Last update : May 2021

Spaceeye

User Guide

SI Imaging Services

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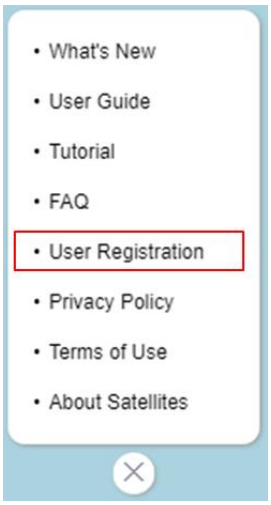
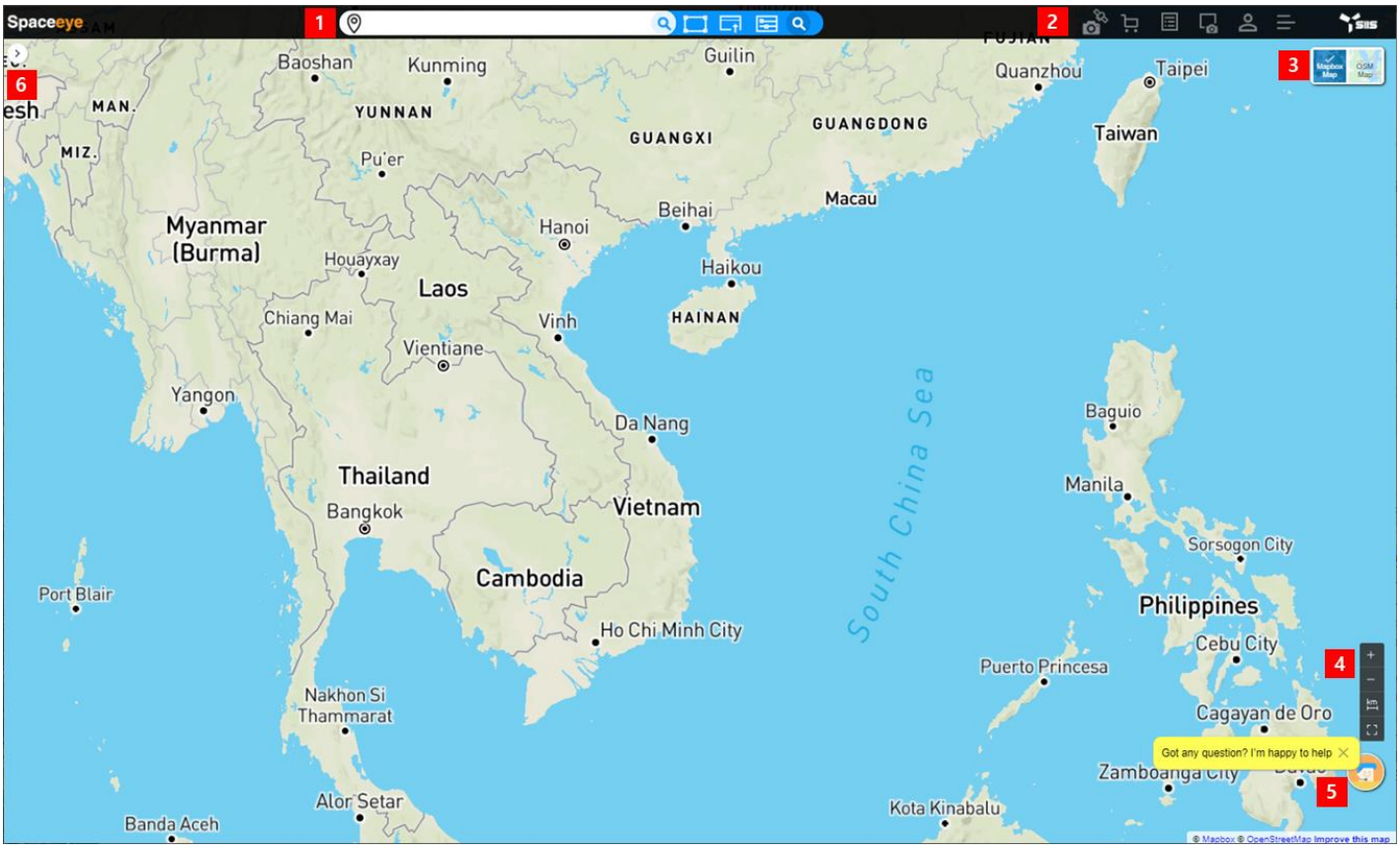
USER REGISTRATION

- To register users for Spaceeye, download the user registration form from the menu and send it to orderdesk@si-imaging.com.
- We will send you a temporary password to the e-mail address described in the registration form when registration is completed. Log in with your temporary password and change your password.



MAIN WINDOW



1. Search
   - Location search or ID search, draw AOI, upload or download AOI, set search criteria
   - See Catalogue Search
2. Menu
   - **Order new tasking, cart , order list, request sample product, my page**, miscellaneous

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See Add New Tasking to Cart, Cart,

Manage Your Order,

Sample Request,

- Manage Your Account

  * Menus in bold requires sign-in.

3. Map Selection
   - English map or Local language map.
   - See Map Selection
4. Map Control and Measurement
   - Zoom in and out, measure distance or size of area.
   - See Measurement
5. Inquiry (Help)
   - Send an inquiry to SIIS
6. Search results
   - After search, result will be displayed.

See

- Catalogue Search Results.

The screen will be initialized including the AOI set when the Spaceeye logo is clicked.

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Map

1 Map Selection

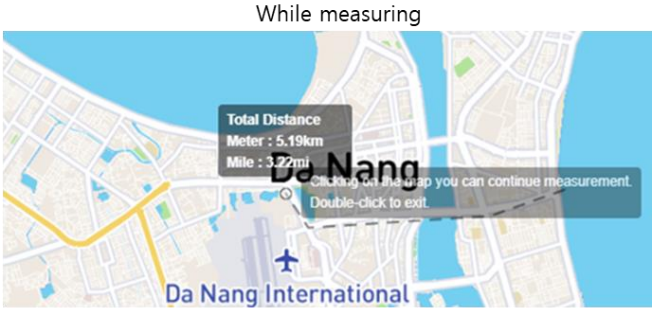
- Mapbox map displays name of the region in English (Default)
- OSM map displays name of the region in the language of the country.

2 Measurement

- Distance
  - How to : Click button → click start point → click next point → …→ double click on last point.

    It will show a total distance from first location to last location in km and mi.

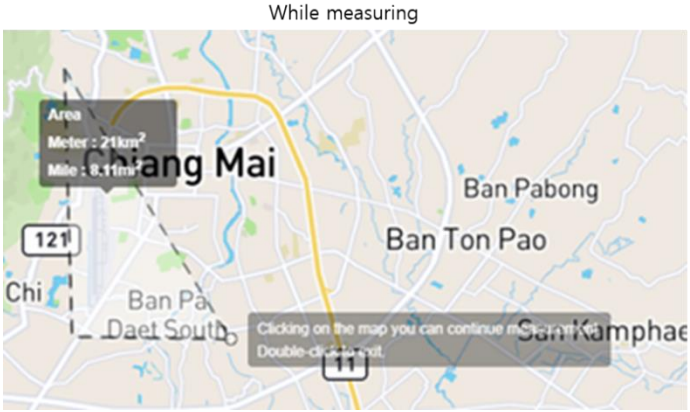
While measuring



After set end-point

- Size of Area
  - How to : Click button → draw area by clicking location and double click on last location. It will show size of area in km^2 and mi^2.

While measuring



After set end-point

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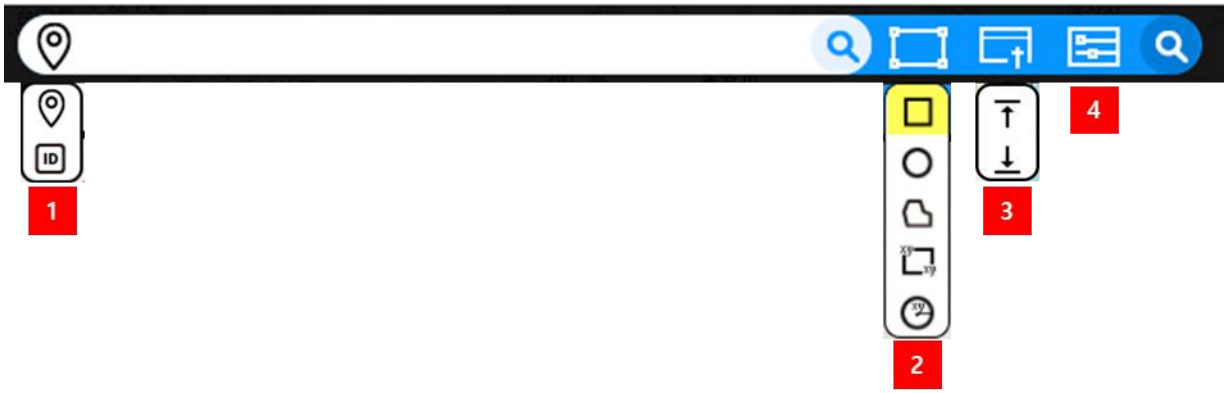
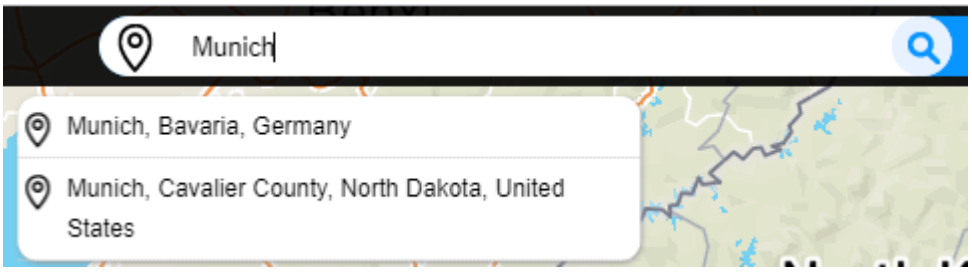
Catalogue Search



1 Location Search / ID Search

- Location Search: Location search is to find a desired location on a map using an area name, such as a name of a street, a district, a city or a country.



  - How to : enter region name in the text box → enter(or click search button) → select one of region you want to move.

- ID Search: It can be used when you already know the ID of the Scene you want to search for.
  - How to : enter the Scene ID → enter (or click search button)
  - A list of search results with the information of the corresponding image will be displayed. When you click the image in the list, the map moves to the area of the image and the footprint of the image will be displayed.
  - A full scene ID shall be used for search. Part of a scene ID is not working for search.

