ITA_User Instruction Manual

Contrast function

－Ver 1.7－

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

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Introduction

This document explains ITA's Functions and how to operate them.

1　Contrast function overview

This chapter explains the Contrast function

1.1　Contrast function

The Contrast function can be used to compare Parameter sheets created with the ITA Menu create function and output the differences.
This function only supports Parameter sheets (with host/operation).
For more details regarding Parameter sheets, please refer to
"Exastro-ITA_User_Instruction_Manual_Menu_creation_function."

For more information regarding Access rights/ Access permission roles, please refer to
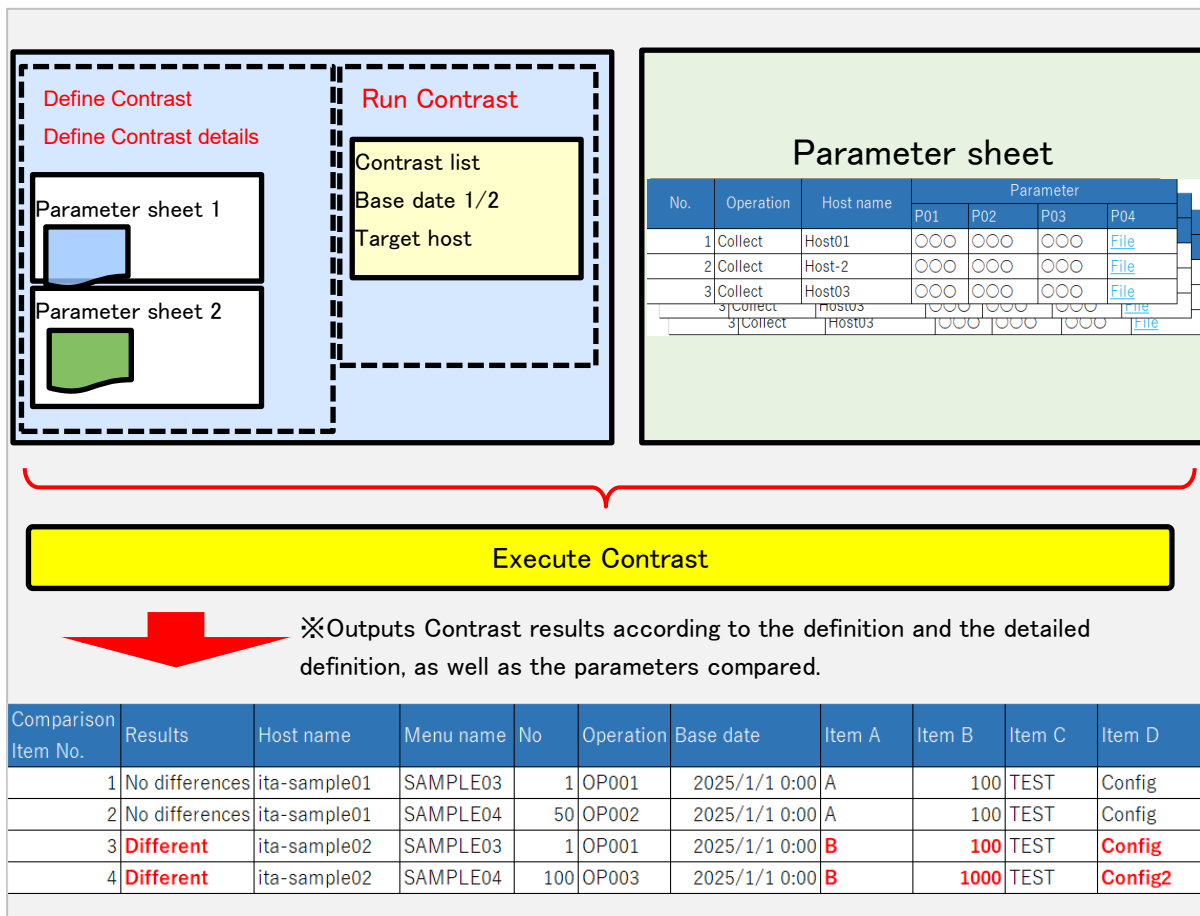"Exastro-ITA_User_Instruction_Manual_Role-based_access_control_for_data_records"

