



ITA_User Instruction Manual

Role-based access control for
data records

—Version 1.9 —

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※「Exastro IT Automation」 is written as 「ITA」 in this document.

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Introduction

This document explains the functions and operation methods of the role-based access control for data records (RBAC).

1 Overview of role-based access control for data records (RBAC).

Access for each data record can be controlled by assigning a role that allows access for each user and data record.

If the features above are not going to be used, please leave the default access permission roles blank.

In this document, "Role-based access control for data records (RBAC)" is hereinafter written as "Role-based access control (RBAC)".

2 Main functions of role-based access control (RBAC)

The main functions of role-based access control (RBAC) fall in the following categories.

- Web
Web content. A screen where you can use the menu creation function provided by the browser.
- BackYard
Resident process that runs on the server independently of the web contents.

3 Role link for each user

To perform role-based access control (RBAC), set up roles that allow access permission for each user. For example, we will explain the following procedure (chapter 3.1 ~ 3.4) based on the registration example in "Table 3-1".

Table 3-1 Chapters and registration example

Chapter/ Section	「Management Console」menu group	Register example												
3.1	「Role list」Menu	<table border="1"><thead><tr><th>Role</th></tr></thead><tbody><tr><td>Role_A</td></tr><tr><td>Role_B</td></tr></tbody></table>	Role	Role_A	Role_B									
Role														
Role_A														
Role_B														
3.2	「Role/Menu link list」Menu	<table border="1"><thead><tr><th>Role</th><th>Menu</th><th>Link</th></tr></thead><tbody><tr><td>Role_A</td><td>Menu_A</td><td>Maintenance</td></tr><tr><td>Role_B</td><td>Menu_A</td><td>Maintenance</td></tr><tr><td>Role_B</td><td>Menu_B</td><td>Maintenance</td></tr></tbody></table>	Role	Menu	Link	Role_A	Menu_A	Maintenance	Role_B	Menu_A	Maintenance	Role_B	Menu_B	Maintenance
Role	Menu	Link												
Role_A	Menu_A	Maintenance												
Role_B	Menu_A	Maintenance												
Role_B	Menu_B	Maintenance												
3.3	「User list」Menu	<table border="1"><thead><tr><th>User</th></tr></thead><tbody><tr><td>User_A</td></tr><tr><td>User_B</td></tr></tbody></table>	User	User_A	User_B									
User														
User_A														
User_B														
3.4	「Role/User link list」Menu	<table border="1"><thead><tr><th>Role</th><th>User</th><th>Default access permission</th></tr></thead><tbody><tr><td>Role_A</td><td>User_A</td><td>●</td></tr><tr><td>Role_B</td><td>User_B</td><td>●</td></tr></tbody></table>	Role	User	Default access permission	Role_A	User_A	●	Role_B	User_B	●			
Role	User	Default access permission												
Role_A	User_A	●												
Role_B	User_B	●												
- ※	「Menu list」Menu	<table border="1"><thead><tr><th>Menu</th></tr></thead><tbody><tr><td>Menu_A</td></tr><tr><td>Menu_B</td></tr></tbody></table>	Menu	Menu_A	Menu_B									
Menu														
Menu_A														
Menu_B														

※For details about create menu, please refer to "ITA_User_Instruction_Manual_Menu_creation_function".

The above "Table 3-1" is mapping in the following relationship.

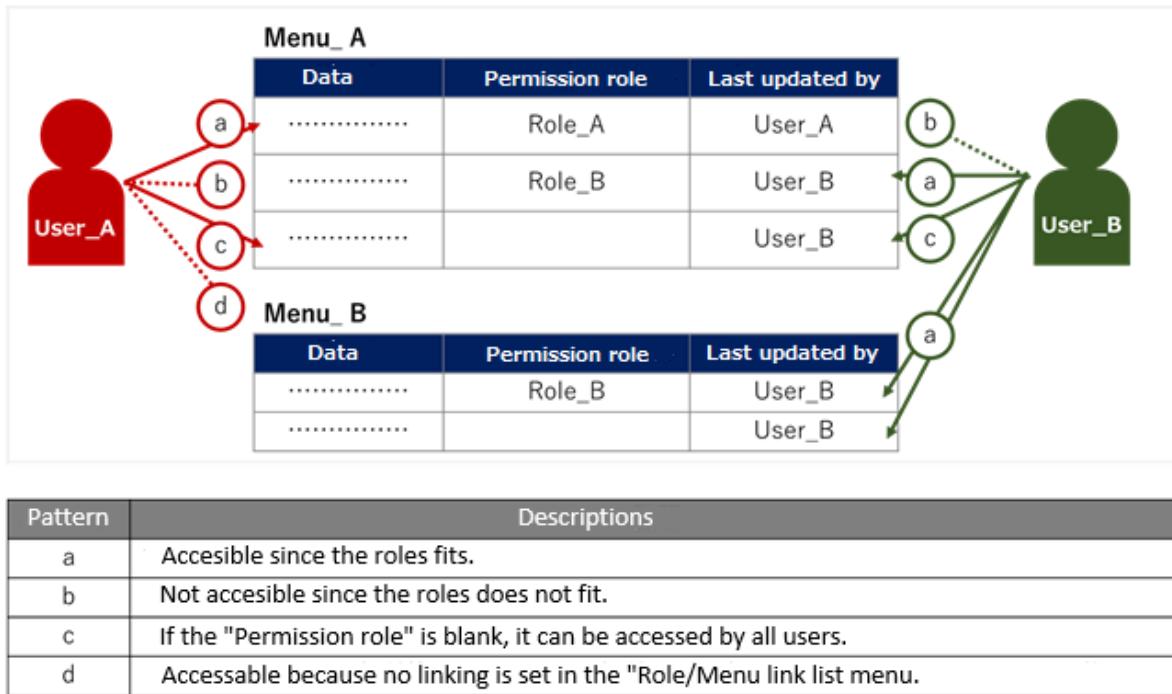


Figure 3- 1 Overall view

In the case of "Pattern: d" above, the following dialog will be displayed.

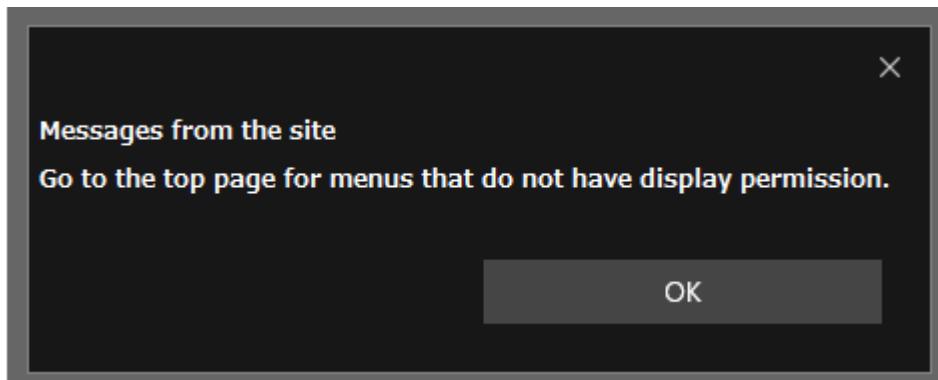


Figure 3-2 Dialog displayed when display permission is not available

For example, if "User_A" tries to access "Menu_B" which is not linked, the user will be redirected to the top page because he does not have permission to access the menu.

3.1 Design roles to control access and register for role list

Design a role that is going to control access and register it from the "Management Console" menu group> "Role list" menu.

The screenshot shows the Exastro Management Console interface. On the left, there's a sidebar with a tree structure: Main menu, System settings, Menu group list, Menu list, Role list (which is selected and highlighted with a red box), User list, and Role + Menu link list. The main content area has a title 'List/Update' and a table with columns: History, Update, Discard, Role ID, Role name, User information, Menu information, Access permission, Remarks, Last update date/time, and Last updated by. A single row is visible: System Administrator, SSO Default Role, with various status icons and a timestamp of 2015/04/01 10:00:00. A red box highlights the 'Role name' column header and the row itself.

Figure 3.1-1 "Management Console" Menu Group> "Role list" Menu

✧ A role has two functions.

① Menu access permissions

Access permission to each menu is registered from the "Management Console" Menu group > "Role/Menu link list" Menu.

The screenshot shows the 'Role/Menu link list' registration screen. The sidebar includes items like Menu list, Role list, User list, and Role/Menu link list (which is selected). The main area has a 'Register' title and a table with columns: Item No., Role (ID: Name)*, Menu group: Menu*, Last update date/time, and Last updated by. Two rows are shown: one for 'Auto-input' with '1:System Administrator' and '2100011612:Reference:6:With operation'; another for 'Auto-input' with '1:Administrator'. A red box highlights the 'Role (ID: Name)*' field and the first row of the table.

Figure 3.1-1 "Management Console" Menu Group> "Role/Menu link list" Menu

② Roles for data records

Roles assigned to each user's data are registered from the "Management Console" Menu Group> "Role/User link list" Menu.

The screenshot shows the 'Role/User link list' registration screen. The sidebar includes items like Menu list, Role list, User list, and Role/User link list (which is selected). The main area has a 'Register' title and a table with columns: Item No., Role (ID: Name)*, User ID: Login ID*, Default access permission, Access permission, Last update date/time, and Last updated by. Two rows are shown: one for 'Auto-input' with '1:System Administrator' and '1:administrator'; another for 'Auto-input' with '1:Administrator'. A red box highlights the 'Role (ID: Name)*' and 'User ID: Login ID*' fields and the first row of the table.

Figure 3.1-2 "Management Console" Menu Group> "Role/User link list" Menu

The following roles are registered when ITA is installed by default. Please do not change/update them.

History	Update	Discard	Role ID	Role name	User information	Menu information	Access permission	Remarks	Last update date/time	Last updated by
				Role to allow access						
History	Update	Discard	1	System Administrator	User information	Menu information		System Administrator	2015/04/01 10:00:00	System Administrator
History	Update	Discard	2,100,000,001	SSO Default Role	User information	Menu information		SSO Default Role	2015/04/01 10:00:00	System Administrator

Figure 3.1-3 "Management Console" Menu Group> "Role list" Menu

In addition, this document describes "(2) roles given for each data record" of the two roles. (In Figure 3-1, "Pattern: a, b, and c" is applicable.)

For "(1) Access permission to menus", please refer to

"ITA_User_Instruction_Manual_Management Console." (In Figure 3-1, "Pattern: d" is applicable.)

3.2 Role and menu registration in role/menu link list.

Register a link between each role and menu in the "Management Console" menu group > "Role/Menu link list".

Newly registered roles will be required to have it linked to each menu in the "Role/Menu link list" menu.

Role			Menu group			Menu		
ID	Name	ID	Name	ID	Name	ID	Name	
1	System Administrator	00011610	Input	1	Test Menu_1			
1	System Administrator	00011611	Substitution_value	2	Test Menu_1			
1	System Administrator	00011612	Reference	3	Test Menu_1			
1	System Administrator	00011610	Input	4	Test Parameter			
1	System Administrator	00011611	Substitution_value	5	Test Parameter			
1	System Administrator	00011612	Reference	6	Test Parameter			
1	System Administrator	00011610	Input	7	Durectirt_Creation			
1	System Administrator	00011611	Substitution_value	8	Durectirt_Creation			

Figure 3.2-1 "Management Console" Menu Group> "Role/Menu link list" Menu

The "System Administrator (role)" is linked to all menus by default when installing ITA. Please do not change/update it.

Role			Menu group			Menu		
ID	Name	ID	Name	ID	Name	ID	Name	
1	System Administrator	0100011610	Input	1	Test Menu_1			
2	System Administrator	0100011611	Substitution_value	2	Test Menu_1			
3	System Administrator	0100011612	Reference	3	Test Menu_1			
4	System Administrator	0100011610	Input	4	Test Parameter			
5	System Administrator	0100011611	Substitution_value	5	Test Parameter			
6	System Administrator	0100011612	Reference	6	Test Parameter			
7	System Administrator	0100011610	Input	7	Durectirt_Creation			
8	System Administrator	0100011611	Substitution_value	8	Durectirt_Creation			
9	System Administrator	0100011612	Reference	9	Durectirt_Creation			

Figure 3.2-2 "Management Console" Menu Group> "Role/Menu link list" Menu

Assume that "Menu_A" and "Menu_B" are created.