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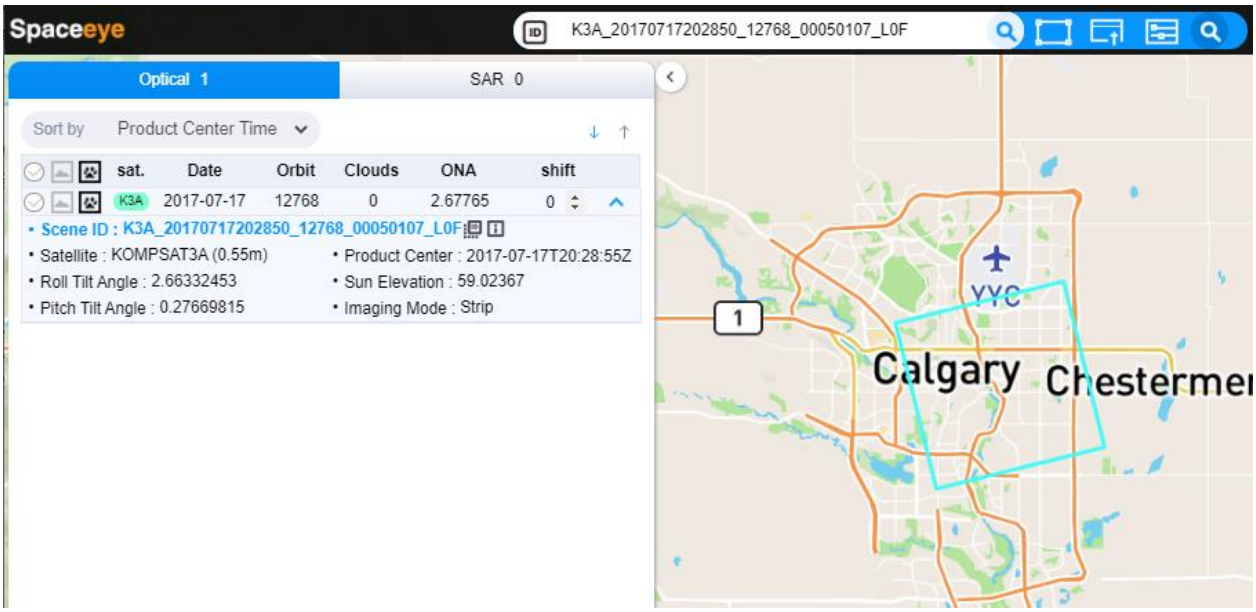
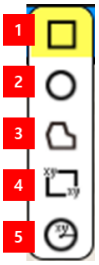


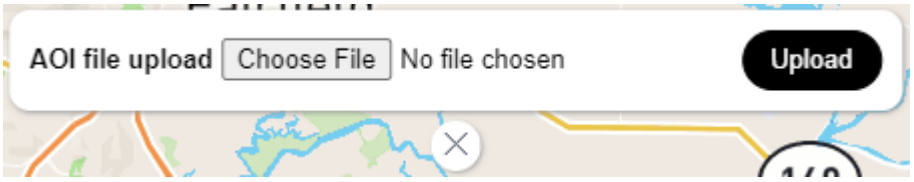
2 Draw AOI

AOI can be drawn in a rectangle, a circle or a polygon on the map after clicking one of first 3 icons. AOI can be set in a rectangle by using coordinate (latitude and longitude) of top-left corner and bottom-right corner or draw a circle by using coordinate of center and radius after clicking on of last 2 icons.



3 Upload / Download AOI File

- Upload AOI file



You can specify AOI by uploading a kml, kmz, shp or zip-compressed shape file.

(1) The number of points (vertex) included in the shape file or kml must be 300 or less.

(2) When uploading a compressed shape file with the file extension as a zip, it should contain at least the following 2 files : shape (.shp), shape projection(.prj)

(3) Projection of the shape file shall be Geographic (Lat/Long) WGS84. If there is no .prj file, the projection is treated as WGS84

- Download AOI to file

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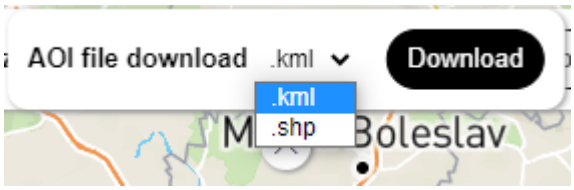
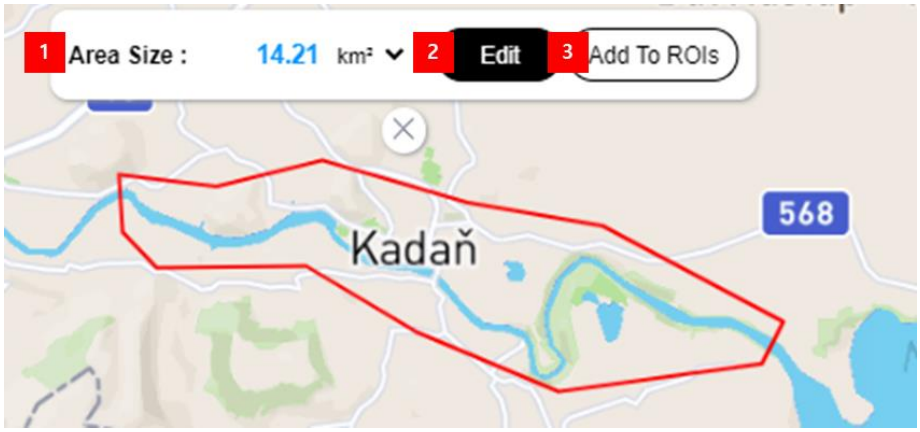


AOI drawn on map can be downloaded in kml or shape file.

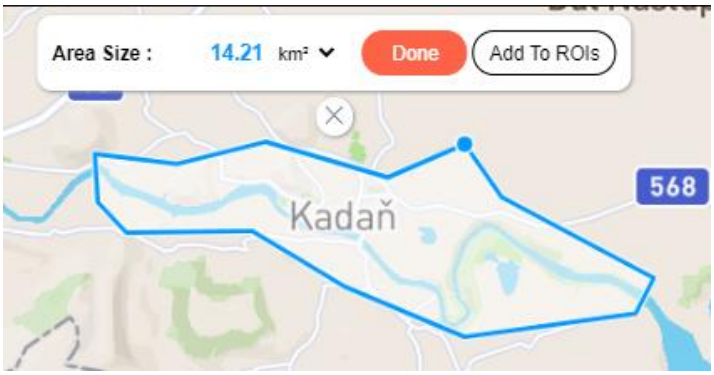
4 AOI Management



- AOI Information

When an AOI is drawn, size of the area is calculated and shown. You can choose the unit of size : km^2 or mi^2.

- AOI Editing
  - How to: Click button then the color of AOI will be changed to blue. → Moving the mouse over a point or line on the AOI creates a blue dot as shown below. → Modify the AOI by moving the corresponding dot. → Click when you want to finish editing.



- AOI erase
  - How to: click button under AOI information.
- Add to ROIs

If you want the AOI drawn frequently for search catalogue, monitoring, or ordering, you can add the area to ROI. For detail, see ROI Management.

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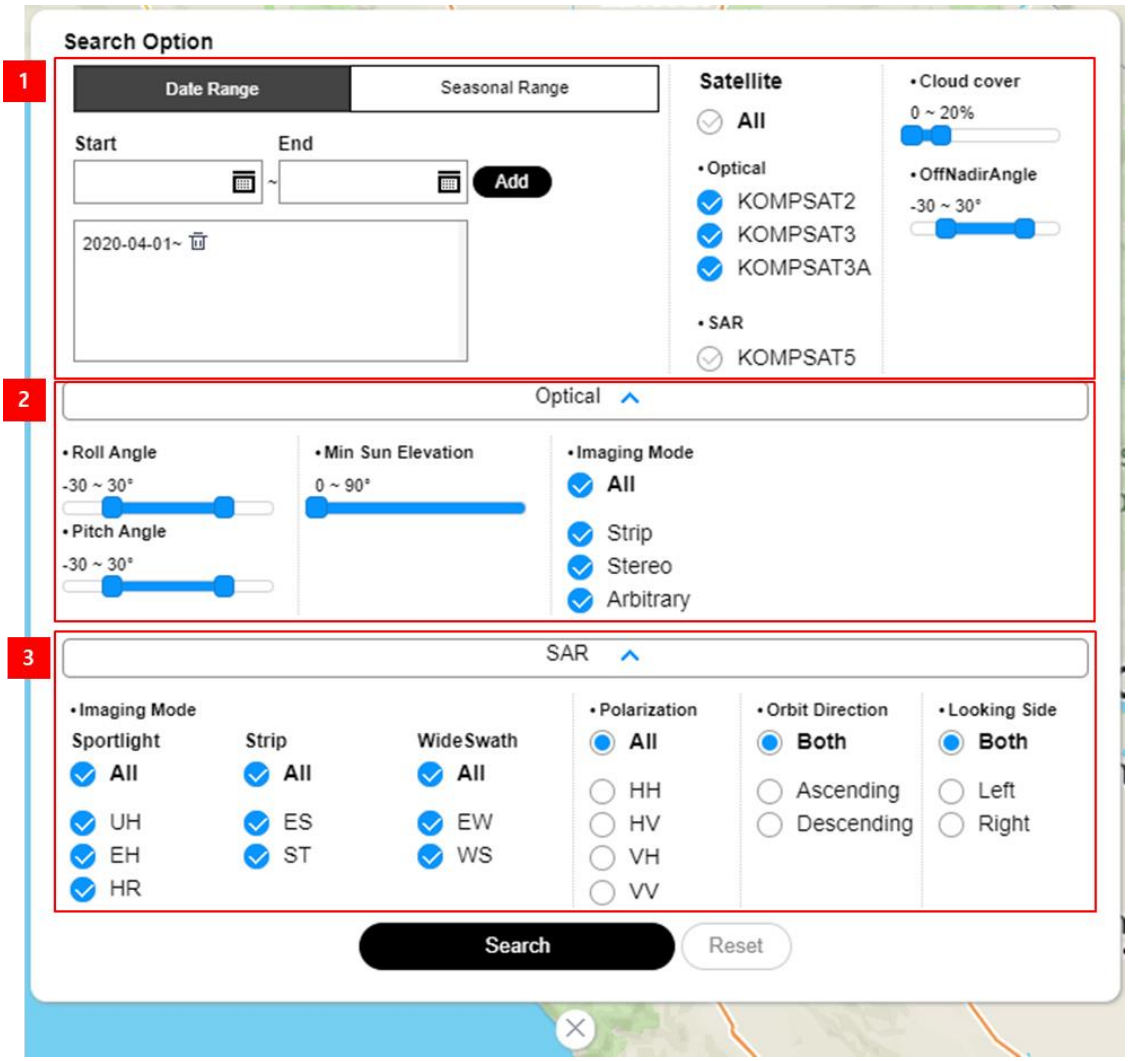
5 Setting Search Criteria



- Common Criteria: search period, satellite, cloud cover and off nadir angle are applied to both optical and SAR images.
- Optical Criteria : conditions here are applied to only optical images
- SAR Criteria: conditions here are applied to only SAR images.

