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(v. 2.2) Control Server User Guide

The EasyRPA Control Server is the heart of the EasyRPA platform used for automation. The Control Server User Guide describes how EasyRPA Control Server operates.

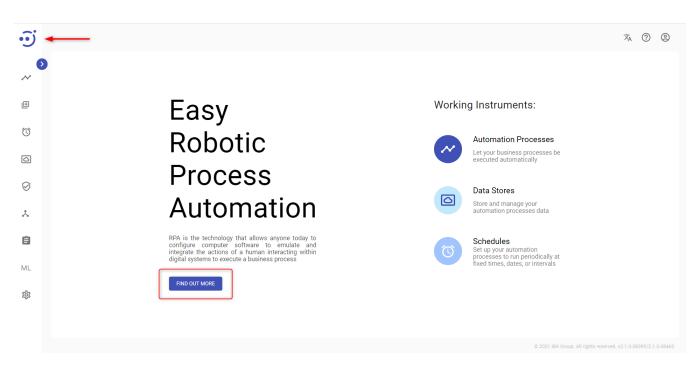
In this section, you will learn how to work within the following EasyRPA Control Server modules:

- (v. 2.2) Automation Processes
 - (v. 2.2) Automation Process Details
 - (v. 2.2) Automation Process Run
 - (v. 2.2) Dedicated Automation Processes
 - (v. 2.2) Capabilities: Automation Process-to-Node Communication
- (v. 2.2) Runs Management
- (v. 2.2) Schedules
 - (v. 2.2) Schedule an Automation Process
 - (v. 2.2) Schedule Statuses Life Cycle
- (v. 2.2) Data Stores
 - (v. 2.2) Create a New Data Store
 - (v. 2.2) Data Store Details
- (v. 2.2) Secret Vault
- (v. 2.2) Node Management
 - (v. 2.2) Node Details
 - (v. 2.2) Node Features
 - (v. 2.2) WebDriver Version Update
- (v. 2.2) Machine Learning
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 - (v. 2.2) Documents
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 - (v. 2.2) Playground
 - (v. 2.2) User Management
 - (v. 2.2) Group Management
 - (v. 2.2) Role Permissions
 - (v. 2.2) Security Access
 - (v. 2.2) Notification Management
 - (v. 2.2) Control Server Configuration
 - (v. 2.2) Control Server Logs
 - (v. 2.2) Activity Log
 - (v. 2.2) License Management

How to Get Context Help

To view the Control Server User Guide for the EasyRPA Control Server, you need to:

- 1. Navigate to the start page.
- 2. Click Find Out More.



You can also click the F1 button, to see the context help for the current page.

(v. 2.2) Automation Processes

- Create a new Automation Process
- Edit Automation Process
- Upload Automation Process Package

The Automation Processes module displays a catalog of automation processes defined by the system and ready to run.

There are several sample automation processes supplied with the EasyRPA Control Server, such as Debtor Analysis, Invoice Plane Automation, etc. You can refer to the RPA Samples Library for more details on how to set up the automation processes samples.

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ML Machine Learning 🗸 🗸							Rows per page: 10	0 🔻 1-4 of 4	<	<	> >	>
😥 Administration 🗸							© 2021 IBA	Group. All rights reserved.	v2.1.0-349(08/2.1-SNA	APSHOT-34	949

To access the Automation Processes module, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

Manage existing Automation Processes

The EasyRPA control server allows managing the automation processes catalog.

Columns Description

- Name the automation process name.
- Capabilities the list of capabilities required for the automation process execution.
- Created By the name of the user, who created the automation process.
- Creation Date the date and time of the automation process creation.
- Changed by the name of the user, who changed the automation process details.
- Last Update the last date and time when the automation process was changed.

Filter by text

Filtering allows you to search the automation process by its name and author (columns Name, Created By respectively).

Sorting

Ascending/descending sorting is allowed by the columns: Name, Creation Date, Last Update.

Control Icons

- Download to download the JSON file containing the automation process details, configuration parameters, and input data. Required Permission: AutomationProcess-READ. A full automation process package cannot be downloaded from Control Server directly but can be provided by the support team upon request.
- Delete to delete the automation process. Required Permission: AutomationProcess-DELETE.

Create a new Automation Process

To create a new Automation Process, you need to:

- Navigate to the Automation Processes module.
- Click Create New.

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~∕ ↓	_	Autom Filter by te Q	ation Processes	🗘 Refresh	Delete					🚡 Uplo	ad packag	CREA	TE NEW]
			Name J∕↑		Capabilities	Created By	Creation Date $\downarrow\uparrow$	Changed By	Last Updat	e 🗸				
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琼								© 2021	IBA Group. Al	l rights reserved	. v2.1.0-349	008/2.1-SN	APSHOT-34	1949

- Fill in General automation process details:
 - a unique **name** to distinguish the automation process (required).
 - a short **description** of the automation process functionalities (optional).
 - a name of the **module class** for execution (optional).

1 It is important to indicate module class if there are several in the package. Otherwise, the system will execute the first found module class from the package.

- **capabilities** capability labels required for the automation process execution. You can choose available capabilities in the dropdown (optional).
- or **dedicated nodes** where the dedicated automation process is ready to run (available if the Dedicated toggle is on).
- switch the **Dedicated** toggle button, if the automation process is dedicated. See **Dedicated** Automation Process.
- Fill in the Repository Id Components:
 - Group Id (required, *example: eu.ibagroup*);
 - Artifact Id (required, example: easy-rpa-sample);
 - Version Id (required, example: 0.1-SNAPSHOT);
 - Classifier a unique identifier that reflects the type of resource being loaded (optional).

You can find the necessary module class and repository id values for all the available samples in the corresponding section. See RPA Samples Library.

÷	Automation Processes / New Automation Process		× ? 9
~	New Automation Process		CANCEL CREATE NEW UPLOAD
Œ	General	Repository Id Components	1
Ö	Name * Invoice Plane Automation	Group Id * eu.ibagroup	_
Ø	Description Extracts unique products from invoice planes and stor	Artifact Id * easy-rpa-sample	_
\oslash	Module Class eu.ibagroup.easyrpa.demo.invoiceplane.InvoicePlane	Version Id * 0.1-SNAPSHOT	_
x	Capabilities AP_RUN X	Classifier full	_
Ê	Dedicated		
ML			
鐐			© 2021 IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSH0T-34949

• Click Create New.

If there are capabilities required to start the automation process they are displayed for each task.

To create a new automation process, you need to be granted AutomationProcess-CREATE permission. See (v. 2.2) Role Permissions.

Upload Automation Process via JSON File

The other way to create the automation process is to Upload File with an automation process configuration in JSON format.

To upload a new Automation Process JSON file, you need to:

• Click Upload.

• i)	Automation Processes / New Automation Proces	S	× 0 9
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 ~	Details		
Œ	General	Repository Id Components	
Ö	Name *	Group Id*	
0	Description	Artifact Id *	
Ø	- Module Class	Version Id *	_
*	Capabilities	Classifier	
â	Dedicated		
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錼			
			© 2021 IBA Group. All rights reserved. v2.2.0-41092/2.2.0-SNAPSHOT-41097

• Click **Add** and choose the JSON configuration file from the file system.

• Click Upload.

• i j	Automation Processes / New Automation Process		× 0 9
Ø	New Automation Process ← Back to list		CANCEL CREATE NEW UPLOAD
~	Details		
Œ	General Name *	Repository Id Components	
Ö		Group Id*	
0	Description	Please, Provide Automation Process JSON	
Ø	Module Class	Ven Please, provide JSON file with Automation Process information	
x	Capabilities	Clas	
	Dedicated	CANCEL UPLOAD	
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JSON file example:

🔚 AP Invoice Plane Automation Demo 14.03.2021 23_34.json 🔣											
1 📮 🕻											
2	"name" : "Invoice Plane Automation Demo",										
3	"repositoryId" :										
4	"eu.ibagroup.samples.ap:easy-rpa-invoiceplane-ap:jar:2.0-SNAPSHOT", "moduleClass" :										
	"eu.ibagroup.easyrpa.ap.productsreader.ProductsReaderAp",										
5	"dedicated" : false,										
6	"capabilities" : ["NODE4"],										
7	"dedicatedNodes" : [],										
8 🛱	"params" : [{										
9	"key" : "key value",										
10	"value" : "value1"										
11	}, {										
12	"key" : "invoiceplane.client.url",										
13	"value" : " <u>https//10.224.0.32s8085/invoiceplane</u> "										
14 -	} 1,										
15 🛱	"input" : {										
16	"variables" : { },										
17	"_id" : "5123dab1-4c23-43a1-a73d-44875df9cc39"										
18 -	}										
19 L}											

To upload an automation process, you need to be granted AutomationProcess-CREATE permission. See (v. 2.2) Role Permissions.

Edit Automation Process

Key information about a particular automation process is available at the pop-up panel at the right by clicking on the corresponding row with the automation process.

You can edit the displayed fields and save the result by clicking the **Update** button. Required Permission: AutomationProcess-UPDATE. See (v. 2.2) Role Permissions.

The pop-up panel contains the following information:

- Name the automation process name.
- Description a short description of the automation process functionalities.
- Module Class the name of the module class for execution (*name example: eu.ibagroup.easyrpa.demo.debtors. DebtorsAnalysisFullDemoAp*)

1. It is important to indicate module class if there are several in the package. Otherwise, the system will execute the first found module class from the package.

- Capabilities the list of capability labels required for the automation process execution. You can choose available capabilities in the dropdown (the field is available only for APs with defined capabilities).
- Dedicated Nodes (available if the Dedicated toggle is on) the list of dedicated nodes where the dedicated automation process is ready to run.
- Dedicated the toggle allows you to make the automation process dedicated. See Dedicated Automation Process.

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Œ		Name 🕼		Capabilities	Created By	Creation Date ↓↑	Changed By	Last Update 🗸			Description Extracts unique	products				
Ó		nodeuser-0380139a's developme	ent AP. 1 Dedicated		NODE 1 dedicated	05.05.2021 11:01	NODE 1 dedicated	05.05.2021 11:01	₫	2	Module Class eu.ibagroup.ea	syrpa.ap.produc	ctsreader.Pro	ductsRead	erAp	
0		Invoice Plane Automation Dedica	ated		System Admin	04.05.2021 12:15	System Admin	05.05.2021 10:25	₫	2	Dedicated Node				Ŧ	
\oslash		CL Document Processor			System Admin	04.05.2021 12:28	System Admin	04.05.2021 12:28	₫	2	Dedi	cated				
×		IE Document Processor			System Admin	04.05.2021 12:28	System Admin	04.05.2021 12:28	₫	2	Total Runs]
Ê											Last run status Last run id	Complete	ed			
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錼	6										Stopped Idle	Completed	Queued	Faile		
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											© 2021 IBA Grou	ip. All rights reser	ved. v2.1.0-349	08/2.1-SNAF	2SHOT-34949	

Total Runs - the quantity of the automation process runs and their statuses. See Automation Process Run Status Lifecycle.

If the automation process was launched once, the "Last run status" is displayed - the status and the index number of the last process run. Clicking the index number of the process will lead to the last process Run page. See (v. 2.2) Automation Process Run.

- Repository Id Components maven artifact identifier consists of the following IDs:
 - Group Id (example: eu.ibagroup);
 - Artifact Id (example: easy-rpa-sample);
 - Version Id (example: 0.1-SNAPSHOT);
 - Classifier a unique identifier that reflects the type of resource being loaded.

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										Version Id *	-			
										2.1-SNAPSHO Classifier	1			
_														

A You can find the necessary module class and repository id values for all the available samples in the corresponding section. See **RPA Samples Library**.

For more information about the automation process - click Details. Required Permission: AutomationProcess-READ.

Upload Automation Process Package

The EasyRPA allows to upload a package with all the necessary modules for an automation process:

- Automation process .jar file
- Automation process .json definition
- Secret vault .json file
- Automation process input
- Automation process configuration parameters
- Data stores
- Notification templates definitions as .json files
- Notification templates as .txt files

To upload a package, you need to:

- Navigate to the Automation Processes module.
- Click the **Upload package** icon.

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õ			Invoice Plane Automation Dedicated			System Admin	04.05.2021 12:15	System Admin	05.05.2021 10:25	$\overline{\Phi}$	2		
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鐐								© 2021	1 IBA Group. All rights reserved	d. v2.1.0-349	908/2.1-SN	APSHOT-34	4949

• Provide a valid .zip file with a package. To apply override to the whole package check **Try to override all**.

• i			×4 (? (2)
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\oslash	Invoice Plane Automation Demo 2021.05	easy-rpa-invoiceplane-2.1.zip X tmin 18.06.2021 11:57	<u>⊅</u> a î
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Ê	Invoice Plane Automation Demo 2021.05	CANCEL UPLOAD min 14.06.2021 16:02	<u>⊉ 2</u> ∎
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- Click Upload.In case of conflicts: resolve it using options Override or Skip.

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• To select the option (Import All, Skip All, Override All) for all items click on Apply strategies.

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							© 2021 IBA Group. All rig	hts reserved. v2.1.0-38	113/2.1-SN	APSHOT-38171

1 If the selected option is is not present in the item, therefore, it doesn't apply.

#### • Click Upload.

To upload a package, you need to be granted AutomationProcess-CREATE permission. See Role Permissions .

# (v. 2.2) Automation Process Details

- Details
- Runs
- Configuration Parameters
- Input Data
- Notifications

The Automation Process Details page contains general automation process details, executed automation process runs, and configuration parameters. You can view/edit automation process details, configuration parameters, and manage automation process runs. To access the Automation Processes Details, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

## Details

The Details tab displays general settings, that are necessary for the automation process creation and launch.

To view/edit automation process details, you need to:

- Navigate to the Automation Processes module.
- Click on the corresponding Automation Process Name.

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- Navigate to **Details** tab
- Change one of the field values.

• <b>•</b> ;	Automation Processes / CL Document Processor			× ? 8
~ 0	Automation Process Details ← Back to list Details Runs Configuration Parameters In	put Data Notifications		SAVE AS FILE
ŧ	General	Repository Id Components	Capabilities	
$\heartsuit$	Name * CL Document Processor	Group Id * eu.ibagroup	Task Capabilities	
0	Description Buildin Document Processor for Document Classificat	Artifact Id * easy-rpa-cldp-ap	eu.ibagroup.easyrpa.ap.cldp.tasks.StoreCIMIResult -	
$\oslash$	Module Class eu.ibagroup.easyrpa.ap.cldp.ClDocumentProcessor	Version Id * 2.1-SNAPSHOT	eu.ibagroup.easyrpa.ap.cldp.tasks.StoreClOcrResult	
	Capabilities	Classifier	eu.ibagroup.easyrpa.ap.cldp.tasks.GenerateCIModelReportTask -	_
	Dedicated		eu.ibagroup.easyrpa.ap.dp.tasks.SetModelOutputAsHuman -	_
Ê			eu.ibagroup.easyrpa.ap.dp.tasks.StoreHumanTaskResult -	
ML			eu.ibagroup.easyrpa.ap.cldp.tasks.PrepareClTrainingSetTask	
錼			eu.ibagroup.easvrpa.ap.cldp.tasks.PrepareCIMITask -	UPDATE
			© 2021 IBA Group. All rights reserved. v2	.1.0-34908/2.1-SNAPSHOT-34949

#### • Click Update.

To update the Automation Process Details, you need to be granted AutomationProcess-UPDATE permission. See (v. 2.2) Role Permissions.

#### Control icons

• Save as file - to download the JSON file containing the automation process details, configuration parameters, and input data. Required Permission: AutomationProcess-READ.

#### **Fields Description**

General:

- Name the automation process name.
- Description (optional) a short description of the automation process functionalities.
- Module Class (optional) the name of the module class for execution.
- Capabilities (optional) capability tags required for the automation process execution. It is possible to choose available capabilities in the dropdown.

Repository Id Components:

- Group Id
- Artifact Id
- Version Id
- Classifier a unique identifier that reflects the type of resource being loaded.

#### Capabilities:

A list of system capabilities for the automation process tasks is automatically displayed on the right-hand side of the Automation Process Details tab.

## Runs

The Runs tab contains information about all runs of a particular automation process and their statuses. You can manage the automation process runs using control buttons. To access the Automation Processes Runs, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

To launch the automation process run, you need to click the Start Run button. Required permission: AutomationProcess-ACTION.

<b>i</b>	Automation	Processes	/ IE Document Processor				ズA	0 9
Ø	Autom	nation Pro	cess Details				ST	ART RUN
~	Details	Runs	Configuration Parameters Input Data	Notifications				
œ ©	Filter by te	ext	🗘 Refre	sh 📋 Delete 📑 Delete All				
~		Run ID	Created By	Creation Date ${\mathbb J}^n$	Status			
0		1047	System Admin	05.05.2021 16:04	Completed	$\oslash$	Ċ	
Ì		1048	System Admin	05.05.2021 16:08	Completed	$\oslash$	Ċ	
τ.		1049	System Admin	05.05.2021 16:23	Completed	$\oslash$	Ċ	•
1		1054	System Admin	06.05.2021 09:32	• Failed	$\oslash$	¢	Î
1L		1055	System Admin	06.05.2021 09:33	Completed	$\oslash$	Ċ	Î
ŝ		1065	System Admin	06.05.2021 11:11	<ul> <li>Stopped Idle</li> </ul>	$\oslash$	Ċ	Ē
w.					Rows per page: 10 👻	1-10 of 11  <	<	> >
					© 2021 IBA Group. /	All rights reserved. v2.1.0-34	908/2.1-SN	APSHOT-34949

#### **Columns Description**

- Run ID numeric identifier of the particular process run.
- Created By the automation process author name.
- Creation Date the date and time when the process was created.
- Status the current status of the automation process run.

#### Control icons

- Stop to stop the automation process run. Required Permission: AutomationProcess-ACTION.
- Retry to repair the automation process run. Required Permission: AutomationProcess-ACTION.
- Delete to delete the automation process run. Required Permission: AutomationProcess-UPDATE.

#### Filter by text

Filtering allows you to search the automation process by Run ID, author (Created By column) or status.

#### Sorting

Ascending/descending sorting is allowed for the Creation Date column.

#### **Related pages**

Clicking on the Run ID value will lead to the "Run" page of the selected automation process run. See (v. 2.2) Automation Process Run f or more information.

## **Configuration Parameters**

The Configuration Parameters tab displays the list of automation process parameters in the form of key-value pairs.

To access the Configuration Parameters, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

A If the same parameter with a different value is present in the CS Configuration and the Node Configuration Parameters modules, the priority is assigned in the following order: Node Configuration Parameter -> Automation Process Configuration Parameter -> CS Configuration Parameter.

#### Add Configuration Parameter

There are 2 ways to **Add** a new configuration parameter:

• Click Create New and add configuration parameter manually. Required Permission: AutomationProcess-UPDATE

Click the Upload icon and import the CSV file. Required Permission: AutomationProcess-UPDATE.

• <b>•</b> •	Automation Processes / IE Document Processor		×. ? .
~ 6	Automation Process Details		CREATE NEW
	Details Runs Configuration Parameters Input Data Notifications		
ŧ	Filter by text		
Ő	Q C C Pelete All C Pelete Download C Delete All C Delete □ C Pelete All		
6	Кеу	Value	
	batchSize	100	ĩ
$\oslash$	remoteExecutionService.taskTimeout	10	î.
X	executorService.poolSize	1000	Î
Ê			
ML			
檢			

#### Update Configuration Parameter

To **Update** an existing configuration parameter, you need to:

- Click on the corresponding configuration parameter.
- Change one of the field values.

• <b>i</b>	Automation Processes / IE Document Processor	×. ? .
<b>~</b>	Automation Process Details          ← Back to list          Details       Runs       Configuration Parameters       Input Data       Notifications	Edit Configuration X
œ ©	Filter by text Q Pelete T Delete T Delete All	Value * 1 2860 J JSON
0	batchSize Value	
*	remoteExecutionService.taskTimeout     10       executorService.poolSize     1000	
<b>E</b> ML		
錢	Rows per page: 10 ▾ 1-3 of 3  < < > >	UPDATE
	© 2021 IBA	Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949

#### • Click Update.

To update the Automation Process Configuration Parameters, you need to be granted AutomationProcess-UPDATE permission. See (v. 2.2) Role Permissions.

#### Control icons

- Download to download existing configuration parameters in CSV file. Required permission: AutomationProcess-READ.
- **Delete** to delete the configuration parameter. Required Permission: AutomationProcess-UPDATE.
- Delete all to delete all configuration parameters of this automation process. Required Permission: AutomationProcess-UPDATE.

#### Filter by text

Filtering allows you to search the configuration parameter by Key, Value columns.

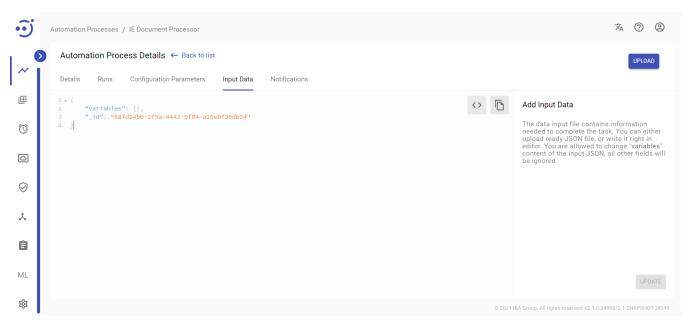
#### Configuration parameters example

key	value
acc.client.url	http://by.demo.1c.eu/accounting/en/
court.judgments.court	Экономический суд г. Минска
sap.path	C:/Program Files (x86)/SAP/FrontEnd/SAPgui/saplogon.exe
WINDOWS_APPLICATION_DRIVER_URL	http://localhost:4723

## Input Data

The Input Data tab contains the input data configuration in JSON format. To access the Input Data, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

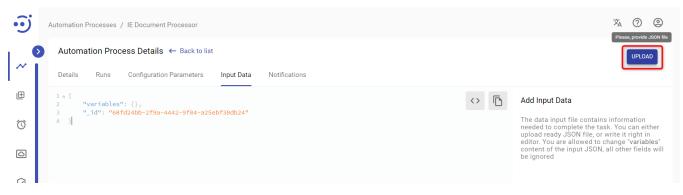
By default the input data looks as follows:



#### Update Input Data

There 2 ways to **Update** the default input data:

• Upload File in JSON format.



• Write JSON manually in the editor. Click Format Data icon to bring it to JSON format. Click Update.

• <b>i</b> )	Automation Processes / IE Document Processor	×. ? @
~	➤ Automation Process Details ← Back to list           Details         Runs         Configuration Parameters         Input Data         Notifications	UPLOAD Format data
	<pre>1 * { 2 "variables": {}, 3 "_id": "68fd24bb-2f9a-4442-9f04-a25ebf30db245" 4 }</pre>	Add Input Data The data input file contains information needed to complete the task. You can either upload ready JSON file, or write it right in editor. You are allowed to change "variables" content of the input JSON, all other fields will be ignored
Ê		UPDATE
ML		© 2021 IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949

To update the Input Data, you need to be granted AutomationProcess-UPDATE permission. See (v. 2.2) Role Permissions.

#### Control icons

- Format Data to bring it to JSON format.
- Copy to copy input data to the clipboard.

## Notifications

The Notifications tab allows users to receive messages about a particular AP Run. To access the Notifications, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

• <b>i</b> )	Automation Processes / CL Docume	nt Processor		×4 (?) (2)			
0	Automation Process Details	e ← Back to list		CREATE NEW			
~	Details Runs Configuration Parameters Input Data Notifications						
⊞ (Č)	Filter by text	🗘 Refresh 📋 Delete					
0	Trigger 🗸	Template ↓↑	Channel ↓↑				
	Completed	VL AP templ	Notification Chann				
$\oslash$							
*							
Ê							
ML			Rows per page: 10 ▼ 1-1 of 1	$ \langle \langle \rangle \rangle \rangle $			
			© 2021 IBA Group. All rights reserved.	v2.1.0-37524/2.1-SNAPSHOT-37634			

#### **Columns Description**

- Trigger the action for which the message is sent to the particular channel.
- Template example of a message is sent to a channel.
- Channel mailing list of contacts.

#### **Control icons**

- **Refresh** to refresh the page.
- Delete to delete Notifications.

Required Permission: AutomationProcess-UPDATE.

• <b>i</b> )	Automation Processes / CL Document Processor				
0	Automation Process Det	ails ← Back to list		CREATE NEW	
~	Details Runs Configu	ration Parameters Input Data Notifications			
Œ	Filter by text				
Ö	-	🗘 Refresh 📋 Delete			
	Trigger 🛧	Template ↓↑	Channel ↓↑		
Ø	Completed	Document Type	Notification Chann		
$\otimes$					
*					
Ê					
ML			Rows per page: 10 ▼ 1-1 of 1	< < > >1	
			© 2021 IBA Group. All rights reserved. v2.	1.0-37524/2.1-SNAPSH0T-37634	

#### Filter by text

Filtering allows you to search the automation process by Trigger, Template and Channel.

#### Sorting

Ascending/descending sorting is allowed for the Trigger, Template and Channel columns.

#### Create a New Notification

To create a New Notification:

- 1. Click "Create New" button.
- 2. In the New Notification pop-up panel enter Trigger, Chanel, Template.
- 3. Click CREATE.

• <b>i</b> )	Automation Processes / CL Document Processor	×. ? .
0	Automation Process Details	New Notification X
~	Details Runs Configuration Parameters Input Data Notifications	Trigger *
Œ	Filter by text	Channel *
Ö	Q Refresh 🗇 Delete	Template *
	□ Trigger ↓ Template ↓↑ Channel ↓↑	· · · · ·
	Completed VL AP templ Notification Chann	
Ø		
*		
Ê		
ML	Rows per page: 10 ▼ 1-1 of 1  < < > >	CREATE
	© 202	IBA Group, All rights reserved, v2 1.0-37524/2 1-SNAPSH0T-37634

To create the Automation Process Notifications, you need to be granted AutomationProcess-UPDATE permission. See (v. 2.2) Role Permissions.

### Update Notifications

To **Update** an existing notification parameters, you need to:

- Click on the corresponding notification.
- Change one of the field values.

• <b>i</b>	Automation Processes / CL Document Processor	× ? 9
	Automation Process Details	Edit Notification X
~	Details Runs Configuration Parameters Input Data Notifications	Trigger* Completed
æ	Filter by text	Channel * Notification Channel
Ö		Template * VL AP templ
ð	□ Trigger ↓ Template ↓↑ Channel ↓↑	
0	Completed VL AP templ Notification Chann	
*		
ê		
ML	Rows per page: 10 ▼ 1-1 of 1  < < > >	UPDATE
	© 2021 I	BA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

#### • Click Update.

To update the Automation Process Notifications, you need to be granted AutomationProcess-UPDATE permission, Channel-READ and Template-READ. See (v. 2.2) Role Permissions.

#### **Delete Notifications**

#### There 2 ways to **Delete** Notifications:

• Press control icon Delete.

• <b>i</b>	Automation Processes / CL Document Processor									
	Automation Process Details	Automation Process Details								
~	Details Runs Configuratio	Details Runs Configuration Parameters Input Data Notifications								
Œ	Filter by text									
$\bigcirc$	٩	🤣 Refresh 📋 Delete								
	Trigger 🛧	Template $\downarrow\uparrow$	Channel J↑							
	Completed	VL AP templ	Notification Chann	T						
$\oslash$	Submitted	Document Type	Notification Chann	Î						
*										
Ê										
ML			Rows per page: 10 ▼ 1-2 of 2   <	< > >						
			© 2021 IBA Group. All rights reserved. v2.1.0	-37524/2.1-SNAPSH0T-37634						

• Choose the particular (or all) Notification and press icon **Delete.** 

Ð	Automation Processes / CL Document Processor								
0	Automation Process Det	ails ← Back to list		CREATE NEW					
~	Details Runs Configu	ration Parameters Input Data Notification	ns						
Œ	Filter by text	🗘 Refresh 📋 Delete							
$\heartsuit$	· · · · · · · · · · · · · · · · · · ·	No Kellesi							
	Trigger 🛧	Template $\downarrow\uparrow$	Channel ↓↑						
~	Completed	VL AP templ	Notification Chann						
$\oslash$	Submitted	Document Type	Notification Chann						
~									
Ê									
ML			Rows per page: 10 ▼ 1-2 of 2   <	$\langle \rangle \rangle$					
			© 2021 IBA Group. All rights reserved. v2.1.0	-37524/2.1-SNAPSH0T-37634					

You need to be granted AutomationProcess-UPDATE permission. See (v. 2.2) Role Permissions.

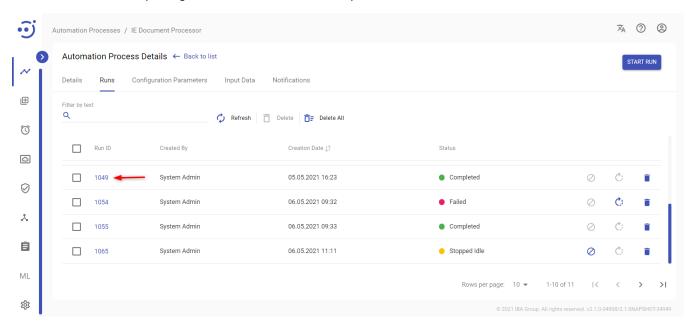
# (v. 2.2) Automation Process Run

- History
- Event Log
- Automation Process Run Status Lifecycle

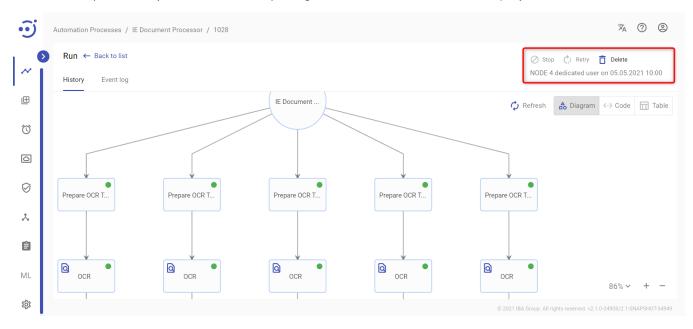
The Runs page contains detailed information about a particular automation process run, its history, and event log which help users to monitor particular process execution. To view the list of the automation process runs, you need to be granted AutomationProcess-READ permissions. See (v. 2.2) Role Permissions.

To navigate to the Run page, you need to:

- Navigate to the Automation Processes module.
- Click on the corresponding Automation Process Name.
- Click on the corresponding Automation Process Run ID. Required Permissions: AutomationProcess-READ.

