



ITA_User Instruction Manual

Role-based access control for
data records

—Version 1.9 —

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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

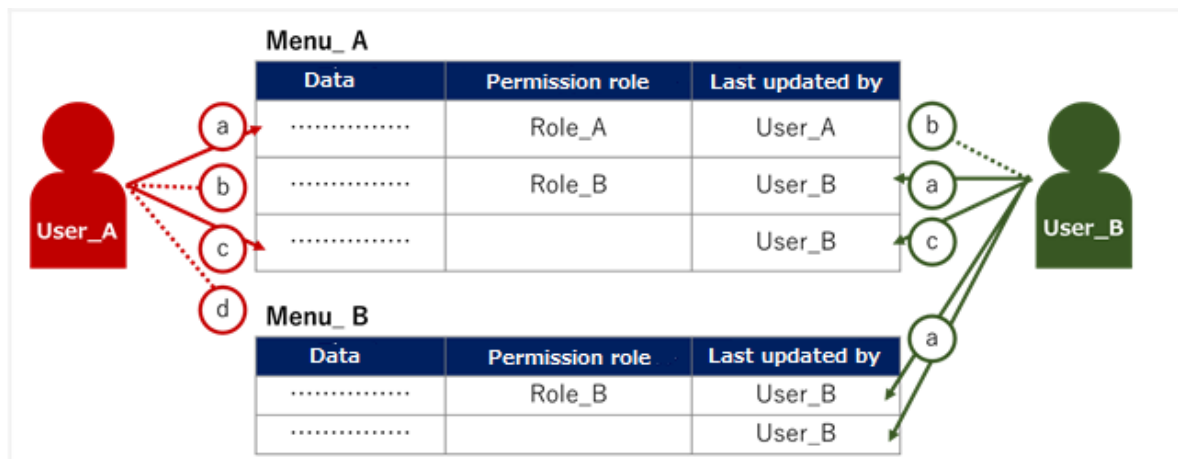
To perform role-based access control (RBAC), set up roles that allow access permission for each user. For example, we will explain the following procedure (chapter 3.1 ~ 3.4) based on the registration example in "Table 3-1".

Table 3-1 Chapters and registration example

Chapter/ Section	「Management Console」menu group	Register example														
3.1	「Role list」Menu	<table><tr><th>Role</th></tr><tr><td>Role_A</td></tr><tr><td>Role_B</td></tr></table>			Role	Role_A	Role_B									
Role																
Role_A																
Role_B																
3.2	「Role/Menu link list」Menu	<table><tr><th>Role</th><th>Menu</th><th>Link</th></tr><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></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><tr><th>User</th></tr><tr><td>User_A</td></tr><tr><td>User_B</td></tr></table>			User	User_A	User_B									
User																
User_A																
User_B																
3.4	「Role/User link list」Menu	<table><tr><th>Role</th><th>User</th><th>Default access permission</th></tr><tr><td>Role_A</td><td>User_A</td><td>●</td></tr><tr><td>Role_B</td><td>User_B</td><td>●</td></tr></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><tr><th>Menu</th></tr><tr><td>Menu_A</td></tr><tr><td>Menu_B</td></tr></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.



Pattern	Descriptions
a	Accesible since the roles fits.
b	Not accesible since the roles does not fit.
c	If the "Permission role" is blank, it can be accessed by all users.
d	Accessable because no linking is set in the "Role/Menu link list menu.

Figure 3- 1 Overall view

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

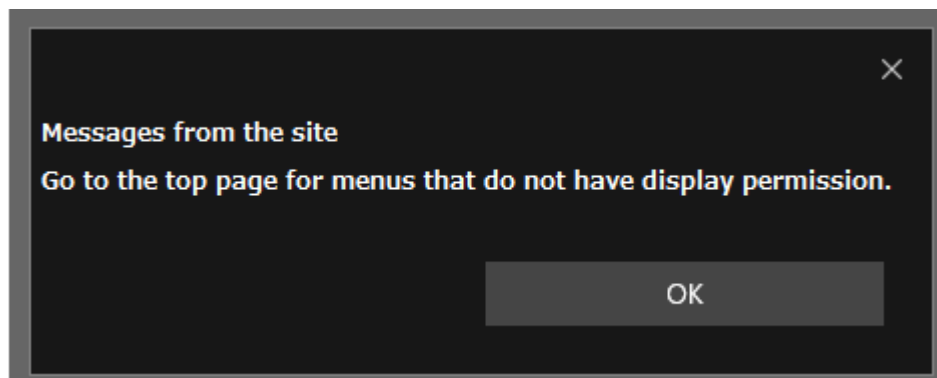


Figure 3-2 Dialog displayed when display permission is not available

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.



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.

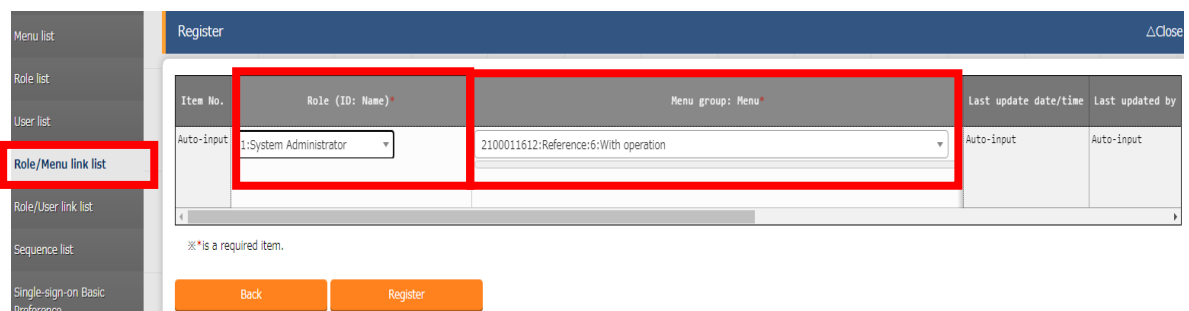


Figure 3.1-1 "Management Console" Menu Group> "Role/Menu link list" Menu

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.

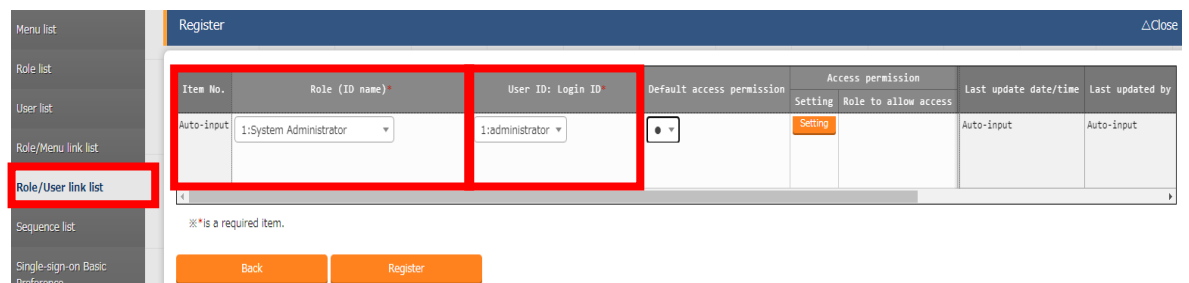


Figure 3.1-2 "Management Console" Menu Group> "Role/User link list" Menu

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 Role to allow access	Remarks	Last update date/time	Last updated by
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.

Menu group list

Menu list

Role list

User list

Role - Menu link list

Role - User link list

Sequence list

Single-sign-on Basic Preference

List/Update

History	Update	Discard	Item No.	Role		Menu group		Menu	
				ID	Name	ID	Name	ID	Name
History	Update	Discard		1	System Administrator	20011610	Input	1	Test Menu 1
History	Update	Discard		1	System Administrator	20011611	Substitution value	2	Test Menu 1
History	Update	Discard		1	System Administrator	20011612	Reference	3	Test Menu 1
History	Update	Discard		1	System Administrator	20011610	Input	4	Test Parameter
History	Update	Discard		1	System Administrator	20011611	Substitution value	5	Test Parameter
History	Update	Discard		1	System Administrator	20011612	Reference	6	Test Parameter
History	Update	Discard		1	System Administrator	20011610	Input	7	Durectirt Creation
History	Update	Discard		1	System Administrator	20011611	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.

