

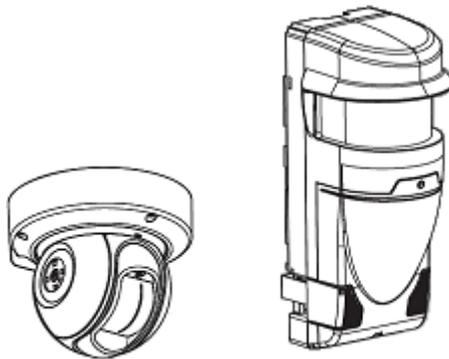


REDSCAN Manager Advanced Help

Version 8.3.4.0

REDSCAN Manager Advanced is Windows application software to configure REDSCAN series, RLS-2020I, RLS-2020S, RLS-3060L, and RLS-3060SH.

Once RLS-3060SH/L were adjusted with REDSCAN Manager Ver.8 or later, do not readjusted with its earlier than Ver.8 in order to avoid unexpected activations.





Contents

REDSCAN Manager Quick Start.....	4
[Install of REDSCAN Manager]	4
[PC Settings for REDSCAN Manager].....	5
[Connecting to REDSCAN]	7
[Area Set]	10
[REDWALL Event Code Settings].....	13
[Terminal Settings]	15
[Disconnecting REDSCAN].....	19
[Recommended PC Specifications]	20
REDSCAN Manager Trouble Shooting	21
Can not Install REDSCAN Manager	21
Can not connect to REDSCAN	21
Can not set/save settings to REDSCAN.	22
Graphics on Map is jerky.	22
REDWALL Event Code is not displayed on REDSCAN Manager.....	22
REDWALL Event Code does not work on VMS.	22
REDWALL Event Code does not work on Milestone XProtect.	23
Many False Alarms	23
Malfunction?.....	23
REDSCAN Manager Function List	24
[Install of REDSCAN Manager]	24
[PC Settings for REDSCAN Manager].....	25
[Login]	27
[Group Registration].....	28
[Connecting to REDSCAN]	31
[Area Set]	34
[Detection Mode: Basic Settings] (RLS-2020 series)	38
[Detection Mode: Advanced Settings] (RLS-2020 series).....	40
[Detection Mode: Basic Settings] (RLS-3060SH).....	44
[Detection Mode: Advanced Settings] (RLS-3060SH).....	48
[Detection Mode: Basic Settings] (RLS-3060L).....	52
[Detection Mode: Advanced Settings] (RLS-3060L).....	55
[Adjusting Detection Area]	58



[Area Masking] RLS-2020 series, RLS-3060SH or RLS-3060L (version 8.0.0 or later)	64
[Area Allocating] RLS-2020 series, RLS-3060SH or RLS-3060L (version 8.0.0 or later)	66
[REDWALL Event Code Settings].....	68
[Terminal Settings]	70
[Network Settings].....	74
[Detector Authentication].....	75
[Export/Import]	76
[Snapshot].....	78
[Recording].....	79
[Playback]	80
[View]	81
[REDSCAN Manager Settings]	82
[Disconnecting REDSCAN].....	84
REDSCAN Manager Glossary	85



REDFSCAN Manager Quick Start

This Quick Start shows minimum sequence to set up REDSCAN series.

[Install of REDSCAN Manager]

1. Download the latest version of REDSCAN Manager Advanced installer from the web page.
<http://www.optex.co.jp/e/redwall/download/index.html>
2. Start the installer.
3. Follow the instructions.



[PC Settings for REDSCAN Manager]

REDSCAN mini has 2 LAN ports, main and maintenance.

- Default settings of main Ethernet Port:

IP Address	192.168.0.126
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1

- Default settings of Maintenance Port:

IP Address	192.168.1.126
Subnet Mask	255.255.255.0

1. Change network settings of the PC to communicate with REDSCAN. (Example: 192.168.0.100 and 255.255.255.0 for communication with main port)

- Windows 7

- (1) On the taskbar, click Start, click Run command, enter ncpa.cpl and press Enter key.
- (2) Select Local Area Connection to which the REDSCAN unit is connected and then display Properties.
- (3) Select Internet Protocol (TCP/IP) under General, and set the IP address and subnet mask from Properties.

- Windows 8.1

- (1) On the taskbar, click Start, click Search, enter ncpa.cpl and press Enter key.
- (2) Select Local Area Connection to which the REDSCAN unit is connected and then display Properties.
- (3) Select Internet Protocol Version 4 (TCP/IPv4) under General, and set the IP address and subnet mask from Properties.

- Windows 10

- (1) Enter ncpa.cpl in Search on the taskbar, press Enter key.
- (2) Select Local Area Connection to which the REDSCAN unit is connected and then display Properties.
- (3) Select Internet Protocol Version 4 (TCP/IPv4) under General, and set the IP address and subnet mask from Properties.

2. Change firewall settings of the PC.

- Windows 7

- (1) On the taskbar, click Start, click Run command, enter Firewall.cpl and press Enter key.
- (2) On the left of the screen click Advanced settings.



- (3) Select Inbound Rules, then select REDSCAN Manager Advanced from the list.
- (4) Double-click on REDSCAN Manager Advanced to open Properties.
- (5) On the General tab, select Allow Connect and click OK. On the Advanced settings tab, check all profiles. If there are multiple REDSCAN Manager Advanced in the list, change settings of the all REDSCAN Manager Advanced.

- Windows 8.1

- (1) On the taskbar, click Start, click Search, enter Firewall.cpl and press Enter key.
- (2) On the left of the screen click Advanced settings.
- (3) Select Inbound Rules, then select REDSCAN Manager Advanced from the list.
- (4) Double-click on REDSCAN Manager Advanced to open Properties.
- (5) On the General tab, select Allow Connect and click OK. On the Advanced settings tab, check all profiles. If there are multiple REDSCAN Manager Advanced in the list, change settings of the all REDSCAN Manager Advanced.

- Windows 10

- (1) Enter Firewall.cpl in Search on the taskbar, press Enter key.
- (2) On the left of the screen click Advanced settings.
- (3) Select Inbound Rules, then select REDSCAN Manager Advanced from the list.
- (4) Double-click on REDSCAN Manager Advanced to open Properties.
- (5) On the General tab, select Allow Connect and click OK. On the Advanced settings tab, check all profiles. If there are multiple REDSCAN Manager Advanced in the list, change settings of the all REDSCAN Manager Advanced.



[Connecting to REDSCAN]

Notes:

This detector authentication can be set separately from Log-in User ID and Password.

RLS-3060 series:

When you connect to RLS-3060 after upgrading REDSCAN Manager Advanced, Entering password can be required, as Detector Authentication.

If you have not changed the password of RLS-3060 unit, please enter the following default authentication information and click OK.

Default Password: laser306

Or, if you changed the password, please enter it in Password window to access the unit.

RLS-2020 series:

User ID and Password can be changed.

Default User ID: REDSCAN

Default Password: OPTEx

Once the connection between REDSCAN Manager Advanced software and the REDSCAN unit was established, the authentication information was stored.

But, if they were changed by WEB browser or other REDSCAN Manager software, entering user ID and password which were stored in the REDSCAN unit can be required.



1. Start REDSCAN Manager.
2. Enter User ID and Password. Default settings are REDSCAN and OPTEX.
If Windows Firewall Message appears, check all 3 boxes and allow the access.

The screenshot shows a dialog box titled "REDSCAN Manager Login". It contains two text input fields: "User ID" with the value "REDSCAN" and "Password" with the value "OPTEX". Below these fields is a checkbox labeled "Remember password in the PC and skip this window." which is currently unchecked. There is a "Change Password" button below the checkbox. At the bottom of the dialog are two buttons: "Login" and "Exit".

3. If REDSCAN Manager is started for the first time, Initial Settings are required.
 - (1) Enter preferable name of target REDSCAN.
 - (2). Select model name of the target.
 - (3). Enter IP address of the target. Default IP address of main port of REDSCAN mini is 192.168.0.126.
 - (4). lick Next.
 - (5) If the settings are ok, click Complete.

The screenshot shows a dialog box titled "Initial Settings". It contains the following text: "Enter detector name and IP address." followed by "Default IP address:" and two lines of text: "192.168.0.126 (Main port)" and "192.168.1.126 (Maintenance port)". Below this text are three input fields: "Detector Name" with the value "Detector 1", "Detector Model" with a dropdown menu showing "RLS-2020", and "IP Address (IPv4)" with the value "192.168.0.126". At the bottom of the dialog are three buttons: "Exit", "Previous", and "Next".

4. Click Connect button at upper left.



If Windows Firewall Message appears, check all 3 boxes and allow the access.



Click connect button again.

[Area Set]

Area Set enables to learn background of the area. The background information is base for decreasing false alarm.

[RLS-2020]

1. If Area Set is not done yet, the 2nd button is active. Click the Area Set button.



2. Dialog box will appear. Click OK. Area Set will be completed in 15 seconds.



3. Once Area Set is done, the 2nd button is disabled. To do Area Set again, select Advanced Settings and click the 6th button.

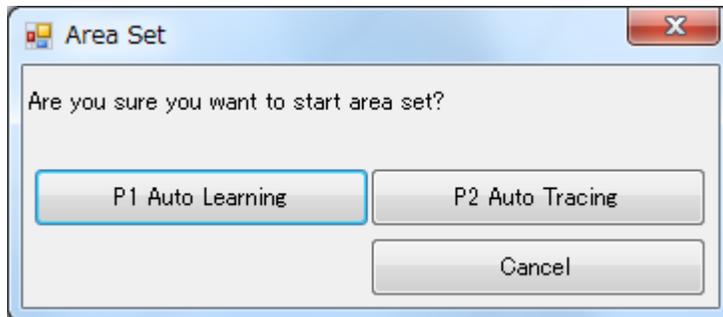


[RLS-3060]

1. If Area Set is not done yet, the 2nd button is active. Click the Area Set button.



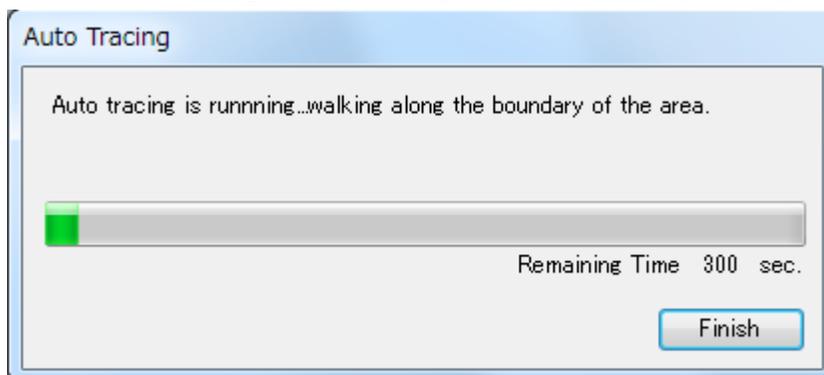
2. Dialog box will appear. Click P1 Auto Learning or P2 Auto Tracing.



3. P1 Auto Learning will be completed in 20 seconds.

In case of P2 Auto Tracing, walking along the boundary of the area within 300 seconds.

When movement of the target object along the area boundary has finished before this time, you can terminate the tracing without waiting for 300 seconds by clicking Finish.



4. Once Area Set is done, the 2nd button is disabled. To do Area Set again, select Advanced Settings and click the 6th button.





It is recommended to confirm the detection area by walk-test. To adjust the detection area, refer the page below.

[Adjusting Detection Area]

For detailed settings, refer pages below.

[Detection Mode: Basic Settings] (RLS-2020 series)

[Detection Mode: Advanced Settings] (RLS-2020 series)

[Detection Mode: Basic Settings] (RLS-3060SH)

[Detection Mode: Advanced Settings] (RLS-3060SH)

[Detection Mode: Basic Settings] (RLS-3060L)

[Detection Mode: Advanced Settings] (RLS-3060L)

[Area Masking] RLS-2020 series, RLS-3060SH or RLS-3060L (version 8.0.0 or later).

[Area Allocating] RLS-2020 series, RLS-3060SH or RLS-3060L (version 8.0.0 or later).

[REDWALL Event Code Settings]

Configure REDWALL Event Code (R.E.C.) settings. R.E.C. is stored in UDP or TCP payload and sent from REDSCAN as alarm.

Refer INSTALLTION INSTRUCTIONS or REDWALL Event Code specifications for details of the code.

If you do not use R.E.C., skip this page.

1. Click I/O Settings button (the 4th button).



2. Dialog box will appear.

Note: Terminal tab of RLS-3060 can used for Version 8.0.0 or later.

Select preferable settings.

Default settings are:

- Protocol: UDP
- Detector ID: The last byte of IP address of the REDSCAN. (Example: 126 of 192.168.0.126)
- UDP: Broadcast, Destination Port Number 1234



Notes:

- To show R.E.C. on REDSCAN Manager, UDP is required. Select Broadcast, or Unicast with IP Address of the PC.
- To send R.E.C. to VMS (Video Management Software), TCP is recommended. Select TCP and set IP Address of the PC of VMS.
- To add multiple REDSCANs to Milestone XProtect, set unique Port Number to each REDSCAN. Over 12346 is recommended.

Transmission interval of Trouble code: It specifies interval when trouble code is sent periodically.

Clear Code Timing: It specifies the timing of clear code after the alarm is cleared.

Heartbeat for Device Monitoring: If it is checked, DM code is stored in R.E.C. and sent by Transmission Interval of Trouble Code.

3. Click Save button.

[Terminal Settings]

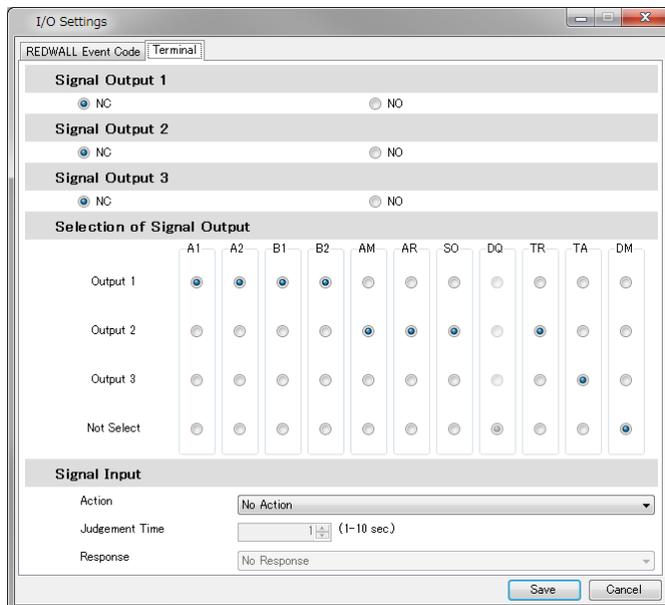
Select relay output settings. If you do not use relay output, skip this page.

1. Click I/O Settings button (the 4th button).

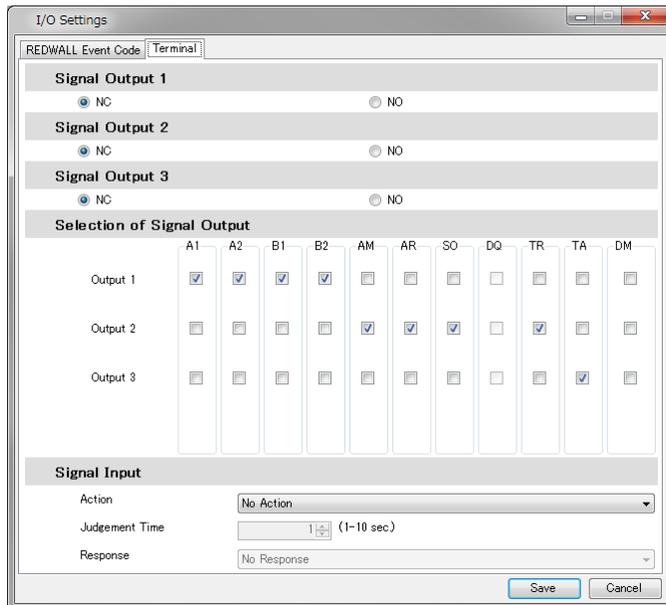


2. Dialog box will appear. Click Terminal tab.

RLS-2020 Terminal tab screen (Versions earlier than 2.1.0)



RLS-2020 Terminal tab screen (Version 2.1.0 or later)



The screenshot shows the 'I/O Settings' window for the 'Terminal' tab. It includes sections for 'Signal Output 1', 'Signal Output 2', and 'Signal Output 3', each with radio buttons for 'NC' (selected) and 'NO'. Below is a 'Selection of Signal Output' table with columns for A1, A2, B1, B2, AM, AR, SO, DO, TR, TA, and DM. The 'Signal Input' section at the bottom has dropdowns for 'Action' (set to 'No Action'), 'Judgement Time' (set to '1 (1-10 sec)'), and 'Response' (set to 'No Response'). 'Save' and 'Cancel' buttons are at the bottom right.

	A1	A2	B1	B2	AM	AR	SO	DO	TR	TA	DM
Output 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Output 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Output 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						

Signal Output 1 - 3

Select NC (Normally Closed) or NO (Normally Open).