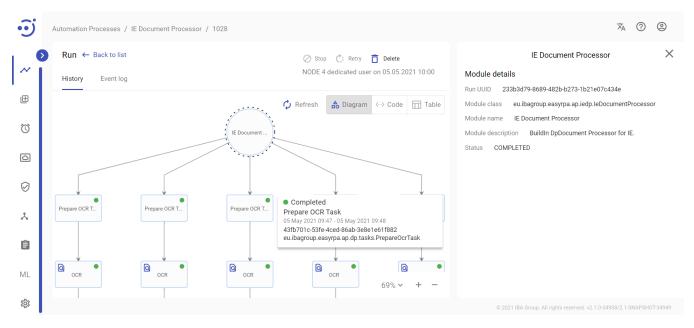


Each run has information about a user who started the Automation Process and start Date/Time and actions to Stop, Retry and Delete the automation process run (enabled for the corresponding Automation Process Run Status Lifecycle).



## History

The History tab displays the automation process steps in either Diagram, Code or Table representation. To access the Automation Processes Run History, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.



#### Control icons

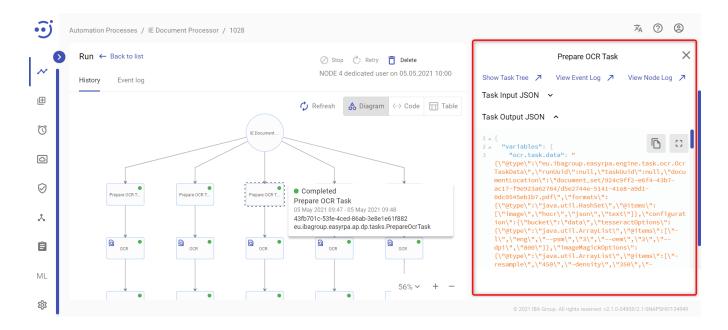
- Stop to stop the automation process run. Required Permission: AutomationProcess-ACTION.
- Retry to repair the automation process run. Required Permission: AutomationProcess-ACTION.
- Delete to delete the automation process run. Required Permission: AutomationProcess-UPDATE.
- Refresh to pull the last process run state from the server and see all the completed steps.
- Diagram/Code/Table toggle to switch between Diagram, Code or Table representation.

#### Diagram

The first step describes the general information about the process run:

- Run uuid (example: 683b293d-bf6b-44ab-9430-7de269bda187)
- Module class (example: eu.ibagroup.easyrpa.demo.debtors.DebtorsAnalysisFullDemoAp)
- Module name (example: Debtor analysis full demo)
- Module description
- Status (example: OK/ERROR)

The subsequent steps describe every task executed by the bot with Input/Output for each step in JSON format. It is possible to copy data to clipboard or maximize for easy viewing.



## Event Log

The Event Log tab displays the logs of the particular automation process run. To access the Automation Processes Run Event Log, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

× 0 2							
⊘ Stop 🛟 Retry 📋 Delete							
NODE 4 dedicated user on 05.05.2021 10:00							
Filter by severity View columns							
h 🗹 Autorefresh ALL 👻 timestamp, severity, node name 👻 Sort by timestamp 🔨							
10786-53bb-43b5-adf0-ae123f391362 OCR Task finished							
0CR Task ded69786-53b5-43b5-adf0-ae123f391362							
[2021-05-05 09:49:30.628] [INFO] [CS] Retransmitting [233b3d79-8689-482b-b273-1b21e07c434e, ded60786-53bb-43b5-adf0-ae123f391362] to node NODE 4							
2305019-6669-4620-0273-10216074946, 2044612-6029-4211-3946-30476619376] On house MODE 4 (ing [23363479-6689-4820-b273-10216074346, 16537768-4593-4198-b436-677ac188b3d] to node NODE 4							
hing [233b3d79-468 0405 4424 121] 10110014344, 1031140 133 4130 4126 41312 4132 4130 4100 4101 4121 4121 4121 4121 4121 412							
ification Node with id null and trigger ASSIGN							
reating Human Task for task 2e0225dc-f286-4319-9c28-58369e19a3fc							
ification DocumentType with id 1038 and trigger AVAILABLE							
1018 injected ino workspace for task 2e0225dc-f286-4319-9c28-58369e19a3fc							
[2021-05-05 09:49:35.110] [INFO] [CS] Human Task 1018 injected ino workspace for task 2e0225dc-f286-4319-9c28-58369e19a3fc [2021-05-05 09:49:39.275] [INFO] [NODE 4] Got notification ApModuleNotification(command=taskNotify, param=2d844cf2-6b25-42c1-9346-5d4f86f7997e) for runUuid: 233b3d79-8689-482b-b2							
ation ApModuleNotification(command=taskNotify, param=2d844cf2-6b25-42c1-9346-5d4f86f7997e) for runUuid: 233b3d79-8689-482b-b2							
in: ap IE Document Processor, runUuid 233b3d79-8689-482b-b273-1b21e07c434e, taskUuid ac5beecb-7af1-49a8-b6b0-43ceeeda23d5, dow							
-2f9a-4442-9f04-a25ebf30db24 working directory is c:\easy_rpa\node_agent\node_01\ap-run\233b3d79-8689-482b-b273-1b21e07c434e-							
ation was changed by SELENIUM_STANDALONE feature.							
https://10.224.0.35/nexus/repository/easyrpa-group/eu/ibagroup/easy-rpa-iedp-ap/2.1-SNAPSHOT/maven-metadata.xml (337 B at 5.							
command [java, -Dfile.encoding=UTF-8, -Dlog.appenders=ELASTIC-AP, -DRUN_UUID=233b3d79-8689-482b-b273-1b21e07c434e, -DTASK_UUIC							
weeks with and anon							

#### Control icons

- **Stop** to stop the automation process run. Required Permission: AutomationProcess-ACTION.
- Retry to repair the automation process run. Required Permission: AutomationProcess-ACTION.
- Delete to delete the automation process run. Required Permission: AutomationProcess-UPDATE.
- **Refresh** to pull the latest logs from the server.
- Autorefresh checkbox to turn on/off an automatic refresh of logs.

#### Search by text

You can search for a particular log by its text. The logs found are highlighted in yellow.

#### Filter by severity

Filtering allows you to choose the level of severity of the displayed logs from the dropdown menu. The available options are as follows:

🗘 Refresh 🔽 Autorefresh		severity		View columns timestamp, severity, node name 🔹
ocr_1] ded60786-53bb-43b5-adf0-ae123f39	1	ALL		
Completing OCR Task ded60786-53bb-43b5-	()	TRACE		
Retransmitting [233b3d79-8689-482b-b273 Assigning [233b3d79-8689-482b-b273-1b21				ae123f391362] to node NODE 4
Retransmitting [233b3d79-8689-482b-b273	()	DEBUG		e77acc18eb3d] to node NODE 4
Assigning [233b3d79-8689-482b-b273-1b21 Sending notification Node with id null		INFO	690	e19a3fc] on node null
Creating Human Task for task 2e0225dc-f	² O	WARN		
Sending notification DocumentType with	i			
Human Task 1018 injected ino workspace	fΟ	ERROR		19a3fc
Got notification ApModuleNotification(c				42c1-9346-5d4f86f7997e) for runUuid: 2:
Got notification ApModuleNotification(c	ommand=1	taskNotity, param=2d844d	ct2-6b25-4	42c1-9346-5d4f86f7997e) for runUuid: 2:

Got notification ApModuleNotification(command=taskNotity, param=20844ct2-6b25-42c1-9346-5d4f86f7997e) for runUuid: 2: Received Run: ap IE Document Processor, runUuid 233b3d79-8689-482b-b273-1b21e07c434e, taskUuid ac5beecb-7af1-49a8-b6l

#### View columns

You can add or remove the columns timestamp/severity/node name from the event log view.

Filter by severity		View columns								
ALL	•	severity, node name			Sort by timestamp					
8689-482b-b273-1b21e07c434e, taskUuid null	-		timestamp							
is c:\easy_rpa\node_agent\node_04\ap-run\ re.	(233b3		severity		53	D	<u>₽</u>			
group/eu/ibagroup/easy-rpa-iedp-ap/2.1-SNA group/eu/ibagroup/easy-rpa-iedp-ap/2.1-SNA			nodo nomo	Í	/sec) 29 KB	at 362	.8 KB/	sec		
SNAPSHOT from group (https://10.224.0.35/n		$\sim$	node name		releases+snapshots)					
group/eu/ibagroup/easy-rpa-iedp-ap/2.1-SNA	APSHOT	/maven-	metadata.xml (337 B a	t 3.5 KB,	/sec)					
group/eu/ibagroup/easy-rpa-iedp-ap/2.1-SNA	APSH01	/easy-r	pa-iedp-ap-2.1-SNAPSH	OT.pom (2	2 KB a	at 22.0	KB/se	ec)		

#### Sort by timestamp

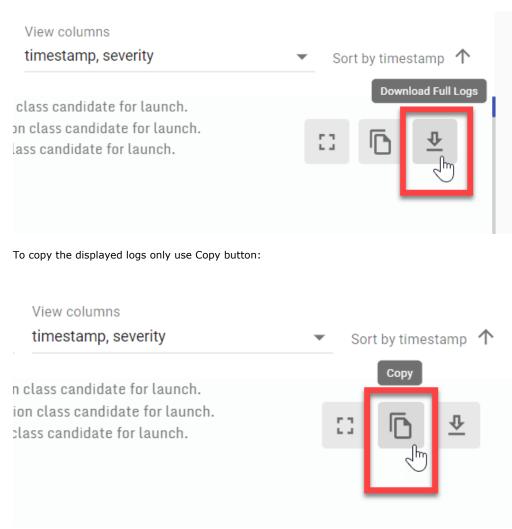
Ascending/descending logs sorting by the timestamp is allowed.

In the upper-right corner of the logs window there are buttons for opening logs in the full browser window, copying logs to the clipboard and downloading a .txt file with logs:

• <b>i</b> )	Automation Processes / IE Docu	ument Pr	ocessor /	1028					×. ? .
1 6	Run ← Back to list							🖉 Stop 🖒 Retr	y 📋 Delete
~	History Event log							NODE 4 dedicated	user on 05.05.2021 10:00
œ	Search by text					Filter by severity		View columns	
	Q			🗘 Refresh	<ul> <li>Autorefresh</li> </ul>	ALL	-	severity, node name, timestamp	▼ Sort by timestamp ↑
()									
Ŭ	[2021-05-05 09:47:12.181]		[NODE 4]	Received Run:	ap IE Document Processo	, runUuid 233b3d79-868	9-482b-b273-1b21	.e07c434e, taskUuid null, downloadi	re-seriet on node NODE 1
			[NODE 4]	AP 68fd24bb-	2f9a-4442-9f04-a25ebf30db	4 working directory is	c:\easy_rpa\nod	le_agent\node_04\ap-run\233b3d79-86	89-482b-b272-1b21e07c434e-
	[2021-05-05 09:47:12.228]	[WARN]	[NODE 4]	RunConfigurat	tion was changed by SELEN	UM_STANDALONE feature.			C 10 ±
	[2021-05-05 09:47:12.509]		[NODE 4]	Downloaded: H	nttps://10.224.0.35/nexus	repository/easyrpa-gro	up/eu/ibagroup/e	asy-rpa-iedp-ap/2.1-SNAPSHOT/maver	-metadata.xml (337 B at 3.
	[2021-05-05 09:47:12.790]		[NODE 4]	Downloaded: H	nttps://10.224.0.35/nexus	repository/easyrpa-gro	up/eu/ibagroup/e	asy-rpa-iedp-ap/2.1-SNAPSHOT/easy-	rpa-iedp-ap-2.1-SNAPSHOT.j
$\oslash$	[2021-05-05 09:47:12.790]		[NODE 4]	Downloaded a	tifact eu.ibagroup:easy-	pa-ledp-ap:jar:2.1-SNA	PSHOT from group	(https://10.224.0.35/nexus/repost	tory/easyrpa-group/, defau
Ň								asy-rpa-iedp-ap/2.1-SNAPSHOT/maver	·
	[2021-05-05 09:47:13.259]							asy-rpa-iedp-ap/2.1-SNAPSHOT/easy-	
2	[2021-05-05 09:47:13.290]							(https://10.224.0.35/nexus/repost	
	[2021-05-05 09:47:13.540]							asy-rpa-aps/2.1-SNAPSHOT/maven-met	· ·
	[2021-05-05 09:47:13.821] [2021-05-05 09:47:14.087]							asy-rpa-engine-parent/2.1-SNAPSHOT asy-rpa-dp-ap/2.1-SNAPSHOT/maven-m	
Ê	[2021-05-05 09:47:14.369]							asy-rpa-engine/2.1-SNAPSHOT/maven-	
	[2021-05-05 09:47:14.634]							asy-rpa-parent/2.1-SNAPSHOT/maven-	
								asy-rpa-be-communication/2.1-SNAPS	
ML								asy-rpa-engine-api/2.1-SNAPSHOT/ma	
	[2021-05-05 09:47:17.183]		[CS]	Downloaded: H	nttps://10.224.0.35/nexus	repository/easyrpa-gro	up/eu/ibagroup/e	asy-rpa-iedp-ap/2.1-SNAPSHOT/maven	-metadata.xml (337 B at 4.
	[2021-05-05 09:47:17.380]		[CS]	Downloaded: H	nttps://10.224.0.35/nexus	/repository/easyrpa-gro	up/eu/1bagroup/e	asy-rpa-ledp-ap/2.1-SNAPSHOT/maver	-metadata.xml (337 B at 5.
鐐	_							© 2021 IBA Group. All rights reserved.	v2.1.0-34908/2.1-SNAPSHOT-34949

"Not Full Logs" indicator appears at the bottom right corner when the log becomes too long for one page.

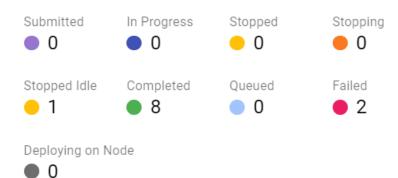
#### To download full logs use Download button:



The following section describes the life cycle of the automation process and the corresponding statuses that it may have.

## Automation Process Run Status Lifecycle

- Submitted transient status responsible for downloading artifacts and their capabilities that are necessary for starting the AP.
- **Queued** describes the state when the automation process gets queued on the Control Server side and is waiting for a free node (one in status Idle) on which it can be executed. The node is searched among not dedicated nodes on Control Server based on the capabilities described in (v. 2.2) Automation Process Details (Details tab). The "Queued" status is received by the process immediately after clicking the "Start run" button if the required node is busy, and is active until the necessary node is found.
- Deploying on Node the automation process receives the status when it finds the node required for its execution and is
  assigning to that node.
- In Progress describes the state when the automation process is executed on the node.
- **Stopping** transient status responsible for stopping the automation process run. The AP receives the status immediately after clicking the "Stop" icon.
- Stopped the automation process receives the status when its execution is stopped. It is possible to retry stopped automation
  processes.
- Stopped Idle the automation process receives the status when nothing happened with the task for some time. For example, Human tasks are in the Workspace without changes.
- Failed describes the automation process that is failed with an error. The details of the error can be found in the "Event Log" of the automation process run.
- Completed indicates the successful completion of the automation process run.



#### Control icons

The following actions can be applied to the automation processes with corresponding statuses:

	Stop	Retry	Delete
Submitted			
Queued			
Deploying on node			
In Progress			
Stopping			
Stopped			
Stopped Idle			

Failed		
Completed		

# (v. 2.2) Dedicated Automation Processes

The EasyRPA Control Server allows running Dedicated Automation Processes, that can be launched by the users on their own machines.

- Dedicated Automation Processes Overview
- Create a Dedicated Automation Process
- Start a Dedicated Automation Process Run

## Dedicated Automation Processes Overview

The automation processes intended for a specifically dedicated node (or groups of nodes) are configured by the administrator and marked as Dedicated on the Control Server side. The node agent is installed on the working machine, where the user operates. The dedicated user can navigate to the user-friendly dashboard with all dedicated automation processes and launch them with one click (it is not possible to start a dedicated AP run from the Control Server).

## Create a Dedicated Automation Process

To create a Dedicated Automation Process you need to:

- Navigate to the Automation Process Details section.
- Enable the **Dedicated** mode.
- Choose the appropriate Dedicated Nodes.

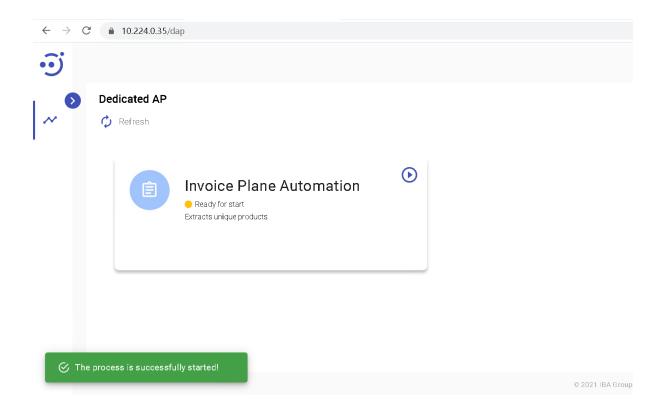
If the automation process is dedicated, then the Capabilities do not work and the assignment of automation processes occurs on a specifically dedicated node (there may be several of them).

····	Automation Processes / Invoice Plane Automation		×. 0 9
~	Automation Process Details	Input Data Notifications	SAVE AS FILE
Œ	General	Repository Id Components	Capabilities
Ö	Name * Invoice Plane Automation Dedicated	Group Id * eu.ibagroup.samples.ap	Task
õ	Description Extracts unique products	Artifact ld * easy-rpa-invoiceplane-ap	eu.ib a group.easyrpa.ap.products reader.task.GenerateAndSendReportTask
Ø	Module Class eu.ibagroup.easyrpa.ap.productsreader.ProductsRead	Version Id * 2.1-SNAPSHOT	eu.ibagroup.easyrpa.ap.productsreader.task.CollectUniqueProducts
x	Dedicated Nodes	Classifier	
ê	Dedicated		
ML			UPDATE
礅			© 2021 IBA Group. All rights reserved. v2.1.0-35100/2.1-SNAPSH0T-35303

## Start a Dedicated Automation Process Run

To launch the Dedicated Automation Process assigned by the administrator, the user needs to:

- Launch a web browser on the working machine.
- Connect via a special URL (which ends with /dap) to the Control Server (e.g. https://10.224.0.35/dap).
- Get into the view, which shows dedicated automation processes assigned to the machine.
- Click start run for the appropriate automation process.



# (v. 2.2) Capabilities: Automation Process-to-Node Communication

The decision on which Node the Automation Process will be launched is made based on the Capabilities. While launching, the AP checks whether there are available nodes with a suitable set of capabilities for the automation process execution. If the necessary node is found, the AP starts to run on that node. Capabilities are presented as a system of linking tags.

• <b>i</b>	Automation Processes / Invoice Plane Automation		×, @ @							
	Automation Process Details									
~	Details Runs Configuration Parameters Input Data Notifications									
Œ	General	Repository Id Components	Capabilities							
$\bigcirc$	Name * Invoice Plane Automation	Group Id * eu.ibagroup.samples.ap	Task							
0	Description Extracts unique products	Artifact Id * easy-rpa-invoiceplane-ap	eu.ibagroup.easyrpa.ap.products reader.task.GenerateAndSendReportTask							
Ø	Module Class eu.ibagroup.easyrpa.ap.productsreader.ProductsRead	Version Id * 2.1-SNAPSHOT	eu.ibagroup.easyrpa.ap.productsreader.task.CollectUniqueProducts							
x	Capabilities	Classifier	_							
	Dedicated		_							
â										
ML			UPDATE							
礅			© 2021 IBA Group. All rights reserved. v2.1.0-35100/2.1-SNAPSH0T-35303							

The EasyRPA Control Server allows executing the automation processes on the nodes. Node - is any machine where the node agent, the EasyRPA Control Server client, is installed. The node agent must be configured according to the configuration from the Control Server. See Node Management Configure a new Node. The Automation Processes are linked to the Nodes with the capability labels. Capabilities - are tags assigned to the Nodes and Automation Processes. When the new Node instance is created on the Control Server, the administrator specifies which capabilities the node supports.

A For example, if the node can serve requests for the automation of SAP applications (i.e. is configured by the administrator to serve SAP applications), the tag SAP should be added to the Capabilities of the node. Automation processes that automate SAP must also have the SAP capability tag so that the process can be passed to a node that supports this functionality.

• <b>i</b> )	Node Management / NODE 4		×. ? 9
~	Node Details       ← Back to list         Details       Configuration Parameters       Runs	Features Node Logs Notifications	Download C Restart U Shut down UPGRADE VERSION
Œ	General	Node Agent	Features
€ € ↓ € ML	Name * NODE 4 Description Working Directory c:\easy.rpa\node_agent\node_04 Capabilities SAP X AP_RUN X X SELENIUM X   Dedicated	Version2.1-SNAPSHOT-35303CPU32Total memory2.11 GBFree memory3.24 GBIP addresses3.224.0.32	AP_RUN         Status:       Enabled         mining in all AP run mode. AP: 0 of 8 executors are busy. Tasks: 0 of 1 executors are busy.         Status:       DELENUM_HUB         Edets:       DELENUM_NODE         Status:       Disabled         DELENUM_STADALONE       Disable         Maning:       Maning:         Maning:       0: since 2021-05-12T14:34:48.525+03:00[Europer/Minsk]
鐐			© 2021 IBA Group. All rights reserved. v2.1.0-35100/2.1-SNAPSH0T-35303

The Automation Process that needs several capabilities for the execution (multiple Capability tags are specified) will look for the node that has all these capabilities. If the necessary node is not found, the automation process will receive the status "Deploying on Node", it means that the system is waiting for the node with all the required capability to execute the automation process. As soon as the AP finds a node with the required capabilities, it receives the status "Queued", which means that the AP is in the queue for processing. When the process starts execution, it receives the status "In Progress". For more information about the automation process workflow, see Automation Process Run Status Lifecycle.

# (v. 2.2) Runs Management

The Runs Management module allows users to manage and display active Automation Processes Runs at the moment.

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<b>•</b> •••••••••••••••••••••••••••••••••••	Runs M Filter by tex Q	-	nent	View statuses Deploying on Node, Stopped	🔹 🥠 Refresh	n 🔿 Retry ⊘ Stop	o 📋 Delete 🖉 Stop all a	ictive				
			Run ID	Created	Ву	Creation Date 🗸	Status ↓↑					
Ó	~		CL Document Processor / 1065	Nastass	ia Burak	03.05.2021 16:20	Stopped Idle	7	$\oslash$	Ċ	Î	
0	~		IE Document Processor / 1055	Hanna Z	aprutskaya 🥼	30.04.2021 10:50	<ul> <li>Stopped Idle</li> </ul>	7	$\oslash$	Ċ	Î	
$\oslash$	~		HT Sample / 1034	System	Admin	28.04.2021 15:38	Stopped Idle	7	$\oslash$	Ċ	Î	
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Active runs

By default the module displays all Automation Processes Runs in the following statuses: Deploying on Node, In Progress, Stopping, Stopped Idle, Queued (See Automation Process Run Status Lifecycle). Runs in Stopped, Submitted, Failed, Completed statuses can be displayed as well.

• <b>i</b>										×	?	0
<b>~</b> •	Runs M Filter by tex	-	ment	View statuses Deploying on Node, In Pro-	gr 🔻 🗘 Refresh 💍	Retry 🖉 Stop 📋 Dr	elete 🚫 Stop all active					
Œ			Run ID		Created By	Creation Date 🗸	Status ↓↑					
Ŭ	~		CL Document Processor / 1066	5	Nastassia Burak	03.05.2021 16:35	In Progress	7	$\oslash$	Ċ	Î	
0	~		CL Document Processor / 1065	5	Nastassia Burak	03.05.2021 16:20	<ul> <li>Stopped Idle</li> </ul>	7	$\oslash$	Ċ	Î	
$\oslash$	~		IE Document Processor / 1055		Hanna Zaprutskaya	30.04.2021 10:50	<ul> <li>Stopped Idle</li> </ul>	7	$\oslash$	Ċ	Î	
x	~		HT Sample / 1034		System Admin	28.04.2021 15:38	Stopped Idle	7	$\oslash$	Ċ	Î	
Ê	~		JNLP/WebStart Demo RI Local	/ 1026	System Admin	28.04.2021 12:59	Stopping	7	$\oslash$	Ċ	Î	
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							© 2021 IBA Group. A	ll rights reserve	d. v2.1.0-34	1376/2.1-SI	NAPSHOT	-34329

#### **Columns Description**

- Run ID The Automation Process Name and a numeric identifier of the particular process run. By clicking on the Run Id, you can see the history of the particular process run.
- Created By the automation process run author name.

- Creation Date the date and time when the process was created.
- Status the current status of the automation process run.

#### Control icons

<b>i</b>										ネ	?
~	Runs M Filter by tex Q	-	ment	View statuses Deploying on Node, In Progr	r 🔻 🗘 Refresh	ैं: Retry 🖉 Stop 📋 Du	elete 🖉 Stop all active	]			
Ð			Run ID		Created By	Creation Date 🗸	Status ↓↑				
Ì	~		CL Document Processor / 1063		Nastassia Burak	03.05.2021 16:06	In Progress	٦	$\oslash$	Ċ	Î
2	~		IE Document Processor / 1055		Hanna Zaprutskaya	30.04.2021 10:50	Stopped Idle	ק	$\oslash$	Ċ	ĩ
ð	~		HT Sample / 1034		System Admin	28.04.2021 15:38	<ul> <li>Stopped Idle</li> </ul>	7	$\oslash$	Ċ	Î
¢	~		JNLP/WebStart Demo RI Local	/ 1026	System Admin	28.04.2021 12:59	Stopping	7	$\oslash$	Ċ	Î
ì											
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z							Rows per page: 10 🔻	1-4 of 4	<	<	> >
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- **Refresh** to pull the last processes runs from the server.
- **Retry** to repair the automation process run. Available for runs with statuses Failed, Stopped. Required Permission: AutomationProcess-ACTION. See (v. 2.2) Role Permissions.
- **Stop** to stop the automation process run. Available for runs with statuses Deploying on Node, In Progress, Stopping, Stopped Idle, Queued. Required Permission: AutomationProcess-ACTION. See (v. 2.2) Role Permissions.
- **Stop all active** to stop all automation process runs in Deploying on Node, In Progress, Stopping, Stopped Idle and Queued statuses. This action will stop launches in the specified statuses, even if other statuses are displayed in the table. Required Permission: AutomationProcess-ACTION. See (v. 2.2) Role Permissions.
- Delete to delete the selected automation process run. Required Permission: AutomationProcess-DELETE. See (v. 2.2) Role Permissions.
- **Open run log** to see the logs of the particular automation process run. See Automation Process Run for more information. Required Permission: AutomationProcess-READ. See (v. 2.2) Role Permissions.

#### Filter by text

Filtering allows you to search the Automation Processes run by Run ID, Created By, Status columns.

#### View statuses

Filtering allows you to choose statuses in the View statuses dropdown.

• <b>i</b> )												×	? (	0
~ •	Runs M Filter by tex	-	ment	View sta Deployir	tuses	🇘 Refresh	🖒 Retry ⊘ Stop 📋 De	lete 🖉 Stop all ac	tive					
œ			Run ID		Deploying on Node In Progress	1 By	Creation Date 🗸	Status ↓↑	_					
Ö	~		CL Document Processor / 1064		Stopping	sia Burak	03.05.2021 16:14	In Progress		7	$\oslash$	Ċ	Î	
0	~		IE Document Processor / 1055		Stopped Idle	Zaprutskaya	30.04.2021 10:50	<ul> <li>Stopped Idle</li> </ul>		7	$\oslash$	Ċ	Î	
$\oslash$	~		HT Sample / 1034		Queued	ı Admin	28.04.2021 15:38	<ul> <li>Stopped Idle</li> </ul>		7	$\oslash$	Ċ	Ĩ	
x	~		JNLP/WebStart Demo RI Local /		Stopped Completed	Admin	28.04.2021 12:59	Stopping		7	$\oslash$	Ċ	Ē	
Ê					Submitted Failed									
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錼								Rows per page: 1	10 🔻	1-4 of 4	1<	<	>	>1
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#### Sorting

Ascending/descending sorting is allowed for the Creation Date and Status columns.

Tasks

After clicking on the "" icon - table with all tasks for the Run is opened.

|--|

									Â	?
Runs M	lanager	ment								
Filter by te: Q	xt		View statuses Deploying on Node, In Progr	r 🔻 🗘 Refresh	🖒 Retry ⊘ Stop 📋 D	elete 🚫 Stop all active				
		Run ID		Created By	Creation Date 🗸	Status ↓↑				
~		CL Document Processor / 1064		Nastassia Burak	03.05.2021 16:14	In Progress	7	$\oslash$	Ċ	
~		IE Document Processor / 1055		Hanna Zaprutskaya	30.04.2021 10:50	<ul> <li>Stopped Idle</li> </ul>	7	$\oslash$	Ċ	
~		HT Sample / 1034		System Admin	28.04.2021 15:38	Stopped Idle	7	$\oslash$	Ċ	
~		JNLP/WebStart Demo RI Local	/ 1026	System Admin	28.04.2021 12:59	Stopping	7	$\oslash$	Ċ	
						Rows per page: 10 🔻	1-4 of 4	<	<	>
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All tasks in the Run are displayed in the table.