1.1.1 Contrast function overview figure.

The following figure illustrates the workflow of using the Contrast function,。
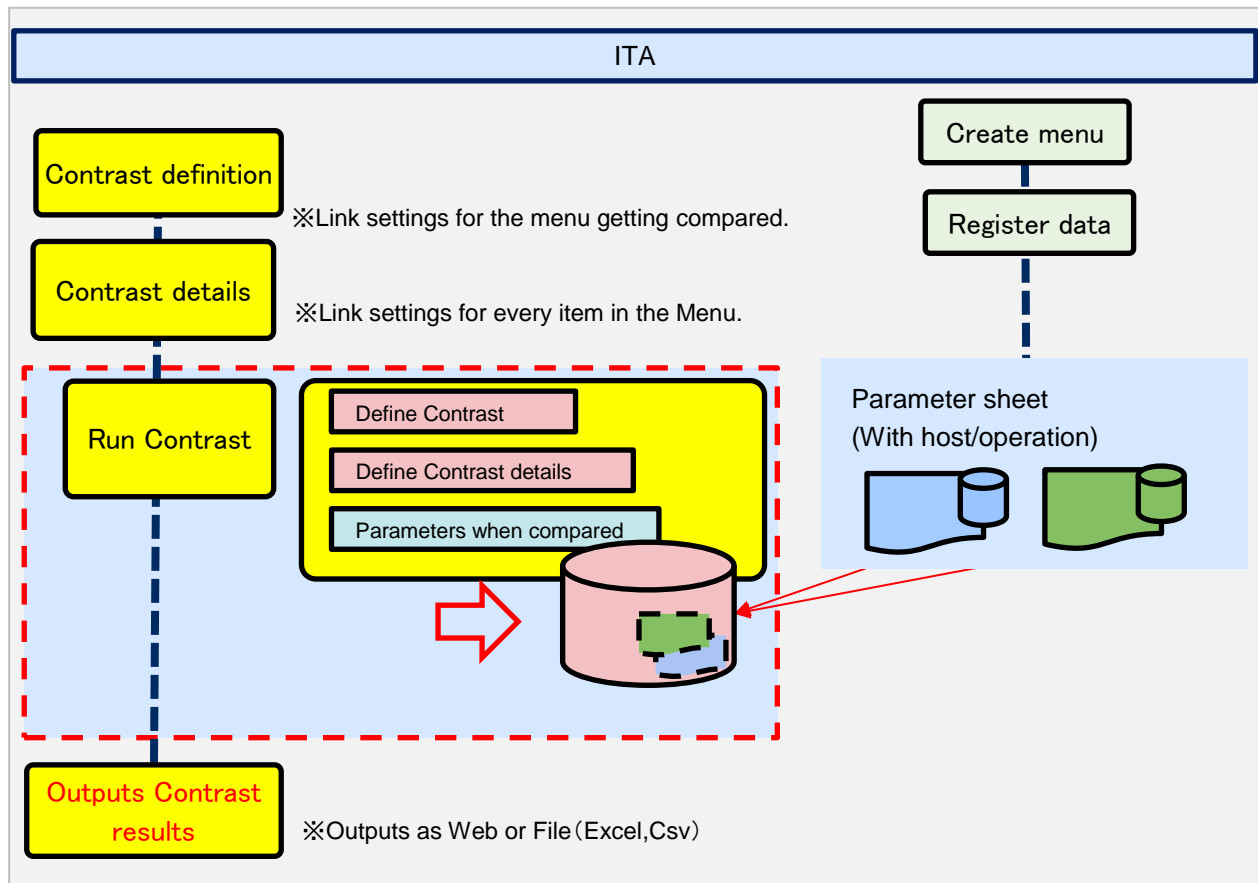
1.1.2 **Contrast function process overview**

The following figure illustrate the process of the Contrast function.

