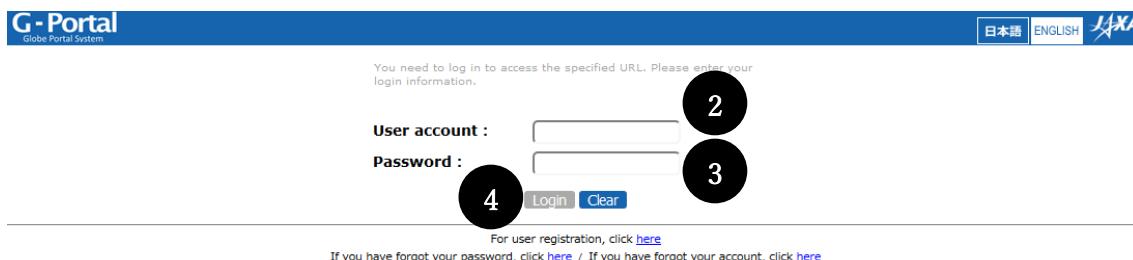
Production request and processing request are made at 4.4 and 4.5, and when the product is completed, the product completion is notified by e-mail. You can download the production and processed products from the product link of the e-mail. In addition, you can also download products produced and processed from the search result list and production status tab.

[Product production completion e-mail]



1) Access the product URL of the product production completion e-mail from the browser.

[Authentication screen]



- 2) Enter the user account.
- 3) Enter the password.
- 4) Click the "Login" button.

※, This screen is not displayed and you are able to download directly, if you have already been authenticated.

[List of search result Production status tab]

List of search result									
Show the list (0 data)		Display thumbnail (0 data)		My List (2 data registered)					
Production status (1 products requested)									
The progress showing the status of the batch download and production requests such as cutout processing. Products produced can be downloaded and will be deleted after a certain period.									
Date and time of request (UTC)	Production request nur	Target product	Status	Download					
+ 2018/03/06 04:52:58	ORD2018030604396	GC1SG1_201507010005V03812_1BSG_VNRDK_0005.h5	Processing completed	Expansion					

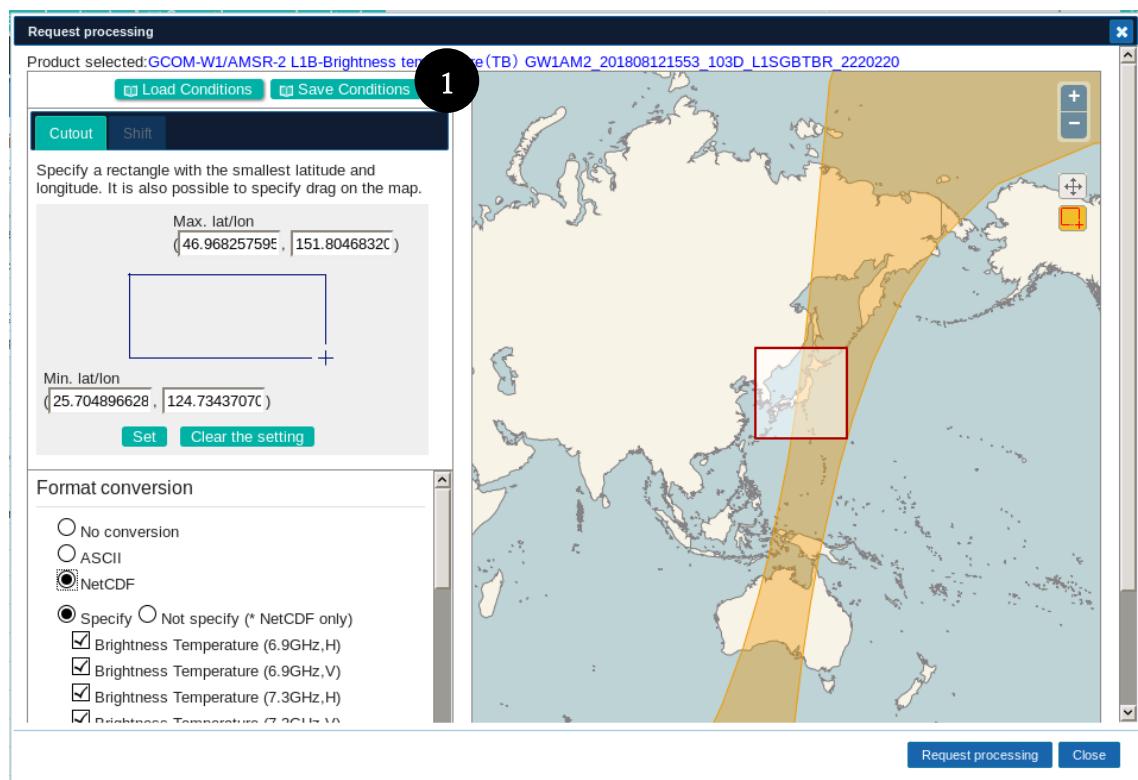
- 1) You can download production and processing products with the “Download” button on the Production Status tab.

4.7. Saving, calling, and deleting processing conditions

You can save, recall, and delete processing conditions for each product name.

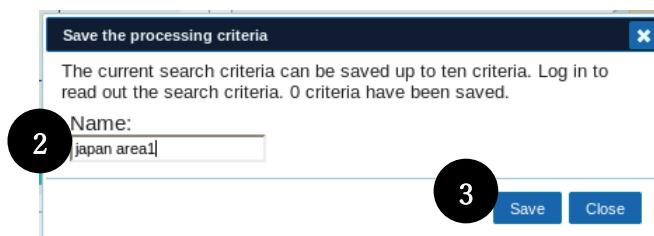
Preservation of processing conditions

[Request processing dialog]



1) After setting the processing conditions, click "Save Conditions" button.

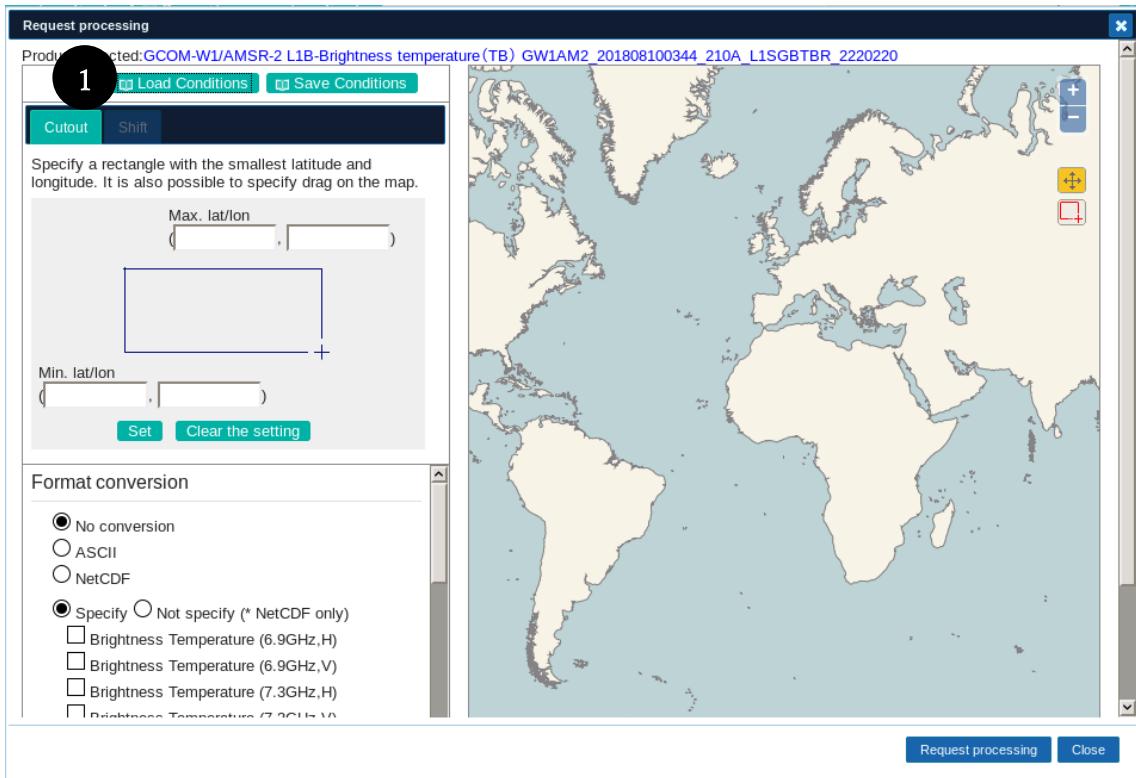
[Save the processing criteria dialog]



2) Input the name of the processing condition.

3) Click the "Save" button to save the processing conditions.

[Request processing dialog]



- 1) Click "Load Conditions" button.

[Readout of processing criteria dialog]

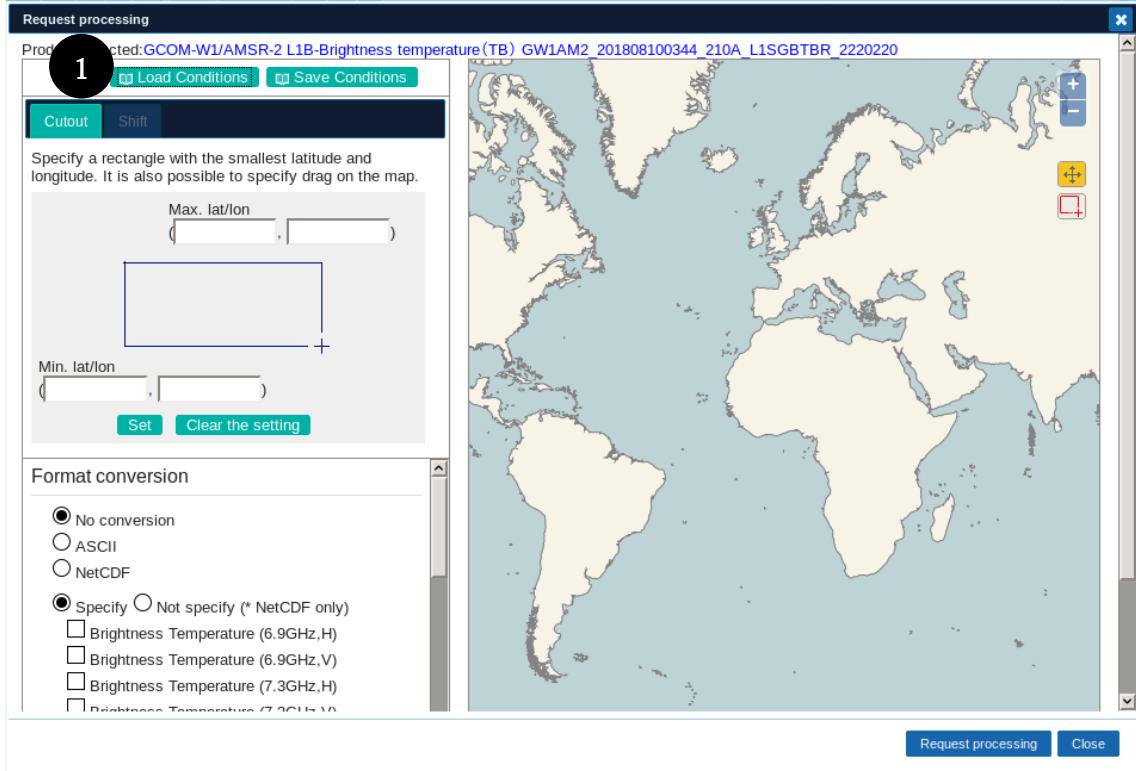
The screenshot shows the 'Readout of processing criteria' dialog box. It contains a message: 'Read out and set the saved processing criteria. Those search criteria already set are overwritten. Up to ten criteria can be saved.' Below this is a table with three rows of data. A large black circle labeled '2' highlights the 'Readout' button in the third row. The table has columns for 'No.', 'Name', and 'Readout'. Each row has a 'Readout' button and a 'Delete' button. The data in the table is as follows:

No.	Name	Readout
1	japan area1	<input type="button" value="Readout"/>
2	japan area2	<input type="button" value="Readout"/>
3	japan area3	<input type="button" value="Readout"/>

At the bottom right is a 'Close' button.

- 2) Click the "Readout" button of the processing condition you want to load.

[Request processing dialog]



- 1) Click "Load Conditions" button.

[Readout of processing criteria dialog]

The screenshot shows the 'Readout of processing criteria' dialog box. It contains a message: 'Read out and set the saved processing criteria. Those search criteria already set are overwritten. Up to ten criteria can be saved.' Below this is a table with three rows, each representing a saved processing condition. The table has columns for 'No.', 'Name', and 'Readout'. Each row has a 'Readout' and a 'Delete' button. A large circular callout '2' points to the 'Delete' button in the second row. At the bottom right are 'Close' and 'Readout' buttons.

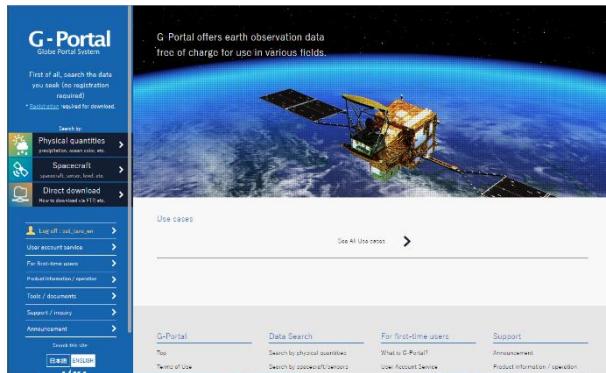
No.	Name	Readout
1	japan area1	<button>Readout</button> <button>Delete</button>
2	japan area2	<button>Readout</button> <button>Delete</button>
3	japan area3	<button>Readout</button> <button>Delete</button>

- 2) Click the "Delete" button of the processing condition you want to delete.

5. Change User Property/To Change Password

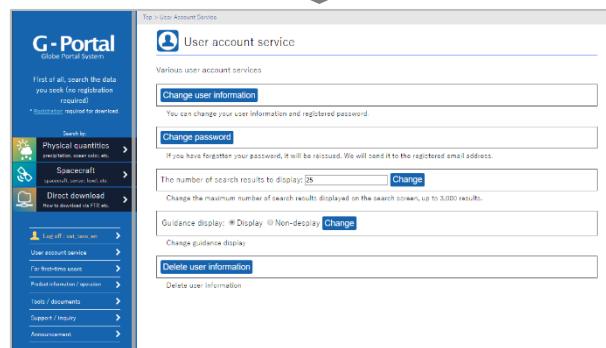
5.1. Check registered user property

Check the properties of registered users.



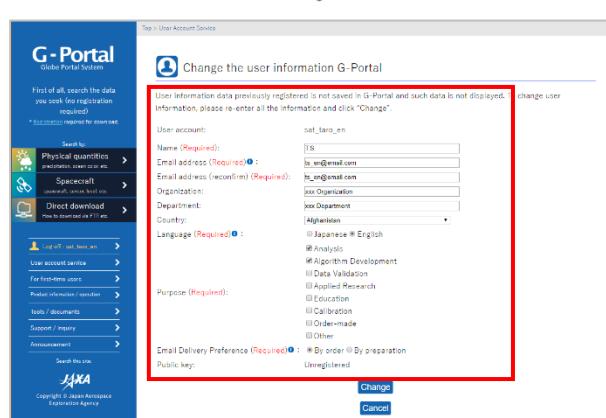
- 1) Click "Account service" on the home window and "Account service" window appear.

1. Click "User account service".



- 2) Click "Change User information" on the account service window. The change of User information displays

2. Click "Change user information".



- 3) Check the registered user property.

3. Check the property.

5.2. Change user property

Change the properties of registered users.