History	Update	Discard	Item No.	Role			Menu group			Menu	
				ID	Name	ID	ID	Name	ID	Name	
History	Update	Discard	1	System Administrator	2100011610	Input			1	Test Menu 1	
History	Update	Discard	2	System Administrator	2100011611	Substitution value			2	Test Menu 1	
History	Update	Discard	3	System Administrator	2100011612	Reference			3	Test Menu 1	
History	Update	Discard	4	System Administrator	2100011610	Input			4	Test Parameter	
History	Update	Discard	5	System Administrator	2100011611	Substitution value			5	Test Parameter	
History	Update	Discard	6	System Administrator	2100011612	Reference			6	Test Parameter	
History	Update	Discard	7	System Administrator	2100011610	Input			7	Durectirt Creation	
History	Update	Discard	8	System Administrator	2100011611	Substitution value			8	Durectirt Creation	
History	Update	Discard	9	System Administrator	2100011612	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".

Input

User name [System Administrator]

Login ID [administrator]

Change password Logout

Menu

Main menu

Timezone list

Directory setting

directory creation

Pulldown

Data sheet menu

With operation

Menu_A

Menu_B

Description

Display filter

Discard

No

Host name/Host group name

ID

Last update date/time

Last updated by

Exclude discarded records

Search from pulldown

Search from pulldown

Search from pulldown

Search from pulldown

Filter

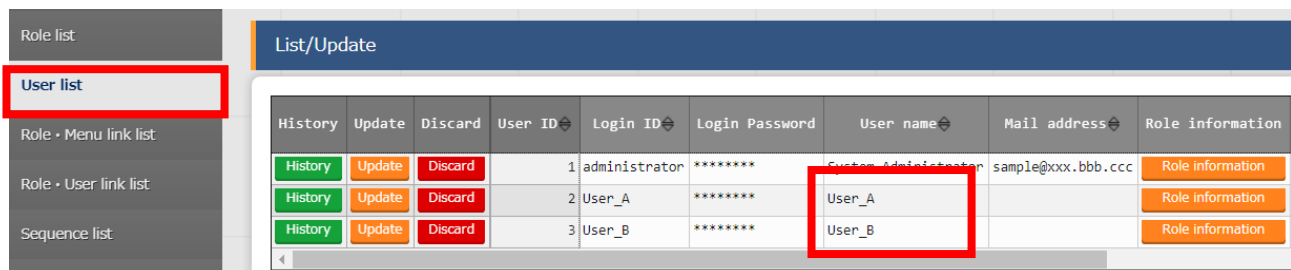
Clear filter

Auto-filter

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.



List/Update								
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

User list

Role - Menu link list

Role - User link list

Sequence list

List/Update

History	Update	Discard	Item No.	Role		User		Default access permission	Access permission	Remarks
				ID	Name	User ID	Login ID		Role to allow access	
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
							ID	Name	User ID	Login ID	
	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><tr><th>Login ID</th><th>User name</th></tr><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></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><tr><th>ロール</th><th>User name</th></tr><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></table>		ロール	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				
		ロール	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	
	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"

Menu group list Menu list Role list User list Role + Menu link list Role + User link list Sequence list Single-sign-on Basic Preference	List/Update							
	History	Update	Discard	Role ID	Role name	User information	Menu information	Access
	History	Update	Discard		System Administrator	User information	Menu information	Role to
	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	2,100,000,00	SSO Default Role	User information	Menu information	
Filter result count: 8								

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

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

Menu list Role list User list Role + Menu link list Role + User link list Sequence list Single-sign-on Basic Preference Single-sign-on Attribute Preference	List/Update							
	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"

Menu	List/Update									
	History	Update	Discard	Item No.	ID	Role Name	User ID	Login ID	Default access permission	
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		6		Company_A_KANSAI	1	administrator		
History	Update	Discard		7		Manager_Company_B	1	administrator		
History	Update	Discard		8		Company_B_KANTO	1	administrator		
History	Update	Discard		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		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		9		Company_B_KANSAI	8	B_admin		
History	Update	Discard		8		Company_B_KANTO	9	B_user01	•	
History	Update	Discard		9		Company_B_KANSAI	10	B_user02	•	
History	Update	Discard		8		Company_B_KANTO	11	B_user03		
History	Update	Discard		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 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)	○	○	○	○	○	○	○
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.

History	Update	Discard	Item No.	Role ID	Role Name	Menu group ID	Menu group Name	Menu ID	Menu Name
History	Update	Discard	15	4	Manager_Company_A	2100000003	Basic Console	2100000304	Operation list
History	Update	Discard	16	5	Company_A_KANTO	2100000003	Basic Console	2100000304	Operation list
History	Update	Discard	17	6	Company_A_KANSAT	2100000003	Basic Console	2100000304	Operation list
History	Update	Discard	18	7	Manager_Company_B	2100000003	Basic Console	2100000304	Operation list
History	Update	Discard	19	8	Company_B_KANTO	2100000003	Basic Console	2100000304	Operation list
History	Update	Discard	20	9	Company_B_KANSAT	2100000003	Basic Console	2100000304	Operation list
History	Update	Discard	21	1	System Administrator	2100000002	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.

Exastro IT Automation Basic Console

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

Menu
Main menu
Device list
Input operation list
Movement list

Description Open
Display filter Close

Discard	No.	Operation ID	Operation name	Scheduled date	Last update date/time	Last updated by
Exclude discarded records	~	~	~	~	~	~
▼ Search from pulldown						

Filter Clear filter

Auto-filter

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).

Exastro IT Automation Basic Console

User name [System Administrator]
Login ID [administrator]
Change password Logout

Menu
Main menu
Device list
Input operation list
Movement list

Description ▾Open
Display filter ▾Open
List/Update ▾Open
Register △Close

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

* is a required item.

Back Register

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.

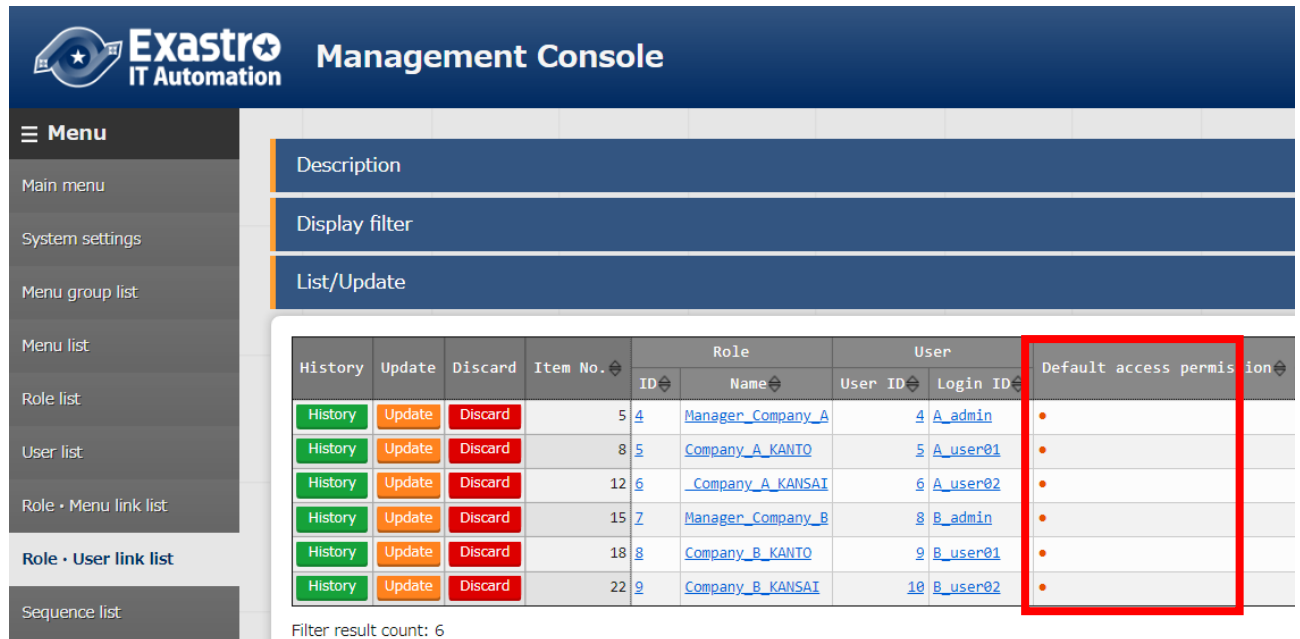
Only the user linked with the permission role can view/change the data.