Define Contrast
Define Contrast details

Parameter sheet 1

Parameter sheet 2

Run Contrast

Contrast list
Base date 1/2
Target host

Parameter sheet

No.	Operation	Host name	Parameter			
			P01	P02	P03	P04
1	Collect	Host01	OOO	OOO	OOO	File
2	Collect	Host-2	OOO	OOO	OOO	File
3	Collect	Host03	OOO	OOO	OOO	File
3	Collect	Host03	OOO	OOO	OOO	File
3	Collect	Host03	OOO	OOO	OOO	File

Execute Contrast

※Outputs Contrast results according to the definition and the detailed definition, as well as the parameters compared.

Comparison Item No.	Results	Host name	Menu name	No	Operation	Base date	Item A	Item B	Item C	Item D
1	No differences	ita-sample01	SAMPLE03	1	OP001	2025/1/1 0:00	A	100	TEST	Config
2	No differences	ita-sample01	SAMPLE04	50	OP002	2025/1/1 0:00	A	100	TEST	Config
3	**Different**	ita-sample02	SAMPLE03	1	OP001	2025/1/1 0:00	**B**	**100**	TEST	**Config**
4	**Different**	ita-sample02	SAMPLE04	100	OP003	2025/1/1 0:00	**B**	**1000**	TEST	**Config2**

1.1.3 **Contrast list overview**

The following figure illustrates the link between the parameter sheets as well as the Contrast results. For information regarding Contrast list, Contrast details definition and the different configurations, please refer to Chapter 5, Contrast function operation.

・Parameter sheet link(When the items of the parameter sheets are identical to each other)
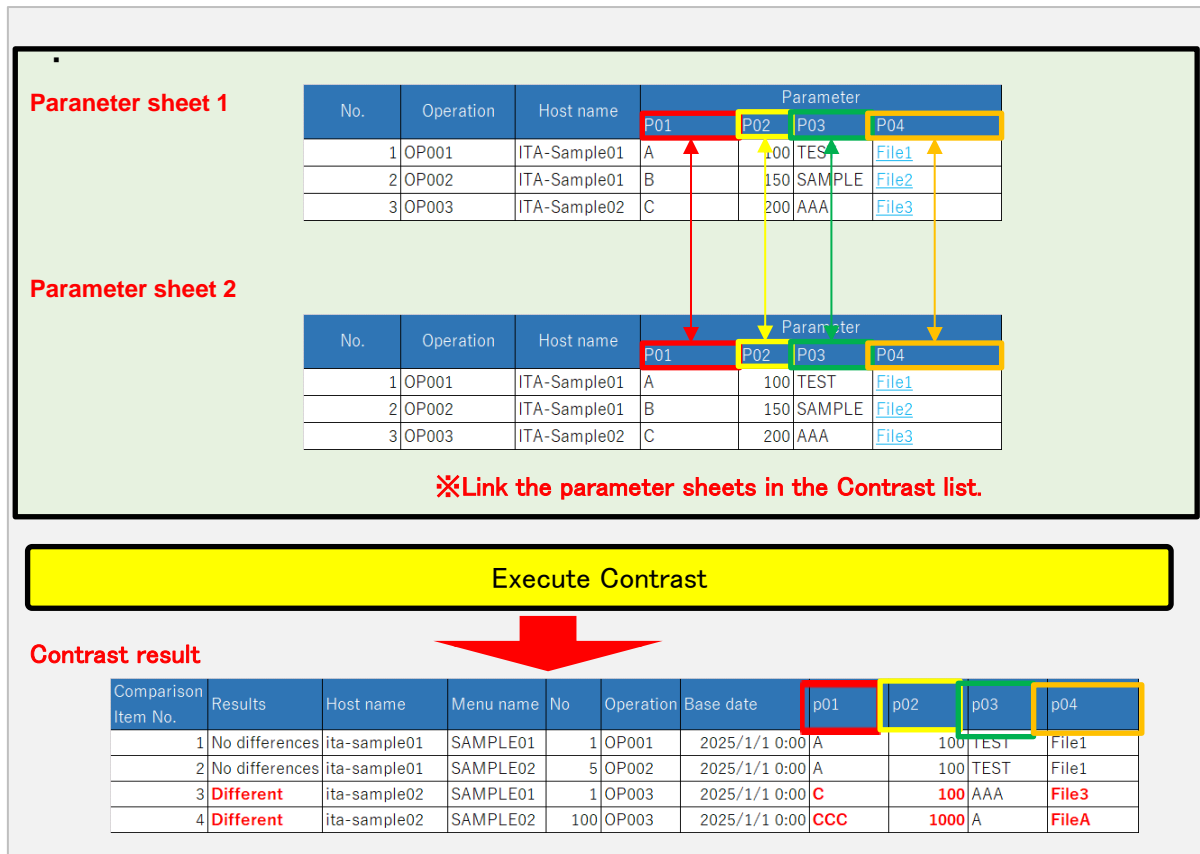
・Parameter sheet link (When the items of the parameter sheets dont match each other).