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D	Runs	s Ma	nagen	ment								
1	Filter b	by text			View statuses Deploying on Node, In Prog _	jr 🝷 🗘 Refresh 🖒	Retry ⊘ Stop 📋 De	lete 🚫 Stop all active				
				Run ID		Created By	Creation Date 🗸	Status ↓↑				
	~			CL Document Processor / 1064		Nastassia Burak	03.05.2021 16:14	In Progress	7	$\oslash$	Ċ	Î
	^			IE Document Processor / 1055		Hanna Zaprutskaya	30.04.2021 10:50	<ul> <li>Stopped Idle</li> </ul>	7	$\oslash$	Ċ	Î
	ſ	1	Task Nan	me Ta	isk Description	Node Name	Start Date	End Date	S	tatus		
		ł	Human 1	Task Bu	ullt-in Human Task.	Control Server	30.04.2021 10:52	03.05.2021 16:18		In Prog	ess	
		ł	Human 1	Task Bu	ullt-in Human Task.	Control Server	30.04.2021 10:52	03.05.2021 16:18		In Prog	ess	
		ł	Human 1	Task Bu	ullt-in Human Task.	Control Server	30.04.2021 10:52	03.05.2021 16:18		In Prog	ess	
		F	Prepare	Human Task		NODE 3	30.04.2021 10:52	30.04.2021 10:52		Comple	ted	
		F	Prepare	Human Task		NODE 4	30.04.2021 10:52	30.04.2021 10:52		Comple	ted	
								Rows per page: 10 👻	1-4 of 4	K	<	>
								© 2021 IBA Group. All I	rights reser	ved. v2.1.0-3	4376/2.1-SI	NAPSHO

#### Columns Description:

- Task Name the name of the task.
- Task Description a short description of the task functionalities.
- Node Name the node name, after clicking on the Name you redirect on the Node Logs. If a Node is not needed for task execution, "Control Server" is displayed.
- Start Date the date and time when the task was created.
- End Date the date and time when the task has lasted.
- Status current status of the task.

When the Run has no tasks - the 'No Tasks' message appears.

												×	?
F	Runs Ma Filter by text Q	nagen	nent	View statuses Failed, Deploying on Node	e, I 👻 🗘	Refresh 🔿 Ref	try 🖉 Sto	op 📋 D	elete 🔗 Stop all active				
			Run ID		Created By		Creation Date	te 🗸	Status ↓↑		_		
	~		JNLP/WebStart Demo RI Local ,	/ 1027	System Admin		28.04.2021	13:08	Failed	7	$\oslash$	¢	Î
	^		JNLP/WebStart Demo / 1019		NODE 1 dedicat	ted user	28.04.2021	10:29	Failed	7	$\oslash$	¢	Ĩ
						No Task	S	J					
	~		JNLP/WebStart Demo / 1018		NODE 1 dedicat	ted user	28.04.2021	10:27	Failed	7	$\oslash$	¢	Î
	~		JNLP/WebStart Demo RI Local	/ 1017	RI NODE dedica	ited user	28.04.2021	10:14	• Failed	7	$\oslash$	Ó	Î
									Rows per page: 20 🔻	1-13 of 13	1<		

When you click on the icon "" - the task table is hidden.

# (v. 2.2) Schedules

- (v. 2.2) Schedule an Automation Process
- (v. 2.2) Schedule Statuses Life Cycle

# (v. 2.2) Schedule an Automation Process

- Create a New Schedule
- View/Edit a Schedule via a right-side panel
- Schedule Details
- View/Edit a Schedule via Schedule Details
- Schedule Runs
- Notifications
- Create a New Notification
- Update Notifications
- Delete Notifications

Besides running your automation process manually, you can set up a schedule to run the automation process periodically at fixed times, dates, or intervals.

## Create a New Schedule

To create a schedule:

1. Go to the Schedules module and click Create New.

• <b>i</b>								Ŕ	? 9
~ <b>&gt;</b>	Sched Filter by t		Constant O South O	District a Delate				CRE	ATE NEW
æ		Name ↓↑	Process Name	Created By ↓↑	Creation Date $\downarrow\uparrow$	Status			
0		CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	Completed	$\oslash$	0	Î
		IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled	$\oslash$	8	Î
$\oslash$		Invoice Shedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled	$\oslash$	8	Ĩ
*									
ê									
ML									
鐐						Rows per page: 10 ▼ 1-3 of 3	<	<	> >
						© 2021 IBA Group. All rights reserv		1908/2 1-SM	

2. In the New Schedule pop-up panel:

- Enter a unique **name** to distinguish the schedule.
- Enter **description** optionally.
- Select the **automation process** you need to run.
- Set the schedule period (type in start and end dates in the mm/dd/YYYY format or select the values from the dropdown menus).
- Set the **schedule frequency** using CRON expression.

1. The schedule will be triggered according to the schedule frequency only within the schedule period.

• <b>〕</b>										×. ? &
~ >	Schedu Filter by te Q		🗘 Refresh ⊘ f	Enable 🛛 🖉 Disable	Delete			CREA	TE NEW	New Schedule X CL Schedule 2 Description
(t)		Name ↓↑	Process Name	Created By ${\rm Jh}$	Creation Date 个	Status				Automation Process *
Ŭ		CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	Completed	$\oslash$	2	Î	CL Document Processor 🔹
0		IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled	$\oslash$	2	Î	Schedule Period Start Date End Date
$\oslash$		Invoice Shedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled	$\oslash$	2	Î	05/06/2021 📋 05/07/2021 📋
*										Frequency Current Server Time 2021-05-06 16:5
Ê										Cron Expression *
ML										What is CRON? At 05:05 PM, on day 6 of the month, only in May
錢					Rows per page:	10 🔻 1-3 of 3	K	<	> >	CREATE
									© 2021	IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949

3. Click Create button.

## View/Edit a Schedule via a right-side panel

To view the detailed information about an existing schedule, click at any place in the corresponding row of the automation process schedule and the information pop-up will appear. To edit the information about a particular schedule, edit necessary fields at the information pop-up and click the **Update** button.

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~ F	Schedu ilter by te २		🖒 Refresh ⊘ E	inable 🖉 Disable	Delete			CREA	TE NEW	Edit Schedule X General
œ		Name 🎝	Process Name	Created By ↓↑	Creation Date ↓↑	Status				Name * CL Schedule Description for 05/06/2021
Ũ		CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	Completed	$\oslash$	8		Automation Process CL Document Processor
		IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled	$\oslash$	9	Ĩ	
$\oslash$		Invoice Shedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled	$\oslash$	ő	Ĩ	Schedule Period
*		CL Schedule 2	CL Document Processor	Darya Trotskaya	06.05.2021 17:02	Completed	$\oslash$	00	Î	Start Date         End Date           05/06/2021         ☐         05/07/2021         ☐
Ê										Frequency Current Server Time 2021-05-06 17:00 Cron Expression *
ML										50 15 6 5 *
礅					Rows per page:	10 🔻 1-4 of 4	<	<	> >	DETAILS

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### Schedule Details

The Details tab displays the Run schedule and the Schedule settings.

To view/edit Schedule details, you need to:

• Navigate to the Schedules module and Click on the corresponding Schedule Name.

Schedu							×A CRE	?
Filter by te	1xt	🇘 Refresh ⊘ Enable ⊘	Disable 🗍 Delete					
	Name 🕼	Process Name	Created By ↓↑	Creation Date $\downarrow\uparrow$	Status			
	CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	<ul> <li>Completed</li> </ul>	Ø	2	
	IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled	0	2	
	Invoice Shedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled	$\oslash$	2	
	CL Schedule 2	CL Document Processor	Darya Trotskaya	06.05.2021 17:02	Completed	0	8	
					Rows per page: 10 👻 1-4 of 4	<	<	>

or

• Navigate to the Schedules module, Click on the corresponding row with the Schedule, and at the pop-up panel click Details.

5										Â	? 9
× 1	Schedu Filter by te Q		🗘 Refresh ⊘ B	Enable 🖉 Disable	Delete			CREAT	TE NEW	Edit Schedule General Name * CL Schedule	×
5		Name 🕼	Process Name	Created By ${\downarrow\uparrow}$	Creation Date $\downarrow\uparrow$	Status				Description for 05/06/2021	
		CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	Completed	Ø	8	ii i	Automation Process	
		IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled	Ø	8	ii i	CL Document Processor	
		Invoice Shedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled	$\oslash$	8		Schedule Period	
		CL Schedule 2	CL Document Processor	Darya Trotskaya	06.05.2021 17:02	Completed	0	8	Î	Start Date End Date 05/06/2021 📋 05/07/	
										Frequency Current Server Tim Cron Expression *	ne 2021-05-07 15
										50 15 6 5 *	
					Rows per page:	10 👻 1-4 of 4	<	<	> >	DETAI	UPDATE

## View/Edit a Schedule via Schedule Details

To view/edit Schedule details, you need to:

- Change one of the field values.
- Click Update.

• <b>••</b>	Schedules / CL Schedule		× ? 8
e	Schedule Details ← Back to list		
$\sim$	Details Runs Notifications		
Ħ	General	Schedule Period	
Ö	Name * CL Schedule	Start Date         End Date           05/06/2021	
0	Description for 05/06/2021	Frequency Current Server Time 2021-05-07 16:03	
$\oslash$	Automation Process	Cron Expression * 00 18/6 5 *	
*		What is CRON? At 06:00 PM, on day 6 of the month, only in May	
Ê			
ML			
			UPDATE
tộ:			

#### **Fields Description**

- Name the schedule name.
- Description (optional) a short description of the schedule.
- Automation process selected automation process for the Schedule, the field is not edited.
- Start and End dates in the mm/dd/YYYY format.
- Schedule frequency using CRON expression.

### Schedule Runs

The Runs tab contains information about all runs of a particular Schedule and their statuses. You can manage the automation process runs using Control icons.

When the schedule starts an automation process, it creates a separate instance of this process.

Schedule Details        ← Back to list             Details       Runs       Notifications			
Filter by text			
Process name / Run ID     Created By     Creation Date     Status			
CL Document Processor / 1066 System Scheduler 06.05.2021 15:50 In Progress	Ċ	Ĩ	Ĩ
*			
ML			
Rows per page:     10 ▼     1-1 of 1     I       © 2021 IBA Group. All rights reserved. v2.1.0-3			>

**Columns Description** 

- Process name / Run ID the automation process name / numeric identifier of the particular process run.
- Created By the automation process runs initiated by the schedule will have System Scheduler value
- Creation Date the date and time when the Run was created.
- Status the current status of the Run.

#### Control icons

- Stop to stop the automation process run. Required Permission: Schedule-ACTION. See (v. 2.2) Role Permissions.
   Note: the process is included when Status of Run is Queued, Deploying on Node, In Progress, Stopping, Stopped Idle. In other statuses the button is disabled.
- Retry to repair the automation process run. Required Permission: Schedule-ACTION. See (v. 2.2) Role Permissions. The Run is deleted from the Schedule after clicking Retry, the Run is on the Automation Process Runs tab.
   Note: the process is included when Status of Run is Stopped and Failed. In other statuses the button is disabled.
- Delete to delete the selected automation process run. Required Permission: Schedule-DELETE. See (v. 2.2) Role Permissions.
- Delete All to delete all the automation process runs that were started on this Schedule. Required Permission: Schedule-DELETE. See (v. 2.2) Role Permissions.

#### Filter by text

Filtering allows you to search the automation process by Process name / Run ID column, Status and its author (Created By column).

#### Sorting

Ascending/descending sorting is allowed for the Creation Date column.

#### **Related pages**

Clicking on the Process name / Run ID value will lead to the "History" page of the selected automation process run. See Automation Process Run for more information.

See Automation Process Run Status Lifecycle for more information about the automation process statuses and control icons.

### Notifications

The Notifications tab allows users to receive messages about a particular AP Run. To access the Notifications, you need to be granted Schedule-READ permission. See (v. 2.2) Role Permissions.

Ĵ	Schedules / r for test						Ŕ	?	0
~ •	Schedule Details						CRE	ATE NEV	v
Œ	Details Runs Notifications								
Ø	Filter by text	🗘 Refresh 📋 Delete							
	☐ Trigger ↓	Template $\downarrow \uparrow$	Channel ↓↑						
$\oslash$	In Progress	Document Type	Notification Chann					Î	
x									
Ê									
ML			Rows per page:	10 🔻	1-1 of 1	<	<	>	>
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#### **Columns Description**

- Trigger the action for which the message is sent to the particular channel.
- Template example of a message is sent to a channel.

• Channel - mailing list of contacts.

#### Control icons

- Refresh to refresh the page.
- Delete to delete Notifications.

#### Required Permission: Schedule-UPDATE.

• <b>i</b> )	Schedules / r for test						Ŕ	?	0
~ 0	Schedule Details						CR	EATE NE	w
Œ	Details Runs Notifications								_
Ö	Filter by text	C Refresh							
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$\oslash$	In Progress	Document Type	Notification Chann						
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ML			Rows per page:	10 🔻	1-1 of 1	<	<	>	>
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#### Filter by text

Filtering allows you to search the automation process by Trigger, Template and Channel.

#### Sorting

Ascending/descending sorting is allowed for the Trigger, Template and Channel columns.

## Create a New Notification

To create a New Notification:

- 1. Click "Create New" button.
- 2. In the New Notification pop-up panel enter Trigger, Chanel, Template.
- 3. Click CREATE.

• <b>i</b> )	Schedules / r for test	× 7 9
~ •	Schedule Details	New Notification X
œ	Details Runs Notifications	Trigger *
Ö	Filter by text 🗘 Refresh 📋 Delete	Channel *
Ø	☐ Trigger ↓ Template ↓↑ Channel ↓↑	Template *
$\oslash$	In Progress Document Type Notification Chann	
*		
Ê		
ML	Rows per page: 10 ▼ 1-1 of 1  < < > >	CREATE
ڻ <u>ن</u>	© 2021 IB	A Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

To create the Schedule Notifications, you need to be granted Schedule-UPDATE permission. See (v. 2.2) Role Permissions.

## Update Notifications

To **Update** an existing notification parameters, you need to:

- Click on the corresponding notification.
- Change one of the field values.

• <b>i</b> )	Schedules / r for test	×. ? .
~ •	Schedule Details	Edit Notification X
Œ	Details Runs Notifications	Trigger * In Progress
Ö	Filter by text $\clubsuit$ Refresh $\boxed{\Box}$ Delete	Channel * Notification Channel Email Template *
	□ Trigger ✔ Template ↓↑ Channel ↓↑	Document Type Template
$\oslash$	In Progress Document Type Notification Chann	
x		
Ê		
ML	Rows per page: 10 ▼ 1-1 of 1  < < > >	UPDATE
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#### • Click Update.

To update the Automation Process Notifications, you need to be granted AutomationProcess-UPDATE permission. See (v. 2.2) Role Permissions.

### **Delete Notifications**

There 2 ways to **Delete** Notifications:

• Press control icon Delete.

• <b>i</b> )	Schedules / r for test			×. ? @
~ •	Schedule Details ← Back t	o list		CREATE NEW
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Ö	Filter by text	🤣 Refresh 📋 Delete		
	Trigger 🗸	Template ↓↑	Channel 🕼	
$\oslash$	In Progress	Document Type	Notification Chann	
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錼			© 2021 IBA Group. All rights reserved. v2.1.	

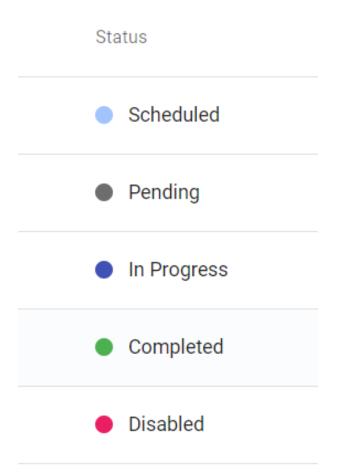
#### • Choose the particular (or all) Notification and press icon **Delete.**

• <b>i</b> )	Schedules / r for test			×. ? .
~ 0	Schedule Details			CREATE NEW
Œ	Details Runs Notifications			
Ö	Filter by text	C Refresh Delete		
	□ Trigger ↓	Template ↓↑	Channel ↓↑	
$\oslash$	In Progress	Document Type	Notification Chann	
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You need to be granted Schedule-UPDATE permission. See (v. 2.2) Role Permissions.

## (v. 2.2) Schedule Statuses Life Cycle

The schedule can receive the following statuses during its life-cycle:



Once the schedule is created, it receives status:

- Pending if the start date has not come yet.
- Scheduled if the start date has already come, but there have not been any automation process runs yet.

As soon as the automation process starts first run, the schedule gets the status:

#### In Progress

When the end of the schedule time frame comes, the schedule receives the status:

• Completed

Once the process is disabled by the user, it receives status:

Disabled

#### Control icons

You can enable or disable any schedule, refresh page and delete a schedule at any stage using control buttons.

- **Refresh** to pull the last updates from the server.
- Enable/disable to make enable or disable any schedule.
- Delete to delete the data store (via the recycle bin control icon in the table row or Delete icon above the table).
- Security Access See (v. 2.2) Security Access.

• <b>i</b>							文 _A (	? 9
~ >	Schedules Filter by text Q	🏹 Refresh 🔗 Enable	🖉 Disable 📋 Delete				CREAT	TENEW
E	□ Name J↑	Process Name	Created By $\psi$	Creation Date ↓↑	Status			
Ŭ	Invoice Shedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled	$\bigcirc$	0	Ē
	CL Schedule 2	CL Document Processor	Darya Trotskaya	06.05.2021 17:02	Completed	$\oslash$	0	<b>I</b>
$\oslash$	IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled	$\oslash$	2	i i
×	CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	Completed	$\oslash$	0	
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#### Filter by text

You can search for the necessary schedules using filtration by Name, Process Name, Created By, Status.

#### Sorting

Ascending/descending sorting is allowed for Name, Created By, Creation Date columns.

## (v. 2.2) Data Stores

- (v. 2.2) Create a New Data Store
- (v. 2.2) Data Store Details

The Data Stores module displays a list of data stores available in the Control Server. EasyRPA Control Server allows users to store and manage automation process data with the help of data stores. It is possible to upload .*csv* file to a data store or add new records manually.

To manage Data Stores, users must have Data Stores modification permissions. See Role Permissions .

## System Data Stores

The data store can also be created during the automation process run execution. In that case, the Created By column will contain the name and description of the Node that executed the corresponding automation process.

• <b>•</b> )								Â	0 9
~ >	Data Stores Filter by text	🗘 Refresh 🗍 🛙	Delete					CREA	TE NEW
ŧ	□ Name ↓↑	Description JT	Count of Records $igstarrow$	Creation Date $\downarrow\uparrow$	Updated By	Last Update ↓↑			
Ċ	debtor		26	21.05.2021 15:36	NODE 2 AP user	21.05.2021 15:36	₫	ŝ	Ť.
0	DS With ManyColu	umns Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	<u>₽</u>	8	
$\oslash$	DS With Long Data	a Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	<u>₽</u>	8	Î
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					Rows	s per page: 10 👻 1-3 of 3	<	<	> >
						© 2021 IBA Group. All rights reser	ved. v2.1.0-3	5221/2.1-SN	APSHOT-36232

#### **Columns Description**

- Name the data stores name.
- Description a short description of the data stores.
- Count of Records the number of records in the data stores.
- Creation Date the date and time of the data stores creation.
- Updated By the name of the user or Node, who change the data stores.
- Last Update the last date and time when the data stores was changed.

#### Filter by text

Filtering allows you to search the data store by the columns: Name, Description, Updated By.

#### Sorting

Ascending/descending sorting is allowed for the columns: Name, Description, Count of Records, Creation Date, Last Update.

#### Control icons

- **Refresh** to pull the last updates from the server.
- Delete to delete the data store (via the recycle bin control icon in the table row or Delete icon above the table).
- **Download** to download the data store in CSV or XLSX file.
- Security Access See (v. 2.2) Security Access.

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~ <b>&gt;</b> ⊮	Data Stores Filter by text Q	C Refresh 🗍 Delete	]					CREA	ATE NEW
	□ Name J↑	Description J↑	Count of Records $\psi$	Creation Date $\downarrow\uparrow$	Updated By	Last Update ↓↑			
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Ø	DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	₫	2	ĩ
$\oslash$	DS With Long Data	Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	$\overline{\Phi}$	2	
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						© 2021 IBA Group. All rights reserv	ved. v2.1.0-362	221/2.1-SN	APSHOT-36232

## Download the data store

To select the file format to download, click on the **Download** button next to the desired datastore.

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i       debtor       26       21.05.2021 15.36       NDDE 2 AP user       21.05.2021 15.36       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2		Name ↓î		Description ↓↑	Count of Records $igstarrow$	Creation Date ↓↑	Updated By	Last Update J↑			
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x       a       ML       x3	2	DS With M	anyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	₫	8	
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	1L										
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After clicking the button a list of available formats for downloading will be displayed.

• <b>i</b>									Â	0 9
~ •	Data S Filter by to Q		🏠 Refresh 📋 Delete						CREA	ATE NEW
æ		Name 🎝	Description $\downarrow\uparrow$	Count of Records 🗸	Creation Date $\downarrow \uparrow$	Updated By	Last Update ↓↑			
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Ø		DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	XLSX	<u>ي</u>	
$\oslash$		DS With Long Data	Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	$\overline{\Phi}$	2	Î
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## (v. 2.2) Create a New Data Store

To create a New Data Store:

1. Go to the Data Stores module and click **CREATE NEW**:

• <b>i</b>									沟 (	? ©
~ >	Data S Filter by th Q		🗘 Refresh 🗍 Delete						CREAT	'E NEW
1 E		Name 🎝	Description ↓↑	Count of Records 🗸	Creation Date $\downarrow\uparrow$	Updated By	Last Update ↓↑			
Ó		debtor		26	21.05.2021 15:36	NODE 2 AP user	21.05.2021 15:36	<u>•</u>	2	Î
		DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	<u>₽</u>	8	•
$\oslash$		DS With Long Data	Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	₫	â	•
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鐐										
						Rows p	er page: 10 ▾ 1-3 of 3	К		> >I
							© 2021 IBA Group. All rights reserved	. v2.1.0-36	221/2.1-SNA	PSHOT-36232

- 2. Enter a unique Name and Description to distinguish the Data Store.
- 3. Click UPLOAD FILE (Upload file by another format, the first row should contain column headers):

·i	Data Stores / New Data Store								洧 (	?	9
٥	New Data Store ← Back to list										
$\sim$	Name * Product	Description product Data Store									
Œ											
Ö											
Ø											
$\oslash$			Empty Coll	lection							
x		Please,	provide a file with	h data store records							
Ê			UPLOAD F	FILE							
ML			/								
袋											
					Rows per page:	10 🕶	0-0 of 0	<	<	>	>1
					© 2021 I	BA Group. All	rights reserved.		1/2.1-SNA	PSHOT-3	6232

4. Choose file format:

• <b>i</b>	Data Stores / New Data Store		×A	?	0
~ >	New Data Store ← Back to list Name* Product	Description product Data Store			
Œ	Floduct	product data store			
Ö		Upload Data Store entries			
Ø		Please, provide a file with data store records			
$\oslash$					
*		Choose file format DEFAULT			
Ê		CANCEL UPLOAD			
ML					
袋					
		Rows per page: 10			

File format settings:

- DEFAULT CSV file as a delimiter comma (,)
- SEMICOLON_SEPARATED CSV file as a delimiter semicolon (;)
- TAB_SEPARATED CSV file as a delimiter tab (\t)
- CUSTOM CSV file as a delimiter comma (,) other options for advanced user.
- EXCEL Excel file in *.xlsx format. 🔥 For correct import excel file use text format.

•••	Data Stores / New Data Store		×, ?	0
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~	Name * Product	Description product Data Store		
Œ				
Ċ		Upload Data Store entries		
0		Please, provide a file with data store records		
$\oslash$		ADD		
2		DEFAULT		
Ê		SEMICOLON_SEPARATED TAB_SEPARATED CANCEL UPLOAD		
ML		CUSTOM EXCEL		
袋				
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#### 5. Click **ADD** to select file:

• <b>i</b> )	Data Stores / New Data Store		沟	?	0
6	New Data Store ← Back to list				
$\sim$	Name * Product	Description product Data Store			
ŧ					
Ö		Upload Data Store entries			
0		Please, provide a file with data store records			
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۶.		Choose file format DEFAULT			
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#### 6. Click **UPLOAD** to load the file:

• <b>i</b>	Data Stores / New Data Store		× 0 8
6	New Data Store ← Back to list		
~	Name * Product	Description product Data Store	
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Ö		Upload Data Store entries	
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x		Choose flie format DEFAULT	
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#### 7. Click SAVE:

• <b>i</b>	Data Stores / New Data Store				×. (?)	0
~ >	New Data Store ← Back to list Name * Product	Description product Data Store			CANCEL SAVE	
Œ	Product Name	Product Description	Price	e	Count	
Ó	BMW	Car	\$150	0,000.00	100	
0	HP	Laptop	\$11.	.00	2500	
	Lenovo	Laptop	\$23.	.00	450	
$\oslash$	Iphone	Mobile phone	\$95.	.00	675	
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# (v. 2.2) Data Store Details

- Options to Data Store
- Add New Records to Data Store
- Add New Records manually
- Upload a file to Data Store
- View/Edit an existing Record in Data Store

After opening the existing Data Store by clicking its name - the Data Store Details page is opened.

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~	Data Stores Filter by text Q	🗘 Refresh 📋 Delete						CREAT	ENEW
Œ	□ Name ↓↑	Description $\downarrow\uparrow$	Count of Records $igstarrow$	Creation Date $\downarrow\uparrow$	Updated By	Last Update ↓↑			
Ŭ	debtor		39	21.05.2021 15:36	NODE 2 AP user	21.05.2021 15:36	₫	2	
	Product	product Data Store	4	24.05.2021 15:51	Darya Trotskaya	24.05.2021 15:51	$\overline{\Phi}$	2	Î
$\oslash$	DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	₽	2	•
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The page is used for the following actions:

- Add New Records to the Data Store. See Add New Records to Data Store.
- Edit Records for the Data Store.
- **Delete** Records from the Data Store.

#### Control icons

- **Refresh** to refresh the page.
- **Delete** to delete the selected records in the Data Store (via the recycle bin control icon in the table row or Delete icon above the table).

• <b>i</b> )	Data Stores / Product					× ? .
~ ~	Data Store Details ← Back to list Filter by text Q	C Refresh Delete	]		ស្ថិវ Option	IS CREATE NEW
Ö	System Id ↓↑	Product Name J}↑	Product Description J↑ Car	Price J↑	Count ↓↑	Î
Ø	1       2	нр	Laptop	\$150,000.00 \$11.00	2500	î
$\oslash$	3	Lenovo	Laptop	\$23.00	450	Î
*	4	Iphone	Mobile phone	\$95.00	675	ī
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#### Filter by text

Filtering allows you to search the record by all columns in the table except the System Id column.

#### Sorting

Ascending/descending sorting is allowed for all columns.

## Options to Data Store

For additional actions with the datastore, click on the **Options** in the upper-right corner.

• <b>i</b> j	Data Stores / Product					× ? @
~ 2	Data Store Details ← Back to li Filter by text Q	ist 🧔 Refresh 📋 🛙	Delete		to option	CREATE NEW
Œ	System Id J↑	Product Name ↓↑	Product Description ${\mathbb J} {\mathbb T}$	Price ↓↑	Count ↓↑	
Ó	1	BMW	Car	\$150,000.00	100	
Ø	2	HP	Laptop	\$11.00	2500	i.
$\oslash$	3	Lenovo	Laptop	\$23.00	450	
*	4	Iphone	Mobile phone	\$95.00	675	Î
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ML						
錼						
				Rows per page: 10 -	▼ 1-4 of 4  <	< > >1
				© 2021 IBA Gro	oup. All rights reserved. v2.1.0-	36221/2.1-SNAPSH0T-36232

After clicking on the button a list of actions, that can be applied to this datastore, will be displayed.

• <b>i</b>	Data Stores / Product				×. (?)	0
~ ~ ©	Data Store Details ← Back to lis	st 🗘 Refresh 📄 🗍	Delete Product Description ↓↑	Price Jî	Options         CREATE NO	EW
0	1 2	BMW	Car Laptop	\$150,000.00		Î
Ø	3	Lenovo	Laptop	\$23.00		Î
*	4	Iphone	Mobile phone	\$95.00	675	Î
Ê						
ML						
錢						
					1-4 of 4  < >	

- Export Data Store CSV to download existing records from the Data Store in CSV file.
- Export Data Store EXCEL to download existing records from the Data Store in EXCEL file.
- Clear Data Store to delete all records in the Data Store.
- Import Data Store Records to upload a file with additional records to the Data Store.

### Add New Records to Data Store

There are 2 possible ways to add New Records to the already existing Data Store:

- Add New Records manually to add records manually one by one. See Add New Records manually.
- Upload a CSV file to upload with multiple records. See Upload a file to Data Store.

In both cases, firstly you should open the existing Data Store by clicking its name:

Ð								沟 (	? 9
~ >	Data Stores Filter by text Q	🗘 Refresh 📋 Delete						CREAT	TENEW
æ	□ Name ↓↑	Description ↓↑	Count of Records $\checkmark$	Creation Date ↓↑	Updated By	Last Update ↓↑			
Ö	debtor		39	21.05.2021 15:36	NODE 2 AP user	21.05.2021 15:36	<u>+</u>	å	T
Ø	Product	product Data Store	4	24.05.2021 15:51	Darya Trotskaya	24.05.2021 15:51	⊉	8	î.
$\oslash$	DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	₫	2	î
x	DS With Long Data	Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	₫	8	Î
Ê									
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					Rows	per page: 10 ▼ 1-4 of 4	<	<	> >1
						© 2021 IBA Group. All rights reserve	d. v2.1.0-36	221/2.1-SNA	PSHOT-36232

### Add New Records manually

1. Click CREATE NEW:

÷	Data Stores / Product					× 0 0
~ >	Data Store Details ← Back to li Filter by text Q	ist 🧔 🧔 Refresh 📋 D	elete		👸 Option	CREATE NEW
æ	System Id ↓↑	Product Name ↓↑	Product Description $\downarrow\uparrow$	Price JT	Count ↓↑	
Ó	1	BMW	Car	\$150,000.00	100	Î
0	2	HP	Laptop	\$11.00	2500	Ĩ
$\oslash$	3	Lenovo	Laptop	\$23.00	450	Î
*	4	Iphone	Mobile phone	\$95.00	675	Ĩ
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ML						
袋						
				Rows per page: 10	▼ 1-4 of 4  <	< > >1
				© 2021 IBA G	roup. All rights reserved. v2.1.0-36	221/2.1-SNAPSHOT-36232

#### 2. Enter values to each column header field in the **New record** popup panel and click **CREATE**:

Ĩ	Data Stores / Product					× 0 ©
~ •	Data Store Details ← Back Filter by text Q	c to list 🧳 Refresh 🛛 🗍 🛙	elete		Options CREATE NEW	New Record X Product Name Volvo
Ē	System Id 🎝	Product Name 🎵	Product Description ${\rm J}{\rm T}$	Price ↓↑	Count 🕼	Product Description Car Price
Ŭ	י 🗆	BMW	Car	\$150,000.00	100	\$130,000
	2	HP	Laptop	\$11.00	2500	270
$\oslash$	3	Lenovo	Laptop	\$23.00	450	
*	4	Iphone	Mobile phone	\$95.00	675	
Ê						
ML						
錼						
				Rows per page: 10 👻 1-4 c	of 4   < < > >	CREATE
					© 2021 IB	A Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

## Upload a file to Data Store

1. Click **Options** and select **Import Data Store Records**:

• <b>i</b>	Data Stores / Product				× 0 9
~	Data Store Details ← Back to list Filter by text Q	🗘 Refresh 📋 Del	ete		Options         CREATE NEW                • Export Data Store CSV               • Export Data Store EXCEL
Ũ	System id ↓↑           1	Product Name ↓↑ BMW	Product Description J↑ Car	Price J [*] \$150,000.00	Clear Data Store
Ø	2	HP	Laptop	\$11.00	2500
$\oslash$	3	Lenovo	Laptop	\$23.00	450
*	4	Iphone	Mobile phone	\$95.00	675
ê					
ML					
鐐				Rows per page: 10 👻	1-4 of 4   < < > >

#### 2. Choose file format:

• <b>i</b>	Data Stores / Product						× 7 Q	
~ 0	Data Store Details ← Back t Filter by text Q	to list 🧳 Refresh 📋	j Delete			ស្ដ្រី Option	CREATE NEW	
±	System id J↑	Product Name ↓	Product Description JP		Price ↓↑			
Ó	П 1	вмw Upload	Data Store entries		\$150,000.00	100	Î	
	2	HP	Please, provide a file with data store records		\$11.00	2500	ii ii	
$\oslash$	3	Lenovo	ADD		\$23.00	450	Î	
x	4	Iphone	Choose file format DEFAULT		\$95.00	675	î	
Ê	5	Volvo			\$130,000	270	ĩ	
ML			CANC	EL UPLOAD				
锁								
					Rows per page: 10 👻	- 1-5 of 5  <		
					© 2021 IBA Gro	up. All rights reserved. v2.1.0-362	221/2.1-SNAPSH0T-36232	

File format settings:

- DEFAULT CSV file as a delimiter comma (,)
- SEMICOLON_SEPARATED CSV file as a delimiter semicolon (;)
- TAB_SEPARATED CSV file as a delimiter tab (\t)
- CUSTOM CSV file as a delimiter comma (,) other options for advanced user.
  EXCEL Excel file in *.xlsx format. A For correct import excel file use text format.

