



# **IT Automation Conductor 【Practice】**

※In this document, “Exastro IT Automation” is described as “ITA”.

Version1.5

Exastro developer

# Table of contents

## 1. Introduction

1. About this document

## 2. Conductor

1. Scenario
2. Preparation work

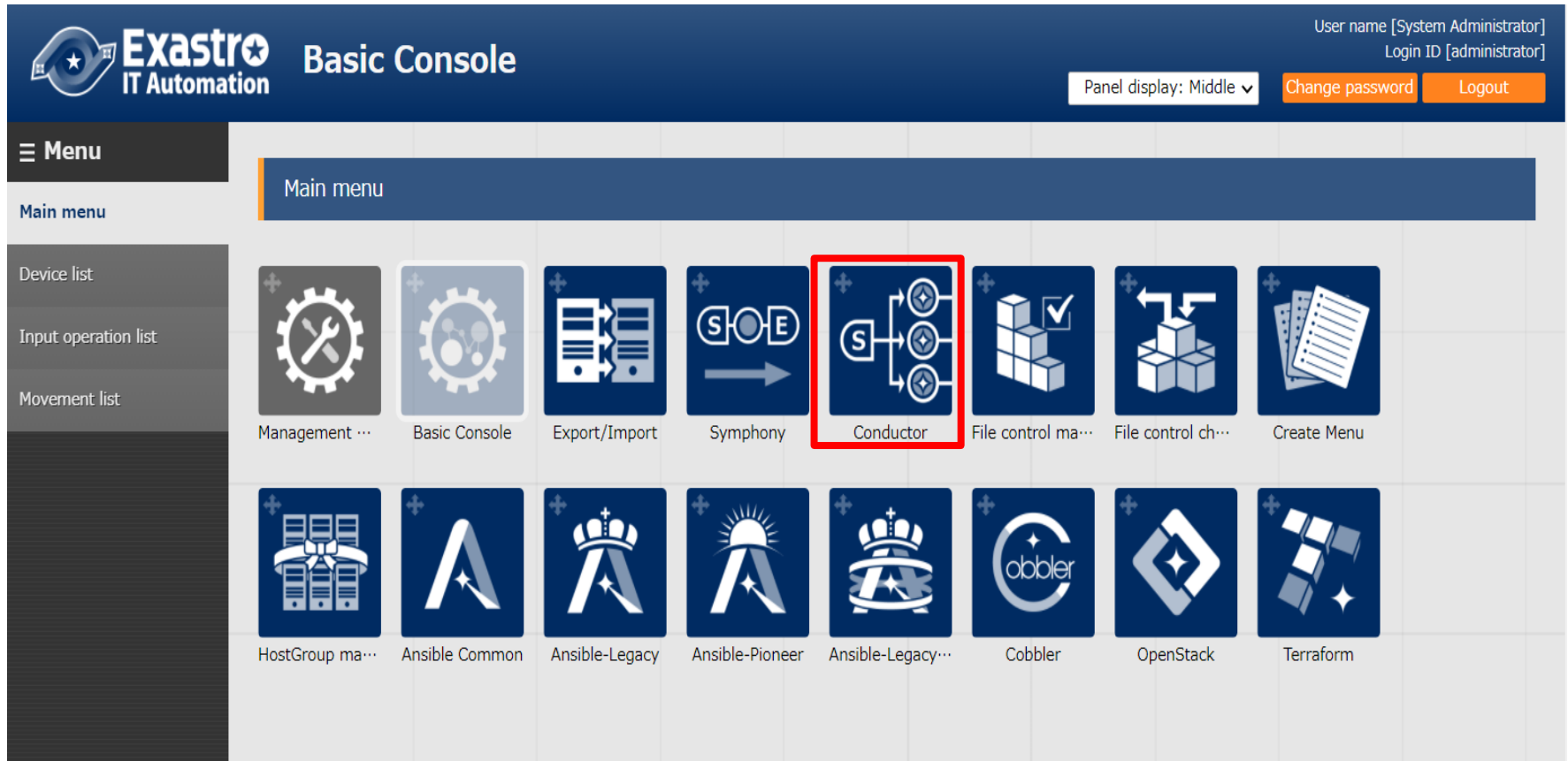
## 3. Practice

1. Register Target host
2. Register operation
3. Register IaC
4. Register Movement
5. Register Movement details
6. Register Host and Movement connected to the operation
7. Substitution value list
8. Register Conductor
9. Conductor execution
10. Conductor confirmation