The conditions set by the user are saved and automatically set as the saved conditions when reconnecting to the system.

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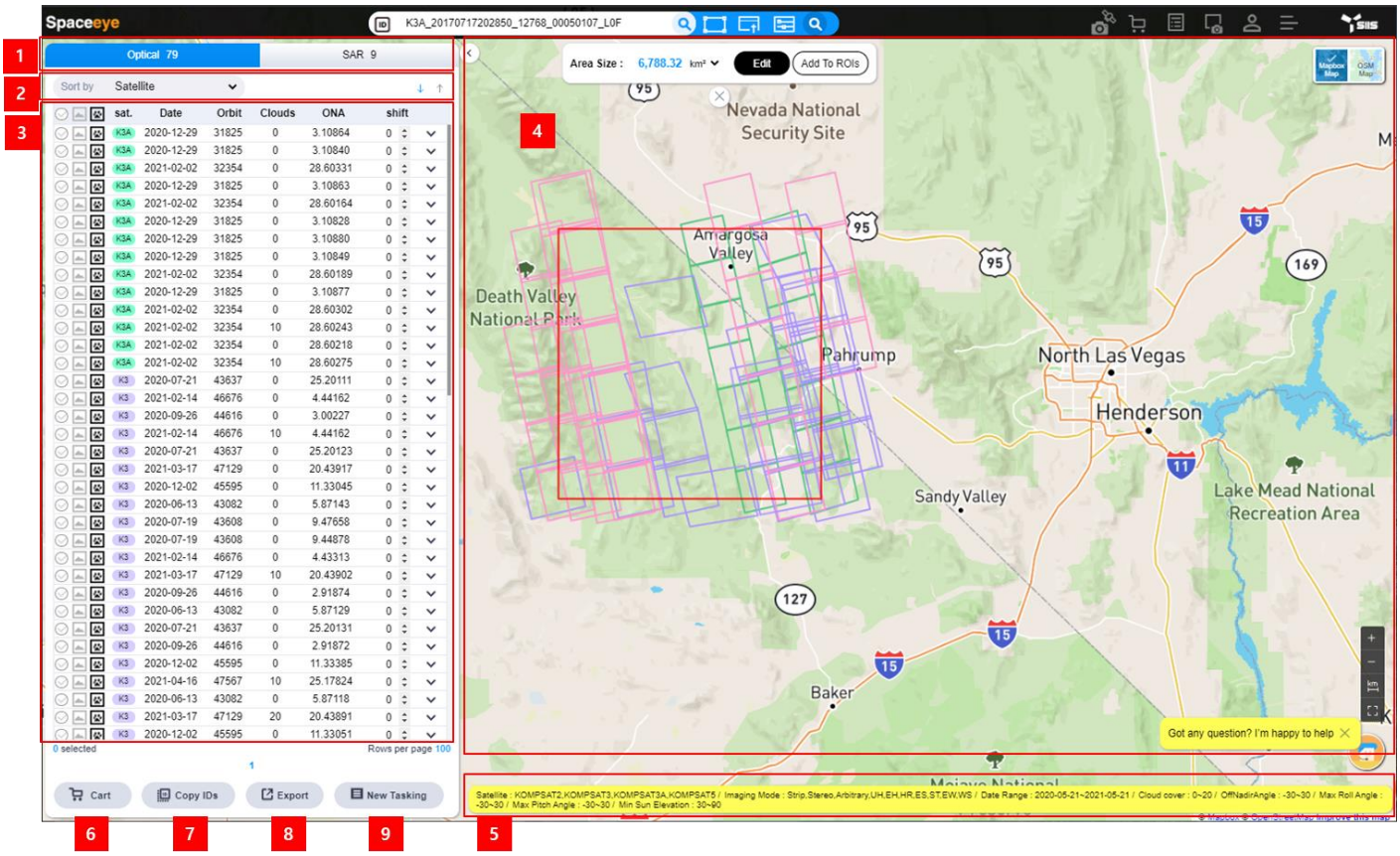
Catalogue Search Results

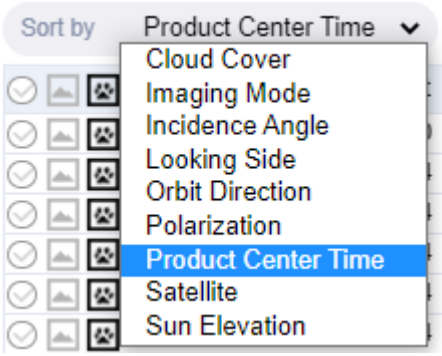


The search results are displayed on a list on the left side of the screen and on the map. The search result list is divided into Optical and SAR, and provides brief information of the images searched and additional functions. On the map, the image footprint and browse image are provided, and the search conditions set by the user are provided at the bottom.

(1) Tab of Optical / SAR: Search results of optical and SAR images are displayed separately on separate tabs.

(2) Search results in list can be sorted.

- How to: select a field by which to sort search result → select ascending or descending by clicking ↓ ↑. The default value is descending order by Product Center Time so that the latest images can be printed at the top



(3) selection on/off , browse image on/off , foot print on/off , show info

- Selection on/off : foot print of selected scene will be changed to pink.
- Browse image on/off : browse image of the scene will be displayed/hidden.

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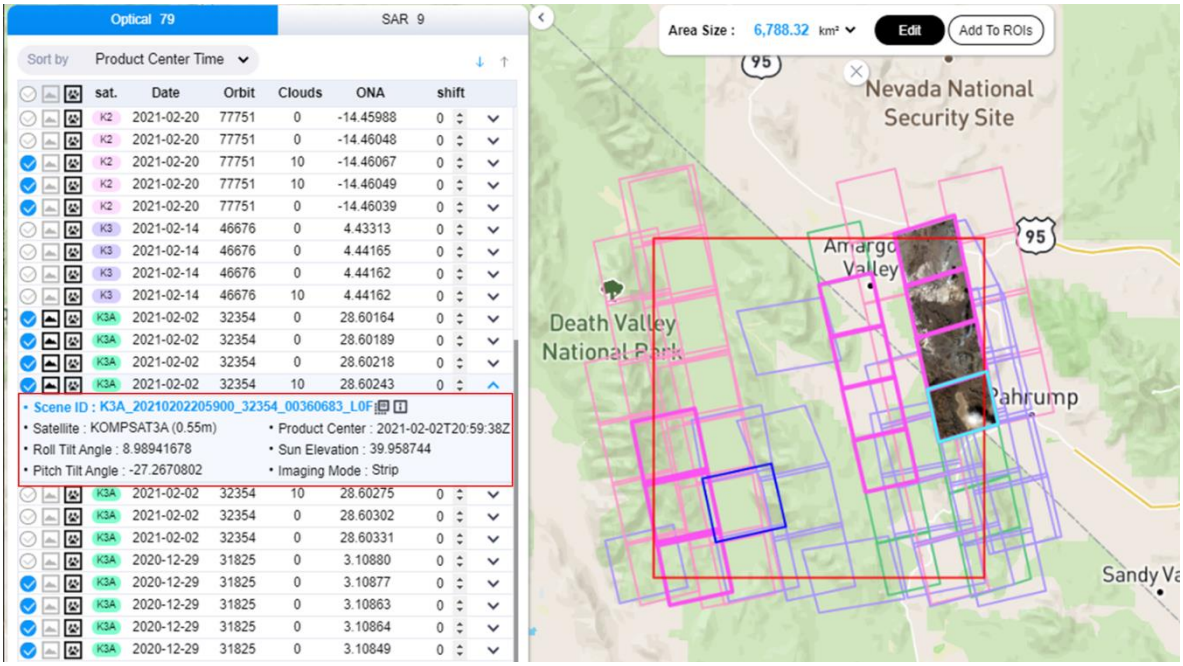
- Footprint on/off : footprint of the scene will be displayed/hidden.
- When click on a scene in the list, brief information will be displayed under scene info and color of foot print will be changed to cyan. When click , scene ID will be copied to clip board. When click , detail view of metadata of the scene will be displayed.

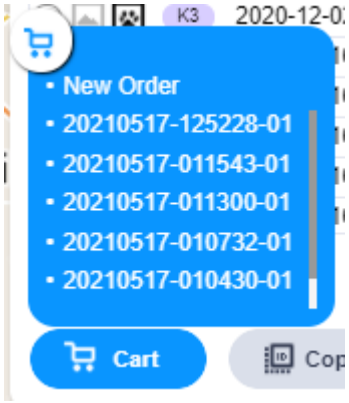


(4) On the map, AOI is displayed and by default, footprints of all catalogs in the list are displayed. The display of footprint and/or browse image of each catalog depends on the selection of each on/off button in the list. Footprint has the same color as the satellite name in the list.

(5) The currently applied search conditions are displayed.

(6) Cart

Click the Cart button to add the selected scenes to the cart → Click the cart ID to add to an existing cart, or click New Order to add to a new cart.



(7) Copy IDs

Clicking this button copies the scene ID of the selected scenes to the clipboard. When multiple scenes are selected, they are separated by commas (,) and copied to the clipboard.

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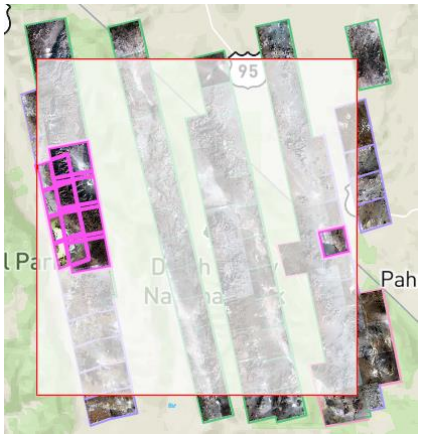
(8) Export

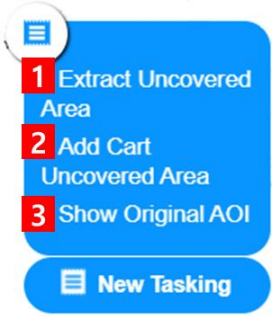
Click the Export button to download the selected scene's information to a file → Select file format to download.

