

# ITA\_User\_Manual

**Collect function** 

-Ver 1.7 -

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% Exastro IT Automation jis written as ITA jin this document.

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# Introduction

This document explains the ITA Collect function and how to use it.

# 1 Collect function overview

This section explains the collect function.

## 1.1 About the collect function

The collect function automatically registers values to parameter sheets. The values are based on the results of executed operations (source files output in a specified format) in ITA.

This function uses Ansible-Driver as target.

For more information about Ansible, please refer to the Ansible product manual For more information about Ansible-Driver, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_Ansible-Driver" For more information about Parameter sheets, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_Menu\_creation\_function".

## 1.1.1 Collect function overview diagram

The following is a diagram that displays the entire process of using the Collect function.



## 1.1.2 Collect function Data registration process overview diagram

The following is a diagram of the Collect function Data registration process.



#### **1.2 Parametersheets registration**

The collect function is an option of ITA and uses ITA's standard REST API function for the Parameter sheet registration process

For more information about the REST API Function, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_RESTAPI"

#### 1.2.3 Collect function requirements

Make sure that the requirements below are met.

- ITA is installed with "Createparam" and "Ansible\_driver" selected. (done in the installer)
- A parameter sheet (with Host/Operation) is created in the Menu definition/creation screen.
- The registration information (source file) is linked to the items in the Parameter sheet in the "Setting value item list"
- The Collection interfance information's REST access information is updated.
- The Collection target device (Host name) is already registered in the device list.

If the executed operations outputs any of the statuses below, it will be registered to the parameter sheet.

- · Operation execution result, the operation has successfully ended.
- Directories and files are arranged in a specific structure as a result of the output of the operation execution.

\*Each user must prepare the IaC(Plabook, Role) that generates source files going to be registered to the parameter sheets.

Reference: Ansible Playbook Collection (OS Setting collection) https://github.com/exastro-suite/playbook-collection-docs/blob/master/README.ja.md

# 2 Handling Directories, File structures and varibles in the Collect

## function.

## 2.1 Collectable Directories and File structures.

## 2.1.1 Collectable File formats

(1) Files output in YAML format.

e.g.)
■File name:RH_snmp.yml
■File contents:
VAR_RH_sshd_config:
<ul> <li>key: PermitRootLogin</li> </ul>
value: yes
- key: PasswordAuthentication
value: no

## 2.1.2 Collectable Directory configuration

The collectable directory path (output destination for the source file) can be handled as the following variable in IaC (Playbook, Role).

ITA original variable	Variable specified contents	Remarks
parameter_dir	「_parameters」Operation result directory path	
parameters_file_dir	「_parameters_file」Operation result directory path	
parameters_dir_for_epc	「_parameters」Operation result directory path	
parameters_file_dir_for_epc	「_parameters_file」Operation result directory path	

#### Table 2-1 Collectable directory ITA Original variables

The upper directory of the collectable directories (parameters) depends on the "Data relay storage path (Ansible", Ansible driver execution mdoe and the No. of the operation.

(The "Data relay storage path (Ansible) can be found in Ansible Common -> Interface information in ITA.)

#### Table 2-2 Collect function target Directory and file hierarchy

Hierarchy structure		Remarks		
【Upper directory】		※1 Collectable directory(Fixed name)		
parameters	<b>※</b> 1	%2Host name		
- localhost	<b>※</b> 2	(Items registered in the device list are		
- SAMPLE.yml	<b>※</b> 3	collectable)		
parameters_file	<b>※</b> 4	3 Collectable file		
- localhost	<b>※</b> 2	%4Collectable directory for file uploads (Fixed		
- test.txt	<b>※</b> 5	name)		
		⋯5 Uploadable file		

%Hierarchical structure after data relay storage path (Ansible)

When creating a playbook that generate source files, not using the "Table 2-1 Collectable directory ITA Original variables" for the output destination will require the user to write the Playbook with the following structure in mind.