User account:

- Name (Required): TS
- Email address (Required): ts_eng@mail.com
- Email address (reconfirm) (Required): ts_eng@mail.com
- Organization: xx Organization
- Department: xx Department
- Country: Afghanistan
- Language (Required): English
- Purpose (Required): Analysis
- Email Delivery Preference (Required): By order
- Public key: Unregistered

Change **Cancel**

1) Correct the items you want to change

via the View/Change window. Items that can be changed

the name, email address, organization/department, country name, language used for email, purpose of use, Notification Email

2) Click "Change".

2) Click the "Change" button to

the user information.

User account:

- Name: TS
- Email address: ts_eng@mail.com
- Organization: xx Organization
- Department: xx Department
- Country: Afghanistan
- Language: English
- Purpose: Analysis
- Email Delivery Preference: By order

Register **Back**

3) Confirm

property.

3) Confirm the correction content.

4) Click "Register" button under

checking User property.

4. Click "Register".

5) The User Property Change

Completed window will be displayed.

5. The message that the change has completed is displayed.

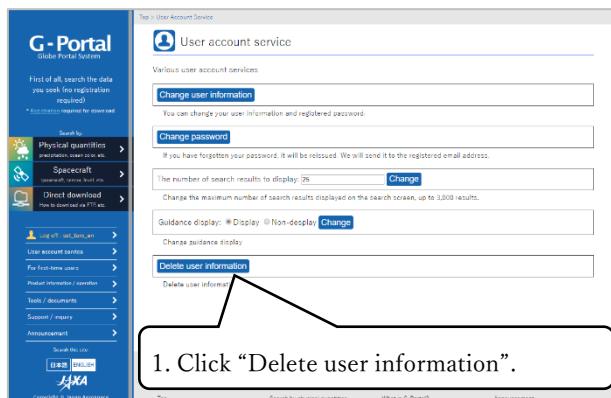
User information change completed

The user information has been changed.

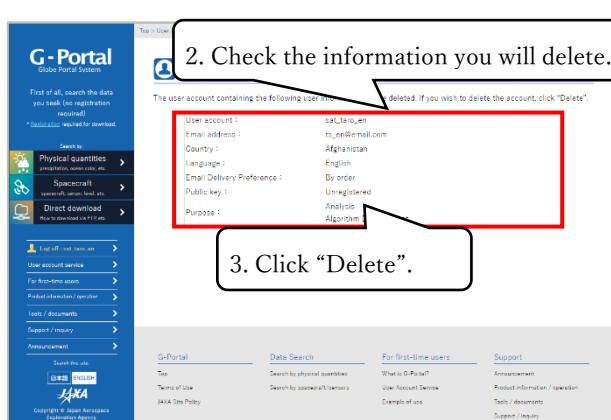
User account:	TS
Email address:	ts_eng@mail.com
Organization:	xx Organization
Department:	xx Department
Country:	Afghanistan
Language:	English
Purpose:	Analysis
Email Delivery Preference:	By order

5.3. Delete user property

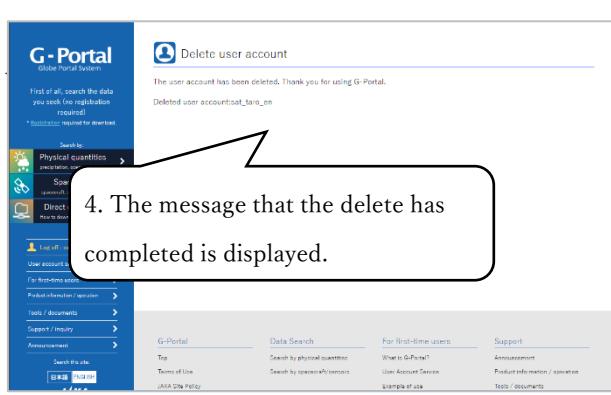
Delete the property of registered users.



- 1) Click to “Erase User Information” on the account service window. Appears the confirmation window to erase User Information.



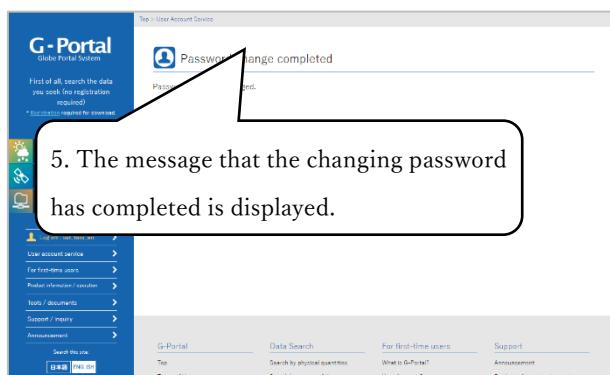
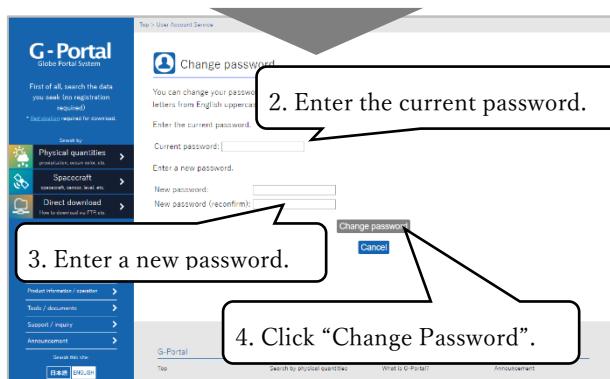
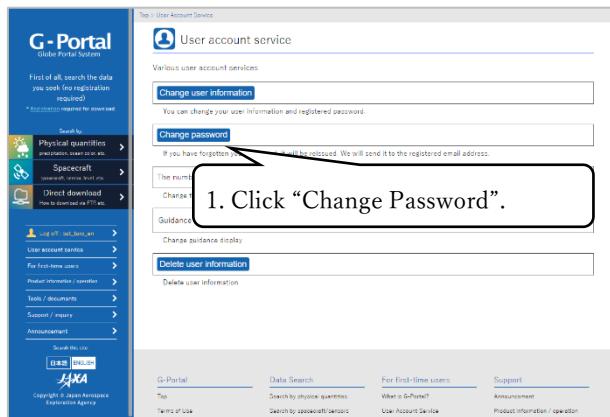
- 2) Check the user property to be deleted.
- 3) Click “Delete” to delete the user. The Deletion Complete window will be displayed, and the user account will be deleted. If you do not want to delete the user account, click the “Cancel” button. The window will return to the user account service window.



- 4) The User Property Deletion Complete

5.4. Change passwords

Change the password of registered users.



1) Click "Change Password" in the User account service window. A window where you can change the password will be displayed.

2) Enter your current password.
3) Enter a new password.

4) To change the password, click the "Change Password" button. The Change Complete window will be displayed, and the system will be updated with the new password. If you do not want to change the password, click the "Cancel" button. The window will return to the User account service window.
5) The Password Change Complete window will be displayed.

6. Obtain Information on Products

6.1. Checking the provided spacecrafts/sensors and physical quantities

The satellite sensors provided on the G-Portal can make sure (confirm) “the product information • mission control information” and “Tool and Document” windows and physical quantities displayed for “Beginners” or the guidance on the research window.

(1) Check spacecrafts/sensors

The satellite sensors Provided on “Product information • mission controll information” and “Tool • Document” were shown.

(2) Check physical quantities

The pysical quantities provided by “Beginners” or the guidance on research display was shown.

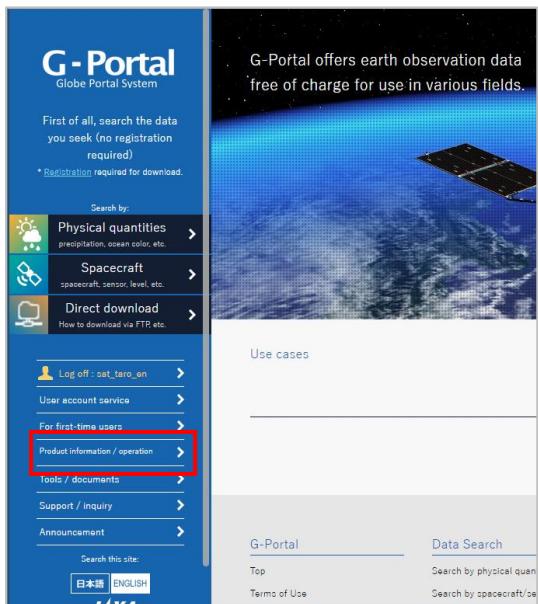
6.2. Spacecrafts/sensors operational information

Information that JAXA requires to operate its spacecrafts/sensors is available as data called Operational Information that may be valuable to users that are using products. Feel free to check this information when using products.

The provided Operational Information is as follows.

- Orbit information
- Quality information
- Missing information
- Orbit control information
- 2Line orbit element (TLE)
- Operational mode transition history
- Maneuver information

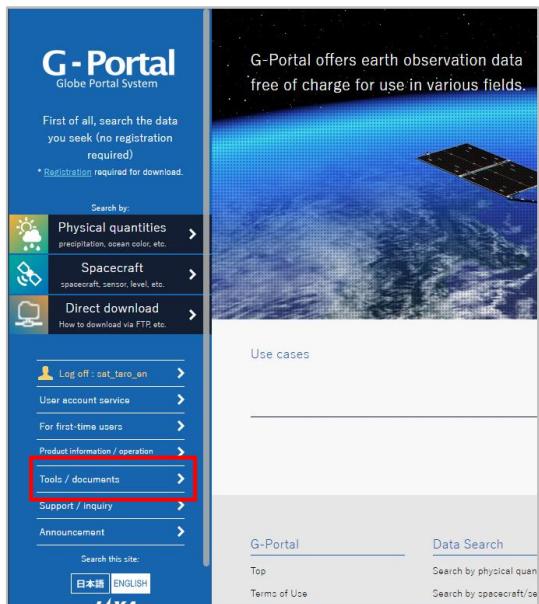
etc.



Click to "Product information/operation" on the top window. Confirm mission information relate to spacecraft sensors.

6.3. Download documents

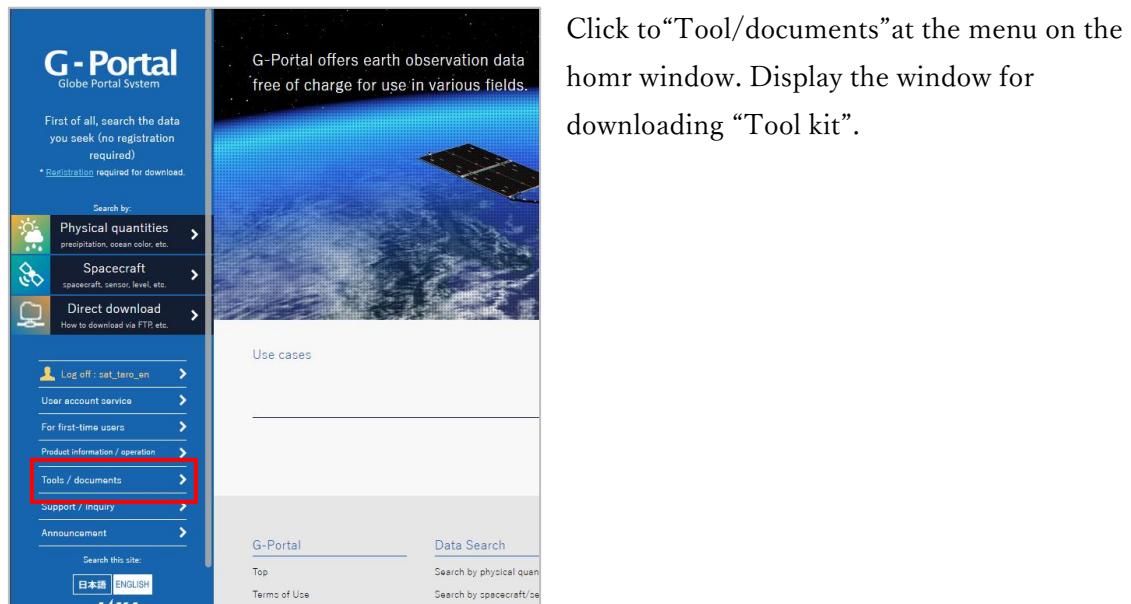
Product format descriptions, algorithm descriptions and other generation documentation is provided for each mission.



Click to “Tool/documents” on the top window.
Appears the window for downloading/a list of document.

6.4. Download the tool kit

A range of tools are available to help utilize the available products. Please forward any enquiries such as usage methods or operating environment directly to the tool developer.



Click to “Tool/documents” at the menu on the homr window. Display the window for downloading “Tool kit”.

6.5. Check announcements

You can confirm the announced information “Oshirase(notice)” from G-Portal with clicking “Oshirase(notice)” on the top menu.

Click “Oshirase(Announcement)” on the home window, The announcement information from G-Portal can confirm.

The screenshot shows the G-Portal homepage. On the left, there is a sidebar with various links: Physical quantities, Spacecraft, Direct download, Login, User registration, For first-time users, Product information / operation, Tools / documents, Support / inquiry, and Announcement. The 'Announcement' link is highlighted with a red box. The main content area shows a news item titled "TRMM Products are Released Now!" with a date of October 3, 2017. Below the news item is a link "... Read more". To the right of the news item is a sidebar titled "Announcements by years" which shows a single entry for 2017.

The latest notice on the announcement window is displayed on the top of the window.

This screenshot is similar to the one above, but the announcement box is explicitly highlighted with a large red border. The news item "TRMM Products are Released Now!" is visible within this box.

7. Help and Contact

Click “Support / inquiry” from the menu. Information on submitted inquiries about the system will be displayed.

8. Other References

8.1. Recommended browsers

The following browsers are recommended to ensure that G-Portal functions smoothly and properly. Recommended browsers are those that have already been checked as functioning properly. Some windows may not be displayed properly when using the system on browsers other than those that are recommended.

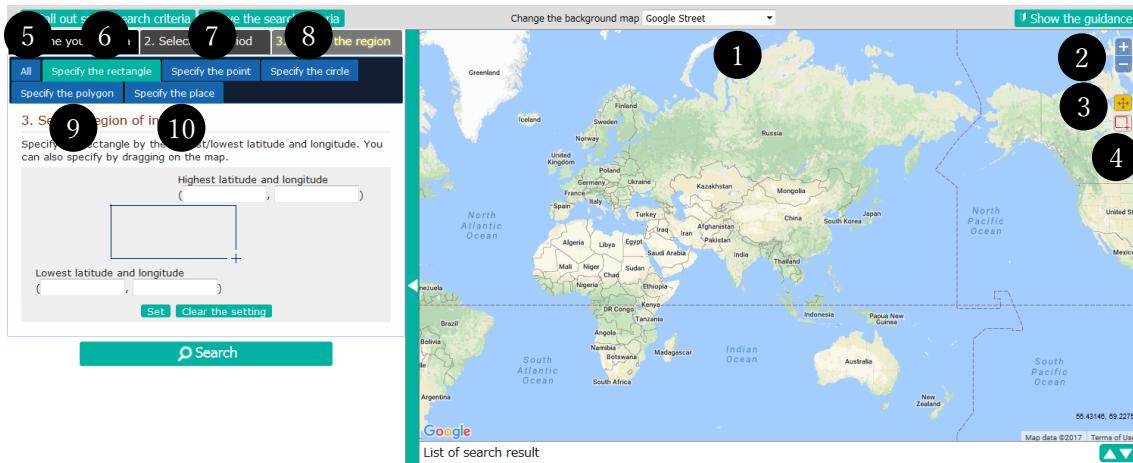
JavaSctipt	This site uses content that operates on JavaScript. To use this service, Javascript must be enabled in your browser.
Compatibility View Settings	When "jaxa.jp" is set in the Compatibility View Settings, it is necessary to delete it.