# 1. Introduction

# 1.1 About this document

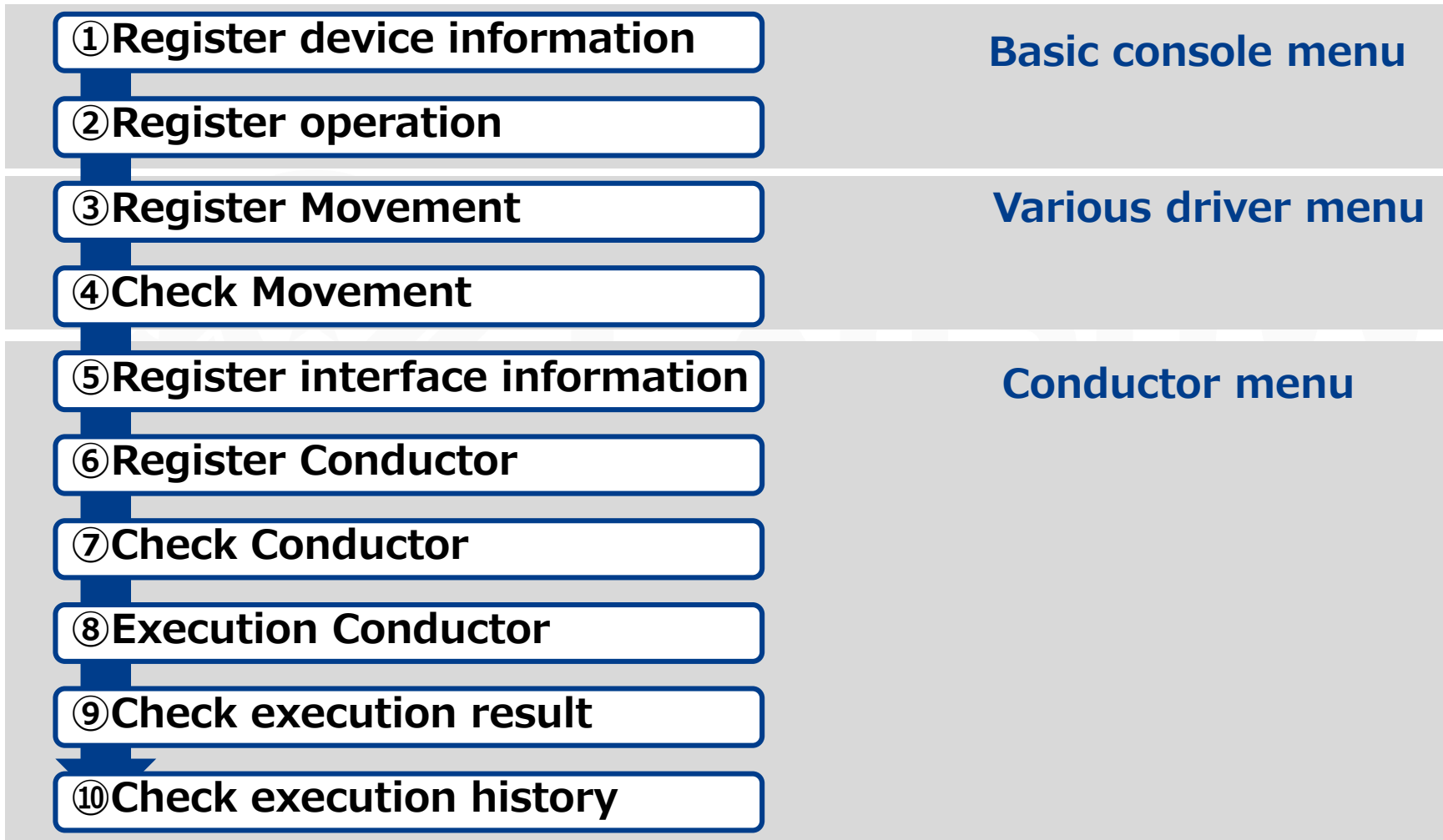
- The "**Conductor**" menu group is explained in this document.



## 2. Description about Conductor

## 2.1 Scenario (1/2)

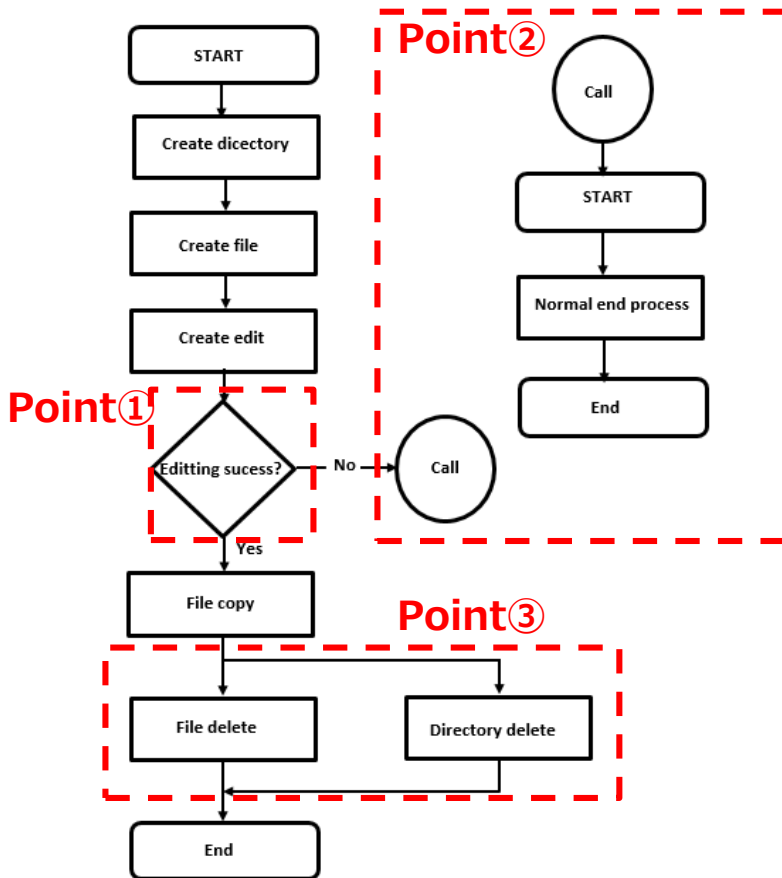
- Scenario flow is as follows.
- Ansible driver is required to proceed with the scenario, so in this scenario, we will explain using Ansible-Legacy.



## 2.1 Scenario (2/2)

- In order to experience the Conductor functions in this document, we will create a Conductor similar to the following flowchart.

### ● Flowchart



### □ Features of Conductor function

#### □ Point ①

Conditional branch function according to the success/end judgment of pre-processing.

#### □ Point ②

Registered Operation/Conductor Call function.

#### □ Point ③

Movement parallel processing function.

## 2.2 Preparation work

### ●Create IaC(1/2)

In this scenario, Ansible-Legacy is explained with the use of an example.  
Save the following **IaC as an yml file for each module.**

※Character code is "UTF-8", Newline code is "LF", file name extension is "yaml"format.  
Please be careful about indents.

```
- name: create directory
  file:
    path=/tmp/{{ VAR_dir_name_1 }}
    state=directory
    mode=0755

- name: remove directory
  file:
    path=/tmp/{{VAR_dir_name_1 }}
    state=absent

- name: create file
  file:
    path=/tmp/{{VAR_dir_name_1 }}/{{VAR_file_name }}
    state=touch
    mode=0755
```



## 2.2 Preparation work








### ● Create IaC(2/2)

Similarly, save the following **IaC as yaml files** for each module.