For details about create manu, please refer to "ITA_User_Instruction_Manual_Menu_creation_function".

Figure 3.2-3 "Input" Menu Group> "Menu_A" Menu

3.3 User (Accounts) with user list registration

Register a user (Account) from the "Management Console" menu group > "User list" menu.

The screenshot shows the "List/Update" view for the "User list". On the left, there is a sidebar with options: "Role list", "User list" (which is selected and highlighted with a red box), "Role + Menu link list", "Role + User link list", and "Sequence list". The main area displays a table with columns: History, Update, Discard, User ID, Login ID, Login Password, User name, Mail address, and Role information. Three rows of data are shown:

History	Update	Discard	User ID	Login ID	Login Password	User name	Mail address	Role information
History	Update	Discard	1	administrator	*****	System Administrator	sample@xxx.bbb.ccc	Role information
History	Update	Discard	2	User_A	*****	User_A		Role information
History	Update	Discard	3	User_B	*****	User_B		Role information

Figure 3.3-1 "Management Console" Menu Group> "User list" Menu

The following users (accounts) are registered by default when installing ITA. Please do not change/update them.

History	Update	Discard	User ID	Login ID	Login Password	User name	Mail address	Role information
History	Update	Discard	1	administrator	*****	System Administrator	sample@xxx.bbb.ccc	Role information

Figure 3.3-2 "Management Console" Menu Group> "User list" Menu

3.4 Registration of link between user and role in the Role/User list

Register the user-role link "Management Console" menu group > "Role/User link list" menu. When registering new data, if you specify it as the default role to be granted to the data, the setting is performed in the "Default access permission" column.

By setting "●" in the "Default access permission" column, it will be a role (Permission role) set as the default when registering new data.

Role list		List/Update									
User list											
Role • Menu link list											
Role • User link list											
History	Update	Discard	Item No. ◆	ID ◆	Role	User	Default access permission ◆	Access permission	Role to allow access ◆	Remarks ◆	
History	Update	Discard	1	1	System Administrator	1 administrator	•			System Administra	
History	Update	Discard	2	2	Role_A	2 User_A	•				
History	Update	Discard	3	3	Role_B	3 User_B	•				

Figure 3.4-1 "Management Console" Menu Group> "Role/User link list" Menu

If RBAC is not going to be implemented, please leave the "Default access permission" field blank.

The following user/role link will be registered by default when installing ITA. Please do not change/update them.

History	Update	Discard	Item No. ◆	Role		User		Default access permission ◆
History	Update	Discard	1	ID ◆	Name ◆	User ID ◆	Login ID ◆	Default access permission ◆
History	Update	Discard	1	1	System Administrator	1 administrator		

Figure 3.4-2 "Management Console" Menu Group> "Role/User link list" Menu

4 Role link for data

In the following explanation, assumes that "Table 4-1" will be set below.

Table 4-1 Menu and registration example

No.	Menu	Registration example																				
1	「Management Console」Menu group>「Role list」menu	System Administrator, Manager_Company_A, Company_A_KANTO, Company_A_KANSAI, Manager_Company_B, Company_B_KANTO, Company_B_KANSAI,																				
2	「Management Console」Menu group>「User list」menu	<table border="1"> <thead> <tr> <th>Login ID</th> <th>User name</th> </tr> </thead> <tbody> <tr> <td>administrator</td> <td>System administrator</td> </tr> <tr> <td>A_admin</td> <td>Admin_Company_A</td> </tr> <tr> <td>A_user01</td> <td>Company_A_user01</td> </tr> <tr> <td>A_user02</td> <td>Company_A_user02</td> </tr> <tr> <td>A_user03</td> <td>Company_A_user03</td> </tr> <tr> <td>B_admin</td> <td>Admin_Company_B</td> </tr> <tr> <td>B_user01</td> <td>Company_B_user01</td> </tr> <tr> <td>B_user02</td> <td>Company_B_user02</td> </tr> <tr> <td>B_user03</td> <td>Company_B_user03</td> </tr> </tbody> </table>	Login ID	User name	administrator	System administrator	A_admin	Admin_Company_A	A_user01	Company_A_user01	A_user02	Company_A_user02	A_user03	Company_A_user03	B_admin	Admin_Company_B	B_user01	Company_B_user01	B_user02	Company_B_user02	B_user03	Company_B_user03
Login ID	User name																					
administrator	System administrator																					
A_admin	Admin_Company_A																					
A_user01	Company_A_user01																					
A_user02	Company_A_user02																					
A_user03	Company_A_user03																					
B_admin	Admin_Company_B																					
B_user01	Company_B_user01																					
B_user02	Company_B_user02																					
B_user03	Company_B_user03																					
3	「Management Console」Menu group>「Role/User link list」menu	<table border="1"> <thead> <tr> <th>Role</th> <th>User name</th> </tr> </thead> <tbody> <tr> <td>System Administrator</td> <td>System Administrator</td> </tr> <tr> <td>Manager_Company_A</td> <td>System Administrator, Admin_Company_A (●)</td> </tr> <tr> <td>Company_A_KANTO</td> <td>System Administrator, Admin_Company_A, Company_A_user01 (●), Company_A_user03</td> </tr> <tr> <td>Company_A_KANSAI</td> <td>System Administrator, Admin_Company_A, Company_A_user02 (●), Company_A_user03</td> </tr> <tr> <td>Manager_Company_B</td> <td>System Administrator, Admin_Company_B (●)</td> </tr> <tr> <td>Company_B_KANTO</td> <td>System Administrator, Admin_Company_B, Company_B_user01 (●), Company_B_user03</td> </tr> <tr> <td>Company_B_KANSAI,</td> <td>System Administrator, Admin_Company_B, Company_B_user02 (●), Company_B_user03</td> </tr> <tr> <td colspan="2">●...Default access permission</td></tr> </tbody> </table>	Role	User name	System Administrator	System Administrator	Manager_Company_A	System Administrator, Admin_Company_A (●)	Company_A_KANTO	System Administrator, Admin_Company_A, Company_A_user01 (●), Company_A_user03	Company_A_KANSAI	System Administrator, Admin_Company_A, Company_A_user02 (●), Company_A_user03	Manager_Company_B	System Administrator, Admin_Company_B (●)	Company_B_KANTO	System Administrator, Admin_Company_B, Company_B_user01 (●), Company_B_user03	Company_B_KANSAI,	System Administrator, Admin_Company_B, Company_B_user02 (●), Company_B_user03	●...Default access permission			
Role	User name																					
System Administrator	System Administrator																					
Manager_Company_A	System Administrator, Admin_Company_A (●)																					
Company_A_KANTO	System Administrator, Admin_Company_A, Company_A_user01 (●), Company_A_user03																					
Company_A_KANSAI	System Administrator, Admin_Company_A, Company_A_user02 (●), Company_A_user03																					
Manager_Company_B	System Administrator, Admin_Company_B (●)																					
Company_B_KANTO	System Administrator, Admin_Company_B, Company_B_user01 (●), Company_B_user03																					
Company_B_KANSAI,	System Administrator, Admin_Company_B, Company_B_user02 (●), Company_B_user03																					
●...Default access permission																						
4	「Management Console」Menu group>「Basic Console」Menu group >「Operation list」menu																					

	「Menu list」menu 「Management Console」Menu group> 「Role/Menu link list」menu	<table border="1"> <thead> <tr> <th>Role</th><th>Menu</th></tr> </thead> <tbody> <tr> <td>System Administrator, Manager_Company_A, Company_A_KANTO, Company_A_KANSAI, Manager_Company_B, Company_B_KANTO, Company_B_KANSAI,</td><td>「 Basic Console 」 Menu group > 「Operation list」</td></tr> </tbody> </table>	Role	Menu	System Administrator, Manager_Company_A, Company_A_KANTO, Company_A_KANSAI, Manager_Company_B, Company_B_KANTO, Company_B_KANSAI,	「 Basic Console 」 Menu group > 「Operation list」
Role	Menu					
System Administrator, Manager_Company_A, Company_A_KANTO, Company_A_KANSAI, Manager_Company_B, Company_B_KANTO, Company_B_KANSAI,	「 Basic Console 」 Menu group > 「Operation list」					

No.1) "Role list" menu reflecting the registration example in "Table 4-1"

History	Update	Discard	Role ID	Role name	User information	Menu information	Access role
History	Update	Discard		System Administrator	User information	Menu information	
History	Update	Discard		Manager_Company_A	User information	Menu information	
History	Update	Discard		Company_A_KANTO	User information	Menu information	
History	Update	Discard		Company_A_KANSAI	User information	Menu information	
History	Update	Discard		Manager_Company_B	User information	Menu information	
History	Update	Discard		Company_B_KANTO	User information	Menu information	
History	Update	Discard		Company_B_KANSAI	User information	Menu information	
History	Update	Discard	2,100,000,000	SSO Default Role	User information	Menu information	

Figure 4-1 "Management Console" menu group > "Role list menu"

No.2) "User list" menu reflecting the registration example in "Table 4-1"

History	Update	Discard	User ID	Login ID	Login Password	User name	Mail address
History	Update	Discard	1	administrator	*****	System Administrator	sample@xxx.bbb.ccc
History	Update	Discard	4	A_admin	*****	Admin_Company_A	
History	Update	Discard	5	A_user01	*****	Company_A_user01	
History	Update	Discard	6	A_user02	*****	Company_A_user02	
History	Update	Discard	7	A_user03	*****	Company_A_user03	
History	Update	Discard	8	B_admin	*****	Admin_Company_B	
History	Update	Discard	9	B_user01	*****	Company_B_user01	
History	Update	Discard	10	B_user02	*****	Company_B_user02	
History	Update	Discard	11	B_user03	*****	Company_B_user03	

Figure 4-2 "Management Console" Menu group > "User list" Menu

No.3) "Role/User link list" menu reflecting the registration example in "Table 4-1"

The screenshot shows the Management Console interface. On the left, a vertical menu bar is visible with various options like Main menu, System settings, Menu group list, etc. The 'Role • User link list' option is highlighted with a red box. To the right, a large table titled 'List/Update' displays a list of role-user links. The table has columns for History, Update, Discard, Item No., Role (ID, Name), User (User ID, Login ID), and Default access permission. The data in the table reflects the registration example from Table 4-1.

History	Update	Discard	Item No.	Role		User		Default access permission
				ID	Name	User ID	Login ID	
History	Update	Discard		1	System Administrator	1	administrator	
History	Update	Discard		4	Manager_Company_A	1	administrator	
History	Update	Discard		5	Company_A_KANTO	1	administrator	
History	Update	Discard	10	6	Company_A_KANSAI	1	administrator	
History	Update	Discard	14	7	Manager_Company_B	1	administrator	
History	Update	Discard	14	8	Company_B_KANTO	1	administrator	
History	Update	Discard	20	9	Company_B_KANSAI	1	administrator	
History	Update	Discard		4	Manager_Company_A	4	A_admin	●
History	Update	Discard		5	Company_A_KANTO	4	A_admin	
History	Update	Discard	1	6	Company_A_KANSAI	4	A_admin	
History	Update	Discard		5	Company_A_KANTO	5	A_user01	●
History	Update	Discard		6	Company_A_KANSAI	6	A_user02	●
History	Update	Discard		5	Company_A_KANTO	7	A_user03	
History	Update	Discard		6	Company_A_KANSAI	7	A_user03	
History	Update	Discard		7	Manager_Company_B	8	B_admin	●
History	Update	Discard		8	Company_B_KANTO	8	B_admin	
History	Update	Discard	2	9	Company_B_KANSAI	8	B_admin	
History	Update	Discard		8	Company_B_KANTO	9	B_user01	●
History	Update	Discard	2	9	Company_B_KANSAI	10	B_user02	●
History	Update	Discard		8	Company_B_KANTO	11	B_user03	
History	Update	Discard	2	9	Company_B_KANSAI	11	B_user03	

Figure 4-3 "Management Console" Menu group > "Role/User link list" Menu

Table 4-2 List of Settings for "Role/User link list"

Role name (Login ID)	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
System Administrator (administrator)	○	○	○	○	○	○	○
Manager_Company_A (A_admin)		●	○	○			
Company_A_user01 (A_user01)			●				
Company_A_user02 (A_user02)				●			
Company_A_user03 (A_user03)			○	○			
Manager_Company_B (B_admin)					●	○	○
Company_B_user01 (B_user01)						●	
Company_B_user02							●

(B_user02)							
Company_B_user03 (B_user03)						●	●

●: With link in Role/User link list. Set "●" with default access permission

○: With link in Role/User link list. Set the "Default access permission" to be blank.