OS	OS version	Browser	Browser version
Windows	Windows10 Version 1809	Microsoft Edge	42.17134.1.0
Windows	Windows10 Version 1809	Internet Explorer	11.648.17134.0
Windows	Windows10 Version 1809	Firefox	65.0.1
Windows	Windows10 Version 1809	Chrome	73.0.3683.75
MacOS X	macOS Mojave 10.14.3	Chrome	73.0.3683.75
MacOS X	macOS Mojave 10.14.3	Safari	12.0.3
Linux(RHEL)	Linux(RHEL) 7.6	Firefox	65.0.1
Linux(RHEL)	Linux(RHEL) 7.6	Chrome	73.0.3683.75
iOS	iOS 12.1.4	Safari	12.0.3

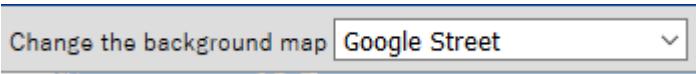
※As of March 20, 2019

Appendix 1 Map Operations

This section outlines the map operations that can be used in the enter search conditions window.



1) Switch map view/satellite view



The view can be changed from map view to satellite view.

2) Change scale



Click the "+" symbol to zoom into and display the map at one larger scale. Click the "-" symbol to zoom out and display the map at one smaller scale.

Move the slider up and down to display the map at a scale of your own choice. If you have a mouse with a mouse wheel, you can also use the mouse wheel to change the zoom scale.

3) Move



Click this icon to you can move the display region of the map.

4) Specify search region



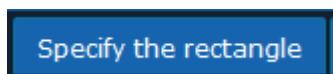
Click this icon to you can specify search region
specify format depends on the currently selected tab.

5) All



Click the left tub, "All", specify the area of search.

6) Specify the rectangle



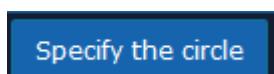
Click to the left tub "Specify the rectangle", select "Specify the rectangle" on the map.

7) Specify the point



Click the left tub "Specify the point", select "Specify the point".

8) Specify the circle



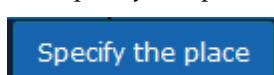
Click the left tub "Specify the circle", select to "Specify the circle".

9) Specify the point



Click to the left tub "Specify the point", select to "Specify the point".

10) Specify the place



Click to the left tub "Specify the place" as below the text field and the button, specify area name by text on a search map.

Search the coordinate from the place name. Only registered place names are usable.

Place name:

Reflect in the map

※Under input the area, click to the button "reflect on the map" and reflect to the coordinate of area on the map.

Appendix 2 Specify Observation Region

There are three selection methods for the observation range as follows:

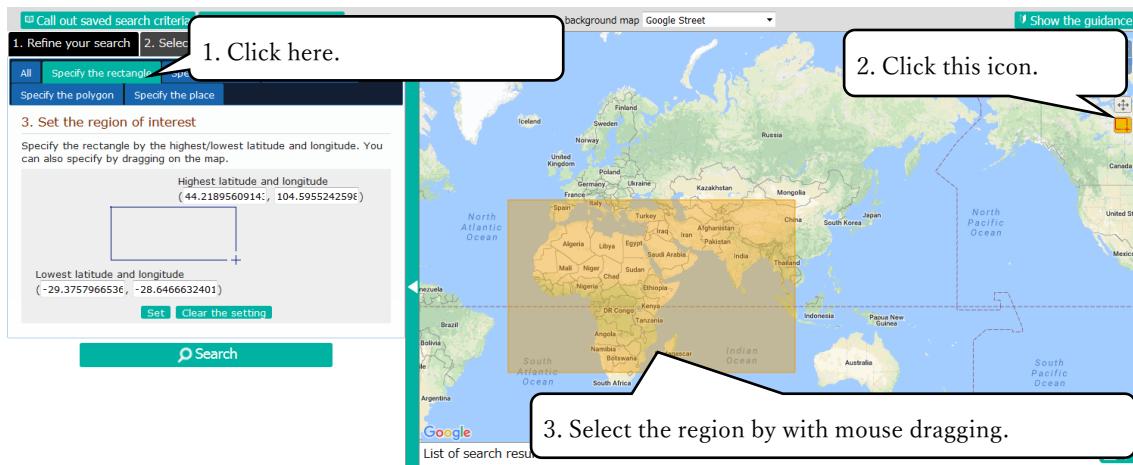
- Specify observation range with a rectangle Appendix 2-1
- Specify observation range with a point Appendix 2-2
- Specify observation range with a circle Appendix 2-3
- Specify observation range with a polygon Appendix 2-4

Each of these methods allows a range to be specified from the map or by entering values.

After a region has been specified on the map, the values can be changed to correct the search region.

Appendix 2-1 Specify observation range with a rectangle

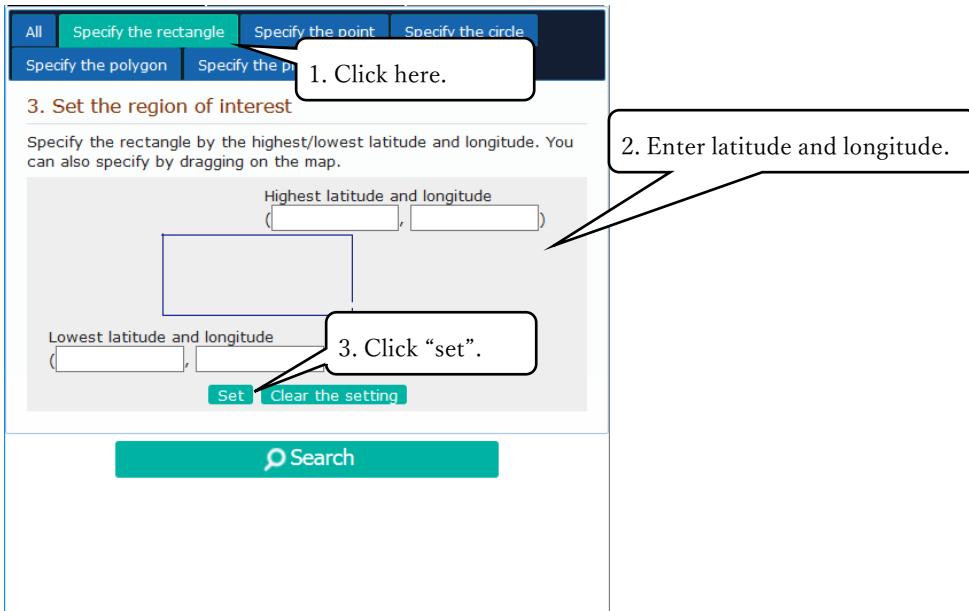
(1) Specify from the map



- 1) Click "Specify the rectangle", Text field input minimum and maximum of latitude and longitude is displayed.
- 2) Click "the icon searching area (copy the picture for the orange rectangle)" on the map, operate the orange rectange by drug on the map.
- 3) Select the rectangle by drag. Choose the rectangle and appears minimum and maximum values of latitude and longitude to the text field.

*A click of "Clear" will clear the value inputted into the text box and selection on the map. (About "Clear", it is the same subsequent Appendix 2-2, Appendix 2-3, Appendix 2-4.)

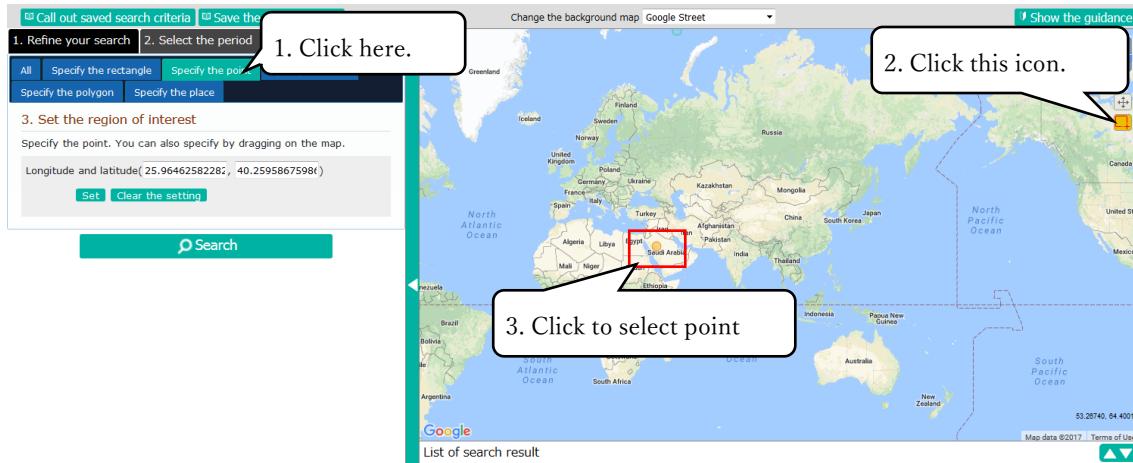
(2) Specify with values



- 1) Click “specify the rectangle” tab, and the field inputting minimum and maximum values for the latitude and the longitude appears.
- 2) Enter minimum and maximum values for the latitude and the longitude.
- 3) Click to“Setting”button. The specified area is shown by the rectangle.

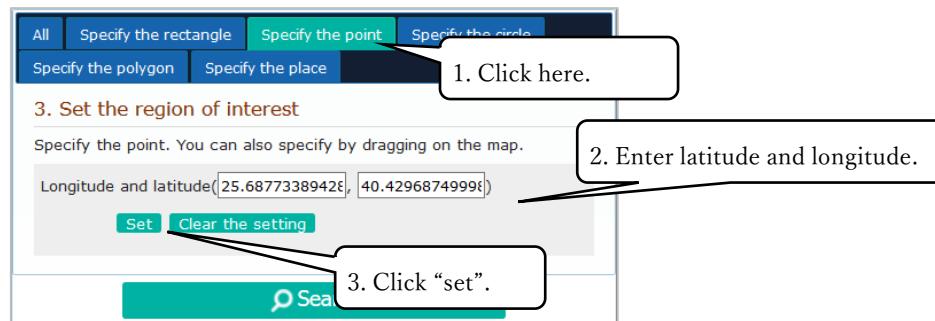
Appendix 2-2 Specify observation range with a Point

(1) Specify from the map



- 1) Click to “Specify points” tab, appears the text field input latitude and longitude.
- 2) Click “icon specifying searching area”, appears latitude and longitude on the map.
- 3) Specify latitude and longitude by a mouse click, display latitude and longitude of the point in the text field.

(2) Specifying with values



- 1) Click “specify the point”tab, displays the text field input latitude and longitude.
- 2) Enter latitude and longitude.
- 3) Click “Setting”, and a value input on the text field is reflected on the map.

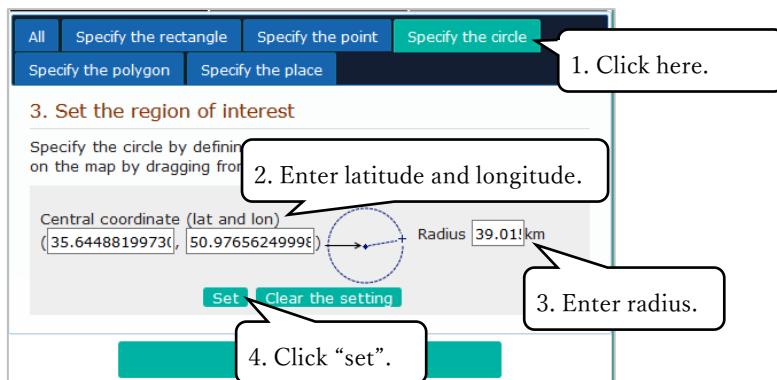
Appendix 2-3 Specify observation range with a Circle

(1) Specify from the map



- 1) Click "Specify a circle" tab, the text field specifying the circle is displayed.
- 2) Click "icon specifying a searching area" on the map, drug latitude and longitude on the map.
- 3) To specify latitude and longitude by drag and drop, Center coordination of circle and radius is displayed in the text field.

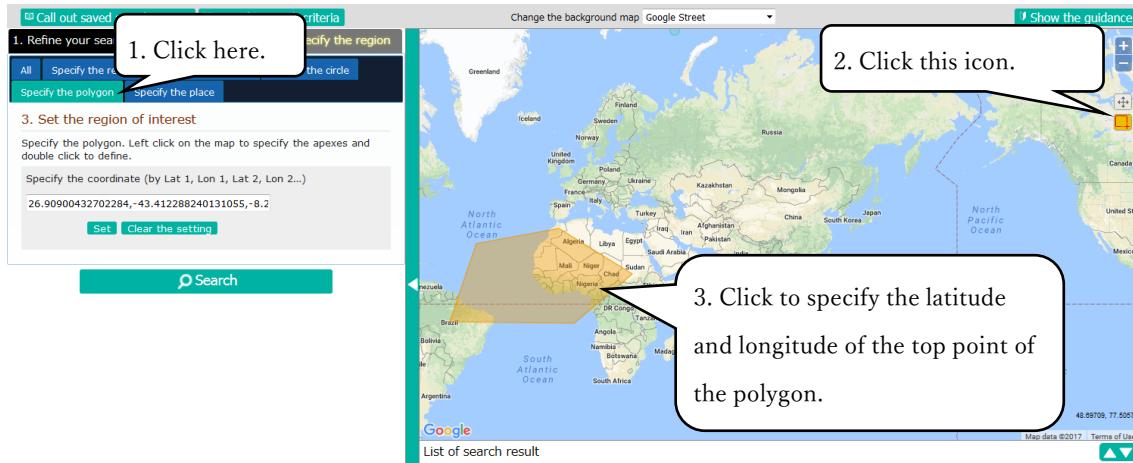
(2) Specifying with values



- 1) Click "Specify the circle", display the text field to write down Center coordinate and radius for the circle.
- 2) Enter latitude and longitude of center coordinate in the Circle.
- 3) Enter The radius of the circle.
- 4) Click "Setting" and the values input on the text field is reflected on the map.

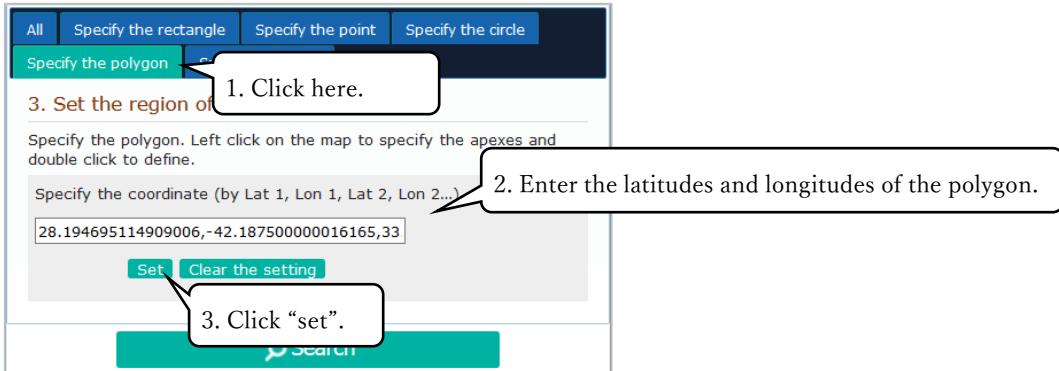
Appendix 2-4 Specify observation range with a Polygon

(1) Specify from the map



- 1) Click “Specify the polygon”, display latitude and longitude inputting on the text field.
- 2) Click “the icon of searching area”on the map, specify latitude and longitude to every corner of the polygon on drug and drop.
- 3) Specify polygon-corners of latitude and longitude. Close last corner coordinate specifying the polygon on the map. Under specifying polygon on the map and displays every corners’ coordinate on the text field.

(2) Specify with values



- 1) Click “Specify the polygon”, display the latitude and longitude of polygon input into text fields.
- 2) Enter latitude and longitude to the rectangular.
- 3) Click ”Setting”, The values input in the text field is reflected on the map.

Appendix 3 Specify Observation Period

Specify the period to search. There are two selection methods for the period as follows:

- Specify period
- Specify season

Each of these methods allows the period range to be specified by (1) Entering text, (2) Entering values from the calendar icon, or (3) Entering values from the observation period bar chart.