(9) New Tasking

1. Extract Uncovered Area : In the AOI designated for search, the area not covered by the foot print of the scene selected from the search result is extracted.



2. Add Cart Uncovered Area : A window to enter a new tasking order for capturing the uncovered area is displayed.
3. Show Original AOI: The displayed uncovered area disappears.



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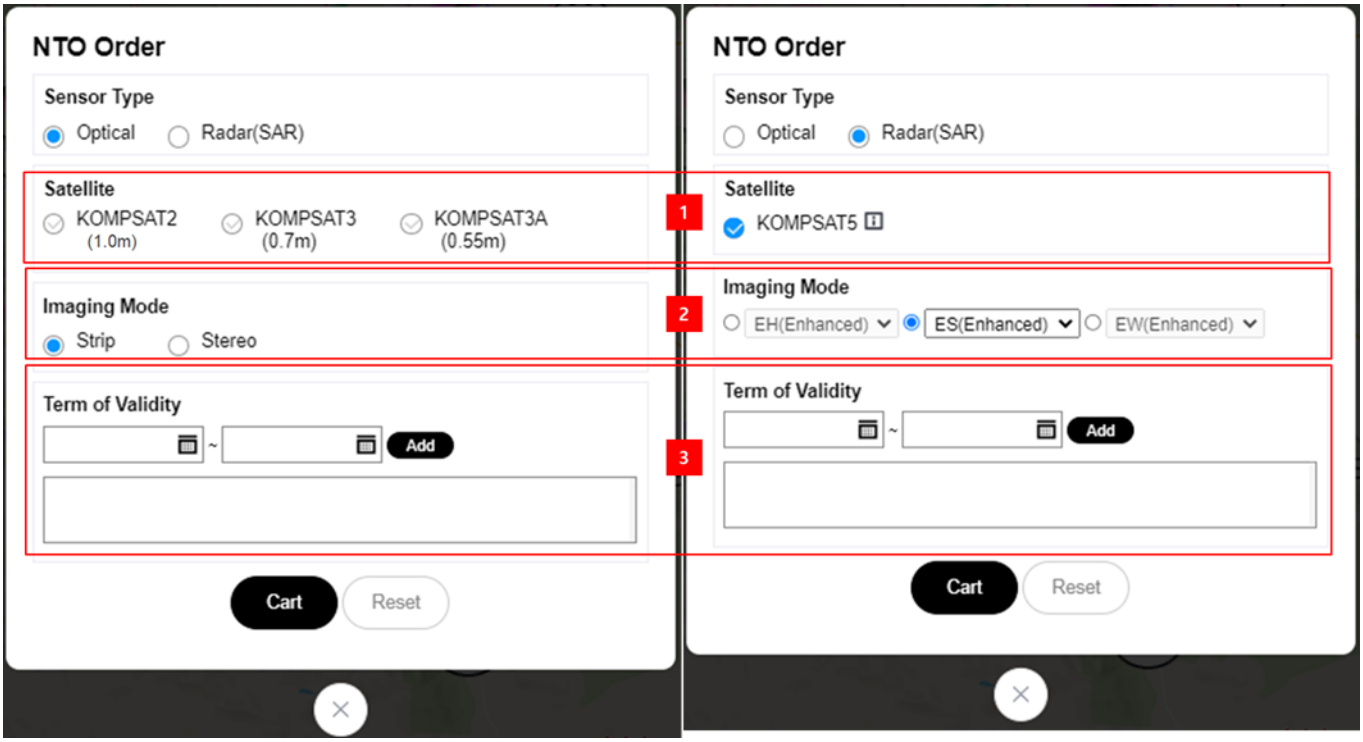
Add New Tasking to Cart

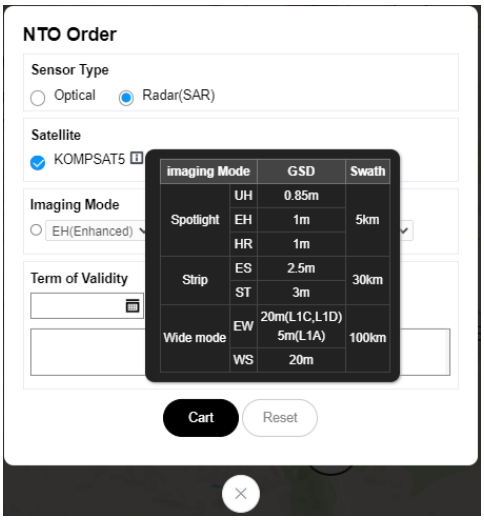
Click the New Tasking icon at the top of the main screen to display the following NTO input screen. AOI must be set before clicking the New Tasking icon.

Sensor type, satellite, imaging mode and term of validity (image acquisition window) can be set, and detailed ordering and processing options can be set when entering an order in the cart after the corresponding new tasking is included in the cart.

For the optical sensor, multiple satellites can be set.



In case of optical satellites, spatial resolution of each satellite is under each satellite name. In case of SAR satellite, the spatial resolution of each imaging mode is displayed when icon is clicked.



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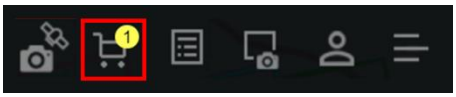
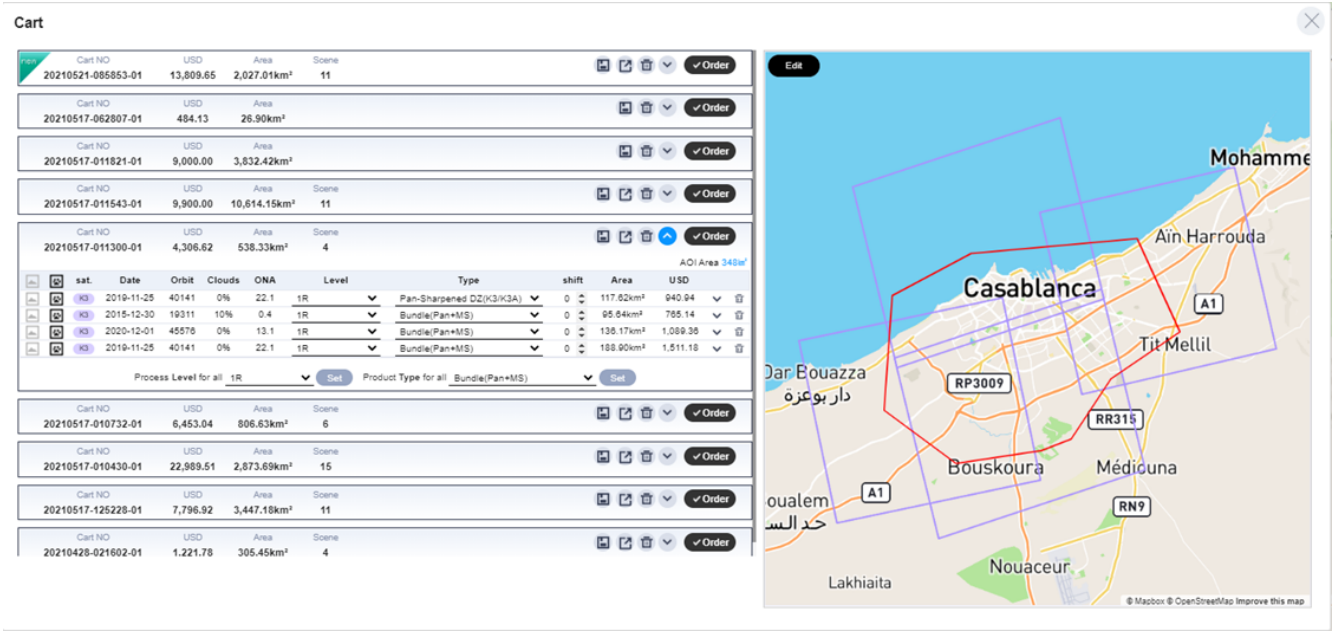
Cart

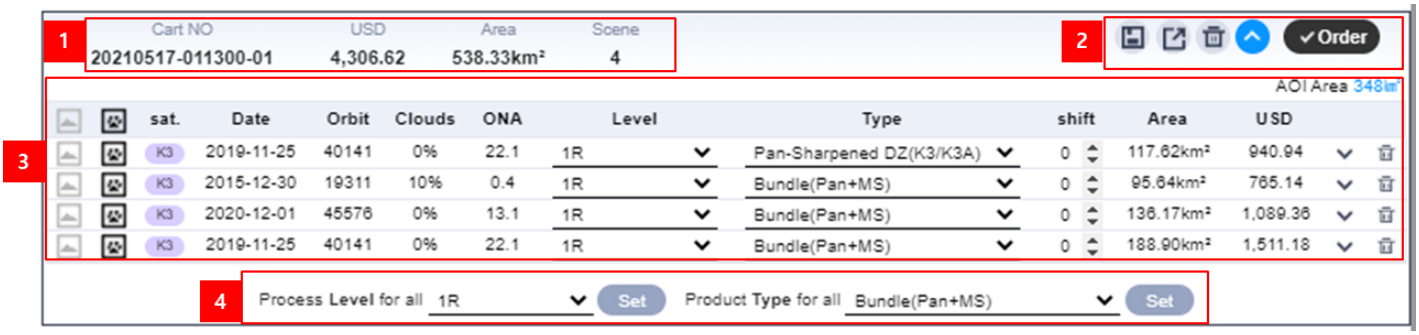


- How to add a temporary order to Cart
  - Select scenes from search result and click “Cart” button : Cart, or
  - Click “Add Cart Uncovered Area” after click “New Tasking” : New Tasking, or
  - Add a new tasking order by clicking “New Tasking”: Add New Tasking to Cart



- The cart list displays a list of temporary Archive image orders and New Tasking orders. In the cart list, basic information such as cart NO, price, size of area, and number of images is shown, and functions to save, export, delete, order, and view details are provided. Clicking a cart in the list, detailed information of the selected cart is displayed.
- On the map, AOI and/or footprints of the images in the selected cart are displayed, and the AOI can be edited.