- name: remove file  
file:  
  path=/tmp/{{VAR\_dir\_name\_1 }}/{{VAR\_file\_name }}  
  state=absent
- name: copy file  
copy:  
  src=/tmp/{{VAR\_dir\_name\_1 }}/{{VAR\_file\_name }}  
  dest=/tmp/{{VAR\_dir\_name\_2 }}/{{VAR\_file\_name }}  
  owner=root  
  group=root  
  mode=0644
- name: edit file  
copy:  
  dest=/tmp/{{VAR\_dir\_name\_1 }}/{{VAR\_file\_name }}  
  content= {{VAR\_edit\_param\_1 }}
- name: forced termination  
fail: msg={{VAR\_message\_text }}



### ● Created image

Name	Update date/time	Type	Size
 copy_file.yml	2020/10/30 9:55	YML file	1 KB
 create_directory.yml	2020/10/30 9:55	YML file	1 KB
 create_file.yml	2020/10/30 9:55	YML file	1 KB
 edit_file.yml	2020/10/30 9:55	YML file	1 KB
 forced_termination.yml	2020/10/30 9:55	YML file	1 KB
 remove_directory.yml	2020/10/30 9:55	YML file	1 KB
 remove_file.yml	2020/10/30 9:55	YML file	1 KB

## 3. Practice

## 3.1 Register Target host

### ●Register Target host

"Basic Console" menu group >> "Device list" menu >> "Register" submenu >> "Start register" button.

- ① Enter the following "Host name", "IP address", "Login ID", "Management", "Login password" and "Authentication method".
- ② Click "Register" button.

Register

Managed system item number	Host name *	IP address *	EtherWakeOnLan	
			MAC address	Network device name
Auto-input	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

※\* is a required item.

Back Register

**1** Enter value for the item

Item	Value
Host name	testserver
IP address	(Optional value)
Login ID	(Optional value)
Management	●
Login password	(Optional value)
Authentication method	Password authentication

**POINT**

**2**

This scenario assumes that you want to have a ssh password connection to the Target host. Please enter "IP Address", "Login ID", "Login password" appropriate to the settings set in the users environment.

## 3.2 Register operation

### ●Register operation

"Basic Console" menu group >> "Input list" menu >> "Register" submenu  
>> "Start register" button.

- ① Enter "Operation name", "Schedule date for execution".
- ② Click "Registration" button.

Register

No.	Operation ID	Operation name*	Scheduled date for execution*	Remarks
Auto-input	Auto-input	<input type="text"/>	<input type="text"/>	

※\*is a required item.

Back Register

**1**  
Enter value for item

Item	Value
Operation name	operation1
Schedule date for execution	(Optional date/time)

POINT

The process will not be executed at the date and time specified here.

## 3.3 Register IaC (1/2)

### ●Register IaC

"Ansible-Legacy" menu group >> "Playbook files" menu >> "Register" submenu  
>> "Start register" button.

- ① Input "Playbook file name".  
Click the "Reference" button in the "Playbook files" column.  
**Upload all previously created yml files.**  
(Click "upload in Advance" button)
- ② Click "Registration" button.

Exastro IT Automation Ansible-Legacy

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

Menu

- Main menu
- Movement list
- Playbook files
- Movement details
- Substitution value auto-registration setting
- Target host
- Substitution value list
- Execution
- Check operation status
- Execution list

Description ▾Open

Display filter ▾Open

List/Update ▾Open

Register ▲Close

Playbook ID: Auto-Input

Playbook name:

Playbook files: Chosse File No file chosen

Upload in advance

Upload status:

\* is a required item.

Back Register

Enter value for item

Item	Value
Playbook file name	<Optional>
Playbook file	<Optional> .yml

POINT

Please refer to "2.2 Pre-preparation".  
For more information on how to  
create IaC.

## 3.3 Register IaC (2/2)

### ●Register IaC

The resulting image is as follows.

List/Update △Close

Update	Discard	Playbook ID	Playbook name	Playbook files	Remarks	Last update date/time	Last updated by
Update	Discard	1	mkdir	<a href="#">mkdir.yml</a>		2020/09/01 11:42:28	System Administrator
Update	Discard	3	Sample1	<a href="#">Sample1.yml</a>		2020/10/19 13:11:33	System Administrator
Update	Discard	4	Sample2	<a href="#">Sample2.yml</a>		2020/10/21 09:19:01	System Administrator
Update	Discard	5	Sample3	<a href="#">Sample3.yml</a>		2020/10/21 09:19:21	System Administrator

Filter result count: 4

Output Excel

## 3.4 Register Movement (1/2)

### ● Register Movement

"Ansible-Legacy" menu group >> "Movement list" menu >> "Register" submenu >> "Start register" button.

- ① Input "Movement name" , "Host specific format".
- ② Click "Register" button.

The screenshot shows the Exastro Ansible-Legacy web interface. The sidebar menu on the left includes options like 'Menu', 'Main menu', 'Movement list', 'Playbook files', 'Movement details', 'Substitution value auto-registration setting', 'Target host', 'Substitution value list', 'Execution', 'Check operation status', and 'Execution list'. The main content area displays the 'Register' movement registration form. A red box labeled '1' highlights the 'Register' button in the sidebar menu. A red box labeled '2' highlights the 'Register' button at the bottom of the form. A red box labeled 'POINT' highlights the 'Register' button at the bottom of the form. A red box labeled '1' highlights the 'Register' button in the sidebar menu. A red box labeled '2' highlights the 'Register' button at the bottom of the form. A red box labeled 'POINT' highlights the 'Register' button at the bottom of the form.

**Set the value for item**

Item	Value
Movement name	<Optional>
Host specific format	IP

※\*is a required item.

Back Register

**POINT** Please create the same number of Movements as the yml file.

## 3.4 Register Movement (2/2)

### ● Register Movement

The image after register is as follows.