No.4) "Role/Menu link list" menu reflecting the registration example in "Table 4-1"

New roles needs to be linked to a menu. This can be done in "Role/Menu link list" menu.

The following assumes that each role is getting linked to "Basic Console" menu group > "Operation list" menu.

The screenshot shows a 'List/Update' screen titled 'Role - Menu link list'. On the left, there's a sidebar with 'User list' and several other menu items. The main area displays a table with three columns: 'Role' and 'Menu group' (both with ID and Name columns), and a 'Discard' column. The table contains 10 rows of data, each representing a role linked to a specific menu group. The last row is highlighted with a red border.

History	Update	Discard	Item No.	Role		Menu group		Menu	
				ID	Name	ID	Name	ID	Name
History	Update	Discard	15_4	Manager_Company_A	100000003	Basic_Console	2100000304	Operation_list	
History	Update	Discard	16_5	Company_A_KANTO	100000003	Basic_Console	2100000304	Operation_list	
History	Update	Discard	17_6	_Company_A_KANSAT	100000003	Basic_Console	2100000304	Operation_list	
History	Update	Discard	18_7	Manager_Company_B	100000003	Basic_Console	2100000304	Operation_list	
History	Update	Discard	19_8	Company_B_KANTO	100000003	Basic_Console	2100000304	Operation_list	
History	Update	Discard	20_9	Company_B_KANSAT	100000003	Basic_Console	2100000304	Operation_list	
History	Update	Discard	2,100,000,202_1	System Administrator	100000002	Management_Console	2100000202	System_settings	

Figure 4-4 "Management Console" Menu group > "Role/Menu link list" Menu

Example) If user "B_admin" is logged in

By linking, user "B_admin" can access the "Operation list" menu > "Basic Console" menu group.

The screenshot shows a 'Basic Console' interface with a sidebar and a main search form. The sidebar has 'Main menu' and 'Device list' options. The main area has tabs for 'Description' and 'Display filter'. A large search table is present with columns for 'Discard', 'No.', 'Operation ID', 'Operation name', 'Scheduled date', 'last update date/time', and 'Last updated by'. There are also 'Filter' and 'Clear filter' buttons at the bottom of the search table.

Figure 4-5 "Management Console" Menu group > "Input operation" Menu

4.1 New data

It is possible to set "access permissions" for data when registering it.

The following figure 4.1-1,"Basic Console" menu group > "Operation list" shows the data registration sub menu (operation).

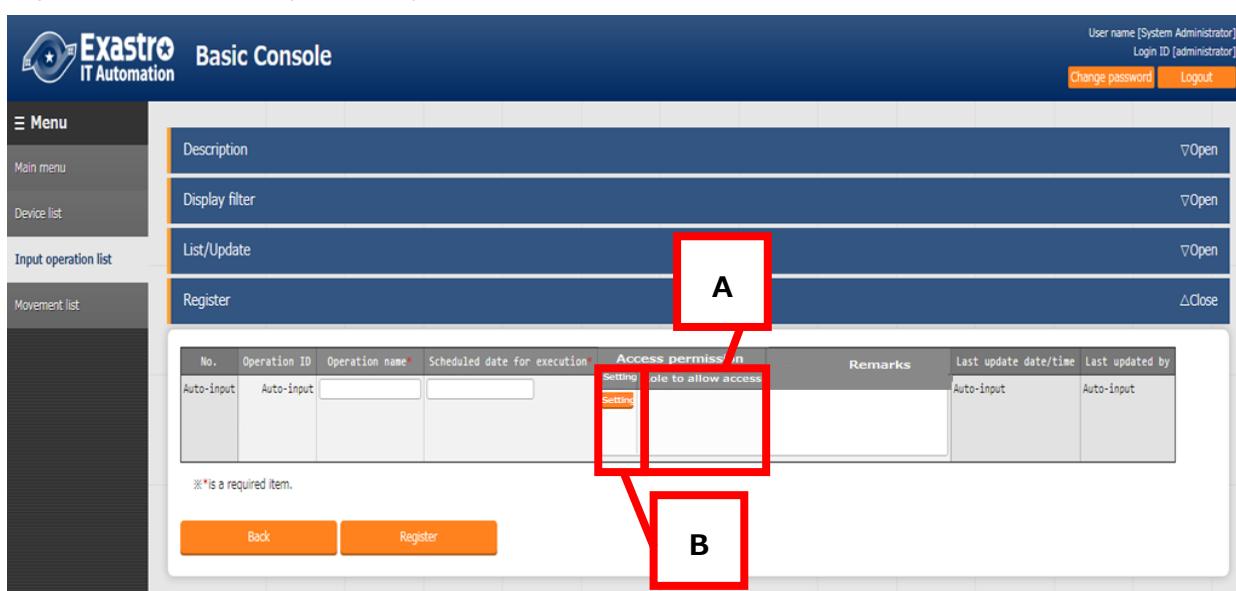


Figure 4-5 "Basic Console" Menu group > "Operation list" Menu

A. "Role to allow access" column.

The role that grants access to data records will be displayed.

The default permission access role will be displayed in the "Permission role" column.

If no default permission access role is set, it will be blank.

Only the user linked with the permission role can view/change the data.

If the permission role is blank, all users can view/change the data.

If Role-based access control (RBAC) is not getting implemented, do not set any permission roles.

※1 Default Permission roles

Roles with "●" selected in the "Default permissions" column of the "Role/User link list" menu will have their role name displayed in the "permission role" column when registering by default.

History	Update	Discard	Item No.	Role		User		Default access permission
				ID	Name	User ID	Login ID	
History	Update	Discard	5	<u>4</u>	<u>Manager_Company_A</u>	<u>4</u>	<u>A_admin</u>	●
History	Update	Discard	8	<u>5</u>	<u>Company_A_KANTO</u>	<u>5</u>	<u>A_user01</u>	●
History	Update	Discard	12	<u>6</u>	<u>Company_A_KANSAI</u>	<u>6</u>	<u>A_user02</u>	●
History	Update	Discard	15	<u>7</u>	<u>Manager_Company_B</u>	<u>8</u>	<u>B_admin</u>	●
History	Update	Discard	18	<u>8</u>	<u>Company_B_KANTO</u>	<u>9</u>	<u>B_user01</u>	●
History	Update	Discard	22	<u>9</u>	<u>Company_B_KANSAI</u>	<u>10</u>	<u>B_user02</u>	●

Figure 4.1-2 "Management Console" Menu group > "Role/User link list" Menu

Example) If user "A_user03" is logged in.

User "A_user03" is not set to "Default permissions", so by default, nothing will be displayed in the "Permission role" column when registering.

No.	Operation ID	Operation name*	Scheduled date for execution*	Access permission	Remarks	Last update date/time	Last updated by
Auto-input	Auto-Input			<u>Setting</u> <u>Role to allow access</u>		Auto-Input	Auto-Input

Figure 4.1-3 "Basic Console" Menu group > "Operation list" Menu

Example) If "B_user02" is logged in.

Since User "B_user02" is set to "Default permissions", the role set to it will be displayed in the "permission role" column by default when registering.

The screenshot shows the Exastro Basic Console interface. At the top right, there is a user login status bar with "User name [Company_B_user02]", "Login ID [B_user02]", "Change password", and "Logout". On the left, a vertical sidebar has "Main menu" and "Operation list" sections. The main area has tabs for "Description", "Display filter", "List/Update", and "Register". The "List/Update" tab is active, showing a table with one row. The table columns are "No.", "Operation name*", "Scheduled date for execution*", "Access permission setting", "Role to allow access", "Last update date/time", and "Last updated by". The "Access permission setting" column for the first row is highlighted with a red box. The "Role to allow access" cell contains "Company_B_KANSAI". The "Last update date/time" and "Last updated by" cells both contain "Auto-input". Below the table, a note says "※*is a required item." and there are "Back" and "Register" buttons.

No.	Operation name*	Scheduled date for execution*	Access permission setting	Role to allow access	Last update date/time	Last updated by
Auto-input			Setting	Company_B_KANSAI	Auto-input	Auto-input

Figure 4.1-4 "Basic Console" Menu group > "Operation list" Menu

B. 「Settings」column

If you want to change the permission role, click the "Setting" button.

A dialog box where users can change permission role will be displayed.

The dialog box displays a list of roles linked to the user from the user in the "Role/User link list" menu.

Select permission role then press the "Decision" button

The selected role will be mirrored "Permission role" column.

If the "Decision" button is clicked without any role selected, the "Permission role" field will be left blank

If the "Permission role" is blank, the data can be viewed/changed by all users.

Clicking the "register" button will register all the contents displayed in the "permission role" column.

Example) If user "A_user03" is logged in.

The roles linked to user "A_user03", "Company_A_KANTO" and "Company_A_KANSAI" will be displayed in a dialog box

List/Update

History	Update	Discard	Item No. ◆	Role		User		Default access permission ◆
				ID ◆	Name ◆	User ID ◆	Login ID ◆	
History	Update	Discard	95	Company_A_KANTO	7	A_user03		
History	Update	Discard	136	Company_A_KANSAI	7	A_user03		

Filter result count: 2

Role select

Select	ID	Name
<input type="checkbox"/>	5	Company_A_KANTO
<input type="checkbox"/>	6	Company_A_KANSAI

Decision Cancel

Figure 4.1-5 Changing permission role dialog

4.2 Updating Data

Roles that grants permission to data records will be displayed in the "Permission role" column. Change the permission role as needed.

The screenshot shows the "Basic Console" interface with the "Input operation" menu selected. On the left, there's a sidebar with options like "Operation list", "Movement list", "ER Diagram", etc. The main area has tabs for "List/Update" and "Register". A table is displayed with columns: No., Operation ID, Operation name*, Scheduled date for execution*, and Access permission. The "Access permission" column is highlighted with a red box. It shows a "Setting" button and a list of roles: "Company_A_KANTO, Company_A_KANSAI". A note at the bottom says "※* is a required item."

No.	Operation ID	Operation name*	Scheduled date for execution*	Access permission
Auto-input	Auto-input	Ope_sample3	2021/06/03 14:09	Setting Company_A_KANTO, Company_A_KANSAI

Figure 4.2-1 "Basic Console" Menu group > "Input operation" Menu

4.2.1 Handling discarded roles

If a role is abolished in "Basic Console" Menu group > "Role list" Menu, it will be display in "Permission role" column as "ID conversion failure".

Example) If Role "A_user01" is abolished,

This screenshot shows the same "Basic Console" interface as Figure 4.2-1, but with a different result. The "Access permission" column now displays "A_user01, ID conversion failed" instead of valid roles. The "Setting" button is also highlighted with a red box. The "Update" button at the bottom right is also highlighted with a red box.

No.	Operation ID	Operation name	Scheduled date for execution	Access permission
3	3	Ope_sample3	2021/01/01 14:00	Setting A_user01, ID conversion failed

Figure 4.2-2 "Basic Console" Menu group > "Input operation" Menu

If the "update" button is clicked when the screen is the same as "Figure 4.2-2", Abolished roles will be deleted from the column. (In this case, (ID Conversion Failure) disappears and only A_user01 will be displayed).

No.	Operation ID	Operation name	Scheduled date for execution	Access permission	Role to allow access
3	3	ope_sample3	2021/01/01 14:00	Setting	A_user01

Figure 4.2-3 "Basic Console" Menu group > "Input operation" Menu

Unless the "Update" button in the "List/Update" sub menu is pressed, any abolished roles will remain in the "Permission role" and will be displayed as "ID conversion failure".

4.2.2 Handling roles no longer linked to users/roles

If a role link is abolished in the "Management Console" menu group > "Role/User list" menu, the abolished role will be displayed as ***** in the "Permission Role" column.

example) Abolishing the link between "B_user03" and "Company_B_KANSAI" and logging in as User "B_user03".