Mode	Mode identifier	Hierarchy structure	Remarks
Ansible-	legacy/ns/	/DataRelayStoragePath(Ansible)/legacy/ns/	
Legacy			
Ansible-	pioneer/ns/	/ DataRelayStoragePath(Ansible)/pioneer /ns/	
Pioneer			
Ansible-	legacy/rl/	/ DataRelayStoragePath(Ansible)/legacy/rl/	
LegacyRole			

	Table 2-3	Upper director	y paths for the differe	nt Ansible-Driver modes
--	-----------	----------------	-------------------------	-------------------------

e.g.) Collectable file paths and directory structures

Execution mode: Ansible-Legacy

Operation No : 1

Target host: localhost

Operation execution directory; /DataRelayStoragePath (Ansible)/legacy/ns/000000001/in/ Operation results directory; /DataRelayStoragePath (Ansible)/legacy/ns/0000000001/out/

Collectable file path and directory structures:

/ DataRelayStoragePath (Ansible)/legacy/ns/000000001/in/\_parameters/localhost/SAMPLE.yml

/ DataRelayStoragePath (Ansible)/legacy/ns/000000001/in/\_parameters/localhost/OS/RH\_snmpd.yml

/ DataRelayStoragePath (Ansible)/legacy/ns/000000001/in/\_parameters\_file/localhost/TEST.txt

Or,

/ DataRelayStoragePath (Ansible)/legacy/ns/000000001/out/\_parameters/localhost/SAMPLE.yml / DataRelayStoragePath (Ansible)/legacy/ns/0000000001/out/ parameters/localhost/OS/RH snmpd.yml

/ DataRelayStoragePath (Ansible)/legacy/ns/0000000001/out/\_parameters\_file/localhost/TEST.txt

If the user wants the file upload menu to be collectable, a file with the same name as the value of the source file variable (file name) must be placed under \_parameters\_.

For more information about Collection item value list settings, please refer to "5.1.2 Collection item value list"

As the maximum file size for uploads depends on the server specifications, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_RESTAPI" for more details.

# 2.2 Variable and variable types

The following 3 types of variables can be handled in the Collect function source file.

Туре	Contents	Remarks
	Can have one specific value defined per each variable	
Normalyariable	name.	
	e.g.)	
	VAR_users: root	
	Can have multiple specific values defined per each	
	variable name	
Multiple specific	e.g.)	
value variable	VAR_users:	
	- root	
	- mysql	
	Hierarchical variable.	
	e.g.)	
	VAR_users:	
	- user-name: alice	
	authorized: password	
Multistage		
variable	Member variable names can contain any ascii character	
	excluding the seven characters below. ( '0x20~0x7e can be used)	
	".[]'¥:	
	Keep in mind that there are a few characters that can't be used at	
	the beginning of a variable name unless they are enclosed	
	in quotation marks.For more information, please refer to.	

## Table 2.1 Variables and types

# 3 Collect function console menu

This section explains the ITA Console menu structure

For more information on how to log in to the web console and the basic operations/components of the menu screen, please refer to "Exastro-ITA\_First\_Step\_Guide"

## 3.1 Menu/Screen list

#### ① Ansible common console menu

The Ansible common console menu list is as following.

No	Menu group	Menu/Screen	Description					
		Collection interface	Manage the connection interface information to the server					
1	1 Ansible common console	information	that accesses the ITA standard REST Function.					
			The REST function is used when registering data to					
			parameter sheets.					
		Collected item value list	Set up the connection between the executed operation					
2			output results (Source file) and the parameter sheet items					
			and manages the Collection function parameter sheets.					

## Table 3-1 Common console Menu/screen list

#### 2 Ansible console menu

The list of menus corresponding to the Ansible consoles are as written below.

No	Meni Ansi Cons	u group ble sole		ManulCaroon	Departmention				
NO	Pioneer Legacy Role Legacy		Pioneer	Menu/Screen	Description				
14	0	0	0	Execution list	Manages operation execution history. Refers to the registration status of the parameter sheet and execution log by the Collect function.				

## Table 3-2 Ansible driver console Menu/Screen list

Exastro	Ansible-Legac	yRole				Č	User name [System Login ID Change password	Administrat [administrat Logout
⊒ Menu								
Main menu	Description							⊽Open
Movement list	Display filter							∆Close
Role package list	Discard	Execution No.	Execution type	Status	execution engine	last undate date/time	last undate	ed by
Movement details								
Nested variable maximum iteration count list	Exclude discarded records	▼ Search from pulldown	▼ Search from pulldown	▼ Search from pulldown	▼ Search from pulldov	~	▼ Search from p	pulldown
Substitution value auto- registration setting								
Target host	•							÷
Substitution value list	Filter	Clear filter						
Execution	Auto-filter							
Check operation status								
Formation link	List							△Close
Execution list	RH RH 03200.0	9 Mildenbig 187 2020/11/13-13149-51 2020/11/	7886 status /13 13:58:54 (33.35	Collection stat Collection lo	tus アクセス og アクセス所可に Minister Statistica	6 0-6 5858/11/13/13	n efter Ister Cargaye	18 0 13-57

Figure 3.1-1 Execution list screen

## 4 Collect function user manual

This section describes the how to use the Collect function.