List/Update △Close

Update	Discard	Movement ID	Movement Name	Orchestrator	Delay timer	Dedicated information for ansible			Last update date/time	Last updated by
						Host specific format	WinRM connection	Header section		
Update	Discard	1	Legacy1	Ansible Legacy		IP			2020/08/26 18:07:00	System Administrator
Update	Discard	3	Legacy_movement	Ansible Legacy		IP			2020/10/07 10:24:32	System Administrator
Update	Discard	5	Move1	Ansible Legacy		IP			2020/10/21 09:32:49	System Administrator
Update	Discard	7	Set Timezone	Ansible Legacy		IP			2020/10/22 09:55:55	System Administrator
Update	Discard	8	Set Hostname	Ansible Legacy		IP			2020/10/23 15:59:22	System Administrator
Update	Discard	9	Add Nameserver	Ansible Legacy		IP			2020/10/22 09:56:34	System Administrator

Filter result count: 6

Output Excel



## 3.5 Register Movement details (1/2)

### Register Movement details

"Ansible-Legacy" menu group >> "Movement details" menu >> "Register" submenu >> "Start register" button.

- ① Input "Movement", "Playbook files" and "Include order"
- ② Click "Register" button.

Exastro IT Automation Ansible-Legacy

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

Menu

- Main menu
- Movement list
- Playbook files
- Movement details

Substitution value auto-registration setting

Target host

Substitution value list

Execution

Check operation status

Execution

Description ▾Open

Display filter ▾Open

List/Update ▾Open

Register △Close

Associated item No.	Movement*	Playbook files*	Include order*	Remarks	Last update date/time	Last updated by
Auto-input	<input type="text"/>	<input type="text"/>	<input type="text"/>		Auto-input	Auto-input

※\* is a required item.

[Back](#) [Register](#)

Set the value for item

Item	Value
<b>Movement</b>	Select the create Movement
<b>Playbook file</b>	Select the register playbook
<b>Include order</b>	1

POINT

Please create the same number of yml files as registered movement information.

## 3.5 Register Movement details (2/2)

### ● Register Movement details

The image after register is as follows.

List/Update								△Close
Update	Discard	Associated item No.	Movement	Playbook files	Include order	Remark	Last update date/time	Last updated by
Update	Discard	1	1:Legacy1	mkdir	1		2020/10/15 10:23:20	System Administrator
Update	Discard	2	Exchange ID has failed(2)	Exchange ID has failed(2)	1		2020/10/05 14:46:54	System Administrator
Update	Discard	3	3:Legacy_movement	Exchange ID has failed(2)	1		2020/10/07 10:29:00	System Administrator
Update	Discard	4	5:Move1	Sample1	1		2020/10/21 09:39:38	System Administrator

Filter result count: 4

Output Excel

## 3.6 Register Movement and Host connected to the operation

### ●Register Movement and Host connected to the operation

"Ansible-Legacy" menu group >> "Target host" menu >> "Register" submenu >> "Start register" button.

- ① Input "Operation" , "Movement" and "Host".
- ② Click "Register" button.

The screenshot shows the Exastro Ansible-Legacy web interface. On the left is a sidebar menu with options like 'Main menu', 'Movement list', 'Playbook files', 'Movement details', 'Substitution value auto-registration setting', 'Target host', 'Substitution value list', 'Execution', 'Check operation status', and 'Execution list'. The main content area has a 'Register' button highlighted in the top navigation bar. Below it, there is a form with three columns: 'Item No.', 'Operation\*', 'Movement\*', and 'Host\*'. The 'Item No.' column contains 'Auto-input'. The 'Operation\*', 'Movement\*', and 'Host\*' columns each have a dropdown menu. A red box highlights the entire form area. Below the form, there are two buttons: 'Back' and 'Register'. A red box highlights the 'Register' button. A red circle with the number '1' points to the form area, and a red circle with the number '2' points to the 'Register' button.

POINT

Please register all the created Movements.

1

Set the value for item

Item	Value
Operation	operation1
Movement	Created Movement
Host	testserver

2

## 3.7 Substitution value list(1/2)

### ●Substitution value list

"Ansible-Legacy" menu group >> "Substitution value list" menu >> "Register" submenu >> "Start register" button.

- ① Input "Operation" , "Movement" , "Host" , "Variable name" and "Specific value".
- ② Click "Register" button.

The screenshot displays the 'Ansible-Legacy' interface with a sidebar menu on the left. The 'Substitution value list' menu item is selected, leading to a 'Register' submenu item, which is highlighted with a red circle and the number '1'. Below this, a form is shown with a red border. The form has a table with the following columns: 'Item No.', 'Operation\*', 'Movement', 'Host', 'Variable name', and 'Specific value'. The first row is labeled 'Auto-input' and contains dropdown menus for 'Operation' (set to '1:Operation1'), 'Movement', 'Host', and 'Variable name', followed by a text input field for 'Specific value'. Below the table, there is a note: '※\* is a required item.' and two buttons: 'Back' and 'Register'. The 'Register' button is highlighted with a red circle and the number '2'.

Item No.	Operation*	Movement	Host	Variable name	Specific value
Auto-input	1:Operation1				

※\* is a required item.

Back Register

## 3.7 Substitution value list (2/2)

### ●Substitution value list

Please use the list below for registering substitute values.

Operation	Host	Variable name	Specific value	Substitution order
1:operation1	1:Testserver	3:copy_file:1:VAR_dir_name_1	dir1	
1:operation1	1:Testserver	3:copy_file:2:VAR_file_name	dir2	
1:operation1	1:Testserver	3:copy_file:3:VAR_edit_param_1	testfile	
1:operation1	1:Testserver	4:create_directory:4:VAR_dir_name_1	dir1	
1:operation1	1:Testserver	5:create_file:5:VAR_dir_name_1	dir1	
1:operation1	1:Testserver	5:create_file:6:VAR_file_name	testfile	
1:operation1	1:Testserver	6:edit_file:7:VAR_dir_name_1	dir1	
1:operation1	1:Testserver	6:edit_file:8:VAR_file_name	testfile	
1:operation1	1:Testserver	6:edit_file:9:VAR_edit_param_1	param1	
1:operation1	1:Testserver	7:forced_termination:10:VAR_message_text	testmsg_fail	
1:operation1	1:Testserver	8:remove_directory:11:VAR_dir_name_1	dir1	
1:operation1	1:Testserver	9:remove_file:12:VAR_dir_name_1	dir1	
1:operation1	1:Testserver	9:remove_file:12:VAR_dir_name_1	testfile	

## 3.8 Register Conductor (1/7)

### ●Register Conductor

Input "Conductor name" in the Conductor menu group>> Conductor Class edit.