1 AO Cart



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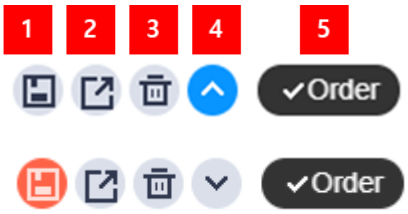
(1) Basic information : Cart No, estimated price, sum of size of the areas where the AOI and scenes in the list overlap, the total number of scenes in the cart

(2) Cart functions



a. Save: when contents in the cart are changed, color of this button changes to . Click the button to save changes. If you close the “Cart” window without clicking the button, the cart changes will not take effect.

b. Export : Save the current cart contents to CSV file.

c. Delete : Delete the current cart from the cart list.

d. Open/Close : open or close the detailed view of cart.

e. Order : Activate order window. See Order Archive Images.

(3) Scene list

Processing level and product type of scenes in cart for ordering can be set or changed in the scene list. The processing level and product type that can be specified depend on the optical image and SAR image as below. Shift of each scene also can be changed in the list. Area of each scene means size of the overlapped area with AOI.

< For optical images>

< processing level> < product type>

< For SAR images>

< processing level> < product type>

(4) Process level and product type for all scenes in the scene list can be set or changed.

2 NTO Cart

(1) Basic information : Cart No, estimated price, total size of the AOI in the cart

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(2) Cart functions

a. Save: when AOI of the cart is changed on map, , color of this button changes to RED. Click the RED button to save changes. If you close the “Cart” window without clicking the active "Save" button, the cart changes will not take effect.

b. Delete : Delete the current cart from the cart list.

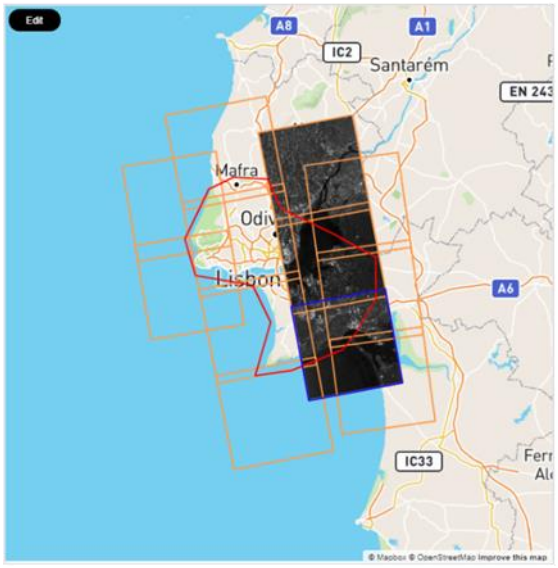
c. Open/Close : open or close the detailed view of cart.

d. Order : Activate order window

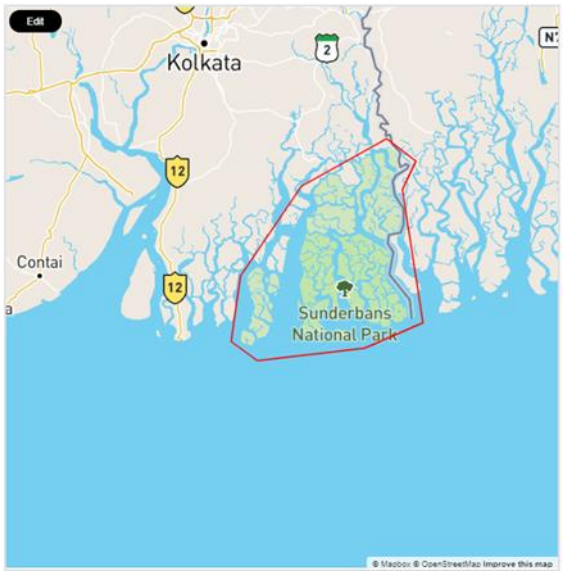
(3) New tasking info : satellite name, imaging mode, and the desire imaging window.

3 Map window

<Map window for Archive order>



<Map window for New tasking order>



- For archive order cart,
  - AOI can be edited. Changed AOI size will be applied to the estimated price and Area on cart information after save the change.
  - Browse image and foot print of scenes can be shown/hidden
- For new tasking order cart
  - AOI can be edited. Changed AOI size will be applied to the estimated price and Area on cart information after save the change

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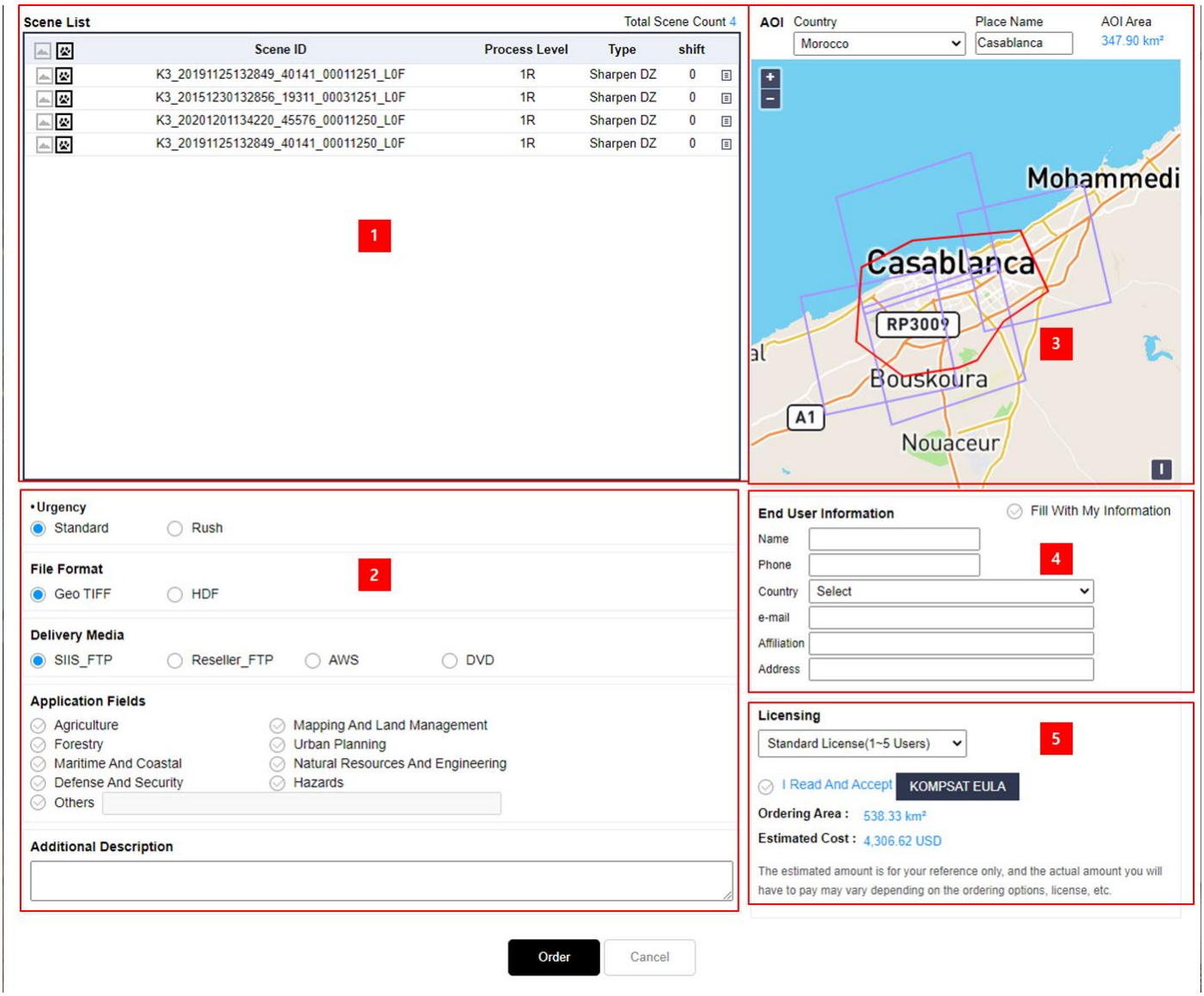
Order Archive Images

When you click the “Order” button on Archive order cart, following window is displayed.



(1) Scene List included in the order is shown. If you want to change scene list, processing level, product type, or shift, then close this window and go to Cart.

(2) Order Option

- Urgency — - Standard: delivery within 3 days after order confirmation by SIIS. No additional cost will be charged.

  - Rush: delivery within 1 day after order confirmation by SIIS. Additional cost will be charged.

- File Format : For optical satellites: only GeoTIFF available.

- Delivery Media : SIIS_FTP is default.

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When you already consulted with SIIS, you may select other option.

- Application Fields At least one application field have to be selected.
- Additional Description When you have other request, leave your message here.

(3) Map

AOI, scene foot print, browse image is displayed.

(4) End User Information

When you are the end user, then click “Fill with my information”

When you are the reseller contracted, then put end user’s information here.

(5) Licensing

a. Before order, you have to read and agree to KOMPSAT EULA.