• <b>i</b>	Data Stores / Product					ネ	0 9
<b>~</b> ●	Data Store Details     ← Back to list       Filter by text     Q.	🗘 Refresh 🗍 De	lete			Options CREA	ATE NEW
Ŭ	System Id ↓↑	Product Name 🕼	Product Description ↓↑ ta Store entries		Price J1 \$150,000.00	Count ↓↑	-
Ø	2	нр	Please, provide a file with data store rec	ords	\$11.00	2500	î
$\oslash$	3	Lenovo	ADD		\$23.00	450	1 1
× ف	5	Volvo	DEFAULT SEMICOLON_SEPARATED	CANCEL UPLOAD	\$130,000	270	•
ML			TAB_SEPARATED CUSTOM EXCEL	CANCEL OPLOAD			
鐐							
					Rows per page: 10 👻	1-5 of 5   < <	

#### 3. Click **ADD** to select file:

• <b>i</b>	Data Stores / Product					× ? ?		
~ >	Data Store Details ← Back to Filter by text Q		🗍 Delete	였 Options CREATE NEW				
(H)	System id ↓↑	Product Name ↓↑	Product Description J↑	Price ↓↑				
Ö	D 1	вми Uplo	bad Data Store entries	\$150,000.00	100	î		
Ø	2	НР	Please, provide a file with data store records	\$11.00	2500	T		
$\oslash$	3	Lenovo	ADD	\$23.00	450	Î		
x	4	Iphone	Choose file format	\$95.00	675	î		
ê	5	Volvo		\$130,000	270	T		
ML			CANCEL	UPLOAD				
錼								
				Rows per page: 10	✓ 1-5 of 5  <			
				© 2021 IBA Gr	roup. All rights reserved. v2.1.0-36	221/2.1-SNAPSHOT-36232		

4. Click **UPLOAD** for load the file:

•••	Data Stores	/ Product								× 0 0
<b>~</b> →	Data S Filter by te	tore Details ← Back t ext		lefresh 🗍 Delete					र्छः opti	ions CREATE NEW
_ ۲		System Id ↓↑	Product Name J↑		Product Description $\downarrow\uparrow$			Price ↓↑	Count <b>↓</b> ↑	
-		1	BMW	Upload Data :	Store entries			\$150,000.00	100	T
Ø		2	НР		ProductDS_NewRecords.csv	×		\$11.00	2500	Ĩ
$\oslash$		3	Lenovo		100000_10110010.001	~		\$23.00	450	Ŧ
*		4	Iphone		Choose file format DEFAULT	-		\$95.00	675	Î
Ê		5	Volvo				CANCEL UPLOA	\$130,000	270	ĩ
ML										
袋										
								Rows per page: 1	0 <del>▼</del> 1-5 of 5   <	

A The column headers in the chosen file should be the same as in the existing Data Store to be mapped properly. Only the values with the same column headers will be added to the Data Store, the other will stay blank. If no match in column headers will be found, then empty records will be added to the Data Store.

## View/Edit an existing Record in Data Store

To update an existing Record, you need to:

- Click on the corresponding Record.
- Change one of the field values in the **Edit Record** popup panel.
- Click **UPDATE**.

Ð	Data Stores / Product						×A	0 2
~ 0	Data Store Details ← B Filter by text Q	Back to list 🧳 Refresh 📋	Delete		ស៊្វី Options CRE	EATE NEW	Edit Record Product Name BMW	×
⊞ ⇔	System Id J↑	Product Name ↓↑	Product Description $\downarrow\uparrow$	Price JT	Count J↑		Product Description Car	
Ö	1	BMW	Car	\$150,000.00	100		Price \$150,000.00	
Ø	2	HP	Laptop	\$11.00	2500		200	
$\oslash$	3	Lenovo	Laptop	\$23.00	450	i i		
×	4	Iphone	Mobile phone	\$95.00	675	î		
Ê	5	Volvo	Car	\$130,000	270	ĩ		
ML								
錢								
				Rows per page: 10 💌 1-	5 of 5  < <	> >		UPDATE

## (v. 2.2) Secret Vault

- Create a New Secure Entry
- Upload a New Secret Vault Entry
- View/Edit an Existing Secure Entry
- Delete an Existing Secure Entry
- Control icons

EasyRPA Control Server provides Secrets Vault functionality intended for storing sensitive data (i.e., login, password).

To navigate to Secret Vault module and view the list of secret vault entries, you need to be granted SecretVault-READ. To get Secret Vault details, you need to be granted SecretVault-READ permission. See (v. 2.2) Role Permissions.

## Create a New Secure Entry

To create a new secret entry:

1. Go to the Secret Vault module and click Create New.

• <b>i</b> )			沟 (	9 2
<b>~</b> ●	Secret Vault Filter by text Q	🗘 Refresh 🔒 Delete	CREAT	
Ö	Alias 1		2	
0	court.login		2	
⊘ <b></b>	erp.user		8	•
*	invoiceplane.secrets		2	
Ê	mail.user		2	Î
ML	sf.secrets		2	Ē
ŵ				
		Rows per page: 10 ▼ 1-6 of 6   <	<	> >
		© 2021 IBA Group. All rights reserved. v2.1.0-	34376/2.1-SNA	PSHOT-34329

2. In the New Secret Entry pop-up panel:

- Enter a unique **alias** to distinguish the secret entry.
- Enter value. The user can create new entries by adding sensitive data both in TEXT and JSON format.

Alias* rpa.secrets Value* • 1 { 2 "user": "rpasecrets", 3 "password": "password!1" 4 }



3. Click the **Create** button.

To create a new Secret Vault entry, you need to be granted SecretVault-CREATE permission. See (v. 2.2) Role Permissions.

## Upload a New Secret Vault Entry

The other way to create the secret vault is to Upload File with secure entry in CSV format:

1. Click Upload File

• <b>i</b>		沟	?	0
~ <b>&gt;</b> ⊮	Secret Vault Filter by text Q Point C	CRE	EATE NE	W
Ó	acc.login	8	Î	
Ø	Court.login	3	Î	
$\oslash$	erp.user	2	Î	
*	invoiceplane.secrets	8	Î	
Ê	mail.user	8	Î	
ML	rpa.secrets	0	Î	_
ŝ	Rows per page: 10 ▼ 1-7 of 7  <			

#### 2. Choose CSV format:

• <b>i</b>			×. ? ©
~ >	Secret Vault Filter by text Q	🗘 Refresh 🛛 🕁 Upload 📄 Delete	CREATE NEW
	☐ Alias ↓↑	Please Provide Secure Entries	
	invoiceplane.secrets	Please, provide CSV file with columns: alias, value	<u> </u>
	mail.user	ADD	<u> </u>
$\bigcirc$	erp.user	Override existing keys Choose CSV format DEFAULT	왕
2	acc.login	CANCEL UPLOAD	왕 
ê	sf.secrets		
	court.login		

CSV format settings:

- DEFAULT CSV file as a delimiter comma (,)
- SEMICOLON_SEPARATED CSV file as a delimiter semicolon (;)
- TAB_SEPARATED CSV file as a delimiter tab (\t)
- CUSTOM CSV file as a delimiter comma (,) other options for advanced user.

•••					х _а (	? 2
~ >	Secret Vault Filter by text Q	🗘 Refresh   🚡 Upload   📋 Delete			CREA	TE NEW
œ	Alfas 🛧	Please Provide Secure Entrie	25			
Ö	acc.login	Please, provide CSV f	ile with columns: alias, value		2	Ĩ
	Court.login	I	ADD		2	Î
$\oslash$	erp.user	Override existing keys	Okaaaa ODV farmat		8	ĩ
*	invoiceplane.secrets		DEFAULT SEMICOLON_SEPARATED		2	Î
Ê	mail.user		TAB_SEPARATED CUSTOM	LUPLOAD	2	i i
ML	rpa.secrets				2	i I
tê:				Rows per page: 10   1-7 of 7 ↓<		> >  \PSHOT-34329

- 3. Click Add to select CSV file and provide CSV file with columns: alias, value.
- 4. Please, use Override existing keys checkbox if needed.
- 5. Click Upload for load the file:

•••			×A (	? Q
~ >	Secret Vault Filter by text Q	🗘 Refresh   🚡 Upload   🛅 Delete	CREAT	'E NEW
۲	☐ Alias Jĵ	Please Provide Secure Entries		
٦ ت	invoiceplane.secrets	sv3.csv X	2	Î
	mail.user	SV3.CSV	0	Ĩ
$\oslash$	erp.user	Verride existing keys Choose CSV format DEFAULT	0	ĩ
*	sf.secrets	CANCEL	2	î
Ê	court.login		2	Î
ML		Rows per page: 10 ▼ 1-6 of 6 🛛 🗧		
口		Kows per page: 10 ▼ 1-6 61 6 3 €		

To upload a secret vault entry, you need to be granted SecretVault-CREATE permission. See (v. 2.2) Role Permissions.

## View/Edit an Existing Secure Entry

To view or edit the information about a particular secret entry, edit **value** field provided at the information pop-up and click the **Update** button.

Please, use eye icon for switch on visibility of secret entry.

Edit Secret Vault Entry	$\times$

Alias *		
rpa.secre	ts	
Value *	Ø	

UPDATE

1 Once the secret vault entry created, alias cannot be modified.

	Edit Secret Vault Entry	$\times$
Alias * rpa.secre	ts	
Value *	0	
1 ^ { 2 3 4 }	"user": "rpasecrets", "password": "password_rpa"	
	JSON	



To update an existing secret vault entry you need to be granted SecretVault-UPDATE permission. See (v. 2.2) Role Permissions.

## Delete an Existing Secure Entry

To delete the secret entry, use the recycle bin control icon. Required Permission: SecretVault-DELETE. See (v. 2.2) Role Permissions.

• <b>i</b>			Ŕ	?	0
~ >	Secret Vault Filter by text Q	🗘 Refresh 🚡 Upload 🗍 Delete	CRE	EATE NE	w
(T)	Alias 🛧				
Ó	acc.login		2		]
	Court.login		2	1	i -
$\oslash$	erp.user		ð	Î	i
*	invoiceplane.secrets		2	Î	i
Ê	mail.user		8	Î	i
ML	rpa.secrets		â	1	i
较	sf.secrets		2	Î	i
424 424					
		Rows per page: 10 + 1-7 of 7  <	<	>	>1
		© 2021 IBA Group. All rights reserved. v2.1.0-34	376/2.1-SI	NAPSHO	T-34329

To delete multiple secret entry, you need to:

- Put a tick next to the required secret entry.
- Click Delete.

• <b>i</b>			×. ?	) (2)
<b>~</b>	Secret Vault Filter by text Q	🗘 Refresh 🔒 Upload 🛅 Delete	CREATE	NEW
0	<ul> <li>Alias ↑</li> <li>acc.login</li> </ul>		2	ĩ
	Court.login		2	Î
Ø	V erp.user		2	Î
*	invoiceplane.secrets		8	•
Ê	mail.user		2	•
ML	pa.secrets		3	
袋	sf.secrets		2	Ĩ
474		Rows per page: 10 ▼ 1-7 of 7   <	< >	>1

## Control icons

• <b>i</b>		×A G	0
~ •	Secret Vault Filter by text Q Delete	CREATE	E NEW
Œ	Alias ↑		
Ó	acc.login	2	
	Court.login	8	•
$\oslash$	erp.user	8	•
×	invoiceplane.secrets	8	Ĩ
Ê	mail.user	2	Î
ML	rpa.secrets	8	Ĩ
袋	sf.secrets	8	Î
~~~			
	Rows per page: 10 ▼ 1-7 of 7 <	< >	>
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- **Refresh** to pull the last updates from the server.
- Security Access See Security ACCESS.

Filter by text

Filtering allows you to search the Secret Vault by Alias column.

Sorting

Ascending/descending sorting is allowed for the Alias column.

(v. 2.2) Node Management

- Manage existing Nodes
- Edit an existing Node
- Create and configure a new Node

The Node Management module displays a catalog of the available nodes defined by the system. EasyRPA Node is a place where automation processes perform, it can be the same machine as for Control Server or a remote one.

•••									ネ(? 9
~ >	Node Management Filter by text Q	🗘 Refresh 📋 Delete						💎 Ping	all CREA	TE NEW
Œ	Name ↓↑	Description \mathbb{J}^{\uparrow}	Capabilities	Last Seen ↓↑	Status					
Ó	NODE 1		AP_RUN SELENIUM	27.04.2021 18:10	Available	<u>₽</u>	ð	ወ	2	Î
0	NODE 2		AP_RUN SELENIUM	27.04.2021 18:10	Available	₫	¢	ወ	2	Î
\oslash	NODE 3		AP_RUN SELENIUM	27.04.2021 18:10	Available	₫	¢	ወ	9	i
x	NODE 4		AP_RUN SELENIUM	27.04.2021 18:10	Available	₫	¢	ሳ	2	Î
â	NODE 5 dedicated Dedicated	a dedicated node for OCR	AP_RUN SELENIUM	31.12.1901 01:40	Down	<u>₽</u>	Ċ	Ċ	2	
ML										
袋										
~~~					Rows per page: 1	10 🗸	1-5 of 5	<	<	> >
					© 2021 IBA	Group. All r	ights reserve	ed. v2.1.0-34	376/2.1-SNA	APSHOT-34329

To access the Node Management module, you need to be granted Node-READ permission. See (v. 2.2) Role Permissions.

## Manage existing Nodes

The EasyRPA control server allows managing the node catalog.

#### **Columns Description**

- Name the node name.
- Description a short description of the node.
- Capabilities the list of capabilities offered by the node for the automation processes execution.
- Last Seen the last date and time when the node was Available.
- Status the status of the node (Available/Down/Busy).

#### Filter by text

Filtering allows you to search the node by its name, description and Capabilities.

#### Sorting

Ascending/descending sorting is allowed for the columns: Name, Description, Last Seen.

#### **Control Icons**

- Download node agent package Required Permission: Node-ACTION.
- **Restart** to restart the node. Required Permission: Node-ACTION.
- Shut down to shut down the node. Required Permission: Node-ACTION.
- Delete to delete the node. Required Permission: Node-DELETE.
- Ping all to get the latest state for all the nodes. Required Permission: Node-ACTION.
- **Refresh** to refresh the page.

## Edit an existing Node

Key information about a particular node is available at the pop-up panel at the right by clicking on the corresponding row with the node. To access the Edit Node panel, you need to be granted Node-READ permission for Node context. See (v. 2.2) Role Permissions.

You can edit the displayed fields and save the result by clicking the Update button. Required Permission: Node-UPDATE.

#### The pop-up panel contains the following information:

- Name the node name.
- Description a short description of the node functionalities.
- Working Directory to rewrite the default directory to which the automation process run information is saved.
- Capabilities the list of capability labels indicating what capabilities the node has.
- Dedicated the toggle allows you to make the node dedicated. See (v. 2.2) Dedicated Automation Processes.
- Details with Node status

• <b>i</b>													ネ ⑦	٢
<b>,</b> • •	Filter by t	Management						Ŧ	Ping all	CREATE	NEW	Edit Node		×
Œ	<u>а</u>	Name J↑	_ 💋 Refresh 📋	Delete	Last Seen ↓↑	Status						NODE 4 Description		_
Û		NODE 1		JAVA AP_RUN SELENIUM	28.04.2021 10:49	Available	<u>₽</u>	¢	ሳ	8		Working Directory c:\easy_rpa\node_agent\node_04		
		NODE 2		AP_RUN SELENIUM	28.04.2021 10:49	Available	₫	¢	ወ	8	Î	Capabilities AP_RUN X SELENIUM X		
$\oslash$		NODE 3		AP_RUN SELENIUM	28.04.2021 10:49	Available	₫	Q	ሳ	8	Î	Dedicated		
x		NODE 4		AP_RUN SELENIUM	28.04.2021 10:49	Available	$\overline{\Phi}$	¢	ሳ	8	Î	Details		
Ê		NODE 5 dedicated Dedicated	a dedicated node for OCR	AP_RUN SELENIUM	31.12.1901 01:40	Down	$\overline{\Phi}$	Ċ	U	8	Î	Node status • Available		
ML		RI NODE Dedicated		JAVA AP_RUN ROMA SELENIUM	28.04.2021 10:29	Down	₫	Ċ	()	2	Î			
錼														
					Rows per pa	age: 10 🔻	1-6 of 6	5  -	< <	>	×		DETAILS	
												© 2021 IBA Group. All rights reserved. v2.1.0-34	376/2.1-SNAPSH	OT-34329

For more information about the node - click Details. Required Permission: Node-READ.

• <b>•</b> ;												× ? 9
~ •	Node N Filter by te	<b>Management</b>	🗘 Refresh 📋	Delete				💎 Pin	g all	CREATE	NEW	Edit Node X
ŧ		Name ↓↑	Description ↓↑	Capabilities	Last Seen ↓↑	Status						Description
Ó		NODE 1		JAVA AP_RUN SELENIUM	28.04.2021 10:49	Available	₫	¢ (	ሳ	8	Î	Working Directory c:\easy_rpa\node_agent\node_04
0		NODE 2		AP_RUN SELENIUM	28.04.2021 10:49	Available	$\overline{\Phi}$	¢ (	ሳ	8	Î	Capabilities AP_RUN X SELENIUM X
$\oslash$		NODE 3		AP_RUN SELENIUM	28.04.2021 10:49	<ul> <li>Available</li> </ul>	<u>₽</u>	¢ (	ሳ	8		Dedicated
x		NODE 4		AP_RUN SELENIUM	28.04.2021 10:49	Available	<u>₽</u>	¢ (	ሳ	ő	•	Details
Ê		NODE 5 dedicated Dedicated	a dedicated node for OCR	AP_RUN SELENIUM	31.12.1901 01:40	Down	₫	Ċ (	U	å	Î	Node status 🕒 Available
ML		RI NODE Dedicated		JAVA AP_RUN ROMA SELENIUM	28.04.2021 10:29	Down	$\overline{\Phi}$	Ċ (	U	8		
ŝ					Rows per pa	age: 10 🗸	1-6 of 6	K	<	>	>1	DETAILS UPDATE
												© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

## Create and configure a new Node

Read more about how to create and configure a new node in  $\ensuremath{\textbf{Node}}\xspace$  agent installation.

# (v. 2.2) Node Details

- Details
- Configuration Parameters
- Runs
- Node features
- Node logs
- Node Status Lifecycle
- Notifications

The Node Details page contains general information about node, configuration parameters for this node, automation processes executed on this node, features, and logs. You can view/edit node details, configuration parameters and manage automation process runs. To access the Node Details, you need to be granted Node-READ permission. See Role Permissions .

## Details

The Details tab displays general settings that are necessary for the Node creation. If at least once the node agent was started and at least once automation process was launched, information about node agent, features and about the last automation process executed on this node is displayed on the tab.

To view/edit node details, you need to:

- Navigate to the **Node management** module.
- Click on the corresponding Node Name.

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~ >>	Node Management Filter by text Q	🗘 Refresh 🗍 Delete						💎 Ping a	all CREAT	E NEW
ŧ	□ Name ↓	Description ↓↑	Capabilities	Last Seen ↓↑	Status					
Ó	NODE 1 Dedicated		JAVA AP_RUN SELENIUM	29.04.2021 10:34	Available	<u>₽</u>	ð		8	
0	NODE 2		AP_RUN SELENIUM	29.04.2021 10:34	Available	$\overline{\Phi}$	¢	ወ	0	Î
$\oslash$	NODE 3		AP_RUN SELENIUM	29.04.2021 10:34	Available	₫	¢	ወ	8	i i
۰.	NODE 4		AP_RUN SELENIUM	29.04.2021 10:34	Available	<u>₽</u>	¢	ወ	8	Î
Ê	NODE 5 dedicated Dedicated	a dedicated node for OCR	AP_RUN SELENIUM	31.12.1901 01:40	Down	₫	Ċ	U	2	i i
	RI NODE		JAVA AP_RUN RI SELENIUM	28.04.2021 15:18	Down	<u>₽</u>	Ċ	U	2	Î
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徽					Rows per page: 10	0 🗸	1-6 of 6	K	<	> >
					© 2021 IBA (	Group. All ri	ghts reserved	l. v2.1.0-34	376/2.1-SNA	PSH0T-34329

• Change one of the field values.

• <b>i</b>	Node Management / NODE 2		× 0 0
~ >>	Node Details         ← Back to list           Details         Configuration Parameters         Runs	Features Node Logs Notifications	Download C Restart U Shut down UPGRADE VERSION
₪ © 	General Name * NODE 2 Description NODE 2 Vorking Directory c:\easy.rpa\node_agent\node_02 Capabilities AP_RUN X SELENIUM X Dedicated	Node AgentVersion21-SNAPSHOT34292CPU32Toal memory2.83 GBFree memory0.08 GBIP addresses10.2240.323	Features AP_RUN Status: Enabled Running in all Pr un mode. AP: 0 of 8 executors are busy. Tasks: 0 of 1 executors are busy. SELENIUM_HUB Status: Disabled SELENIUM_STANDALONE Status: Enabled Healthy: ves Running (0) since 2021-04:277111:40:39:332+03:00[Europer/Minsk]
			© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSH0T-34229

#### • Click Update.

To update the Node Details, you need to be granted Node-UPDATE permission. See (v. 2.2) Role Permissions.

• <b>i</b> )	Node Management / NODE 2		×a (?) (2)
~ 0	Node Details         ← Back to list           Details         Configuration Parameters         Runs	Features Node Logs Notifications	Download C: Restart 🕛 Shut down UPGRADE VERSION
ŧ	General	Node Agent	Features
Ö	Name * NODE 2	Version 2.1-SNAPSH0T-34329 CPU 32	AP_RUN Status: Enabled
0	Description NODE 2	Total memory 2.38 GB Free memory 2.08 GB	Running in all AP run mode. AP: 0 of 8 executors are busy. Tasks: 0 of 1 executors are busy. SELENIUM_HUB
$\oslash$	Working Directory c:\easy_rpa\node_agent\node_02	IP addresses 10.224.0.32	Status: Disabled SELENIUM_NODE Status: Disabled
x	Capabilities		SELENIUM_STANDALONE Status: Enabled
Ê	Dedicated		Healthy: ves Running (0) since 2021-04-27T11-40-39-332+03-00[Europer/Minsk]
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			ироате
			© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSH0T-34329

#### Control icons

- **Download node agent package** Required Permission: Node-ACTION.
- **Restart** to restart the node. Required Permission: Node-ACTION.
- Shut down to shut down the node. Required Permission: Node-ACTION.
- Upgrade version to upgrade node version to Control Server version. Required Permission: Node-ACTION.

#### **Fields Description**

#### General:

- Name the node name.
- Description (optional) a short description of the node functionalities.
- Working Directory (optional) to save drivers and other necessary files for running processes in a specific folder. By default, this is %Temp%\NODE NAME\.
- Capabilities the list of capability labels indicating what capabilities the node has.
- Dedicated the toggle allows you to make the node dedicated. See (v. 2.2) Dedicated Automation Processes.

#### Node Agent:

This group of fields represents physical characteristics of the node.

- Version of the node agent
- CPU bit amount of the node's CPU
- Total memory memory volume of the node
- Free memory memory volume available for usage
- IP address IP address of the node

#### Features

See Node features for detailed information.

- Feature name
- Status
- Healthy
- Timestamp of run

• <b>i</b>	Node Management / NODE 2		×. (?) (2)
~ •	Node Details         ← Back to list           Details         Configuration Parameters         Runs         F	Features Node Logs Notifications	Download C: Restart () Shut down UPGRADE VERSION
æ	General Name *	Node Agent Version 2.1-SNAPSH0T-34329	Features AP_RUN
Ċ	NODE 2	CPU <b>32</b>	Status: Enabled Running in all AP run mode. AP: 0 of 8 executors are busy. Tasks: 0 of 1 executors are busy.
0	Description NODE 2	Total memory 2.38 GB Free memory 2.08 GB	SELENIUM_HUB Status: Disabled
$\oslash$	Working Directory c:\easy_rpa\node_agent\node_02	IP addresses 10.224.0.32	SELENIUM_NODE Status: Disabled
	Capabilities AP_RUN X SELENIUM X		SELENIUM_STANDALONE
Ê	Dedicated		Status: Enabled Healthy: yes Running (0) since 2021-04-27711 40:39:332+03:00[Europer/Minsk]
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			© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSH07:34329

## **Configuration Parameters**

The Configuration Parameters tab displays the list of node parameters in the form of key-value pairs. Here you can specify the parameters required to start the automation process on the current node.

To access the Configuration Parameters, you need to be granted Node-READ permission. See (v. 2.2) Role Permissions.

A If the same parameter with a different value is present in the CS Configuration and the Automation Process Configuration Parameters modules, the priority is assigned in the following order: Node Configuration Parameter -> Automation Process Configuration Parameter -> CS Configuration Parameter.

### Add Configuration Parameter

There are 2 ways to **Add** a new configuration parameter:

- Click Create New and add configuration parameter manually. Required Permission: Node-UPDATE.
- Click the Upload icon and import the CSV file. Required Permission: Node-UPDATE.

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•	Node [	etails ← Back to list	👲 Download 🕐 Restart 🔱 Shutdov	
~	Details	Configuration Parameters Runs Features Node Logs Notifications		
⊞ (©	Filter by te		Ê∓ Delete All	
0		Key	Value	
		mongodb.port	27017	ĩ
$\oslash$		mongodb.db	easyrpa	<b>i</b>
*		mongodb.index	longds	Î
Ê		mongodb.timeout	10000	
ML				
袋				
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			© 2021 IBA Group. All rights reserved. v2.1.0-34	376/2.1-SNAPSHOT-34329

## Update Configuration Parameter

To **Update** an existing configuration parameter, you need to:

- Click on the corresponding configuration parameter.
- Change one of the field values.

Node [	Details ← Back to list		Download	🕐 Restart 🕛 Shu	t down CREAT	TE NEW	Edit Configuration	
Details	Configuration Parameters	Runs Features Node Logs Notifications		0			Key * mongodb.timeout	
Filter by te	ext						Value *	
4		🗘 Refresh 😃 Download 🚡 Upload 📋 Delete 🛱	Delete All				1 20000 JSON	
	Кеу		Value					
	mongodb.port		27017			Ť.		
	mongodb.db		easyrpa			<b>I</b>		
	mongodb.index		longds			Î		
	mongodb.timeout		10000					
		ſ	Rows per page: 10 👻	1-4 of 4   <	< <	> >	ſ	UP

#### • Click Update.

To update the Automation Process Configuration Parameters, you need to be granted Node-UPDATE permission. See Role Permissions .

In the upper-right corner of the Node Details there are Node Control icons that remain the same for all the tabs:

• <b>i</b>	Node Management / NODE 2			×4 (?) (2)
~ 2	Node Details ← Back to list		❶ Download 🖒 Restart (၂	Shut down CREATE NEW
	Details Configuration Parameters Runs Features Node Logs Notifications			
Œ	Filter by text Q C1 Befresh 🔮 Download 🚡 Linipad 🙃 Delete 🛱 Delete All			
$\odot$	Q C C Refresh 💆 Download 🔂 Upload 🔂 Delete 🛅 Delete All			
6	Key Key	Value		
	mongodb.port	27017		î
Ø	mongodb.db	easyrpa		i.
*	mongodb.Index	longds		i.
Ê	mongodb.timeout	10000		i.
ML				
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- Download to download node agent package. Required Permission: Node-ACTION.
- Restart to restart the node. Required Permission: Node-ACTION.
- Shut down to shut down the node. Required Permission: Node-ACTION.

There are also tab-specific controls regarding Configuration Parameters:

• <b>i</b> )	Node Management / NODE 2			× ? @
~ 5	Node Details         ← Back to list           Details         Configuration Parameters         Runs         Features         Node Logs         Notifications		👲 Download 🌔 Restart	U Shut down CREATE NEW
⊞ ℃	Filter by text Q Download 🚡 Upload 🛅 Delete 🛅 Delete All			
0	Кеу	Value		
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$\oslash$	mongodb.db	easyrpa		
×	mongodb.index	longds		
Ê	mongodb.timeout	10000		ĩ
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袋				

#### Control icons

- Refresh to refresh configuration parameters' list
- Download to download existing configuration parameters in CSV file. Required permission: Node-READ.
- Upload to import new configuration parameters from CSV file. Required Permission: Node-UPDATE.
- Delete to delete the configuration parameter. Required Permission: Node-UPDATE.
- Delete all to delete all configuration parameters of this node. Required Permission: Node-UPDATE.