- ① Drag and drop "Movements" and "Functions" displayed from the right side of the screen to center of the screen.
- ② Click "Registration" button.

Enter value for item

Item	Value
Name	Conductor_1

1

Drag and drop

2

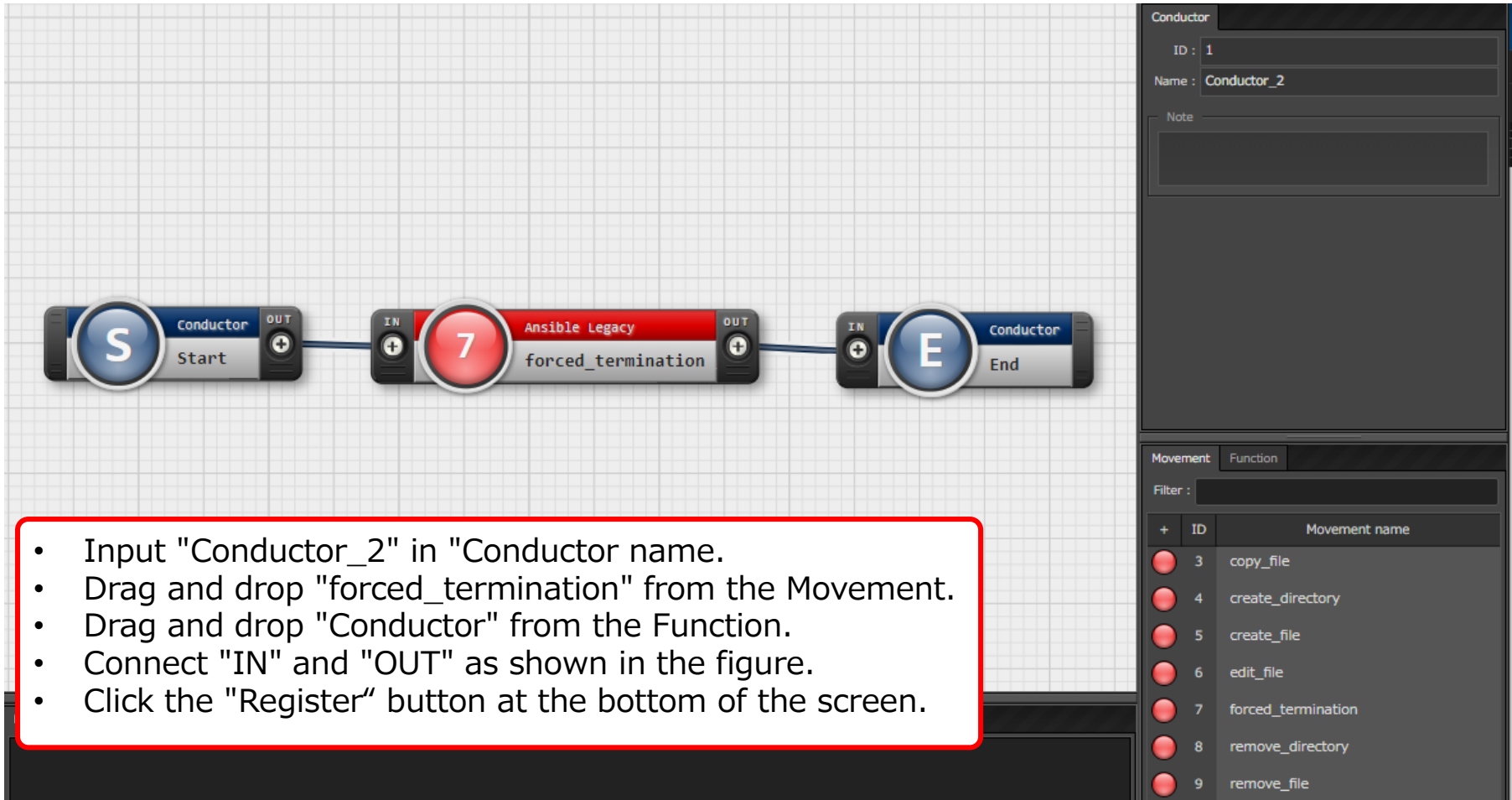
3

※ The Conductor to be created is on the next page.

## 3.8 Register Conductor(2/7)

### ●Register Conductor

Please create the Conductor as shown the figure below.



The screenshot displays the Exastro interface. On the left, a workflow is shown on a grid background, consisting of three components connected in a sequence: a 'Start' conductor (blue circle with 'S'), a 'forced\_termination' movement (red circle with '7' and 'Ansible Legacy' text), and an 'End' conductor (blue circle with 'E'). The 'Start' conductor has an 'OUT' port, and the 'forced\_termination' movement has an 'IN' port and an 'OUT' port. The 'End' conductor has an 'IN' port. On the right, a sidebar shows the 'Conductor' configuration panel with 'ID : 1' and 'Name : Conductor\_2'. Below this is a 'Movement' panel with a 'Filter' input and a table of movements.