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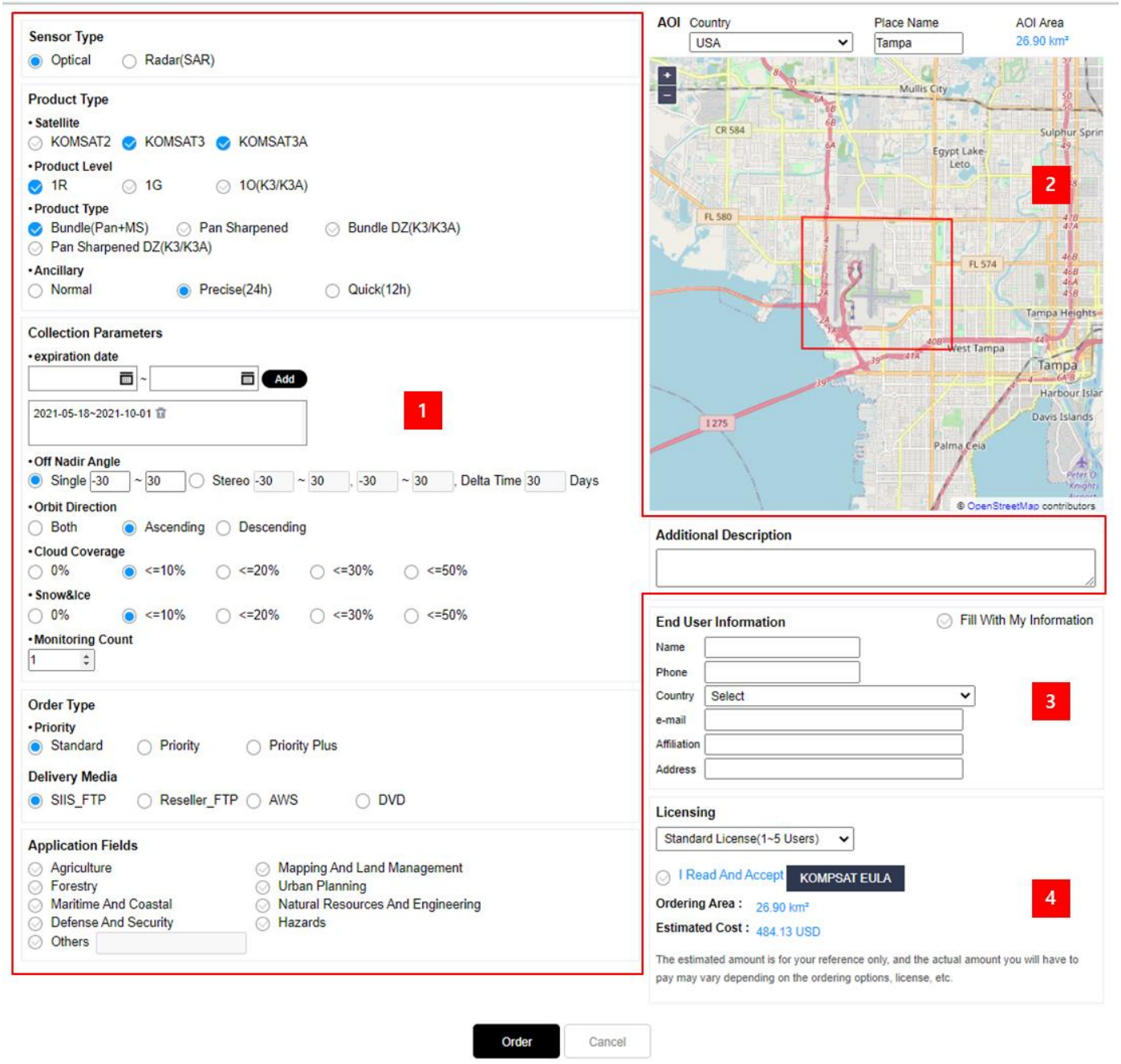
Order New Tasking

When you click the “Order” button on New Tasking cart, following window is displayed.



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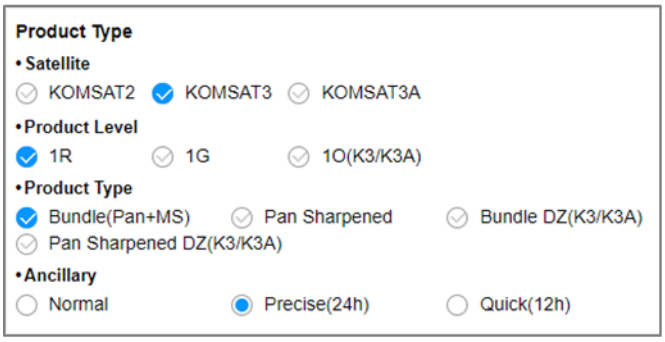
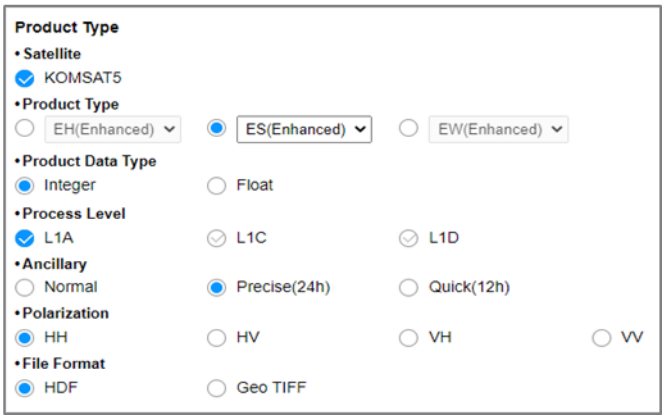
<Product type options for optical satellites>



<Product type options for SAR satellites>



< Tips for some of order options >

- Product Level : **< for optical : KOMPSAT-2>**
  - 1R : the product corrected for radiometric and sensor distortions.
  - 1G : the product corrected for geometric distortions and projected to UTM.

  <for optical : KOMPSAT-3/-3A>
  - 1R : same as KOMPSAT-2 processing level
  - 1O : same as 1G of KOMPSAT-2 processing level
  - 1G : the product corrected for geometric distortions and projected to UTM. SRTM DEM is used for terrain effect correction.

  <for SAR : KOMPSAT-5>
  - 1A : single look complex (SLC), necessary for InSAR processing.
  - 1C : the focused data, detected, geolocated on the reference ellipsoid and represented in cartographic projection (UTM or UPS depending on the Scene Center). Any geometric or radiometric correction derived by usage of terrain model isn't applied.
  - 1D : the focused data, fully calibrated with the usage of terrain model, detected, geolocated on a DEM and represented cartographic projection (UTM or UPS depending on the Scene Center).

- Product Type : **< for optical : KOMPSAT-2>**
  - Bundle : product with 1 PAN and 4 MS in native resolution.
  - Pan-sharpened : product with 4 MS in PAN resolution.

  <for optical : KOMPSAT-3/-3A>
  - Bundle : same as KOMPSAT-2

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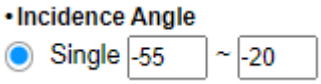
- Pan-sharpened : same as KOMPSAT-2
- Bundle DZ : product with 1 PAN and 4 MS in zoomed resolution.
  - KOMPSAT-3 : PAN (50 cm), MS (2.0 m)
  - KOMPSAT-3A : PAN (40 cm), MS (1.6 m)
- Pan-sharpened DZ : product with 4 MS in zoomed PAN resolution.

<for SAR : KOMPSAT-5>

Select one of Imaging mode.

- Product Data Type : **< for SAR : KOMPSAT-5>** "Integer" is recommended.
- Ancillary : "Precise(24h)" is recommended for better location accuracy. When urgent delivery is required, select "Normal".
- Orbit Direction : For optical satellites, only "Ascending" is available.
- Off Nadir Angle : **< only for optical >**
  - Single : off nadir angle range for mono image acquisition
  - Stereo: off nadir angle of each acquisition of stereo pair. To acquire stereo image, this must be selected.
  - Delta Time : only for KOMPSAT-2, delta days between acquisition of each strip.
- Incidence Angle : **<only for SAR >**

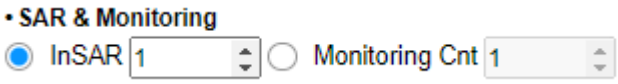


Incidence angle range for image acquisition

- Cloud Coverage : When '0%' is selected, change of acquisition will be getting lower and additional charge will be applied.
- Monitoring Count : **< only for optical >**

When you want acquire image repeatedly for monitoring, set counts here and describe acquisition interval in "Additional Description".

- SAR & Monitoring : **<only for SAR >**



When you want acquire more than 1 scene for InSAR processing , select InSAR and put number of acquisition to repeat acquisition.

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When the count is set to ‘1’, InSAR acquisition will not be applied.

When you want to acquire more than 1 scene regardless of incidence angle of acquire scenes for monitoring, select Monitoring Cnt, put number of acquisition to repeat, and describe acquisition interval in “Additional Description”. When count is set to ‘1’, monitoring will not be applied.

- Priority
  - Standard : image acquisition with standard priority.
  - Priority: image acquisition with higher priority than standard. Additional charge will be applied.
  - Priority Plus: image acquisition with the highest priority than other commercial orders. Additional charge will be set
- Delivery Media : SIIS_FTP is default.

  When you already consulted with SIIS, you may select other option.
- Application Fields At least one application field have to be selected.
- Additional Description When you have other request, leave your message here.

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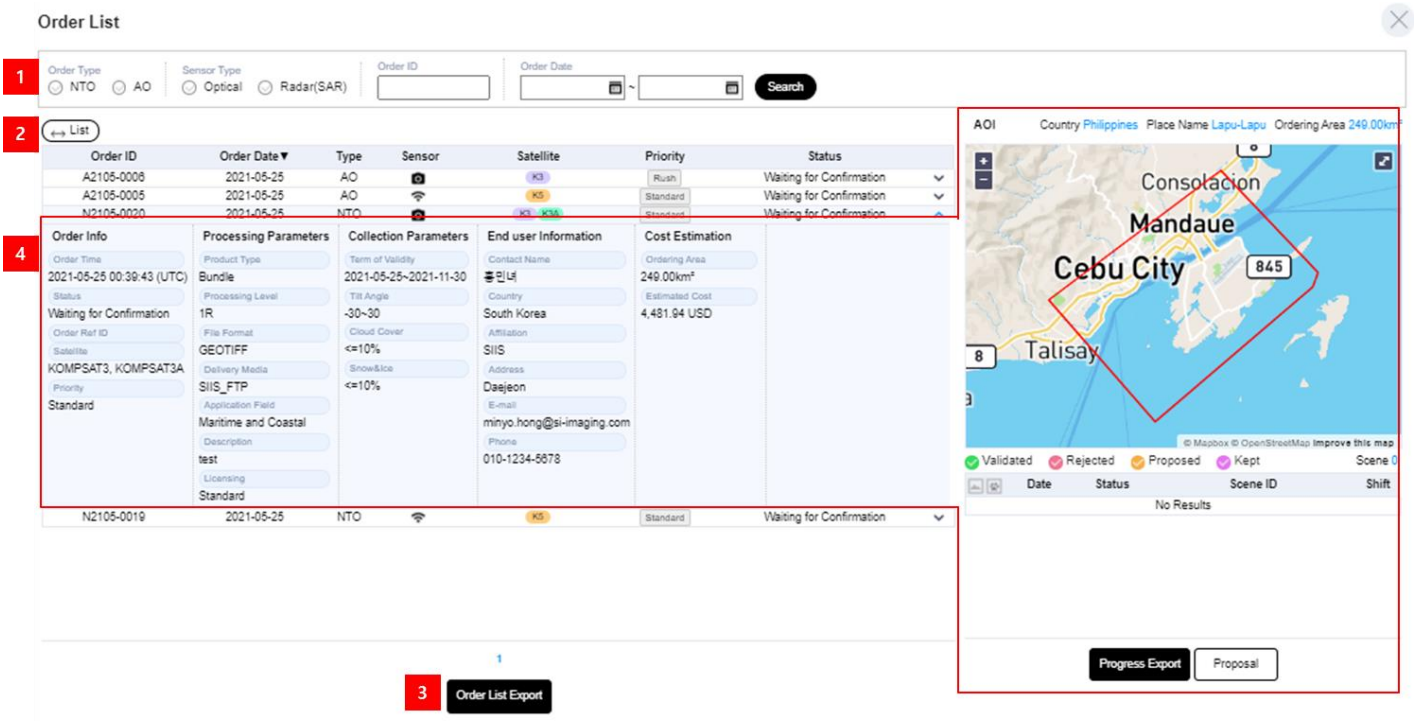
Manage Your Order

Order list shows order ID, date of order, type, sensor, satellite, priority, and status of each order in brief.