Note: When power is down, signal outputs are opened.

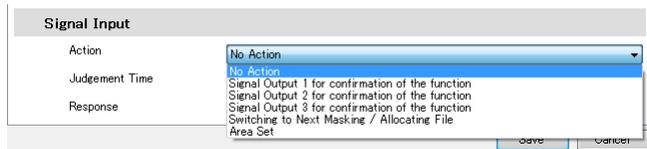
Assign A1 - DM to Output 1 -3. Default settings are:

- Signal Output 1: N.C. A1, A2, B1, B2
- Signal Output 2: N.C. AM, AR, SO, TR
- Signal Output 3: N.C. TA
- Not Select: DM (DM can be selected with V 2.0.3 or higher)

Signal Input (RLS-2020S Only)

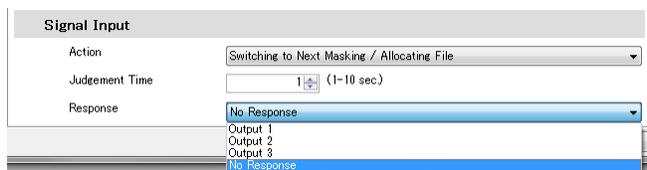
If Signal Input is closed, the Action and the Response are done after the Judgement Time. Signal input shorter than Judgement Time is ignored.

Select preferable Action triggered by signal input.

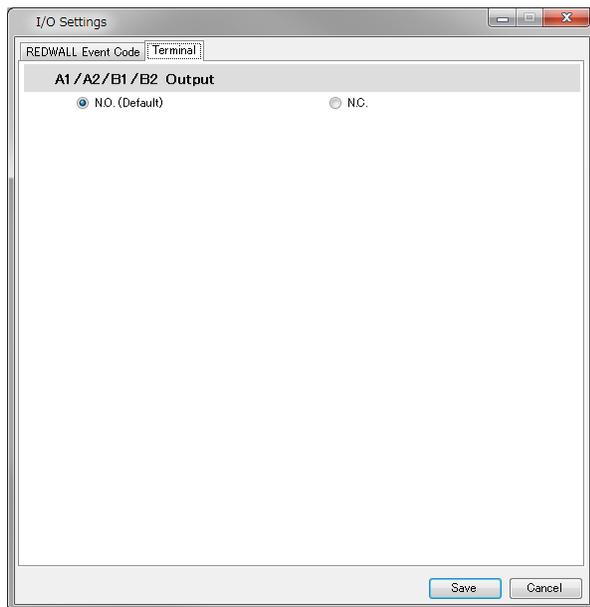


- Signal Output N for confirmation of the function: Signal Output N is activated.
- Switching to Next Masking / Allocating File: Current Masking/Allocating Files is switched to next File.
- Area Set: Area Set is started.

Response is available when Switching to Next Masking / Allocating File or Area Set is selected. Select preferable Response which can be used to confirm that the action is triggered.



RLS-3060 Terminal tab screen (Version 8.0.0 or later)



A1/A2/B1/B2 Output

Select N.O. (Normally Open) or N.C. (Normally Closed).



Meanings of abbreviations

- N.C.: Normally Closed
- N.O.: Normally Open
- A1: A1 area set by Allocating function
- A2: A2 area set by Allocating function
- B1: B1 area set by Allocating function
- B2: B2 area set by Allocating function
- AM: Anti-Masking
- AR: Anti-Rotation
- SO: Soiling
- DQ: Environmental Disqualification (RLS-2020S Only.)
- TR: Device Trouble
- TA: Tamper Output
- DM: Device Monitoring

3. Click Save button.

[Disconnecting REDSCAN]

After settings and confirmation by walk-test, disconnect REDSCAN.

1. Click Disconnect button (the 5th button).



2. Close REDSCAN Manager.



[Recommended PC Specifications]

Operating System	Microsoft Windows 7 Professional (32 bit) Microsoft Windows 7 Professional (64 bit) Microsoft Windows 8.1 Professional (32 bit) Microsoft Windows 8.1 Professional (64 bit) Microsoft Windows 10 Professional (32 bit) Microsoft Windows 10 Professional (64 bit)
CPU	Intel® Core(TM) i5 CPU M 520, 2.4GHz or above
RAM	1 GB or above
Graphics	1024*768 or above
Network	Ethernet (100BASE-TX or above)
HDD free space	1 GB or above

Microsoft and Windows are registered trademarks of Microsoft Corporation.

All other trademarks mentioned in this document are trademarks of their respective owners.

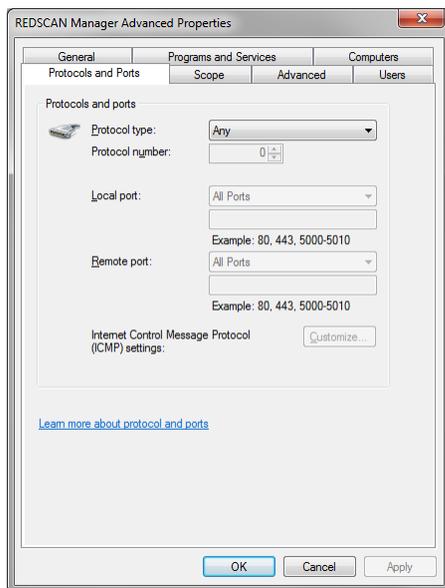
REDSKAN Manager Trouble Shooting

Can not Install REDSCAN Manager

- Install to recommended PC below.
[Recommended PC Specifications]
- If REDSCAN Manager is running, close the REDSCAN Manager.
- If another installer is running, wait for the install to complete.

Can not connect to REDSCAN

- RLS-2020 series has 2 LAN ports, main Ethernet port and Maintenance port. Check which port is used. Refer below page for default settings of main and maintenance ports.
[PC Settings for REDSCAN Manager]
- Check network settings of the PC and REDSCAN. Are they correct? Try ping from the PC to REDSCAN. (Example: Open command prompt and enter [ping 192.168.0.126].)
- Is Windows firewall opened for REDSCAN Manager?
[PC Settings for REDSCAN Manager]
- Check Windows firewall settings.
Control Panel --- Windows Firewall --- Advanced settings --- Inbound Rules. Select REDSCAN Manager Advanced, right click it, and select Properties. Select Protocols and Ports tab. If Protocol type is not Any, select Any.





- Click Edit Detector Information button of REDSCAN Manager. Is the IP Address of the target REDSCAN registered? Is correct model name selected?
[Group Registration]

Note: Capturing packets by WireShark enables detailed investigation.

- Check the detector authentication.
[When the authentication screen is displayed.]
[Forget detector authentication.]

Can not set/save settings to REDSCAN.

- User Account Control in Windows can prevent communication between REDSCAN Manager and REDSCAN. Turn off User Account Control. For details of User Account Control, see information from Microsoft.

Graphics on Map is jerky.

- If the PC does not have enough performance, change PC Graphics Performance setting in [REDSCAN Manager Settings]
- Interrupt Moderation of the NIC can prevents smooth graphics on the map. Disable Interrupt Moderation of Adapter Settings on Windows.

REDWALL Event Code is not displayed on REDSCAN Manager.

Check R.E.C. settings. REDSCAN Manager requires broadcast or unicast UDP to show R.E.C.
[REDWALL Event Code Settings]

If broadcast is selected, the REDSCAN and the PC must be in the same network segment.
[PC Settings for REDSCAN Manager]

REDWALL Event Code does not work on VMS.

Check R.E.C. settings. Is the destination IP address of R.E.C. correct?

Check Windows firewall settings of the VMS PC. Is the destination port number allowed?

Does the VMS waiting for the destination port number of R.E.C?

[REDWALL Event Code Settings]

VMS may require unique Detector ID to each REDSCAN. Are Detector IDs of REDSCANS different each other?



REDWALL Event Code does not work on Milestone XProtect.

Check R.E.C. settings. Is the destination IP address of R.E.C. correct?

Check Windows firewall settings of the XProtect PC. Is the destination port number allowed?

Is the XProtect waiting for the destination port number of R.E.C?

[REDWALL Event Code Settings]

To add multiple REDSCANS to Milestone XProtect, destination port numbers should be different each other.

Check all destination port numbers of multiple REDSCANS.

Many False Alarms

- Is background of the area changed? Do Area Set again to learn current background.
[Area Set]
- Water pool causing false alarm? Window glass causing false alarm? Adjust detection area.
[Adjusting Detection Area]
- Flying birds or small objects causing false alarm? Adjust target size and sensitivity.
[Detection Mode: Basic Settings] (RLS-2020 series)
[Detection Mode: Basic Settings] (RLS-3060SH)
[Detection Mode: Basic Settings] (RLS-3060L)
- Plants causing false alarm? Adjust Ignoring Area from Ground, check Adjust Detection Area, and/or adjust Masking.
[Detection Mode: Basic Settings] (RLS-2020 series)
[Detection Mode: Basic Settings] (RLS-3060SH)
[Detection Mode: Basic Settings] (RLS-3060L)
[Area Masking] RLS-2020 series, RLS-3060SH or RLS-3060L (version 8.0.0 or later).

Malfunction?

- If network switch is supplying power to RLS-3060 via PIE-1, PoE+ switch is required.
- If new PoE device is added to the same PoE hub with REDSCAN, check the total wattage limitation of the PoE hub. Remove devices which exceed the limitation.
- Is new unit added to Milestone XProtect? Milestone XProtect requires unique destination port number to each REDSCAN. Check the destination port numbers of R.E.C.
[REDWALL Event Code Settings]



REDFSCAN Manager Function List

[Install of REDSCAN Manager]

1. Download the latest version of REDSCAN Manager Advanced installer from the web page.
<http://www.optex.co.jp/e/redwall/download/index.html>
2. Start the installer.
3. Follow the instructions.

[Recommended PC Specifications]



[PC Settings for REDSCAN Manager]

REDSCAN mini has 2 LAN ports, main and maintenance.

- Default settings of main Ethernet Port:

IP Address	192.168.0.126
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1

- Default settings of Maintenance Port:

IP Address	192.168.1.126
Subnet Mask	255.255.255.0

1. Change network settings of the PC to communicate with REDSCAN. (Example: 192.168.0.100 and 255.255.255.0 for communication with main port)

- Windows 7

- (1) On the taskbar, click Start, click Run command, enter ncpa.cpl and press Enter key.
- (2) Select Local Area Connection to which the REDSCAN unit is connected and then display Properties.
- (3) Select Internet Protocol (TCP/IP) under General, and set the IP address and subnet mask from Properties.

- Windows 8.1

- (1) On the taskbar, click Start, click Search, enter ncpa.cpl and press Enter key.
- (2) Select Local Area Connection to which the REDSCAN unit is connected and then display Properties.
- (3) Select Internet Protocol Version 4 (TCP/IPv4) under General, and set the IP address and subnet mask from Properties.

- Windows 10

- (1) Enter ncpa.cpl in Search on the taskbar, press Enter key.
- (2) Select Local Area Connection to which the REDSCAN unit is connected and then display Properties.
- (3) Select Internet Protocol Version 4 (TCP/IPv4) under General, and set the IP address and subnet mask from Properties.

2. Change firewall settings of the PC.

- Windows 7

- (1) On the taskbar, click Start, click Run command, enter Firewall.cpl and press Enter key.
- (2) On the left of the screen click Advanced settings.



- (3) Select Inbound Rules, then select REDSCAN Manager Advanced from the list.
- (4) Double-click on REDSCAN Manager Advanced to open Properties.
- (5) On the General tab, select Allow Connect and click OK. On the Advanced settings tab, check all profiles. If there are multiple REDSCAN Manager Advanced in the list, change settings of the all REDSCAN Manager Advanced.

- Windows 8.1

- (1) On the taskbar, click Start, click Search, enter Firewall.cpl and press Enter key.
- (2) On the left of the screen click Advanced settings.
- (3) Select Inbound Rules, then select REDSCAN Manager Advanced from the list.
- (4) Double-click on REDSCAN Manager Advanced to open Properties.
- (5) On the General tab, select Allow Connect and click OK. On the Advanced settings tab, check all profiles. If there are multiple REDSCAN Manager Advanced in the list, change settings of the all REDSCAN Manager Advanced.

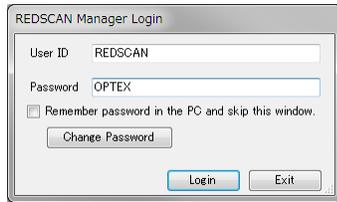
- Windows 10

- (1) Enter Firewall.cpl in Search on the taskbar, press Enter key.
- (2) On the left of the screen click Advanced settings.
- (3) Select Inbound Rules, then select REDSCAN Manager Advanced from the list.
- (4) Double-click on REDSCAN Manager Advanced to open Properties.
- (5) On the General tab, select Allow Connect and click OK. On the Advanced settings tab, check all profiles. If there are multiple REDSCAN Manager Advanced in the list, change settings of the all REDSCAN Manager Advanced.



[Login]

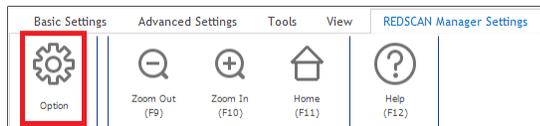
Start REDSCAN Manager. Enter User ID and Password. Default settings are REDSCAN and OPTEX.



To change Login password, click Change Password button.

If you want to skip the Login from next time, check the checkbox. The PC remembers the password.

If you want to activate the Login again, select REDSCAN Manager Settings menu and click Option button.



Select Enable in Login tab.

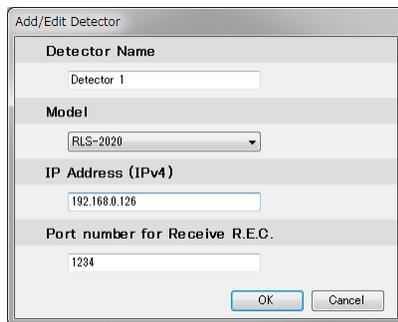
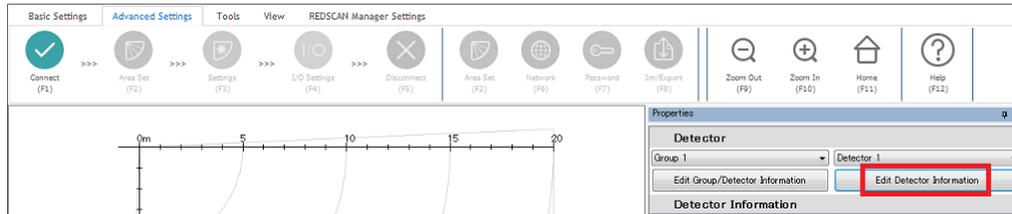


[Group Registration]

Group 1 is default group in which default unit Detector 1 is registered.

To edit registered group or detector information, disconnect current detector.

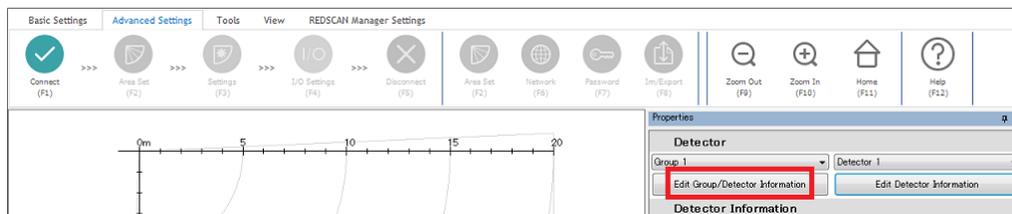
1. To change registered information of Detector 1, click Edit Detector Information button.

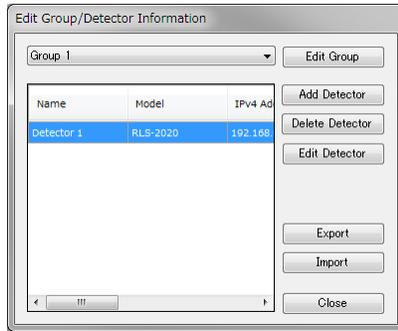


Enter preferable name, select target model, and enter IP address of the target REDSCAN.

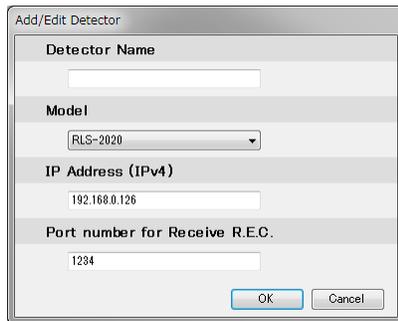
To show R.E.C. on REDSCAN Manager, enter R.E.C. port number of the target REDSCAN. (REDSKAN Manager displays UDP R.E.C. only.)

2. To register new unit, click Edit Group/Detector Information button.





Click Add Detector button.