The screenshot shows the Exastro Basic Console interface. On the left, there's a sidebar with 'Menu' and 'Operation list' sections. The main area has tabs for 'Description', 'Display filter', and 'List/Update'. The 'List/Update' tab is active, displaying a table with columns: No., Operation ID, Operation name*, Scheduled date for execution*, Setting, and Access permission. One row is shown: No. 3, Operation ID 3, Operation name 'ope_sample3', Scheduled date '2021/06/04 14:18', Setting button, and Access permission 'Company_B_KANTO,*****(9)'. A red box highlights the 'Access permission' column for this row. At the bottom, there are 'Back' and 'Update' buttons.

Figure 4.2-3 "Basic Console" Menu group > "Input operation" Menu

The "Permission role" column will not change even if the update button is clicked when the screen is the same as Figure "Figure 4.2-3".

If you want to remove the "*****" display from the "Permission role" column, press the "Setting" button on the "List/Update" sub menu to display the dialog and press the "Decision" button.

This screenshot shows a 'Role select' dialog box. It contains a table with columns 'Select', 'ID', and 'Name'. A single row is selected, showing 'Select' checked, 'ID' 8, and 'Name' Company_B_KANTO. At the bottom right of the dialog, there are 'Decision' and 'Cancel' buttons, with a green box highlighting the 'Decision' button.

Figure 4.2-4 "Role select" Screen

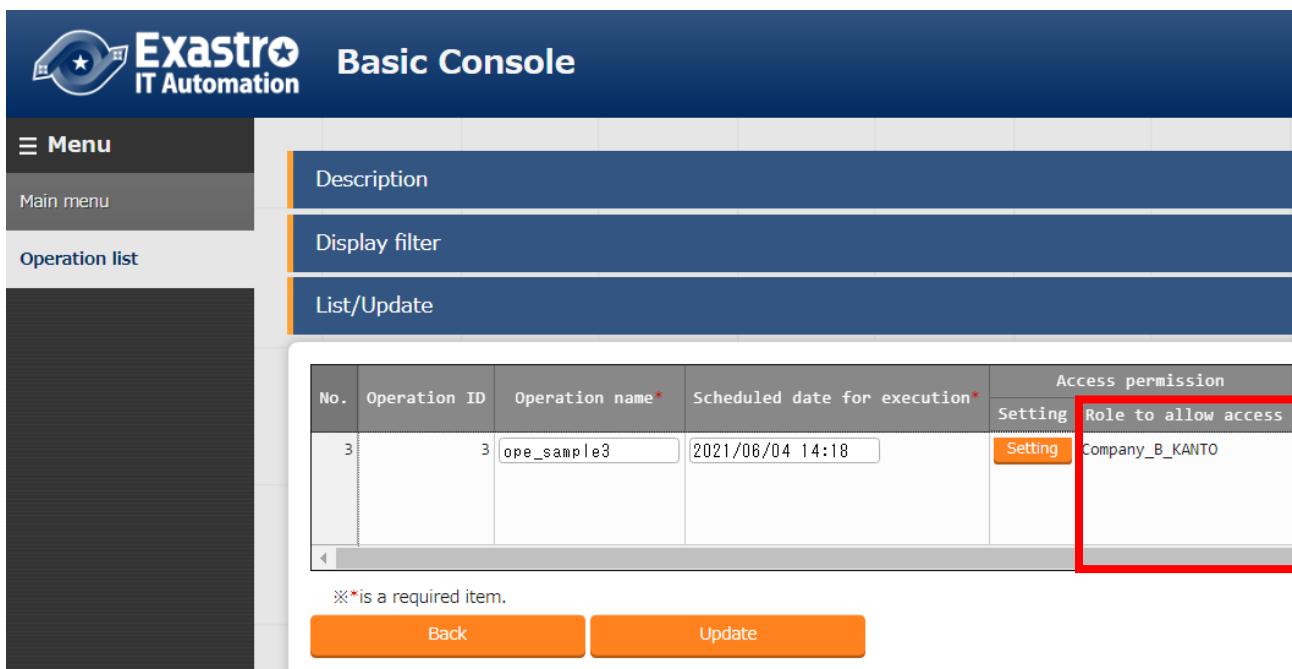


Figure 4.2-5 "Basic Console" Menu group > "Input operation" Menu

Unless you press the "Decision" button on the dialog, abolished role will remain in the "Permission role" column with the display "*****".

4.2.3 When specific data is shared by multiple roles

If data has multiple permission roles registered for it, roles without a link from the "Role/User link list" menu will be displayed as "*****" in the "Permission role" column.

Example) Logging in as B_user03 and registering data in the "Permission role" column in the default state.

User name [Company_B_user03]
Login ID [B_user03]
Change password Logout

Description ▽Open
Display filter ▽Open
List/Update △Close

*List is displayed here.

Register △Close

No.	Operation name*	Scheduled date for execution*	Access permission	Last update date/time	Last updated by
Auto-input	ope_sample4	2021/06/04 14:25	Setting Company_B_KANTO, Company_B_KANSAI	Auto-input	Auto-input

※* is a required item.

Back Register

Figure 4.2-6 "Basic Console" Menu group > "Input operation" Menu

Log in as user "B_user01". User "B_user01" is not linked to the role "B_user02". Roles that are not linked will be displayed as "*****" in the Permission role display.

User name [Company_B_user01]
Login ID [B_user01]
Change password Logout

Description ▽Open
Display filter ▽Open
List/Update △Close

No.	Action ID	Operation name*	Scheduled date for execution*	Access permission	Last update date/time	Last updated by
4	4	ope_sample4	2021/06/04 14:25	Setting Company_B_KANTO, ***** ⁽⁹⁾	Auto-input	Auto-input

※* is a required item.

Back Update

Figure 4.2-7 "Basic Console" Menu group > "Input operation" Menu

The permission role column will not change even if the update button is clicked when the screen is the same as Figure "Figure 4.2-7".

If you want to remove the "*****" from the "Permission role" column, press the "Setting" button to display the dialog and press the "Decision" button.

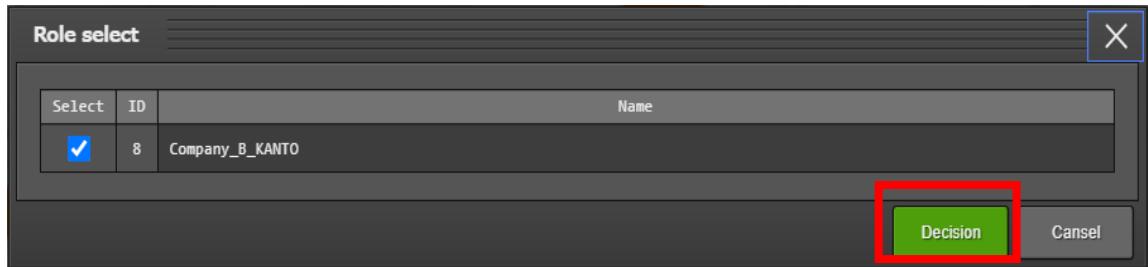


Figure 4.2-8 "Role select" Screen

No.	Action ID	Operation name*	Scheduled date for execution*	Access permission	Last update date/time	Last updated by
4	4	ope_sample4	2021/06/04 14:25	Access permission Setting Role to allow access Setting Company_B_KANTO	Auto-input	Auto-input

※* is a required item.

Back Update

Figure 4.2-9 "Basic Console" Menu group > "Input operation" Menu

Unless you press the "Decision" button on the dialog, the abolished role will remain in the "Permission role" column with the display "*****".

4.3 Data restoration

Abolishing the data will not change the permission role.

4.4 Data restore

Restoring the data will not change the permission role.

4.5 Upload from Excel

The following information registered based on "Table 4-1" is used to explain the information below.

History	Update	Discard	Item No. ▾	Role		User		Default access permission ▾
				ID ▾	Name ▾	User ID ▾	Login ID ▾	
History	Update	Discard	1	6	Company_A_KANSAI	4	A_admin	
History	Update	Discard	7	5	Company_A_KANTO	4	A_admin	
History	Update	Discard	9	4	Manager_Company_A	4	A_admin	•
History	Update	Discard	8	5	Company_A_KANTO	5	A_user01	•
History	Update	Discard	12	6	Company_A_KANSAI	6	A_user02	•
History	Update	Discard	13	6	Company_A_KANSAI	7	A_user03	
History	Update	Discard	9	5	Company_A_KANTO	7	A_user03	

Figure 4.5-1 "Basic Console" Menu group > "Role/User link list" Menu

If an excel file is downloaded from the button below, the user's default permission role will be displayed in the "Permission role" column in the blank row of the downloaded Excel.

List/Update				Download all and edit file uploads			
History	Update	Discard	No. ▾	Operation ID ▾	Operation name ▾		
History	Update	Discard	1		1 Test Operation		
History	Update	Discard	2		2 Test Operation User03		
History	Update	Discard	3		3 ope_sample3		
History	Update	Discard	4		4 ope_sample4		

Filter result count: 4

Output Excel

Download all (Excel)

Download for new registration (Excel)

Figure 4.5-2 "Basic Console" Menu group > "Input operation" Menu

Example) If user is logged in as user "A_admin" and downloads the excel file.

Figure 4.5-3 Download from "Excel Output" button > "List/Update" sub menu

If you're uploading from Excel, make sure that the "Permitted Roles" column has a role set that is within the range of roles linked to the "Management Console" menu group > "Role/User link list" menu.

If you want to set multiple roles, separate them with commas.

Example) Example: Setting within the scope of the role linked with the user

Table 4.5-1 List of "Figure 4.5-1"

Login user	Configuration value of permission role
A_admin	Manager_Company_A, Company_A_KANTO, Company_A_KANSAI
A_user01	Company_A_KANTO
A_user02	Company_A_KANSAI
A_user03	Company_A_KANTO, Company_A_KANSAI

(1) Register

Example) If logged in as user "A_admin" and downloaded to excel.

Enter the required information as shown in the red frame in the figure below.

Figure 4.5-4 Output updated excel

When you upload the updated Excel (Fig. 4.5-4) from the "File upload" button of the "Basic Console" menu group> "Operation list" menu> "Download all and edit file upload" submenu, the data will be registered and added to the "List/Update" sub menu.

List/Update										Close
History	Update	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution date	Access permission	Last update date/time	Last updated by
History	Update	Discard	1	1	Test Operation	2021/05/20 15:23	2021/05/27 15:26		2021/05/27 15:26:27	LegacyRole execution procedure
History	Update	Discard	2	2	Test Operation User03	2021/05/06 14:05		Company_A KANTO, Company_B	2021/05/31 14:05:40	Company_A user03
History	Update	Discard	5	5	Opne_sample10	2021/06/03 15:19		Manager_Company_A, Company_B	2021/05/31 15:19:36	Admin_Company_A

Figure 4.5-5 Results of uploading the updated Excel

(2) Update

Set the role within the permission role set in the update record, but If you want to share data with multiple users and want to keep the role not associated with the login user, please set the role name as ***** (Role ID).

Example) If you want to leave a role that is not linked to a login user

Table 4.5-2 Configuring permission roles for update records

Login user	Access permission role setting value
A_admin	Manager_Company_A, Company_A_KANTO, Company_A_KANSAI
A_user01	******(2), Company_A_KANTO, ******(4)
A_user02	******(2), ******(3), Company_A_KANSAI
A_user03	******(2), Company_A_KANTO, Company_A_KANSAI

No.	Operation name*	Scheduled date for execution*	Access permission	Last update date/time	Last updated by
5	Ope_sample10	2021/06/03 15:19	Setting ******(4),Company_A_KANTO,******(6)	Auto-input	Auto-input

Figure 4.5-6 List/Update sub menu when login "A_user01"

(3) Abolition/Revival

Aboliting/reviving will not change the permission role.

If the permission role is blank, all users can view/change the data (When uploading from Excel, the permission role is automatically specified ※Figure 4.5-3).

If role based access control (RBAC) is not input, do not set the permission role.

4.6 Uploading from RestAPI

Uploads from RestAPI (Registration, update, abolition, revival) are similar to "4.5 Upload from Excel".

However, Unlike uploading from Excel, "Permission role" is not specified by default.