1 Order Search

Search order by setting Order Type, Sensor Type, Order ID or Order Date.

2 Extend/Squeeze Order List

Clicking ↔ List button hides map area and extends order list area. Clicking ↔ List button shows map area.

3 Export Order List to CSV

Clicking Order List Export button exports contents of the current order list displayed to CSV file.

4 View Detail of an Order

Clicking an order from the list or an arrow(⌄) of an order shows the detailed view of the order and map area with AOI info and scene info related. The AOI is displayed in red on the map, and the

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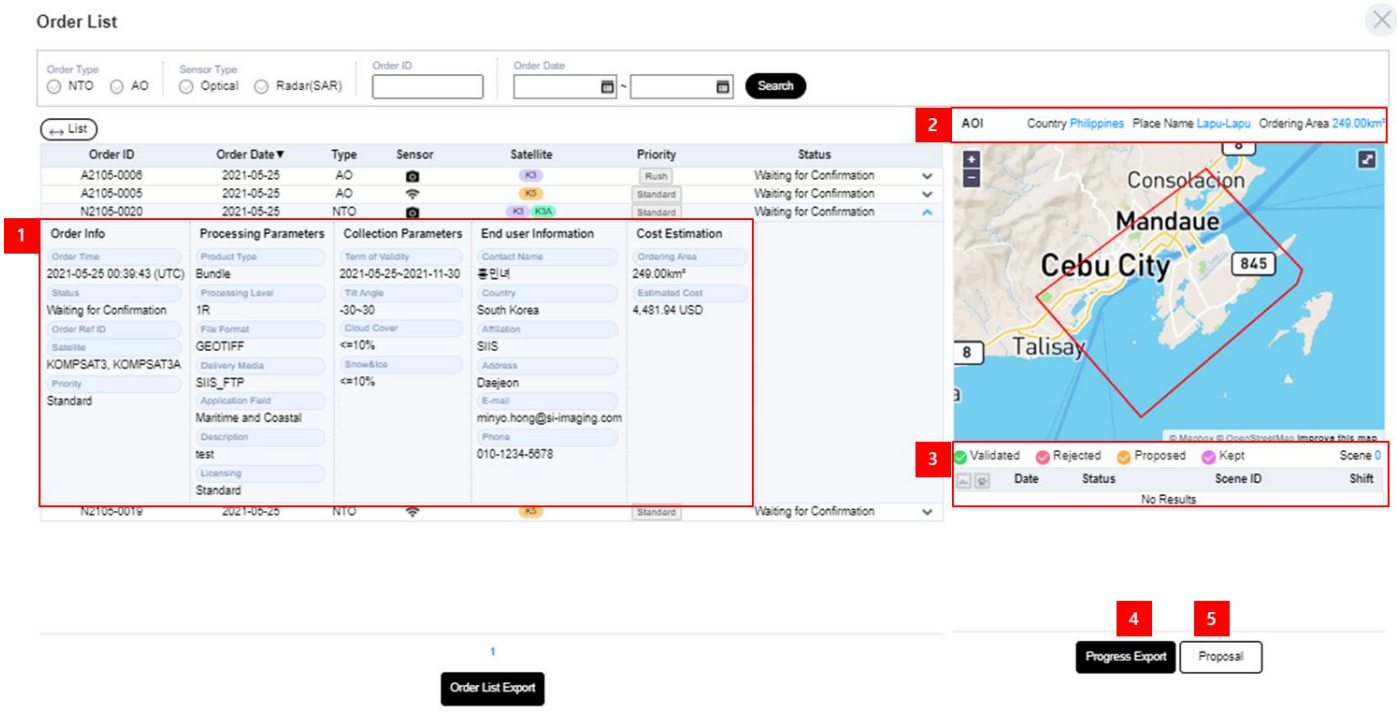
footprint of the scene is represented in color according to each progress.



(1) Text Area

The text area displays detailed order information in groups. Depending on the order type and sensor type, the details of the order are slightly different as follows.

- Common Info : Order Info, Processing Parameters, End User Information
- AO / Optical : Cost Estimation includes size of ordered area and estimated cost.
- AO / SAR : Cost Estimation shows the estimated cost only.
- NTO / Optical : Cost Estimation includes size of ordered area and estimated cost. Collection Parameters includes Term of Validity, Tilt Angle, Cloud Cover, Snow & Ice.
- NTO / SAR : Cost Estimation shows the estimated cost only. Collection Parameters includes Term of Validity, Tilt Angle, Imaging Mode, Polarization, Orbit Direction.

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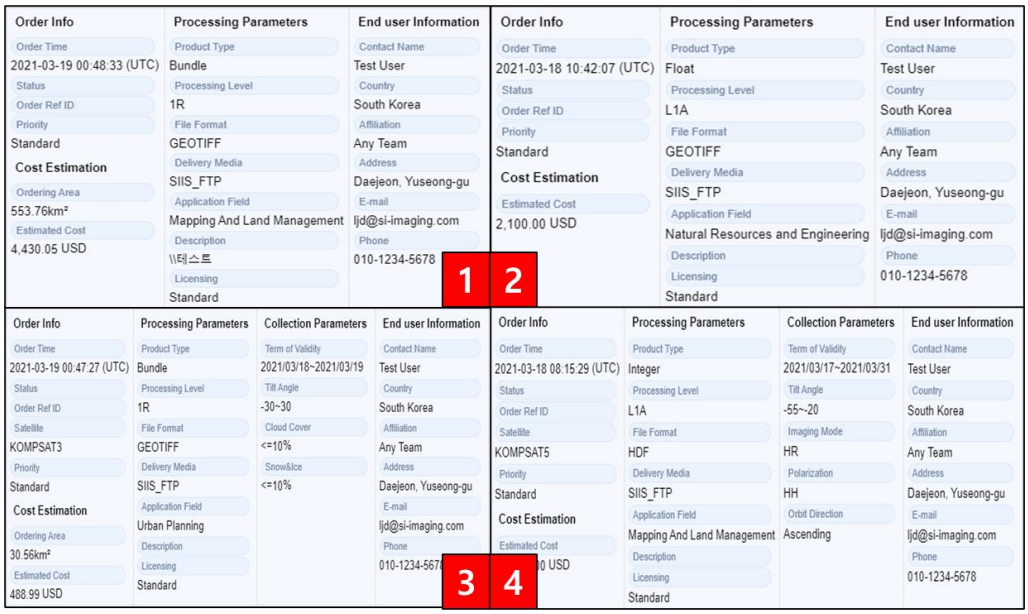

(2) AOI

Country name, place name, and size of AOI is displayed above the map area.

(3) Map and Progress Info

Scenes included in the order and their progress is shown under map area.

The map displays scene's foot print, browse image included in the order along with the order's AOI. When a footprint is clicked, the corresponding scene from the progress list will be selected.

Progress type depends on order type (New tasking order and Archive order). Only the foot print of the scene corresponding to the checked progress is displayed.

<For New Tasking Order >

- Validated : The scene acquired meet user's requirement. To be processed and delivered.
- Rejected : The scene acquired does not meet user's requirement.
- Proposed : The scene acquired does not fully meet user's requirement but proposed to the user.
- Kept : The scene acquired meet user's requirement. But processing is pending because there are already valid images acquired before.

<For Archive Order >

- Processing : The scene is under processing.
- Succeed : Processing of the scene has been completed successfully.
- Failed : Processing of the scene has been failed.

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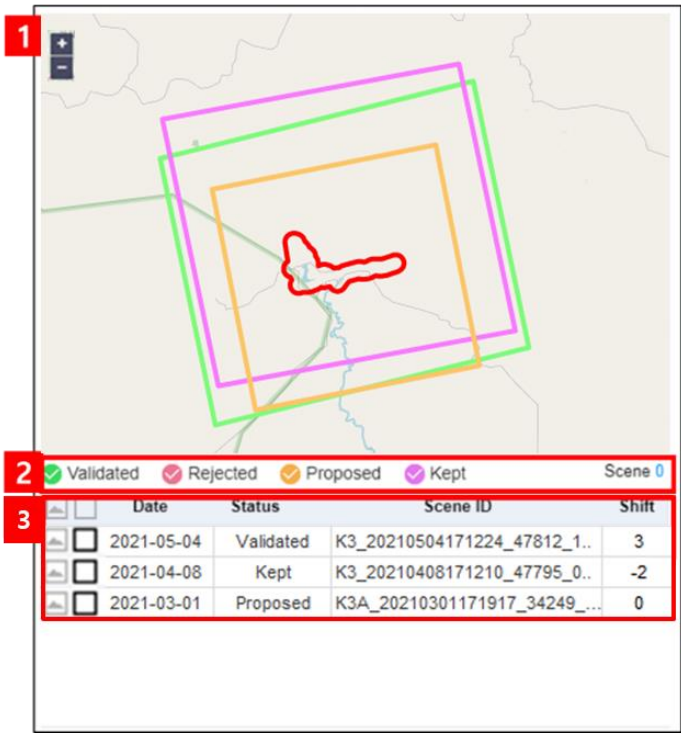
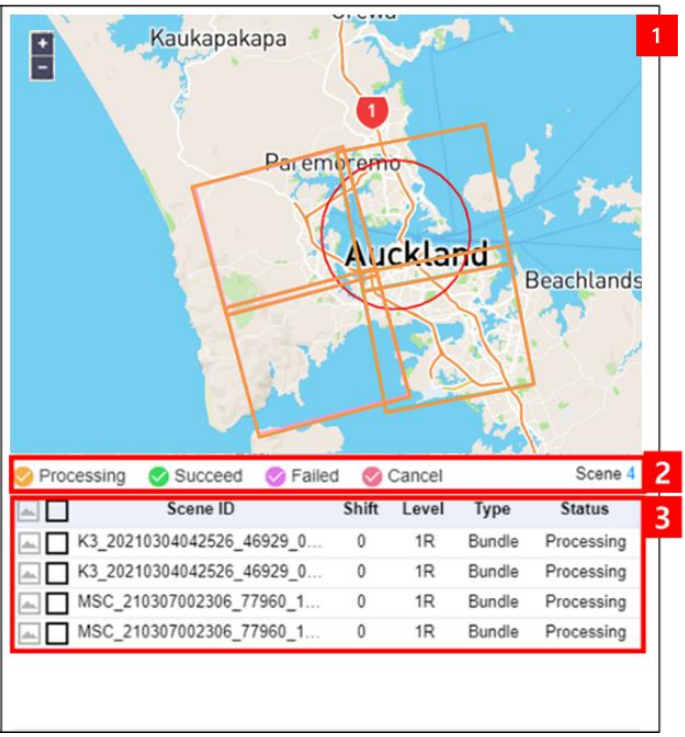
- Canceled : Processing of the scene has been canceled.