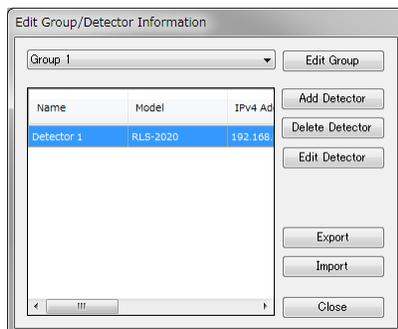
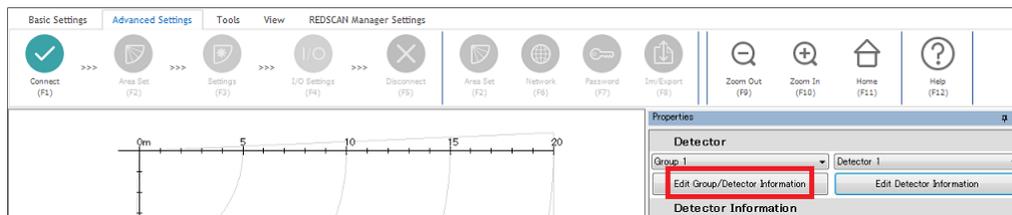


Enter Name, select model name, and enter IP address of target unit.

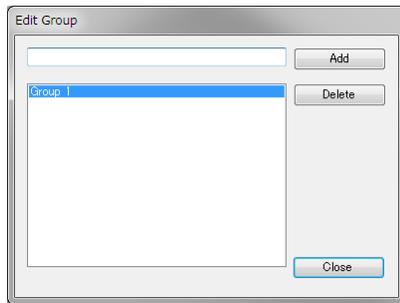
To change the settings, select the detector in the list, and click Edit Detector button.

To delete a detector, select the detector in the list, and click Delete Detector button.

3. To register new group, click Edit Group/Detector Information button.



Click Edit Group button.

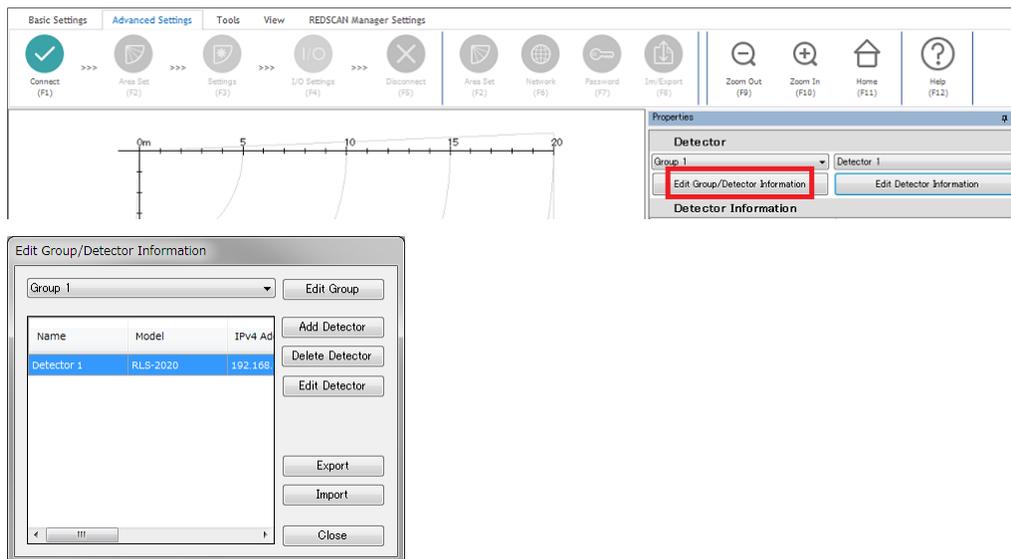


Enter group name and click Add button.

To delete a group, click Edit Group button, select the group in the list, and click Delete button.

4. To Export/Import Group Information

Click Edit Group/Detector Information button.



[Export]

1. Select a group in the group list.
2. Click Export button and save a xml file. The selected group information is exported.

[Import]

1. Click Import button and select an exported xml file.
2. If current group list does not have the name of the imported group, the imported group is added to the list. If current group list has the name of the imported group, the group in the list is overwritten by the imported file.



[Connecting to REDSCAN]

Notes:

This detector authentication can be set separately from Log-in User ID and Password.

RLS-3060 series:

When you connect to RLS-3060 after upgrading REDSCAN Manager Advanced, Entering password can be required, as Detector Authentication.

If you have not changed the password of RLS-3060 unit, please enter the following default authentication information and click OK.

Default Password: laser306

Or, if you changed the password, please enter it in Password window to access the unit.

RLS-2020 series:

User ID and Password can be changed.

Default User ID: REDSCAN

Default Password: OPTEx

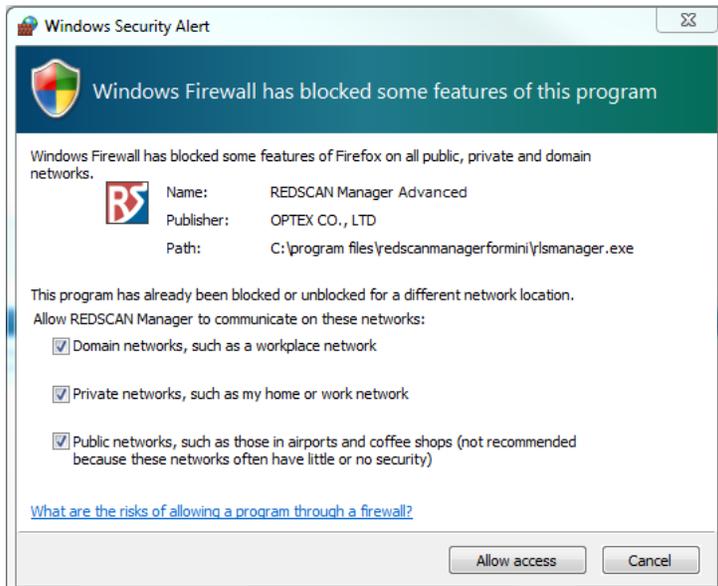
Once the connection between REDSCAN Manager Advanced software and the REDSCAN unit was established, the authentication information was stored.

But, if they were changed by WEB browser or other REDSCAN Manager software, entering user ID and password which were stored in the REDSCAN unit can be required.

1. Click Connect button at upper left.

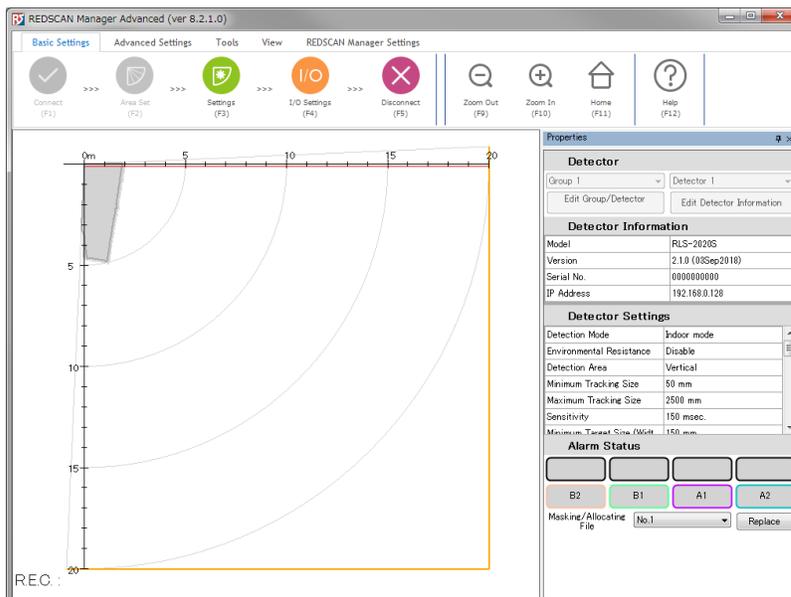


If Windows Firewall Message appears, check all 3 boxes and allow the access.



Click Connect button again.

Information of the REDSCAN will be displayed in Properties window.





Properties window can be closed by close button. To show the window again, see the page below.

REDFIELD Manager Settings

When the REDFIELD sends REDWALL Event Code (R.E.C.), it will be displayed under the map.

When some object is detected in A1,A2,B1,B2, A1,A2,B1,B2 lamp shows it.

Masking Allocating file can be switched by selecting a file and click Replace button. (RLS-2020S or RLS-3060SH)

Drag Zoom bar to adjust map size.

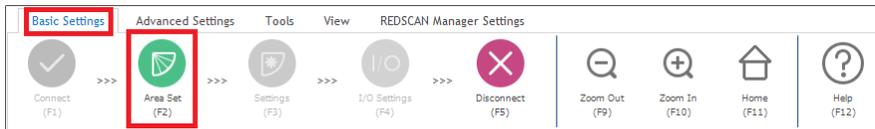
Drag and drop the map to preferable position. Home button enables to move the map to default position.

[Area Set]

Area Set enables to learn background of the area. The background information is base for decreasing false alarm.

[RLS-2020]

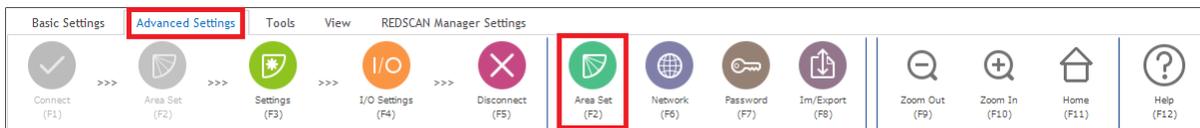
1. If Area Set is not done yet, the 2nd button is active. Click the Area Set button.



2. Dialog box will appear. Click OK. Area Set will be completed in 15 seconds.



3. Once Area Set is done, the 2nd button is disabled. To do Area Set again, select Advanced Settings and click the 6th button.

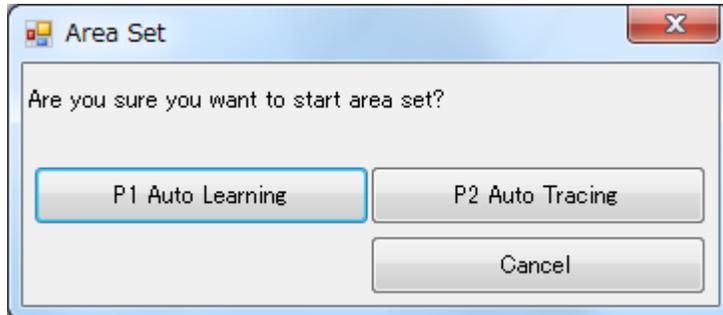


[RLS-3060]

1. If Area Set is not done yet, the 2nd button is active. Click the Area Set button.



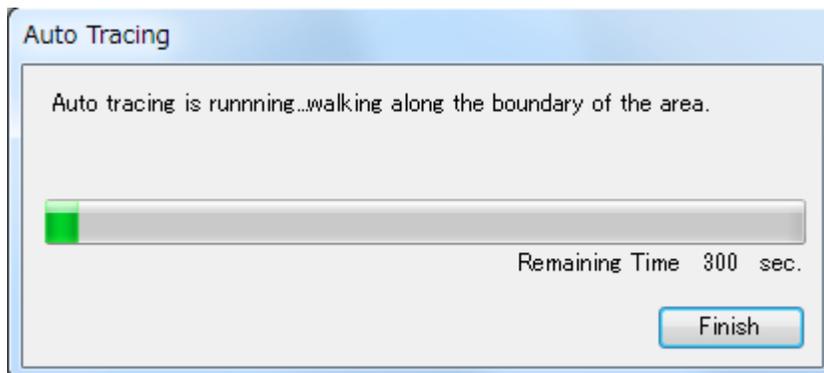
2. Dialog box will appear. Click P1 Auto Learning or P2 Auto Tracing.



3. P1 Auto Learning will be completed in 20 seconds.

In case of P2 Auto Tracing, walking along the boundary of the area within 300 seconds.

When movement of the target object along the area boundary has finished before this time, you can terminate the tracing without waiting for 300 seconds by clicking Finish.



4. Once Area Set is done, the 2nd button is disabled. To do Area Set again, select Advanced Settings and click the 6th button.





It is recommended to confirm the detection area by walk-test. To adjust the detection area, refer the page below.

[Adjusting Detection Area]

For detailed settings, refer pages below.

[Detection Mode: Basic Settings] (RLS-2020 series)

[Detection Mode: Advanced Settings] (RLS-2020 series)

[Detection Mode: Basic Settings] (RLS-3060SH)

[Detection Mode: Advanced Settings] (RLS-3060SH)

[Detection Mode: Basic Settings] (RLS-3060L)

[Detection Mode: Advanced Settings] (RLS-3060L)

[Area Masking] RLS-2020 series, RLS-3060SH or RLS-3060L (version 8.0.0 or later).

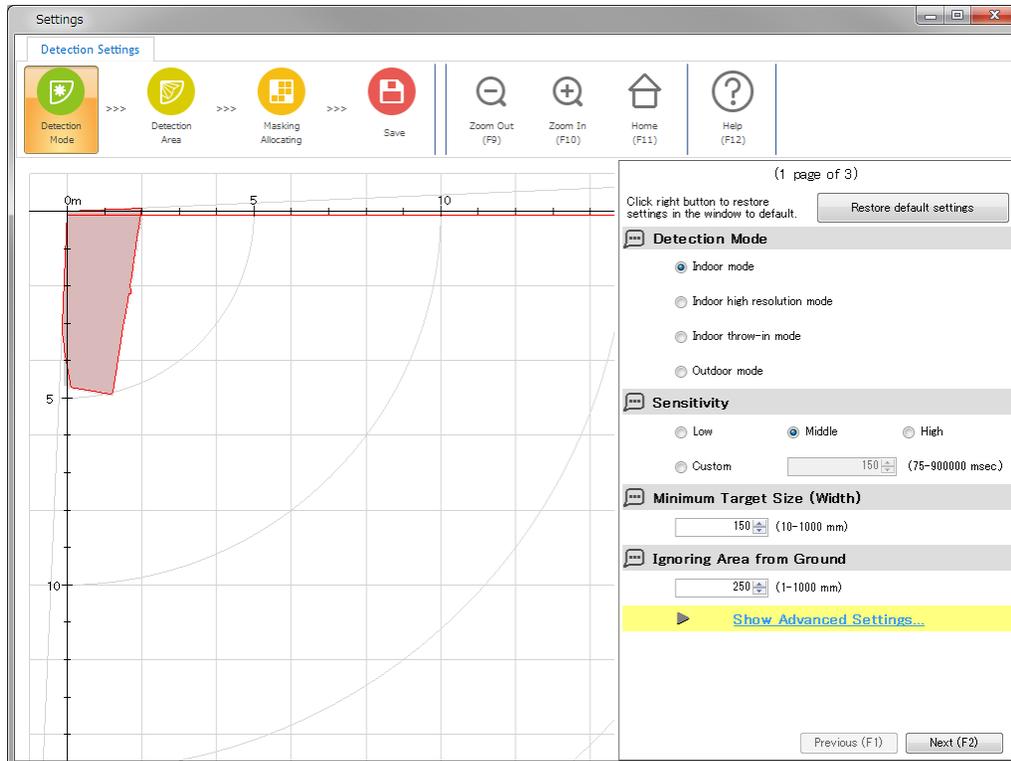
[Area Allocating] RLS-2020 series, RLS-3060SH or RLS-3060L (version 8.0.0 or later).

[Detection Mode: Basic Settings] (RLS-2020 series)

1. Click Settings button (the 3rd button).



2. Dialog box will appear.



3. Select preferable settings.

To set default settings, click Restore default settings button.



[Detection Mode] (Default: Indoor Mode)

- Indoor Mode: For general indoor applications. Can make vertical detection area or horizontal detection area according to the mounting direction.
- Indoor High Resolution Mode (RLS-2020S Only): By increasing detection resolution, the unit can detect small object at longer distance. In standard Indoor Mode, the resolution is 0.25 degrees. In this High Resolution mode, it gets 0.125 degrees. Thus, the minimum size of detectable object can be half, and far object can be detected. But it takes longer time to scan the area, and fast object may not be detected. This mode shall be used for only indoor applications.
- Indoor Throw-in Mode (RLS-2020S Only): This mode is to detect fast object which is thrown into the detection area. Objects in a moment can be detected, but false alarm can increase in harsh environment. This mode shall be used for only indoor application.
- Outdoor Mode (RLS-2020S Only): This option can be selected for general outdoor applications. In this mode, the special algorithm works to reduce false alarms caused by weather conditions (e.g. rain, snow or fog). In order to reduce false alarms under harsh environment, the Environmental Resistance function is available.

[Sensitivity] (Default: Middle)

The Sensitivity is to avoid false alarm caused by instantaneous event. If an object is detected longer than the Sensitivity time, alarm is issued.

[Minimum Target Size (Width)] (Default: 150)

The Size is to avoid false alarm caused by small object. If an object is smaller than Minimum Target Size, the object is ignored.

[Ignoring Area from Ground] (Vertical mode Only) (Default: 250)

Objects near to ground are ignored. Enter the height of the ignoring area.