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.



Exastro Management Console

Menu

- Main menu
- System settings
- Menu group list
- Menu list
- Role list
- User list
- Role • Menu link list
- Role • User link list**
- Sequence list

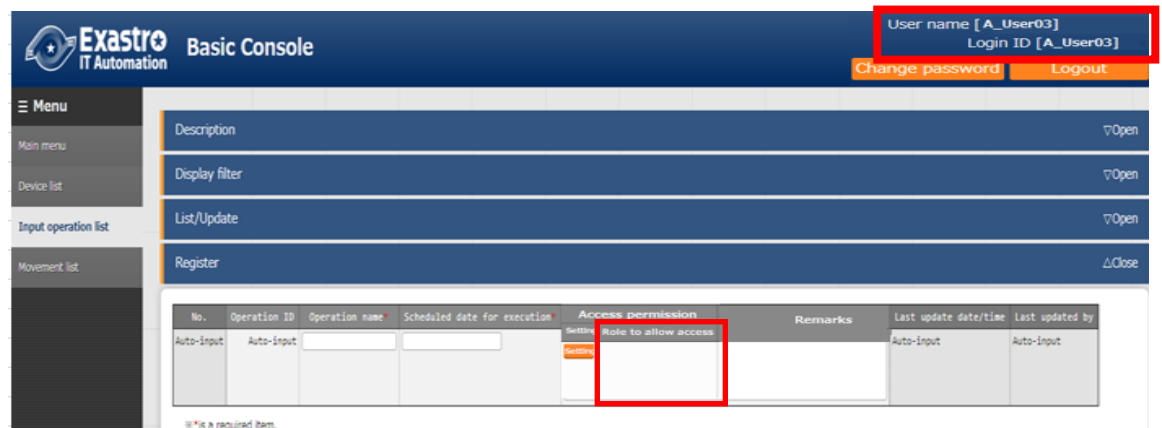
History	Update	Discard	Item No.	ID	Role Name	User ID	Login ID	Default access permission
History	Update	Discard	5	4	Manager_Company_A	4	A_admin	●
History	Update	Discard	8	5	Company_A_KANTO	5	A_user01	●
History	Update	Discard	12	6	Company_A_KANSAI	6	A_user02	●
History	Update	Discard	15	7	Manager_Company_B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

Filter result count: 6

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.



Exastro Basic Console

User name [A_User03]
Login ID [A_User03]
Change password Logout

Menu

- Main menu
- Device list
- Input operation list
- Movement list

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

※ is a required item.

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.

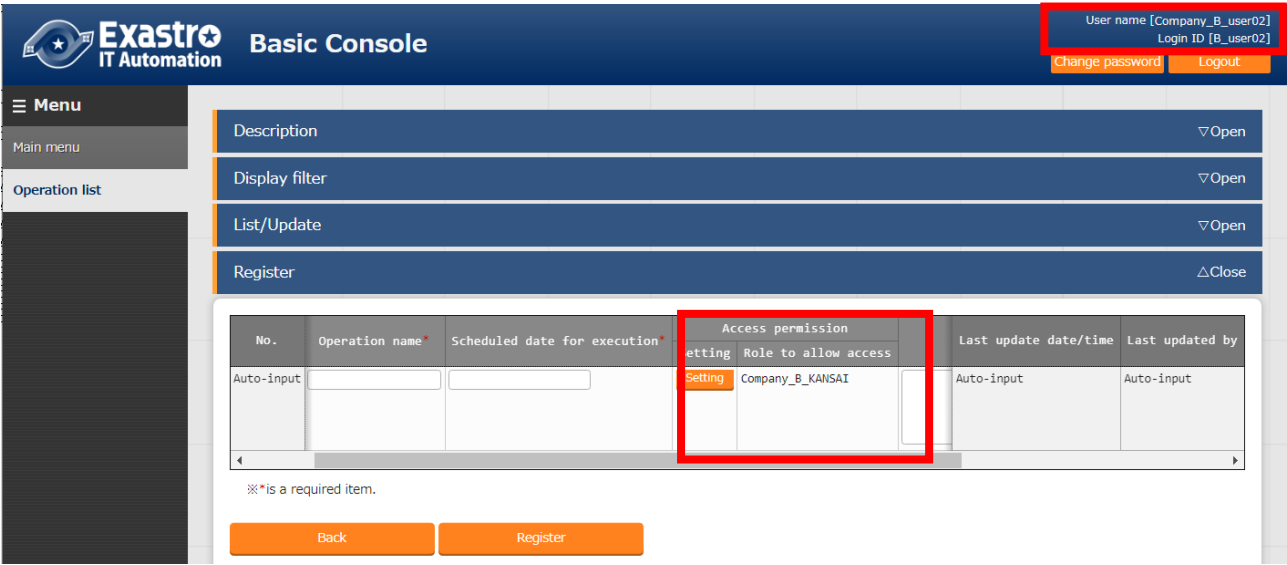


Figure 4.1-4 "Basic Console" Menu group > "Operation list" Menu

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

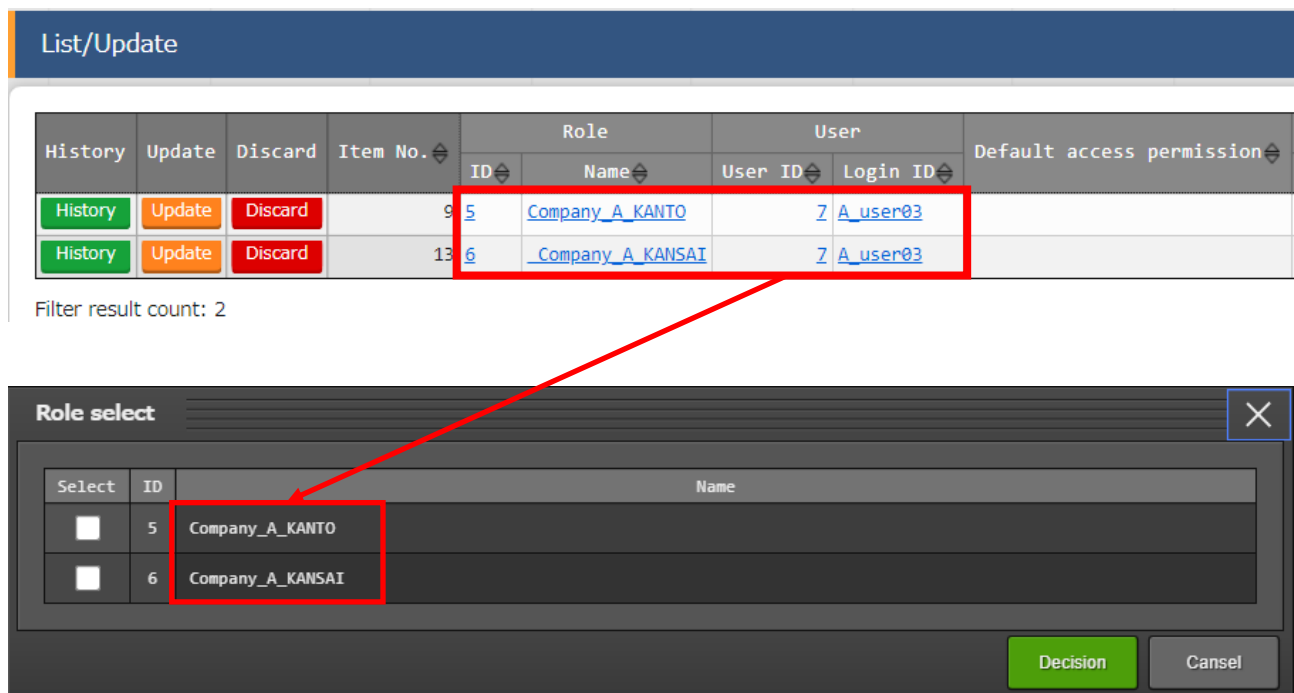


Figure 4.1-5 Changing permission role dialog

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. The 'Access permission' column is highlighted with a red box, showing 'Company_A_KANTO, Company_A_KANSAI'.