<New Tasking Order Progress>



<Archive Order Progress>



(4) Export Progress Info

By clicking Progress Export button, progress information will be exported to CSV file.

(5) View Imaging Proposal

In case of new tasking order and only when feasibility study is done and FS result is registered, Proposal button is enabled. By clicking Proposal button, feasibility result will be displayed on Imaging Proposal Window. By clicking Export button, the imaging proposal will be downloaded to PDF file.

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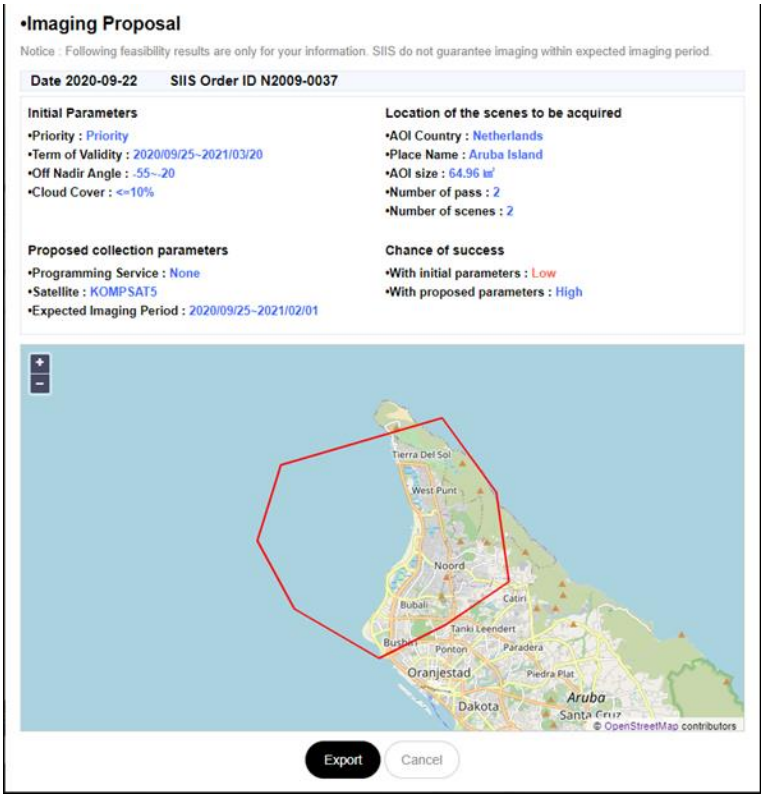

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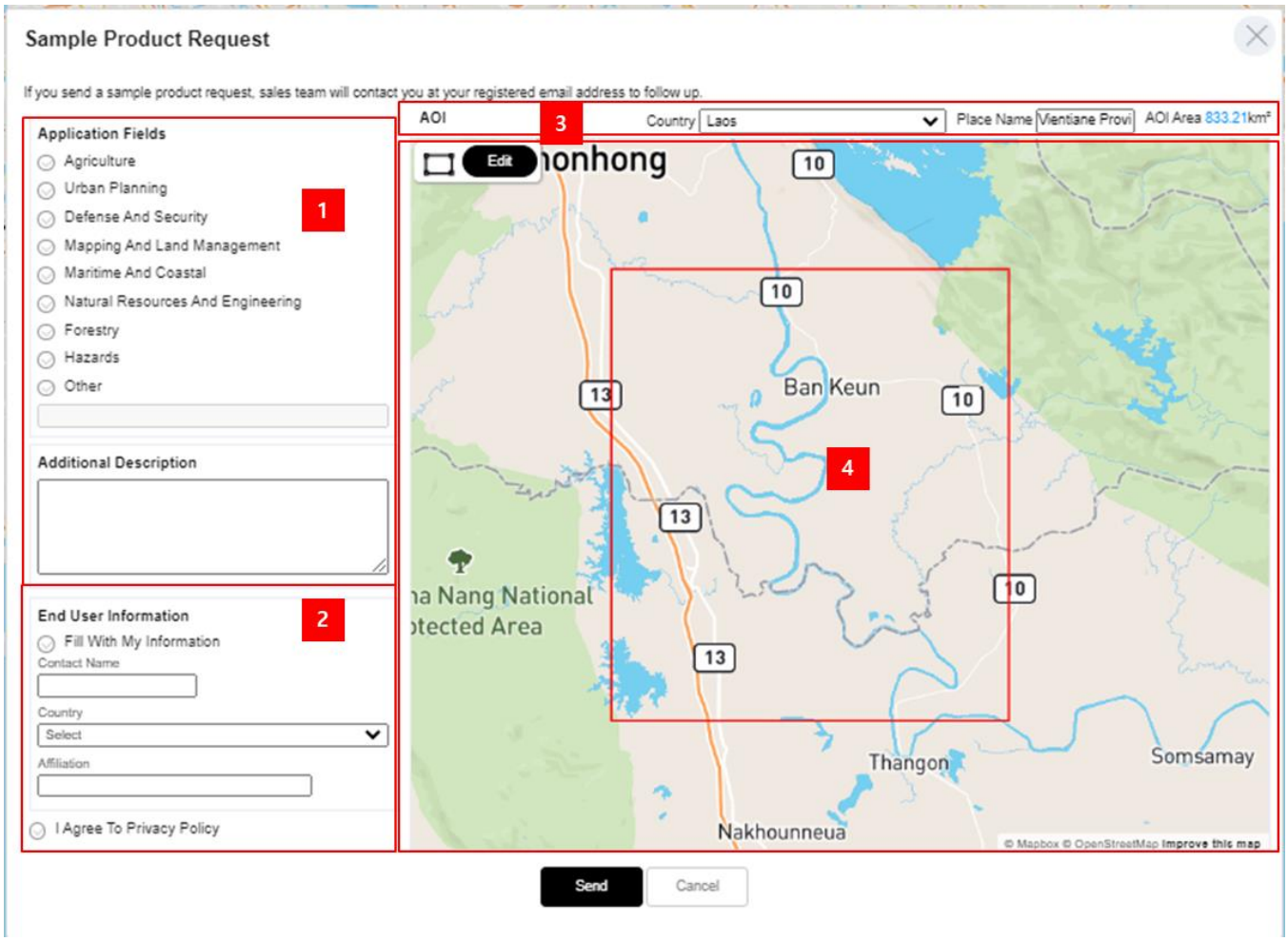
Sample Request

After sign in, a registered user can request sample product by clicking “sample request” icon on top right of main window.



After submission, the user will receive a notification mail that submission of sample request is successful. SIIS will get back to user via e-mail to understand user’s request in detail. Not all sample requests will be accepted. After consultation with the user, SIIS will decide provide sample data or not.

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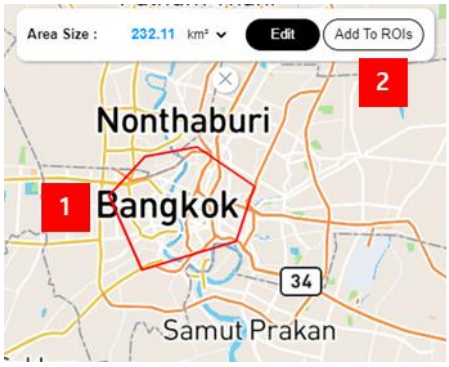
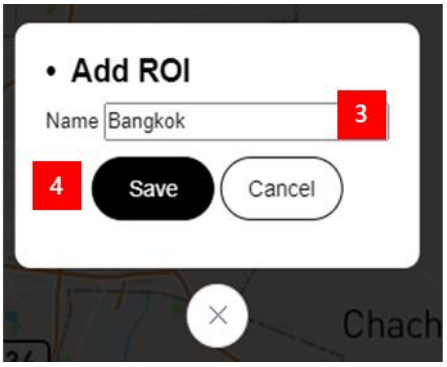
Manage Your Account

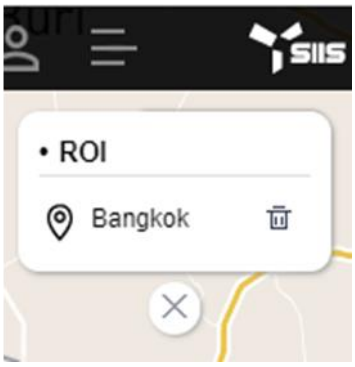
1 ROI Management

When you have area that use frequently for search catalogue or ordering, you can add the area to ROI. To use ROI management, you have to sign in.

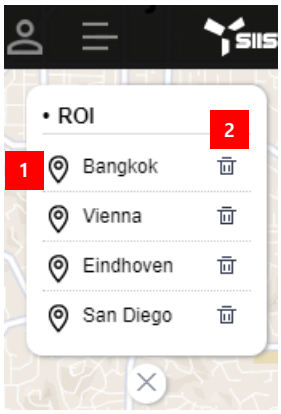
- Add ROI
  - How to : draw an AOI → Click (Add To ROIs)→ Set name of ROI → Click Save







- Display ROI list and draw a ROI on map
  - Menu : My Page → ROI
  - How to: select a ROI from the ROI list.
- Delete ROI
  - How to : click the icon of ROI to be deleted.



2 Account Lock

When you fail 5 times to sign in with wrong password, your account will be locked and sign in to your account will be limited. Send request to SIIS's order desk via [Inquiry] or e-mail to unlock your account. SIIS will send you a temporary password via e-mail. You have to change your password as soon as you receive a temporary password.

3 Password Change

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To protect User's account and secure Spaceeye system, users must change their password at least once every three months.

- Menu : My Page →Change Password
- How to: input the current password and new password twice.

- Rule of password
  - At least 10 characters
  - At least 1 uppercase, 1 lowercase letter, 1 number and 1 special character.
  - User ID shall not be used as a part of the password

[End of Document]

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