Table 4.6-1 Differences in default values by upload source

Upload source	Default value	Result when registered with default values
Excel	The default permission role for the logged in user is specified. (Figure 4.5-3).	Only users with the specified role can see the data.
RestAPI	Unspecified	Data can be reference to all users

When uploading from RestAPI, "Unspecified permission role" is the default.

If the "Permission Role" column is blank, all users can view/change the data, so please be careful if there is data that you do not want to view/change from other than a specific role.

If you want to narrow down the number of users who view/change data, please upload the permission role after specifying it.

If Role-based access control (RBAC) is not getting implemented, do not set any permission roles.

4.6.1 EDIT (X-Command)

For details on how to operate from RestAPI, please refer to "ITA_User_Instruction_Manual_RestAPI".

※"FILTER (X-Command)" will be described in ["5.4 RestAPI display filter"](#).

If you want to register or update data from RestAPI, set the access permission role to be within the range of roles linked with the user in the "Management Console" menu group > "Role/User link list" menu.

If you want to set multiple roles, separate them with commas.

If permission role field is blank, all users can view/change the data.

If Role-based access control (RBAC) is not getting implemented, do not set any permission roles.

5 Display restrictions for linked roles.

This and any subsequent chapters assumes that the following data has been registered in the “Basic Console” menu group -> “Operation list” menu.

The screenshot shows the Exastro IT Automation Basic Console interface. The left sidebar has a dark theme with white text and icons. It includes sections for Main menu, Device list, and Operation list. Under Operation list, there are Movement list, ER Diagram, ER Diagram Menu List, and ER Diagram Item List. The main area is titled "Basic Console" and shows a table of operations. The table has columns for History, Update, Discard, No., Operation ID, Operation name, Scheduled date for execution, Last execution date, Access permission, Last update date/time, and Last updated by. The table contains 14 rows of sample data, each with a green History button, an orange Update button, and a red Discard button. The last row is a footer with a small number '1'. The top right corner shows user information: User name [System Administrator], Login ID [Administrator], Change password, and Logout.

History	Update	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution date	Access permission	Last update date/time	Last updated by
History	Update	Discard	6		ope_sample1	2021/05/31 15:30		System Administrator,Manager_Company_A,Company_A_KANTO, Company_A_KANSI	2021/05/31 15:30:44	System Administrator
History	Update	Discard	7		ope_sample2	2021/05/31 15:30		System Administrator,Manager_Company_A,Company_A_KANTO	2021/05/31 15:31:25	System Administrator
History	Update	Discard	8		ope_sample3	2021/05/31 15:30		System Administrator,Manager_Company_A, Company_A_KANSI	2021/05/31 15:31:45	System Administrator
History	Update	Discard	9		ope_sample4	2021/05/31 15:30		System Administrator,Manager_Company_A	2021/05/31 15:32:09	System Administrator
History	Update	Discard	10		ope_sample5	2021/05/31 15:30		System Administrator	2021/05/31 15:32:24	System Administrator
History	Update	Discard	11		ope_sample6	2021/05/31 15:30		System Administrator,Manager_Company_A,Company_A_KANTO, Company_A_KANSI	2021/05/31 15:32:46	System Administrator
History	Update	Discard	12		ope_sample7	2021/05/31 15:30		System Administrator,Manager_Company_B	2021/05/31 15:33:12	System Administrator
History	Update	Discard	13		ope_sample8	2021/05/31 15:35		System Administrator,Manager_Company_B,Company_B_KANTO	2021/05/31 15:33:36	System Administrator
History	Update	Discard	14		ope_sample9	2021/05/31 15:35		System Administrator,Manager_Company_B,Company_B_KANSI	2021/05/31 15:33:56	System Administrator

Figure 5-1 "Basic Console" Menu group > "Input operation" Menu"

Table 5- Data list displayed per user

User name (Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
System Administrator (administrator)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Manager_Company_A (A_admin)	◆	◆	◆	◆		◆			
Company_A_user01 (A_user01)	◆	◆				◆			
Company_A_user02 (A_user02)	◆		◆			◆			
Company_A_user03 (A_user03)	◆	◆	◆			◆			
Manager_Company_B (B_admin)						◆	◆	◆	◆
Company_B_user01 (B_user01)						◆		◆	
Company_B_user02 (B_user02)						◆			◆
Company_B_user03 (B_user03)						◆		◆	◆

◆ : Data to be displayed by each user

5.1 Display list

The data displayed in the "List/Update" submenu will be the data that has been assigned to the

History	Update	Discard	Item No.	ID	Role	User	Default access permission
				ID	Name	User ID	Login ID
History	Update	Discard	1	1	System_Administrator	1 administrator	
History	Update	Discard	2	2	Manager_Company_A	1 administrator	
History	Update	Discard	3	3	Company_A_KANTO	1 administrator	
History	Update	Discard	4	4	Company_A_KANSAI	1 administrator	
History	Update	Discard	5	5	Manager_Company_B	1 administrator	
History	Update	Discard	6	6	Company_B_KANTO	1 administrator	
History	Update	Discard	7	7	Company_B_KANSAI	1 administrator	
History	Update	Discard	8	8	Manager_Company_A	4 A_admin	*
History	Update	Discard	9	9	Company_A_KANTO	4 A_admin	
History	Update	Discard	10	10	Company_A_KANSAI	4 A_admin	
History	Update	Discard	11	11	Company_A_KANTO	5 A_user01	*
History	Update	Discard	12	12	Company_A_KANSAI	6 A_user02	*
History	Update	Discard	13	13	Company_A_KANTO	7 A_user03	
History	Update	Discard	14	14	Company_A_KANSAI	7 A_user03	
History	Update	Discard	15	15	Manager_Company_B	8 B_admin	*
History	Update	Discard	16	16	Company_B_KANTO	8 B_admin	
History	Update	Discard	17	17	Company_B_KANSAI	8 B_admin	
History	Update	Discard	18	18	Company_B_KANTO	9 B_user01	*
History	Update	Discard	19	19	Company_B_KANSAI	10 B_user02	*
History	Update	Discard	20	20	Company_B_KANSAI	11 B_user03	
History	Update	Discard	21	21	Company_B_KANSAI	11 B_user03	

access permission role by the role linked with the user in the "Management Console" menu group > "Role/User Association Management" menu.

Figure 5.1-1 "Role/User link list" menu reflecting "Table 4-1"

5.1.1 Login results for each user

- **User name: System Administrator** (Login ID:administrator)

If the user is logged in as "Administrator", the following data will be display in the "Basic Console" menu group > "Operation list" menu.

Operation name/ User name(Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
System Administrator	◆	◆	◆	◆	◆	◆	◆	◆	◆

Table 5.1-1 “Table 5-1”Extract

Figure 5.1-2 List/Update sub menu when logged in as "administrator"

The link between user "administrator" and each role is as follows. (Excerpted from Table 4-1).

User name (Login ID)	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
System Administrator (administrator)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Table 5.1-2 "Table 4-1" Excerpt

- **User name: Manager_Company_A (User ID:A_admin)**

If the user is logged in as "A_admin", the following data will be displayed in the "Basic Console" menu group > "Operation list" menu.

Operation name/ User name(Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
A_admin	◆	◆	◆	◆		◆			

Table 5.1-3 "Table 5-1" Excerpt

The screenshot shows the Exastro Basic Console interface. In the top right, there's a status bar with "User name [Admin_Company_A] Login ID [A_admin]" and buttons for "Change password" and "Logout". On the left, a sidebar has "Menu" expanded, with "Main menu" and "Operation list" options. The main area has tabs: "Description" (Open), "Display filter" (Open), and "List/Update" (selected, Close). Below is a table with columns: History, Update, Discard, No., Operation ID, Operation name, Scheduled date for execution, Last execution date, Last update date/time, and Last updated by. The table rows are numbered 6 to 11, corresponding to the sample operations listed in the excerpt table above. A red box highlights the entire table area.

Figure 5.1-3 List/Update sub menu when logged in as "A_admin"

The link between user "A_admin" and each role is as follows. (Excerpted from Table 4-1).

Role name User name (Login ID)	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
Manager_Company_A (A_admin)		●	○	○			

Table 5.1-4 "Table 4-1" Excerpt

- User name: Company_A_user01 (User ID:A_user01)

If the user is logged in as "A_user01", the following data will be displayed in the "Basic Console" menu group > "Operation list" menu.

Operation name/ User name(Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
A_user01	◆	◆				◆			

Table 5.1-5 "Table 5-1" Excerpt

Figure 5.1-4 List/Update sub menu when logged in as "A_user01"

The link between user "A_user01" and each role is as follows. (Excerpted from Table 4-1).

Role name User name (Login ID)	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
Company_A_user01 (A_user01)			●				

Table 5.1-6 "Table 4-1" Excerpt

➤ **User name:Company_A_user02** (User ID:A_user02)

If the user is logged in as "A_user02", the following data will be displayed in the "Basic Console" menu group > "Operation list" menu.

Operation name/ User name(Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
A_user02	◆		◆			◆			

Table 5.1-7 "Table 4-1" Excerpt

History	Update	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution	Last update date/time	Last updated by
History	Update	Discard	6	ope_sample1	ope_sample1	2021/05/31 15:30		2021/05/31 15:30:44	System Administrator
History	Update	Discard	8	ope_sample3	ope_sample3	2021/05/31 15:30		2021/05/31 15:31:45	System Administrator
History	Update	Discard	11	ope_sample6	ope_sample6	2021/05/31 15:30		2021/05/31 15:32:46	System Administrator

Figure 5.1-5 List/Update sub menu when logged in as “A_user02”

The link between user "A_user02" and each role is as follows. (Excerpted from Table 4-1)

Role name	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
Company_A_user02 (A_user02)				●			

Table 5.1-8 "Table 4-1" Excerpt

➤ **User name:Company_A_user03** (User ID:A_user03)

If the user is logged in as "A_user03", the following data will be displayed in the "Basic Console" menu group > "Operation list" menu.

Operation name/ User name(Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
A_user03	◆	◆	◆			◆			

Table 5.1-9 "Table 5-1" Excerpt

History	Update	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution	Last update date/time	Last updated by
History	Update	Discard	6	ope_sample1	ope_sample1	2021/05/31 15:30		2021/05/31 15:30:44	System Administrator
History	Update	Discard	7	ope_sample2	ope_sample2	2021/05/31 15:30		2021/05/31 15:31:25	System Administrator
History	Update	Discard	8	ope_sample3	ope_sample3	2021/05/31 15:30		2021/05/31 15:31:45	System Administrator
History	Update	Discard	11	ope_sample6	ope_sample6	2021/05/31 15:30		2021/05/31 15:32:46	System Administrator

Figure 5.1-6 List/Update sub menu when logged in as “A_user03”

The link between user "A_user03" and each role is as follows. (Excerpted from Table 4-1)

Role name	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
User name (Login ID) Company_A_user03 (A_user03)			○	○			

Table 5.1-10 "Table 4-1" Excerpt

- **User name: Admin_Company_B** (User ID:B_admin)

If the user is logged in as "B_admin", the following data will be displayed in the "Basic Console" menu group > "Operation list" menu.

Operation name/ User name(Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
B_admin						◆	◆	◆	◆

Table 5.1-11 "Table 5-1" Excerpt

The screenshot shows the Exastro Basic Console interface. The top navigation bar includes the Exastro logo, 'Basic Console', and user information ('User name [Admin_Company_B], Login ID [B_admin], Change password, Logout'). On the left, a sidebar has 'Main menu' and 'Operation list' options. The main area has tabs for 'Description', 'Display filter', and 'List/Update'. The 'List/Update' tab is active, displaying a table with four rows. Each row contains operation details: No., Operation ID, Operation name, Scheduled date for execution, Last execution, Last update date/time, and Last updated by. The last three rows (12, 13, 14) are highlighted with a red box. At the bottom, there's a message 'Filter result count: 4' and an 'Output Excel' button.

No.	Operation ID	Operation name	Scheduled date for execution	Last execution	Last update date/time	Last updated by
11	ope_sample6	2021/05/31 15:30		2021/05/31 15:32:46	System Administrator	
12	ope_sample7	2021/05/31 15:30		2021/05/31 15:33:12	System Administrator	
13	ope_sample8	2021/05/31 15:35		2021/05/31 15:33:36	System Administrator	
14	ope_sample9	2021/05/31 15:35		2021/05/31 15:33:56	System Administrator	

Figure 5.1-7 List/Update sub menu when logged in as “B_admin”

The link between user "B_admin" and each role is as follows. (Excerpted from Table 4-1)

Role name	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
User name (Login ID)							
Manager_Company_B (B_admin)					●	○	○

Table 5.1-12 "Table 4-1" Excerpt

- **User name:Company_B_user01** (User ID:B_user01)

If the user is logged in as "B_user01", the following data will be displayed in the "Basic Console" menu group > "Operation list" menu.