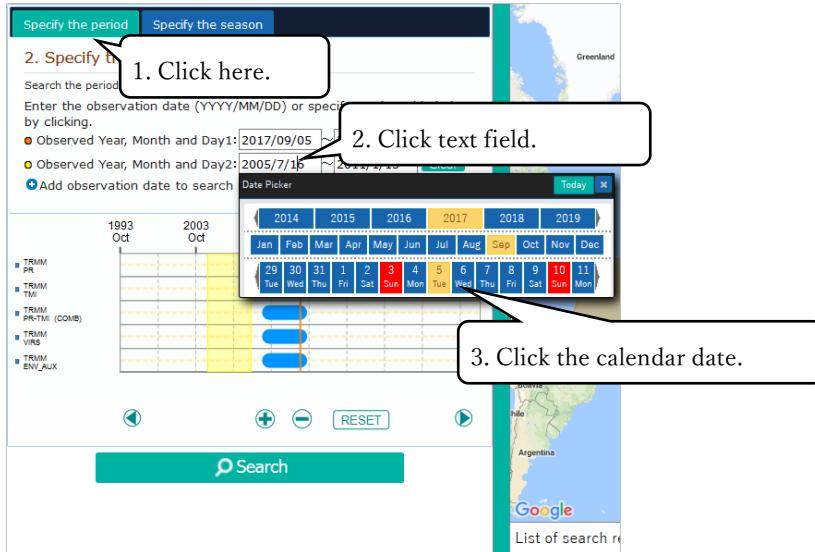
Appendix 3-1 Specify period

(1) Enter text

The screenshot shows a search interface for specifying an observation period. At the top, a blue header bar contains the text "Specify the period". Below it, a sub-header "2. Specify the ob" is followed by the instruction "1. Click here." A callout box points to the text input field for entering dates. Another callout box points to the "Search" button at the bottom. The main area contains two text input fields for "Observed Year, Month and Day1" and "Observed Year, Month and Day2", both with dropdown arrows and "Clear" buttons. Below these are buttons for "Add observation date to search for" and "Search for". To the right of the input fields is a bar chart titled "1993 Oct" at the top. The x-axis shows years from 1993 to 2033 in increments of 10 years, with "Oct" indicated for each year. The y-axis lists data series: TRMM_PR, TRMM_TMI, TRMM_PR-TMI (COMB), TRMM_VIRS, and TRMM_ENV_AUX. The bars for the first three series are filled with blue, while the last two are yellow. Navigation icons (left arrow, plus, minus, right arrow) and a "RESET" button are located below the chart. A large green "Search" button is at the bottom.

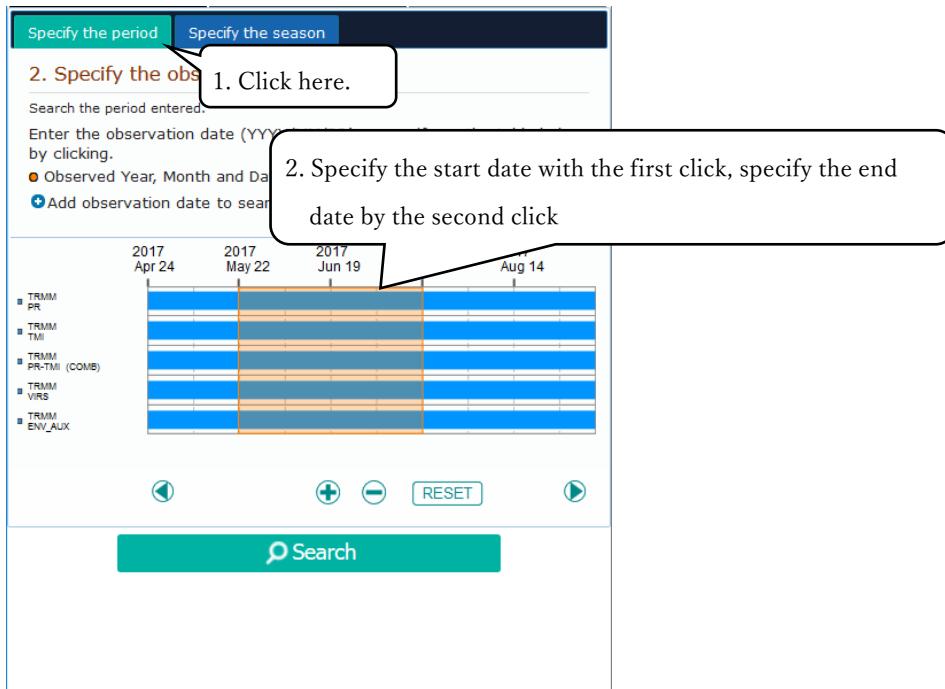
- 1) Click “Specify the period”, display text fields specifying between the beginning of observation date and the end of observation date. The maximum 4“Specify the period” can select. First observation dates, The beginning day of the observation from one week of the past as initial value is set.
- 2) Enter the beginning and the end of the observation in text field and the input period is reflected on the bar-chart.

(2) Enter values from calendar



- 1) “Specify the period”, display the period between the beginning and the end observation. They can select four periods.
- 2) Click the observations date in text fields and appear the calendar.
- 3) Click the date from calendar, and set as the searching dates.

(3) Enter values from the observation period bar chart



- 1) Click "Specify the period", display the specifying period between the beginning and the end. They can select four periods.
- 2) Click an observation period shown on bar-chart. First, select the beginnning day of observation. Secondly, select the end of observation. The selected days in text field displays.
 - ※ Click the icon below the bar-chart. You can expand and shrink the bar-chart and change the observation periods on the bar-chart.

[Move icon]

- ◀ ▶ Click the bar-chart and you can change the periods to move the bar-chart to right and left.

[Scaling icon]

- ⊕ ⊖ Click the bar-chart and you can expand and shrink the bar-chart.

[Reset icon]

- RESET** Click "Reset" and clear values of periods of the observation in text field.
Return the initial status in text field.

(4) Clear input observation period

Specify the period Specify the season

2. Specify the observation date

Search the period entered.

Enter the observation date (YYYY/MM/DD) or specify on the table below by clicking.

Observed Year, Month and Day1: 2013/10/19 ~ 2014/11/1 Clear
Observed Year, Month and Day2: 2015/2/16 ~ 2015/7/23 Clear
Observed Year, Month and Day3: 2015/9/25 ~ 2016/4/25 Clear
Observed Year, Month and Day4: 2016/2/27 ~ 2017/3/11 Clear
Add observation date to search for

2014 Jun	2015 Feb	2015 Oct	2016 Jun	2017 Feb
■ GCOM-W1 AMSR-2				
■ TRMM COMB				
■ TRMM ENV_AUX				
■ TRMM PR				
■ TRMM PR-TMI (COMB)				

◀ □ ▶ + - RESET

🔍 Search

1. Click here.

- 1) Click the “Clear” button. Clear the inputted observation start date and end date.

Appendix 3-2 Specify season

(1) Enter text

The screenshot shows the 'Specify the season' tab selected. It includes a text input field for 'Observed Month and Date' (11/19) and a dropdown for 'Observed Year' (1998). A red box highlights these fields. Below them is a horizontal timeline map from 1969 to 2009, with specific dates (Dec 1969, Nov 1979, Nov 1989, Nov 1999, Nov 2009) marked. A callout box labeled '1. Click here.' points to the 'Specify the season' tab. Another callout box labeled '2. Enter the observed month/day, and the observed year.' points to the highlighted text fields.

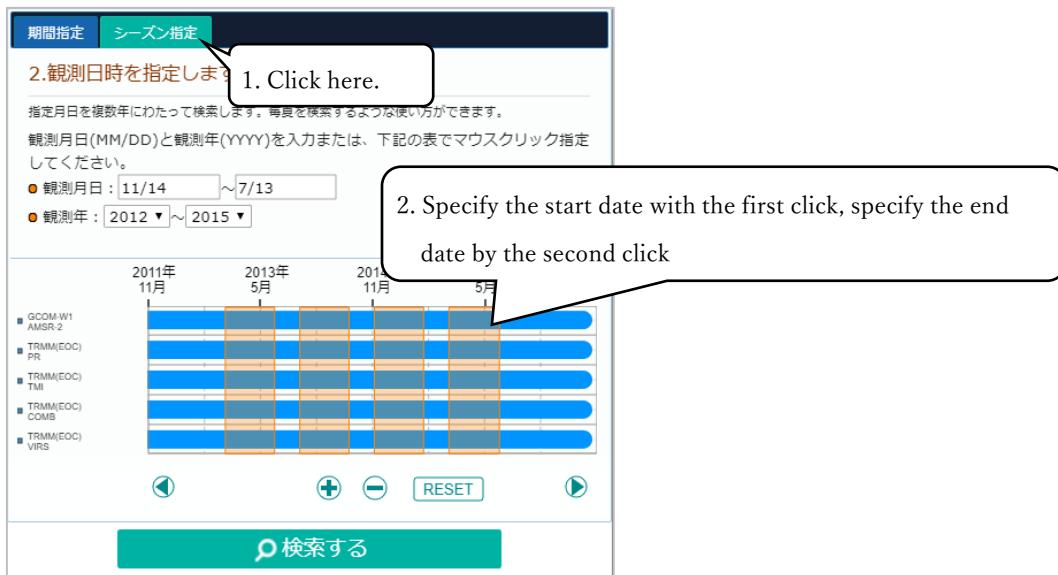
- 1) Click "Specify the season", displays dates and years the beginning and the end selecting in text field and pulldown.
- 2) Enter observation dates and years of the beginning and the end in text fields.

(2) Enter value from the calendar

The screenshot shows the same 'Specify the season' tab. The 'Observed Month and Date' field contains '9/26'. A callout box labeled '1. Click here.' points to the 'Specify the season' tab. Another callout box labeled '2. Click text field.' points to the date input field. A third callout box labeled '3. Click the calendar date.' points to a date picker calendar window for September 2010, with the 10th highlighted. The calendar shows days from 31 to 13.

- 1) Click "Specify the season" and the text field and pulldown specifying season from dates and years of the beginning and the end observation is displayed.
- 2) Click the text field of the observation dates, a calendar displays.
- 3) Click the dates from a calendar, and the dates clicked in text field and pulldown is input. Set as the searching condition.

(3) Enter values from the observation period var chart



- 1) Click “Specify the season”, display the text field and pulldown specifying dates and years of beginning and end observation.
- 2) With click on bar-chart specified the observation period, select beginning of observation day. Display the selected dayon text field and pulldown.
※Click the icon below to bar-chart, change the dates with expansion and shrink bar-chart. (Refer to “Appendix 3-1 Specify the period” about functions of each icon.)

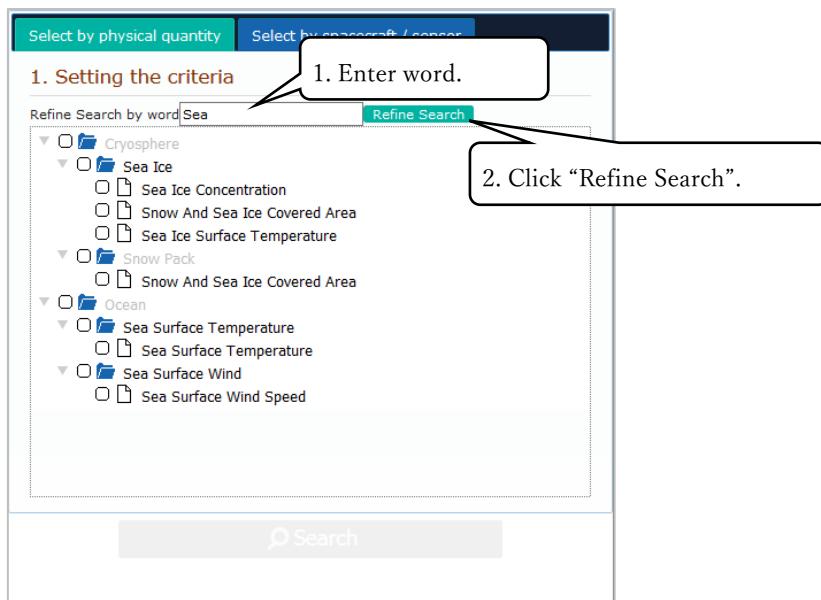
Appendix 4 Filter Search Conditions

The displayed items can be filtered by a variety of methods. There are four methods to filter searches as follows:

- Filter the physical quantity by words Appendix 4-1
- Filter the spacecrafts/sensors by words Appendix 4-2
- Filter the spacecrafts/sensors by processing level Appendix 4-3
- Filter the spacecrafts/sensors by functions Appendix 4-4

Appendix 4-1 Filter the physical quantity by words

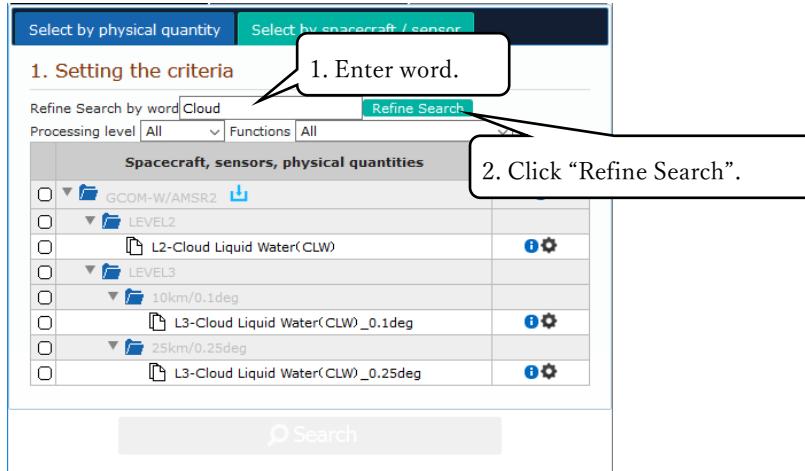
On window selecting pysical quantities as search condition, you can “refine search by” words relate to pysical quantities.



- 1) Enter the refining words on text field of “refine search” by window selecting pysical quantities.
- 2) Enter a word and click “Refine search”. Display only a pysical quantities relate to a word input by 1).

Appendix 4-2 Filter the spacecrafts/sensors by words

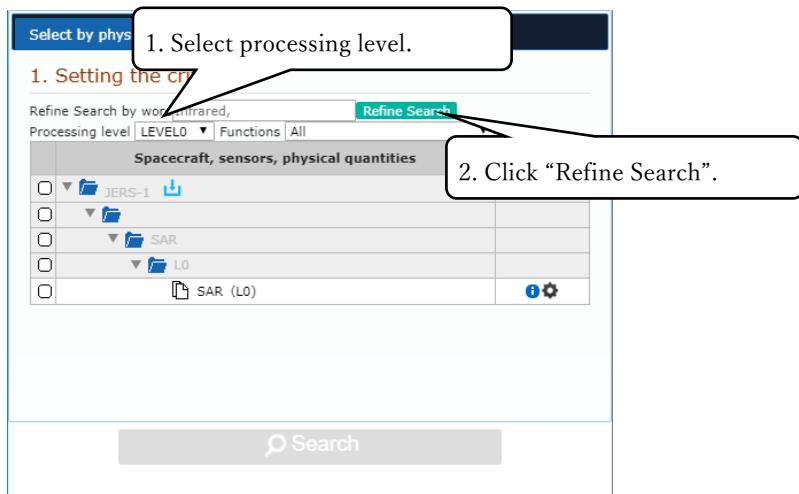
On window selecting spacecrft sensor under “search terms”, you can refine a word or words relate to spacecraft sensors.



- 1) Enter a word or words in “Refine search by word”text field on window selecting spacecraft sensor.
- 2) Click to “Refine search by word”under input words. Display only spacecraft sensor relate to word (or words) input by 1).