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

※*is a required item.

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,

The screenshot shows the 'Basic Console' interface with the 'Input operation' menu selected. The 'Access permission' column is highlighted with a red box, showing 'A_user01,ID conversion failed'. The 'Update' button is also highlighted with a red box.

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

※*is a required item.

Back Update

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	Setting	Access permission
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 'Basic Console' interface with a sidebar menu on the left containing 'Menu', 'Main menu', and 'Operation list'. The main area has three tabs: 'Description', 'Display filter', and 'List/Update'. The 'List/Update' tab is active, displaying a table with the following data:

No.	Operation ID	Operation name*	Scheduled date for execution*	Access permission
3	3	ope_sample3	2021/06/04 14:18	Company_B_KANTO, ***** (9)

Below the table, there is a note: '※* is a required item.' and two buttons: 'Back' and 'Update'. The 'Access permission' column is highlighted with a red box.

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.

The screenshot shows a 'Role select' dialog box with a table containing the following data:

Select	ID	Name
<input checked="" type="checkbox"/>	8	Company_B_KANTO

At the bottom right, there are two buttons: 'Decision' (highlighted with a red box) and 'Cancel'.

Figure 4.2-4 "Role select" Screen

No.	Operation ID	Operation name*	Scheduled date for execution*	Access permission	
				Setting	Role to allow access
3	3	ope_sample3	2021/06/04 14:18	Setting	Company_B_KANTO

※ is a required item.

Back Update

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.

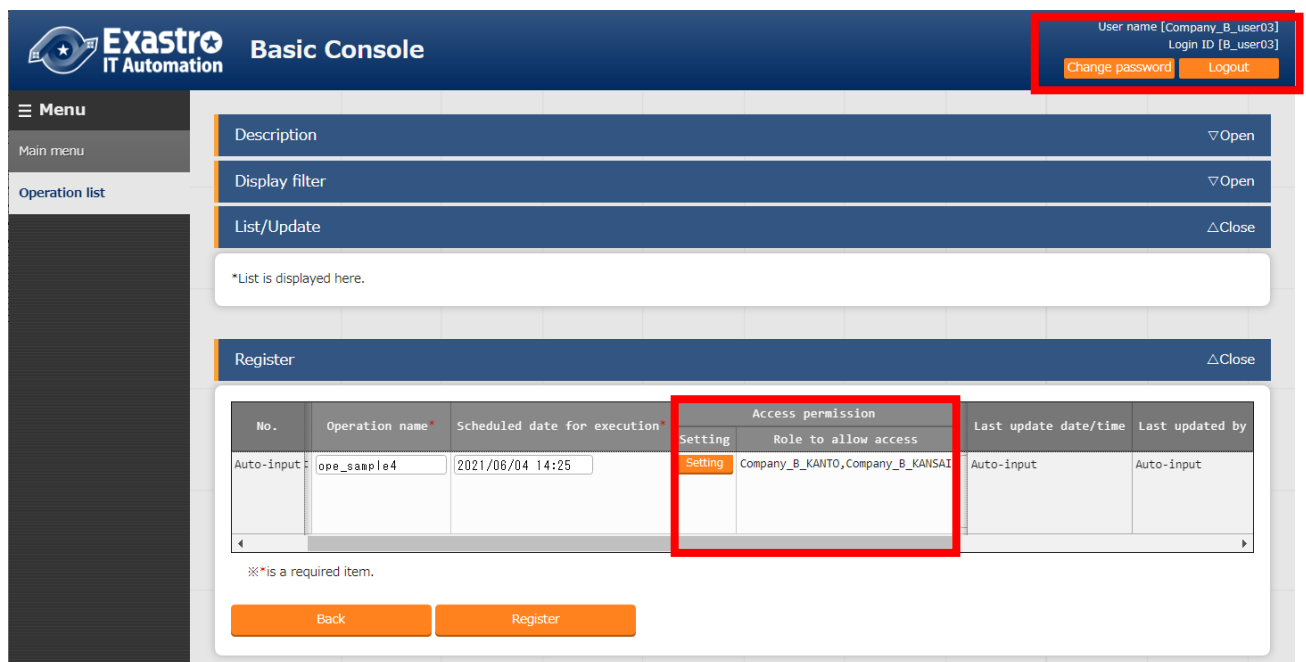


Figure 4.2-6 "Basic Console" Menu group > "Input operation" Menu

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.

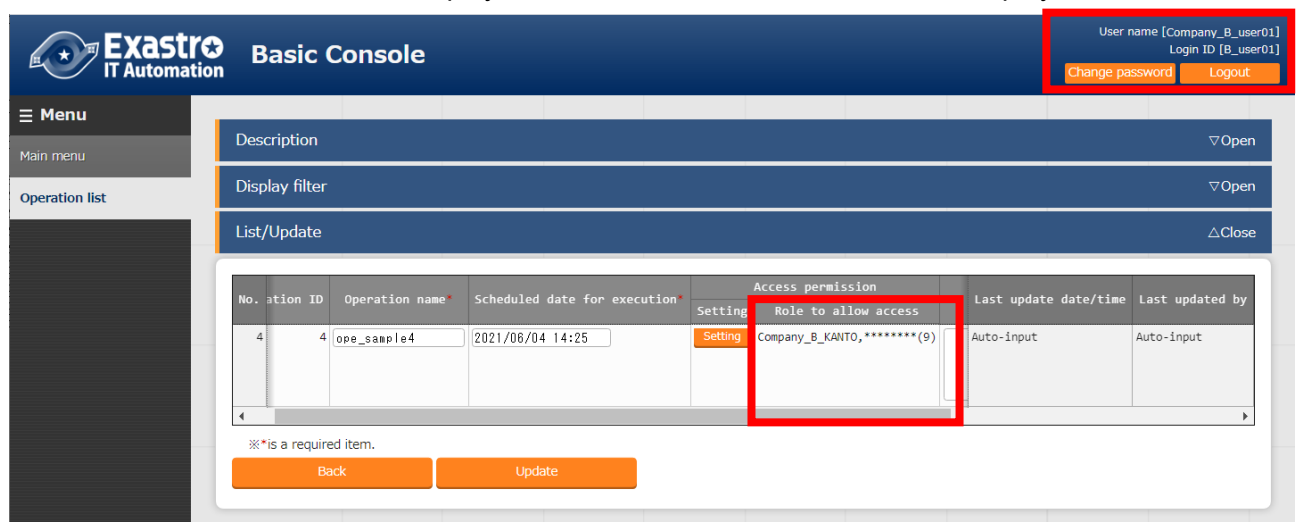


Figure 4.2-7 "Basic Console" Menu group > "Input operation" Menu

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.