Operation name/ User name(Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
B_user01						◆		◆	

Table 5.1-13 "Table 5-1" Excerpt

No.	Operation ID	Operation name	Scheduled date for execution	Last execution	Last update date/time	Last updated by
11	11	ope_sample6	2021/05/31 15:30		2021/05/31 15:32:46	System Administrator
12	12	ope_sample8	2021/05/31 15:35		2021/05/31 15:33:36	System Administrator

Figure 5.1-8 List/Update sub menu when logged in as “B_user01”

The link between user "B_user01" and each role is as follows. (Excerpted from Table 4-1).

Role name User name (Login ID)	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
Company_B_user01 (B_user01)						●	

Table 5.1-14 "Table 4-1" Excerpt

➤ **User name:Company_B_user02** (User ID:B_user02)

If the user is logged in as "B_user02", the following data will be displayed in the "Basic Console" menu group > "Operation list" menu.

Operation name/ User name(Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
B_user02						◆			◆

Table 5.1-15 "Table 4-1" Excerpt

History	Update	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution	Last update date/time	Last updated by
History	Update	Discard	11	11	ope_sample6	2021/05/31 15:30		2021/05/31 15:32:46	System Administrator
History	Update	Discard	14	14	ope_sample9	2021/05/31 15:35		2021/05/31 15:33:56	System Administrator
Filter result count: 2									
Table setting Output Excel									

Figure 5.1-9 List/Update sub menu when logged in as "B_user02"

The link between user "B_user02" and each role is as follows. (Excerpted from Table 4-1)

Role name	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
Company_B_user02 (B_user02)							●

Table 5.1-16 "Table 4-1" Excerpt

➤ **User name:Company_B_user03** (User ID:B_user03)

If the user is logged in as "B_user03", the following data will be displayed in the "Basic Console" menu group > "Operation list" menu.

Operation name/ User name(Login ID)	ope_sample1	ope_sample2	ope_sample3	ope_sample4	ope_sample5	ope_sample6	ope_sample7	ope_sample8	ope_sample9
B_user03						◆		◆	◆

Table 5.1-17 "Table 5-1" Excerpt

History	Update	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution	Last update date/time	Last updated by
History	Update	Discard	11	ope_sample6	2021/05/31 15:30		2021/05/31 15:32:46	System Administrator	
History	Update	Discard	13	ope_sample8	2021/05/31 15:35		2021/05/31 15:33:36	System Administrator	
History	Update	Discard	14	ope_sample9	2021/05/31 15:35		2021/05/31 15:33:56	System Administrator	

Figure 5.1-10 List/Update sub menu when logged in as “B_user03”

The link between user "B_user03" and each role is as follows. (Excerpted from Table 4-1)

Role name	System administrator	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
User name (Login ID)							
Company_B_user03 (B_user03)						● ↗	● ↗

Table 5.1-18 "Table 4-1" Excerpt

5.2 Trace history

Only the data will be displayed in the "List/Update" sub menu can also be displayed in the "Trace History" sub menu. Also, the history will be assigned the access permission role.

Example) If the user is logged in as "B_user02".

The data will be displayed in the "List/Update" sub menu (Operation ID: 6, 9) can be displayed in the "Trace History" sub menu.

The screenshot shows the Exastro Basic Console interface. At the top, there is a header bar with the Exastro logo, the text 'Basic Console', and user information: 'User name [Company_B_user02]', 'Login ID [B_user02]', 'Change password', and 'Logout'. On the left, there is a vertical navigation menu with options: 'Main menu', 'Operation list', and 'Movement list'. The main area contains two windows. The top window is titled 'List/Update' and has a table with columns: History, Update, Discard, No., Operation ID, Operation name, Scheduled date for execution, Last execution, Last update date/time, and Last updated by. It shows two rows of data: one for operation ID 11 and one for operation ID 14. The bottom window is titled 'Trace history' and has a table with the same columns. It also shows two rows of data: one for operation ID 11 and one for operation ID 14. A large red arrow points from the 'List/Update' window down to the 'Trace history' window, indicating that the data is being displayed in both locations.

Figure 5.2-1 "Basic Console" Menu group > "Operation list" Menu".

Keep in mind that data which users do not have permission to access cannot be displayed.

The screenshot shows the Exastro Basic Console interface. At the top, there is a header bar with the Exastro logo, the text 'Basic Console', and user information: 'User name [B_user02]', 'Login ID [B_user02]', 'Change password', and 'Logout'. On the left, there is a vertical navigation menu with options: 'Main menu', 'Device list', 'Input operation list', and 'Movement list'. The main area contains a window titled 'Trace history'. Inside this window, there is a form with a text input field labeled 'No.' and two orange buttons labeled 'Display' and 'Reset'. Below the form, a message reads 'Corresponding record does not exist.' The entire 'Trace history' window is highlighted with a red border.

Figure 5.2-2 "Basic Console" Menu group > "Operation list" Menu".

The data granted by the role linked to the user in the “Role/User link list” can be viewed in the “Change history” submenu.

Example) If user is logged in as "B_user02".

Roles linked in the "Role/User link list" menu of user "B_user02".

This screenshot shows the Exastro Management Console interface. The top navigation bar includes the Exastro logo, the title 'Management Console', and a user session indicator for 'User name [Company_B_user02]' and 'Login ID [B_user02]'. Below the navigation bar is a dark sidebar with a 'Menu' icon and two main items: 'Main menu' and 'Role - User link list'. The 'Role - User link list' item is currently selected, highlighted in blue. The main content area displays a table titled 'List/Update' with columns for History, Update, Discard, Item No., Role, User, Default access permission, Last update date/time, and Last updated by. A red box highlights the 'Role' column, which shows 'History' and 'Update' buttons, an ID of 22, a Name of '9', a User ID of '18', a Login ID of 'B_user02', a Default access permission of '•', a Last update date/time of '2021/05/27 19:20:19', and a Last updated by field containing 'System Administrator'. There are also 'Discard', 'History', 'Update', and 'Discard' buttons at the bottom of the table row.

Figure 5.2-3 "Basic Console" Menu group > "Role/User link list" Menu.

Data assigned to the role linked in the user's "Role/User link list" Menu".

This screenshot shows the Exastro Basic Console interface. The top navigation bar includes the Exastro logo, the title 'Basic Console', and a user session indicator for 'User name [Company_B_user02]' and 'Login ID [B_user02]'. Below the navigation bar is a dark sidebar with a 'Menu' icon and five main items: 'Main menu', 'Operation list', 'Description', 'Display filter', and 'List/Update'. The 'List/Update' item is currently selected, highlighted in blue. The main content area displays a table with columns for No., History log No., Change date/time, Discard, No., Operation ID, Operation name, Scheduled date for execution, Last update date/time, and Last updated by. A red box highlights the 'History log No.' column, which shows '15', '2021/05/31 15:32:46', '11', 'ope_sample6', '2021/05/31 15:30', '2021/05/31 15:32:46', and 'System Administrator'. There are also 'Display' and 'Reset' buttons at the top of the table row.

Figure 5.2-4 "Basic Console" Menu group > "Role/User link list" Menu".

If a new permission role is granted for the data displayed in the "Trace history" sub menu, data linked with previous roles with different permission roles will not be displayed.

Example) if Data from Company A is passed to Company B.

This section uses the data of user "A_admin" and "B_admin" to explain the permission roles when data is passed from "Company A" to "Company B".

The following figure shows the "Operation list" menu when logged in as "Administrator".

History	Update	Discard	No.	Operation ID	Operation name	Remarks	Last update date/time	Last updated by
History	Update	Discard	6	6	ope_sample1	Secret 1	2021/05/31 15:30:44	System Administrator
History	Update	Discard	7	7	ope_sample2	Secret 1	2021/05/31 18:21:54	System Administrator
History	Update	Discard	8	8	ope_sample3	Secret 2	2021/05/31 18:22:19	System Administrator
History	Update	Discard	9	9	ope_sample4	Secret 3	2021/05/31 18:22:35	System Administrator
History	Update	Discard	10	10	ope_sample5		2021/05/31 15:32:24	System Administrator
History	Update	Discard	11	11	ope_sample6		2021/05/31 15:32:46	System Administrator
History	Update	Discard	12	12	ope_sample7	External secret	2021/05/31 18:23:18	System Administrator
History	Update	Discard	13	13	ope_sample8	External secret	2021/05/31 18:23:05	System Administrator
History	Update	Discard	14	14	ope_sample9	External secret	2021/05/31 18:22:53	System Administrator

Figure 5.2-5 "Basic Console" Menu group > "Operation list" Menu"

We've divided the data into two colors. Data marked with red can be seen by Company A's side (User: A_admin) and data marked with blue can be seen by Company B's side (User: B_admin). (Please refer to figure "A_admin" and "B_admin" for the respective displays when logging in as User "Figure 5.1-4" and "Figure 5.1-8".) respectively. Additionally, "Top Secret 1~3" and "External secret 1~3" are registered in the "Remarks" Column as information that you do not want to be seen by other roles.

The next assumes a case where Company_A delivers data to Company_B. First, delete Secret 1~3 from Company_A's side and then Change the operation 1, 2, 3, 4's Access permission role to "Manager_Company_B".

No.	operation ID	Operation name	Scheduled date for execution*	Access permission	Remarks	Last update date/time	Last updated by
6	6	ope_sample1	2021/05/31 15:30	Setting: Manager_Company_B		Auto-input	Auto-input

Figure 5.2-6 "Basic Console" Menu group > "Operation list" Menu"

If the user logs out as "Administrator" and log back in as "B_admin", the "list/update" submenu will show a total of eight operation IDs: ID: 1, 2, 3, 4, 6, 7, 8, 9".

History	Update	Discard	No.	Operation ID	Operation name	Remarks	Last update date/time	Last updated by
History	Update	Discard	6	6	ope_sample1		2021/05/31 18:48:24	System Administrator
History	Update	Discard	7	7	ope_sample2		2021/05/31 18:48:54	System Administrator
History	Update	Discard	8	8	ope_sample3		2021/05/31 18:49:07	System Administrator
History	Update	Discard	9	9	ope_sample4		2021/05/31 18:49:24	System Administrator
History	Update	Discard	11	11	ope_sample6		2021/05/31 15:32:46	System Administrator
History	Update	Discard	12	12	ope_sample7	External secret 1	2021/05/31 18:23:18	System Administrator
History	Update	Discard	13	13	ope_sample8	External secret 2	2021/05/31 18:23:05	System Administrator
History	Update	Discard	14	14	ope_sample9	External secret 3	2021/05/31 18:22:53	System Administrator

Filter result count: 8

[Output Excel](#)

Figure 5.2-7 "Basic Console" Menu group > "Operation list" Menu"

If you check the display in the "Trace History" submenu for "Operation ID: 1,2,3,4" where the access permission role was changed, the data linked to different past roles (Company A Side) will not be displayed.

History log No.	Change date/time	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last	Last update date/time	Last updated by
25	2021/05/31 18:48:24		6	6	ope_sample1	2021/05/31 15:30		2021/05/31 18:48:24	System Administrator

History log No.	Change date/time	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last	Last update date/time	Last updated by
26	2021/05/31 18:48:54		7	7	ope_sample2	2021/05/31 15:30		2021/05/31 18:48:54	System Administrator

History log No.	Change date/time	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last	Last update date/time	Last updated by
27	2021/05/31 18:49:07		8	8	ope_sample3	2021/05/31 15:30		2021/05/31 18:49:07	System Administrator

Figure 5.2-8 "Basic Console" Menu group > "Operation list" Menu"

For "Operation ID: 1, 2, 3, 4, 7, 8, 9" rewrite the remarks column to "Confidential 1~7".