Appendix 4-3 Filter the spacecrafts/sensors by processing level

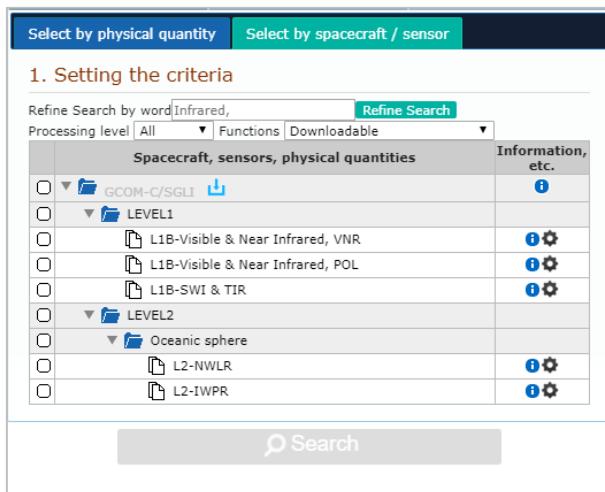
On window selecting spacecraft sensor as search term, and you can refine-search spacecraft sensor by process level.



- 1) Select process level from “process level” pulldown on window selecting aircraft sensor.
- 2) Under selecting process level and click “Refine search”, display only spacecraft sensor with processing level selected by 1).

Appendix 4-4 Filter the spacecrafts/sensors by processing level

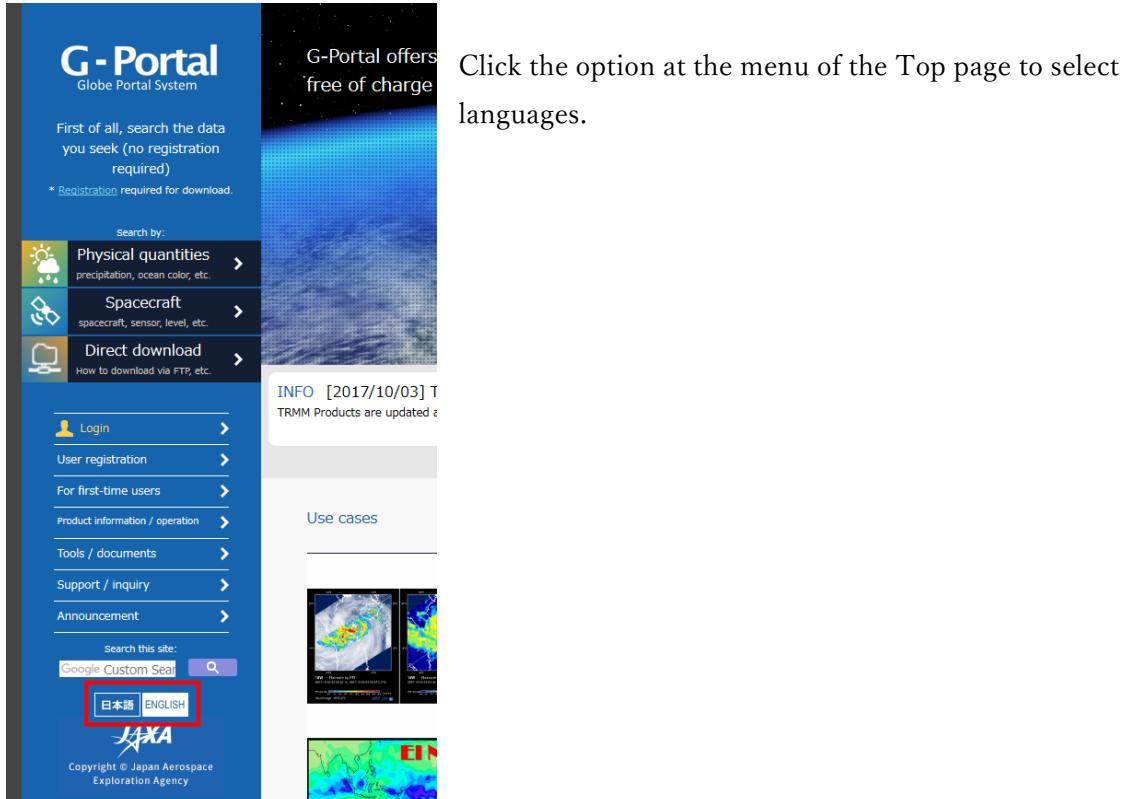
In window selecting spacecraft sensor on search term, you can refine-search by a displaying satellite sensor function(Yes/No for Download) .



- 1) Select“processing level”from ulldown function(Yes/No for Download) on window selecting spacecraft sensor.
- 2) Under selecting processing level, click “Refine search by word”. Only spacecraft sensor with processing level selected by 1)is displayed.

Appendix 5 Select the interface Language (Japanese/English)

Switch between Japanese and English displays from the Top page. The initial language display will be English if the OS of the computer you are using is in English or language other than Japanese, and Japanese if it is in Japanese.



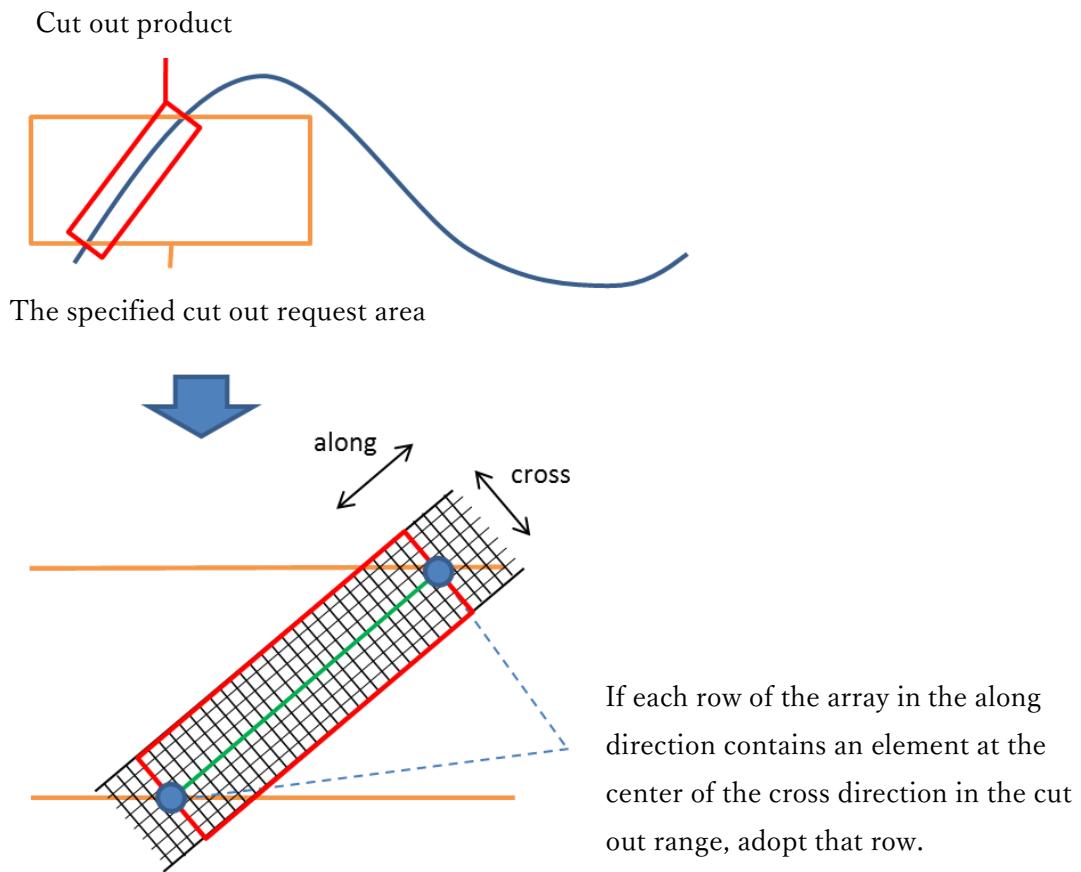
Appendix 6 【Supplement】 About processing function in G-Portal

In the processing function described in "4.5 Process a product", the notes on using AMSR / GPM processing function are described.

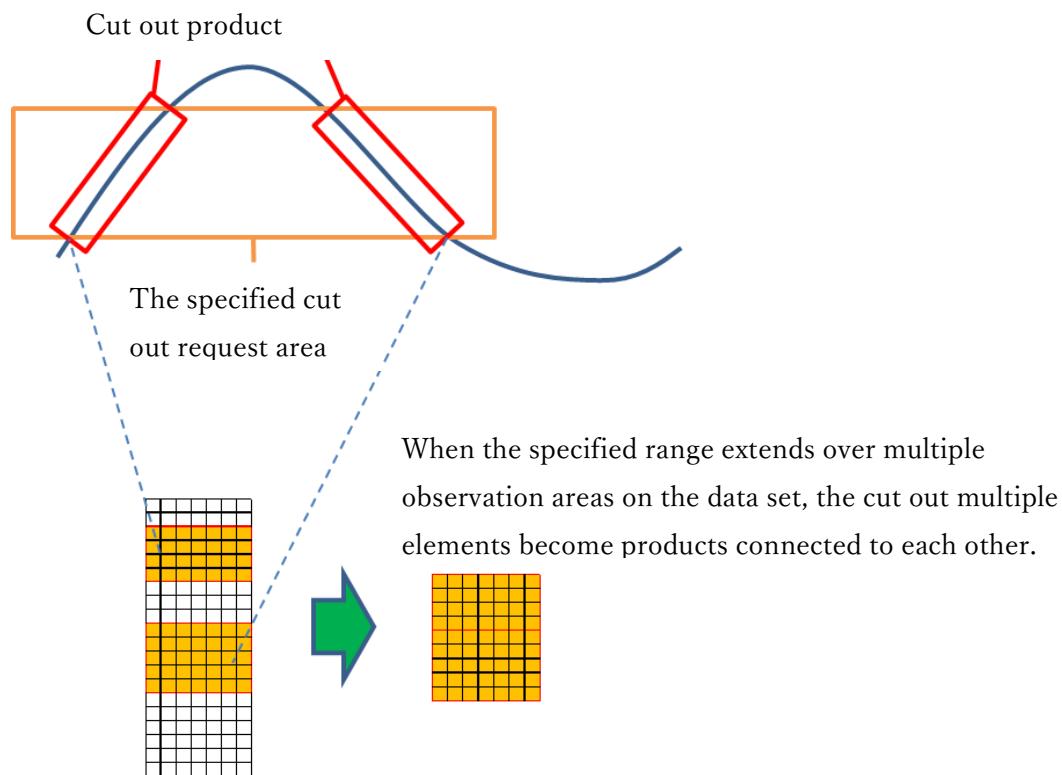
Appendix 6-1 Scope of region extraction

In the case of a product having an array along * cross with the direction of travel of the satellite, a rectangle selection is made on the map on the processing request screen, but the actual cut out product is only in the range existing in the original product It is based on whether the center is within the rectangular specified range or not.

In the case shown below, in order to determine the line (or column) of the cutout start / end, the center coordinates (the number of elements in the cross direction $\div 2$) of the data set having the coordinate information in the original product are specified It judges whether it is a coordinate included in the extraction range.



As a result of the judgment, extract the row (or column) of the adopted coordinate data set. Cut out elements in the same row (or column) as the elements of the extracted coordinate information in the data set to be cut out. The same applies when multiple observation areas are included in the cutout area.



Appendix 6-2 Specification of output format

AMSR · GPM processing function supports output in HDF5, NetCDF and text (ASCII) format. The definition of each format is described below.

Adding header information

When performing area extraction processing, the following information is added to the header information of the target data set. As for the cutout area, it is output in MULTIPOLYGON format of WKT (Well-known text) because it is cut out across multiple observation areas (see Appendix 6-1). This is common to all formats.

表 6-2-1 Information to add to the header

No.	Header element name	Output contents	Remarks
1	selected area	POLYGON((X1 Y1, X2, Y2, ...))	Map selection area
2	subset area	MULTIPOLYGON(((X1 Y1, X2 Y2, ...)), ((Xa Ya, Xb Yb, ...)), ...)	Cutout area

HDF5

file name ... 「ORDAAAAAAA_BBB.h5」

AAAAAAA : Production order number issued at processing request

BBB : Reference number (number assigned in the system. Not used)

When "Do not convert" is selected in the format conversion field, it is output in HDF 5 format. When variable extraction is specified, only the data set containing the target variable and the data set indicating the time (ScanTime etc.) and the data set showing the coordinates (lon, lat etc) are output, and the data set not selected and other Data set will not be output.

NetCDF

file name ... 「ORDAAAAAAA_BBB.nc」

AAAAAAA : Production order number issued at processing request

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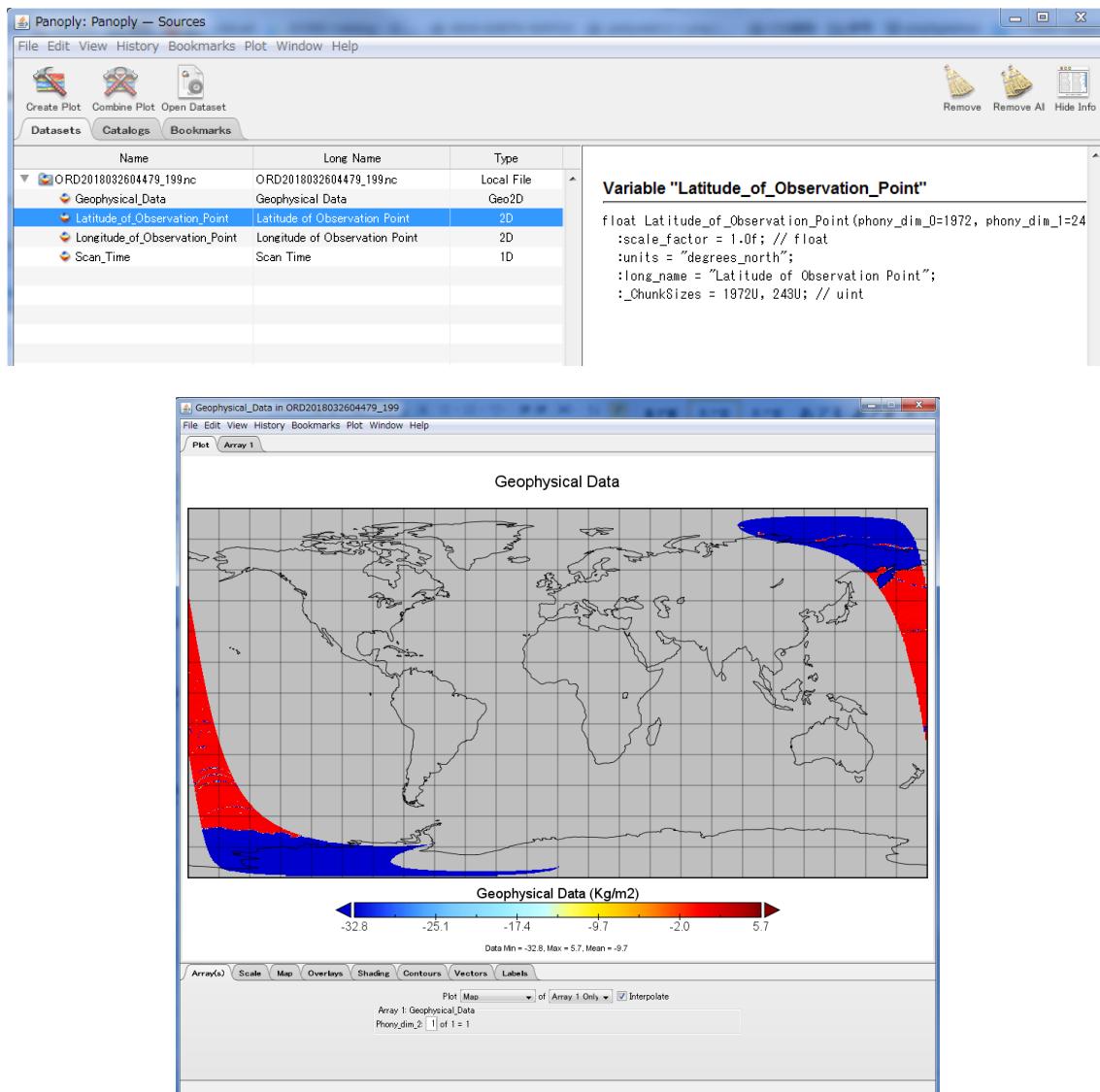
Appendix 7 Search using G-Portal CSW server

BBB : Reference number (number assigned in the system. Not used)

NetCDF format has the same structure as HDF 5 format, so if variable extraction is specified, it will be outputted in the same way as HDF 5 format (If only format conversion is specified, the data set structure will be output as it is). It conforms to CF Convention (<http://cfconventions.org/>) and can be displayed with software such as Panoply (※).