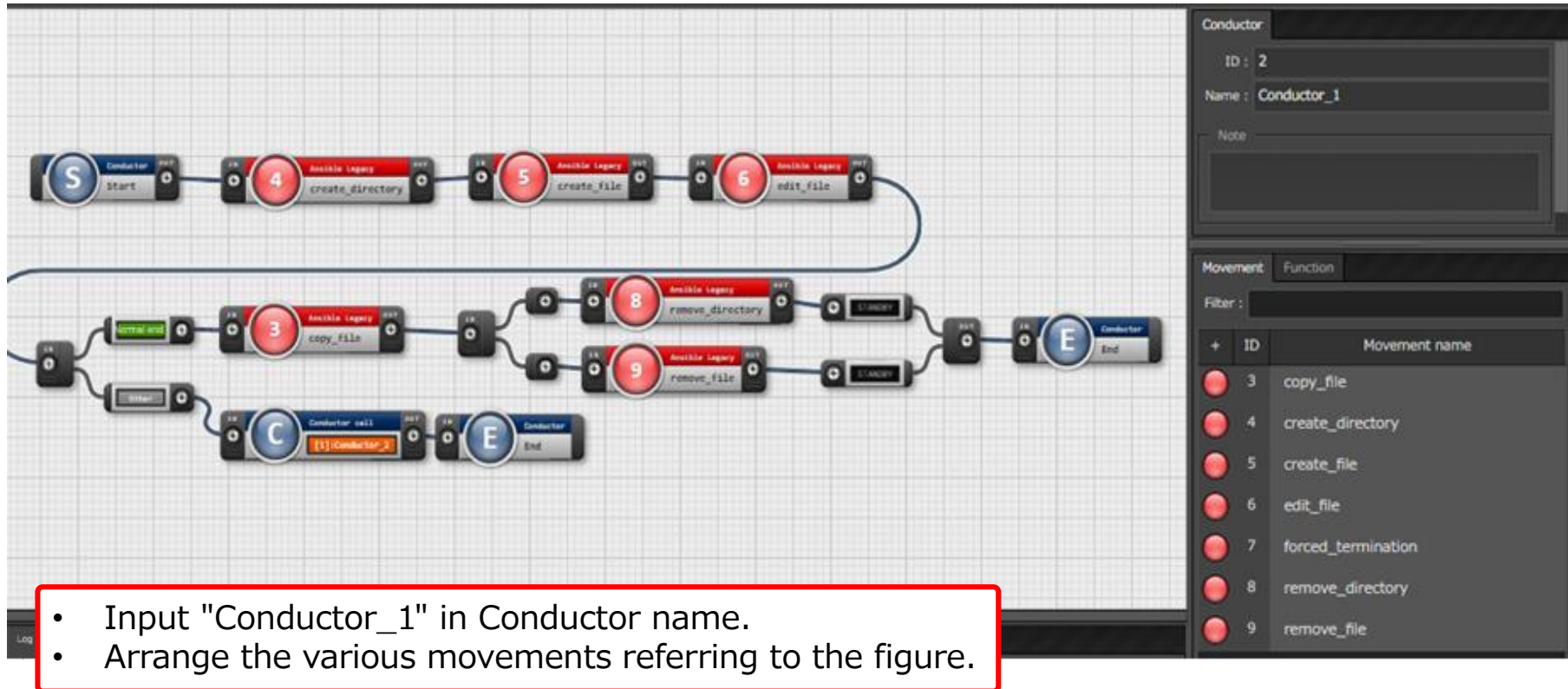
	+	ID	Movement name
	●	3	copy_file
	●	4	create_directory
	●	5	create_file
	●	6	edit_file
	●	7	forced_termination
	●	8	remove_directory
	●	9	remove_file

- Input "Conductor\_2" in "Conductor name."
- Drag and drop "forced\_termination" from the Movement.
- Drag and drop "Conductor" from the Function.
- Connect "IN" and "OUT" as shown in the figure.
- Click the "Register" button at the bottom of the screen.

## 3.8 Register Conductor(3/7)

### ●Register Conductor

The overall view of the created Conductor is as follows.  
The details are explained on the next pages.