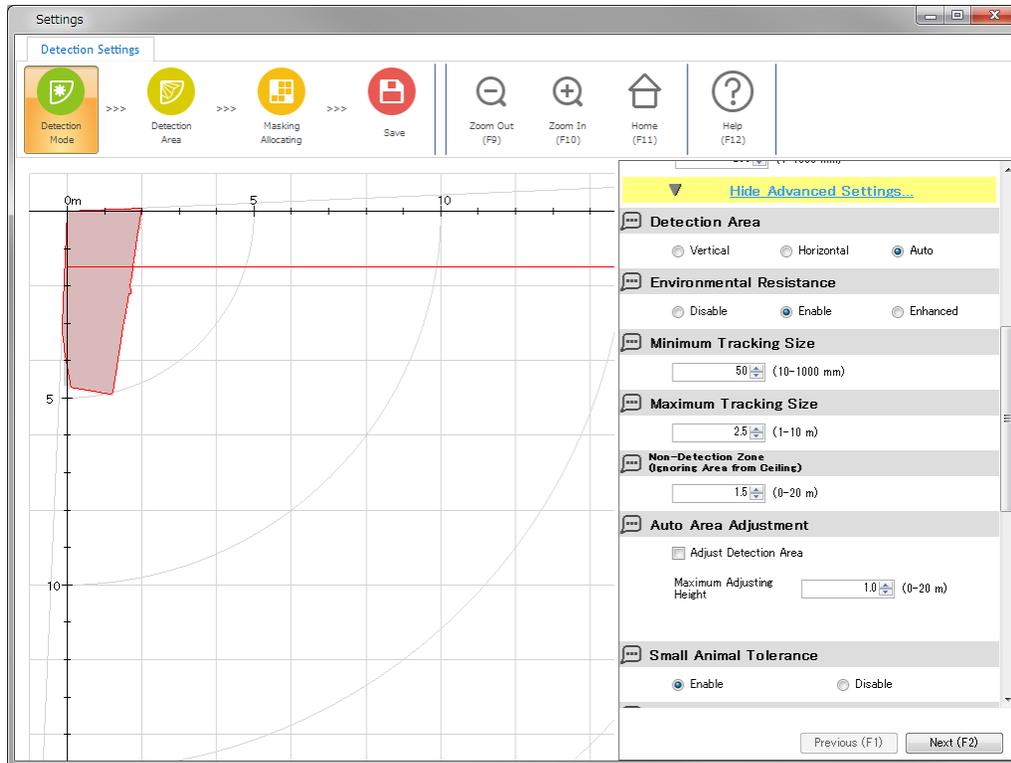
4. Click Next button and click Save button in the next page to save the changes.

[Detection Mode: Advanced Settings] (RLS-2020 series)

1. Click Setting button (the 3rd button).



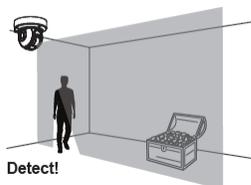
2. Dialog box will appear. Click Show Advanced Settings. Select preferable settings.



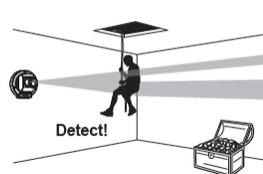
[Detection Area]

- Vertical: Creating a detection area perpendicular to the ground, such as wall protection.
- Horizontal: Creating a detection area in parallel with the ground, such as ceiling protection.
- Auto: The direction is detected automatically when Area set is done.

Vertical Detection Area



Horizontal Detection Area





[Environmental Resistance] (Outdoor mode Only)

- Disable: Select it for applications to control PTZ camera. Response time of alarm is minimum but false alarm can increase in harsh environment such as a fog or snow.
- Enable: False alarm can be reduced by balanced detection ability.
- Enhanced: False alarm due to fog or snow is reduced, but response time is long and some objects may not be detected.

[Minimum Tracking Size]

If an object is smaller than Minimum Tracking Size, the object is ignored. After an object is detected, the object is tracked while the size is larger than Minimum Tracking Size.

[Maximum Tracking Size]

If an object is bigger than Maximum Tracking Size, the object is ignored. After an object is detected, the object is tracked while the size is smaller than Maximum Tracking Size.

[Non-Detection Zone (Ignoring Area from Ceiling)] (Vertical mode Only)

Objects near to ceiling are ignored. In vertical detection area, protruding objects on the ceiling can cause false alarm. Enter the height of the ignoring area.

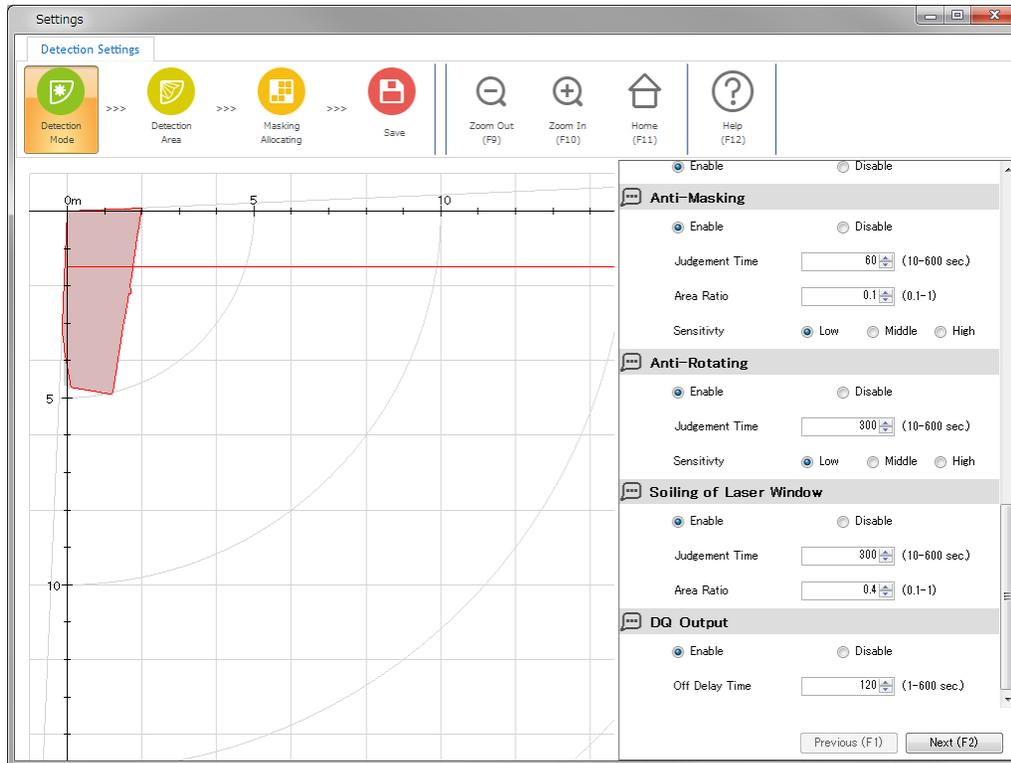
[Auto Area Adjustment]

REDSKAN continues to learn background area and update background information gradually.

By checking Adjust Detection Area, the detection area is adjusted proportionally to the background. (i.e. False alarm by snow can be reduced.)

In vertical mode, learning area can be limited to Maximum Adjusting Height. Changes under the height are learned as background.

In horizontal mode, learning area can be limited to Width of learning Perimeter. Changes in the perimeter are learned as background.



[Small Animal Tolerance] (Vertical mode Only)

In vertical mode, small animals on the ground are ignored by this function.

[Anti-Masking]

This is to detect obstacles which mask the detector. The result is reflected to relay output and R.E.C.

- Judgement Time: Set the minimum duration for the detection.
- Area Ratio: Set the minimum ratio of masked area for the detection.
- Sensitivity: Select sensitivity for the detection.

[Anti-Rotation]

This is to detect that someone rotated the detector. The result is reflected to relay output and R.E.C.

- Judgement Time: Set the minimum duration for the detection.
- Sensitivity: Select sensitivity for the detection.

[Soiling of Laser Window]

This is to detect dirt on Laser Window. The result is reflected to relay output and R.E.C.

- Judgement Time: Set the minimum duration for the detection.
- Area Ratio: Set the minimum ratio of the dirty Laser Window for the detection.



[DQ Output] (RLS-2020S Only)

If it is enabled, DQ Output is activated while fog, rain, or snow is detected. DQ Output can be included in relay output and R.E.C.

- Off Delay Time: Set the time to deactivate the DQ Output after the detection of fog, rain, or snow is finished.

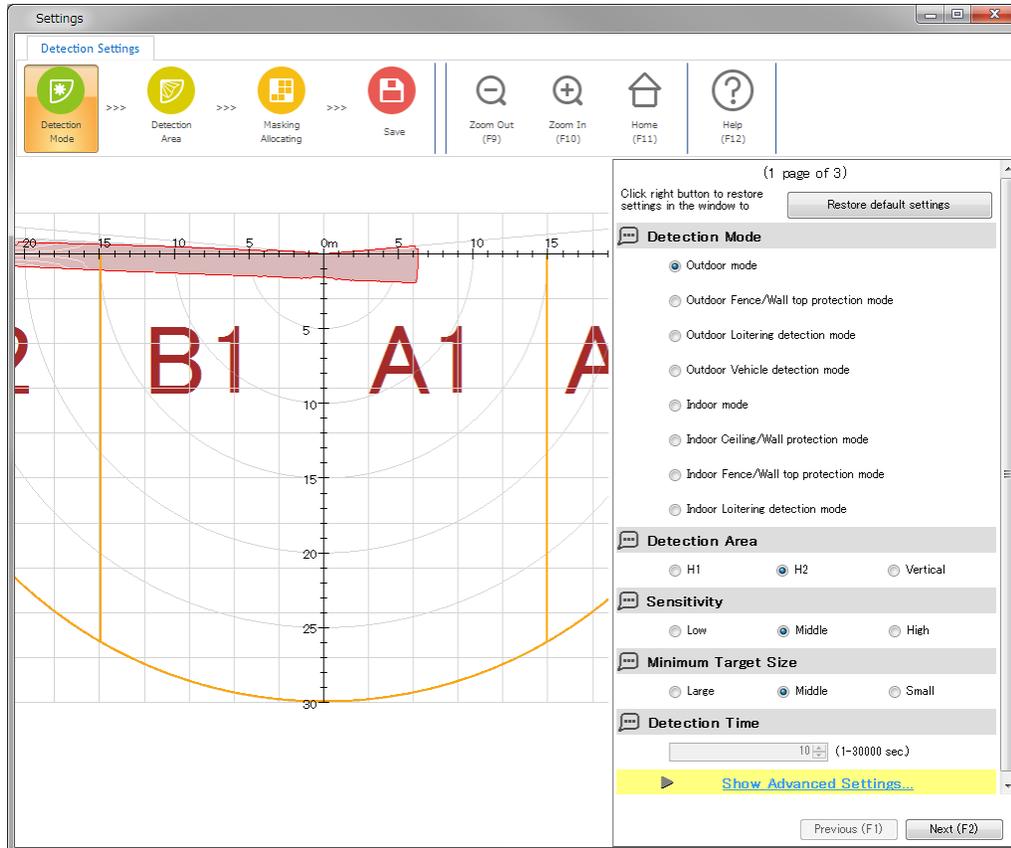
3. Click Next button and click Save button in the next page to save the changes.

[Detection Mode: Basic Settings] (RLS-3060SH)

1. Click Settings button (the 3rd button).



2. Dialog box will appear.



3. Select preferable settings.



[Detection Mode] (Default: Outdoor mode)

- Outdoor mode
This option is for general outdoor applications. As required, select the Vertical or Horizontal setting, and then set any additional settings.
- Outdoor Fence/Wall top protection mode
Select this mode if you want to detect a person trying to climb over a fence with the REDSCAN unit installed in a general outdoor environment. This mode is available only if it is installed horizontally.
- Outdoor Loitering detection mode
Select this mode if you want to detect loitering object within the detection zone in general outdoor environment.
- Outdoor Vehicle detection mode
This option can only be operated in Vertical mode. In the mode, RLS-3060SH can detect objects up to 5 m (16.4 ft.). In other modes, RLS-3060SH can detect up to a maximum of 2.5 m objects.
- Indoor Mode
For general indoor applications, e.g. warehouse, this option can be selected. In this mode, Environmental Resistance and DQ Output are disabled.
- Indoor Ceiling/Wall protection Mode
Though Vertical mode is selected automatically by the mode, this mode is available in horizontal installation for ceiling protection as well as vertical installation for wall protection. In this mode, slender target like human arm, minimum 50 mm (2 in.) diameter can be detected. Target size cannot be selected. Environmental Resistance and DQ Output are disabled.
Ceiling protection area: The detection area is parallel with the ceiling surface as a horizontal plane area.
Wall protection area: The detection area is vertical to the floor.
Note: For diameter 50 mm (2 in.) target, the maximum detection range would be 5 m diameter (16.4 ft.). For 10 cm (4 in.) target, 10m (32.8 ft.) For 30 cm (1 ft.) target, 30 m (100 ft.). According to the target object which shall be detected, the system should be designed properly, and detection area should be adjusted.
- Indoor Fence/Wall top protection mode
Select this mode if you want to detect a person trying to climb over a fence in indoor environment.
- Indoor Loitering detection mode
Select this mode if you want to detect loitering object in indoor environment.

[Detection Area] (Default: H2)

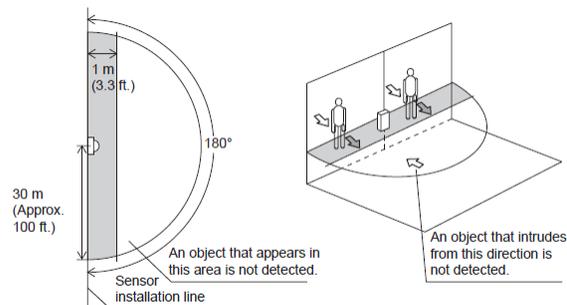
There are 3 options, Horizontal Detection Area 1, Horizontal Detection Area 2 and Vertical Detection Area.

- H1 (Horizontal Detection Area 1)

This mode allows setting of a fan-like detection area in the horizontal direction with a maximum radius of 30 m (Approx. 100 ft.), a spread angle of 180 degrees, and a width of 1 m (variable).

This mode detects intrusion of an object that appears from the rear side of the sensor or in a position within 1 m (variable) from the sensor installation line and that moves toward the front of the sensor.

The Redscan will generate the alarm output 1 minute (variable) after the initial detection, so long as the detected object stays in the detection area.

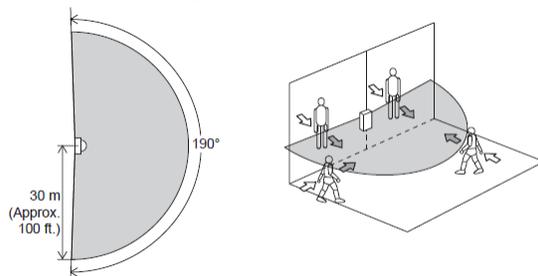


- H2 (Horizontal Detection Area 2)

This mode allows setting of a fan-like detection area in the horizontal direction with a maximum radius of 30 m (Approx. 100 ft.), a spread angle of 190 degrees.

This mode detects intrusion into the detection area from any direction.

The Redscan will generate the alarm output 1 minute (variable) after the initial detection, so long as the detected object stays in the detection area.



- Vertical (Vertical Detection Area)

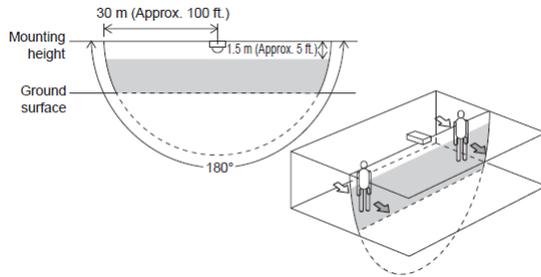
This mode allows setting of a fan-like detection area in the vertical direction with a maximum radius of 30 m (Approx. 100 ft.), a spread angle of 180 degrees.

This mode creates a non detection area, 1.5 m (variable) immediately in front of the unit, in order to avoid possible false alarms caused by birds or obstructions close to the unit.

Recommended installation height is from 4 m (Approx. 13 ft.) to 15 m (Approx. 50 ft.).



This mode will detect an object that traverses the detection area.



[Sensitivity] (Default: Middle)

The Sensitivity is to avoid false alarm caused by instantaneous event. If an object is detected longer than the Sensitivity time, alarm is issued.

[Minimum Target Size (Width)] (Default: Middle)

The Size is to avoid false alarm caused by small object. If an object is smaller than Minimum Target Size, the object is ignored.

[Detection Time] (Default: 10)

Can be changed when loitering detection is being selected. Specify a time from intrusion of an object in a detection area to issuing an alarm.