Parameter sheet 1

No.	Operation	Host name	Parameter			
			P01	P02	P03	P04
1	OP001	ITA-Sample01	A	100	TEST	File1
2	OP002	ITA-Sample01	B	150	SAMPLE	File2
3	OP003	ITA-Sample02	C	200	AAA	File3

Parameter sheet 2

No.	Operation	Host name	Parameter			
			P01	P02	A01	A02
1	OP001	ITA-Sample01	A	100	TEST	File1
2	OP002	ITA-Sample01	BB	200	SAMPLE	File2
3	OP003	ITA-Sample02	CCC	300	A	FileA

Link the parameter sheet in the Contrast list. Link the items in the detailed Contrast list.

Run Contrast

Contrast results

Comparison Item No.	Results	Host name	Menu name	No	Operation name	Base date	ItemA	ItemB
1	Different	ita-sample01	SAMPLE01	1	OP001	2025/1/1 0:00	A	100
2	Different	ita-sample01	SAMPLE02	5	OP001	2025/1/1 0:00	A	TEST
3	Different	ita-sample02	SAMPLE01	1	OP003	2025/1/1 0:00	C	200
4	Different	ita-sample02	SAMPLE02	100	OP003	2025/1/1 0:00	CCC	A

1.2 Comparing Parameter sheets

The Contrast function allows users to do Contrasts between parameter sheets linked in the Contrast list and the Contrast details.

1.2.1 Contrast function requirements

Make sure that the ITA Settings fill the following requirements.
- ITA is installed with "createparam" selected in the ITA installer.
- Parameter sheets (with host/operation) is created using the Menu create function.
- A link is created between the parameter sheets you want to compare in the Contrast list.
- A link is created between the parameter sheet's items in the Contrast details (unnecessary depending on the Contrast list settings).

1.2.2 Contrast parameters

Configure the following parameters in order to run Contrast.
For more information regarding Contrast list, please see 5.1.1 later in this document.

Table 1.2-1 Contrast parameters

Parameter	Description	Input necessary	Input format	Restrictions
Contrast list	Select Contrast list.	○	List selection	
Base date 1	Input the base date of Menu 1 in the Contrast list.		Manual input	
Base date 2	Input the base date of Menu 2 in the Contrast list.		Manual input	
Target host	Select the target host. Default: No host(Shows the whole Contrast).		List selection	

2 Comparing items

2.1 Comparing items

2.1.1 Items that can be compared.

The parameter sheet items that can be compared with the Contrast function are as following.。

Table 2.1-1 Comparable parameter sheet items

Item type	Restrictions
String	
Multi string	
Integer	
Decimal number	
Pulldown selection	The ID of the selected list will be compared. If you dont have access permission, ID Conversion failure(X) will be displayed.
File upload	If both items are file upload type items, the file name and the file contents will be compared.
Link	

※For more information regarding access rights, please refer to
"Exastro-ITA_User_Instruction_Manual_Role-based_access_control_for_data_records"

2.1.2 Item combinations that can be compared.

The different combinations of parameter sheet items that can be used with the Contrast function are as following.