## 4.1 Work flow.

The standard workflow for implementing the Colelct function is as following For details on how to use ITA Ansible-Driver, please refer to Exastro-ITA\_User\_Instruction\_Manual\_Ansible-driver" For details on how to use ITA Basic console, please refer to Exastro-ITA\_User\_Instruction\_Manual\_Basic\_console"

## 4.1.1 Collect function work flow.

The following is the process before using Ansible-Legacy



#### • Workflow and references.

#### ① Create a user for the Collect function.

Register a user for the Collect function in the ITA Management Console - Device list screen. For details on how to register, please refer to "Exastro-ITA User Instruction Manual Management console."

#### ② Create a role for the Collect function

Register a role for the Collect function in the ITA Management Console – Role list screen For details on how to register, please refer to "Exastro-ITA User Instruction Manual Management console."

#### ③ Link role and user

Link the role and user in the ITA Management console – Role/User link screen For details, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_Management\_console."

#### **④** Register Collection interface information

Register the connection information in the Ansible Common console – Collection interface information screen

For details, please refer to "5.1.1 Collection interface information"

#### **(5)** Create Parameter sheet (with host/operation)

Create a parameter sheet in the Menu creation console – Menu definition/creation screen For details, pelase refer to "Exastro-ITA\_User\_Instruction\_Manual\_Menu\_creation\_function"

#### 6 Register Collection item value list.

Register the information that links the source files to the items in the parameter sheet. (Ansible common console – Collection item value list screen) Fore details, please refer to "5.1.2 Collection item value list".

#### **⑦** Prepare Operation

Prepare the Operation to be executed. For details, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_Ansible-Driver", "Exastro-ITA\_User\_Instruction\_Manual\_Symphony" and "Exastro-ITA\_User\_Instruction\_Manual\_Conductor".

#### 8 Execute Operation

Select the execution date/time, input operation, movement and workflow, and start the execution process.

For details regarding execution, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_Ansible-Driver", "Exastro-ITA\_User\_Instruction\_Manual\_Symphony" and "Exastro-ITA\_User\_Instruction\_Manual\_Conductor".

#### **9** Execute Collect function

Initiate the Parameter sheet registration process with the executed operation's operation No. as target for the Collect function.

For details, please refer to "5.3 BackYard contents".

## **(1)** Check Collection status

Ain the operation list screen, (Ansible-Legacy/Ansible-Pioneer/Ansible-LegacyRole), users can check the Collection status of completed operations and download the log file(s). For details, please refer to "5.2.1 Check Collection status"

# 5 Collect function operation explanation

This section explains how to operate the Collect function.

For details on how to register, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_Basic\_console"

## 5.1 Ansible Common console

This section explains how to operate the Ansible Common console.

#### 5.1.1 Collection interface information

(1) Since the ITA's standard REST API is used in this menu, it is required to update the Connection interface information for RESTAPI.

<b>Exastro</b>	Ansible Common	User name [System Ad Login ID [ad	iministrator iministrator
IT Automation		Change password	ogout
≡ Menu			
Main menu	Description	7	7Open
Interface information	Display filter	Ĺ	Close
Ansible tower host list	Discard ID hostname IP RES Last update date/time	Last updated	by
Global variable list	Exclude discarded records 🗸 💦 🗠 👘		
File list	▼ Search from pulldown ▼ Search from pulldown ▼ Search from pulldown ▼ Search from pulldown	▼ Search from pull	down
template list			
Collection interface information	4		•
Collected item value lick	Filter Clear filter		
Concerco nenti vonce inse	Z Auto-filter		
	List	4	Close
	Access period		
	Update Discard ID@ hostname@ IP@ REST user@ REST password REST method@ protocol@ port@ Last update date/ Role to allow	timee Last updated	by 🕀
	1 2013/04/01 10:00:00 4	System Administ	•
	Filter result count: 1		
	Output Excel		
	Download all and edit file uploads	7	7Open
Contact administrator			

Figure 5.1-1 Submenu screen (Collection interface information)

(2) Register Collection interface information with the "List"-"Update" button.