#### Filter by text

Filtering allows you to search the configuration parameter by Key, Value columns.

## Runs

The Runs tab contains information about all the runs that were started on this node and their statuses. You can manage the automation process runs using control buttons. To access the Automation Processes Runs, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

• <b>i</b>	Node Management / NODE 2			×. ? @
<b>,</b> 0	Node Details			👲 Download 🛟 Restart 🕛 Shut down
	Details Configuration Parameters Runs Features	Node Logs Notifications		
Œ	Filter by text			
Ö	Q Q Refr	łsh		
	Run ID	Created By	Creation Date 🗸	Status
0	JNLP/WebStart Demo / 1025	System Admin	28.04.2021 10:50	Completed
$\oslash$	JNLP/WebStart Demo / 1020	System Admin	28.04.2021 10:31	Completed
x	JNLP/WebStart Demo / 1013	System Admin	28.04.2021 09:45	Completed
Ê	JNLP/WebStart Demo / 1012	System Admin	28.04.2021 09:40	<ul> <li>Failed</li> </ul>
	Invoice Plane Automation / 1001	Raman Ilyuchyk	27.04.2021 12:10	<ul> <li>Completed</li> </ul>
ML				
錢				
			F	Rows per page: 10   1-5 of 5  < < > >
				© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

#### **Columns Description**

- Process name / Run ID the automation process name / numeric identifier of the particular process run.
- Created By the First and Last names of the user who started the automation process. The automation process runs initiated by the schedule will have System Scheduler value
- Creation Date the date and time when the Run was created.
- Status the current status of the Run.

#### Filter by text

Filtering allows you to search the automation process by its name (Run ID column) and author (Created By column).

#### Sorting

Ascending/descending sorting is allowed for the Creation Date column.

#### **Related pages**

Clicking on the Process name / Run ID value will lead to the "History" page of the selected automation process run. See Automation Process Run for more information.

See Automation Process Run Status Lifecycle for more information about the automation process statuses and control icons.

## Node features

See Node features for detailed information about this tab.

## Node logs

The Node Logs tab displays the logs of the particular node. There are displayed only 10 000 log records (All records can be downloaded in the .txt file). To access the Node Logs, you need to be granted Node-READ permission. See Role Permissions .

• <b>i</b>	Node Management / NODE 2 🕉 ⊘ 🕲
0	Node Details ← Back to list
~	Details Configuration Parameters Runs Features Node Logs Notifications
ŧ	Search by text Filter by severity View columns
Ő	ALL
0	[2021-04-28 15:38:14.816] [JNFO] configuration [eu.ibagroup.easyrpa.engine.boot.configuration.NodeConfigurationModule@ice24091] [2021-04-28 15:38:14.816] [JNFO] taskUuid: ddc55760-4548-457b-9068-6668ec3f51d3 [2021-04-28 15:38:14.816] [JNFO] runuldi 7.fd6bb37-fd6c-45f8-9cba-195522ec618a [2021-04-28 15:38:14.916] [JNFO] runuldi 7.fd6bb37-fd6c-45f8-9cba-195522ec618a [2021-04-28 15:38:14.916] [JNFO] taskUucidi 2.5578-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.558-2.55
$\oslash$	[2021-04-28 15:38:16.909]       [INF0]       Loaded ExecutionAspect class eu.ibagroup.easyrpa.engine.service.wfre.laskAnotationExecutionAspect         [2021-04-28 15:38:16.905]       [INF0]       Loaded ExecutionAspect class eu.ibagroup.easyrpa.engine.rpa.driver.DriverExecutionAspect         [2021-04-28 15:38:16.905]       [INF0]       Creating human task for document 22d4f3d>-782-4f77-a2ff-94as6dd2b72
*	[2021-04-28 15:38:16.925] [INF0] Loaded ExecutionAspect class eu.ibagroup.easyrpa.engine.service.wire.TaskAnnotationsExecutionAspect [2021-04-28 15:38:16.925] [INF0] Loaded ExecutionAspect class eu.ibagroup.easyrpa.engine.re.ya.driver.DriverExecutionAspect [2021-04-28 15:38:17.112] [INF0] Injecting task into workspace HumanTaskData(id=null, runUuid=null, ranke=Customer survey 1, description=Demo of form based human tasks, documentType=HT San [2021-04-28 15:38:17.112] [INF0] Injecting task into workspace HumanTaskData(id=null, runUuid=null, ranke=Customer survey 1, description=Demo of form based human tasks, documentType=HT San [2021-04-28 15:38:17.112] [INF0] Run [Fiddeb37-fdc-d578-oc4578-0648-d578-06486-d578-06486-d57813] completed with 0K
Ê	[2021-04-28 15:38:18.082] []NFO] Received Run: ap HT Sample, runUuid 76d0b837-fd6c-45f8-9cba-f95522ac610a, taskUuid 32139a8f-6723-4003-99e0-193dc3f837bf, downloading script on node NODE 2 [2021-04-28 15:38:18.087] [WARN] RunConfiguration was changed by SELENIUM STANDALONE feature.
ML	[2021-04-28 15:38:18.0897] [INFO] AP 207e0814-6631-400d-99be-bb48b38ffd1f working directory is c:\easy_pa\node_agent\node_02\ap-run\7600b837-fd6c-45f8-9cba-f95522ac610a-32139a0f-0723-4003-90e0-193dc3f83 [2021-04-28 15:38:18.300] [INFO] Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/fbagroup/samples/ap/easy-rpa-ht-ap/2.1-SNAFSHOT/maven-metadata.xml (346 B at 3.6 KB/sec) [2021-04-28 15:38:18.307] [INFO] Executing command [java, -Dfile.encoding=UTF-8, -Dlog.appenders=ELASTIC-AP, -DRUN_UUID=70d0b837-fd6c-45f8-9cba-f95522ac610a, -DTASK_UUID=32139a0f-0723-4003-90e0-193dc3f8 [2021-04-28 15:38:18.307] [INFO] Executing command [java, -Dfile.encoding=UTF-8, -Dlog.appenders=ELASTIC-AP, -DRUN_UUID=70d0b837-fd6c-45f8-9cba-f95522ac610a, -DTASK_UUID=32139a0f-0723-4003-90e0-193dc3f8
礅	<pre>[2021-09-2:a 15:35:12:6.09] [INFO] Scattee process with pie 4:04 [2021-09-2:a 15:35:22:6.03] [INFO] Scanning class path to find Configuration.NodeConfigurationNodule module configuration class candidate for launch. [2021-04-2:a 15:38:2:6.03] [INFO] Scanning class path to find ConfigurationModule to run, using profile node. [2021-04-2:a 15:38:2:6.047] [INFO] Creating JMX server on random port [2021-04-2:a 15:38:2:6.047] [INFO] (Scating pietring JMX server on random port [2021-04-2:a 15:38:2:6.047] [INFO] (INFO) Registering JMX hyboolleRunners bean.</pre>
	[2021-84-28 15:38:20.647] [INFO] configuration [eu.ibagroup.easyrpa.engine.boot.configuration.NodeConfigurationModule@ice24091]

#### **Control icons**

General:

- Download to download node agent package Required Permission: Node-ACTION.
- Restart to restart the node. Required Permission: Node-ACTION.
- Shut down to shut down the node. Required Permission: Node-ACTION.

Tab-specific:

- Refresh to pull the latest logs from the server.
- Autorefresh checkbox to turn on/off an automatic refresh of logs.

#### Search by text

You can search for a particular log by its text. The logs found are highlighted in yellow.

• <b>i</b>	Node Management / NODE 2				× ? 9
~~ •	Node Details         ← Back to list           Details         Configuration Parameters	Runs Features <b>Node Logs</b> Notifications		<u>₽</u> Download	C: Restart 🕛 Shut down
H (ث	Search by text	X 🤣 Refresh 🔽 Autorefresh	Filter by severity ALL	View columns timestamp, severity	▼ Sort by timestamp ↑
0	[2021-04-28 15:38:14.816] [INFO] [2021-04-28 15:38:14.816] [INFO] [2021-04-28 15:38:14.816] [INFO] [2021-04-28 15:38:14.909] [INFO]	configuration [eu.ibagroup.easyrpa.engine.boot.configurat task <mark>uufa</mark> : ddc55700-4548-457b-9968-0609ec3f51d3 run <mark>Uufa</mark> : 76d96837-fdsc-45f8-9cba-f95522ac6188 Set XMR MRI connector server VBL to aserviceijmx:mmi///ji	· · · ·		
$\oslash$	[2021-04-28 15:38:16.909] [1MF0] [2021-04-28 15:38:16.909] [IMF0] [2021-04-28 15:38:16.909] [IMF0] [2021-04-28 15:38:16.925] [IMF0]	Loaded ExecutionAspect class eu-lbagroup.easyrpa.engine. Loaded ExecutionAspect class eu-lbagroup.easyrpa.engine. Creating human task for document 22/4f54b-77e2-4f77-a27f Loaded ExecutionAspect class eu-lbagroup.easyrpa.engine.	service.wire.TaskAnnotationsExecutionAspect rpa.driver.DriverExecutionAspect -94ae56dd2b72		
X	[2021-04-28 15:38:16.925] [INFO] [2021-04-28 15:38:17.112] [INFO] [2021-04-28 15:38:17.128] [INFO]	Loaded ExecutionAspect class eu.ibagroup.easyrpa.engine. Injecting task into workspace HumanTaskData(1d=null, run Run [76d0b837-fd6c-45f8-9cba-f95522ac610a,ddc55700-4548- Received Run: ap HT Sample, run <b>juid</b> 76d0b837-fd6c-45f8-9	<mark>Uuid</mark> =null, task <mark>Uuid</mark> =null, name=Customer survey 1 457b-9968-6069ec3f51d3] completed with OK		
Ê	[2021-04-28 15:38:18.082] [INFO] [2021-04-28 15:38:18.097] [WARN] [2021-04-28 15:38:18.097] [INFO] [2021-04-28 15:38:18.300] [INFO]	RunConfiguration was changed by SELENIUM_STANDALONE feature AP 20700814-6631-4dd-95be-bb4b58ffd1f working directory Downloaded: https://10.224.0.35/nexus/repository/easyrpa	ure. y is c:\easy_rpa\node_agent\node_02\ap-run\76d0b	837-fd6c-45f8-9cba-f95522ac610a-3213	9a0f-0723-4003-90e0-193dc3f83 [.]
ML	[2021-04-28 15:38:18.878] [INFO] [2021-04-28 15:38:18.909] [INFO] [2021-04-28 15:38:20.631] [INFO] [2021-04-28 15:38:20.631] [INFO]	Executing command [java, -Dfile.encoding=UTF-8, -Dlog.app Started process with pid 4704 Found class eu.tbagroup.easyrpa.engine.boot.configuration Scanning class path to find ConfigurationModule to run. (	n.NodeConfigurationModule module configuration c	,	39a0f-0723-4003-90e0-193dc3f8:
~~~	[2021-04-28 15:38:20.647] [INF0] [2021-04-28 15:38:20.647] [INF0] [2021-04-28 15:38:20.647] [INF0]	Creating JMX server on random port Registering JMX ApModuleRunner:name=runner bean. configuration [eu.ibagroup.easyrpa.engine.boot.configurat			Not Full Logs
	_			© 2021 IBA Group. All rights reser	rved. v2.1.0-34376/2.1-SNAPSHOT-34329

Filter by severity

Filtering allows you to choose the level of severity of the displayed logs from the dropdown menu. The available options are as follows:

• i)	Node Management / NODE 2				× 0 9
Ø	Node Details ← Back to list				👲 Download 🛟 Restart 🕛 Shut down
~	Details Configuration Parameters	Runs Features Node Logs Notifications			
æ	Search by text	C1 Defresh	Filter by	r severity	View columns timestamp, severity Sort by timestamp
\odot	[2021-04-28 15:38:14.816] [INFO]	configuration [eu.ibagroup.easyrpa.engine.boot.configuration.N	۲	ALL	Control intercounty (
0	[2021-04-28 15:38:14.816] [INFO] [2021-04-28 15:38:14.816] [INFO]	taskUuid: ddc55700-4548-4571-9968-660526151d3 runUuid: 76d0b837-fd6c-45f8-9cba-f95522ac610a	0	TRACE	II 🖻 👲
\odot	[2021-04-28 15:38:14.909] [INFO] [2021-04-28 15:38:16.909] [INFO] [2021-04-28 15:38:16.909] [INFO]	Set JXM RMI connector server URL to service:jmx:rmi:///jndi/rm Loaded ExecutionAspect class eu.ibagroup.easyrpa.engine.servic Loaded ExecutionAspect class eu.ibagroup.easyrpa.engine.rpa.dr	0	DEBUG	
©	[2021-04-28 15:38:16:905] [INF0] [2021-04-28 15:38:16:925] [INF0] [2021-04-28 15:38:16:925] [INF0]	Creating human task for document 22d4f54b-77e2-4f77-a27f-94ae5 Loaded ExecutionAspect class eu.ibagroup.easyrpa.engine.servic	0	INFO	
x	[2021-04-28 15:38:16.925] [INFO] [2021-04-28 15:38:17.112] [INFO]	Loaded ExecutionAspect class eu.ibagroup.easyrpa.engine.rpa.dr Injecting task into workspace HumanTaskData(id=null, runUuid=n	0	WARN	, description=Demo of form based human tasks, documentType=HT Sam
Ê	[2021-04-28 15:38:17.128] [INFO] [2021-04-28 15:38:18.082] [INFO] [2021-04-28 15:38:18.097] [WARN] [2021-04-28 15:38:18.097] [INFO]	Run [76d0b837-fd6c-45f8-9cba-f95522ac618a,ddc55708-4548-45Tb-9 Received Run: ap HT Sample, runUuid 76d0b837-fd6c-45f8-9cba-f9 RunConfiguration was changed by SELERIUM_STANDALONE feature. AP 207e0814-6631-46d0-45be-bb48b58ffd1f working directorv is c			e0-193dc3f837bf, downloading script on node NODE 2 837-fd6c-45f8-9cba-f95522ac610a-32139a0f-0723-4003-90e0-193dc3f8:

View columns

You can add or remove the columns timestamp/severity from the event log view.

• i j	Node Management / NODE 2				× 7 9
~ 0	Node Details ← Back to list Details Configuration Parameters	Runs Features Node Logs Notifications		👲 Download	l 🕐 Restart 🕛 Shut down
æ	Search by text	🗘 Refresh 🗹 Autorefresh	Filter by severity	View columns • timestamp, severity	▲ Sort by timestamp ↑
Ó	[2021-04-28 15:38:14.816] [INFO] CO	ifiguration [eu.ibagroup.easyrpa.engine.boot.config	zuration.NodeConfigurationModule@1ce24091]	V timestamp	
0	[2021-04-28 15:38:14.810] [INFO] taskuuidi ddc55700-454 4575-9988-6098ec1f51d3 [2021-04-28 15:38:14.816] [INFO] runUuidi 7640b837-fd6c-4578-9088-f95522ac6108 [2021-04-28 15:38:14.909] [INFO] 58-13W RMI connector server URL to servite:jmx:rmi:///jnd1/rmi://:33509/jmxrmi			severity	:: ⓑ ≛
\oslash		aded ExecutionAspect class e0.10agroup.easyrpa.eng aded ExecutionAspect class e0.10agroup.easyrpa.eng			

Sort by timestamp

Ascending/descending logs sorting by the timestamp is allowed.

In the upper-right corner of the logs window there are buttons for opening logs in the full browser window, copy logs to the clipboard and download a .txt file with logs

9	Node Management / NODE 2				× 0 9		
~ 0	Node Details			<u>₽</u> Do	ownload 🔥 Restart 🕛 Shut down		
	Details Configuration Parameters	Runs Features Node Logs Notifications					
Ð	Search by text						
	Q	C Refresh Autorefresh	Filter by severity	View columns			
	~	Autorenean	ALL	 timestamp, severity 	 Sort by timestamp 		
3							
	[2021-04-28 15:38:14.816] [INFO]	configuration [eu.ibagroup.easyrpa.engine.boot.confi	guration.NodeConfigurationModule@1ce2	4091]			
	[2021-04-28 15:38:14.816] [INFO]	taskUuid: ddc55700-4548-457b-9968-6069ec3f51d3	· · · ·				
2	[2021-04-28 15:38:14.816] [INFO]	runUuid: 76d0b837-fd6c-45f8-9cba-f95522ac610a			.: 'C ⊻		
	[2021-04-28 15:38:14.909] [INFO]	Set JXM RMI connector server URL to service:jmx:rmi:	///jndi/rmi://:33509/jmxrmi				
	[2021-04-28 15:38:16.909] [INFO]	Loaded ExecutionAspect class eu.ibagroup.easyrpa.eng	ine.service.wire.TaskAnnotationsExecu	utionAspect			
)	[2021-04-28 15:38:16.909] [INFO]	Loaded ExecutionAspect class eu.ibagroup.easyrpa.eng	ine.rpa.driver.DriverExecutionAspect				
\bigcirc	[2021-04-28 15:38:16.925] [INFO]	Creating human task for document 22d4f54b-77e2-4f77-a27f-94ae56dd2b72					
	[2021-04-28 15:38:16.925] [INFO]	Loaded ExecutionAspect class eu.ibagroup.easyrpa.eng	ine.service.wire.TaskAnnotationsExecu	utionAspect			
	[2021-04-28 15:38:16.925] [INFO]	Loaded ExecutionAspect class eu.ibagroup.easyrpa.eng	ine.rpa.driver.DriverExecutionAspect				
	[2021-04-28 15:38:17.112] [INFO]	Injecting task into workspace HumanTaskData(id=null,			sed human tasks, documentType=HT S		
	[2021-04-28 15:38:17.128] [INFO]	Run [76d0b837-fd6c-45f8-9cba-f95522ac610a,ddc55700-4	548-457b-9968-6069ec3f51d3] completed	i with OK			
	[2021-04-28 15:38:18.082] [INFO]	Received Run: ap HT Sample, runUuid 76d0b837-fd6c-45		0f-0723-4003-90e0-193dc3f837bf, downloading	script on node NODE 2		
	[2021-04-28 15:38:18.097] [WARN]	······					
	[2021-04-28 15:38:18.097] [INFO]	0					
L	[2021-04-28 15:38:18.300] [INFO]						
-	[2021-04-28 15:38:18.878] [INFO]	Executing command [java, -Dfile.encoding=UTF-8, -Dlo	g.appenders=ELASIIC-AP, -DRUN_UUID=70	1000837-7060-4578-9008-195522806108, -DTASK_U	1U1D=32139807-0723-4803-90e0-193dc3		
	[2021-04-28 15:38:18.909] [INFO]		ation NedeConfigurationMedul	configuration along condidate for 1 There is	only last 2,000 log records. If you want to get full log, c		
3	[2021-04-28 15:38:20.631] [INFO] [2021-04-28 15:38:20.631] [INFO]		0		nload icon		
3	[2021-04-28 15:38:20.631] [INFO] [2021-04-28 15:38:20.647] [INFO]	Creating JMX server on random port	un, using profile node.				
	[2021-04-28 15:38:20.647] [INF0] [2021-04-28 15:38:20.647] [INF0]	Registering JMX ApModuleRunner:name=runner bean.			Not Full Logs		
	[2021-04-28 15:38:20.647] [INFO]	configuration [eu.ibagroup.easyrpa.engine.boot.confi	guration.NodeConfigurationModule@lce	4091]			

The following section describes the life cycle of the node and the corresponding statuses that it may have.

Node Status Lifecycle

- Available describes the state when the node is ready for use (the Node agent is started).
- **Down** the Node agent was not started.
- Busy describes the state when the automation process is executed on the node.
- Stopping describes a transition state before stop/deletion.

Control icons

The following actions can be applied to the node with corresponding statuses:

	Restart	Shut down	Delete
Available			
Down			
Busy			
Stopping			

Notifications

The Notifications tab allows users to receive messages about a particular AP Run. To access the Notifications, you need to be granted Node-READ permission. See (v. 2.2) Role Permissions.

• i)	Node Management / test01			×, ? (2)
0	Node Details ← Back to list		Download 🖒 Restart 🕛 Shu	It down
~	Details Configuration Parameters	Runs Features Node Logs	Notifications	
⊞ ℃	Filter by text	C Refresh 🗍 Delete		
0	Trigger 🗸	Template ↓↑	Channel JT	
	Stopping	node_entity	Skyup Email Chan	Î
\oslash				
*				
ê				
ML			Rows per page: 10 ▼ 1-1 of 1	$\langle \rangle \rangle$
			© 2021 IBA Group. All rights reserved. v2.1	.0-37340/2.1-SNAPSH0T-37444

Columns Description

- Trigger the action for which the message is sent to the particular channel.
- Template example of a message is sent to a channel.
- Channel mailing list of contacts.

Control icons

- Refresh to refresh the page.
- Delete to delete Notifications.

Required Permission: Node-UPDATE.

• i)	Node Management / test01			× ? 9
e	Node Details ← Back to list		₫ Download 🔿 Rest	art () Shut down CREATE NEW
~	Details Configuration Parameters	Runs Features Node Logs	Notifications	
۲ ال	Filter by text	C Refresh 🗍 Delete		
	Trigger 🗸	Template ↓↑	Channel ↓↑	
	Stopping	node_entity	Skyup Email Chan	Î
Ø				
X				
Ê				
ML			Rows per page: 10 ▼ 1-	l of 1 < < > >
			© 2021 IBA Group. All right	s reserved. v2.1.0-37340/2.1-SNAPSH0T-37444

Filter by text

Filtering allows you to search the automation process by Trigger, Template and Channel.

Sorting

Ascending/descending sorting is allowed for the Trigger, Template and Channel columns.

Create a New Notification

To create a New Notification:

- 1. Click "Create New" button.
- In the New Notification pop-up panel enter Trigger, Chanel, Template.
 Click CREATE.

		ſ	
>	Node Details ← Back to list <u></u> Do	wnload 🕐 Restart 🕛 Shut down CREATE NEW	New Notification
	Details Configuration Parameters Runs Features No	de Logs Notifications	Trigger *
	Filter by text		Channel *
	Q 🧳 Refresh 🗍 Delete		Template *
	☐ Trigger ↓ Template ↓↑ Cł	nannel ↓↑	
	Stopping node_entity St	yup Email Chan	
	Rows per page	x: 10 🕶 1-1 of 1 < < >>>	CRE

To create the Schedule Notifications, you need to be granted Node-UPDATE permission. See (v. 2.2) Role Permissions.

Update Notifications

To **Update** an existing notification parameters, you need to:

- Click on the corresponding notification.
- Change one of the field values.

• i)	Node Management / test01	×. ? .
~	Node Details ← Back to list ⊉ Download () Restart () Shut down CREATE NEW	Edit Notification
~~	Details Configuration Parameters Runs Features Node Logs Notifications	Trigger * Stopping
æ	Filter by text Q Image: Constraint of the second	Channel * Skyup Email Channel 👻
Ũ		Template * node_entity
Ø	☐ Trigger ✔ Template ↓↑ Channel ↓↑	
	Stopping node_entity Skyup Email Chan	
\oslash		
x		
Ê		
ML	Rows per page: 10 ▼ 1-1 of 1 < < >>	UPDATE
	© 2021	IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAPSH0T-37444

• Click Update.

To update the Automation Process Notifications, you need to be granted Node-UPDATE permission. See (v. 2.2) Role Permissions.

Delete Notifications

There 2 ways to **Delete** Notifications:

• Press control icon Delete.

Ĵ	Node Management / test01		× 0 C)
0	Node Details ← Back to list		Download 🕐 Restart (1) Shut down CREATE NEW	
~	Details Configuration Parameters	Runs Features Node Logs	Notifications	
⊞ ℃	Filter by text	🗘 Refresh 📋 Delete		
	Trigger 🗸	Template ↓↑	Channel ↓↑	
	Stopping	node_entity	Skyup Email Chan	
Ø				
x				
ê				
ML			Rows per page: 10 \checkmark 1-1 of 1 < < > >	L
			© 2021 IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAPSHOT-374	44

• Choose the particular (or all) Notification and press icon **Delete.**

• i)	Node Management / test01		ź	ĩa (?) (2)
•	Node Details ← Back to list		👲 Download 🕐 Restart 🔱 Shut down	CREATE NEW
~	Details Configuration Parameters	Runs Features Node Logs Notifications	S	
⊞ (©	Filter by text Q	🗘 Refresh 📋 Delete		
	■ Trigger ↓	Template ↓↑	Channel ↓↑	
	Stopping	node_entity	Skyup Email Chan	i
Ø	Down	SkyUp invoice pr	Skyup Email Chan	Î
*				
Ê				
ML			Rows per page: 10 ▼ 1-2 of 2 < <	> >
			© 2021 IBA Group. All rights reserved. v2.1.0-37340/2	2.1-SNAPSHOT-37444

You need to be granted Node-UPDATE permission. See (v. 2.2) Role Permissions.

(v. 2.2) Node Features

- Automation Process Run Feature
- Selenium Configuration
 - General Selenium Feature Configuration
 - Selenium Hub Feature
 - Selenium Node Feature
 - Selenium Standalone Feature
 - Driver Storage
- Feature Logs

The Node Features tab displays the list of system capabilities available for the specific node.

You can configure node features by clicking **Node Management Node Details Features**. Required Permissions: Node-READ (to view a node feature configuration), Node-UPDATE (to change a node feature configuration). See (v. 2.2) Role Permissions.

•••	Node Management / NODE 1	×. 0 2
0	Node Details ← Back to list	👲 Download 🛟 Restart 🔱 Shut down
~	Details Configuration Parameters Runs Features Node Logs Notifications	
æ	Filter by text Q C Disable 🖒 Restart	
Ũ	· · · · · · · · · · · · · · · · · · ·	
ō	☐ Type ↓↑	Status ↓↑
	SELENIUM_STANDALONE	• Enabled 🖉 🖒
Ø	SELENIUM_HUB	Disabled
~	SELENIUM_NODE	Disabled
Ê	AP_RUN	• Enabled ⊘ 🖒
ML		Rows per page: 10 ▼ 1-4 of 4 < < > >
礅		© 2021 IBA Group, All rights reserved, v2.1.0-34376/2.1-SNAPSH0T-34329

Each node has the following list of default features:

- AP_RUN
- SELENIUM_HUB
- SELENIUM_NODE
- SELENIUM_STANDALONE

The node features can receive two statuses: **Disabled**/**Enabled**. Those features that are enabled appear as tags at the Capabilities field at **Node Management Node Details Details**.

• i	Node Management / NODE 1		×. 0 ©
~	Node Details ← Back to list Details Configuration Parameters	Runs Features Node Logs Notifications	Download C: Restart () Shut down UPGRADE VERSION
Œ	General	Node Agent	Features
0 0 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Name * NODE 1 Description Working Directory c:\easy.rpa\node_agent\node_01 Capabilities JAVA X AP_RUN X SELENIUM X Dedicated	Version2.1-SNAPSHOT-34329CPU32Total memory2.43 GBFree memory1.79 GBIP addresses10.224.0.32	AP_RUN Status: Enabled Running in dedicated AP run mode SELENIUM_HUB Status: Disabled SELENIUM_STANDALONE Status: Enabled Status: Enabled Healthy: yes Running (0) since 2021-04-27T11:40:05.394+03.00[Europe/Minsk]
ML			
鐐			© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSH0T-34329

You can also observe the following information about the node features at the Details tab:

- Status
- Healthy
- Timestamp of run

Automation Process Run Feature

The AP_RUN feature is capable to run automation processes and is enabled by default.

It can be configured to run dedicated or non-dedicated automation processes. The configuration for **non-dedicated** automation processes:

• i)	Node Management / NODE 2						沟 ⑦	٢		
~		Node D	Petails ← Back to list Configuration Parameters R		start 🕛 s		VIEW FEATURE LOGS 7	AP_RUN		×
⊞ (Č)		Filter by te		⊘ Enable ⊘ Disable Ĉ; Restart			1 ~ { 2 "dedicated": false, 3 "capacity": 8 4 }			
			SELENIUM_STANDALONE	Enabled	\oslash	Ó				
Ø			SELENIUM_HUB	Disabled	\oslash	Ċ				
*			SELENIUM_NODE	Disabled	\otimes	Ċ				
Ê			AP_RUN	Enabled	\oslash	Ċ				
ML			R	ows per page: 10 ▼ 1-4 of 4 <	<	> >1				
鐐							© 2021	1 IBA Group. All rights reserved. v2.1.0-3	4376/2.1-SNAPSHC)T-34329

The configuration for **dedicated** automation processes: "dedicated": true.