Table 2-1 Comparable Parameter sheet item combinations

	String	Multi string	Integer	Decimal number	Pulldown selection	File upload	Link
String	○	○	○	○	○※1	○※2	○
Multi string	○	○	○	○	○※1	○※2	○
Integer	○	○	○	○	○※1	○※2	○
Decimal number	○	○	○	○	○※1	○※2	○
Pulldown selection	○※1	○※1	○※1	○※1	○※1	○※1※2	○※1
File upload	○※2	○※2	○※2	○※2	○※1※2	○※3	○※2
Link	○	○	○	○	○※1	○※2	○

※1 he pulldown menu will have it's selected list's ID compared.
　　Please see the Contrast example in Chapter 6.1.1 Example comparing parameter sheets with pulldown selections.
※2 The target value and file name will be compared.
※3 If either the name or contents of the file are different, they will be displayed as "Different".。

3 Contrast menu configuration

This chapter explains the menu configuration of the Contrast function.
For information regarding loggin into the Web console or the ITA screen configuration and it's operations, please refer to the First step guide.

3.1 Menu/Screen list

The Contrast function's menu list is as following.

Table 3-1 Compare screen list

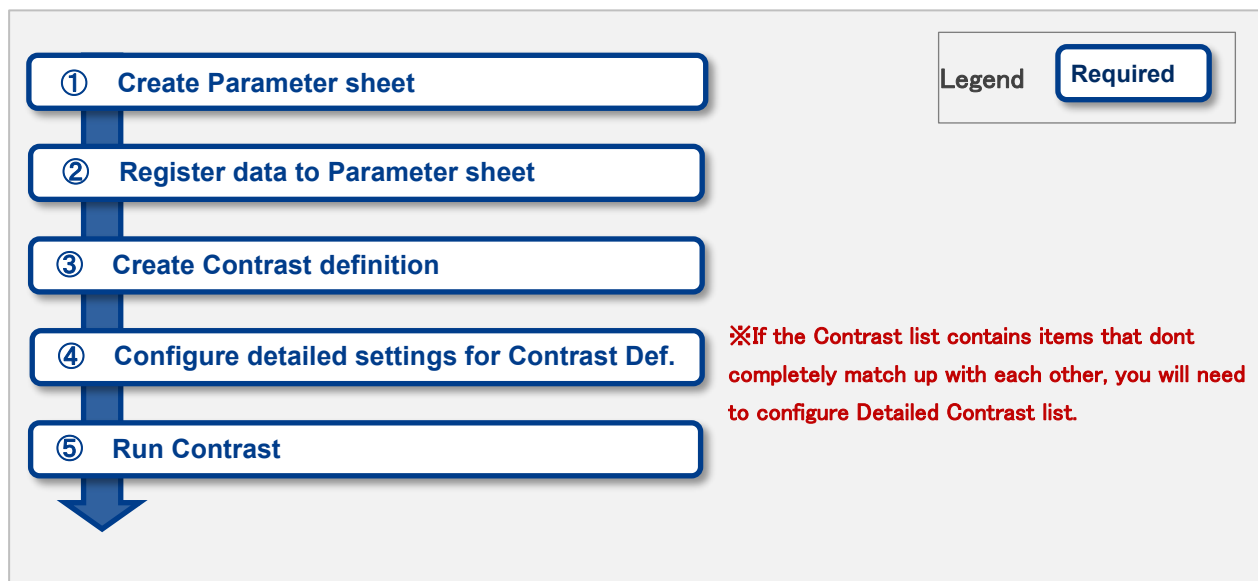| No	Menu group	Menu/Screen	Description
1	Compare	Contrast list	Create Compare Definition name and link parameter sheets.
2		Contrast details	Link Parameter sheet items.
3		Contrast execution	Run the contrast using the settings configured in the Contrast list and Contrast details.