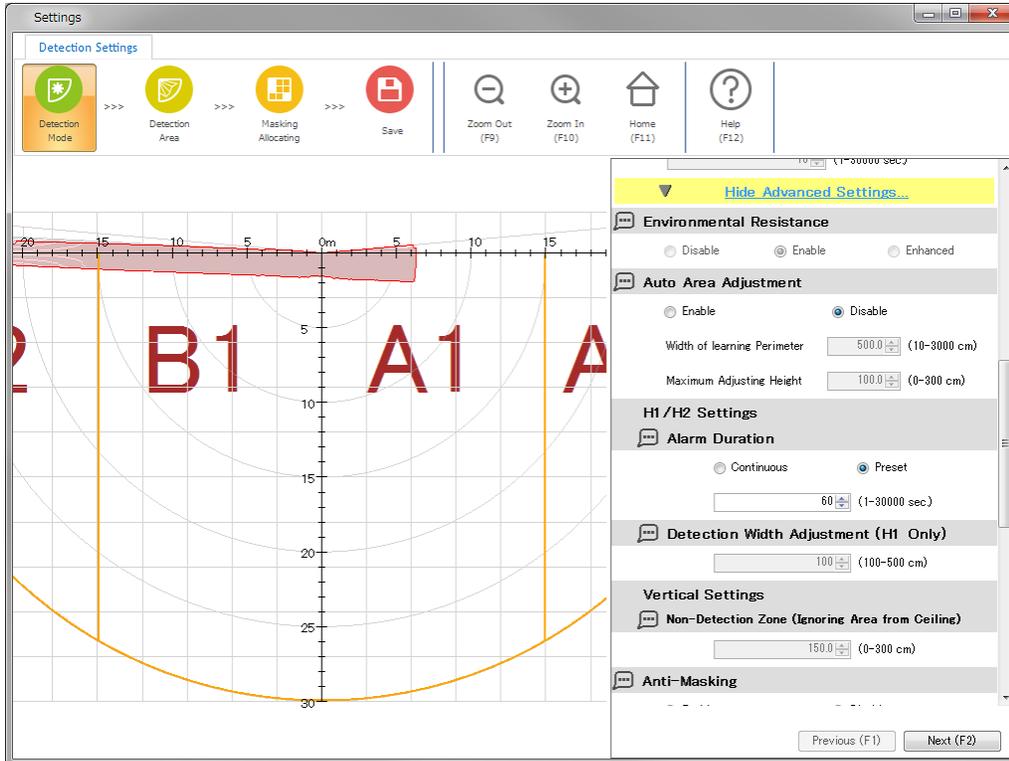
4. Click Next button and click Save button in the next page to save the changes.

[Detection Mode: Advanced Settings] (RLS-3060SH)

1. Click Setting button (the 3rd button).



2. Dialog box will appear. Click Show Advanced Settings. Select preferable settings.



[Environmental Resistance]

This function is to reduce false alarms in harsh environments, e.g. fog, snow, etc., can work in Outdoor Fence / Wall top protection and Outdoor Loitering detection.

- **Disable:** Select it for applications to control PTZ camera. Response time of alarm is minimum but false alarm can increase in harsh environment such as a fog or snow.
- **Enable:** False alarm can be reduced by balanced detection ability.
- **Enhanced:** False alarm due to fog or snow is reduced, but response time is long and some objects may not be detected.



[Auto Area Adjustment]

By enabling it, REDSCAN continues to learn background area and update background information gradually.

In horizontal mode, learning area can be limited to Width of learning Perimeter. Changes in the perimeter are learned as background.

In vertical mode, learning area can be limited to Maximum Adjusting Height. Changes under the height are learned as background.

[Alarm Duration] (H1/H2 mode Only)

Setting for alarm duration after detection.

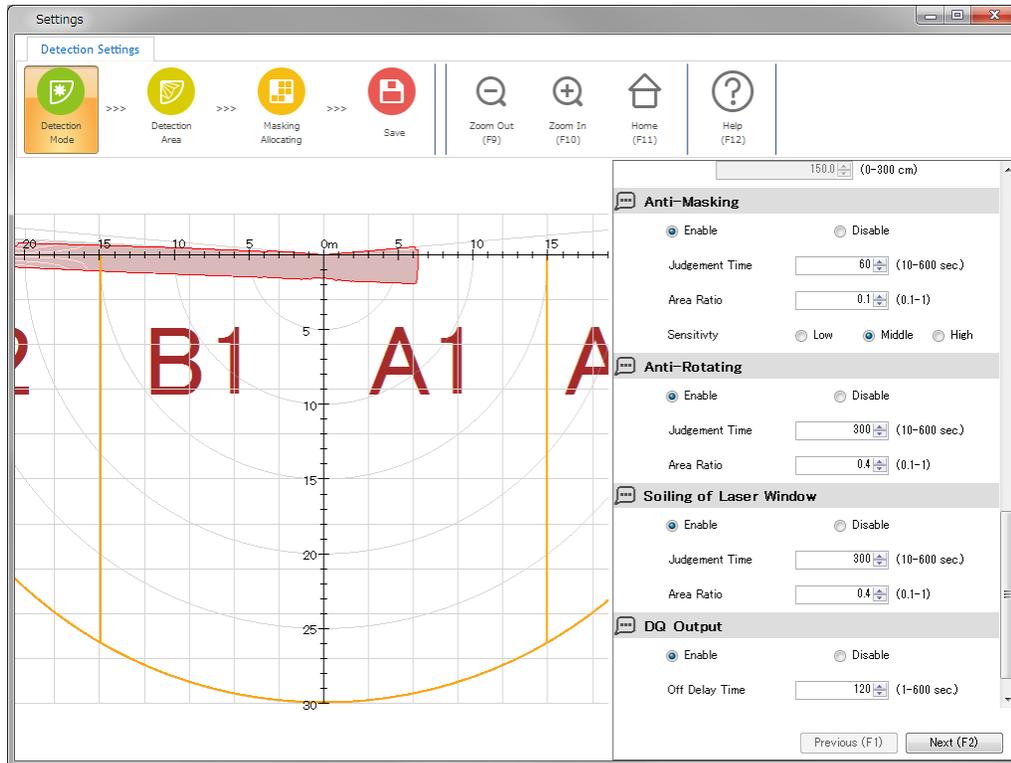
- Continuous: After the RLS unit detects an object, if the object remains in the detection area, it keeps generating an alarm condition.
- Preset: After the RLS unit detects an object, even though the object remains in the detection area, the alarm will be restored after the preset time. (Default 60sec., Adjustable range from 1 to 30000 sec.)

[Detection Width Adjustment] (H1 mode Only)

Setting for the width of H1 detection area. (Default 100 cm)

[Non-Detection Zone (Ignoring Area from Ceiling)] (Vertical mode Only)

Objects near to ceiling are ignored. In vertical detection area, protruding objects on the ceiling can cause false alarm. Enter the height of the ignoring area.



[Anti-Masking]

This is to detect obstacles which mask the detector. The result is reflected to relay output and R.E.C.

- Judgement Time: Set the minimum duration for the detection.
- Area Ratio: Set the minimum ratio of masked area for the detection.
- Sensitivity: Select sensitivity for the detection.

[Anti-Rotation]

This is to detect that someone rotated the detector. The result is reflected to relay output and R.E.C.

- Judgement Time: Set the minimum duration for the detection.
- Area Ratio: Set the minimum area ratio for the detection.

[Soiling of Laser Window]

This is to detect dirt on Laser Window. The result is reflected to relay output and R.E.C.

- Judgement Time: Set the minimum duration for the detection.
- Area Ratio: Set the minimum ratio of the dirty Laser Window for the detection.



[DQ Output]

If it is enabled, DQ Output is activated while fog, rain, or snow is detected. DQ Output can be included in relay output and R.E.C.

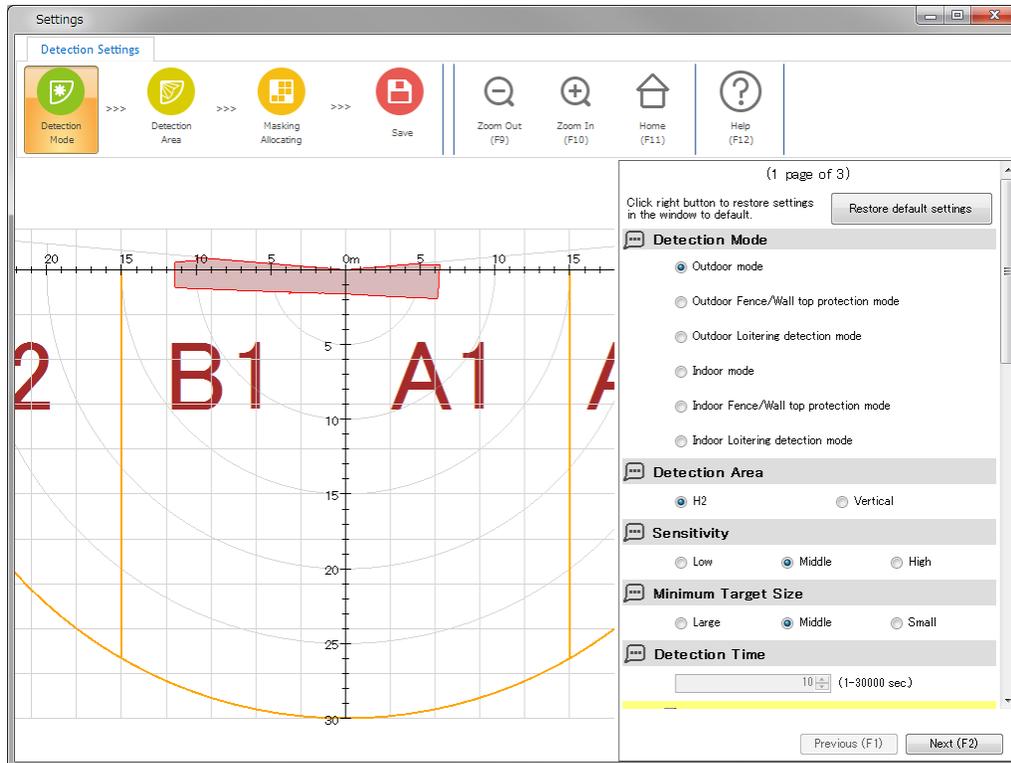
- Off Delay Time: Set the time to deactivate the DQ Output after the detection of fog, rain, or snow is finished.
3. Click Next button and click Save button in the next page to save the changes.

[Detection Mode: Basic Settings] (RLS-3060L)

1. Click Settings button (the 3rd button).



2. Dialog box will appear.



3. Select preferable settings.

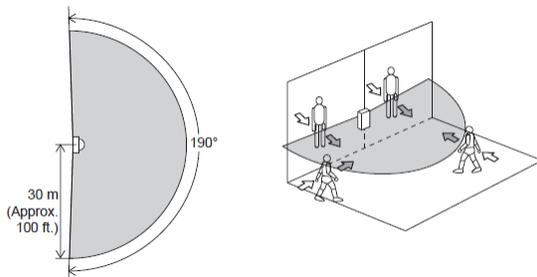
[Detection Mode] (Default: Outdoor mode)

- Outdoor mode
This option is for general outdoor applications. As required, select the Vertical or Horizontal setting, and then set any additional settings.
- Outdoor Fence/Wall top protection mode
Select this mode if you want to detect a person trying to climb over a fence with the REDSCAN unit installed in a general outdoor environment. This mode is available only if it is installed horizontally.
- Outdoor Loitering detection mode (version 8.0.0 or later)
Select this mode if you want to detect loitering object within the detection zone in general outdoor environment.
- Indoor Mode
For general indoor applications, e.g. warehouse, this option can be selected. In this mode, Environmental Resistance and DQ Output are disabled.
- Indoor Fence/Wall top protection mode
Select this mode if you want to detect a person trying to climb over a fence in indoor environment.
- Indoor Loitering detection mode (version 8.0.0 or later)
Select this mode if you want to detect loitering object in indoor environment.

[Detection Area] (Default: H2)

There are 2 options, Horizontal Detection Area 2 and Vertical Detection Area.

- H2 (Horizontal Detection Area 2)
This mode allows setting of a fan-like detection area in the horizontal direction with a maximum radius of 30 m (Approx. 100 ft.), a spread angle of 190 degrees.
This mode detects intrusion into the detection area from any direction.
The Redscan will generate the alarm output 1 minute (variable) after the initial detection, so long as the detected object stays in the detection area.



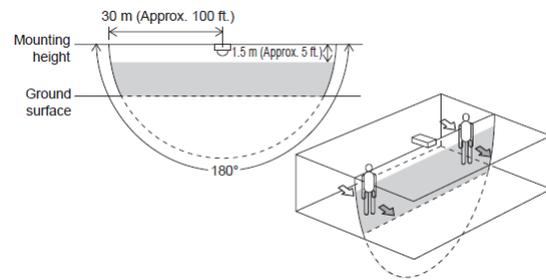
- Vertical (Vertical Detection Area)

This mode allows setting of a fan-like detection area in the vertical direction with a maximum radius of 30 m (Approx. 100 ft.), a spread angle of 180 degrees.

This mode creates a non detection area, 1.5 m (variable) immediately in front of the unit, in order to avoid possible false alarms caused by birds or obstructions close to the unit.

Recommended installation height is from 4 m (Approx. 13 ft.) to 15 m (Approx. 50 ft.).

This mode will detect an object that traverses the detection area.



[Sensitivity] (Default: Middle)

The Sensitivity is to avoid false alarm caused by instantaneous event. If an object is detected longer than the Sensitivity time, alarm is issued.

[Minimum Target Size (Width)] (Default: Middle)

The Size is to avoid false alarm caused by small object. If an object is smaller than Minimum Target Size, the object is ignored.

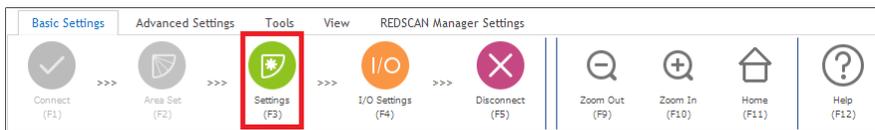
[Detection Time] (Default: 10) (version 8.0.0 or later)

Can be changed when loitering detection is being selected. Specify a time from intrusion of an object in a detection area to issuing an alarm.

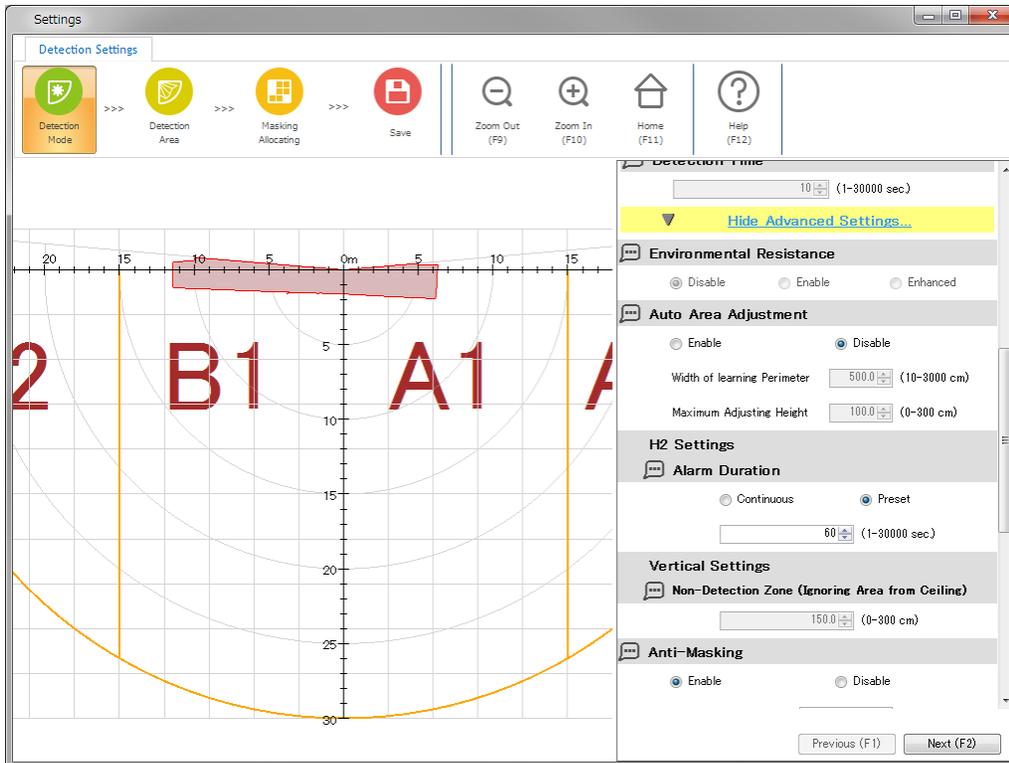
4. Click Next button and click Save button in the next page to save the changes.

[Detection Mode: Advanced Settings] (RLS-3060L)

1. Click Setting button (the 3rd button).



2. Dialog box will appear. Click Show Advanced Settings. Select preferable settings.



[Environmental Resistance]

This function is to reduce false alarms in harsh environments, e.g. fog, snow, etc., can work in Outdoor Fence / Wall top protection and Outdoor Loitering detection.

- **Disable:** Select it for applications to control PTZ camera. Response time of alarm is minimum but false alarm can increase in harsh environment such as a fog or snow.
- **Enable:** False alarm can be reduced by balanced detection ability.
- **Enhanced:** False alarm due to fog or snow is reduced, but response time is long and some objects may not be detected.

[Auto Area Adjustment]

By enabling it, REDSCAN continues to learn background area and update background information gradually.

In horizontal mode, learning area can be limited to Width of learning Perimeter. Changes in the perimeter are learned as background.