TO	hostname*	tname* IP*		RECT paceword	DEET mothods	protocol*	port*	Access permission		
10			KEST USEI	Kest password	REST MELIIOU			Setting	Role to allow acce	
1	localhost	127.0.0.1		Ģ	IP v	http	80	Setting		
	1									

Figure 5.1-2 Update screen (Collection interface information)

(3) The item list for the Collection interface information is shown below. If the operation was executed with no Collection interface information registered or with multiple records registered, the Collect function will not register any information to the

#### Parameter sheet.

ltem	Description	Input required	Input method	Constraints
Host name	Input host name	0	Manual input	
	Initial value:localhost			
IP	Input IP Address	0	Manual input	
	Initial value:127.0.0.1			
REST user	Input ITA user login ID		Manual input	<b>※</b> 1
REST password	Input ITA user login password		Manual input	
RESTmethod	Choose IP or Host name	0	Choose from	
	• IP		list	
	<ul> <li>Host name</li> </ul>			
Protocol	Input protocol	0	Manual input	
	Initial value:http			
Port	Input port	0	Manual input	
	Initial value:80			
Remarks	Free description field	-	Manual input	

## Table 5.1-1 Registration screen, Item list (Interface information)

%1 Users entered in the "REST user" field will have the following required.

- The role that the user belongs to has to have permission to access the menu items in the created parameter sheet.
- The role linked to the user (in the Menu's role information) has to be "Can Maintain" set to it.

For more information regarding Users, creating Roles and linking them, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_Management\_console."

## 5.1.2 Collection item value list

(1) In the "Collection item value list", set the link between the Colelction items and the items in the parameter sheet.

Exastro	Ansible Comm	ion				<u>en</u>	User name [System Administrator] Login ID [administrator] ange password Logout
⊒ Menu							
Main menu	Description						⊽Open
Interface information	Display filter						∆Close
Ansible tower host list				Collected	d items(FROM)		
Global variable list	Discard					Last update date/time	Last updated by
File list	Exclude discarded records 🗸	~				~	
template list		<ul> <li>Search from pulldown</li> </ul>	<ul> <li>Search from pulldown</li> </ul>	<ul> <li>Search from pulldown</li> </ul>	<ul> <li>Search from pulldov</li> </ul>		<ul> <li>Search from pulldown</li> </ul>
Collection interface information	4						
Collected item value list	Filter	Clear filter					
	Auto-filter						
	List/Update						∆Close
		Collecte	d items(FROM)		Pa	rameter	
	Update Discard ID⇔ Pert	h format  PREFIX (file name)	)⊖ Variable name⊖ M	lember variables	Menu group	Last update date/tim	me⊖ Last updated by⊖
	Update Discard 1 YAHL	TEST	TEST Variable	21	eee11611 Substitution v	alue 2021/02/26 16:49:49	System Administrator
	Filter result count: 1						There outside
	Output Excel						
	- Ouput Excer						
	Register						⊽Open
	Download all and edit file	uploads					⊽Open

Figure 5.1-3 Submenu screen (Collection item value list)

(2) Register Collection item(s) with the "List"-"Start Registration" button.

то		Collected items	(FROM)		Paramete	last undate date/time	lact undated by
10	Perth format*	PREFIX (file name)*	Variable name*	Member variables	Menu group:	Last update date/time	Last updated by
Auto-input	<b></b>					Auto-input	Auto-input
4							

Figure 5.1-4 Registration screen (Collection item value list)

(3) The Collection item value list screen's item list is as follows.