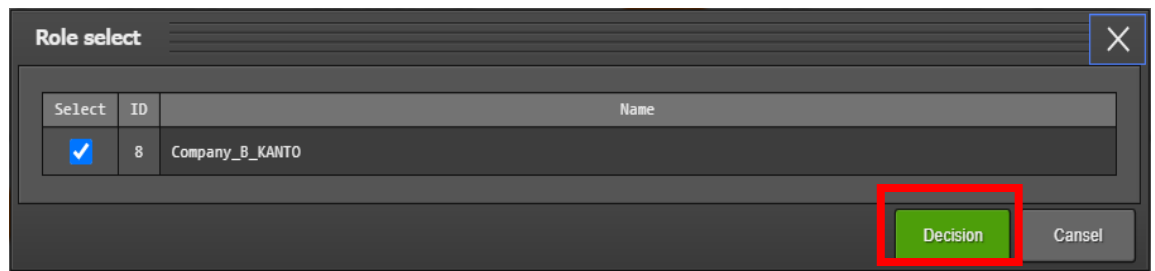


Figure 4.2-8 "Role select" Screen

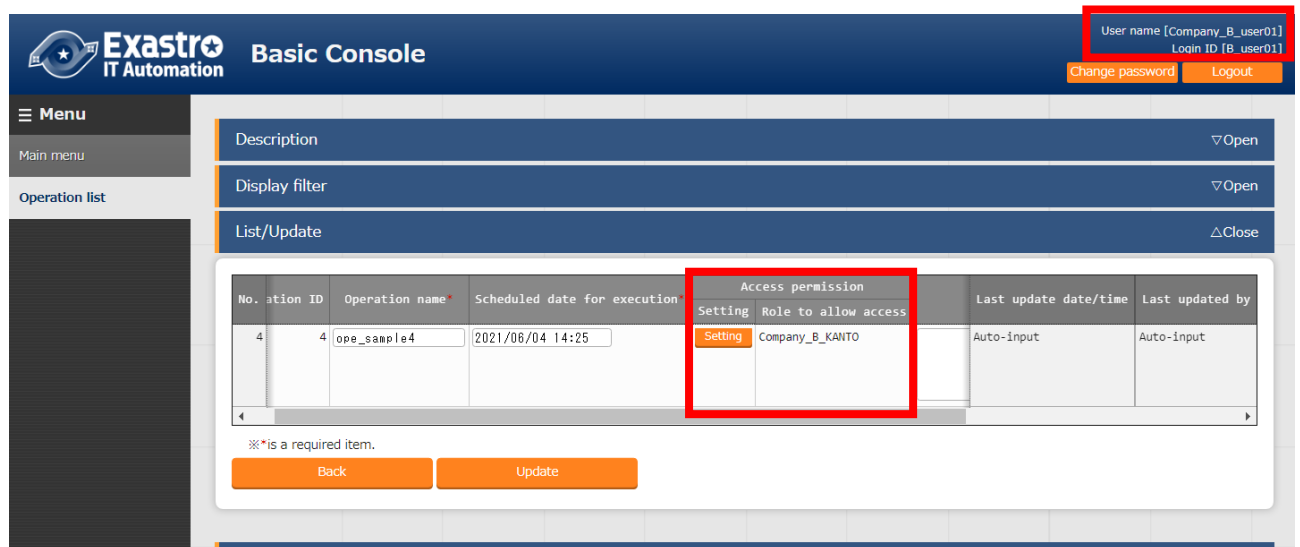


Figure 4.2-9 "Basic Console" Menu group > "Input operation" Menu

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	11	6	Company_A_KANSAI	4	A_admin	
History	Update	Discard	7	5	Company_A_KANTO	4	A_admin	
History	Update	Discard	5	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.

Notes		Execution process type		Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution date	Access permission		Remarks	Last update date/time	Last updated by
										Role to allow access				
● : Required ○ : Optional × : Cannot edit	Register	x	x	x		●			x	○	○	○	x	x
	Update	x	x	x		●			x	○	○	○	x	x
	Discard	x	x	x	x	x			x	x	○	○	x	x
	Restore	x	x	x					x	x	○	○	x	x
OK : Line break OK / NG : No line break		NG	NG	NG		NG		NG	NG	NG	○	○	NG	NG
Other notes Select processing type.		Discard flag Cannot do operation because other than restore.	Can not edit operation because of auto -	Operation ID (auto numbering)	(Maximum length) 256 bytes	Not used in the system	Date/time when the operation was actually performed.	The role that allows access to the record. If you want to allow access to multiple roles, separate the roles with comma (,).	Comment section. Can comment when removing or restoring	Last update date of record. Useful for judging the possibility of an update. Cannot edit because of auto-numbering	Updated by. Login user ID is automatically registered. Cannot edit.			
		Execution process type	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution date	Role to allow access		Remarks	Last update date/time	Last updated by	
		-	1	1		Test Operation	2021/05/20 15:23	2021/05/27 15:26	Company A KANTO Company A KANSAI		Test	2021/05/27 15:26:27	Legacy Role execution procedure	
		-	2	2		Test Operator User03	2021/05/08 14:05					2021/05/31 14:05:40	Company A user03	
		-							Manager_Company_A					
		-							Manager_Company_A					
		-							Manager_Company_A					
		-							Manager_Company_A					
		-							Manager_Company_A					
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		-							Manager_Company_A					
		-							Manager					

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.

Notes	Execution process type	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution date	Access permission	Remarks	Last update date/time
● : Required ○ : Optional × : Cannot edit	Register	×	×	×	●	●	×	○	○	×
	Update	×	×	×	●	●	×	○	○	×
	Discard	×	×	×	×	×	×	×	○	×
	Restore	×	×	×	×	×	×	×	○	×
OK : Line break OK / NG : No line break		NG	NG	NG	NG	NG	NG	NG	OK	NG
Other notes	Select processing type.	Discard flag. Cannot do operation other than restore.	Can not edit because of auto numbering.	Operation ID (auto numbering)	(Maximum length) 256 bytes	Not used in the system	Date/time when the operation was actually performed.	The role that allows access to the record. If you want to allow access to multiple roles, separate the roles with comma (,).	Comment section. Can comment when removing or restoring.	Last update date of record. Useful for judging the possibility of an update. Cannot edit because of auto-numbering.
	Execution process type	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution date	Role to allow access	Remarks	Last update date/time
	-	×	1	1	Test Operation	2021/05/20 15:23	2021/05/27 15:26	Company_A_KANTO, Company_A_KANSAI	Test	2021/05/27 15:26:27
	Register	×	5	5	Ope_sample10	2021/05/06 14:05		Manager_Company_A, Company_A_KANTO, Company_A_KANSAI		2021/05/31 14:05:40
	-							Manager_Company_A		
	-							Manager_Company_A		
	-							Manager_Company_A		
	-							Manager_Company_A		
	-							Manager_Company_A		
	-							Manager_Company_A		
	-							Manager_Company_A		
	-							Manager_Company_A		
	-							Manager_Company_A		
	-							Manager_Company_A		

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										
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_A_KANSAI	2021/05/31 14:05:40	Company_A user03
History	Update	Discard	5	5	Ope_sample10	2021/06/03 15:19		Manager_Company_A, Company_A_KANTO, Company_A_KANSAI	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

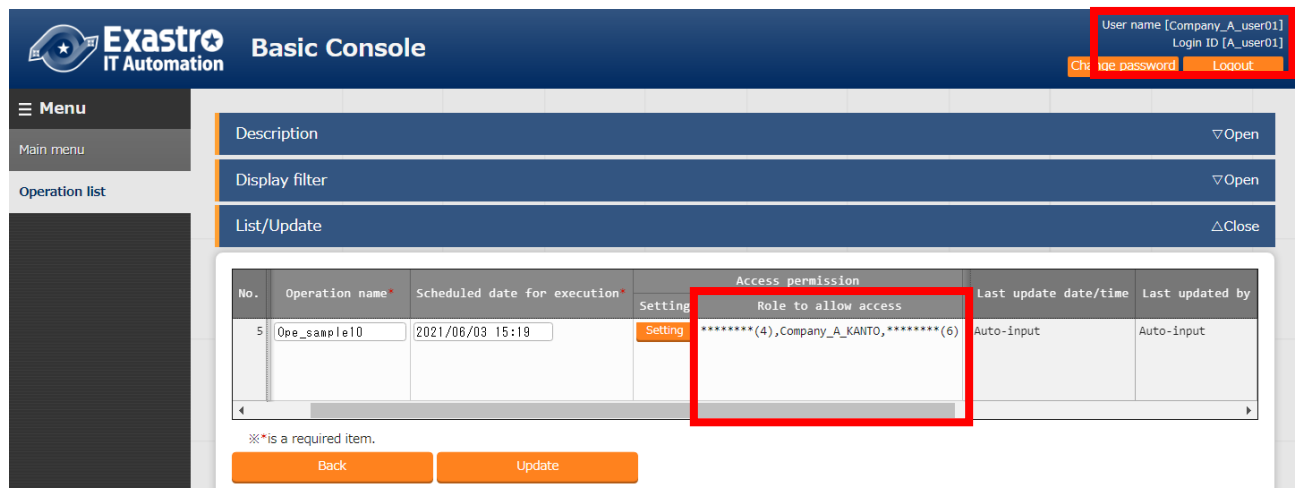


Figure 4.5-6 List/Update sub menu when login "A_user01"

(3) Abolition/Revival

Abolishing/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.