In vertical mode, learning area can be limited to Maximum Adjusting Height. Changes under the height are learned as background. (version 8.0.0 or later)

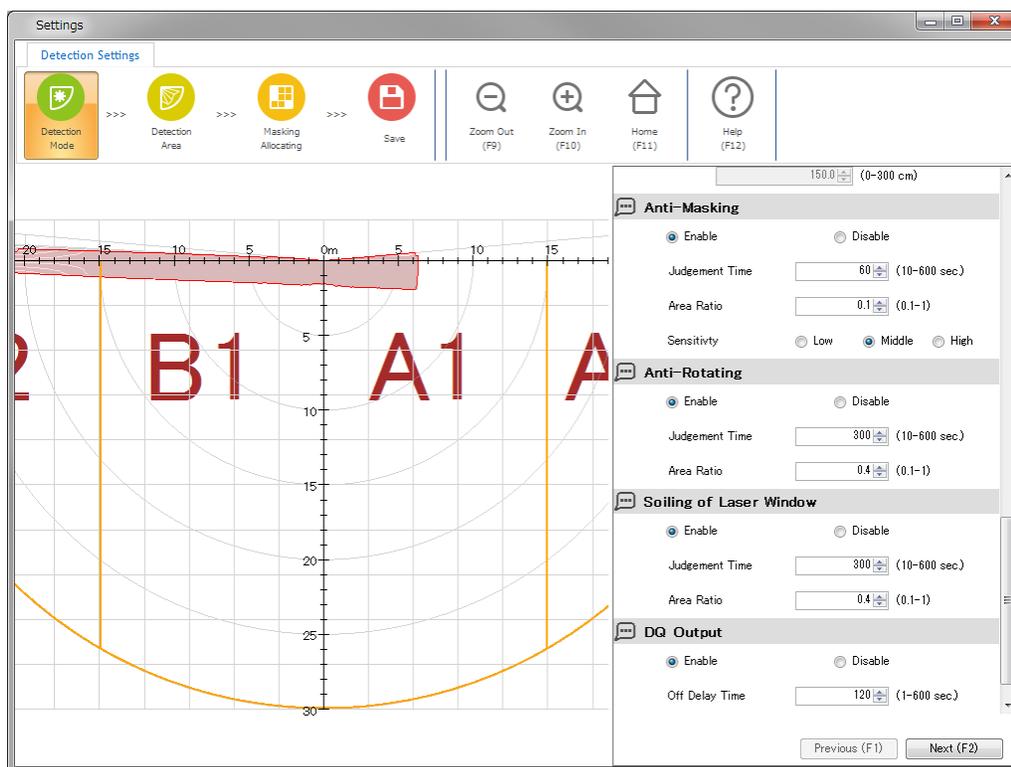
[Alarm Duration] (H1/H2 mode Only)

Setting for alarm duration after detection.

- Continuous: After the RLS unit detects an object, if the object remains in the detection area, it keeps generating an alarm condition.
- Preset: After the RLS unit detects an object, even though the object remains in the detection area, the alarm will be restored after the preset time. (Default 60sec., Adjustable range from 1 to 30000 sec.)

[Non-Detection Zone (Ignoring Area from Ceiling)] (Vertical mode Only)

Objects near to ceiling are ignored. In vertical detection area, protruding objects on the ceiling can cause false alarm. Enter the height of the ignoring area.





[Anti-Masking]

This is to detect obstacles which mask the detector. The result is reflected to relay output and R.E.C.

- Judgement Time: Set the minimum duration for the detection.
- Area Ratio: Set the minimum ratio of masked area for the detection.
- Sensitivity: Select sensitivity for the detection.

[Anti-Rotation]

This is to detect that someone rotated the detector. The result is reflected to relay output and R.E.C.

- Judgement Time: Set the minimum duration for the detection.
- Area Ratio: Set the minimum area ratio for the detection.

[Soiling of Laser Window]

This is to detect dirt on Laser Window. The result is reflected to relay output and R.E.C.

- Judgement Time: Set the minimum duration for the detection.
- Area Ratio: Set the minimum ratio of the dirty Laser Window for the detection.

[DQ Output]

If it is enabled, DQ Output is activated while fog, rain, or snow is detected. DQ Output can be included in relay output and R.E.C.

- Off Delay Time: Set the time to deactivate the DQ Output after the detection of fog, rain, or snow is finished.

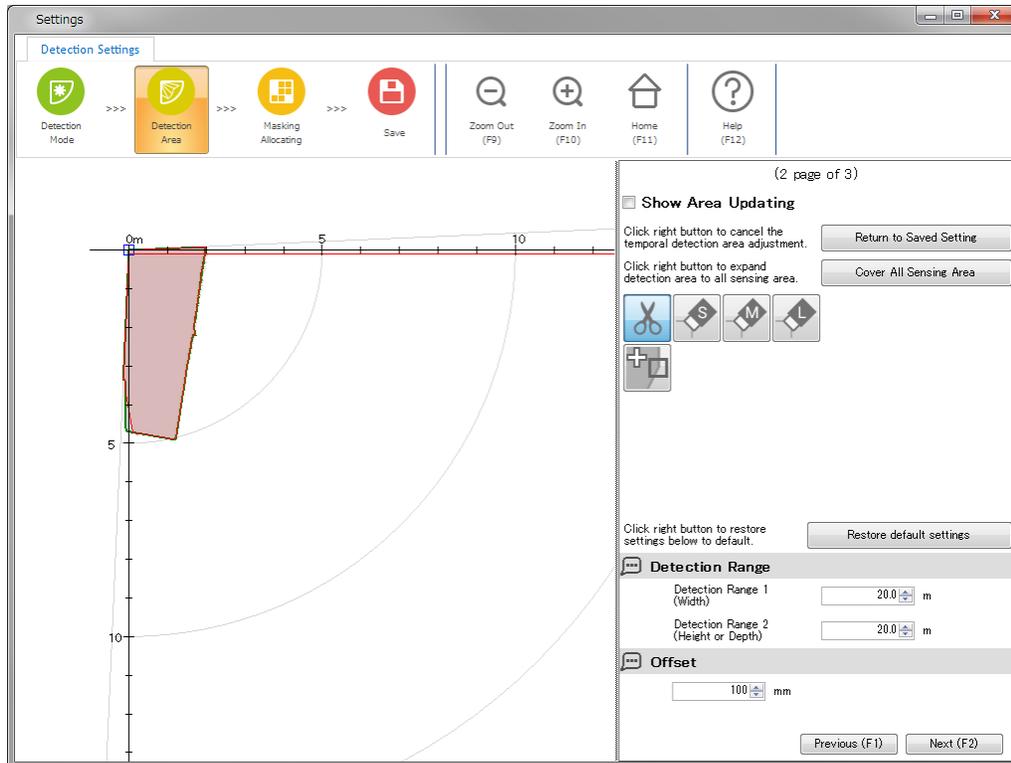
3. Click Next button and click Save button in the next page to save the changes.

[Adjusting Detection Area]

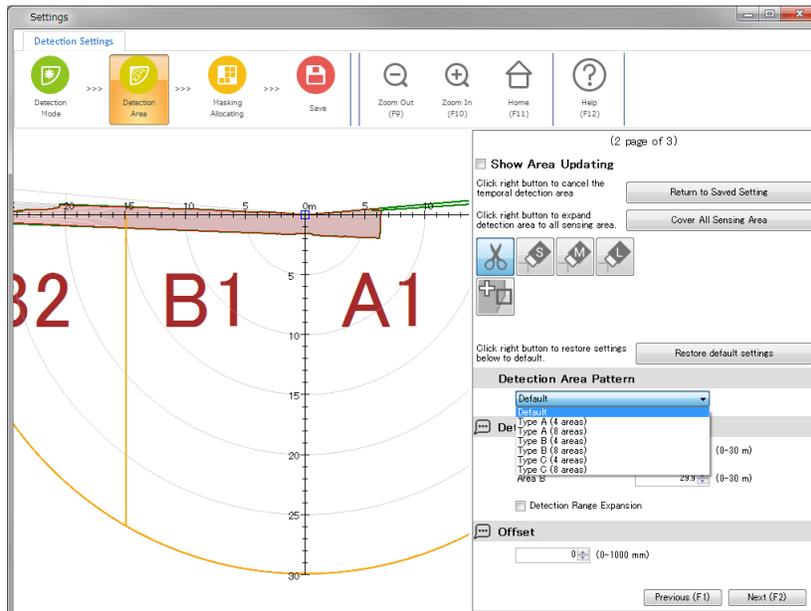
1. Click Setting button (the 3rd button).



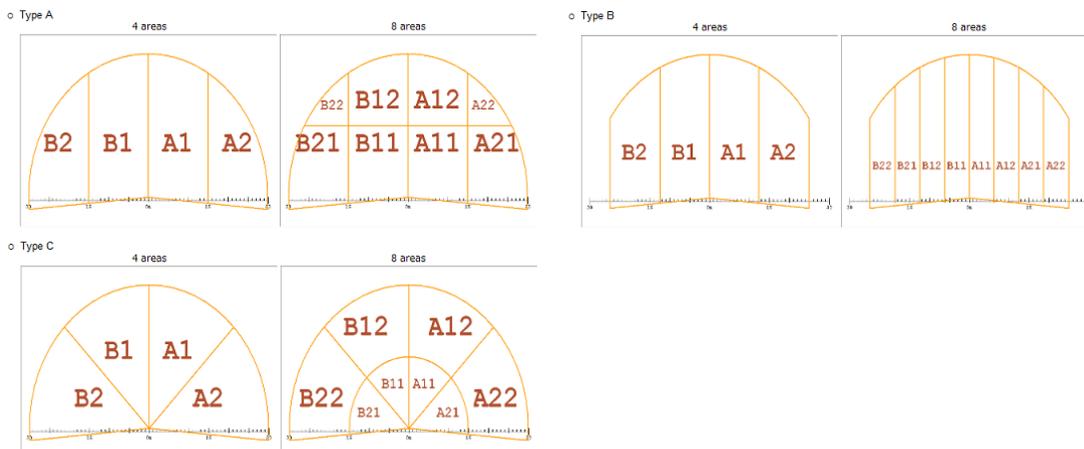
2. Dialog box will appear. Click Detection Area button.



In case of RLS-3060SH and RLS-3060L Version 8.0.0 or later, Detection Area Pattern is available.



Detection Area Pattern is predefined allocating area below. (Detection Area Pattern can be overridden by Area Allocating.)



3. Adjust size and position of the map as you like.

- Click Zoom Out or Zoom In to adjust map size.
- Drag and drop the map to preferable position. Home button enables to move the map to default position.

4. Limit detection area by Detection Range.

- In case of RLS-2020 series, Detection area can be limited vertically/horizontally by Detection Range 1 and 2. Yellow lines show the Range 1 and 2.
- In case of RLS-3060 series, Detection area can be limited by the radius of A and B. Yellow lines and arc indicate the effective detection range. Detection range expansion can be used for RLS-3060SH version 8.0.0 or later.
- To set default settings, click Restore default settings button.

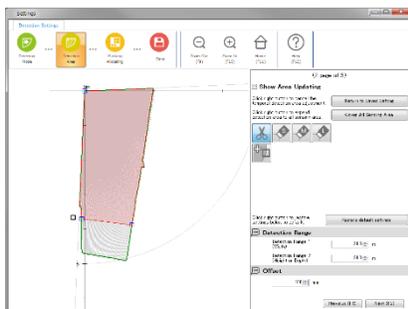
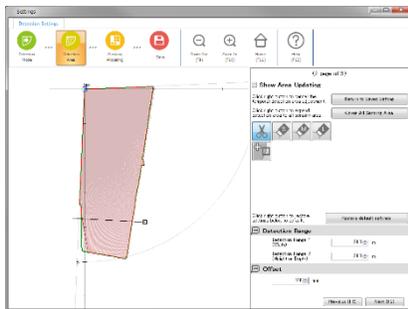
5. Adjust Offset.

- Perimeter of detection area near background can be excluded by the Offset distance. In vertical mode, obstacles on the ground or floor can generate false alarm. Also, plants and small animals can cause false alarm.
- To set default settings, click Restore default settings button.

6. Adjust detection area (red area in the map).

(1) Cut by Scissors tool

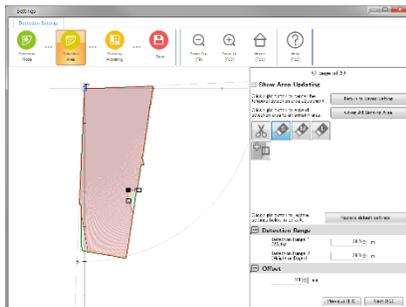
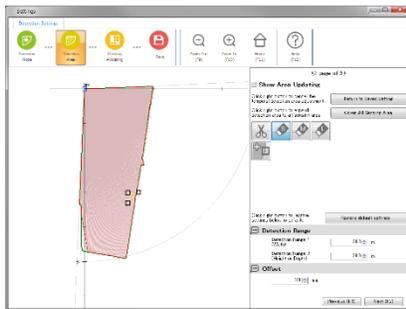
- Select Scissors tool and click an outside point.
- Click second outside point. The line by 2 points cuts the detection area.



- Return to Saved Settings button enables to cancel the temporal adjustment.
- Cover All Sensing Area button enables to expand detection area to all sensing area.
- Show Area Updating button enables to show current sensing situation. By showing area update, you can place and see dummy object as a mark, and adjust the detection area based on the mark.

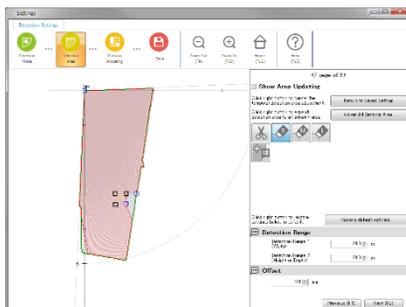
(2) Cut by Eraser tool

- Select one of Eraser tools and place the triangle cursor.
- Click the place. The triangle cuts detection area.



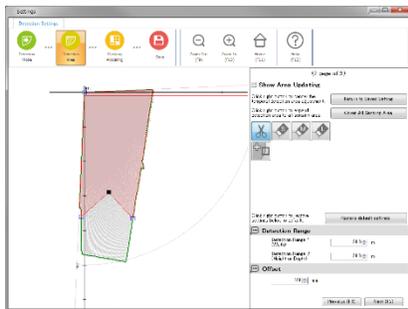
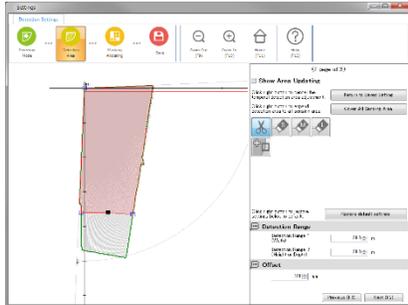
(3) Adjust by moving Blue Box

- Move mouse on a blue box. The box becomes black.
- Drag and drop the box.



(4) Adjust by adding and moving Box

- Select Box adding tool and click a point on a line. Black box is added.
- Drag and drop the box.
- To delete a box, right click the box.



7. Click Save button to save the change.

[Detectable range based on a target size]

RLS-2020 Indoor/Outdoor/Indoor throw-in mode

Target size	Black plate	White plate
25 mm (1 in.)	-	-
50 mm (2 in.)	4 m (13 ft.)	5 m (16 ft.)
100 mm (4 in.)	8 m (26 ft.)	9 m (29 ft.)
150 mm (6 in.)	11 m (37 ft.)	13 m (41 ft.)
200 mm (8 in.)	15 m (49 ft.)	16 m (54 ft.)
300 mm (12 in.)	21 m (69 ft.)	23 m (77 ft.)

RLS-2020 Indoor high-resolution mode

Target size	Black plate	White plate
25 mm (1 in.)	4 m (14 ft.)	5 m (18 ft.)
50 mm (2 in.)	7 m (23 ft.)	9 m (29 ft.)
100 mm (4 in.)	13 m (41 ft.)	16 m (52 ft.)
150 mm (6 in.)	18 m (58 ft.)	22 m (72 ft.)
200 mm (8 in.)	22 m (72 ft.)	28 m (92 ft.)
300 mm (12 in.)	-	-

RLS-3060 Indoor/Outdoor mode

Target size	Black plate	White plate
50 mm (2 in.)	5 m (16 ft.)	7 m (23 ft.)
100 mm (4 in.)	10 m (32 ft.)	12 m (39 ft.)
150 mm (6 in.)	14 m (46 ft.)	17 m (56 ft.)
200 mm (8 in.)	18 m (59 ft.)	22 m (72 ft.)
300 mm (12 in.)	25 m (82 ft.)	32 m (105 ft.)
450 mm (18 in.)	33 m (108 ft.)	44 m (144 ft.)
550 mm (22 in.)	-	49 m (161 ft.)
600 mm (24 in.)	40 m (131 ft.)	-

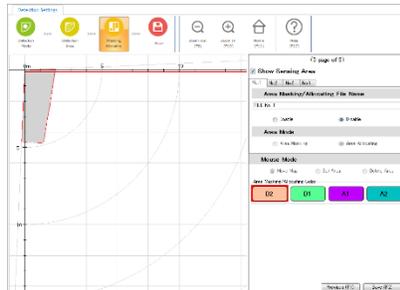
- Reflectivity of Black plate: 10%
- Reflectivity of White plate: 90%
- Detectable range depends on the reflectivity of target and its shape. Need to confirm the detectable range with actual target at the installation location.
- To use the detection range of 30 m or more with RLS-3060, RLS-3060 SH V 8.0.0 or later is required.