4 Using the Contrast function

This chapter explains how to use the Contrast function.

4.1 Operation flow

The standard Contrast function operation flow is as following.

4.1.1 Contrast function operation flow.

The following figure illustrates a standard Contrast function operation flow.

① **Create Parameter sheet**

② **Register data to Parameter sheet**

③ **Create Contrast definition**

④ **Configure detailed settings for Contrast Def.**

⑤ **Run Contrast**

Legend — Required

※If the Contrast list contains items that dont completely match up with each other, you will need to configure Detailed Contrast list.

- **Detailed workflow and references.**
  ① **Create Parameter sheet**
  Create a Parameter sheet in the "Create/Define menu" menu in the "Menu create" menu group.
  For more information, please refer to
  "Exastro-ITA_User_Instruction_Manual_Menu_creation_function"

  ② **Register data data to Parameter sheet**
  Register data to the Parameter sheet creted in the previous step.
  For more information, please refer to
  "Exastro-ITA_User_Instruction_Manual_Menu_creation_function"

  ③ **Create Contrast list**
  Use the "Compare definition" menu to define/create a Contrast
  For more information, please refer to Chapter 5.1.1 Contrast list.

  ④ **Configure Detailed Contrast list**
  [Use the "Contrast details" menu to configure details for the previously created Contrast.
  For more information, please refer to Chapter 5.1.2 Contrast details

  ⑤ **Run Contrast**
  Use the Contrast execution menu to run compare the set parameter sheets.
  For more information, please refer to Chapter 5.1.3 Contrast execution.

5 Contrast function operation

This chapter describes the different menus in the Contrast function.

5.1 Contrast

5.1.1 Contrast list

(1) In the "Contrast list", users can register and update/change Contrast lists (Links between parameter sheets)。

Figure 5.1-1 Submenu screen（Contrast list）

(1) Users can register Contrast lists by clicking the "List/Update" button and then the "Start registering" button.

Figure 5.1-2 Register screen（Contrast list）

(2) The item list found in the Contrast list menu is as following.

Table 5.1-1 Registration screen items（Contrast list）

Item	Description	Input required	Input format	Constraints
Contrast name	Input name of the Contrast	〇	Manual input	
Contrast target menu 1	Select target menu	〇	List selection	
Contrast target menu 2	Select target menu	〇	List selection	
Match all cases	Select if Menu 1 and Menu 2's item match up.	-	Select	※1
Remarks	Free description field	-	Manual input	

※1 The user does not need to configure Contrast details if "Match all cases" is selected.
In order to select this, all items of the selected parameter sheets needs to match up.

5.1.2 Contrast details.

(1) In the "Contrast details" menu, users can link the different items of the parameter sheets linked in the "Contrast list" menu.

Figure 5.1-3 Submenu screen（Contrast details）

(2) Press the "List" and then "Start registration" to register link between items.

Figure 5.1-4 Registration screen（Contrast details）

(3) The following table lists the items in the Compare item value list screen.

Table 5.1-1 Registration screen item list（Contrast details）

Item	Description	Input required	Input method	Restrictions
Contrast name	Select a Contrast	○	List selection	※1
Display item name	Input the name of the display items. This is the item name that will be used in the output Contrast results.	○	Manual input	
Target column 1	Select Target column	○	List selection	※2
Target column 2	Select Target column	○	List selection	※3
Display order	Select display order	-		※4
Remarks	Free description field	-		

※1 Only items for parameter sheets that has "Match all cases" unchecked in the "Contrast list" menu.
※2 Items that are registered in Target Menu 1 in the Contrast list can be selected.
※3 Items that are registered in Target Menu 2 in the Contrast list can be selected.
※4 If nothing is input, the Contrast results will be output in the order of Contrast details ID, left to right.