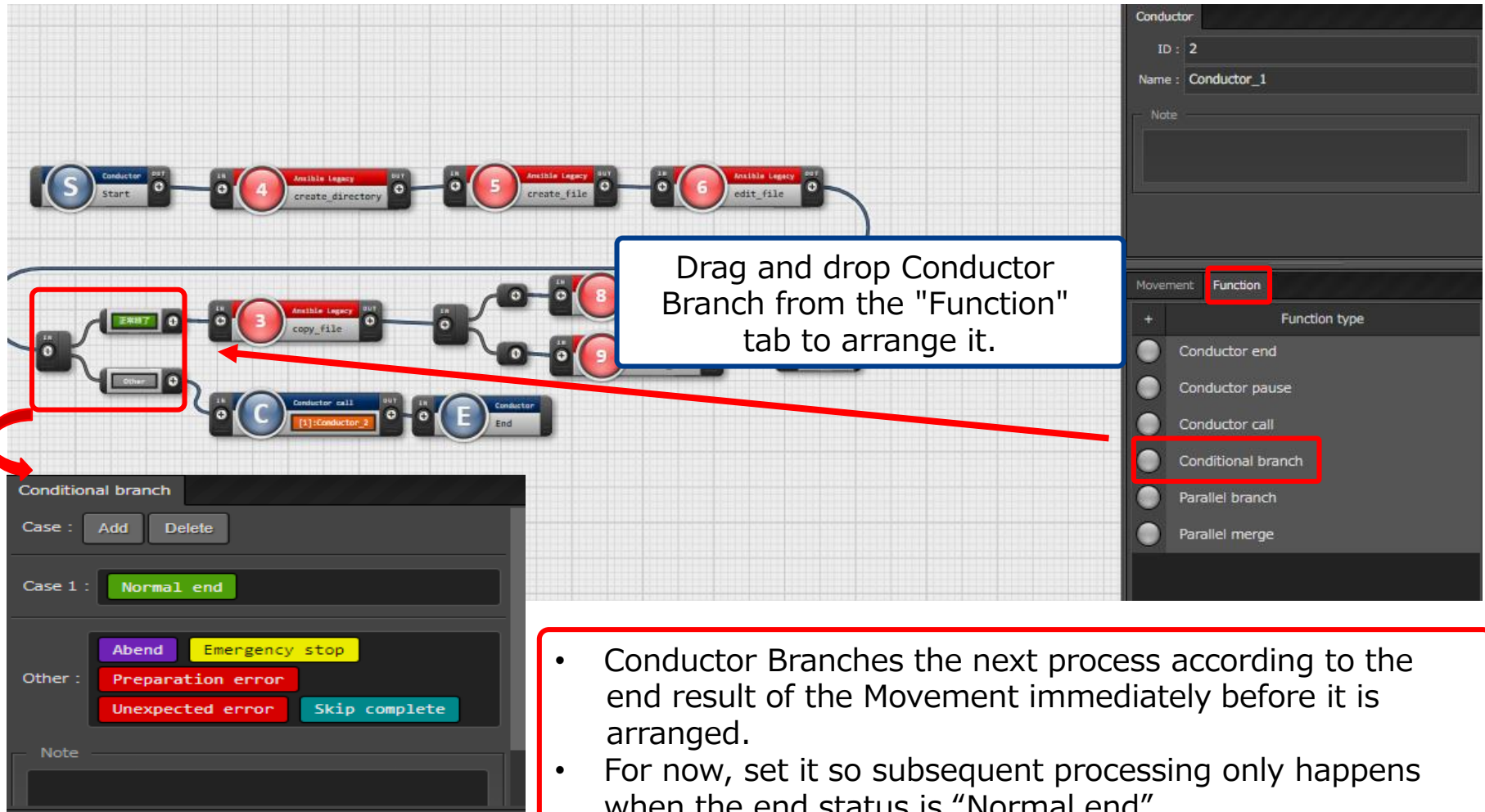




## 3.8 Register Conductor(4/7)

### ●Register Conductor

Please create the Conductor as shown the figure below.



## 3.8 Register Conductor (5/7)

### ● Register Conductor

Please create the Conductor as shown in the figure below.

Drag and drop Conductor Call from the "Function" tab to arrange it.

Conductor call configuration:

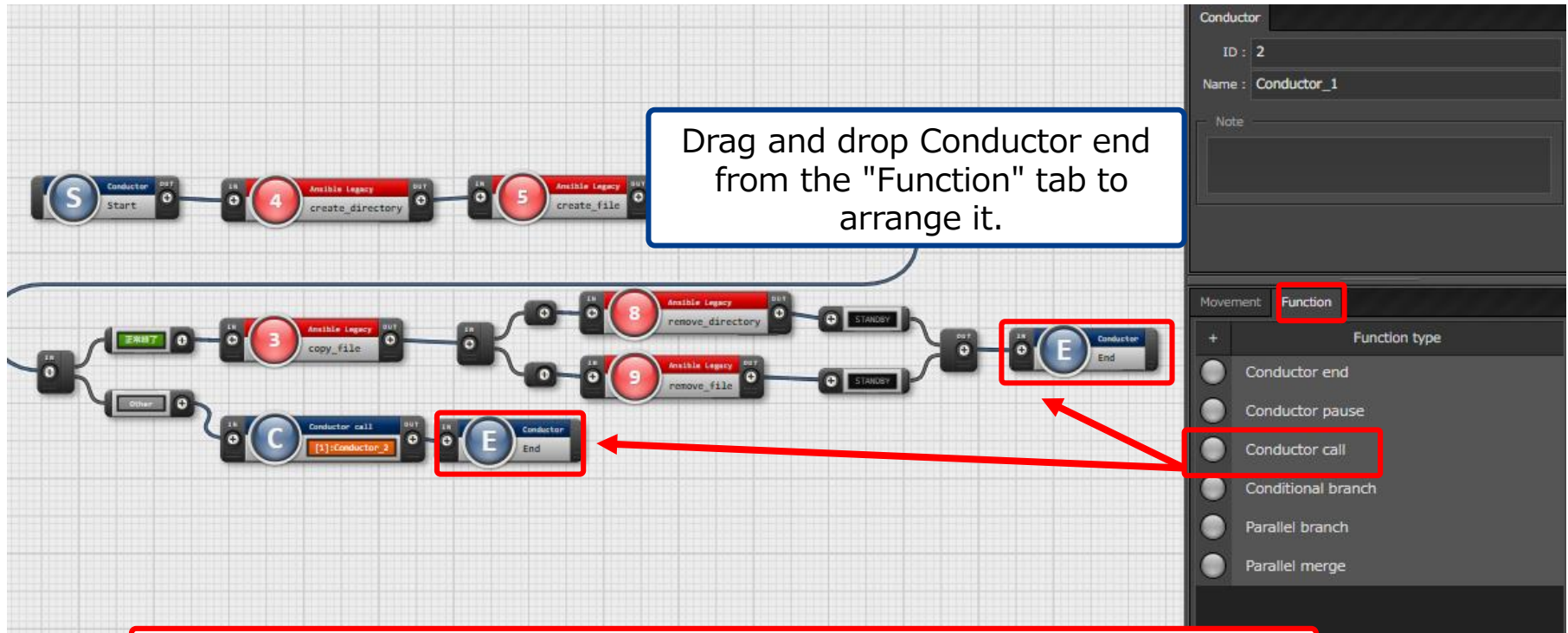
- Default skip: ☐
- Conductor select: [1]:Conductor\_2
- Operation select: Conductor call

- "Conductor call" can call in and execute previously set Conductors and Operations.
- Specify the previously created Conductor\_2.

## 3.8 Register Conductor (6/7)

### ● Register Conductor

Please create the Conductor as shown in the figure below.