※NetCDF format, HDF format and other Grid data viewable software distributed at NASA GISS (<https://www.giss.nasa.gov/tools/panoply/download/>). In G-Portal, the operation is checked in version 4.8.10 to 4.9.0.

(Example display with PanoplyWin)



ASCII(csv)

file name

...

「ORDAAAAAAA_BBB(_C).h5」

AAAAAAA : Production order number issued at processing request

BBB : Reference number (number assigned in the system. Not used)

C : Branch number

When you decompressed the downloaded data in the zip compression format, the text file of the configuration shown below is stored. All the record contents of the header part are enclosed in "(double quote)".

The unit of the file to be output is one file for each element other than the target data set x coordinate, and when multiple files are output from the same data set, a branch number is added to the end of the file name for each element other than the coordinate. Please refer to Table 6-2-4 for the definition of branch number.

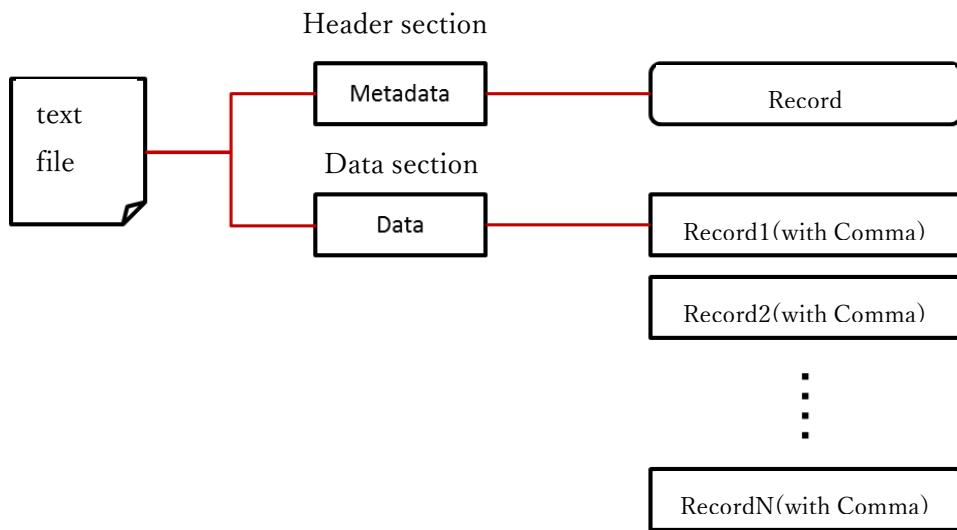


表 6-2-2 Header part output contents

No.	element	Output contents
1	Cut out variable	The physical quantity of the data set or product name specified on the screen
2	Start time	L1/L2 : In the content extracted from the time information data set, the first observation time

No.	element	Output contents
		L3 : Observation start time stored in header information
3	End time	L1/L2 : In the content extracted from the time information data set, the last observation time L3 : Observation end time stored in header information
4	Map selection area	Contents of selected area ※Set only for region extraction
5	Cutout area	Contents of subset area ※Set only for region extraction
6	Resolution	Grid information of the target data set Or contents of Resolution stored in the header information

表 6-2-3 Data section (1 line) Output contents

No.	element	title	Output contents
1	latitude	lat	Latitude of the grid of the target data set or latitude extracted from the coordinate information data set
2	longitude	lon	Longitude of the grid of the target data set or longitude extracted from the coordinate information data set
3	value	{Dataset name}	Value of the element of the target data set × Scale Factor
4	Times of Day	time	L1/L2 : Observation time cut out from time information data set L3 : None

(Text format output example)

ORD2018032704493_236_Geophysical Data.txt

1	Geophysical Data,2017-09-04T17:42:26.235Z,2017-09-04T17:50:48.685Z,POLYGON((-87.961 20.534,-47.883 20.534,-47.883 -9.9,-87.961 -9.9,-87.961 20.534)),MULTIPOLYGON((-74.4704 15.9804,-53.1712 15.9804,-53.1712 -16.4071,-74.4704 -16.4071,-74.4704 15.9804)),+lat,lon,Geophysical Data,time+
2	-14.1381,-53.1712,-32768,2017-09-04T17:42:26.235Z+
3	-14.0651,-53.2081,-32768,2017-09-04T17:42:26.235Z+
4	-13.9915,-53.2458,-32768,2017-09-04T17:42:26.235Z+
5	-13.9183,-53.2842,-32768,2017-09-04T17:42:26.235Z+
6	-13.8455,-53.3235,-32768,2017-09-04T17:42:26.235Z+

(How to assign branch number of text file)

Depending on the product, some of the elements in the dataset have three or more dimensions. If the data contains an array other than the observation area, set a branch number in the file name. The correspondence between each data set and branch number is as follows.

表 6-2-4 Correspondence between branch number and each data

data set	Variable name	Branch number
GPM Ku L1B	NS/Receiver/noiseCount NS/Receiver/noisePower	-
GPM Ka L1B	HS/Receiver/noiseCount HS/Receiver/noisePower	-
GPM Ku L2A	NS/SLV/zFactorCorrectedESurface NS/SLV/precipRateESurface NS/SLV/zFactorCorrectedNearSurface NS/SLV/precipRateNearSurface NS/CSF/typePrecip	-
GPM Ka L2A	HS/SLV/zFactorCorrectedESurface HS/SLV/precipRateESurface HS/SLV/zFactorCorrectedNearSurface HS/SLV/precipRateNearSurface HS/CSF/typePrecip	-
GPM DPR L2A	NS/SLV/zFactorCorrectedESurface NS/SLV/precipRateESurface NS/SLV/zFactorCorrectedNearSurface NS/SLV/precipRateNearSurface NS/CSF/typePrecip	-
GPM DPR L3 Daily	GRID/precipRateESurfMean GRID/precipPixESurf GRID/totalPix	1: KuNS, ASCENDING 2: DPRMS, ASCENDING 3: KuNS, DESCENDING 4: DPRMS DESCENDING
GPM DPR L3 Monthly	Grids/G2/precipRateNearSurfaceUnconditional	1: KuNS 2: KaMS 3: KaHS 4: DPRMS 5: KuMS
GPM GMI L1B	S1/Tb S2/Tb	channel in swath1 channel in swath2
GPM GMI L2	S1/surfacePrecipitation	-
GPM GMI L3 Monthly	Grid/surfacePrecipitation	-
GPM COMB L2	NS/surfPrecipTotRate	-
GPM COMB L3 Monthly	Grids/G1/precipTotRate/mean Grids/G2/precipTotRate/mean	(rt=all,hgt=0,only NS) 1:st=ocean 2:st=land 3:st=all 1: rt=all, hgt=0, NS
GSMap hourly	Grid/hourlyPrecipRate Grid/hourlyPrecipRateGC	-
GSMap monthly	Grid/monthlyPrecipRate Grid/monthlyPrecipRateGC	-
AMSR-E/2 L1B	Brightness Temperature (6.9GHz, H) Brightness Temperature (6.9GHz, V) Brightness Temperature (7.3GHz, H) Brightness Temperature (7.3GHz, V) Brightness Temperature (10.7GHz, H) Brightness Temperature (10.7GHz, V) Brightness Temperature (18.7GHz, H) Brightness Temperature (18.7GHz, V) Brightness Temperature (23.8GHz, H) Brightness Temperature (23.8GHz, V) Brightness Temperature (36.5GHz, H) Brightness Temperature (36.5GHz, V) Brightness Temperature (89.0GHz-A, H) Brightness Temperature (89.0GHz-A, V) Brightness Temperature (89.0GHz-B, H) Brightness Temperature (89.0GHz-B, V)	-

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data set	Variable name	Branch number
AMSR-E/2 L1R	Brightness Temperature (original, 89GHz-A, H) Brightness Temperature (original, 89GHz-A, V) Brightness Temperature (original, 89GHz-B, H) Brightness Temperature (original, 89GHz-B, V) Brightness Temperature (res06, 10.7GHz, H) Brightness Temperature (res06, 10.7GHz, V) Brightness Temperature (res06, 18.7GHz, H) Brightness Temperature (res06, 18.7GHz, V) Brightness Temperature (res06, 23.8GHz, H) Brightness Temperature (res06, 23.8GHz, V) Brightness Temperature (res06, 36.5GHz, H) Brightness Temperature (res06, 36.5GHz, V) Brightness Temperature (res06, 6.9GHz, H) Brightness Temperature (res06, 6.9GHz, V) Brightness Temperature (res06, 7.3GHz, H) Brightness Temperature (res06, 7.3GHz, V) Brightness Temperature (res06, 89.0GHz, H) Brightness Temperature (res06, 89.0GHz, V) Brightness Temperature (res10, 10.7GHz, H) Brightness Temperature (res10, 10.7GHz, V) Brightness Temperature (res10, 18.7GHz, H) Brightness Temperature (res10, 18.7GHz, V) Brightness Temperature (res10, 23.8GHz, H) Brightness Temperature (res10, 23.8GHz, V) Brightness Temperature (res10, 36.5GHz, H) Brightness Temperature (res10, 36.5GHz, V) Brightness Temperature (res10, 89.0GHz, H) Brightness Temperature (res10, 89.0GHz, V) Brightness Temperature (res23, 18.7GHz, H) Brightness Temperature (res23, 18.7GHz, V) Brightness Temperature (res23, 23.8GHz, H) Brightness Temperature (res23, 23.8GHz, V) Brightness Temperature (res23, 36.5GHz, H) Brightness Temperature (res23, 36.5GHz, V) Brightness Temperature (res23, 89.0GHz, H) Brightness Temperature (res23, 89.0GHz, V) Brightness Temperature (res36, 36.5GHz, H) Brightness Temperature (res36, 36.5GHz, V) Brightness Temperature (res36, 89.0GHz, H) Brightness Temperature (res36, 89.0GHz, V)	-
AMSR-E/2 SST L2 Low	Geophysical Data	1: SST(6GHz) 2: SST(10GHz)
AMSR-E/2 SND L2 Low	Geophysical Data	1: SND 2: SWE
AMSR-E/2 L2 Low (SST, Data other than SND)	Geophysical Data	-
AMSR-E/2 L2 High	Geophysical Data for 89A Geophysical Data for 89B	-
AMSR-E/2 L3 Daily TB	Brightness Temperature (V) Brightness Temperature (H)	-
AMSR-E/2 L3 Daily SST	Geophysical Data	1: SST(6GHz) 2: SST(10GHz)
AMSR-E/2 L3 Daily SND	Geophysical Data	1: SND 2: SWE
AMSR-E/2 L3 Daily (TB, SST, Data other than SND)	Geophysical Data	-

Appendix 7 Search using G-Portal CSW server

Appendix 7-1 Search by OpenSearch (HTTP-Get)

- Search result format

GeoJSON,HTML,ISO19115,ebRIM,atom,DublinCore

- Search all

- URL

<https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords>

- 実行例

```
$ curl -o result1.xml 'https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords'
```

- Specifying the result format

Specify the search result format following outputFormat. The following format can be specified. When specifying xml format other than atom for output, specify outputSchema as well. If not specified, DublinCore is selected.

Output format	outputFormat	outputSchema
GeoJSON	application/json	-
HTML	text/html	-
ISO19115	application/xml	http://www.isotc211.org/2005/gmd
ebRIM	application/xml	urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0
atom	application/atom%2bxml	-
DublinCore	application/xml	http://www.isotc211.org/2005/gmd

- GeoJSON

- URL

<https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json>

- HTML

- URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=text/html`
- ISO19115
 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/xml&outputSchema=http://www.isotc211.org/2005/gmd`
- ebRIM
 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/xml&outputSchema=urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0`
- atom
 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/atom%2bxml`
- DublinCore
 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/xml&outputSchema=http://www.isotc211.org/2005/gmd`
- Specify the number of results

After the count, specify the number of search results. The default is 20 and the maximum is 3000.

 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json&count=3`

In addition, you can specify the start location of the search result following startIndex.

 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json&count=3&startIndex=4`
- Specify dataset ID

The GPortal CSW server generates a table on a satellite basis, and decides the table that holds the catalog data using the data set ID as a key.

The data set ID is shown in the table below for the satellite unit.

Satellite name	Dataset ID
GCOM-C	10001000-10999999
GCOM-W1	11001000-11999999
GPM	12001000-12999999
GPM Constellation	13001000-13999999
GSMAp	14003000-14999999
TRMM	15001000-15999999
EarthCARE	16001000-16999999
JERS-1	17002000-17999999
TRMM(EOC)	18001000-18999999
MOS-1	19000000-19999999
MOS-1b	20000000-20999999
CIRC	21001000-21999999
ADEOS	22001000-22999999
ADEOS-II	23001000-23999999
AQUA	24001000-24999999
AQUA AMSR-E	25001000-25999999
ALOS	26004000-26999999
ALOS-2	27004000-27999999
AQUA(NASA-CMR)	28001000-28999999
TERRA(NASA-CMR)	29000000-29999999

When searching by OpenSearch, specify dataset ID after designating datasetId.

You can specify multiple ranges with "+", multiple designations with ",".

- Data set ID specification
 - URL
<https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json&datasetId=11001000>
- Data set ID specification (range specification)

- URL

`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json&datasetId=11000000+11999999`

- Data set ID specification (multiple specifications)

- URL

`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json&datasetId=11001000,11001002`

- Specify search conditions

The following parameters can be specified as search conditions.

Search entry	String specified as parameter
Dataset ID	datasetId
identifier	id
Coordinate information	bbox
updateTime	updateTime
polar stereo	pseq
acquisitionType	aqtype
imageQualityDegradation	deg
processingDate	psdate
processingLevel	pslv
beginPosition	startTime
endPosition	endTime
satelliteName	sat
sensorName	sen
operationalMode	operationalMode
wrsLongitudeGrid	pathno
wrsLatitudeGrid	rowno
orbitNumber	orbitno
lastOrbitNumber	lastorbitno
acrossTrackIncidenceAngle	pointingAngle
polarisationChannels	polarisation
daynight	daynight
version	prdver
cloudCoverPercentage	cloud

Search entry	String specified as parameter
totalQualityCode	quality
physicalQuantity	physicalQuantity
Resolution	resolution
numberMissingData	numberMissingData
sceneNumber	sceneNumber
orbitDirection	orbitDirection
tileHNo	tileHNo
tileVNo	tileVNo
tiltSegmentNumber	tiltSegmentNumber
RSPPPathNumber	RSPPPathNumber
sensorNumber	sensorNumber
offNadirAngle	offNadir
orbitStatus	orbitStatus
ProcessTimeUnit	ProcessTimeUnit

- Search by granule ID
 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json&id=GW1AM2_20151200_01M_EQMA_L3SGCLWHD2210210`
- Search by satellite, sensor name
 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json&sat=ALOS&sen=PRISM`
- Search by observation date and time
 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json&startTime=2016-11-01T00:00:00Z&endTime=2016-11-01T23:59:59Z`
- Search by coordinate information
 - URL
`https://gportal.jaxa.jp/csw/csw?service=CSW&version=3.0.0&request=GetRecords&outputFormat=application/json&bbox=130,30,140,40`

Appendix 7-2 Search by ebRIM (HTTP-POST)

- Search result format

ebRIM

- Search all

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request1.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<csw:GetRecords
    service="CSW"
    version="2.0.2"
    outputSchema="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    resultType="results"
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:rim="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
    http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
    <csw:Query typeNames="rim:RegistryPackage rim:ExtrinsicObject">
        <csw:ElementSetName
            typeNames="rim:RegistryPackage">full</csw:ElementSetName>
    </csw:Query>
</csw:GetRecords>
```

- Example of execution

```
$ curl --header 'Content-Type: application/xml; charset=utf-8;' --data-binary
@request1.xml -o result1.xml https://gportal.jaxa.jp/csw/csw
```

All items are searched and the results are output in ebRIM format.

- Specify the number of results

csw: Specify the number of search results in attribute maxRecords of GetRecords tag. The default is 10 and the maximum is 3000.

You can specify the start location of the search result in the attribute startIndex.

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request2.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<csw:GetRecords
    service="CSW"
    version="2.0.2"
    outputSchema="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    resultType="results"
    startPosition="4"
    maxRecords="3"
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:rim="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
    <csw:Query typeNames="rim:RegistryPackage rim:ExtrinsicObject">
        <csw:ElementSetName
            typeNames="rim:RegistryPackage">full</csw:ElementSetName>
    </csw:Query>
</csw:GetRecords>
```

- Specify search conditions

csw: GetRecords / csw: Query / csw: Constraint / ogc: Filter Specify the search condition in the tag. Items that can be specified as search criteria are as follows.