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	ope_sample1	2021/05/31 15:30		System Administrator,Manager_Company_A,Company_A_KANTO, Company_A_KANSAI	2021/05/31 15:30:44	System Administrator
History	Update	Discard	7	ope_sample2	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	ope_sample3	2021/05/31 15:30		System Administrator,Manager_Company_A, Company_A_KANSAI	2021/05/31 15:31:45	System Administrator
History	Update	Discard	9	ope_sample4	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	ope_sample5	2021/05/31 15:30		System Administrator	2021/05/31 15:32:24	System Administrator
History	Update	Discard	11	ope_sample6	ope_sample6	2021/05/31 15:30		System Administrator,Manager_Company_A,Company_A_KANTO, Company_A_KANSAI	2021/05/31 15:32:46	System Administrator
History	Update	Discard	12	ope_sample7	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	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	ope_sample9	2021/05/31 15:35		System Administrator,Manager_Company_B,Company_B_KANSAI	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

Menu

Main menu

System settings

Menu group list

Menu list

Role list

User list

Role - Menu link list

Role - User link list

Sequence list

Single sign-on Basic Preference

Single sign-on Attribute Preference

version

List/Update

History	Update	Discard	Item No.	ID	Role	User	Default access permission	
					Name	User ID	Login ID	
History	Update	Discard	1	1	System Administrator	1	administrator	
History	Update	Discard	4	4	Manager_Company_A	1	administrator	
History	Update	Discard	5	5	Company_A_KANTO	1	administrator	
History	Update	Discard	10	10	Company_A_KANSAI	1	administrator	
History	Update	Discard	14	14	Manager_Company_B	1	administrator	
History	Update	Discard	16	16	Company_B_KANTO	1	administrator	
History	Update	Discard	20	20	Company_B_KANSAI	1	administrator	
History	Update	Discard	4	4	Manager_Company_A	4	A_admin	*
History	Update	Discard	5	5	Company_A_KANTO	4	A_admin	
History	Update	Discard	10	10	Company_A_KANSAI	4	A_admin	
History	Update	Discard	5	5	Company_A_KANTO	5	A_user01	*
History	Update	Discard	10	10	Company_A_KANSAI	6	A_user02	*
History	Update	Discard	5	5	Company_A_KANTO	7	A_user03	
History	Update	Discard	10	10	Company_A_KANSAI	7	A_user03	
History	Update	Discard	14	14	Manager_Company_B	8	B_admin	*
History	Update	Discard	16	16	Company_B_KANTO	8	B_admin	
History	Update	Discard	20	20	Company_B_KANSAI	8	B_admin	
History	Update	Discard	10	10	Company_B_KANTO	9	B_user01	*
History	Update	Discard	20	20	Company_B_KANSAI	10	B_user02	*
History	Update	Discard	10	10	Company_B_KANTO	11	B_user03	
History	Update	Discard	20	20	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

The screenshot shows the Exastro Basic Console interface. The top header displays the user name [System Administrator] and Login ID [administrator], with buttons for 'Change password' and 'Logout'. The sidebar menu on the left includes 'Menu', 'Main menu', 'Device list', 'Operation list', 'Movement list', 'ER Diagram', 'ER Diagram Menu List', and 'ER Diagram Item List'. The 'Operation list' sub menu is highlighted. The main content area shows 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 contains 9 rows of data, with the first row highlighted. Below the table, there is a 'Filter result count: 9' and an 'Output Excel' button. At the bottom, there is a 'Register' section with a message 'RegisterComplete No.14 Display list again for confirmation.' and buttons for 'End' and 'Continue'.

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).

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

Exastro IT Automation Basic Console

User name [Admin_Company_A]
Login ID [A_admin]
Change password Logout

Menu
Main menu
Operation list

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

History	Update	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution date	Last update date/time	Last updated by
History	Update	Discard		6	ope_sample1	2021/05/31 15:30		***** (1), Manag	2021/05/31 15:30:44
History	Update	Discard		7	ope_sample2	2021/05/31 15:30		***** (1), Manag	2021/05/31 15:31:25
History	Update	Discard		8	ope_sample3	2021/05/31 15:30		***** (1), Manag	2021/05/31 15:31:45
History	Update	Discard		9	ope_sample4	2021/05/31 15:30		***** (1), Manag	2021/05/31 15:32:09
History	Update	Discard		11	ope_sample6	2021/05/31 15:30		***** (1), Manag	2021/05/31 15:32:46

Filter result count: 5

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	System	Manager_Company_A	Company_A_KANTO	Company_A_KANSAI	Manager_Company_B	Company_B_KANTO	Company_B_KANSAI
User name: (Login ID) +	administrator						
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

Exastro IT Automation Basic Console

User name [Company_A_user02]
Login ID [A_user02]
Change password Logout

Menu
Main menu
Operation list

Description ▾Open
Display filter ▾Open
List/Update ▴Close

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		2021/05/31 15:30		2021/05/31 15:30:44	System Administrator
History	Update	Discard	8	ope_sample3		2021/05/31 15:30		2021/05/31 15:31:45	System Administrator
History	Update	Discard	11	ope_sample6		2021/05/31 15:30		2021/05/31 15:32:46	System Administrator

Filter result count: 3

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
User name: (Login ID)							
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

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 IT Automation Basic Console. The user is logged in as Admin_Company_B (Login ID: B_admin). The 'Operation list' menu is selected. The 'List/Update' sub-menu is open, displaying a table of operations. The table has columns: History, Update, Discard, No., Operation ID, Operation name, Scheduled date for execution, Last execution, Last update date/time, and Last updated by. The table contains 4 rows of data, with the first row highlighted in red. The 'Output Excel' button is visible at the bottom.

History	Update	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last execution	Last update date/time	Last updated by
History	Update	Discard	1	11	ope_sample6	2021/05/31 15:30		2021/05/31 15:32:46	System Administrator
History	Update	Discard	1	12	ope_sample7	2021/05/31 15:30		2021/05/31 15:33:12	System Administrator
History	Update	Discard	1	13	ope_sample8	2021/05/31 15:35		2021/05/31 15:33:36	System Administrator
History	Update	Discard	1	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

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

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
User name- (Login ID) ↗							
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

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 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_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 'Basic Console' interface with the 'List/Update' menu selected. A table displays two operations:

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



The screenshot shows the 'Trace history' menu with two sections. Each section has a search box, 'Display' and 'Reset' buttons, and a table of history logs.

Section 1 (No. 11):

History log No.	Change date/time	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last	Last update date/time	Last updated by
15	2021/05/31 15:32:46		11	11	ope_sample6	2021/05/31 15:30		2021/05/31 15:32:46	System Administrator

Section 2 (No. 14):

History log No.	Change date/time	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last	Last update date/time	Last updated by
18	2021/05/31 15:33:56		14	14	ope_sample9	2021/05/31 15:35		2021/05/31 15:33:56	System Administrator

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 'Trace history' menu with a search box and 'Display' and 'Reset' buttons. Below the buttons, a message states: "Corresponding record does not exist."

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) Example) If user is logged in as "B_user02".
Roles linked in the "Role/User link list" menu of user "B_user02".



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".