User name [Admin_Company_B]
Login ID [B_admin]
Change password Logout

Description ▽Open

Display filter ▽Open

List/Update △Close

History	Update	Discard	No.	Operation ID	Operation name	Remarks	Last update date/time	Last updated by
History	Update	Discard	6	6	ope_sample1	External secret1	2021/05/31 19:03:58	Admin_Company_B
History	Update	Discard	7	7	ope_sample2	External secret2	2021/05/31 19:04:10	Admin_Company_B
History	Update	Discard	8	8	ope_sample3	External secret3	2021/05/31 19:04:23	Admin_Company_B
History	Update	Discard	9	9	ope_sample4	External secret4	2021/05/31 19:05:28	Admin_Company_B
History	Update	Discard	11	11	ope_sample6		2021/05/31 15:32:46	System Administrator
History	Update	Discard	12	12	ope_sample7	External secret5	2021/05/31 19:05:17	Admin_Company_B
History	Update	Discard	13	13	ope_sample8	External secret6	2021/05/31 19:05:04	Admin_Company_B
History	Update	Discard	14	14	ope_sample9	External secret7	2021/05/31 19:05:44	Admin_Company_B

Filter result count: 8

Figure 5.2-9 "Basic Console" Menu group > "Operation list" Menu"

As a result of specifying the data of "Operation ID: 2" in the "Trace History" submenu, the "Top Secret 1" registered when the role was "Company A Side" will not be displayed, and only the "External Secret 2" registered this time will be displayed.

User name [Admin_Company_B]
Login ID [B_admin]
Change password Logout

Description ▽Open

Display filter ▽Open

List/Update ▽Open

Register ▽Open

Download all and edit file uploads ▽Open

Trace history △Close

No.

Display Reset

History log No.	Change date/time	Discard	No.	Operation ID	Operation name	Access permission	Role to allow access	Remarks	Last update date/time	Last updated by
29	2021/05/31 19:03:58		6	6	ope_sample1	Manager_Company_B	External secret1	External secret1	2021/05/31 19:03:58	Admin_Company_B
25	2021/05/31 18:48:24		6	6	ope_sample1	Manager_Company_B			2021/05/31 18:48:24	System Administrator

0

Figure 5.2-10 "Basic Console" Menu group > "Operation list" Menu"

5.3 Display filter

Only the data displayed in the "List/Update" sub menu can be narrowed down by the "Display filter" sub menu.

The screenshot shows the Exastro Basic Console interface. At the top, there is a header with the Exastro logo, 'Basic Console', and user information ('User name [Admin_Company_B]', 'Login ID [B_admin]', 'Change password', 'Logout'). On the left, a vertical menu bar has 'Operation list' selected. A central panel has two tabs: 'Description' (selected) and 'Display filter'. The 'Display filter' tab contains a search form with fields for 'Discard', 'No.', 'Operation ID', 'Operation name', 'Schedu.', 'Last update date/time', and 'Last updated by'. Below the form are 'Filter' and 'Clear filter' buttons. The 'Auto-filter' checkbox is checked. The 'List/Update' tab is also visible, showing a table of operation records. The entire 'List/Update' table is highlighted with a red box. At the bottom of the central panel, it says 'Filter result count: 8'.

Figure 5.3-1 List/Update sub menu when the "Filter" button is pressed in user "administrator"

This screenshot is similar to Figure 5.3-1, showing the Exastro Basic Console interface. The user is now 'Company_A_user01' ('User name [Company_A_user01]', 'Login ID [A_user01]', 'Change password', 'Logout'). The 'Operation list' item is selected in the menu. The 'Display filter' tab is selected in the central panel. The 'List/Update' table is highlighted with a red box. At the bottom of the central panel, it says 'Filter result count: 1'.

Figure 5.3-2 List/Update sub menu when the "Filter" button is pressed as user "A_user01"

In the "Access permission" column of the "Display filter" sub menu, users can search in the following pattern.

The screenshot shows the Exastro Basic Console interface. On the left, there's a sidebar with 'Main menu' and 'Device list' options. The main area has a title 'Basic Console'. Under 'Main menu', it says 'Description' with 'Open' and 'Close' buttons. Below that is 'Display filter'. A table is displayed with columns: 'Discard', 'No.', 'e', 'Access permission', 'Last update date/time', and 'Last updated by'. The 'Access permission' column is highlighted with a red box. At the bottom of the table, there are 'Filter' and 'Clear filter' buttons, both of which are also highlighted with red boxes. The status bar at the top right shows 'User name [System Administrator] Login ID [Administrator] Change password Logout'.

Figure 5.3-3 "Basic Console" Menu group > "Operation list" Menu"

Table 5.3-1 Search pattern

No.	Pattern
1	Search by single selection in the pull-down menu
2	Search by multiple selection in the pull-down menu
3	Search by "{blank}" single selection in the pull-down menu
4	Search by selecting "{blank}" and others in the pull-down menu
5	Fuzzy search with keywords in string input
6	Search by entering a real role name in the string input
7	Search for multiple role names separated by commas in string input.

Keep in mind that if a comma is used in the string input field as a pattern that cannot be searched for, fuzzy search cannot be performed.

The search patterns no.1 - 7 are explained in detail in the next section.

No.1) Search by single selection in the pull-down menu

Example) Search results obtained by logging in as "Administrator" and selecting the access permission role " System administrator" in the pull-down menu of the "Access permission" column.

The screenshot shows the Exastro Basic Console interface. On the left, there is a vertical navigation menu with options like Main menu, Device list, Operation list, Movement list, ER Diagram, ER Diagram Menu List, and ER Diagram Item List. The main area has tabs for Description, Display filter, and List/Update. The Display filter tab is active, showing a table with columns: Discard, No., Access permission, Last update date/time, and Last updated by. A red box highlights the 'Access permission' column, which contains a dropdown menu with 'System Administrator' selected. Below the table are 'Filter' and 'Clear filter' buttons. The List/Update tab shows a table with columns: History, Update, Discard, No., Operation ID, Operation name, Remarks, Last update date/time, and Last updated by. A red box highlights the 'Access permission' column, which also contains 'System Administrator'. The table includes rows for 'ope_sample5' and 'ope_sampleS'.

History	Update	Discard	No.	Operation ID	Operation name	Access permission	Remarks	Last update date/time	Last updated by
History	Update	Discard	10		ope_sample5	System Administrator	External secret	2021/05/31 15:32:24	System Administrator
History	Update	Discard	18		ope_sampleS	System Administrator	External secret	2021/05/31 15:32:24	System Administrator

Figure 5.3-4 “Basic console” Menu group > “Operation list” Menu

No.2) Search by multiple selection in the pull-down menu

Example) Search results obtained by logging in as "Administrator" and selecting the access permission role " Company_A_KANSAI" and "B Kansai Department" in the pull-down menu of the "Access permission" column.

This screenshot is similar to Figure 5.3-4, showing the Basic Console interface with the 'Operation list' menu selected. The 'Access permission' column in the 'Display filter' table now shows two selected roles: 'Company_A_KANSAI' and 'Company_B_KANSAI'. The 'List/Update' table shows two rows of data, each with these roles listed in the 'Access permission' column. The 'Access permission' column is highlighted with a red box.

History	Update	Discard	No.	Operation ID	Operation name	Access permission	Remarks	Last update date/time	Last updated by
History	Update	Discard	8		ope_sample3	Company_A_KANSAI	External secret	2021/05/31 19:22:22	System Administrator
History	Update	Discard	14		ope_sample9	Company_B_KANSAI	External secret	2021/05/31 19:23:00	System Administrator

Figure 5.3-5 “Basic console” Menu group > “Operation list” Menu

No.3) Search by "Blank" single selection in the pull-down menu

Example) Search results obtained by logging in as "Administrator" and selecting the access permission role "{blank}" in the pull-down menu of the "Access permission" column.

The screenshot shows the Exastro Basic Console interface. On the left, there's a sidebar with a navigation menu. The main area has a title 'Basic Console'. Below it, there are two tabs: 'Description' and 'Display filter'. The 'Display filter' tab is active, showing a table with columns: Discard, No., Operation name, Access permission, Last update date/time, and Last updated by. A red box highlights the 'Access permission' column, which contains a dropdown menu with an option selected. Below the table are 'Filter' and 'Clear filter' buttons. At the bottom, there's a 'List/Update' section with a table showing one record: History, Update, Discard, No. 11, Operation ID 11, Operation name ope_sample6, Access permission Role to allow access, Remarks External secret1, Last update date/time 2021/05/31 19:29:36, and Last updated by System Administrator. A red box highlights this entire row.

Figure 5.3-6 “Basic console” Menu group > “Operation list” Menu

No.4) Search by "Blank" and other multiple selection in the pull-down menu

Search results obtained by logging in as "Administrator" and selecting the access permission role "{blank}" and "Manager_Company_Aistrator" in the pull-down menu of the "Access permission" column.

The screenshot shows the Exastro Basic Console interface. The layout is similar to Figure 5.3-6, with a sidebar, 'Basic Console' title, and 'Display filter' tab. The 'Access permission' column in the 'Display filter' table is highlighted with a red box, showing a dropdown menu with multiple options selected. Below the table are 'Filter' and 'Clear filter' buttons. At the bottom, there's a 'List/Update' section with a table showing two records. The first record has Access permission Manager_Company_A. The second record has Access permission Manager_Company_A and Manager_Company_Aistrator. A red box highlights the entire row for the second record.

Figure 5.3-7 “Basic console” Menu group > “Operation list” Menu

No.5) Fuzzy search with keywords in string input

Example) Search results when user is logged in as Administrator and entered the keyword "Manager" as a string line in the "Access permission" field.

Figure 5.3-8 “Basic console” Menu group > “Operation list” Menu

※Fuzzy search is not possible when comma is used.

No.6) Search by entering a real role name in the string input

Example) Search results when user is logged in as Administrator and entered the keyword "Company_A_KANTO" as a string line in the "Access permission" field.

Figure 5.3-9 “Basic console” Menu group > “Operation list” Menu

No.7) Search for multiple role names separated by commas in string input

Example) Search results when user is logged in as Administrator and entered the keyword "Company_A_KANTO, Company_A_KANSAI" as a string line in the "Access permission" field.

The screenshot shows the Exastro Basic Console interface. On the left, there's a vertical menu bar with sections like Main menu, Device list, Operation list, Movement list, ER Diagram, ER Diagram Menu List, and ER Diagram Item List. The main area is titled "Basic Console" and has a sub-section "Operation list". It displays a table with columns: Discard, No., Scheduled date for execution, Last execution date, and Access permission (Role to allow access). A search bar at the top right contains the text "Company_A_KANTO, Company_A_KANSAI". Below the table are buttons for Filter, Clear filter, and Auto-filter (which is checked). The table itself has columns: History, Update, Discard, No., Operation ID, Operation name, Access permission (Role to allow access), Remarks, Last update date/time, and Last updated by. One row is visible, showing "History" under History, "Update" under Update, "Discard" under Discard, "2" under No., "Test Operation User03" under Operation name, "Company_A_KANTO, Company_A_KANSAI" under Access permission, "2021/05/31 14:05:40" under Last update date/time, and "Company_A_user03" under Last updated by. A red box highlights the "Access permission" column header and the search input field. Another red box highlights the "Filter" button and the table row.

Figure 5.3-10 “Basic console” Menu group > “Operation list” Menu

※ If multiple entries are entered and separated by commas, the search might not be able to finish depending on the order it was entered.

5.4 RestAPI display filter

This next section explains how to handle permission roles in RestAPI's Filter (X-Command).

There are three types of filters for each column of FILTER (X-Command).

Table 5.4-1 Filter type

Type of files	Details
NORMAL	Normal fuzzy search
RANGE	OR search for roles specified in START and END
LIST	Search by multiple exact match conditions

The filter pattern is further separated into the following conditions.

Table 5.4-2 Number of role names

Number of role names	
A	1piece
B	Multiple

Table 5.4-3 Search pattern

Search pattern	
a	fuzzy search for fuzzy role names
b	fuzzy search for exactly matched role names
c	Search for role names by exact match

Using the combination above, this section explains how to handle the permission roles in each filter.

The configuration of the RESTAPI is shown in "Figure 5.4-1" below.