Search entry	String specified in request xml
identifier	/rim:ExternalIdentifier/@value
parentIdentifier	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::parentIdentifier"]/rim:ValueList/rim:Value[1]
Coordinate information(*)	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::multiExtentOf"]/wrs:ValueList/wrs:AnyValue[1]
beginPosition	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::beginPosition"]/rim:ValueList/rim:Value[1]
lastOrbitNumber	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::lastOrbitNumber"]/rim:ValueList/rim:Value[1]
acrossTrackIncidenceAngle	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::acrossTrackIncidenceAngle"]/rim:ValueList/rim:Val

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Search entry	String specified in request xml
	ue[1]
satelliteName	/rim:ExtrinsicObject/rim:Name/rim:LocalizedString/@value
instrumentShortName	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::instrumentShortName"]/rim:ValueList/rim:Value[1]
sensorType	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::sensorType"]/rim:ValueList/rim:Value[1]
sensorOperationalMode	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::sensorOperationalMode"]/rim:ValueList/rim:Value[1]
polarisationMode	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::polarisationMode"]/rim:ValueList/rim:Value[1]
polarisationChannels	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::polarisationChannels"]/rim:ValueList/rim:Value[1]
antennaLookDirection	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::antennaLookDirection"]/rim:ValueList/rim:Value[1]
minimumIncidenceAngle	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::minimumIncidenceAngle"]/rim:ValueList/rim:Value[1]
maximumIncidenceAngle	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::maximumIncidenceAngle"]/rim:ValueList/rim:Value[1]
dopplerFrequency	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::dopplerFrequency"]/rim:ValueList/rim:Value[1]
incidenceAngleVariation	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::incidenceAngleVariation"]/rim:ValueList/rim:Value[1]
illuminationAzimuthAngle	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::illuminationAzimuthAngle"]/rim:ValueList/rim:Value[1]
illuminationElevationAngle	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::illuminationElevationAngle"]/rim:ValueList/rim:Value[1]
snowCoverPercentag	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS

Search entry	String specified in request xml
e	W-ebRIM-EO::snowCoverPercentage"]/rim:ValueList/rim:Value[1]]
highestLocation	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::highestLocation"]/rim:ValueList/rim:Value[1]
lowestLocation	/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS W-ebRIM-EO::lowestLocation"]/rim:ValueList/rim:Value[1]

- Search by identifier (granule ID)

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request3.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<csw:GetRecords
    service="CSW"
    version="2.0.2"
    outputSchema="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    resultType="results"
    startPosition="1"
    maxRecords="10"
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:ogc="http://www.opengis.net/ogc"
    xmlns:rim="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
    http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
    <csw:Query typeNames="rim:RegistryPackage rim:ExtrinsicObject">
        <csw:ElementSetName
            typeNames="rim:RegistryPackage">full</csw:ElementSetName>
        <csw:Constraint version="1.1.0">
            <ogc:Filter>
                <ogc:PropertyIsEqualTo>
                    <ogc:PropertyName>/rim:ExternalIdentifier/@value</ogc:PropertyName>
                    <ogc:Literal>GW1AM2_20151200_01M_EQMA_L3SGCLWHD2210210</ogc:Literal>
```

```
>
  </ogc:PropertyIsEqualTo>
</ogc:Filter>
</csw:Constraint>
</csw:Query>
</csw:GetRecords>
```

- Search by satellite, sensor name

Combine search conditions for satellite name and sensor name with and.

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request4.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<csw:GetRecords
  service="CSW"
  version="2.0.2"
  outputSchema="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
  resultType="results"
  startPosition="1"
  maxRecords="10"
  xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
  xmlns:ogc="http://www.opengis.net/ogc"
  xmlns:gml="http://www.opengis.net/gml"
  xmlns:rim="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
  http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
  <csw:Query typeNames="rim:RegistryPackage rim:ExtrinsicObject">
    <csw:ElementSetName
      typeNames="rim:RegistryPackage">full</csw:ElementSetName>
      <csw:Constraint version="1.1.0">
        <ogc:Filter>
          <ogc:And>
            <ogc:PropertyIsEqualTo>

<ogc:PropertyName>/rim:ExtrinsicObject/rim:Name/rim:LocalizedString/@value</og
```

```
c:PropertyName>
    <ogc:Literal>ALOS</ogc:Literal>
    </ogc:PropertyIsEqualTo>
    <ogc:PropertyIsEqualTo>

<ogc:PropertyName>/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS
W-ebRIM-EO::instrumentShortName"]/rim:ValueList/rim:Value[1]</ogc:PropertyName>
    <ogc:Literal>PRISM</ogc:Literal>
    </ogc:PropertyIsEqualTo>
</ogc:And>
</ogc:Filter>
</csw:Constraint>
</csw:Query>
</csw:GetRecords>
```

- Search by observation date and time (1)

Use ogc: PropertyIsBetween

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request5.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<csw:GetRecords
    service="CSW"
    version="2.0.2"
    outputSchema="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    resultType="results"
    startPosition="1"
    maxRecords="10"
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:ogc="http://www.opengis.net/ogc"
    xmlns:gml="http://www.opengis.net/gml"
    xmlns:rim="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
        http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
```

```

<csw:Query typeNames="rim:RegistryPackage rim:ExtrinsicObject">
  <csw:ElementSetName
    typeNames="rim:RegistryPackage">full</csw:ElementSetName>
  <csw:Constraint version="1.1.0">
    <ogc:Filter>
      <ogc:PropertyIsBetween>

        <ogc:PropertyName>/rim:ExtrinsicObject/rim:Slot[@name='urn:ogc:def:slot:OGC-CS
        W-ebRIM-EO::beginPosition']/rim:ValueList/rim:Value[1]</ogc:PropertyName>
        <ogc:LowerBoundary>
          <ogc:Literal>2016-11-01T00:00:00Z</ogc:Literal>
        </ogc:LowerBoundary>
        <ogc:UpperBoundary>
          <ogc:Literal>2016-11-01T23:59:59Z</ogc:Literal>
        </ogc:UpperBoundary>
      </ogc:PropertyIsBetween>
    </ogc:Filter>
  </csw:Constraint>
</csw:Query>
</csw:GetRecords>

```

- Search by observation date and time (2)

Use ogc: PropertyIsGreaterThanOrEqualTo, ogc: PropertyIsLessThanOrEqualTo

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request6.xml)

```

<?xml version="1.0" encoding="UTF-8"?>
<csw:GetRecords
  service="CSW"
  version="2.0.2"
  outputSchema="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
  resultType="results"
  startPosition="1"
  maxRecords="10"
  xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
  xmlns:ogc="http://www.opengis.net/ogc"

```

```
xmlns:gml="http://www.opengis.net/gml"
xmlns:rim="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
<csw:Query typeNames="rim:RegistryPackage rim:ExtrinsicObject">
  <csw:ElementSetName
    typeNames="rim:RegistryPackage">full</csw:ElementSetName>
  <csw:Constraint version="1.1.0">
    <ogc:Filter>
      <ogc:And>
        <ogc:PropertyIsGreaterThanOrEqualTo
          <ogc:PropertyName>/rim:ExtrinsicObject/rim:Slot[@name='urn:ogc:def:slot:OGC-C
SW-ebRIM-EO::beginPosition']/rim:ValueList/rim:Value[1]
          </ogc:PropertyName>
          <ogc:Literal>2016-11-01T00:00:00Z</ogc:Literal>
        </ogc:PropertyIsGreaterThanOrEqualTo>
        <ogc:PropertyIsLessThanOrEqualTo
          <ogc:PropertyName>/rim:ExtrinsicObject/rim:Slot[@name='urn:ogc:def:slot:OGC-C
SW-ebRIM-EO::beginPosition']/rim:ValueList/rim:Value[1]
          </ogc:PropertyName>
          <ogc:Literal>2016-11-01T23:59:59Z</ogc:Literal>
        </ogc:PropertyIsLessThanOrEqualTo>
      </ogc:And>
    </ogc:Filter>
  </csw:Constraint>
</csw:Query>
</csw:GetRecords>
```

- Search by observation date and time (3)
Use ogc: PropertyIsGreaterThanOrEqualTo, ogc: PropertyIsLessThanOrEqualTo
- URL
<https://gportal.jaxa.jp/csw/csw>
- Data to POST (request7.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<csw:GetRecords
    service="CSW"
    version="2.0.2"
    outputSchema="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    resultType="results"
    startPosition="1"
    maxRecords="10"
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:ogc="http://www.opengis.net/ogc"
    xmlns:gml="http://www.opengis.net/gml"
    xmlns:rim="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
    <csw:Query typeNames="rim:RegistryPackage rim:ExtrinsicObject">
        <csw:ElementSetName
            typeNames="rim:RegistryPackage">full</csw:ElementSetName>
        <csw:Constraint version="1.1.0">
            <ogc:Filter>
                <ogc:And>
                    <ogc:PropertyIsGreaterThanOrEqualTo>
<ogc:PropertyName>/rim:ExtrinsicObject/rim:Slot[@name='urn:ogc:def:slot:OGC-C
SW-ebRIM-EO::beginPosition']/rim:ValueList/rim:Value[1]
                    </ogc:PropertyName>
                    <ogc:Literal>2016-11-01T00:00:00Z</ogc:Literal>
                </ogc:PropertyIsGreaterThanOrEqualTo>
                <ogc:PropertyIsLessThanOrEqualTo>
<ogc:PropertyName>/rim:ExtrinsicObject/rim:Slot[@name='urn:ogc:def:slot:OGC-C
SW-ebRIM-EO::beginPosition']/rim:ValueList/rim:Value[1]
                    </ogc:PropertyName>
                    <ogc:Literal>2016-11-01T23:59:59Z</ogc:Literal>
                </ogc:PropertyIsLessThanOrEqualTo>
            </ogc:And>
```

```

        </ogc:Filter>
    </csw:Constraint>
</csw:Query>
</csw:GetRecords>

• Search by coordinate information
• URL
https://gportal.jaxa.jp/csw/csw
• Data to POST (request8.xml)
<?xml version="1.0" encoding="UTF-8"?>
<csw:GetRecords
    service="CSW"
    version="2.0.2"
    outputSchema="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    resultType="results"
    startPosition="1"
    maxRecords="10"
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:wrs="http://www.opengis.net/cat/wrs/1.0"
    xmlns:ogc="http://www.opengis.net/ogc"
    xmlns:gml="http://www.opengis.net/gml"
    xmlns:rim="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
    <csw:Query typeNames="rim:RegistryPackage rim:ExtrinsicObject">
        <csw:ElementSetName
        typeNames="rim:RegistryPackage">full</csw:ElementSetName>
        <csw:Constraint version="1.1.0">
            <ogc:Filter>
                <ogc:Intersects>

<ogc:PropertyName>/rim:ExtrinsicObject/rim:Slot[@name="urn:ogc:def:slot:OGC-CS
W-ebRIM-EO::multiExtentOf"]/wrs:ValueList/wrs:AnyValue[1]</ogc:PropertyName>
                <gml:Envelope srsName="EPSG:4326">
                    <gml:lowerCorner>140 40</gml:lowerCorner>

```

```
<gml:upperCorner>130 30</gml:upperCorner>
</gml:Envelope>
</ogc:Intersects>
</ogc:Filter>
</csw:Constraint>
</csw:Query>
</csw:GetRecords>
```

Appendix 7-3 Search according to ISO 19115 (HTTP-POST)

- Search result format

ISO19115

- Search all

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request1.xml)

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<csw:GetRecords>
```

```
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:ogc="http://www.opengis.net/ogc"
    service="CSW"
    version="2.0.2"
    resultType="results"
    outputFormat="application/xml"
    outputSchema="http://www.isotc211.org/2005/gmd"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
    http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
```

```
    <csw:Query typeNames="gmd:MD_Metadata">
        <csw:ElementSetName>full</csw:ElementSetName>
    </csw:Query>
```

</csw:GetRecords>

- Example of execution

```
$ curl --header 'Content-Type: application/xml; charset=utf-8;' --data-binary
@request1.xml -o result1.xml https://gportal.jaxa.jp/csw/csw
```

Search all items and output the results in ISO 19115 format.

- Specify the number of results

csw: Specify the number of search results in attribute maxRecords of GetRecords tag.

The default is 10 and the maximum is 3000.

You can also specify the start location of the search result in the attribute startIndex.

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request2.xml)

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<csw:GetRecords
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:ogc="http://www.opengis.net/ogc"
    service="CSW"
    version="2.0.2"
    resultType="results"
    startPosition="4"
    maxRecords="3"
    outputFormat="application/xml"
    outputSchema="http://www.isotc211.org/2005/gmd"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
    http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
    <csw:Query typeNames="gmd:MD_Metadata">
        <csw:ElementSetName>full</csw:ElementSetName>
    </csw:Query>
</csw:GetRecords>
```

- Specify search conditions

csw: GetRecords / csw: Query / csw: Constraint / ogc: Filter Specify the search condition in the tag. Items that can be specified as search criteria are as follows.