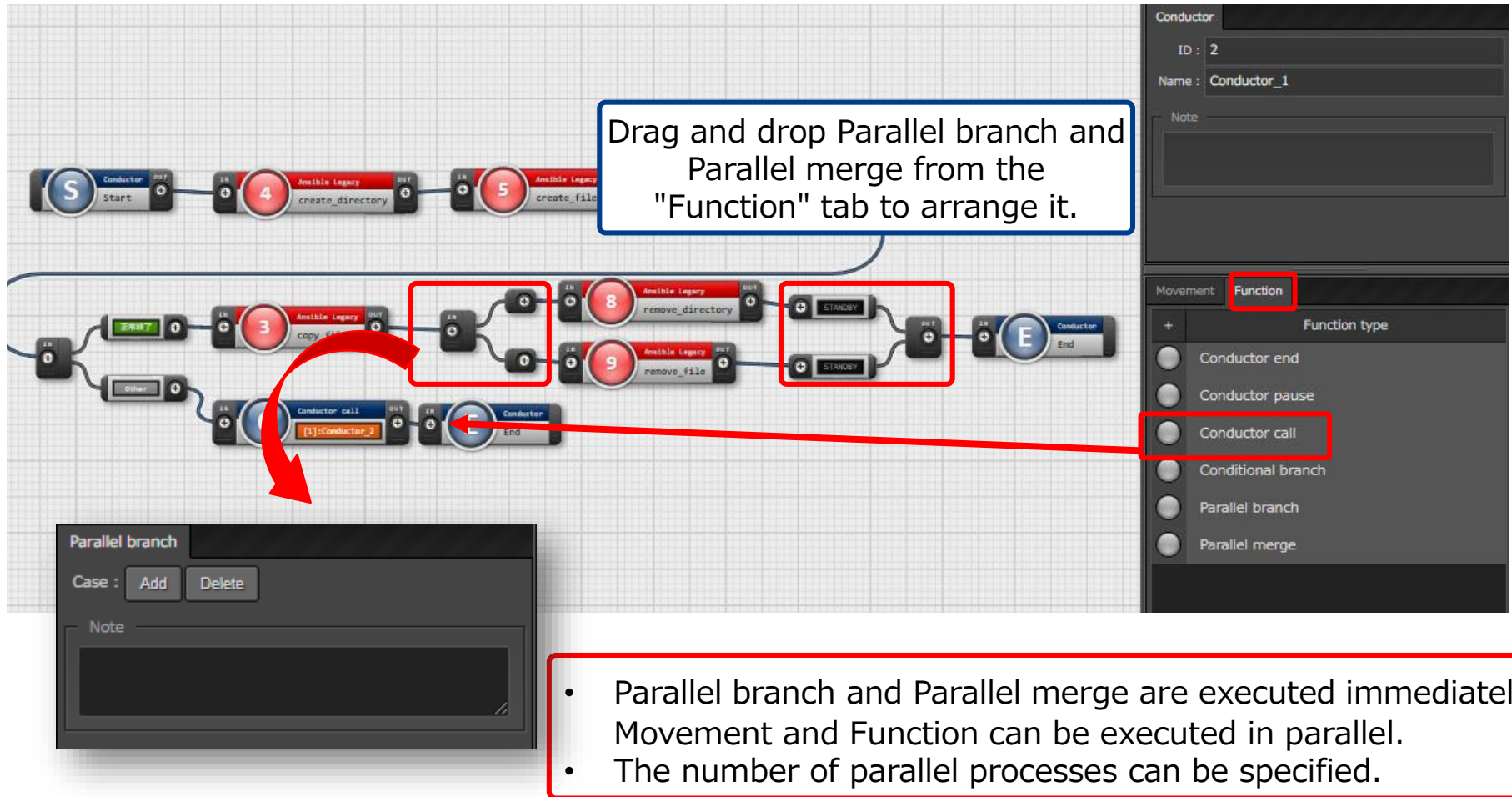


- Conductor end is a function that arranges conductors after processing.
- It is also arranges the branch processing introduced in (5/7).

## 3.8 Register Conductor (7/7)

### ● Register Conductor

Please create the Conductor as shown the figure below.





## 3.9 Conductor execution

### ●Conductor execution

"Conductor" menu group >> "Conductor execution" menu.

- ① Determine the execution date and time from the "Schedule date/time" item in the "Conductor [list]" submenu.
- ② Select "Conductor\_1" in the "Conductor name" , "Conductor [List]" submenu items.
- ③ Select "operation" in the "operation name" , "operation [list]" submenu items.
- ④ Click the "Execute" button.

The screenshot shows the Exastro Conductor execution interface. It includes a 'Description' section, a 'Scheduling' section with a 'Specify the scheduled date/time in (YYYY/MM/DD)' field, and a 'Conductor [filter]' section. Below these are three submenus: 'Conductor [List]', 'Operation [Filter]', and 'Operation [List]'. A red box highlights the 'Schedule date/time' field in the 'Scheduling' section, with a red circle and the number '1' next to it. Another red box highlights the 'Conductor name' field in the 'Conductor [List]' submenu, with a red circle and the number '2' next to it. A third red box highlights the 'Operation name' field in the 'Operation [List]' submenu, with a red circle and the number '3' next to it. A fourth red box highlights the 'Execute' button at the bottom right, with a red circle and the number '4' next to it. The background shows a complex flowchart diagram with various nodes and connections.

Item	Value
Schedule date/time	Optional

Item	Value
Conductor name	Conductor_1

Item	Value
Operation name	Operation_1

## Conductor confirmation

- 
- The screenshot shows the 'CHECKING' tab in the DME console. The workflow diagram includes nodes for 'Start', 'create\_directory', 'create\_file', 'edit\_file', 'copy\_file', 'remove\_directory', 'remove\_file', and 'End'. A red box highlights the 'create\_directory' node, and a red arrow points from it to the 'Target Operation' panel on the right. The panel displays details for the 'move' operation, including its ID, name, status, and execution engine.

```
Progress status(Execution log)

Filter :  ☐ Display only corresponding lines

{
  "rotate_spec": null,
  "selevel": null,
  "serole": null,
  "setype": null,
  "spuser": null,
  "src": null,
  "state": "directory",
  "unsafe_writes": null
}
},
"mode": "0755",
"owner": "root",
"path": "/root/test",
"size": 0,
"state": "directory",
"uid": 0
}
META: ran handlers
META: ran handlers
RAW: escan *****
4
```



**Exastro**