History	Update	Discard	No. ▾	Operation ID ▾	Operation name ▾	Access permission Role to allow access ▾	Remarks ▾	Last update date/time ▾	Last updated by ▾
History	Update	Discard	6	6	ope_sample1	Manager_Company_A,Company_A_KANTO, Company_A_KANSAI	External secret1	2021/06/01 10:48:18	System Administrator
History	Update	Discard	7	7	ope_sample2	Company_A_KANTO	External secret2	2021/05/31 19:36:57	System Administrator
History	Update	Discard	8	8	ope_sample3	Company_A_KANSAI	External secret3	2021/05/31 19:22:22	System Administrator
History	Update	Discard	9	9	ope_sample4	Manager_Company_A	External secret4	2021/06/01 10:47:58	System Administrator

Figure 5.4-1 RestAPI configuration

This section assumes that the information in the red frame bellow is added to the registration information "Table 5-1".

History	Update	Discard	No. ▾	Operation ID ▾	Operation name ▾	Access permission Role to allow access ▾	Remarks ▾	Last update date/time ▾	Last updated by ▾
History	Update	Discard	6	6	ope_sample1	Manager_Company_A,Company_A_KANTO, Company_A_KANSAI	External secret1	2021/06/01 10:48:18	System Administrator
History	Update	Discard	7	7	ope_sample2	Company_A_KANTO	External secret2	2021/05/31 19:36:57	System Administrator
History	Update	Discard	8	8	ope_sample3	Company_A_KANSAI	External secret3	2021/05/31 19:22:22	System Administrator
History	Update	Discard	9	9	ope_sample4	Manager_Company_A	External secret4	2021/06/01 10:47:58	System Administrator
History	Update	Discard	10	10	ope_sample5	System Administrator		2021/05/31 15:32:24	System Administrator
History	Update	Discard	11	11	ope_sample6			2021/05/31 19:27:22	System Administrator
History	Update	Discard	12	12	ope_sample7	System Administrator,Manager_Company_B	External secret5	2021/05/31 19:05:17	Admin_Company_B
History	Update	Discard	13	13	ope_sample8	System Administrator,Manager_Company_B,Company_B_KANTO	External secret6	2021/05/31 19:05:04	Admin_Company_B
History	Update	Discard	14	14	ope_sample9	Company_B_KANSAI	External secret7	2021/05/31 19:23:00	System Administrator
History	Update	Discard	15	15	ope_sample10	Company_B_KANTO,Company_B_KANSAI		2021/06/01 11:00:33	System Administrator

Figure 5.4-2 "Basic console" Menu group > "Operation list" Menu

● NORMAL

A) When there is 1 role name

a) Fuzzy search for Fuzzy role name

```
{"7":{"NORMAL":"Company_A"}, "1":{"NORMAL":0}}
```

List/Update										
History	Update	Discard	No.	Operation ID	Operation name	Access permission		Remarks	Last update date/time	Last updated by
						Role to allow access				
History	Update	Discard	6	6	ope_sample1	Manager_Company_A, Company_A_KANTO, Company_A_KANSAI	External secret1	2021/06/01 10:48:18	System Administrator	
History	Update	Discard	7	7	ope_sample2	Company_A_KANTO	External secret2	2021/05/31 19:36:57	System Administrator	
History	Update	Discard	8	8	ope_sample3	Company_A_KANSAI	External secret3	2021/05/31 19:22:22	System Administrator	
History	Update	Discard	9	9	ope_sample4	Manager_Company_A	External secret4	2021/06/01 10:47:58	System Administrator	

Figure 5.4-3 “Basic console” Menu group > “Operation list” Menu

b) Fuzzy search for exactly matched role names

```
{"7":{"NORMAL":"Company_A_KANTO"}, "1":{"NORMAL":0}}
```

History	Update	Discard	No.	Operation ID	Operation name	Access permission		Remarks	Last update date/time	Last updated by
						Role to allow access				
History	Update	Discard	6	6	ope_sample1	Manager_Company_A, Company_A_KANTO, Company_A_KANSAI	External secret1	2021/06/01 10:48:18	System Administrator	
History	Update	Discard	7	7	ope_sample2	Company_A_KANTO	External secret2	2021/05/31 19:36:57	System Administrator	

Figure 5.4-4 “Basic console” Menu group > “Operation list” Menu

- B) When there is multiple role names
 - b) Fuzzy search for exactly matched role names
(Applicable)

{"7":{"NORMAL":" Company_A_KANTO, Company_A_KANSAI "}, "1":{"NORMAL":0}}

History	Update	Discard	No.	Operation ID	Operation name	Access permission		Remarks	Last update date/time	Last updated by
						Role to allow access				
History	Update	Discard	6	6	ope_sample1	Manager_Company_A,Company_A_KANTO, Company_A_KANSAI	External secret1	2021/06/01 10:48:18	System Administrator	

Figure 5.4-5 “Basic console” Menu group > “Operation list” Menu

- b) Fuzzy search for exactly matched role names
(Not applicable)

{"7":{"NORMAL":"Company_A, Company_A_KANSAI "}, "1":{"NORMAL":0}}

List/Update

Record does not exist.

New registration can be done as per the following.

Figure 5.4-6 “Basic console” Menu group > “Operation list” Menu

● RANGE

A) When there is role name

a) Fuzzy search for fuzzy role name

```
{7":{"RANGE":{"START":"Company_A","END":"Company_B"}}, "1": {"NORMAL":0}}
```

History	Update	Discard	No.	Operation ID	Operation name	Access permission		Remarks	Last update date/time	Last updated by
						Role to allow access				
History	Update	Discard	6	6	ope_sample1	Manager_Company_A,Company_A_KANTO, Company_A_KANSAI	External secret1	2021/06/01 10:48:18	System Administrator	
History	Update	Discard	7	7	ope_sample2	Company_A_KANTO	External secret2	2021/05/31 19:36:57	System Administrator	
History	Update	Discard	8	8	ope_sample3	Company_A_KANSAI	External secret3	2021/05/31 19:22:22	System Administrator	
History	Update	Discard	9	9	ope_sample4	Manager_Company_A	External secret4	2021/06/01 10:47:58	System Administrator	
History	Update	Discard	10	10	ope_sample5	System Administrator		2021/05/31 15:32:24	System Administrator	
History	Update	Discard	11	11	ope_sample6			2021/05/31 19:27:22	System Administrator	
History	Update	Discard	12	12	ope_sample7	System Administrator,Manager_Company_B	External secret5	2021/05/31 19:05:17	Admin_Company_B	
History	Update	Discard	13	13	ope_sample8	System Administrator,Manager_Company_B,Company_B_KANTO	External secret6	2021/05/31 19:05:04	Admin_Company_B	
History	Update	Discard	14	14	ope_sample9	Company_B_KANSAI	External secret7	2021/05/31 19:23:00	System Administrator	
History	Update	Discard	15	15	ope_sample10	Company_B_KANTO,Company_B_KANSAI		2021/06/01 11:00:33	System Administrator	

Figure 5.4-7 “Basic console” Menu group > “Operation list” Menu

b) Fuzzy search for exactly matched role names

```
{7":{"RANGE":{"START":" Company_A_KANTO","END":"Company_B_KANTO "}}, "1": {"NORMAL":0}}
```

History	Update	Discard	No.	Operation ID	Operation name	Access permission		Remarks	Last update date/time	Last updated by
						Role to allow access				
History	Update	Discard	6	6	ope_sample1	Manager_Company_A,Company_A_KANTO, Company_A_KANSAI	External secret1	2021/06/01 10:48:18	System Administrator	
History	Update	Discard	7	7	ope_sample2	Company_A_KANTO	External secret2	2021/05/31 19:36:57	System Administrator	
History	Update	Discard	13	13	ope_sample8	System Administrator,Manager_Company_B,Company_B_KANTO	External secret6	2021/05/31 19:05:04	Admin_Company_B	
History	Update	Discard	15	15	ope_sample10	Company_B_KANTO,Company_B_KANSAI		2021/06/01 11:00:33	System Administrator	

Figure 5.4-8 “Basic console” Menu group > “Operation list” Menu

B) When there is multiples role names

b) Fuzzy search for exactly matched role names
(Applicable)

```
{7":{"RANGE":{"START":"Company_A_KANTO,  
Company_A_KANSAI","END":"Company_B_KANTO,Company_B_KANSAI"}}, "1":{"NORMAL":0}}"
```

History	Update	Discard	No.	Operation ID	Operation name	Access permission		Remarks	Last update date/time	Last updated by
						Role to allow access				
History	Update	Discard	6	6	ope_sample1	Company_A_KANTO, Company_A_KANSAI	External secret1	2021/06/01 11:19:46	System Administrator	
History	Update	Discard	7	7	ope_sample2	Company_A_KANTO	External secret2	2021/05/31 19:36:57	System Administrator	
History	Update	Discard	8	8	ope_sample3	Company_A_KANSAI	External secret3	2021/05/31 19:22:22	System Administrator	
History	Update	Discard	13	13	ope_sample8	Company_B_KANTO	External secret6	2021/06/01 11:20:20	System Administrator	
History	Update	Discard	14	14	ope_sample9	Company_B_KANSAI	External secret7	2021/05/31 19:23:00	System Administrator	
History	Update	Discard	15	15	ope_sample10	Company_B_KANTO, Company_B_KANSAI		2021/06/01 11:00:33	System Administrator	

Figure 5.4-9 “Basic console” Menu group > “Operation list” Menu

b) Fuzzy search for exactly matched role names
(Not applicable)

```
{7":{"RANGE":{"START":"Company_A,  
Company_A_KANSAI","END":"Company_B,Company_B_KANSAI"}}, "1":{"NORMAL":0}}
```

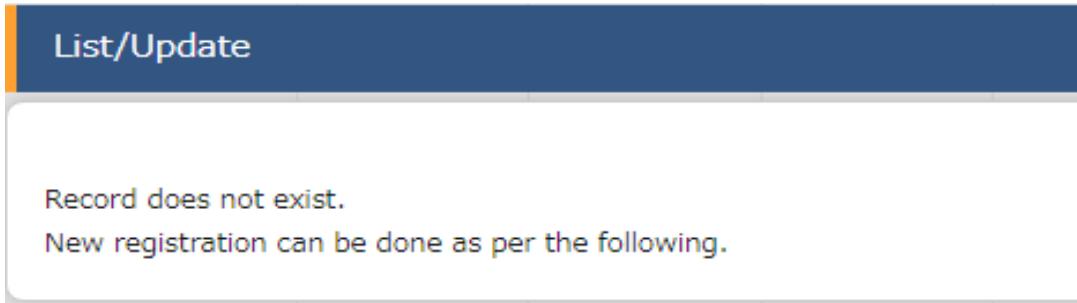


Figure 5.4-10 “Basic console” Menu group > “Operation list” Menu

● LIST

- A) When there is 1 role name
- c) Search exact role names by exact match
(Applicable)

```
{7": {"LIST": ["Company_A_KANTO"], "1": {"NORMAL": 0}}}"
```

History	Update	Discard	No. ▾	Operation ID ▾	Operation name ▾	Access permission		Remarks ▾	Last update date/time ▾	Last updated by ▾
						Role to allow access ▾				
History	Update	Discard	7		ope_sample2	Company_A_KANTO		External secret2	2021/05/31 19:36:57	System Administrator

Figure 5.4-11 “Basic console” Menu group > “Operation list” Menu

- c) Search exact role names by exact match
(Not applicable)

```
{7": {"LIST": ["Company_A"], "1": {"NORMAL": 0}}}"
```

List/Update

Record does not exist.
New registration can be done as per the following.

Figure 5.4-12 “Basic console” Menu group > “Operation list” Menu

B) When there is multiple role names

c) Search exact role names by exact match

```
{7:[{"LIST":["Company_A_KANTO, Company_A_KANSAI "],"1":{"NORMAL":0}}]}
```

History	Update	Discard	No. ▾	Operation ID ▾	Operation name ▾	Access permission		Remarks ▾	Last update date/time ▾	Last updated by ▾
						Role to allow access ▾				
History	Update	Discard	7	7	ope_sample2	Company_A_KANTO	External secret2	2021/05/31 19:36:57	System Administrator	
History	Update	Discard	8	8	ope_sample3	Company_A_KANSAI	External secret3	2021/05/31 19:22:22	System Administrator	

Figure 5.4-13 “Basic console” Menu group > “Operation list” Menu