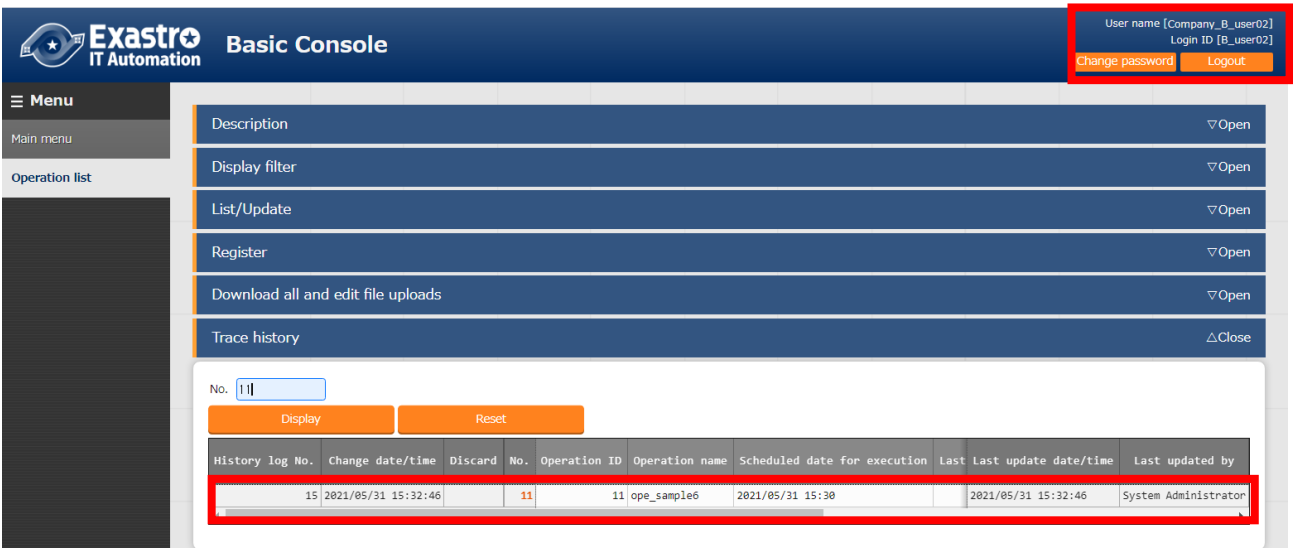


Figure 5.2-4 "Basic Console" Menu group > "Role/User link list" Menu".

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 2	2021/05/31 18:21:54	System Administrator
History	Update	Discard	8	8	ope_sample3	Secret 3	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

Filter result count: 9

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	Role to allow access Manager_Company_B		Auto-input	Auto-input

※* is a required item.

Back Update

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".

Exastro IT Automation Basic Console

User name [Admin_Company_B]
Login ID [B_admin]

Menu
Main menu
Operation list

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		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.

Exastro IT Automation Basic Console

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

Menu
Main menu
Operation list

Trace history △Close

No. 6
Display Reset

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

No. 7
Display Reset

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

No. 8
Display Reset

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

No. 9
Display Reset

History log No.	Change date/time	Discard	No.	Operation ID	Operation name	Scheduled date for execution	Last	Last update date/time	Last updated by
28	2021/05/31 18:49:24		9	9	ope_sample4	2021/05/31 15:30		2021/05/31 18:49:24	System Administrator

Filter result count: 4

Output Excel

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".

The screenshot shows the 'Basic Console' interface with the 'Operation list' menu selected. The table displays the following data:

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.

The screenshot shows the 'Basic Console' interface with the 'Trace history' menu selected. The table displays the following data:

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	Manager_Company_B	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	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. The 'Display filter' sub menu is open, showing a table with columns: Discard, No., Operation ID, Operation name, Schedu, Last update date/time, and Last updated by. The 'Filter' button is highlighted with a red box. Below the filter sub menu, the 'List/Update' sub menu is open, showing a table with columns: History, Update, Discard, No., Operation ID, Operation name, Remarks, Last update date/time, and Last updated by. The table contains 8 rows of data, with the first row highlighted in red. The 'Filter' button is also highlighted with a red box. The 'Filter result count: 8' is displayed at the bottom.

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

Filter result count: 8

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

The screenshot shows the Exastro Basic Console interface. The 'Display filter' sub menu is open, showing a table with columns: Discard, No., Operation ID, Operation name, Schedu, Last update date/time, and Last updated by. The 'Filter' button is highlighted with a red box. Below the filter sub menu, the 'List/Update' sub menu is open, showing a table with columns: History, Update, Discard, No., Operation ID, Operation name, Remarks, Last update date/time, and Last updated by. The table contains 1 row of data, with the first row highlighted in red. The 'Filter' button is also highlighted with a red box. The 'Filter result count: 1' is displayed at the bottom.

History	Update	Discard	No.	Operation ID	Operation name	Remarks	Last update date/time	Last updated by
History	Update	Discard	11	ope_sample6			2021/05/31 15:32:46	System Administrator

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.

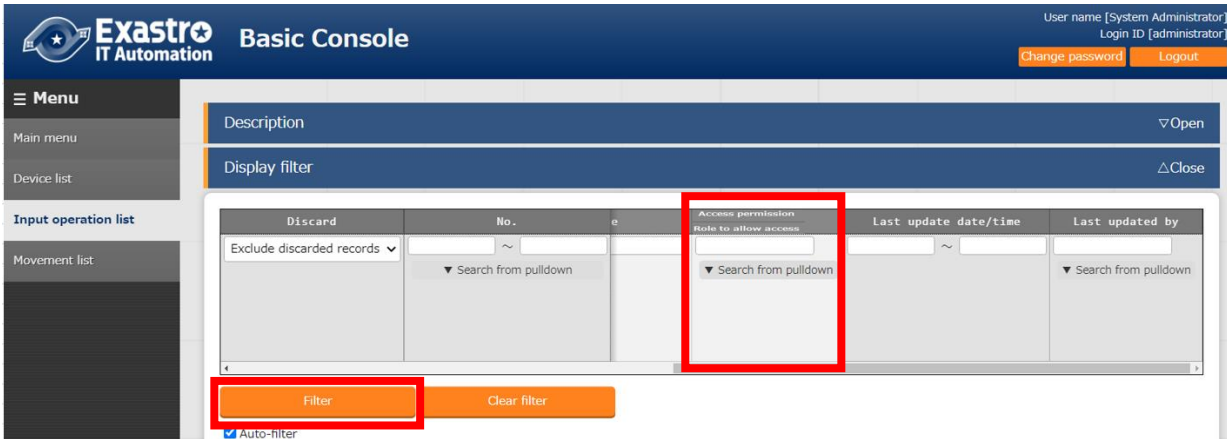


Figure 5.3-3 "Basic Console" Menu group > "Operation list" Menu"

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 'Basic Console' interface. On the left is a 'Menu' sidebar 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 a 'Description' section with a 'Display filter' dropdown. Below this is a search form with fields for 'Discard', 'No.', 'Access permission', 'Last update date/time', and 'Last updated by'. The 'Access permission' field is highlighted with a red box and contains the text 'System Administrator'. Below the search form are 'Filter' and 'Clear filter' buttons. At the bottom, a 'List/Update' table shows search results. The table has columns: History, Update, Discard, No., Operation ID, Operation name, Remarks, Last update date/time, and Last updated by. The first row shows 'History' (green), 'Update' (orange), 'Discard' (red), '10', '10 ope_sample5', 'External secret3', '2021/05/31 15:32:24', and 'System Administrator'.

History	Update	Discard	No.	Operation ID	Operation name	Remarks	Last update date/time	Last updated by
History	Update	Discard	10	10	ope_sample5	External secret3	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.

The screenshot shows the 'Basic Console' interface. On the left is a 'Menu' sidebar 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 a 'Description' section with a 'Display filter' dropdown. Below this is a search form with fields for 'Discard', 'No.', 'Access permission', 'Last update date/time', and 'Last updated by'. The 'Access permission' field is highlighted with a red box and contains the text 'Company_A_KANSAI' and 'Company_B_KANSAI'. Below the search form are 'Filter' and 'Clear filter' buttons. At the bottom, a 'List/Update' table shows search results. The table has columns: History, Update, Discard, No., Operation ID, Operation name, Access permission, Remarks, Last update date/time, and Last updated by. The first row shows 'History' (green), 'Update' (orange), 'Discard' (red), '8', '8 ope_sample3', 'Company_A_KANSAI', 'External secret3', '2021/05/31 19:22:22', and 'System Administrator'. The second row shows 'History' (green), 'Update' (orange), 'Discard' (red), '14', '14 ope_sample9', 'Company_B_KANSAI', 'External secret17', '2021/05/31 19:23:00', and 'System Administrator'. Below the table, it says 'Filter result count: 2'.