5.1.3 Contrast execution

(1) The "Contrast execution" compares parameter sheets based on the information set in the Contrast list and Contrast details menu.
- 「The list of Contrast list registered in "5.1.1 Contrast list" is displayed.
- Clicking the "Compare" button executes the Contrast and compares the target menus and items based on the input parameters.

Figure 5.1-5 Contrast execution screen（Input Parameter）

Figure 5.1-6 Host list menu（Contrast execution：Target host）

Table 5.1-1 Contrast execution item list

Item	Description	Input required	Input method	Constraints
Contrast list	Select Contrast list.	〇	List selection	
Base date 1	Specify the base date for Menu 1	-	Manual input	※1
Base date 2	Specify the base date for Menu 2	-	Manual input	※1
Host	Pressing the "Host" button will open up a list of target hosts. Please select a host and press the "Decision" button.	-	Select	※2
Compare	Press this button to run the Contrast between the selected parameters and outputs the results.	-	-	-

※1 If a base date is input, the data compared will be the latest version at the time of the input date.
　　If nothing is input, the latest version will be used,
※2 No host is selected by default.
　　Will output the Contrast for all host linked to the menu.

・　After pressing the "Contrast" button, a file output button (excel, CSV) button will be displayed.
・　The results will be displayed in the order of Menu 1 and Menu 2 for each host.
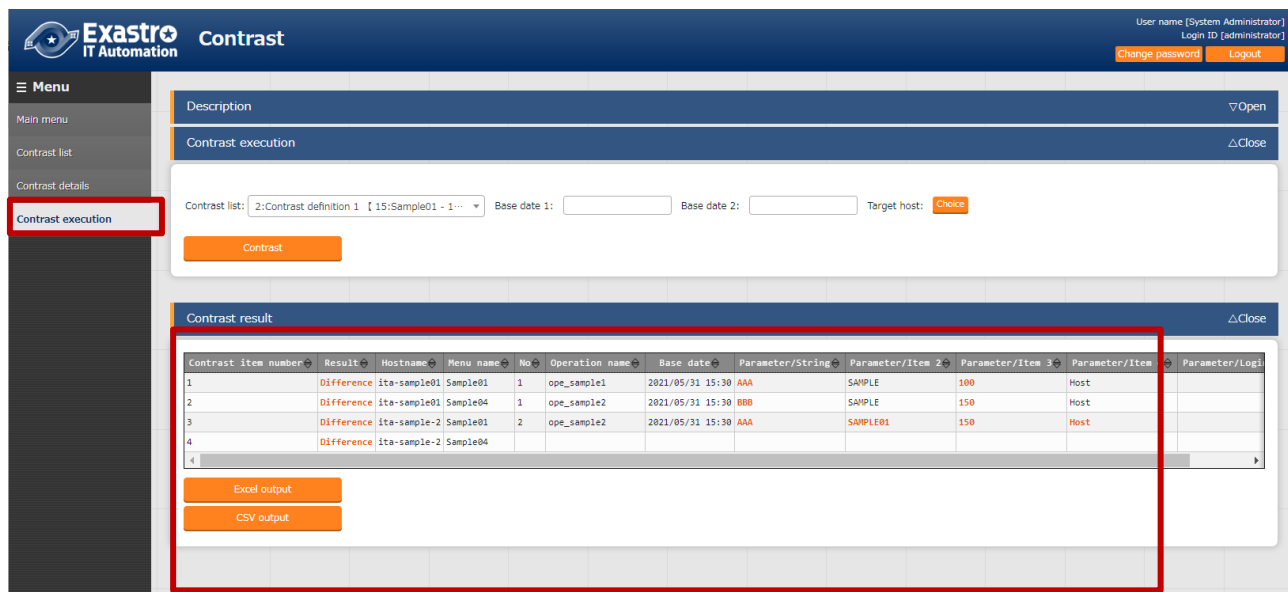
Figure 5.1-7 Contrast execution screen (Contrast results)

Table 5.1-1 Contrast execution output list

Item	Description	Constraints
Contrast item number	Number of the items output from the Contrast results.	
Result	Displays the Contrast results. Either with "Difference" or "no difference".	※1
Host name	Displays the target host name	
Menu name	Displays the target menu name	
No	Displays the compared menu number.	
Operation name	Displays the operation name	
Base date	Displays the Base date	
Contrast item	Displays the target item.	※1
Excel output	Outputs the results in excel format.	
CSV output	Outputs the results in CSV format.	