Item		Description	Input required	Input method	Constraints
Collected	Parse format	Select source file format.	0	Select	
items				from list	
(FROM)	PREFIX(File name)	Enter the file name of the source file	0	Manual	<b>※</b> 1
		(Exclude the file extension).		input	
	Variable name	Input variable name	0	Manual	<b>※</b> 1
				input	
	Member variables	Input if the variable is a multilevel		Manual	<b>※</b> 1

#### Table 5.1-1 Registration screen Item list(Collection item value list)

Item		Description	Input required	Input method	Constraints
		variable or if it has multiple concrete		input	
		valies.			
Paramet	Menu group	Select from a list of menus created	0	Select	
er	Menu	by the Menu creation function		from list	
sheet(TO		Group name: Menu name			
)	Item	Select item.	0	Select	
				from list	

%1 Example of file name, variable and member value input value

e.g.) If the variable has a no	ormal variable structure.
■File name:SAMPLE.yml	
■File contents	
VAR_sample_config_1: yes	
VAR_sample_config_2: test	_parameter
■Values that can be input in	the Collected item (from) in the Collected value item list.
PREFIX(File name):	SAMPLE
Variable name:	VAR_sample_config_1
	VAR_sample_config_2

e.g.) If the variable has a m	ultiple variable structure.
■File name:SAMPLE_2.ym	l
File contents	
VAR_sample2_conf:	
SAMPLE1	
SAMPLE2	
SAMPLE3	
■Values that can be input ir	the Collected item(from) in the Collected value item list.
PREFIX(File name):	SAMPLE_2
Variable name:	VAR_sample2_conf
Member variables:	[0]
	[1]
	[2]

e.g.) If the variables has M ■File name : RH_sshd.yml ■File contents VAR_RH_sshd_config:	ultiple specific value structure.
<ul> <li>key: PermitRootLogin value: yes</li> </ul>	
<ul> <li>key: PasswordAuthenti value: no</li> </ul>	cation
■Values that can be input in	n the Collected item(from) in the Collected value item list.
PREFIX(File name):	KH_SSNU
Member variables:	[U].Key
	[1].Key
	[1].value
e.g.) If the variable has Mu	Itiple specific value structure 2
■File contents	
VAR RH snmnd info	

sec\_name: "testsec" source: "192.168.1.0/24" community: "public"
sec\_name: "local"

source: "localhost" community: "private"

■Values that can be input in the Collected item(from) in the Collected value item list.

PREFIX(File name):	RH_snmp
Variable name:	VAR_RH_snmp_config:
Member variables:	com2sec[0].sec_name
	com2sec[0].source
	com2sec[0].community
	com2sec[1].sec_name]
	com2sec[1].source
	com2sec[1].community

## 5.2 Ansible-Legacy, Ansible-Pioneer, Ansible-LegacyRole Console

## 5.2.1 Check Collection status

It is possible to check the status of completed operations and download the log files in each console's (Ansible-Legacy/Ansible-Pioneer/Ansible-Legacy role) Execution list screen.

	Ansible-Legac	yRole				9	User name [System Adm Login ID [adm nange password Lo	ninistrato ninistrato gout
⊒ Menu								
Main menu	Description							Open
Movement list	Display filter						۵۵	Close
Role package list								
Movement details	Discard	Execution No.	Execution type	Status	execution engine	Last update date/time	Last updated b	У
Nested variable maximum iteration count list	Exclude discarded records 🗸	✓ Search from pulldown	▼ Search from pulldown	▼ Search from pulldown	▼ Search from pulldov	~	▼ Search from pullde	own
Substitution value auto- registration setting								
Target host	•							÷
Substitution value list	Filter	Clear filter						
Execution								
Check operation status	List						۵	Close
Execution list	RH R1 0200.0	9 MINGEND 9 NO.	四時 status 11 13 5時 54 Complete	Collection stat	tus アクセス pg アクセス所可の 2011年 2人5月5日日	■ → ↓ ● ■ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	10 ERRIA 1112 GRAZ/CZ-	77

#### Figure 5.2-1 Execution list screen

ltem	Description	Remarks				
Status	Collection function execution status	*				
	Not target; Not a Collect function target (No target					
	file)					
	Collected: Collect function executed.					
	Collected (with notification): If any errors occurred					
	during registration/update.					
Collection log	Download the collect function execution log.					

#### Table 5.2-1 Execution list Collection status details

#### Table 5.2-2 Collection status details

Operati	on status	Collect	Collection status		
Status	Target file	function target	Status	Collection log	Remarks
Other than	No	Not target	Blank	Blank	
Complete					
Other than	Yes	Not target	Blank	Blank	

Operation status		Collect	Collection status		
Status	Target file	function target	Status	Collection log	Remarks
Complete					
Complete	No	Target	Not target	Blank	
Complete	Yes	Target	Collected	With log file	
Complete	No	Target	Collected (with	With log file	
			notification)		

%Regarding Status notations

- If the Operation status shows "Not complete", the collection status will not be updated because it is not subject to the Collect function. Therefore, it will remain as "Blank"
- If the operation status shows as "Complete" and there are no files to collect, the status will show as "Collected" and the collection log will be blank.
- Even if the RESTAPI registration process fails during collecting the "Collection interface information", Settings item value list" or "Menu access rights/permission roles", the collection will show as "Complete (with notification)".