History	Update	Discard	No.	Operation ID	Operation name	Access permission	Remarks	Last update date/time	Last updated by
History	Update	Discard	8	8	ope_sample3	Company_A_KANSAI	External secret3	2021/05/31 19:22:22	System Administrator
History	Update	Discard	14	14	ope_sample9	Company_B_KANSAI	External secret17	2021/05/31 19:23:00	System Administrator

Filter result count: 2

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. The left sidebar contains a 'Menu' group with 'Operation list' selected. The main area has a 'Display filter' section with a table of filters. The 'Access permission' filter is set to 'x {Blank}'. Below the filter table is a 'Filter' button. The 'List/Update' section shows a table of results with one entry: 'ope_sample6' with 'Access permission' 'Role to allow access' and 'Last update date/time' '2021/05/31 19:27:22'.

History	Update	Discard	No.	Operation ID	Operation name	Access permission	Remarks	Last update date/time	Last updated by
History	Update	Discard	11	ope_sample6	ope_sample6	Role to allow access		2021/05/31 19:27:22	System Administrator

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 left sidebar contains a 'Menu' group with 'Operation list' selected. The main area has a 'Display filter' section with a table of filters. The 'Access permission' filter is set to 'x {Blank} x Manager_Company_A'. Below the filter table is a 'Filter' button. The 'List/Update' section shows a table of results with two entries: 'ope_sample1' and 'ope_sample6'.

History	Update	Discard	No.	Operation ID	Operation name	Access permission	Remarks	Last update date/time	Last updated by
History	Update	Discard	6	ope_sample1	ope_sample1	Manager_Company_A	External secret1	2021/05/31 19:29:36	System Administrator
History	Update	Discard	11	ope_sample6	ope_sample6			2021/05/31 19:27:22	System Administrator

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.

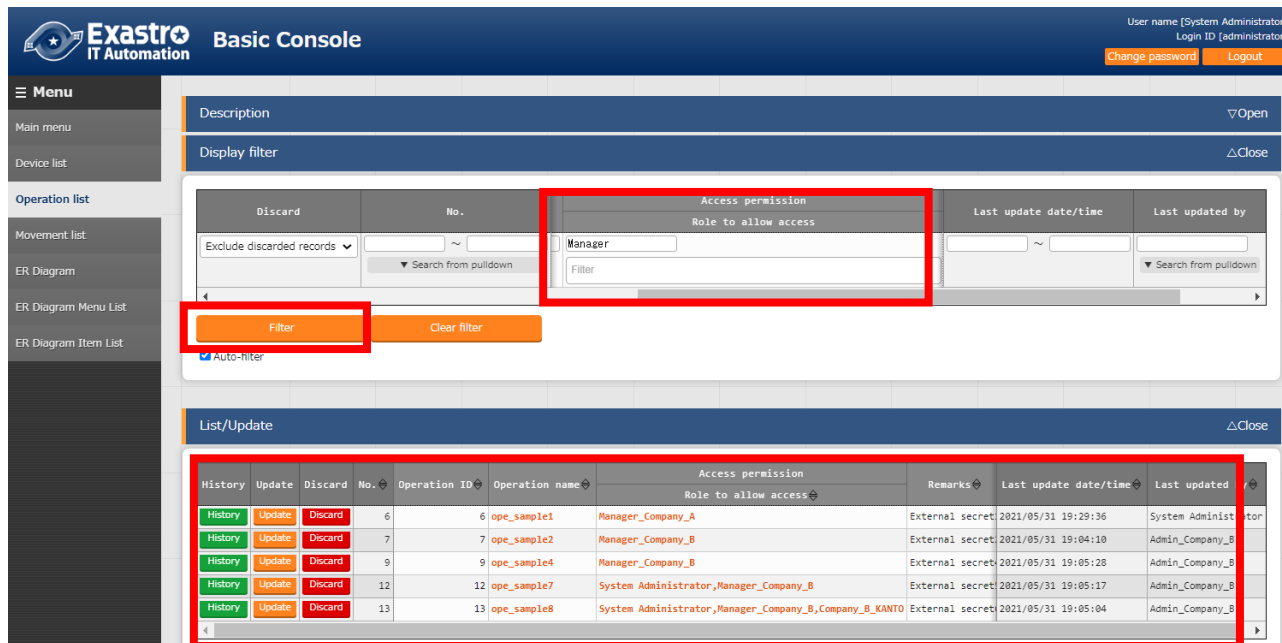


Figure 5.3-8 “Basic console” Menu group > “Operation list” Menu

※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.

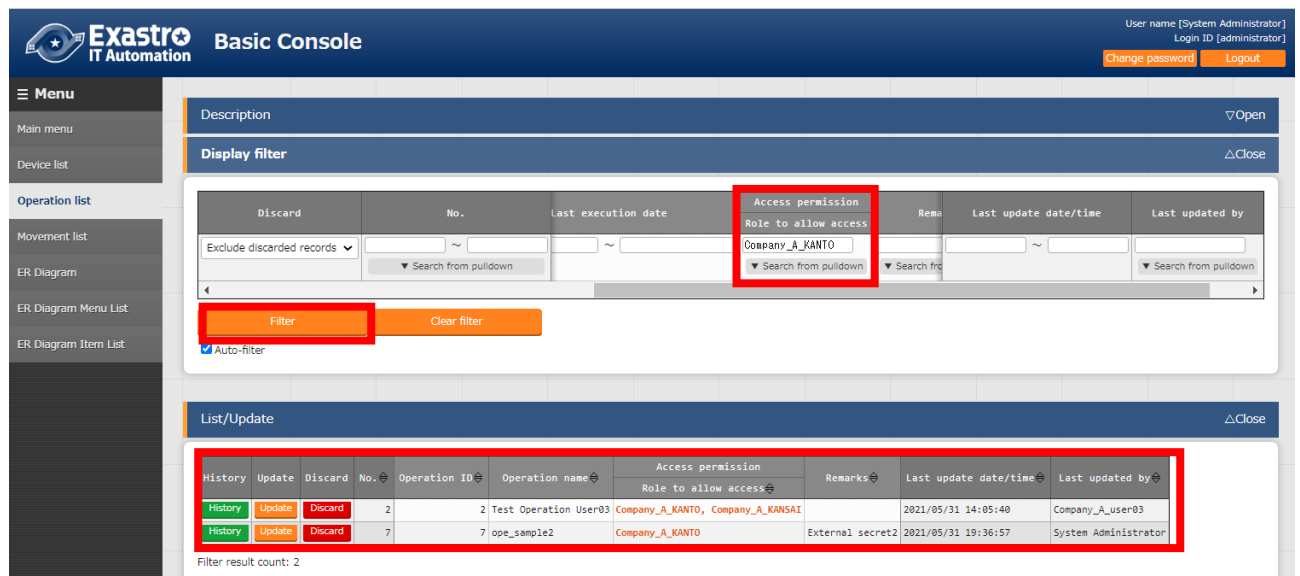


Figure 5.3-9 “Basic console” Menu group > “Operation list” Menu

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 displays the Exastro Basic Console interface. On the left, a menu sidebar includes 'Menu', 'Main menu', 'Device list', 'Operation list', 'Movement list', 'ER Diagram', 'ER Diagram Menu List', and 'ER Diagram Item List'. The 'Operation list' menu is selected. The main area shows a 'Description' section with a 'Display filter' section below it. The 'Display filter' section includes a 'Discard' dropdown (set to 'Exclude discarded records'), a 'No.' field, a 'Scheduled date for execution' field, a 'Last execution date' field, and an 'Access permission' field. The 'Access permission' field is highlighted with a red box and contains the text 'Company_A_KANTO, C'. Below the filter section, there are 'Filter' and 'Clear filter' buttons, and a checked 'Auto-filter' checkbox. The 'List/Update' section shows a table with the following data:

History	Update	Discard	No.	Operation ID	Operation name	Access permission	Remarks	Last update date/time	Last updated by
History	Update	Discard	2	2	Test Operation User03	Company_A_KANTO, Company_A_KANSAI		2021/05/31 14:05:40	Company_A_user03

Below the table, it says 'Filter result count: 1'.

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	1pice
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


```
{ "7" : { "NORMAL": "A Company" }, "1": { "NORMAL": "O" } }
```

"Access permission role "Column:{"Folder type": "Search string"}

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 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 5.4-3 “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 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

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 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

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 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 5.4-7 “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 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	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}}
```

List/Update

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

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 Role to allow access ⇅	Remarks ⇅	Last update date/time ⇅	Last updated by ⇅
History	Update	Discard	7	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