Search entry	String specified in request xml
Identifier	Identifier
Title	Title
Abstract	Abstract

Modified	Modified
Coordinate information(*)	BoundingBox
ParentIdentifier	ParentIdentifier
TopicCategory	TopicCategory
TemporalExtent	TemporalExtent
AnyText	AnyText

- Search by identifier (granule ID)

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request3.xml)

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<csw:GetRecords
```

```
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:ogc="http://www.opengis.net/ogc"
    service="CSW"
    version="2.0.2"
    resultType="results"
    startPosition="1"
    maxRecords="10"
    outputFormat="application/xml"
    outputSchema="http://www.isotc211.org/2005/gmd"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
    http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
```

```
    <csw:Query typeNames="gmd:MD_Metadata">
        <csw:ElementSetName>full</csw:ElementSetName>
        <csw:Constraint version="1.1.0">
            <ogc:Filter>
                <ogc:PropertyIsEqualTo>
                    <ogc:PropertyName>Identifier</ogc:PropertyName>
```

```
<ogc:Literal>GW1AM2_20151200_01M_EQMA_L3SGCLWHD2210210</ogc:Literal>
</ogc:PropertyIsEqualTo>
</ogc:Filter>
</csw:Constraint>
</csw:Query>
</csw:GetRecords>
```

- Search by observation date and time (1)

Use ogc: PropertyIsBetween

- URL

https://gportal.jaxa.jp/csw/csw

- Data to POST (request4.xml)

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<csw:GetRecords
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:ogc="http://www.opengis.net/ogc"
    service="CSW"
    version="2.0.2"
    resultType="results"
    startPosition="1"
    maxRecords="10"
    outputFormat="application/xml"
    outputSchema="http://www.isotc211.org/2005/gmd"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
    http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
    <csw:Query typeNames="gmd:MD_Metadata">
        <csw:ElementSetName>full</csw:ElementSetName>
        <csw:Constraint version="1.1.0">
            <ogc:Filter>
                <ogc:PropertyIsBetween>
                    <ogc:PropertyName>TemporalExtent</ogc:PropertyName>
                    <ogc:LowerBoundary>
                        <ogc:Literal>2016-11-01T00:00:00Z</ogc:Literal>
                    </ogc:LowerBoundary>
                    <ogc:UpperBoundary>
                        <ogc:Literal>2016-11-01T23:59:59Z</ogc:Literal>
                    </ogc:UpperBoundary>
                </ogc:PropertyIsBetween>
            </ogc:Filter>
        </csw:Constraint>
    </csw:Query>
</csw:GetRecords>
```

- Search by observation date and time (2)

Use ogc: PropertyIsGreaterThanOrEqualTo, ogc: PropertyIsLessThanOrEqualTo

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request5.xml)

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<csw:GetRecords
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:ogc="http://www.opengis.net/ogc"
    service="CSW"
    version="2.0.2"
    resultType="results"
    startPosition="1"
    maxRecords="10"
    outputFormat="application/xml"
    outputSchema="http://www.isotc211.org/2005/gmd"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
    http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
    <csw:Query typeNames="gmd:MD_Metadata">
        <csw:ElementSetName>full</csw:ElementSetName>
        <csw:Constraint version="1.1.0">
            <ogc:Filter>
                <ogc:And>
                    <ogc:PropertyIsGreaterThanOrEqualTo>
                        <ogc:PropertyName>TemporalExtent</ogc:PropertyName>
                        <ogc:Literal>2016-11-01T00:00:00Z</ogc:Literal>
                    </ogc:PropertyIsGreaterThanOrEqualTo>
                    <ogc:PropertyIsLessThanOrEqualTo>
                        <ogc:PropertyName>TemporalExtent</ogc:PropertyName>
                        <ogc:Literal>2016-11-01T23:59:59Z</ogc:Literal>
                    </ogc:PropertyIsLessThanOrEqualTo>
                </ogc:And>
            </ogc:Filter>
```

```
</csw:Constraint>
</csw:Query>
</csw:GetRecords>
```

- Search by observation date and time (3)

Use ogc: PropertyIsGreaterThanOrEqualTo, ogc: PropertyIsLessThanOrEqualTo

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request6.xml)

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<csw:GetRecords
  xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
  xmlns:ogc="http://www.opengis.net/ogc"
  service="CSW"
  version="2.0.2"
  resultType="results"
  startPosition="1"
  maxRecords="10"
  outputFormat="application/xml"
  outputSchema="http://www.isotc211.org/2005/gmd"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
  http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
  <csw:Query typeNames="gmd:MD_Metadata">
    <csw:ElementSetName>full</csw:ElementSetName>
    <csw:Constraint version="1.1.0">
      <ogc:Filter>
        <ogc:And>
          <ogc:PropertyIsGreaterThanOrEqualTo>
            <ogc:PropertyName>TemporalExtent</ogc:PropertyName>
            <ogc:Literal>2016-11-01T00:00:00Z</ogc:Literal>
          </ogc:PropertyIsGreaterThanOrEqualTo>
          <ogc:PropertyIsLessThanOrEqualTo>
            <ogc:PropertyName>TemporalExtent</ogc:PropertyName>
```

```

<ogc:Literal>2016-11-01T23:59:59Z</ogc:Literal>
</ogc:PropertyIsLessThanOrEqualTo>
</ogc:And>
</ogc:Filter>
</csw:Constraint>
</csw:Query>
</csw:GetRecords>

```

- Search by coordinate information

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request7.xml)

```

<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<csw:GetRecords
    xmlns:csw="http://www.opengis.net/cat/csw/2.0.2"
    xmlns:ogc="http://www.opengis.net/ogc"
    xmlns:gml="http://www.opengis.net/gml"
    service="CSW"
    version="2.0.2"
    resultType="results"
    startPosition="1"
    maxRecords="10"
    outputFormat="application/xml"
    outputSchema="http://www.isotc211.org/2005/gmd"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.opengis.net/cat/csw/2.0.2
    http://schemas.opengis.net/csw/2.0.2/CSW-discovery.xsd">
    <csw:Query typeNames="gmd:MD_Metadata">
        <csw:ElementSetName>full</csw:ElementSetName>
        <csw:Constraint version="1.1.0">
            <ogc:Filter>
                <ogc:Intersects>
                    <ogc:PropertyName>BoundingBox</ogc:PropertyName>
                    <gml:Envelope srsName="EPSG:4326">
                        <gml:lowerCorner>140 40</gml:lowerCorner>
                        <gml:upperCorner>130 30</gml:upperCorner>

```

```
</gml:Envelope>
</ogc:Intersects>
</ogc:Filter>
</csw:Constraint>
</csw:Query>
</csw:GetRecords>
```

Appendix 7-4 Search by CSW 3.0 (HTTP-POST)

- Search result format

GeoJSON,ISO19115,ebRIM,DublinCore

- Search all

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request1.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
  service="CSW"
  version="3.0.0"
  xmlns="http://www.opengis.net/cat/csw/3.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Query typeNames="Record">
    <ElementSetName>full</ElementSetName>
  </Query>
</GetRecords>
```

- Example of execution

```
$ curl --header 'Content-Type: application/xml; charset=utf-8;' --data-binary
@request1.xml -o result1.xml https://gportal.jaxa.jp/csw/csw
```

Search all items and the results are output in DublinCore format (OGC CSW default).

- Specifying the result format

Specify the search result format with the attribute outputFormat of the GetRecords tag.

The following format can be specified. When specifying xml format as output, also specify outputSchema. If not specified, DublinCore is selected.

Output format	outputFormat	outputSchema
GeoJSON	application/json	-
ISO19115	application/xml	http://www.isotc211.org/2005/gmd
ebRIM	application/xml	urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0
DublinCore	application/xml	http://www.opengis.net/cat/csw/3.0

- GeoJSON
 - URL
<https://gportal.jaxa.jp/csw/csw>
 - Data to POST (request2.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
    service="CSW"
    version="3.0.0"
    outputFormat="application/json"
    xmlns="http://www.opengis.net/cat/csw/3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <Query typeNames="Record">
        <ElementSetName>full</ElementSetName>
    </Query>
</GetRecords>
```
- ISO19115
 - URL
<https://gportal.jaxa.jp/csw/csw>
 - Data to POST (request3.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
    service="CSW"
    version="3.0.0"
    outputFormat="application/xml"
    outputSchema="http://www.isotc211.org/2005/gmd"
    xmlns="http://www.opengis.net/cat/csw/3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <Query typeNames="Record">
        <ElementSetName>full</ElementSetName>
    </Query>
</GetRecords>
```
- ebRIM
 - URL
<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request4.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
    service="CSW"
    version="3.0.0"
    outputFormat="application/xml"
    outputSchema="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
    xmlns="http://www.opengis.net/cat/csw/3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <Query typeNames="Record">
        <ElementSetName>full</ElementSetName>
    </Query>
</GetRecords>
```

- DublinCore

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request5.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
    service="CSW"
    version="3.0.0"
    outputFormat="application/xml"
    outputSchema="http://www.opengis.net/cat/csw/3.0"
    xmlns="http://www.opengis.net/cat/csw/3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <Query typeNames="Record">
        <ElementSetName>full</ElementSetName>
    </Query>
</GetRecords>
```

- Specify the number of results

csw: Specify the number of search results in attribute maxRecords of GetRecords tag. The default is 10 and the maximum is 3000.

You can also specify the start location of the search result in the attribute startIndex.

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request6.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
    service="CSW"
    version="3.0.0"
    outputFormat="application/json"
    startPosition="4"
    maxRecords="3"
    xmlns="http://www.opengis.net/cat/csw/3.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <Query typeNames="Record">
        <ElementSetName>full</ElementSetName>
    </Query>
</GetRecords>
```

- Specify search conditions

GetRecords / Query / Constraint / fes: Specify search conditions in the Filter tag. Items that can be specified as search criteria are as follows.

Search entry	String specified in request xml
Dataset ID	datasetId
identifier	identifier
Coordinate information	footprint
updateTime	updateTime
polar stereo	pseq
acquisitionType	acquisitionType
imageQualityDegradation	imageQualityDegradation
processingDate	processingDate
processingLevel	processingLevel
beginPosition	beginPosition
endPosition	endPosition
satelliteName	satelliteName
sensorName	sensorName

Search entry	String specified in request xml
operationalMode	operationalMode
wrsLongitudeGrid	wrsLongitudeGrid
wrsLatitudeGrid	wrsLatitudeGrid
orbitNumber	orbitNumber
lastOrbitNumber	lastOrbitNumber
acrossTrackIncidenceAngle	acrossTrackIncidenceAngle
polarisationChannels	polarisationChannels
daynight	daynight
version	version
cloudCoverPercentage	cloudCoverPercentage
totalQualityCode	totalQualityCode
physicalQuantity	physicalQuantity
Resolution	Resolution
numberMissingData	numberMissingData
sceneNumber	sceneNumber
orbitDirection	orbitDirection
tileHNo	tileHNo
tileVNo	tileVNo
tiltSegmentNumber	tiltSegmentNumber
EC_FrameID	EC_FrameID
RSPPPathNumber	RSPPPathNumber
sensorNumber	sensorNumber
offNadirAngle	offNadirAngle
orbitStatus	orbitStatus
SensorRollAngle	SensorRollAngle
FireCounts	FireCounts
SunZenithAngle	SunZenithAngle
observationIdentifier	observationIdentifier
ProcessTimeUnit	ProcessTimeUnit
parentIdentifier	parentIdentifier
Title	Title
Abstract	Abstract

Search entry	String specified in request xml
TopicCategory	TopicCategory
AnyText	AnyText

- Search by identifier (granule ID)

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request7.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
  service="CSW"
  version="3.0.0"
  outputFormat="application/json"
  xmlns="http://www.opengis.net/cat/csw/3.0"
  xmlns:fes="http://www.opengis.net/fes/2.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Query typeNames="Record">
    <ElementSetName>full</ElementSetName>
    <Constraint version="1.1.0">
      <fes:Filter>
        <fes:PropertyIsEqualTo>
          <fes:ValueReference>identifier</fes:ValueReference>

<fes:Literal>GW1AM2_20151200_01M_EQMA_L3SGCLWHD2210210</fes:Literal>
          </fes:PropertyIsEqualTo>
        </fes:Filter>
      </Constraint>
    </Query>
  </GetRecords>
```

- Search by satellite, sensor name

The search condition for the satellite name and sensor name is combined with and.

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request8.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
    service="CSW"
    version="3.0.0"
    outputFormat="application/json"
    xmlns="http://www.opengis.net/cat/csw/3.0"
    xmlns:fes="http://www.opengis.net/fes/2.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <Query typeNames="Record">
        <ElementSetName>full</ElementSetName>
        <Constraint version="1.1.0">
            <fes:Filter>
                <fes:And>
                    <fes:PropertyIsEqualTo>
                        <fes:ValueReference>satelliteName</fes:ValueReference>
                        <fes:Literal>ALOS</fes:Literal>
                    </fes:PropertyIsEqualTo>
                    <fes:PropertyIsEqualTo>
                        <fes:ValueReference>sensorName</fes:ValueReference>
                        <fes:Literal>PRISM</fes:Literal>
                    </fes:PropertyIsEqualTo>
                </fes:And>
            </fes:Filter>
        </Constraint>
    </Query>
</GetRecords>
```

- Search by observation date and time (1)

 Use fes: PropertyIsBetween

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request9.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
    service="CSW"
    version="3.0.0"
```

```
outputFormat="application/json"
xmlns="http://www.opengis.net/cat/csw/3.0"
xmlns:fes="http://www.opengis.net/fes/2.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<Query typeNames="Record">
    <ElementSetName>full</ElementSetName>
    <Constraint version="1.1.0">
        <fes:Filter>
            <fes:PropertyIsBetween>
                <fes:ValueReference>beginPosition</fes:ValueReference>
                <fes:LowerBoundary>
                    <fes:Literal>2016-11-01T00:00:00Z</fes:Literal>
                </fes:LowerBoundary>
                <fes:UpperBoundary>
                    <fes:Literal>2016-11-01T23:59:59Z</fes:Literal>
                </fes:UpperBoundary>
            </fes:PropertyIsBetween>
        </fes:Filter>
    </Constraint>
</Query>
</GetRecords>
```

- Search by observation date and time (2)

 Use fes: PropertyIsGreaterThanOrEqualTo, fes: PropertyIsLessThanOrEqualTo

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request10.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
    service="CSW"
    version="3.0.0"
    outputFormat="application/json"
    xmlns="http://www.opengis.net/cat/csw/3.0"
    xmlns:fes="http://www.opengis.net/fes/2.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <Query typeNames="Record">
```

```
<ElementSetName>full</ElementSetName>
<Constraint version="1.1.0">
  <fes:Filter>
    <fes:And>
      <fes:PropertyIsGreaterThanOrEqualTo>
        <fes:ValueReference>beginPosition</fes:ValueReference>
        <fes:Literal>2016-11-01T00:00:00Z</fes:Literal>
      </fes:PropertyIsGreaterThanOrEqualTo>
      <fes:PropertyIsLessThanOrEqualTo>
        <fes:ValueReference>beginPosition</fes:ValueReference>
        <fes:Literal>2016-11-01T23:59:59Z</fes:Literal>
      </fes:PropertyIsLessThanOrEqualTo>
    </fes:And>
  </fes:Filter>
</Constraint>
</Query>
</GetRecords>
```

- Search by observation date and time (3)

Use ogc: PropertyIsGreaterThanOrEqualTo, ogc: PropertyIsLessThanOrEqualTo

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request11.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
  service="CSW"
  version="3.0.0"
  outputFormat="application/json"
  xmlns="http://www.opengis.net/cat/csw/3.0"
  xmlns:fes="http://www.opengis.net/fes/2.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Query typeNames="Record">
    <ElementSetName>full</ElementSetName>
    <Constraint version="1.1.0">
      <fes:Filter>
        <fes:And>
```

```
<fes:PropertyIsGreaterThanOrEqualTo>
    <fes:ValueReference>beginPosition</fes:ValueReference>
    <fes:Literal>2016-11-01T00:00:00Z</fes:Literal>
</fes:PropertyIsGreaterThanOrEqualTo>
<fes:PropertyIsLessThanOrEqualTo>
    <fes:ValueReference>beginPosition</fes:ValueReference>
    <fes:Literal>2016-11-01T23:59:59Z</fes:Literal>
</fes:PropertyIsLessThanOrEqualTo>
</fes:And>
</fes:Filter>
</Constraint>
</Query>
</GetRecords>
```

- Search by coordinate information

- URL

<https://gportal.jaxa.jp/csw/csw>

- Data to POST (request12.xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<GetRecords
    service="CSW"
    version="3.0.0"
    outputFormat="application/json"
    xmlns="http://www.opengis.net/cat/csw/3.0"
    xmlns:fes="http://www.opengis.net/fes/2.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <Query typeNames="Record">
        <ElementSetName>full</ElementSetName>
        <Constraint version="1.1.0">
            <fes:Filter>
                <fes:Intersects>
                    <fes:ValueReference>footprint</fes:ValueReference>
                    <fes:Literal>POLYGON((130 30,140 30,140 40,130 40,130
30))</fes:Literal>
                </fes:Intersects>
            </fes:Filter>
        
```

```
</Constraint>
</Query>
</GetRecords>
```