```
AP_RUN
```

VIEW FEATURE LOGS 🧷

Feature Configuration

```
1 \ {
2 "dedicated": true,
3 "capacity": 8
4 }
```

The capacity setting allows you to set up the quantity of different automation process tasks that can be run on the node at the same time.

1 If the AP_RUN feature is disabled, the node cannot run automation processes.

Selenium Configuration

Selenium Hub, Selenium node and Selenium standalone features make use of Selenium infrastructure and hence have many common settings.

You can manage configuration parameters for each feature in JSON format at the pop-up panel at the right by clicking on the corresponding row with the feature. The overview of the parameters see below

General Selenium Feature Configuration

The general configuration parameters for all features includes the following fields:

- restartTimeout: time in milliseconds to wait for the process to finish or restart
 - url: the container that describes how the node fetches the file
 - type: the storage provider, possible values are S3, URL, NEXUS
 - location: the path to selenium server executable jar relative if the type is S3 or NEXUS, absolute if URL
- file: the name of selenium server jar file stored on node agent
- port: the port number on which selenium will be started

Selenium Hub Feature

The SELENIUM_HUB feature is capable to use the Selenium framework for automating web browser actions. The feature allows configuring a single machine (hub), that delegates requests to different machines (nodes).

SELENIUM_HUB

VIEW FEATURE LOGS 🧷

Feature Configuration

```
1 ^ {
2 "restartTimeout": 10000,
3 ^ "url": {
4 "type": "S3",
5 "location": "easyrpa/selenium/selenium-server-standalone-
3.141.59.jar"
6 },
7 "file": "selenium-server-standalone-3.141.59.jar",
8 "port": 4444
9 }
```

The description of each parameter is given in the General Selenium Feature Configuration title above.

A SELENIUM_HUB and SELENIUM_NODE features work in conjunction and both must be Enabled for setting up the Selenium grid.

Selenium Node Feature

The SELENIUM_NODE feature is capable to use the Selenium framework for automating web browser actions. SELENIUM_NODE feature works in conjunction with SELENIUM_HUB.

The feature allows configuring web drivers that are supported for automation processes execution.

SELENIUM_NODE

Х

VIEW FEATURE LOGS 7

Feature Configuration

```
1 ^ {
 2
       "restartTimeout": 10000,
 Зл
       "url": {
 4
         "type": "$3"
         "location": "easyrpa/selenium/selenium-server-standalone-3.141.59.jar"
 7
       "file": "selenium-server-standalone-3.141.59.jar",
 8 ^
       "drivers": [
 9 ^
10 🔨
           "url": {
              "type": "S3"
              "location": "easyrpa/selenium/drivers/chromedriver.exe"
14
            "file": "chromedriver.exe",
15 д
            "seleniumCapabilities":
              "browserName": "chrome",
"maxInstances": "3"
18
19
            "driverName": "chrome"
20
21 🔨
22 🔨
            "url": {
              "type": "S3"
              "location": "easyrpa/selenium/drivers/geckodriver.exe"
24
            "file": "geckodriver.exe",
26
27 🔨
            "seleniumCapabilities":
             "browserName": "firefox",
"maxInstances": "3"
28
29
30
            "driverName": "gecko"
33 🔨
34 A
            "url": {
             "type": "S3"
              "location": "easyrpa/selenium/drivers/msedgedriver.exe"
            "file": "msedgedriver.exe",
38
39 🔨
            "seleniumCapabilities": {
40
             "browserName": "MicrosoftEdge",
              "maxInstances": "3"
41
42
43
            "driverName": "edge"
44
45 A
           "url": {
46 🔨
47
              "type": "S3"
              "location": "easyrpa/selenium/drivers/IEDriverServer.exe"
48
49
            "file": "IEDriverServer.exe",
50
51 🔨
           "seleniumCapabilities": {
              "browserName": "internet explorer",
              "maxInstances": "3",
54
             "version": "11"
            "driverName": "ie"
58 <sub>A</sub>
59 <sub>^</sub>
           "url": {
             "type": "S3"
61
             "location": "easyrpa/selenium/drivers/operadriver.exe"
62
           "file": "operadriver.exe",
63
64 A
           "seleniumCapabilities":
65
             "browserName": "operablink",
66
              "maxInstances": "3"
           "driverName": "opera"
69
70
       "port": 4401,
       "hub": "http://localhost:4444/grid/register"
```

73 }

The description of some parameters is given in the General Selenium Feature Configuration title above. Along with the selenium capabilities here are the parameters of the web drivers:

Root section

- drivers: the list of web drivers supported by this node
- hub: the URL at which the selenium hub registers the nodes, for example http://localhost:4444/grid/register

List of drivers:

- file: the name of web driver file as it will be stored on node agent
- driverName: the name of system property corresponding to this web driver, passed as -Dwebdriver.<driverName>. driver=...
- seleniumCapabilities: the list of key-value pairs corresponding to selenium capabilities, passed as -browser "key1=value1, key2=value2..."

Selenium Capabilities section:

- browserName: supported values are chrome, firefox, MicrosoftEdge, internet explorer, operablink
- maxInstances: the maximum number of browser instances to run at the same time
- version: the browser version, or the empty string if unknown
- platform: the platform that the browser should run on, currently support is only guaranteed for WINDOWS

Selenium Standalone Feature

The SELENIUM_STANDALONE feature is capable to use the Selenium framework for automating web browser actions. The feature works independently of the SELENIUM_HUB and represents the hub + the only node on which automation processes can be executed.

1 is advised to use the SELENIUM_STANDALONE feature for automation processes that imply a low load with a limited number of sessions.

Х

VIEW FEATURE LOGS 🧷

Feature Configuration

```
1 ^ {
      "restartTimeout": 10000,
      "url": {
 3 🔥
        "type": "S3"
4
         "location": "easyrpa/selenium/selenium-server-standalone-3.141.59.jar"
 6
      "file": "selenium-server-standalone-3.141.59.jar",
      "drivers": [
8 ^
9 ^
          "url": {
10 ^
11
            "type": "S3"
             "location": "easyrpa/selenium/drivers/chromedriver.exe"
14
           "file": "chromedriver.exe",
15 A
           "seleniumCapabilities": {
16
            "browserName": "chrome",
17
             "maxInstances": "3"
18
           "driverName": "chrome"
19
20
21 🔨
22 🔨
           "url": {
            "type": "$3"
             "location": "easyrpa/selenium/drivers/geckodriver.exe"
24
26
           "file": "geckodriver.exe",
27 🔨
           "seleniumCapabilities": {
28
            "browserName": "firefox",
             "maxInstances": "3"
29
30
           "driverName": "gecko"
33 🔨
34 🔨
           "url": {
            "type": "$3"
             "location": "easyrpa/selenium/drivers/msedgedriver.exe"
36
           "file": "msedgedriver.exe",
38
39 🔨
           "seleniumCapabilities":
             "browserName": "MicrosoftEdge",
40
             "maxInstances": "3"
41
42
43
           "driverName": "edge"
44
45 🔨
46 🔨
           "url": {
47
            "type": "S3"
             "location": "easyrpa/selenium/drivers/IEDriverServer.exe"
48
49
           50
51 A
           "seleniumCapabilities": {
            "browserName": "internet explorer",
"maxInstances": "3",
53
54
             "version": "11"
           "driverName": "ie"
56
58 n
59 🔨
           "url": {
60
             "type": "S3"
             "location": "easyrpa/selenium/drivers/operadriver.exe"
           "file": "operadriver.exe",
63
64 🔨
           "seleniumCapabilities":
             "browserName": "operablink",
65
             "maxInstances": "3"
67
68
           "driverName": "opera"
69
70
      "port": 4404
```

The description of some parameters is given in the General Selenium Feature Configuration title above. Along with the selenium capabilities here are the parameters of the web drivers:

Root section

• drivers: the list of web drivers supported by this node

List of drivers:

- file: the name of web driver file as it will be stored on node agent
- driverName: the name of system property corresponding to this web driver, passed as -Dwebdriver.<driverName>.
 driver=...
- seleniumCapabilities: the list of key-value pairs corresponding to selenium capabilities, passed as -browser "key1=value1, key2=value2..."

Selenium Capabilities section:

- browserName: supported values are chrome, firefox, MicrosoftEdge, internet explorer, operablink
- maxInstances: the maximum number of browser instances to run at the same time
- version: the browser version, or the empty string if unknown
- platform: the platform that the browser should run on, currently support is only guaranteed for WINDOWS

Driver Storage

When the selenium node feature is being enabled, the node agent retrieves the web drivers in the following steps:

- 1. analyzing driver list from selenium feature configuration
- 2. downloading each driver from url section
- 3. saving downloaded drivers with the name taken from file field to node working directory. It can be the default folder like % Temp%\NODE NAME\ or custom folder that you specified on the Node Details tab.

Typical Node cache content:

```
29.12.2020 13:55
                    <DIR>
                                  .
29.12.2020 13:55
                   <DTR>
                                  . .
                              ap-run
                  <DIR>
27.12.2020 15:54
24.12.2020 13:57
                     9 721 344 chromedriver.exe
                       2 980 048 geckodriver.exe
24.12.2020 13:57
                   3 420 672 IEDriverServer.exe
9 292 184 msedgedriver.exe
27.12.2020 18:03
24.12.2020 13:57
24.12.2020 18:18
                    <DIR>
                                 nexus-repo
29.12.2020 13:55
                                0 node.lock
27.12.2020 17:54
                     10 936 344 operadriver.exe
24.12.2020 13:57
                       10 649 948 selenium-server-standalone-3.141.59.jar
```

Driver version can be checked by running --version command from the node working directory.

```
>chromedriver.exe --version
ChromeDriver 84.0.4147.30 (48b3e868b4cc0aa7e8149519690b6f6949e110a8-refs/branch-heads/4147@{#310})
```

Feature Logs

Each node feature has logs that show how the feature is used.

You can access feature logs by clicking **View Feature Logs** at the corresponding node feature. To access the Node feature logs, you need to be granted Node-READ permission. See Role Permissions .

• i	Node Management / NODE 1			× ? 9
~	Node Details ← Back to list Details Configuration Parameters Runs	Download C R	estart () Shut down Notifications	SELENIUM_STANDALONE
⊞ ©	Filter by text Q Refresh	Enable 🖉 Disable 🖒 Resta	rt	<pre>1 ^ { 2 "restartTimeout": 10000, 3 ^ "urt": { 4 "type": "S3", 5 "location": "easyrpa/selenium/selenium-server-standalone-</pre>
O	Type ↓↑ SELENIUM_STANDALONE	Status ↓↑	Ø ¢:	3.141.59.jar" 6 }, 7 "file": "selenium-server-standalone-3.141.59.jar", 8 ^ "drivers": [9 ^ [
Ø		 Disabled 	Ø 0	<pre>9 * { 10 * "url": { 11 "type": "S3", 12 "location": "easyrpa/selenium/drivers/chromedriver.exe" 13 },</pre>
X	SELENIUM_NODE	Disabled	0 Č	14 "file": "chromedriver.exe", 15 × "seleniumCapitities": { 16 "browserName": "chrome",
ê	AP_RUN	Enabled	Ø Č	<pre>17 "maxInstances": "3" 18 }, 19 "driverName": "chrome" 20 },</pre>
ML	Rows pe	r page: 10 ▼ 1-4 of 4 -	< < > >1	UPDATE
礅				© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSH0T-34329

Control icons

- Refresh to pull the latest logs from the server.
- Autorefresh checkbox to turn on/off an automatic refresh of logs.

• i)	Node Management / NODE 1	? @
•	Node Details Back to list Download Node Details Back to list Download C Restart C Sho	t down
~	Details Configuration Parameters Runs Features Node Logs Notifications SELENIUM_STANDALONE logs X	
ŧ	Search by text Q Filter by severity View columns ALL View columns Search by text View columns ALL View columns	etamn 🔨
Ċ		Marip 1
O	<pre>[2021-04-27 14:19:21.206] [WARN] } [2021-04-27 14:19:21.206] [WARN]] [2021-04-27 14:19:21.206] [WARN]] [2021-04-27 14:19:21.206] [WARN] Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.</pre>	$\overline{\Phi}$
\oslash	[2021-04-27 14:19:21.269] [WARN] Only local connections are allowed. [2021-04-27 14:19:21.269] [WARN] Starting ChromeDriver 89.0.4389.23 (61b08ee2c50024bab004e48d2b1b083cdbdac579-refs/branch-heads/43890{#294}) on port 21548 [2021-04-27 14:19:21.284] [WARN] ChromeDriver was started successfully.	

Search by text

You can search for a particular log by its text. The logs found are highlighted in yellow.

Filter by severity

Filtering allows you to choose the level of severity of the displayed logs from the dropdown menu. The available options are as follows:

•••	Node Management / NODE 1				×. ? @
0	Node Details			👲 Download C Re:	start 🕛 Shut down
~	Details Configuration Parameters	Runs Features Node Logs Notifications SELENI	UM_STANDALONE logs $ imes$		
æ	Search by text	Ch. Defreeh	Filter by severity	View columns timestamp, severity	Sort by timestamp
\odot					Sort by timestamp
0	[2021-04-27 14:19:21.284] [WARN] [2021-04-27 14:19:22.323] [WARN]	Starting ChromeDriver 89.0.4380.23 (SiD08ee2c50924bab094e48d2b) ChromeDriver was started successfully. [IG19522362.314][WANRING: This version of ChromeDriver has not 141922.347 INFO [ProtocolLandshake.createSession] - Detected 4119222.347 INFO [ProtocossionSister).unabdSecfrommandshah	O TRACE	4)) on port 21548 hebfa34aaa675a616f (org.openqa.selenium.chrc	:: 匝 ⊉
\oslash		14:22:21.050 INFO [ActiveSessionFactory.lambda\$apply\$11] - Mate	-	ion.remote.ServicedSession\$Factory (provider	
1	[2021-04-27 14:22:21.050] [WARN] [2021-04-27 14:22:21.050] [WARN]	1	O WARN		
Ê	[2021-04-27 14:22:21.050] [WARN] [2021-04-27 14:22:21.050] [WARN] [2021-04-27 14:22:21.050] [WARN] [2021-04-27 14:22:21.050] [WARN]	"extensions": [], "argsp": ["goog:chromeOptions": {	OERROR		
		Bookram and observation of f			

View columns

You can add or remove the columns timestamp/severity from the event log view.

					👲 Download	Ċ Resta	art 🕛 Shut	down
Features	Node Logs	Notifications	SELENIUM_STANDALONE	logs X				
🇘 Refresh	Autorefresh	Filter by ALL	severity	•	View columns timestamp, severity		Sort by times	tamp 个
e https://chrc	omedriver,chromiu	m.org/security-co	nsiderations for sugge	stions on	timestampseverity	:		$\overline{\Phi}$
l connections ChromeDriver &	are allowed.				h-heads/4389@{#294}) on port 2	1548		

Sort by timestamp

Ascending/descending logs sorting by the timestamp is allowed.

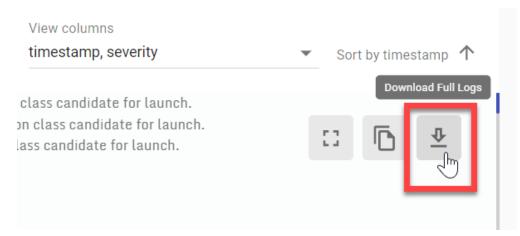
In the upper-right corner of the logs window there are buttons for opening logs in the full browser window, copy logs to the clipboard and download a .txt file with logs:

• i)	Node Management / NODE 1	× 0 9
2	Node Details	👲 Download 🔿 Restart 🔱 Shut down
~	Details Configuration Parameters	Runs Features Node Logs Notifications SELENIUM_STANDALONE logs X
Œ	Search by text	
\bigcirc		
-	[2021-04-27 14:19:21.206] [WARN]	3
	[2021-04-27 14:19:21.206] [WARN]	
	[2021-04-27 14:19:21.206] [WARN]	
		Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
\bigcirc		Starting ChromeDriver 89.0.4389.23 (61b08ee2c50024bab004e48d2b1b083cdbdac579-refs/branch-heads/43890f#294}) on port 21548
	[2021-04-27 14:19:21.284] [WARN]	ChromeDriver was started successfully.
	[2021-04-27 14:19:22.323] [WARN]	[1619522362.314][WARNING]: This version of ChromeDriver has not been tested with Chrome version 90.
1.1	[2021-04-27 14:19:22.347] [WARN]	14:19:22.347 INFO [ProtocolHandshake.createSession] - Detected dialect: W3C
•		14:19:22.349 INFO [RemoteSession\$Factory.lambda\$performHandshake\$0] - Started new session 089ab76ce80e7aaebfa34aaa675a616f (org.openqa.selenium.c
· 1		14:22:21.050 INFO [ActiveSessionFactory.lambda\$apply\$11] - Matched factory org.openqa.selenium.grid.session.remote.ServicedSession\$Factory (provi
Ê	[2021-04-27 14:22:21.050] [WARN]	1
	[2021-04-27 14:22:21.050] [WARN] [2021-04-27 14:22:21.050] [WARN]	
	[2021-04-27 14:22:21.050] [WARN] [2021-04-27 14:22:21.050] [WARN]	」 "extensions": [
ML	[2021-04-27 14:22:21.050] [WARN]	
	[2021-04-27 14:22:21.050] [WARN]	args": [
	[2021-04-27 14:22:21.050] [WARN]	"gog:chromeOptions": {
1 2 3		
10 ¹⁴		© 2021 IBA Group. All rights reserved, v2.1.0-34376/2.1-SNAPSH0T-34329

"Not Full Logs" indicator appears at the bottom right corner when the log becomes too long for one page:

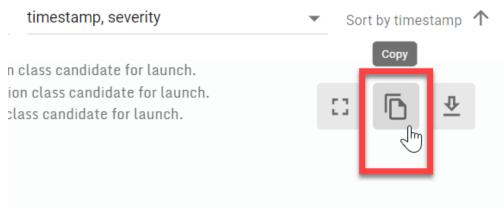


To download full logs use the Download button:



To copy the displayed logs only use the Copy button:

View columns



(v. 2.2) WebDriver Version Update

This section provides information about the best practices for updating the web driver.

- Semi-automatic driver update method
- Manual driver update method
- Obtaining right web driver version
- Common issues and solutions

Each web driver has a version corresponding to a particular browser version. Therefore, if the browser receives the update automatically (and the web driver - does not), a version mismatch exception may occur.

For example, automation processes using the Chrome browser may encounter the following exception:

```
SessionNotCreatedException: session not created: This version of ChromeDriver only supports Chrome version 84
```

Since the web driver is tied to the node environment, you need to identify the node on which the automation process was running to fix the exception.

Semi-automatic driver update method

The easiest way to update the web-drivers is to put a new driver's version in the data storage (see the url section in the Node Details Features selenium feature parameters at the right pop-up panel). New drivers will be automatically updated on the node after the feature or the node is restarted.

If the driver contains a version in its name, you also need to specify the file field.



Manual driver update method

To update drivers manually, you need to download the appropriate driver version and replace it in the node's working directory. However, if there is a recently added file in the data storage, the driver will be updated when the feature or node is restarted.

How to Update the Driver Version

There are two possible ways to identify the node on which the automation process is running for the purpose :

- 1. Check the automation process Event Log.
- 2. Check the Node Logs.

How to check the Node Logs

- Open the automation process run history.
- Select the failed task.
- Click the View Node Log.

•••	Automation Processes / JNLP/WebStart Der	no / 1020	×. 🔿 🙁
~	Run ← Back to list History Event log	Stop C: Retry Delete RI NODE dedicated user on 28.04.2021 14:40	Do Input Verification X View Event Log View Node Log
œ	_	Show Full Graph	Task Input JSON 🔺
Û			<pre>1 A { 2 A "variables": { 3 "ap.class": "eu.tbagroup.easyrpa.ap.JnlpAp" 4 }, 5 "executionPath": [],</pre>
	JNLP/WebStar		6 "runUuid": "lcbelddl-3b46-4958-85c8-6a598cb4aa39", 7 "sessionUuid": "blac5bf5-689d-4968-873a-98cf4ddf5744" 8 }
Ø			Task Output JSON 🔦
~			1 A { 2 A "variables": { 3 "ap.class": "eu.lbagroup.easyrpa.ap.lolo40"
ê			<pre>3 "ap.class": "eu.fbagroup.easyrpa.ap.JnlpAp" 4], 5 ^ "executionPath": [6 ^ {</pre>
ML	Do Input Veri	100% ~ + -	7 * "steos": [
鐐			© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

• The corresponding Node Logs are opened.

• i)	Node Management / NODE 1				×. ? .
2	Node Details ← Back to list			₫ Downloa	id 🛟 Restart 🕛 Shut down
	Details Configuration Parameters	Runs Features Node Logs Not	ifications		
Œ	Search by text	🤣 Refresh 🔽 Autorefresh	Filter by severity	View columns	✓ Sort by timestamp ↑
\bigcirc					
⊂ ⊘ 	[2021-04-28 15:03:01.644] [INF0] [2021-04-28 15:03:01.644] [INF0] [2021-04-28 15:03:01.644] [INF0] [2021-04-28 15:03:02.878] [INF0] [2021-04-28 15:03:02.894] [INF0] [2021-04-28 15:03:02.894] [INF0] [2021-04-28 15:03:02.894] [INF0] [2021-04-28 15:03:02.894] [INF0]	Found class eu.tbagroup.easyrpa.engine.bot Found class eu.tbagroup.easyrpa.engine.bot Seud class eu.tbagroup.easyrpa.engine.bot Set JXM RMI connector server URL to service Loaded ExecutionAspect class eu.tbagroup.ea Loaded ExecutionAspect class eu.tbagroup.ea Trying to communicate with AP run using fol	.configuration.NodeConfigur .configuration.DevelopmentCC ijmx:mri:/j/jdd/rmi://335 syrpa.engine.rpa.driver.Dri syrpa.engine.service.wire.T. syrpa.engine.service.wire.T syrpa.engine.rpa.driver.Dri syrpa.engine.service.wire.T. syrpa.engine.service.wire.T. syrpa.engine.service.wire.T. syrpa.engine.service.wire.T.	ationModule module configuration class cand onfigurationModule module configuration cla 95/jmxrm1 askAnnotationsExecutionAspect verExecutionAspect askAnnotationsExecutionAspect verExecutionAspect askAnnotationsExecutionAspect verExecutionAspect askAnnotationSExecutionAspect	idate for laynch. Dunch. ⊉
ML	[2021-04-28 15:03:05.113] [INF0] [2021-04-28 15:03:05.128] [INF0] [2021-04-28 15:03:05.160] [INF0] [2021-04-28 15:03:08.738] [INF0] [2021-04-28 15:03:08.738] [INF0]	Stop signal received from CS for 51460 pid, Connecting to AP run process using service: Automation process module run process 51460 Canceled process 51460 executed with exitCo Process 51460 executed with exitCode 2	jmx:rmi:///jndi/rmi://:3359 has been notified to stop.	5/jmxrmi.	Not Full Logs
礅	-			© 2021 IBA Group. All rights n	eserved. v2.1.0-34376/2.1-SNAPSH0T-34329

• Search for the working directory by the node name. All drivers, as well as automation process dependencies, are stored in the working directory.

1. This can be the default folder, such as %Temp%\NODE NAME\or a custom folder specified on the Node Details tab.

····	Node Management / NODE 1						×. ? @
~	Node Details					👲 Downloa	d 🛟 Restart 🕛 Shut down
	Details Configuration Parar	meters	Runs Features	Node Logs No	tifications		
æ	Search by text		🗙 🗘 Refresh	Autorefresh	Filter by severity ALL	View columns	✓ Sort by timestamp ↑
\odot							
		LWARN			ApExecutionlask.execute(ApE)		
_		[WARN] [WARN]	· · ·	syrpa.engine.aptlow.A syrpa.ap.JnlpAp.run(J	pModule.execute(ApModule.ja)	va:56)	
\bigcirc		[WARN]			ure.get(CompletableFuture.ja	ava:1908)	
		[WARN]			ure.reportGet(CompletableFu		
	[2021-04-28 14:57:34.769]	[WARN]	java.util.concurrent.E	xecutionException: eu	.ibagroup.easyrpa.engine.ex	ception.EasyRpaException: E1000-4451-521 - I	Inexpected fatal error
\oslash	[2021-04-28 14:57:34.769] [[WARN]	eu.ibagroup.easyrpa.en	gine.exception.EasyRp	aException: E1000-4451-521	- Unexpected fatal error	
	[2021-04-28 14:57:35.706] [Canceled process 14424	executed with exitCo	de 2		
	[2021-04-28 14:57:35.706] [Process 14424 executed	with exitCode 2			
1 × 1	[2021-04-28 15:00:40.457] [Received Run: ap JNLP/	WebStart Demo, runUu	d beecf50f-0602-4a62-b8c5-d	179bbfdbd853, taskUuid null, downloading scr	ipt on node NODE 1
	[2021-04-28 15:00:40.463] [AP 7bfdbf97-2e9b-4ffb-	a9e6-e7f18fc01f3e	<mark>king dir</mark> ectory is c:\easy_r	pa\node_agent\node_01\ap-run\beecf50f-0602-4	4a62-b8c5-d79bbfdbd853-null
	[2021-04-28 15:00:40.472] [[WARN]	RunConfiguration was c	hanged by SELENIUM_S	ANDALONE feature.		
Ê	[2021-04-28 15:00:40.769] [Downloaded: https://	'nexus/repos	itory/easyrpa-group/eu/ibag	roup/samples/ap/easy-rpa-jnlp-ap/2.1-SNAPSH	DT/maven-metadata.xml (348 B at
	[2021-04-28 15:00:41.691] [Executing command []av	a, -Dfile.encoding=U	F-8, -Dlog.appenders=ELASTI	C-AP, -DRUN_UUID=beecf50f-0602-4a62-b8c5-d7	9bbfdbd853, -DTASK_UUID=null, -D
			Started process with p				
ML			0 1	0	dule to run, using profile	dedicated_node.	
			Create an RMI connecto				Not Full Logs
	[2021-04-28 15:00:43.175] [Create RMI registry on	port 15416			
痰							
····						© 2021 IBA Group. All rights re	served. v2.1.0-34376/2.1-SNAPSH0T-34329

Working directory path can also be found at the $\ensuremath{\textbf{Node Details}}$ tab:

• i)	Node Management / NODE 1		×. 0 9
~	Node Details ← Back to list Details Configuration Parameters	Runs Features Node Logs Notifications	Download C Restart U Shut down UPGRADE VERSION
æ	General	Node Agent	Features
(Ŭ) ⊘ ↓ 	Name * NODE 1 Description Working Directory c:teasy_rpatnode_agent\node_01 Capabilities JAVA X AP_RUN X SELENIUM X Dedicated	Version2.1-SNAPSH0T-34329CPU32Total memory2.43 GBFree memory1.25 GBIP addresses	AP_RUN Status: Enabled Running in dedicated AP run mode SEENUM_HUB Status: Disabled SEENUM_NODE Status: Disabled Bunning (0) since 2021-04-27T11:40:05:394+03:00[Europe/Minsk] Status: Disabled
錼			© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSH0T-34329

• To identify the Node host, go to the **Node Details** tab and check its IP address.

• i j	Node Management / NODE 1		× 0 8
~	Node Details ← Back to list Details Configuration Parameters Run	is Features Node Logs Notifications	Download C; Restart U) Shut down UPGRADE VERSION UPGRADE VERSION
Œ	General	Node Agent	Features
0 0 	Name * NODE 1 Description Working Directory c:\easy_rpa\node_agent\node_01 Capabilities JAVA × AP_RUN × SELENIUM × Code Dedicated	Version2.1-SNAPSHOT-34329CPU32Total memory2.43 GBFree memory1.25 GBIP addresses	AP_RUN Status: Enabled Running in dedicated AP run mode SELENIUM_HUB Status: Disabled Status: Disabled Status: Enabled Status: Enabled Healthy: yes Running (0) since 2021-04-27T11140-05.394+03:00[Europe/Minsk]
ML			
琼			© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSH0T-34329

• Connect to the desired machine, open the Chrome browser and check the version through the Help About menu.

9	Google Chrome
0	Google Chrome is up to date Version 87.0.4280.88 (Official Build) (64-bit)

• To fix the exception, you should replace the corresponding web driver file stored on the node with the required version.

🔥 You can check the driver version by running the --version command from the node's working directory.

>chromedriver.exeversic	n	
ChromeDriver 84.0.4147.30	(48b3e868b4cc0aa7e8149519690b6f6949e110a8-refs/branch-heads/4147@{#	\$310})

Obtaining right web driver version

For the web-driver to run smoothly, the following conditions must be met:

- The major driver version must be equal to the major browser version. For example, the Chrome web-driver v. 87.0.4280.88 is suitable for the Chrome browser v. 87.0.4280.88.
- The platform architecture must match: you cannot run Linux driver on Windows.

The latest drivers for each browser can be found on the respective pages.

- Chrome: https://sites.google.com/a/chromium.org/chromedriver/downloads.
- Firefox: https://github.com/mozilla/geckodriver/releases.
- Edge: https://developer.microsoft.com/en-us/microsoft-edge/tools/webdriver/#downloads.
- Internet Explorer 11: https://selenium-release.storage.googleapis.com/index.html.
- Opera: https://github.com/operasoftware/operachromiumdriver/releases.

Links are relevant at the time of writing (March 2021).

Common issues and solutions

Issue	e			Solution
	action could not be cor replacing a driver file.	npleted because the folder or file is ope	n in another program."	The driver file can only be replaced if it is not currently being used.
"nc	o-sandbox"	Check Windows Task Manager to find and stop running instances of		
baran	neter selenium server	the required web driver. You can also use the following command to		
Ø	Node Details	kill all opened chromedriver.exe:		
~	Details Configuration Parameters Ru	ns Features Node Logs Notifications		
æ	Search by text	🆒 Refresh 🗸 Autorefresh	Filter by severity	taskkill /im chromedriver. exe /f
Ö	[2021-06-16 11:59:52.554] [INFO] Saving	file from ResourceLocation(type=S3, location=easyrpa/selenium/drivers/chromec		
0	[2021-06-16 11:59:53.086] [WARN] d:\wor	aded 1 files from ResourceLocation(type=S3, location=easyrpa/selenium/drivers/ k\GIT\easyrpa\nodes\WODE_l\chromedriver.exe (The process cannot access the fil [Neasyrpa\nodes\WODE_l\chromedriver.exe (The process cannot access the file be	le because it is being used by another process)	
Ø	at java.base/java.io.FileOutputSt	ream.open(FileOutputStream.java:298) ream. <init>(FileOutputStream.java:237)</init>		
×	at com.google.common.io.Files\$2.g at com.google.common.io.ByteStream at com.google.common.io.Files.cop	ns.copy(ByteStreams.java:118)		
Ê	at eu.ibagroup.easyrpa.nodeagent.	(flias, gwai277) feature, BaseJavaExecutableFeature, downloadf(BaseJavaExecutableFeature, java:42) feature.SeleniumNodeBaseFeature.downloadffle(SeleniumNodeBaseFeature, java:141) feature.SeleniumNodeBaseFeature, downloadfile(SeleniumNodeBaseFeature, java:99)		
'Canr	not find firefox binary in	n PATH" when running the automation p	process in Firefox.	Firefox.exe must be placed in the PATH for geckodriver to work correctly.

(v. 2.2) Machine Learning

Machine Learning module is designed to enable user to perform a complete cycle of operations from document set collection, applying OCR conversion, tagging documents in Workspace, preparing training data sets to train machine learning models.

This section contains the following modules:

- (v. 2.2) Document Sets
 - (v. 2.2) Details
 - (v. 2.2) Documents
 - (v. 2.2) Runs
- (v. 2.2) Models

Document Sets module allows to create and view document sets used to train ML models along with their names, descriptions, creation /update time as well as data type and automation process used. Here users can edit document sets, populate them with necessary documents, assign correct labels and mark entities, prepare training data, and train models.

Models module provides users with a single point for ML models management: view all the models registered in the system, train new models and delete existing ones, export and import models.

(v. 2.2) Document Sets

- Document Sets Overview
 - Manage Document Sets
 - Create Document Sets
 - Edit Document Sets
 - Delete Document Sets
 - Train Model

Document Sets module allows to create and view document sets used to train ML models along with their names, descriptions, creation /update time as well as data type and automation process used. Here users can edit document sets, populate them with necessary documents, assign correct labels and mark entities, prepare training data, and train models.

The system also provides ability to import document sets as a single package with all the data, labels, and models included. Document Sets along with their content can also be deleted.

You can access the module by clicking **Machine Learning Document Sets**. Required Permission: DocumentSet-READ. See Role Permissions .

;							入	? @
0	Docum Filter by te Q	ext	🗘 Refresh 📋 Delete				CRE	ATE NEW
		Name 🅼	Document Type ${\rm Jr}$	Description	Last Update ↓↑			
		test CL	CL		17.09.2021 12:00	∾	2	Î
		test IE	IE		17.09.2021 11:57	₿	2	Î
		test	test		17.09.2021 10:54	ல	0	Î
	Document Se	ets	IE		17.09.2021 16:48	8	8	Î
	Models	•			Rows per page: 10 ▼ 1-10 of 10	<	<	> >
				r	Rows per page: 10 ▼ 1-10 of 10 © 2021 IBA Group. All rights reserve			

Document Sets Overview

Columns Description

- Name the Document set name. By clicking on the document set name you can see the documents included into the document set.
- Document Type the document type defines how the documents for Human Task are displayed for tagging, which output fields should be extracted during the tagging and Machine Learning training.
- Document Processor the name of an automation process that controls life-cycle of a document set and includes preparation steps to display documents in the Human Task. By clicking on the Automation Process you can see the process runs.
- Description a short description of the Document Set.
- Last Update the last date and time when the documents were changed.

Control icons

- **Refresh** to pull the last updates from the server.
- **Train Model** to train an ML model on documents contained in the Document Set. Please note, it's required to prepare a training set first. Required Permission: MIModel-CREATE.
- Delete to delete the Document Set. Required Permission: DocumentSet-DELETE.

Filter by text

Filtering allows you to search the Document Sets by Name, Document Type, Document Processor, Description.

Sorting

Ascending/descending sorting is allowed for Name, Document Type, Document Processor, Last Update columns.

3						×	? ©
D	Document Sets				ſ	CRE	ATE NEW
	Filter by text	🗘 Refresh 📋 Delete			l	_	_
	□ Name ↓↑	Document Type ↓↑	Description	Last Update $\downarrow \uparrow$			
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Manage Document Sets

Create Document Sets

To create a new Document Set, you need to:

- Navigate to the **Document Sets**. Required Permissions to get there: AutomationProcess-READ and DocumentType-READ.
- Click **CREATE NEW** button. Required Permission: DocumentSet-CREATE. See (v. 2.2) Role Permissions.

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• The New Document Set panel is displayed on the right.

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- Enter a document set Name.
- Optionally enter a short document set **Description**.
- Select a **Document Type** from the drop-down list.

The necessary document type should be created prior to creating a document set. A document type defines how the documents are displayed on Human Task for tagging, which output fields should be extracted during the tagging and Machine Learning training. If the required document type is missing from the drop-down list range navigate to **Administration Human Task Types Human Task Type Details Document Types** to create a new document type. For more details see Create a new Document Type.

• Select a **Document Processor** from the drop-down list.

A document processor is an automation process that controls the document set workflow and includes preparation steps to display documents on the Human Task. The necessary document processor should be created prior to creating a document set. If the required document processor is missing from the drop-down list range navigate to **Automation Processes** to create a new document processor. For more details see Create a new Automation Process.

- Optionally select a ML model from the drop-down list to process the document set .
- Click **ADD** button to upload a .zip file with documents for a new document set. A file explorer window is displayed. Select a .zip file to be uploaded into the document set.

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- Provide OCR configuration including Storage bucket name, Tesseract options, Image Magick and HocrFixWords options in the **Se ttings** field below Add button.
 - document_bucket name of Storage bucket where OCR results will be saved;
 - tesseractOptions Tesseract OCR command line options. Please see the external documentation Tesseract Command Line Usage.

- imageMagickOptions ImageMagick command line options. ImageMagick tool is used to split pdf by pages and print as images. Please follow Image Magick Command Line Documentation.
- hocrFixWords Map with string key-value pairs. Key is a regex and it is used to find mistakes in each word separately. All matches are replaced by value string.
- Click **CREATE** button the save the document set. A new document set is created.

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To create a new document set, you need to be granted DocumentSet-CREATE permission (with AutomationProcess-READ and DocumentType-READ). See (v. 2.2) Role Permissions.

Edit Document Sets

To edit key information about an existing document set click on **the corresponding row** with the document set. **Edit Document Set** panel is displayed on the right. Required Permissions: DocumentSet-UPDATE (with AutomationProcess-READ and MIModel-READ). See (v. 2.2) Role Permissions.

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			Rows per page: 10 ▼ 1-10 of 12  < < > >  DETAILS UPDATE

You can edit the following information about a document set on the displayed panel:

- Name the document set name;
- Description the document set short description;
- Document Type a human task document type to be selected from the dropdown list, a document type defines how the documents are displayed on Human Task for tagging, which output fields should be extracted during the tagging and Machine Learning training;
- Document Processor an automation process for the document set workflow, it includes preparation steps to display documents on the Human Task;
- Model a ML model used to process the document set.

- Settings OCR configuration including Storage bucket name, Tesseract options, Image Magick and HocrFixWords options:
  - document_bucket name of Storage bucket where OCR results will be saved;
  - tesseractOptions Tesseract OCR command line options. Please see the external documentation Tesseract Command Line Usage.
  - imageMagickOptions ImageMagick command line options. ImageMagick tool is used to split pdf by pages and print as images. Please follow Image Magick Command Line Documentation.
  - hocrFixWords Map with string key-value pairs. Key is a regex and it is used to find mistakes in each word separately. All matches are replaced by value string.

To manage documents within an existing document set click **Details** and proceed to **Documents** page.

To save the result of editing click **UPDATE** button.

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To edit a document set, you need to be granted DocumentSet-UPDATE permission. See (v. 2.2) Role Permissions.

### Delete Document Sets

A single document set can be deleted by clicking **Delete** control icon in the corresponding document set row and confirming deletion.

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To delete multiple document sets you need to:

- Place checkmarks next to desired document sets.
- Click **Delete** icon at the top of the page.

• Confirm deletion.

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To delete a document set, you need to be granted DocumentSet-DELETE permission. See (v. 2.2) Role Permissions.

### Train Model

To train a model on a prepared training set, you need to:

• click Train Model icon.

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• The following dialog box appears:

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- In the dialogue box you need to provide the following details:
  - Name a name of the model to be trained.
  - **Description** a short description.
  - Version a model version.
- Click Add button to upload a .zip file with training configurations. A file explorer window is displayed. Select a .zip file to be uploaded into the document set and click **Open.**
- A .zip file with configurations for Classification Models should contain one file:
  - model.json required
- A .zip file with configurations for Information Extraction Models may contain up to 4 files:
  - model.json required
  - labels.json
  - base_model_patterns.json
  - post_processing_rules.json

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• Click **Train** to start ML model training.

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To train a model , you need to be granted MIModel-CREATE permission. See (v. 2.2) Role Permissions.

Model training can also be launched from the Documents page. See (v. 2.2) Documents.

# (v. 2.2) Details

#### • Details

The Documents page contains key information about an existing document set, its processing lifecycle and configuration parameters. You can view/edit document set details, OCR configuration parameters, and manage documents. To view the document set details, you need to be granted DocumentSet-READ permission. See (v. 2.2) Role Permissions.

To access Documents, you need to:

- Navigate to the **Document Sets** page.
- Click on the corresponding Document Set Name.

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## Details

The Details tab displays general settings that are necessary for the document set creation and processing.

You can view/edit the following information about a document set on the Details tab:

- Name the document set name;
- Description the document set short description;
- Document Type a human task document type to be selected from the dropdown list;
- Document Processor an automation process for the document set workflow. The document processor includes converting
  PDFs into images format, image improvements using ImageMagick scripts, sending images to OCR, sending documents with
  OCR response to Human Task, processing Human Task response to convert results into Machine Learning input format.
- Model a ML model used to process the document set.
- Settings OCR configuration including Storage bucket name, Tesseract options and Image Magick options:
  - document_bucket name of Storage bucket where OCR results will be saved.
    - tesseractOptions Tesseract OCR command line options. Please see the external documentation Tesseract Command Line Usage.
    - imageMagickOptions ImageMagick command line options. ImageMagick tool is used to split pdf by pages and print as images. Please follow Image Magick Command Line Documentation.
- To save the result of editing click UPDATE.

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Documents   Back to list		↓ Upload documents
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To manage documents within an existing document set click **Documents** tab.

# (v. 2.2) Documents

- Documents Overview
- Manage Documents
  - Upload Documents to a Document Set
  - Edit Document Details
  - Delete Documents
  - Process Documents
    - Prepare Document Input for Tagging
    - Tag Documents by Model
    - Review and Edit Model Output
    - Tag Documents Manually
    - Prepare training set
    - Generate Model Report
  - Export Document Set Data
  - Import Document Set Data
  - Train Model
- Documents Status Lifecycle

The Documents page contains key information about an existing document set, its processing lifecycle and configuration parameters. You can view/edit document set details, OCR configuration parameters, and manage documents. To view the document set details, you need to be granted DocumentSet-READ permission. See (v. 2.2) Role Permissions.

To access Documents, you need to:

- Navigate to the **Document Sets** page.
- Click on the corresponding Document Set Name.

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To manage documents within an existing document set click **Documents** tab.

## **Documents Overview**

The **Documents** tab contains key information about all documents within a particular document set, their statuses as well as document inputs and outputs.

You can manage the documents using control buttons. To access the documents of a particular document set, you need to be granted DocumentSet-READ permission. See (v. 2.2) Role Permissions.

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$\overline{\bigcirc}$	Document (8).pdf		TAGGED_BY_HUMAN		
	Document (10).pdf		TAGGED_BY_HUMAN		
*	Document (15).pdf		TAGGED_BY_HUMAN		
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ML	Document (1).pdf		TAGGED_BY_HUMAN		
袋	Document (7).pdf		TAGGED_BY_HUMAN	Rows per page: 10   1-10 of 20	
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### **Columns Description**

- Name the name of a document within a document set.
- Notes the notes on a document within a document set.
- Status the current status of the document processing.

### Control icons

- Upload documents to upload/add documents to an existing document set. Required permission: DocumentSet-UPDATE.
- Refresh to pull the latest updates from the server.
  - Delete to delete documents from a document set. Required Permission: DocumentSet-DELETE.
- Process to access dropdown run controls of documents:
  - Re-process to trigger document processor and prepare document input;
  - Execute Model to launch tagging by ML model;
  - Move Model to Human create a Human Task to review/edit (improve) ML model results;
  - Send to Workspace create a Human Task for tagging;
  - Generate Model Report generate statistics report of ML model results (both model and human output results are required to generate statistics report);
  - Prepare training set prepare document set for training.

The run can be done for all documents if no documents are marked with checkmarks, or selected documents if there are marked with checkmarks documents. Required Permission: DocumentSet-ACTION.

- Options to access dropdown options to manage all documents of a document set:
  - Export Document Set Data- store all files from File Storage folder into files of .zip and export records into a .csv;
  - Clear Document Set delete all document from a training set;
  - Train Model launch model training;
  - Import Document Set Data store (with override) all files from .zip into File Storage, add new records into a datastore using records.csv from .zip, replace all File Storage references with new paths;
  - Open Automation Process Runs opens document processor Runs page. See (v. 2.2) Automation Process Run.
- Open Document to view/edit human and model output of a document. Required Permission: DocumentSet-READ.

### Filter by text

Filtering allows you to search the documents by its Name, Notes and Status.

### Sorting

Ascending/descending sorting is allowed for the Name, Notes and Status columns.

## Manage Documents

### Upload Documents to a Document Set

To add documents to an existing document set, you need to:

- Navigate to the **Documents.**
- Click Upload documents.

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• In the pop-up window click **ADD** button to upload a .zip file with documents.

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- A file explorer window is displayed. Select a .zip file to be uploaded into the document set and click Open.
- Click **UPLOAD**. The documents from the .zip file are added to the document set.

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			© 2021 IBA Group, All right	s reserved. v2.1.0-35801/2.1-SNAPSHOT-35802

To upload documents to an existing document set, you need to be granted DocumentSet-UPDATE permission. See (v. 2.2) Role Permissions.

Edit Document Details

To view/edit key information about a document click on the row with the corresponding document. **Document Details** panel is displayed on the right.

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You can view/edit the following information about a document on the displayed panel:

- name the name of a document;
- notes the notes on a document;
- update_timestamp the last moment in time when a document was updated in yyyy-MM-dd HH:mm:ss.SSS format;
- uuid the document unique identifier;
- status the current status of a document processing;
- url the document url;
- s3_path the document path on File Storage;
- OCR json the result of OCR document conversion in json format;

- Document Input generated as a result of 'Re-process' action that triggers the document processor and prepares input data for Human Tasks and ML.
- Human Output generated as a result of tagging a document via Human Task;
- Model Output generated as a result of ML model processing of a document;

When a document is new, OCR json, Document Input, Human Output and Model Output details are empty.

To save the result of editing click **UPDATE** button.

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						© 2021 IBA Group. All rights reserved. v2.1.0-35801/2.1-5	NAPSHOT-35802

To edit document records, you need to be granted DocumentSet-UPDATE permission. See (v. 2.2) Role Permissions.

Delete Documents

To delete documents from a document set, you need to:

- Place checkmarks next to desired documents.
- Click **Delete** icon at the top of the documents list.
- Confirm deletion.

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To delete all documents from a document set, click Clear Document Set in Options menu and confirm deletion.

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To delete documents, you need to be granted DocumentSet-UPDATE permission. See Role Permissions.

Process Documents

Process dropdown menu encapsulates tools targeted at preparing quality data sets to train ML models.

If no documents are marked with checkmarks on the documents list, the actions will be performed on all documents in a document set. If there are documents marked with checkmarks on he documents list, the actions will performed on the selected documents.

Selecting actions on the **Process** dropdown menu will trigger **Document Processor** with specified actions. When a Document Processor starts working, its progress can be monitored in Runs Management and Automation Process Runs. **Automation Process Runs** can be accessed from **Options** dropdown menu:

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To process documents you need to be granted DocumentSet-ACTION permission. See (v. 2.2) Role Permissions.

Prepare Document Input for Tagging

To perform OCR conversion of documents and prepare document input for tagging, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Re-process** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.

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As a result of Re-process action **OCR json** and **Document Input** details are generated and can be viewed on Document Details panel. This data contains the result of OCR in an appropriate format.

Tag Documents by Model

Document Input generated as a result of Re-process action can be used for tagging a document by a ML model if such model already exists.

To launch document tagging by a ML model, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Execute Model** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.

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As a result of Execute Model action **Model Output** details are generated for a particular document and can be viewed on Document Details panel.

Review and Edit Model Output

To review and edit tagging performed by a model after Execute Model action, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to Move Model to Human on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.

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As a result of manual tagging **Human Output** details are generated for a particular document and can be viewed on Document Details panel.

Tag Documents Manually

Document Input generated as a result of a Re-process action can be used for tagging a document in a Human Task.

To create a Human Task to perform documents tagging, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Send to Workspace** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.

Documents should appear in Workspace as a Human Task under corresponding Document Type and manual tagging can be performed.

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Another way to access a Human Task for tagging is to click **Open Document** icon (**Ctrl + Open Document** icon to open in a new tab) in the desired document row of the Documents tab.

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After document is tagged, **Human Output** details are generated for a particular document and can be viewed on Document Details panel.

Prepare training set

When tagging is completed the data needs to be prepared for model training.

To prepare data for model training, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Prepare training set** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.

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Now the training set is prepared and a ML model can be trained.

Generate Model Report

To calculate statistics and evaluate ML model performance, you need:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Generate Model Report** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action

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A Both model and human output results are required to generate statistics report.

Export Document Set Data

A document set can be exported as a .zip package containing a complete set of historical data about the document set including metadata JSON file, initial document set files as well as files created as the result of document processor workflow conversions, a .csv containing all records.

To export a document set click Export Document Set Data icon on the Options menu.

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To export a document set, you need to be granted DocumentSet-READ permission. See (v. 2.2) Role Permissions.

You can also export a document set using Export Document Set Data icon on Document Sets page. See (v. 2.2) Document Sets.

Import Document Set Data

A .zip package with a document set that was earlier exported via Export Document Set Data and containing a complete set of files and records can be imported. All files from an imported .zip are saved to File Storage overriding existing files, new records are added to a document set datastore, all File Storage references are replaced with new paths.

To import a document set click Import Document Set Data icon on the Options menu.

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To import a document set, you need to be granted DocumentSet-UPDATE permission. See (v. 2.2) Role Permissions.

Train Model

To train a model on a prepared training set, you need to:

• click Train Model icon on the Options menu.

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• The following dialog box appears.

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- In the dialog box you need to provide the following details:
 - Name a name of the model to be trained.
 - **Description** a short description.
 - Version a model version.
- Click Add button to upload a .zip file with training configurations. A file explorer window is displayed. Select a .zip file to be uploaded into the document set and click **Open.**
- A .zip file with configurations for Classification Models should contain 2 files:
 - model.json
 - ocr_fixes.json
- A .zip file with configurations for Information Extraction Models should contain 5 files:
 - model.json
 - ocr_fixes.jsonlabels.json

 - base_model_patterns.json
 - post_processing_rules.json

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• Click **TRAIN** to start ML model training.

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To train a model , you need to be granted MIModel-CREATE permission. See (v. 2.2) Role Permissions.

Model Training can also be launched from the Document Sets page. See (v. 2.2) Document Sets.

Documents Status Lifecycle

The lifecycle of a document is designed as a series of linked **statuses** that starts with creation of a document and follow it through multiple processing steps. Status changes occur as a document goes through its lifecycle.

When the document is sent to a workflow, it passes the following statuses:

- NEW a document is created;
- OCR_PROCESSING a document is being digitized with OCR;
- READY_FOR_TAGGING a document is converted to be ready for displaying and processing in a Human Task and Machine Learning;
- TAGGING_BY_HUMAN a document is being processed in a Human Task;
- TAGGING_BY_MODEL a document is being processed by a Machine Learning model;
- TAGGED_BY_HUMAN processing of a document in a Human Task is completed;
- TAGGED_BY_MODEL processing of a document by Machine Learning model is completed.
- PREPARED_FOR_TRAINING a document set is prepared for model training.

(v. 2.2) Runs

The Runs tab contains detailed information about runs performed for this document set, their history, and event log which help users to monitor particular process execution. To view the list of the document set runs, you need to be granted DocumentSEt-READ permissions. See (v. 2.2) Role Permissions.

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×	IE Document Processor / 1022		Nastassia Burak	18.05.2021 22:33	Completed	7
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Each run has its own ID, information about a user who started the Automation Process and start Date/Time and run status (see (v. 2.2) Automation Process Run for all status values).

Filter by text

Filtering allows you to search the runs by Run ID, creator full name (column Created By) and Status.

Sorting

Ascending/descending sorting is allowed for Creation Date and Status columns.

Logs

Press the arrow near particular run to view its logs. To access the Automation Processes Run Event Log, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

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_	Run ID		Created By	Creation Date 🔨	Status ↓↑	
0	IE Document Processor / 1008		Nastassia Burak	18.05.2021 16:09	Completed	7
\oslash	IE Document Processor / 1022		Nastassia Burak	18.05.2021 22:33	Completed	Open run log
x	IE Document Processor / 1029		Hanna Zaprutskaya	19.05.2021 11:24	Completed	7
Ê	IE Document Processor / 1038		Hanna Zaprutskaya	19.05.2021 22:13	Completed	7
ML						
袋						
					Rows per page: 10 ▼ 1-4 of 4	$ \langle \rangle \rangle$
					© 2021 IBA Group. All rights reserved. v	2.1.0-35801/2.1-SNAPSHOT-35802

For detailed information about Automation Processes Run Event Log see (v. 2.2) Automation Process Run.

(v. 2.2) Models

Models module provides users with a single point for ML models management: view all the models registered in the system, train new models and delete existing ones, export and import models.

You can access the module by clicking Machine Learning Models. Required Permission: MIModel-READ permission. See (v. 2.2) Role Permissions.

- Export Model
- Import Model
- Train Model
- Model Log
- Model Status Lifecycle

Columns Description

- Name the Model name.
- Description the short description of the Model.
- Version the Model version.
- Status the Model status.

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~ >	Models Filter by text Q	C Refresh Delete				IMPORT	MODEL	TRAIN	N MODEL	
(±	□ Name ↓↑	Description	Version ↓/	Status 🗸						
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0	yi_model_ie		0.0.1	Ready	$\overline{\Phi}$	(†)	7	ð	Î	
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ê	Document Sets									
ML >	Models									
錼				Rows per page:	10 🔻	1-2 of 2	<	<	>	>1
				© 2021 IB	A Group, All I	lahts reserve		504/2.1-SN		35477

Control icons

- **Refresh** to pull the last updates from the server.
- Export ML Model Package to export the model as a single package. Required Permission: MIModel-READ. See (v. 2.2) Role Permissions.
- Export Training Config to export a ZIP archive with a set of configuration files used for training the model. Required Permission: MIModel-READ. See (v. 2.2) Role Permissions.
- Open Model Log to view the model's training log. Required Permission: MIModel-READ. See (v. 2.2) Role Permissions.
- Delete to delete the Model. Required Permission: MIModel-DELETE. See (v. 2.2) Role Permissions.

Filter by text

Filtering allows you to search the Model by Name, Description, Version columns.

Sorting

Ascending/descending sorting is allowed for Name, Version, Status columns.

Export Model

You can export trained model artifacts as an archive file. Click "Export ML Model package" icon and .tar.gz file will be automatically downloaded:

• i								×	? 9
~ 2	Models Filter by text Q	🗘 Refresh 🗍 Delete				IMPORT I	MODEL	TRAIN	IMODEL
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0	yi_model_ie		0.0.1	Ready	₫	(†)	7	00	•
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袋				Rows per page:	10 🔻	1-2 of 2	Κ	<	> >
				© 2021 IE	8A Group. All ri	ights reserved	d. v2.1.0-35	504/2.1-SN	APSHOT-35477

Import Model

EasyRPA allows to import ML models as a package with all the necessary files. To import a model, you need to:

• Click IMPORT MODEL button.

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œ	Name 🕼	Description Version "ĵ	Status 🗸						
Ö	cl_train1	Please, Provide Package			⊉	(J)	7	8	ĩ
	yi_model_ie	Please, provide ML Model package tar.gz file			⊉	IJ	↗	0	Î
\bigcirc		ADD							
x			CANCEL UPL	OAD					
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ML									
额			ł	Rows per page:	10 🔻	1-2 of 2		<	> >

Click ADD button and select .tar.gz file which contains previously exported model artifacts. Then click UPLOAD button:

• i)			× ? ?
~ >	Models Filter by text Q	IMPORT MODEL	TRAIN MODEL
(H)	Name ↓↑	Description Version ()↑ Status ↓	
Ó	cl_train1	Please, Provide Package	2
	yi_model_ie	ie_sample_debit_note-0.0.1.tar.gz X	<u></u>
\bigcirc		CANCEL	
*			
Ê			
ML			
额		Rows per page: 10 ▼ 1-2 of 2 <	< > >

To import a model, you need to be granted MIModel-CREATE permission. See (v. 2.2) Role Permissions.

Train Model

EasyRPA allows to train models using tagged data from a Document Set. The ML model is trained, packaged as a single archive, and put into the models repository.

To train a model, you need to:

• Click TRAIN MODEL button.

The following dialog box appears:

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	yi_model_ie	Description	_	2	<u>0</u>	(†	7	8	Î	
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ML		CLOSE 1	TRAIN							
鐐			Rows per p	age: 10 🔻	1	-2 of 2		<	>	
			c	2021 IBA Grou	p. All righ	nts reserved.	v2.1.0-355	04/2.1-SNA	APSHOT-3	5477

- In the dialog box you need to provide the following details:
 - Document Set the document set with already prepared data for training. See (v. 2.2) Document Sets
 - Name the name of the model to be trained.

- **Description** the short description.
- Version the model version.
- Click **ADD** button to upload a .zip file with training configurations. A file explorer window is displayed. Select a .zip file to be uploaded into the document set and click **Open**.
- A .zip file with configurations for Classification Models must contain model.json
- A .zip file with configurations for Information Extraction Models must contain **model.json** and 3 optional files:
 - labels.json
 - base_model_patterns.json
 - post_processing_rules.json

•••								Â	? 9
∞ ●	Models Filter by text Q	Train Model	×			IMPORT N	IODEL	TRAIN	MODEL
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Ő	cl_train1	Name * ie_invoices			₫	CT.	7	0	T
0	yi_model_ie	Description training model for IE invoices			$\overline{\Phi}$	(L)	7	8	Î
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• Click **TRAIN** to start ML model training.

• i)										Â	? 2
, , ,	Models Filter by text	Train Mode	9		×			IMPORT N	NODEL	TRAIN	MODEL
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Ê											
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錼					Rows p	ber page: 10	•	1-2 of 2		<	> >1
						© 2021 IBA G	roup. All	rights reserved	I. v2.1.0-35	504/2.1-SN	APSHOT-35477

To train a model, you need to be granted MIModel-CREATE permission. See (v. 2.2) Role Permissions.

Model Log

The system allows to view the training log for ML models created in the system. To view the log, you need to click **Open Model Log** icon for the specific model.

Model logs page is opened:

Models / cl_train1				× ? (
Model Log ← Back to list				
Search by text Q	🤣 Refresh 🔽 Autorefresh	Filter by severity ALL	View columns timestamp, severity 	 Sort by timestamp
copying files to cl_train1-0.	1.1			
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		<u>_</u>		
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copying cl_train1/cl_train1-0 copying cl_train1/cl_train1-0	<pre>.1.1/meta.json -> cl_train1-0.1.1/cl_train1/cl .1.1/tokenizer -> cl_train1-0.1.1/cl_train1/cl .1.1/textcat/cfg -> cl_train1-0.1.1/cl_train1/cl</pre>	_train1-0.1.1 cl_train1-0.1.1/textcat		
copying cl_train1/cl_train1-0 copying cl_train1/cl_train1-0	<pre>.1.1/textcat/model -> cl_train1-0.1.1/cl_train .1.1/vocab/key2row -> cl_train1-0.1.1/cl_train .1.1/vocab/lookups.bin -> cl_train1-0.1.1/cl_t .1.1/vocab/strings.json -> cl_train1-0.1.1/cl_</pre>	1/cl_train1-0.1.1/vocab rain1/cl_train1-0.1.1/vocab		
copying cl_train1/cl_train1-0				
Writing cl_train1-0.1.1/setup creating dist	.1.1/vocab/vectors -> cl_train1-0.1.1/cl_train	i/ct_crami 0.1.1/vocab		

To download full logs use Download button:

View columns timestamp, severity	✓ Sort by timestamp ↑
class candidate for launch. on class candidate for launch. lass candidate for launch.	Download Full Logs

To copy the displayed logs only use Copy button:

View columns

timestamp, severity	-	Sor	t by times	tamp	\uparrow
n class candidate for launch. ion class candidate for launch. class candidate for launch.	5	3	Сору	<u>Φ</u>	

To view a model training log, you need to be granted MIModel-READ permission. See (v. 2.2) Role Permissions.

Model Status Lifecycle

- Ready the model is ready to be used for data processing.
- Submitted for training the training process is in the progress.
- Training failed the training process failed, the model is not operational.

Control icons

The following actions can be applied for the model with corresponding statuses:

	Export ML Model Package	Export Training Config	Open Model Log	Delete
Ready				
Submitted for training				
Training failed				

(v. 2.2) Workspace

The Workspace is a build-in application for the Easy RPA Control Server that allows users to perform automation process steps that cannot be done by machines and require human involvement, for example, decision-making. In the EasyRPA, such steps are called Human Tasks. The Workspace displays a catalog of the Human Tasks available for execution and grouped by the Document Type.

To see the Human Tasks of the specific Document Type, the user should expand the list by clicking the \checkmark symbol near the corresponding Document Type.

To see all tasks not grouped by Document Type switch 💶 near "Enable Grouping by Document Type".

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٥	Workspace			Er	nable Grouping by Document Type 🛛
~	Filter by document types name	🗘 Refresh			
Œ	Name 🗸		Available	In Progress	Completed
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\oslash	V le 2		0	0	0
×	✓ CL htt		0	0	10
ê 🛶					
	_				
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錢					1-4 of 4 < < > >

Columns Description

- Name the Document Type name.
- Available the number of Human Tasks of specific Document Type available for execution.
- In Progress the number of Human Tasks of specific Document Type that a user currently executes.
- **Completed** the amount of completed Human Tasks of a specific Document Type.

Filtering

- Filter by document type name allows searching for the specific Document Type.
- Filter by priority allows searching for the particular priority of the Human Task.
- Filter by status allows searching the Human Task by its status Available/In Progress/Completed.

Sorting

Ascending/descending sorting is allowed by the column Name.

Control Icons

• **Refresh** \heartsuit - to pull the latest changes.

To view human task details, you need to be granted DocumentType-READ permissions. See (v. 2.2) Role Permissions.

Expanded View

In the expanded Document Type, the user can see the catalog of Human Tasks:

Ø	Work	space					Enable Groupi	ng by Document Ty	rpe 🧲
	Filter by	r document types name	Refresh						
		Name 🗸		Available	In Progress		c	ompleted	
	^	yi ie doc type		0	0			12	
		Filter by text Q	🗘 Refresh		Filter by priority		Filter by status All	-	X
		Name 🗸	Priority ↓↑	Description JT	Creation Date $\downarrow\uparrow$	Status ↓↑	Updated Date ↓↑	Updated By ↓↑	
		8cc8c240-b55b-11ea-898b-6d0fd21db128 DNT64376	0	Document tagging for 8cc8c240-b55b-11ea-898b-6d0	15.05.2021 16:14	Completed	15.05.2021 16:15	System Admin	Ø
		8cc7fef1-b55b-11ea-898b-6d0fd21db128 20190803	0	Document tagging for 8cc7fef1-b55b-11ea-898b-6d0f	15.05.2021 16:14	Completed	15.05.2021 16:15	System Admin	Z
		8cc7d7e2-b55b-11ea-898b-6d0fd21db128 20190803	0	Document tagging for 8cc7d7e2-b55b-11ea-898b-6d0	15.05.2021 16:13	 Completed 	15.05.2021 16:14	System Admin	Ø
		8cc7d7e1-b55b-11ea-898b-6d0fd21db128 20190803	0	Document tagging for 8cc7d7e1-b55b-11ea-898b-6d0	15.05.2021 16:13	Completed	15.05.2021 16:14	System Admin	Z
		8cc7d7e0-b55b-11ea-898b-6d0fd21db128 20190803	0	Document tagging for 8cc7d7e0-b55b-11ea-898b-6d0	15.05.2021 16:13	Completed	15.05.2021 16:14	System Admin	Ø
		8c8ba3a0-ca1f-11ea-a8b2-cbb447840d76 DNT67351	0	Document tagging for 8c8ba3a0-ca1f-11ea-a8b2-cbb	15.05.2021 16:50	Completed	15.05.2021 16:55	System Admin	Ø
		8c8a9230-ca1f-11ea-a8b2-cbb447840d76 DNT66502	0	Document tagging for 8c8a9230-ca1f-11ea-a8b2-cbb	15.05.2021 16:50	Completed	15.05.2021 16:55	System Admin	

Columns Description

- Name the name of the document.
- Priority the priority (0-4) with which the Automation Process will process the Human Tasks.
- **Description** a short description of the document.
- Creation Date the date and time of the document creation.
- Status the current status of the document Available/In Progress/Completed.
- **Updated Date** the date and time of the document updating.
- Updated By the user who edited the document.

Sorting

Ascending/descending sorting is allowed by the columns: Name, Priority, Description, Creation Date, Status, Updated Date, Updated By.

Control icons

- Start working to navigate to the selected document. Required Permission: DocumentType-READ. See (v. 2.2) Role Permissions.
- Reset X to reset all filters. Required Permission: DocumentType-READ. See (v. 2.2) Role Permissions.

(v. 2.2) Process Human Task

The EasyRPA Control Server supplies several standard Human Task Types:

- Sample Form Task
- Sample Classification Task
- Sample Information Extraction Task

General WorkFlow

The general procedure of working with the Human Tasks is as follows.

- Select the document to be processed by clicking the Start working \square icon for the corresponding document.
- Click Accept task button in the upper right corner. The task status is changed from Available to In Progress.

• i)	Human Tasks / IE/6f3ea5fc-3a11-4475-856b-848a205d6274.pdf 🏵 🎱						
~ •	Human Task ← Back						Available Available INSTRUCTIONS @
œ	320101114111011	Hation Extraction					-
٣	6	/12/2018		SEC FORM 4			Reporter Name
Ó		SEC Form 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION OMB APPROVAL Watehington, D.C. 20549 Reporter Address Reporter Address					
0	Check this bot if no longer subject Check this bot if no longer subject STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP Statement of the securities Exchange Act of 1934 Field oursearch 196a) of the Securities Exchange Act of 1934						Issuer Name
\oslash		1. Name and Address of Reporting Person <u>NASH JEFFREY M</u>	2. Iss	ection 30(h) of the Investment Company Act of 1940 suer Name and Ticker or Trading Symbol ASAT INC [VSAT]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner		
*		(Last) (First) (Middle) 6155 EL CAMINO REAL	03/1	ate of Earliest Transaction (Month/Day/Year) 15/2018	Officer (give title Other (specify below) below)		Transaction Date
Ê		(Street) CARLSBAD CA 92009	4. If A		6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person		E Security Title
ML		(City) (State) (Zip)					1
	Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned						
磙		1. Title of Security (Instr. 3)	Date (Month/Day/Year)	2A. Deemed Execution Data if any (Month/Day/Year) 3. Transaction Code (line) 4. Securities Acquired (A) o Exposed Of AD (b) (Inst. 3. 4. 4. Diposed Of AD (b) (Inst. 3. 4. 4. Code (line) Code (line) Code (line) 4. Anount (A) o Processory code (line) 1. SYM D 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	and 5) Securities Form: Direct of Indirect Beneficially (D) Indirect Beneficial Owned Following (I) (Instr. 4) Ownership (Instr. 4)		العمر المعرفة ا المعرفة المعرفة ا
	Θ					25% + -	1
						@ 2021 IBA Group	

On the Human Task screen, the user has several available options:

- Process Human Task depending on the Human Task Type (a, b, c) and submit the answers by clicking the set button. T he task status is changed from *In Progress* to *Completed*.
 - a. Fill in the suggested form for Sample Form Task Type.
 - b. Define the correct class for the Sample Classification Task Type.
 - c. Tag the document for the Sample Information Extraction Task Type.
- Skip the current task by clicking the SKIP TASK button.
- Save the current changes in the Human Task by clicking the **B** SAVE button.

Accept the next task automatically by switching the the Human Task will be closed after clicking 'Send' or 'Skip task'. If the radio button is on - the user is redirected to the next task in the queue.

Ø	Human Task ←	Back to list		In Progress	SEND Auto accept next	SKIP TASK
	SEC Form 4 In	formation Extraction		L	INST	RUCTIONS
		6/12/2018	SEC FORM 4		Reporter Name	
		SEC Form 4			1	
		FORM 4 UNITED STAT	ES SECURITIES AND EXCHANGE CO Washington, D.C. 20549	MMISSION OMB APPROVAL	Reporter Address	
		to Section 16. Form 4 or Form 5	IT OF CHANGES IN BENEFICIAL OWN	Estimated success burden	1	
		bligations may continue. See Instruction 1(b).	pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940		Issuer Name	
		1. Name and Address of Reporting Person NASH JEFFREY M	2. Issuer Name and Ticker or Trading Symbol <u>VIASAT INC</u> [VSAT]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner	1	
		(Last) (First) (Middle)	3. Date of Earliest Transaction (Month/Day/Year) 03/15/2018	Officer (give title Other (specify below)	Transaction Date	
		6155 EL CAMINO REAL	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line)	/	
		(Street) CARLSBAD CA 92009		X Form filed by One Reporting Person Form filed by More than One Reporting	E Security Title	
		(City) (State) (Zip)		Person	1	
		Table I - Non-Deriva 1. Title of Security (Instr. 3) 2. Transacti	tive Securities Acquired, Disposed of, or Benef		I Price	
		L. The of Security (IISI: 5) Date (Month/Day	Year) Execution Date, if any (Month/Day/Year) (Month/Day/Year)	and 5) Securities Form: Direct of Indirect Beneficially (D) or Indirect Beneficial Owned Following (I) (Instr. 4) Ownership (Instr. 4)	1	
		\$ 0001 per value common stock 03/15/20	Code V Amount (A) or Pric	e Transaction(s) (Instr. 3 and 4)	t Amount	
	0 n a				25% + -	

A The control buttons are generally determined by the Human Task author and can be customized depending on the task. The best practice is to add the elaborated instruction on how to manage the Human Task. The Instructions are available by clicking the

INSTRUCTIONS ? button at the top right corner.

To view human task details, you need to be granted HumanTaskType-READ permissions. To accept a human task and start working on it, you need to be granted DocumentType-ACTION permission. See (v. 2.2) Role Permissions.

Sample Form Task

The Form Task allows conducting surveys and assumes that the user fills out a customizable form. The Form Task supports the next set of fields:

- Simple text single-line input field (type *text*).
- Multiline text multiline input field (type *textarea*).
- Date picker (type *date*).
- Radio buttons elements of a single choice (type *radio*).
- Select dropdown lists a single choice from the list of values, better long list to choose from (type select).
- Checkbox for a multiple choice multiple choices from the list of values (type *checkbox*).

• i)	Human Tasks / Test data for HT Sample Customer Survey	× ? 2
~ 0	Human Task ← Back to list ● Available	ACCEPT TASK
Ħ	General Information	
Û	1.* Please, provide your Full Name	
0	2.* Please, provide your email	
\oslash	2." Please, provide your email	
х 8	3.* Please, provide your birthday VYYY-MM-DD	
ML		1
ŝ	Provide your feedback 1.* What is your main goal for using this website?	
	© 2021 IBA Group. All rights reserved. v2.1.0-36015	/2.1-SNAPSHOT-35866

To process the Sample Form Task, the user needs to:

- Accept the required task.
- Fill in all the required fields/ answer all the required questions.
- Submit the answer by clicking the Send button.

Sample Classification Task

The Classification Task allows document classification by assigning them one or more categories (in Machine Learning - classes). The Classification Task can be configured for *Single-Label Classification* (when one document belongs to only one class) or *Multi-Label Classification* (when one document may belong to several classes at a time).

The Classification Task can be utilized for:

- Saving and processing category classified by a human in the automation process.
- Collecting Training Set for Machine Learning model training.
- Verification of data extracted by Machine Learning model.

• i	Human Tasks / 8c88bd70-ca1f-11ea-a8b2-cbb447840d76 DNT6459645.pdf	×. Ø (2)
~ •	Human Task ← Back to list	SEND Auto accept next SKIP TASK
_	IDP Sample Document Classification	
Ħ	Page UUU I	IE SAMPLE DEBIT NOTE
Ó	DEBIT NOTE	O IE SAMPLE INVOICE
0		
\oslash	Report ID: VSRPIVO1	
Ť	Vendor Name: PROCTER & GAMBLE INC Debit Note#: DNT6459645	
*	Address: 4711 YONGE ST Debit Note Date: 2018-11-03 P0 B0X 355 STN A TORONTO.ON.M5W 1C5	
Ê	RE: Vendor Support Program: New Store Billings	
ML	Contract Vendor Program#: Contract #: Vendor #: 2135 0580720001 perp13 2135	
錼	Buyer #: Buyer Name: 058 John Nicholls (58)	
	Billing Frequency: Week ly	
	٥	30% + -

To process the Sample Form Task, the user needs to:

- Accept the required task.
- Classify the document into one or more categories (Single-Label and Multi-Label Classification, respectively).
- Submit the answer by clicking the Send button.

Sample Information Extraction Task

Information extraction (IE) is a process of extracting structured information (or key facts) from unstructured and/or semi-structured documents (invoices, claims, dividend news, etc.).

The Information Extraction Task can be utilized for:

- Saving and processing data extracted by a human in the automation process.
- Collecting Training Set for Machine Learning model training.
- Verification of data extracted by Machine Learning model.

• • •	Human Tasks / IE/6f3ea5fc-3a11-4475-856b-848a205d6274.pdf 🕱 🕐 🤅				×. ? .		
~	Human Task ← Back to list				In Progress	SEND Auto accept	next SKIP TASK
	SEC Form 4 Informatio	n Extraction					INSTRUCTIONS (2)
Œ	6/12/2018			SEC FORM 4		Reporter Name	ā 🛙
Ő	SEC 1	FORM 4 UNIT	W	RITIES AND EXCHANGE COI Washington, D.C. 20549	OMB Number: 3235-0287	Reporter Address	
0		ection 16. Form 4 or Form 5 pations may continue. See ruction 1(b).	Filed pursuant to Section or Section 30(h) of	NGES IN BENEFICIAL OWN in 16(a) of the Securities Exchange Act of 1934 of the Investment Company Act of 1940	ERSHIP hours per response: 0.5	6155 EL CAI	
\oslash		e and Address of Reporting Person [®]	VIASAT IN	and Ticker or Trading Symbol	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner Officer (give title Other (specify	VIASAT INC	2 [VSAT] × +
*	(Last) 6155	(First) (Midd) ED CAMINO READ	e) 03/15/2018	t, Date of Original Filed (Month/Day/Year)	below) below) 6. Individual or Joint/Group Filing (Check Applicable	Transaction Date	Ō
Ê	(Street	SBAD CA 9200	9		Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person	♥ 03/15/2018	× + ā ::
1	(City)	(State) (Zip)					
ML	Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned						
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To process the Sample Form Task, the user needs to:

- Accept the required task.
- Tag the document carefully.
- **Submit** the answer by clicking the Send button.

(v. 2.2) Tagging Overview

The tagging is a business process allowing users to label the original document to prepare data sets for the Information Extraction ML model.

- Tagging Interface
- Tagging Tools
- Start Tagging Process

When tagging, it's highly recommended to stick to the following order of steps:

- 1. Find the **required task** in the Workspace.
- 2. Select the Start working button to open it.
- 3. Review the **list of fields** on the right panel.
- 4. Review the original document.
- 5. Accept the task to start tagging.
- 6. Find all the **available fields** in the document and tag them.
- 7. Review the **tagged document**, making sure there are no fields omitted.
- 8. Select the **Send** button.

Tagging Interface

The interface is simple, but you need to know every part of it to make the tagging process effortless. The Workspace interface has three main areas:

- the window where the **document after OCR** is displayed.
- the panel with the **list of fields** for extraction.
- the control panel where the main task control icons are located. See Process Human Task

• i	Human Tasks / IE/6f3ea5fc-3a11-4475-856b-848a20	5d6274.pdf	Control panel 🕺 🕲 🙁
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	SEC Form 4 Information Extraction	<u> </u>	List of Fields INSTRUCTIONS @
æ	6/12/2018	SEC FORM 4	Reporter Name
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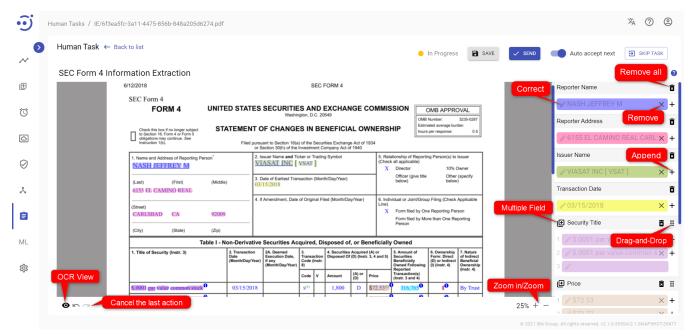
Tagging Tools

To tag the document, you may use the following tagging tools.

ΤοοΙ	Displayed	Description
Multiple field	ŧ	Indicator of the field with multiple values.
Correct		Correct the data value.

	1	
Append	+	Add a tag to the data-value.
Remove	×	Remove the data-value/tag.
Remove all	×	Remove all data-values/all tags of the field.
Drag-and-drop	:	Use drag-and-drop to change data-values positions.
Cancel the last action	50	Functions like Ctrl+Z to undo the previous keystroke.
OCR View	Θ	Switch to the OCR view.
Zoom in/zoom out	31% + -	Change the viewable scale.

On the following screenshot, you can see how those tagging tools look in the interface.



OCR View

The OCR View is available at the Human Task by clicking the \bullet icon. The OCR View allows you to see the confidence of recognition of the different document regions. By setting the OCR confidence threshold, it is possible to check what regions are poorly recognized, or not recognized at all.

In the following screenshot, you can see an example of the OCR confidence set for 94%. Regions that recognized with less confidence are highlighted in red.

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~ •	Human Task ← Back to list ● In Pro	ngress SAVE SEND Auto accept next SKIP TASK			
	SEC Form 4 Information Extraction				
ŧ	6/12/2013 SED FORM9	Reporter Name			
\bigcirc	SEC Form 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION	PPROVAD			
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You can also check the OCR confidence of the particular region by triple-click on it:

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			© 2021 IBA Group. All rights reserved. v2.1.0-35801/2.1-SNAPSHOT-35802

Start Tagging Process

The process of tagging a field is simple. You need to select the necessary field at the right panel and then highlight the required value in the OCRed document.

When you find a text chunk that corresponds to one of the required fields:

- 1. Click at the required field on the right panel.
- 2. Drag the mouse over the corresponding chunk of text.
- 3. Once the field is tagged, the text chunk will be highlighted in that tag's color, and the corresponding value will appear in the field on the right panel.

Reporter Name	X		
/		1. Name and Address of Reporting Person <u>NASH JEFFREY M</u>	1. Name and Address of Reporting Person
Reporter Name	Ī		
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Combinations to highlight the text:

• **Double click** - select one word.

A Note the highlighted text chunk is what the model will see, and the data-value is what the user will receive as an output.

(v. 2.2) Administration

The Administration section ensures the creation and customization of the Human Task Types, assigning user roles and combining them into groups, configuring the Control Server settings, providing license management and audit function of the Easy RPA Control Server.

This section contains the following modules:

- (v. 2.2) Human Task Types
 - (v. 2.2) Document Types
 - (v. 2.2) Document Type Settings JSON Structure
 - (v. 2.2) Playground
- (v. 2.2) User Management
- (v. 2.2) Group Management
 - (v. 2.2) Role Permissions
 - (v. 2.2) Security Access
- (v. 2.2) Notification Management
- (v. 2.2) Control Server Configuration
- (v. 2.2) Control Server Logs
- (v. 2.2) Activity Log
- (v. 2.2) License Management

(v. 2.2) Human Task Types

- Create a new Human Task Type
- Edit an existing Human Task Type

The Human Task Types module is a standalone application for the Easy RPA Control Server designed as a Human Tasks view editor. The Human Task Type defines the input form of the Human Task in the Workspace. With the help of the Human Task Type, the developer can customize the Human Task on Workspace according to the customer's expectations: to give the user interface a preferable appearance and process input data of different formats.

To navigate to the Human Task Types module and view the list of task types, you need to be granted HumanTaskType-READ permission. See (v. 2.2) Role Permissions.

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ML	CS Logs Activity Log					
\$\$ <mark>-</mark>	License Management					
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				© 2021 IBA Group. All rights reserved. v2.1.0-3	5221/2.1-SN	APSHOT-36232

Columns Description

- Name the Human Task Type name.
- **Description** a short description of the Human Task Type.
- Version the Human Task Types version.
- Last Update the last date and time when the Human Task Type was changed.

Filter by text

Filtering allows searching for the Human Task Type by the columns Name, Description, Version.

Sorting

Ascending/descending sorting is allowed by the columns: Name, Description, Last Update.

Control Icons

- **Download application** $\stackrel{1}{\checkmark}$ to download a ZIP archive with all the applicable Human Task Type configurations. Required permission: HumanTaskType-READ. See (v. 2.2) Role Permissions.
- Delete to delete the corresponding Human Task Type. Required permission: HumanTaskType-DELETE. See (v. 2.2) Role Permissions.
- Refresh ${m ar {\cal O}}$ to pull the latest changes for the Human Task Types.
- Security Access 🗳 to manage group access for the corresponding Document Type. See (v. 2.2) Security Access.

Create a new Human Task Type

To create a new Human Task Type, you need to:

- Navigate to the Administration Human Task Types module.
- Click Create New.

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• Click Add to upload a ZIP file with the required Human Task Type configuration. Navigate to http://10.224.0.50/htt/ to find the latest build version of the appropriate Human Task Type.

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• Click Create.

To create a new human task type, you need to be granted HumanTaskType-CREATE permission. See (v. 2.2) Role Permissions.

Edit an existing Human Task Type

Key information about a particular Human Task Type is available at the pop-up panel at the right by clicking on the corresponding row with the Human Task Type. To access the Edit Human Task Type panel, you need to be granted HumanTaskType-UPDATE permissions. See (v. 2.2) Role Permissions.

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You can edit the displayed fields (or overwrite the ZIP file by clicking **Add** button) and save the result by clicking the **Update** button. Required Permission: HumanTaskType-UPDATE. See (v. 2.2) Role Permissions.

The pop-up panel contains the following information:

- Name the Human Task Type name.
- **Description** a short description of the Human Task Type.
- Version the Human Task Types version, which will be updated if a new ZIP file is uploaded.

For more information about the Human Task Type - click **Details**. Required Permission: HumanTaskType-READ. See (v. 2.2) Role Permissions.

(v. 2.2) Document Types

- Create a new Document Type
- Edit an existing Document Type
- Security access to Document Type
- Manage Notifications

The Document Type defines the output form of the Human Task in the Workspace: the fields that should be retrieved from the document, and additional settings that are used by the Human Task to display the input document.

To access Document Types tab and view a list of document types, you need to be granted DocumentType-READ permissions. See (v. 2.2) Role Permissions.

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Columns Description

- Name the Document Type name.
- **Description** a short description of the Document Type.
- Last Update the last date and time when the Document Type was changed.

Filter by text

Filtering allows searching for the Document Type by the columns: Name, Description.

Sorting

Ascending/descending sorting is allowed by the columns: Name, Last Update.

Control Icons

- Manage Notifications See (v. 2.2) Notification Management.
- Security Access to manage group access for the corresponding Document Type. See (v. 2.2) Security Access.
- **Delete** to delete the corresponding Document Type. Required Permission: DocumentType-DELETE. See (v. 2.2) Role Permissions.
- Download application to download a ZIP archive with all the applicable configurations of the current Human Task Type.
- Refresh to pull the latest changes for the Document Types.

Create a new Document Type

To create a new Document Type, you need to:

- Navigate to the Administration Human Task Types module.
- Navigate to the Human Task Type Details of the corresponding Human Task Type.
- Click Create New.

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• Click Create.

To create a new document type, you need to be granted DocumentType-CREATE permission. See (v. 2.2) Role Permissions.

Edit an existing Document Type

Key information about a particular Document Type is available at the pop-up panel at the right by clicking on the corresponding row with the Document Type. To access the Edit Document Type panel, you need to be granted DocumentType-UPDATE permission. See (v. 2.2) Role Permissions.

• i)	Human Task Types / Information Extraction				×. ? 9
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0	□ Name ↓↑	Description	Last Update ↓↑		2 "appLanguage": "en", 3 "taskTypeLabel": "IDP Sample Remittance
\oslash	IE sample	IE sample for invoice	21.05.2021 15:57	<u>a</u> 2 Î	Advice Document Information Extraction", 4 "taskInstructionText": "Please extract fields from provided document.",
	RI Remittance Advice		21.05.2021 15:35	<u>a</u> 2 Î	5 "allowCustomValue": true, 6 "excludeUndefinedEntities": true, 7 ^ "categories": [
*					8 ^ { 9 "name": "Company Name", 10 "multiple": false,
Ê					11 "required": true, 12 ^ "hotkey": [13 "c"
ML					14] 15 }, 16 • {
鐐					17 "name": "Invoice Number", 18 "multiple": false, 19 "required": true, 20 × "hotkey": [21 "n"
			Rows per page: 10 ▼ 1-	2 of 2 < < > >	UPDATE
					© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

You can edit the displayed fields and Settings JSON, and save the result by clicking the **Update** button. Required Permission: **Document** Type-UPDATE.

The pop-up panel contains the following information:

- Name the Human Document Type name.
- **Description** a short description of the Document Type.
- Settings information about the fields that should be retrieved from the documents + additional settings. See (v. 2.2) Document Type Settings JSON Structure.

Security access to Document Type

To manage the security access for the Document Type, you need to:

- Navigate to the Administration Human Task Types module.
- Navigate to the Human Task Type Details of the corresponding Human Task Type.
- Click at the Security Access icon for the corresponding Document Type.

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• For further actions see (v. 2.2) Security Access.

Manage Notifications

The Manage Notifications button allows users to receive messages about a particular Document Type. To access the Notifications, you need to be granted DocumentType-READ permission. See (v. 2.2) Role Permissions.

To manage the notifications for the Document Type, you need to:

- Navigate to the Administration Human Task Types module.
- Navigate to the Human Task Type Details of the corresponding Human Task Type.
- Click at the Manage Notifications icon for the corresponding Document Type.

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Control icons

- **Refresh** to refresh the page.
- **Delete** an existing channel via the recycle bin control icon in the table row or Delete icon above the table. Required Permission: DocumentType-UPDATE. See (v. 2.2) Role Permissions.

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			© 2021 IBA Group. All rights reserved. v2	.1.0-37524/2.1-SNAPSHOT-37634

Columns Description

- **Trigger** the action for which the message is sent to the particular channel.
- **Template** example of a message is sent to a channel.
- Channel mailing list of contacts.

Filter by text

Filtering allows you to search the automation process by Trigger, Template and Channel.

Sorting

Ascending/descending sorting is allowed for the Trigger, Template and Channel columns.

Create a New Notification

To create a New Notification, you need to be granted DocumentType-UPDATE. See (v. 2.2) Role Permissions.

1. Go to the Document Type Notifications and click **CREATE NEW** button:

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2. In the New Notification pop-up panel enter Trigger, Chanel, Template.

3. Click CREATE.

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View/Edit an existing notification

To update an existing Notification, you need to:

- Click on the corresponding Record.
- Change one of the field values in the **Edit Notification** popup panel.
- Click **UPDATE**.

Required Permission: DocumentType-UPDATE. See (v. 2.2) Role Permissions.

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(v. 2.2) Document Type Settings JSON Structure

This section describes how to create Settings JSON for the following Human Task Types:

- Form Task
- Classification Task
- Information Extraction Task

Form Task

Below you can find an example of the Settings JSON for the Sample From Task:

Form Settings JSON example