Example of Log file output contents.

e.g.)Example of Log file output contents (Registration process succeeded) 2020-11-13 13:51:02 Collect START ( Host name:ita-sample File name:RH\_snmpd ) 2020-11-13 13:51:02 REST DATA ( Host name: ita-sample Menu ID: 0000000004 Operation NO: 1 ) Array

(

[0] => http://127.0.0.1:80/default/menu/07\_rest\_api\_ver1.php?no=0000000004

[1] => [["更新","","3","ita-sample","","","","","2023¥/10¥/26 16:35\_1:OP001","Root <root@localhost> (configure ¥/etc¥/snmp¥/snmp.local.conf)","Unknown (edit

¥/etc¥/snmp¥/snmpd.conf)","public","notConfigUser","","","T\_20201111115557819037",""]]

[2] =>

{"status":"SUCCEED","resultdata":{"LIST":{"NORMAL":{"register":{"name":"¥u767b¥u9332","ct":0},"update ":{"name":"¥u66f4¥u65b0","ct":1},"delete":{"name":"¥u5ec3¥u6b62","ct":0},"revive":{"name":"¥u5fa9¥u6d3 b","ct":0},"error":{"name":"¥u30a8¥u30e9¥u30fc","ct":0}},"RAW":[["000","200",""]]}}

2020-11-13 13:51:02 Collect END ( Host name:ita-sample File name:RH\_snmpd )

[2] =>

{"Error":"¥u30e1¥u30f3¥u30c6¥u30ca¥u30f3¥u30b9¥u6a29¥u9650¥u304c¥u3042¥u308a¥u307e¥u305b ¥u3093¥u3002","Exception":"Generic error","StackTrace":"none"} 2020-11-06 13:32:52 Collect END ( Host name:ita-sample File name:RH\_snmpd )

)

e.g.) Example of Log file output contents (Not target) 2020-11-05 16:55:31 [Process]The target device is not registered or is obsolete, so skip the registration and update process(Host name:ita-test)

## 5.3 BackYard contents

#### 5.3.1 Overview of the Parameter sheet registration process.

- (1) Acquire Collection interface information
- (2) Acquire list over completed operations (with Normal end) Collection target status: Complete
- (3) Acquire the following information from the collectable operation no.
  - Operation information
  - Target host
  - Target source file
- Inquire wether the target host is registered in the Device list or not Registered: Collectable Not registered: Not collectable
- (5) Acquire the Menu ID of the target Parameter sheet from the source file and the Collection item value list.
- (6) Create RESTAPI Parameter with the information gathered in Step 1-4.

Query the Menu ID for data and determine the RESTAPI Execution type. Register: Unique operation and Host combination data is not registered. Update: Unique operation and Host combination data is registered

- (7) Register/Update the data using ITA Standard RESTAPI functions
- (8) Update the status of the Collection status to the Operation No.

Keep in mind that the timing of the data registration to the Parameter sheet depends on the startup cycle of the Automatic process.

For more information regarding changing the startup cycle, please refer to "6.2 Maintenance".

The access permission roles of the Registered/Updated records will inherit the access permission roles of the Collectable operation results.

For more information regarding Target operation results, please refer to "Exastro-ITA\_User\_Instruction\_Manual\_Ansible-driver".

# 6 Operation

Operation that uses this function includes: Inputs from users using browsers from client PCs and Operations done directly from the system operation/maintenance.

## 6.1 Maintenance

The following files are required to Start/Stop/Restart the Collect function process.

Description	File name
Automatic Parameter registration	ky_std_synchronize-Collector.service
The operation is executed and will be registered to the	
parameter sheet based on the information registered in the	
setting item value list from the Operation results.	