[Area Masking] RLS-2020 series, RLS-3060SH or RLS-3060L (version 8.0.0 or later).

1. Click Setting button (the 3rd button).



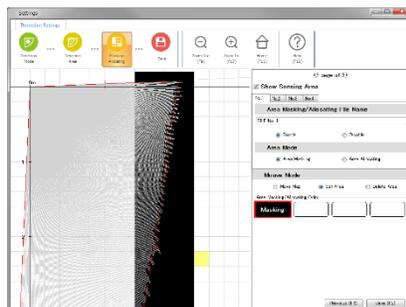
2. Dialog box will appear. Click Masking Allocating button.



3 files, No.2 to No.4, are supported by RLS-2020S and RLS-3060SH.

3. To Mask Detection Area

- (1) Select File Number tab (RLS-2020S or RLS-3060SH). The file contains masking/allocating settings. Applied file can be switched by Relay Input. File Name can be changed.
- (2) Select Enable.
- (3) Select Area Masking.
- (4) Select Set Area.
- (5) Click preferable area on the map. The black box means masking area. Objects in the masking area are ignored.
 - To cancel the masking area, select Delete Area and click the area.
 - To move the map by mouse, select Move Map.
 - To erase sensing area, uncheck Show Sensing Area.





4. Save the changes.
 - Click Save button.

Note: Block size of Area Masking / Allocating differs depending on model and setting.

RLS-2020 series: 200 mm (0.66 ft.)

RLS-3060 series: 300 mm (0.98 ft.)

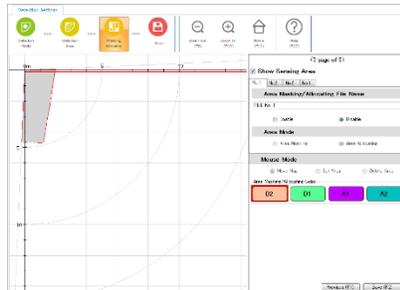
RLS-3060SH version 8.0.0 or later with detection range expansion: 500 mm (1.64 ft.)

[Area Allocating] RLS-2020 series, RLS-3060SH or RLS-3060L (version 8.0.0 or later).

1. Click Setting button (the 3rd button).



2. Dialog box will appear. Click Masking Allocating button.

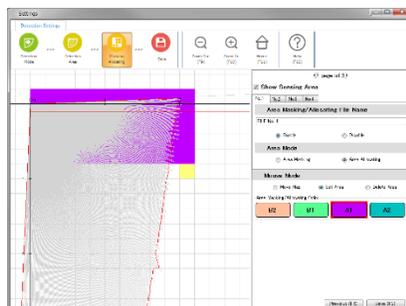


3 files, No.2 to No.4, are supported by RLS-2020S and RLS-3060.

Note: In default settings, all area is defined as A1. When an object is detected, A1 is reported by REDWALL Event Code and/or relay output. File Name can be changed.

3. To Allocate Area

- (1) Select File Number (RLS-2020S or RLS-3060SH). The file contains masking/allocating settings. Applied file can be switched by Relay Input.
 - (2) Select Enable.
 - (3) Select Area Allocating.
 - (4) Select Set Area. Select A1, A2, B1 or B2.
 - (5) Click preferable area on the map. The purple box means A1 area. When objects are detected in the purple area, A1 is reported by REDWALL Event Code and/or relay output.
- To cancel the area, select Delete Area and click the area.
 - To move the map by mouse, select Move Map.
 - To erase sensing area, uncheck Show Sensing Area.





- If Disable is selected, the whole area becomes A1.
- If Area Masking is selected, the whole area becomes A1.

4. Save the changes.

- Click Save button.

Note: Block size of Area Masking / Allocating differs depending on model and setting.

RLS-2020 series: 200 mm (0.66 ft.)

RLS-3060 series: 300 mm (0.98 ft.)

RLS-3060SH version 8.0.0 or later with detection range expansion: 500 mm (1.64 ft.)

[REDWALL Event Code Settings]

Configure REDWALL Event Code (R.E.C.) settings. R.E.C. is stored in UDP or TCP payload and sent from REDSCAN as alarm.

Refer INSTALLTION INSTRUCTIONS or REDWALL Event Code specifications for details of the code.

If you do not use R.E.C., skip this page.

1. Click I/O Settings button (the 4th button).



2. Dialog box will appear.

Note: Terminal tab of RLS-3060 can be used for Version 8.0.0 or later.

Select preferable settings.

Default settings are:

- Protocol: UDP
- Detector ID: The last byte of IP address of the REDSCAN. (Example: 126 of 192.168.0.126)
- UDP: Broadcast, Destination Port Number 1234



Notes:

- To show R.E.C. on REDSCAN Manager, UDP is required. Select Broadcast, or Unicast with IP Address of the PC.
- To sent R.E.C. to VMS (Video Management Software), TCP is recommended. Select TCP and set IP Address of the PC of VMS.
- To add multiple REDSCANs to Milestone XProtect, set unique Port Number to each REDSCAN. Over 12346 is recommended.

Transmission interval of Trouble code: It specifies interval when trouble code is sent periodically.

Clear Code Timing: It specifies the timing of clear code after the alarm is cleared.

Heartbeat for Device Monitoring: If it is checked, DM code is stored in R.E.C. and sent by Transmission Interval of Trouble Code.

3. Click Save button.

[Terminal Settings]

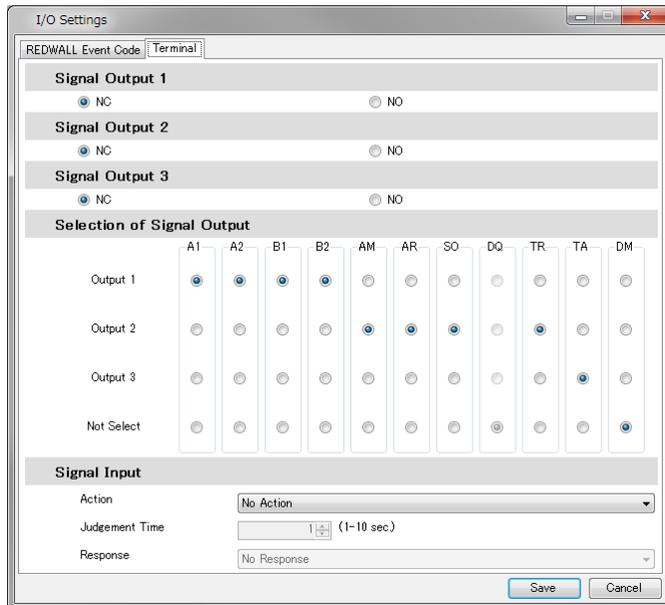
Select relay output settings. If you do not use relay output, skip this page.

1. Click I/O Settings button (the 4th button).

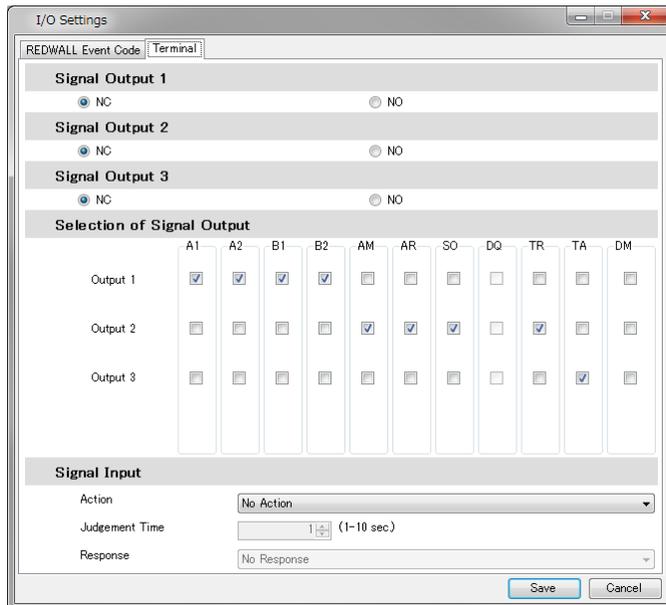


2. Dialog box will appear. Click Terminal tab.

RLS-2020 Terminal tab screen (Versions earlier than 2.1.0)



RLS-2020 Terminal tab screen (Version 2.1.0 or later)



The screenshot shows the 'I/O Settings' window with the following configuration:

- Signal Output 1:** NC (selected), NO
- Signal Output 2:** NC (selected), NO
- Signal Output 3:** NC (selected), NO

Selection of Signal Output	A1	A2	B1	B2	AM	AR	SO	DO	TR	TA	DM
Output 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Output 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Output 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						

Signal Input

Action: No Action

Judgement Time: 1 (1-10 sec)

Response: No Response

Buttons: Save, Cancel

Signal Output 1 - 3

Select NC (Normally Closed) or NO (Normally Open).

Note: When power is down, signal outputs are opened.

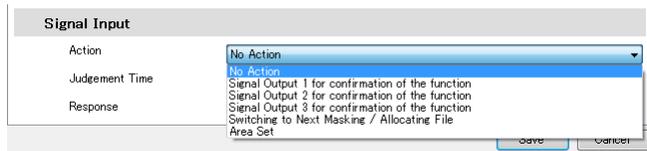
Assign A1 - DM to Output 1 -3. Default settings are:

- Signal Output 1: N.C. A1, A2, B1, B2
- Signal Output 2: N.C. AM, AR, SO, TR
- Signal Output 3: N.C. TA
- Not Select: DM (DM can be selected with V 2.0.3 or higher)

Signal Input (RLS-2020S Only)

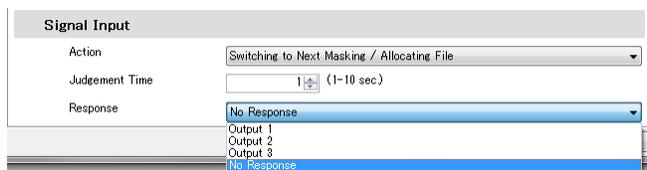
If Signal Input is closed, the Action and the Response are done after the Judgement Time. Signal input shorter than Judgement Time is ignored.

Select preferable Action triggered by signal input.

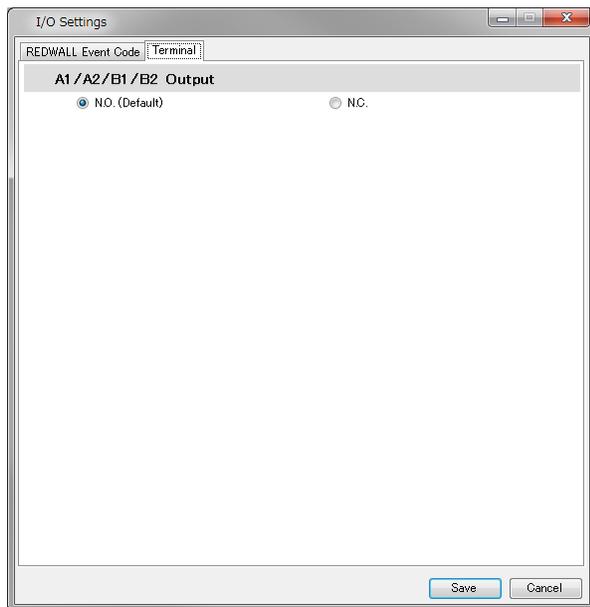


- Signal Output N for confirmation of the function: Signal Output N is activated.
- Switching to Next Masking / Allocating File: Current Masking/Allocating Files is switched to next File.
- Area Set: Area Set is started.

Response is available when Switching to Next Masking / Allocating File or Area Set is selected. Select preferable Response which can be used to confirm that the action is triggered.



RLS-3060 Terminal tab screen(Version 8.0.0 or later)



A1/A2/B1/B2 Output

Select N.O. (Normally Open) or N.C. (Normally Closed).



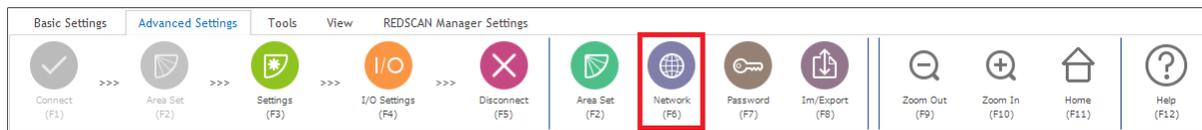
Meanings of abbreviations

- N.C. : Normally Closed
- N.O. : Normally Open
- A1 : A1 area set by Allocating function
- A2 : A2 area set by Allocating function
- B1 : B1 area set by Allocating function
- B2 : B2 area set by Allocating function
- AM : Anti-Masking
- AR : Anti-Rotation
- SO : Soiling
- DQ : Environmental Disqualification (RLS-2020S Only.)
- TR : Device Trouble
- TA : Tamper Output
- DM : Device Monitoring

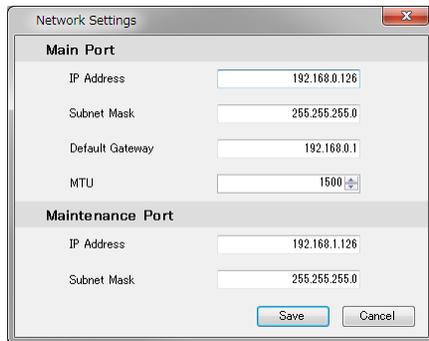
3. Click Save button.

[Network Settings]

1. Select Advanced Settings and click Network button (the 7th button).



2. Dialog box will appear.



- Enter preferable settings.

Caution: IP addresses of Main Port and Maintenance Port must be in different network segment. For example, to set 192.168.1.* to Main port, change IP address of Maintenance Port to another network segment.

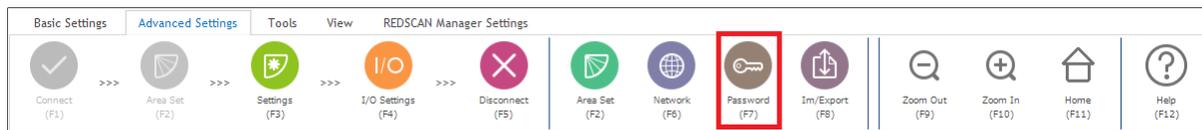
3. Save the changes.

- Click Save button. The unit is restarted.

Note: Change network settings of the PC for connecting to new IP address.

[Detector Authentication]

1. Select Advanced Settings and click Password button (the 8th button).



2. Dialog box will appear.



- Enter new User ID and Password. (Notes:RLS-3060: Password only)
3. Save the changes.
 - Click OK button.

Notes:

Once the connection between REDSCAN Manager Advanced software and the REDSCAN unit was established, the authentication information was stored.

But, if they were changed by WEB browser or other REDSCAN Manager software, entering user ID and password which were stored in the REDSCAN unit can be required.

If you forget the detector's authentication information, you need to initialize the detector unit to restore the factory default.

Refer to the INSTALLATION INSTRUCTION (RLS-3060L:pg.7, RLS-3060SH,RLS-2020I/S:pg.8) for how to return to the factory default settings.

If you want to store authentication information for each detector in REDSCAN Manager Advanced, please register detectors from Edit Group/Detector Information in Properties.

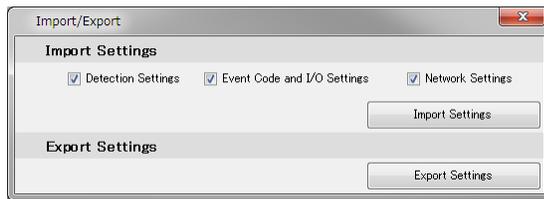
[Export/Import]

Detector settings can be exported to xml file. Exported file can be imported by Import function.

1. Select Advanced Settings and click Import/Export button (the 9th button).



2. Dialog box will appear.

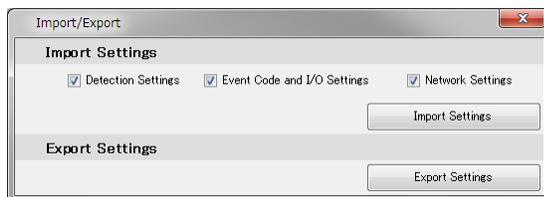


3. Export

To export settings, Click Export Setting button. Settings are exported to xml file.

4. Import

To import settings, select Detection Settings, Event Code and I/O Settings, and/or Network Settings. Click Import Setting button and select xml file.



The settings are imported to the detector.



Detection Settings contains settings in pages below.

(1 page of 3)

Click right button to restore settings in the window to default.