※1 If there were any differences, it will be highlighted in red text.

6 Appendix

6.1 References

6.1.1 Example comparing parameter sheets with pulldown selections.

The following illustrates an example using the Contrast function to compare parameter sheets with pulldown selection items.

・ Comparing Pulldown selection items in Parameter sheets and their configurations.

Figure 6.1-1 Parameter sheet（Create/Define menu）

Figure 6.1-2 Pulldown reference definition [Data sheet:Global IP]

Figure 6.1-3 Pulldown reference destination [Data sheet :Private IP]

- Contrasts and Contrast lists
In the following illustration, the items marked with red-blue are going to be compared.
Gllobal：References Global IP (Datasheet)
Private：References Private IP (Datasheet)

SAMPLE07

History	Update	Discard	No	Host name	Operation					Parameter		
					ID	Operation name	Reference date	Scheduled date for execution	Last execution date	Connection		
										Host	Global	Private
History	Update	Discard	1	ita-sample01	17	OP_NULL	2021/06/08 16:17	2021/06/08 16:17		ita-sample01	XXX.XXX.XXX.AAA	
History	Update	Discard	2	ita-sample-2	17	OP_NULL	2021/06/08 16:17	2021/06/08 16:17		ita-sample01	XXX.XXX.XXX.BBB	
History	Update	Discard	3	ita-sample-2	16	OP_F	2021/06/09 10:34	2021/06/09 10:34		ita-sample01	XXX.XXX.XXX.CCC	
History	Update	Discard	4	ita-sample01	16	OP_F	2021/06/09 10:34	2021/06/09 10:34		ita-sample01	XXX.XXX.XXX.DDD	

SAMPLE08

History	Update	Discard	No	Host name	Operation					Parameter		
					ID	Operation name	Reference date	Scheduled date for execution	Last execution date	Connection		
										Host	Global	Private
History	Update	Discard	1	ita-sample01	17	OP_NULL	2021/06/08 16:17	2021/06/08 16:17		ita-sample-2		XXX.XXX.XXX.AAA
History	Update	Discard	2	ita-sample-2	17	OP_NULL	2021/06/08 16:17	2021/06/08 16:17		ita-sample01		XXX.XXX.XXX.XXX
History	Update	Discard	3	ita-sample01	16	OP_F	2021/06/09 10:34	2021/06/09 10:34		ita-sample-2		XXX.XXX.XXX.YYY
History	Update	Discard	4	ita-sample-2	16	OP_F	2021/06/09 10:34	2021/06/09 10:34		ita-sample01		XXX.XXX.XXX.CCC

Figure 6.1-4 Comparable parameter sheets

History	Update	Discard	No	Contrast name	Contrast target menu 1	Contrast target menu 2	Match all cases
History	Update	Discard	3	Contrast 05	2100011611:Substitution value:29:Sample07	2100011611:Substitution value:32:Sample08	

Figure 6.1-5 Contrast list setting example

History	Update	Discard	No	Contrast name	Display item name	Target column 1	Target column 2
History	Update	Discard	2	Contrast 05 [29:Sample07-32:Sample08]	IP	2100011611:Substitution value:29:Sample07:23:Parameter/Connection/Global	2100011611:Substitution value:32:Sample08:27:Parame

Figure 6.1-6 Contrast details setting example

- Contrast execution

Figure 6.1-7Contrast execution results

Since the pulldown reference destination is different from each other, patterns like ※1 and ※2 might occur.

※1 If the displayed contents are the same, but the reference destinaton's no. is the same, it will be considered as being different.
※2 If the reference destination's no. is different, but the contents are the same, it will not be considered as being different.