The files are stored in <sup>[</sup>/usr/lib/systemd/system] The Start/Strop/Restart process methods are as following: (Execute the commands with Root privileges)

① Start process

# systemctl start ky\_std\_synchronize-Collector.service

① Stop process

# systemctl stop ky\_std\_synchronize-Collector.service

2 Restart process

# systemctl restart ky\_std\_synchronize-Collector.service

Replace each file name with the target file name and start/stop/restart.

## 6.2 Maintenance

 Change level to NORMAL Rewrite the eigth row, "NORMAL, to "DEBUG".
 Log level settings file: 
 Install directory>/ita-root/confs/backyardconfs/ita\_env

Change level to DEBUG
 Rewrite the eigth row, "DEBUG", to "NORMAL".
 Log level settings file: 
 Install directory>/ita-root/confs/backyardconfs/ita env

③ Change boot cycle.

Change the 5<sup>th</sup> parameter of ExecStart for each target file. (Unit: seconds) Use the default value for boot cycles (except for exceptions).

ExecStart=/bin/sh \${ITA\_ROOT\_DIR}/backyards/common/ky\_loopcall-php-procedure.sh /bin/php /bin/php \${ITA\_ROOT\_DIR}/backyards/ansible\_driver/ky\_std\_synchronize-Collector.php \${ITA\_ROOT\_DIR}/logs/backyardlogs **10** \${ITA\_LOG\_LEVEL} > /dev/null 2>&1

# 7 Appendix

## 7.1 References

Below are examples of IaCs (Playbook and Role)

- 1. Ansible Playbook Collection (Collect OS Settings) https://github.com/exastro-suite/playbook-collection-docs/blob/master/README.ja.md
- 2. Ansible config collecting and Parameter creating Playbook.

makeYml\_Ansible.yml

- name: make yaml file
blockinfile:
create: yes
mode: 644
insertbefore: EOF
marker: ""
dest: "{{parameter_dir }}/{{ inventory_hostname }}/Ansible_conf.yml"
content:
ansible_architecture: {{    ansible_architecture    }}
ansible_bios_version: {{ ansible_bios_version }}
ansible_default_ipv4address: {{    ansible_default_ipv4.address    }}
ansible_default_ipv4interface: {{    ansible_default_ipv4.interface  }}
ansible_default_ipv4network: {{    ansible_default_ipv4.network    }}
ansible_distribution: {{ ansible_distribution }}
ansible_distribution_file_path: {{    ansible_distribution_file_path }}
ansible_distribution_file_variety: {{    ansible_distribution_file_variety }}
ansible_distribution_major_version: {{    ansible_distribution_major_version  }}
ansible_distribution_release: {{    ansible_distribution_release  }}
ansible_distribution_version: {{ ansible_distribution_version }}
ansible_machine: {{ ansible_machine }}
ansible_memtotal_mb: {{    ansible_memtotal_mb    }}
ansible_nodename: {{    ansible_nodename    }}
ansible_os_family: {{    ansible_os_family    }}
ansible_pkg_mgr: {{ ansible_pkg_mgr }}
ansible_processor_cores: {{ ansible_processor_cores }}
ansible_processor_count: {{    ansible_processor_count    }}
ansible_processor_threads_per_core: {{    ansible_processor_threads_per_core    }}
ansible_processor_vcpus: {{ ansible_processor_vcpus }}
ansible_product_name: {{    ansible_product_name    }}
ansible_product_serial: {{    ansible_product_serial    }}
ansible_product_uuid: {{    ansible_product_uuid    }}
ansible_product_version: {{ ansible_product_version }}
ansible_pythonexecutable: {{ ansible_python.executable }}
ansible_python_version: {{ ansible_python_version }}

```
ansible_service_mgr: {{ ansible_service_mgr }}
ansible_php_config: php.ini
delegate_to: localhost
- name: get php config
fetch:
    src: /etc/php.ini
    dest: "{{ __parameters_file_dir__ }}/{{ inventory_hostname }}/"
flat: yes
```

% When you run makeYML\_Ansible.yml and generate the Collectable source file (yaml), you need to enable gather\_facts.

When editing the Movement list in Ansible Legacy, enter the following in the header section. For details regarding Changing settings, pleaser refer to

 $``Exastro-ITA\_User\_Instruction\_Manual\_Ansible-driver".$ 

e.g) gather\_facts Valid setting example.

- hosts: all	
remote_user: "{{   loginuser }	}"
gather_facts: yes	
become: yes	