Detection Mode

Indoor mode

Indoor high resolution mode

Indoor throw-in mode

Outdoor mode

Sensitivity

Low Middle High

Custom (75-900000 msec)

Minimum Target Size (Width)

(10-1000 mm)

Ignoring Area from Ground

(1-1000 mm)

[Hide Advanced Settings...](#)

Detection Area

Vertical Horizontal Auto

Environmental Resistance

Disable Enable Enhanced

Minimum Tracking Size

(10-1000 mm)

Maximum Tracking Size

(1-10 m)

Non-Detection Zone (Excluding Area from Ceiling)

(0-20 m)

Auto Area Adjustment

Adjust Detection Area

Maximum Adjusting Height (0-20 m)

Small Animal Tolerance

Enable Disable

Anti-Masking

Enable Disable

Judgement Time (10-600 sec)

Area Ratio (0.1-1)

Sensitivity Low Middle High

Anti-Rotating

Enable Disable

Judgement Time (10-600 sec)

Sensitivity Low Middle High

Soiling of Laser Window

Enable Disable

Judgement Time (10-600 sec)

Area Ratio (0.1-1)

DG Output

Enable Disable

Off Delay Time (1-600 sec)

Detection Range

Detection Range 1 (Width) m

Detection Range 2 (Height or Depth) m

Offset

mm

I/O Settings contains settings in pages below.

I/O Settings

REDWALL Event Code: Terminal

Protocol

UDP TCP UDP and TCP

Detector ID

Use and arbitrary number (0-999)

Transmission Interval of Trouble Code

(1-9500 sec)

Clear Code Timing

(2-60 sec)

Heartbeat for Device Monitoring

Heartbeat for Device Monitoring

UDP

Scope Broadcast Unicast

IP Address (Destination)

Port Number (Destination) (0-65535)

Number of Transmission (1-20)

TCP

IP Address (Destination)

Port Number (Destination) (0-65535)

Signal Output 1

NC NO

Signal Output 2

NC NO

Signal Output 3

NC NO

Selection of Signal Output

	A1	A2	B1	B2	AM	AR	SO	DO	TR	TA	DM
Output 1	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Output 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Output 3	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>							
Not Select	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>							

Signal Input

Action:

Judgement Time: (1-10 sec)

Response:

Network Settings contains settings in pages below.

Network Settings

Main Port

IP Address

Subnet Mask

Default Gateway

MTU

Maintenance Port

IP Address

Subnet Mask

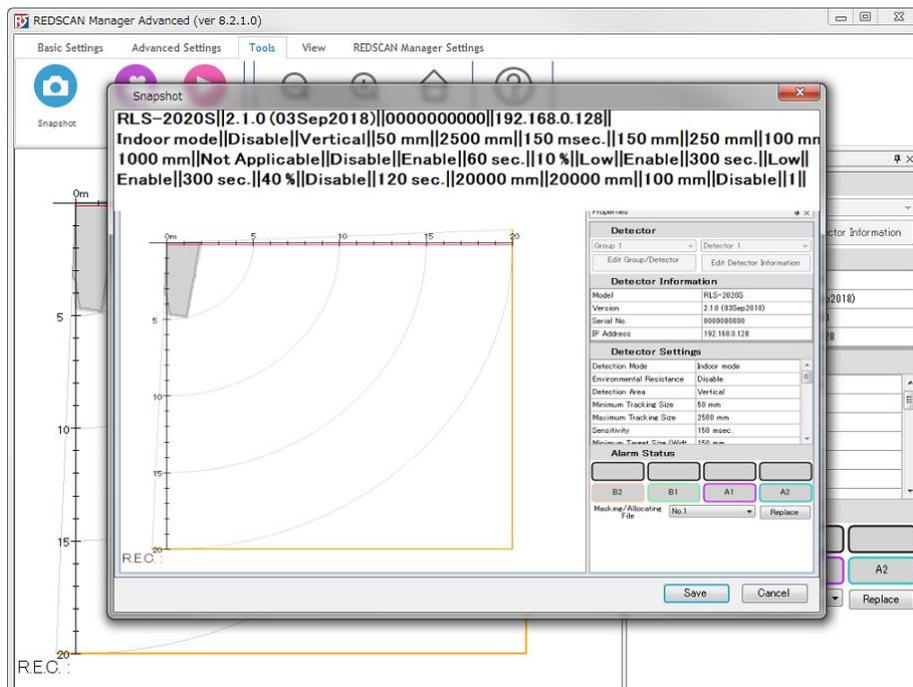
[Snapshot]

This function enables capturing current GUI image of REDSCAN Manager.

1. Click Tools menu.



2. Click Snapshot button. Captured image is shown in dialog box.



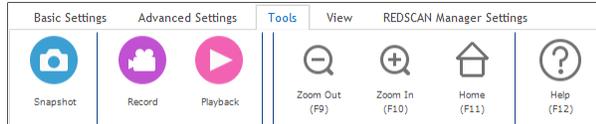
3. Save.

- Click Save button, and enter JPEG file name.

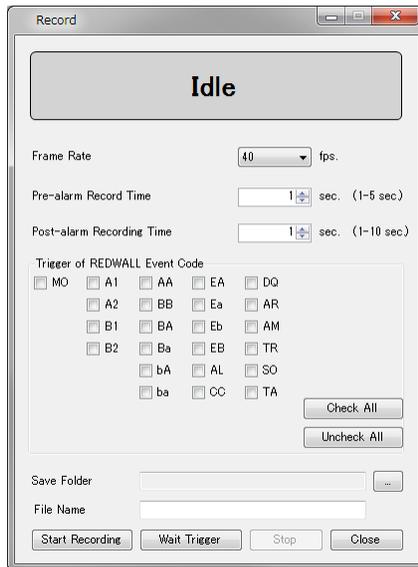
[Recording]

This function enables recording GUI of REDSCAN Manager as moving picture.

1. Click Tools menu.



2. Click Record button.



- Frame Rate: Select preferable frame rate.
 - Pre-alarm Recording Time: Select preferable time.
 - Post-alarm Recording Time: Select preferable time.
 - Trigger of REDWALL Event Code: Select conditions to trigger recording.
 - Refer INSTALLTION INSTRUCTIONS or REDWALL Event Code specifications for details of the code.
 - Save Folder: Select a folder in which recorded file is saved.
 - File Name: Select base name of recorded file.
3. Start and stop recording.
 - Click the immediate recording button, recording of data starts immediately.
 - Click the record start button, it enters the standby state, and records the data when receiving the trigger.
 - Click the stop button, the standby state is canceled.

[Playback]

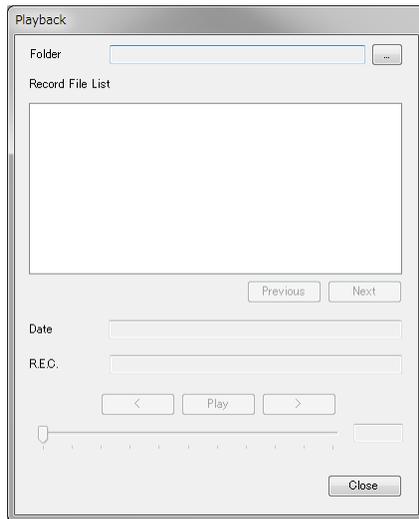
This function enables to playback recorded file.

1. Click Tools menu.

Note: Playback is not available when REDSCAN is connected. Disconnect REDSCAN before playback.



2. Click Playback button.



- Folder: Select folder of recorded files.
- File List: Recorded files in the folder are displayed.
- Date: Recorded day and time of select file are displayed.
- R.E.C.: R.E.C. of selected file is displayed.

3. Playback the recorded file.

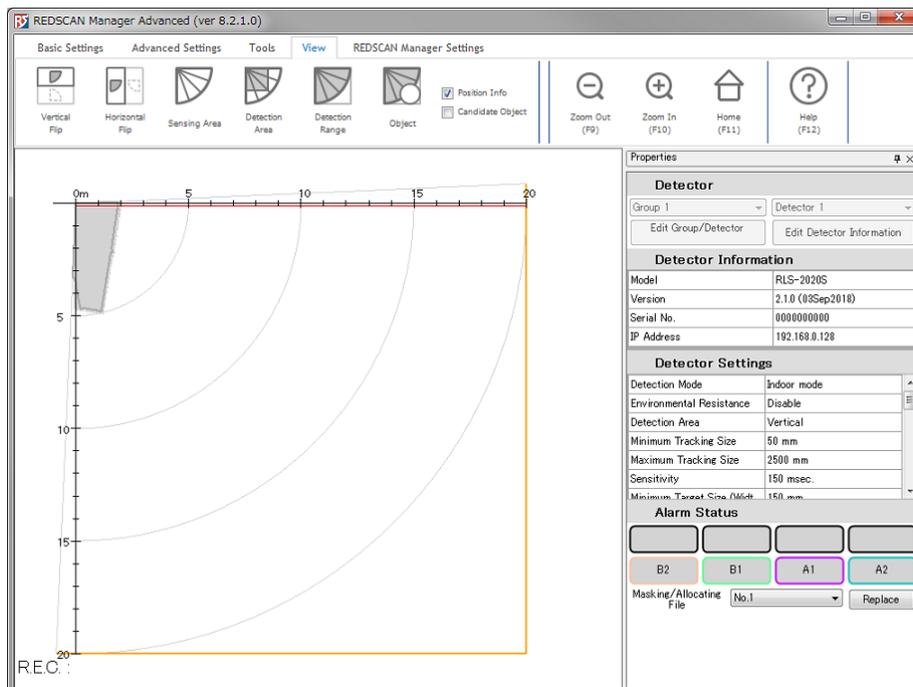
- Left Arrow: Go to previous video frame.
- Play button: Playback the file.
- Stop button: Stop the playback.
- Right Arrow: Go to next video frame.

[View]

The graphics of REDSCAN Manager can be customized.

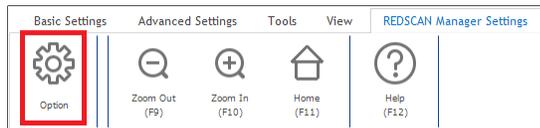
Click View menu. Select preferable settings.

- Vertical Flip: Flips the map vertically.
- Horizontal Flip: Flips the map horizontally.
- Sensing Area: Shows the all sensing area. Except in the detection area, objects in sensing area are recognized but not detected, and no alarm is issued.
- Detection Area: Shows the detection area. Objects in the detection area are detected and alarm is issued.
- Detection Range: Shows the vertical and horizontal limits of the detection area.
- Object: Detected object is drawn as a circle or filled circle.
- Position Info: Displays position and size information of detected/candidate objects.
- Candidate Object: Displays candidate objects as blue circles. If candidate object goes beyond thresholds, it becomes red circle and alarm is issued.



[REDSKAN Manager Settings]

1. Select REDSCAN Manager Settings menu.



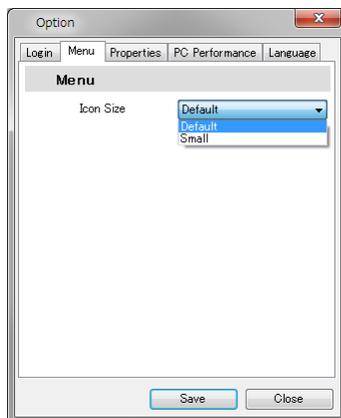
2. Click Option button.



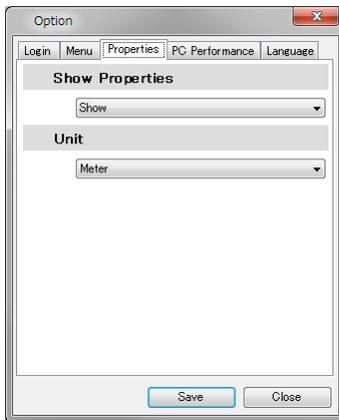
Login window can be enabled or disabled on Login tab.

- If it is enabled, User ID and Password are requested when REDSCAN Manager is started.

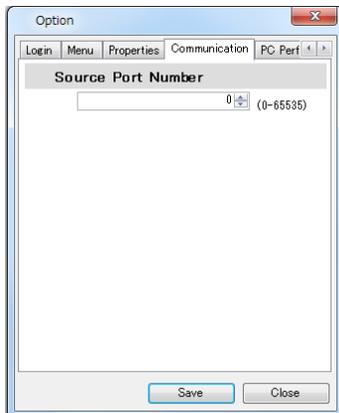
Icon size can be changed on Menu tab.



Properties window can be enabled or disabled on Properties tab. Length of unit can be selected on Properties tab.



Source port number used when communicating with REDSCAN can be changed on Communication tab. If 0 is specified, the source port number is automatically assigned.



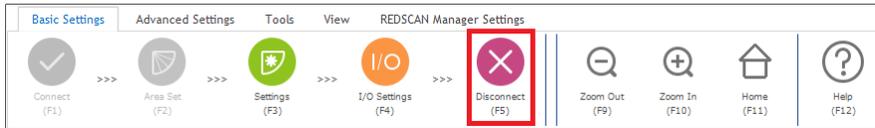
If PC performance is not enough for drawing graphics, select Low or Ultra Low on PC Performance tab.



[Disconnecting REDSCAN]

After settings and confirmation by walk-test, disconnect REDSCAN.

1. Click Disconnect button (the 5th button).



2. Close REDSCAN Manager.

REDSKAN Manager Glossary

A1/A2/B1/B2

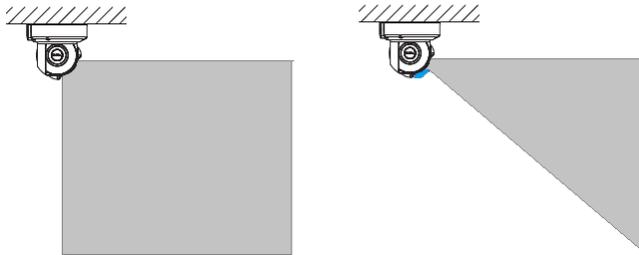
- RLS-2020 series: Name of allocated areas. In default settings, all area is defined as A1.
- RLS-3060 series: Name of areas in fixed pattern, or name of allocated area.

Colors showed on the Map



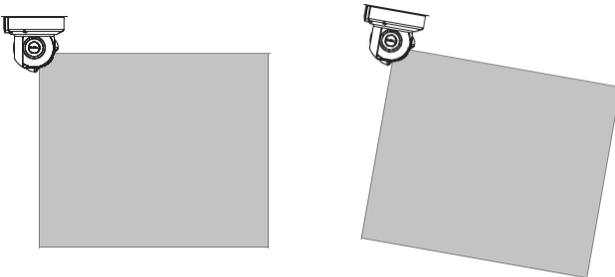
Anti-Masking

- Detects obstacles which mask the detector. Blue object in the figure below is masking the detector window.



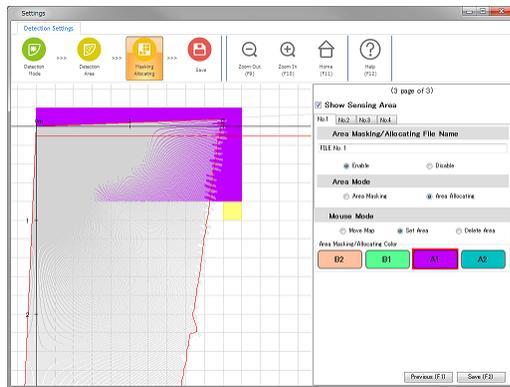
Anti-Rotation

- Detects that the unit is rotated. The right detector below is rotated and facing different direction.



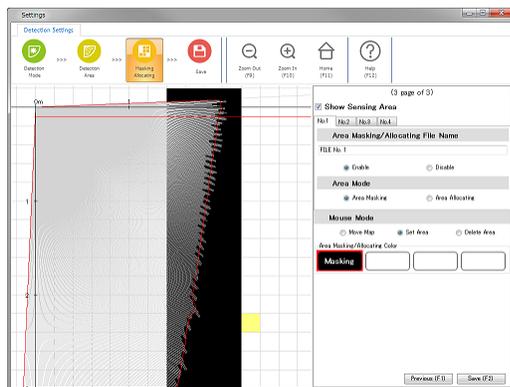
Area Allocating

- Allocated areas are available to distinguish where objects are detected.



Area Masking

- Masking area is available to ignore some area and reduce false alarm.



Area Set

- Learns background of the area.

Detection Mode

- Selectable for customer's application.

DQ (Environmental Disqualification)

- Detects harsh environment, fog, rain, or snow for example.

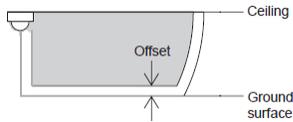
Environmental Resistance

- Reduces false alarm due to fog or snow.



Offset

- Obstacles, plants or small animals can cause false alarm. To prevent them, a part of detection area around background can be excluded by the Offset setting.

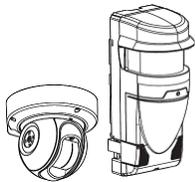


R.E.C. (REDWALL Event Code)

- R.E.C. is stored in UDP or TCP packet and sent from REDSCAN as alarm.

REDFSCAN

- Optex product that detects objects by laser scanning. There are 2 series, RLS-2020 series and RLS-3060 series.



REDFSCAN Manager

- Windows application software to configure REDSCAN.

REDFSCAN mini

There are 2 models, RLS-2020I (Indoor use) and RLS-2020S (Outdoor use).



Soiling of the Window

- Detects dirt is soiling detector window.

VMS

- Video Management Software. It manages devices in surveillance system including cameras, recorders, and sensors.