```
{
    "autoSave": false,
    "taskInstructionText": "Carefully read and classify this text using the categories provided.",
   "taskInstructionLink": "https://172.20.194.57:8444/minio/data/ht_articles_classification/instruction.html",
   "taskTypeLabel": "Forms",
    "appLanguage": "en",
        "groups": [
               {
                        "groupTitle": "General Information",
                        "fields": [
                                {
                                         "name": "full_name",
                                         "label": "Please, provide your Full Name",
                                         "type": "text",
                                         "required": true,
                                         "validationRegExp": "/^[a-zA-Z]+$/"
                                },
                                 {
                                         "name": "email",
                                         "label": "Please, provide your email",
                                         "type": "text",
                                         "required": true,
                                         "validationRegExp": "^[\\w-\\.]+@([\\w-]+\\.)+[\\w-]{2,4}$"
                                },
                                 {
                                         "name": "birthday",
                                         "label": "Please, provide your birthday",
                                         "type": "date",
                                         "required": true
                                }, {
                                        "name": "Gender",
                                         "label": "Please, provide your gender",
                                         "type": "radio",
                                         "required": false,
                                         "items": [
                                                 { "label": "Male", "disabled": false },
                                                 { "label": "Female", "disabled": false },
                                                 { "label": "Other", "disabled": true }
                                        ]
                                }
                        ]
                },
                {
                        "groupTitle": "Provide your feedback",
                        "fields": [
                                {
                                         "name": "goal_of_using",
                                         "label": "What is your main goal for using this website?",
                                         "type": "textarea",
                                         "required": true
                                },
                                {
```

```
"name": "what_changed",
                                         "label": "What changed for you after you started using our website?",
                                          "type": "textarea",
                                         "required": true,
                                         "validationRegExp": "/^[a-zA-Z]{20,50}$/"
                                 },
                                 {
                                         "name": "where_did_you_hear",
                                         "label": "Where did you first hear about us?",
                                         "type": "radio",
                                         "required": true,
                                         "items": [
                                                 {
                                                          "label": "On Google",
                                                          "disabled": false
                                                  },
                                                  {
                                                          "label": "On Billboards",
                                                          "disabled": false
                                                  },
                                                  {
                                                          "label": "On TV Ads",
                                                          "disabled": false
                                                 }
                                         ]
                                 },
                                 {
                                         "name": "what_you_like",
                                         "label": "What do you like most about our website?",
                                         "type": "select",
                                         "required": true,
                                         "values": ["Design", "Experience", "Action Flow", "Ease of finding
required information"]
                                 },
                                 {
                                         "name": "what_you_interested",
                                         "label": "what are you interested in?",
                                         "type": "checkbox",
                                         "required": true,
                                          "disabled": false,
                                         "items": [
                                                 { "label": "Politic", "disabled": false},
                                                  { "label": "Sport", "disabled": false},
                                                  { "label": "History", "disabled": true }
                                         ]
                                 }
                        ]
                }
        1
}
```

These settings contain:

- autoSave (boolean) (optional) allows saving intermediate task results automatically. By default, the setting has a "false" value.
- taskInstructionText (string) (optional) represents the instructions text that will appear in the popup
- taskInstructionLink (string) (optional) represents the link to the remote instructions source. Having at least one of these fields taskInstructionText or taskInstructionLink will cause the Instructions button to appear.
- taskTypeLabel (string) (optional) allows to configure the task title. By default, it is set to "Forms".
- **appLanguage** (string) (optional) allows the user to set up the Human Task localization. Currently available options are "*en*" and "*ru*". By default, the task displays as "*en*".
- groups (list of objects) (required) list of group settings. Each group in the list has the following structure:
 - **groupTitle** (string) (required) identifies the group name to display in Human Task.
 - fields (list of objects) (required) list of fields settings. Each field in the list has the following structure:
 - **name** (string) (required) is used as a key to get value from output result. It's never displayed on the Human Task and **must be unique for the entire form**
 - label (string) (required) label to display on Human Task.
 - type (string) (required) specifies the type of field. <u>Should be one of the supported types</u>: text, textarea, date, radio, select, checkbox.

- **required** (boolean) (optional) shows if the field is required for filling, so the user won't be able to submit Human Task without specifying the values for all required fields.
- validationRegExp (string) (optional) provides possibility to validate filled values using regular expressions.
- **disabled** (boolean) (optional) provides the possibility to disable the field which will prevent the user from filling this field.
- values (list of strings) (<u>required only for "type": "select"</u>) is used only if "type": "select". Specifies possible items in the select dropdown list.
- items (list of objects) (<u>required only for "type": "checkbox"</u>) is used only if "type": "checkbox". Specifies possible items to check. Each item in the list has the following properties:
 - label (string) (required) the label of the checkbox to display on Human Task.
 - **disabled** (boolean) (optional) provides the possibility to disable the checkbox item which will prevent the user from select it.

Classification Task

Below you can find an example of the Settings JSON for the Sample Classification Task:

Classification Settings JSON example

```
{
    "autoSave": false,
    "taskInstructionText": "Carefully read and classify this text using the categories provided.",
    "taskInstructionLink": "https://172.20.194.57:8444/minio/data/ht_articles_classification/instruction.html",
    "taskTypeLabel": "Document Classification",
    "appLanguage": "en",
    "multipleChoice": false,
    "categories": [
        "Science",
        "Politics",
        "Sport",
        "Business"
    ],
    "scoreThreshold": 0.1
}
```

These settings contain:

- autoSave (boolean) (optional) allows saving intermediate task results automatically. By default, the setting has a "false" value.
- taskInstructionText (string) (optional) represents the instructions text that will appear in the popup
- taskInstructionLink (string) (optional) represents the link to the remote instructions source. Having at least one of these fields taskInstructionText or taskInstructionLink will cause the Instructions button to appear.
- taskTypeLabel (string) (optional) allows to configure the task title. By default, it is set to "Document Classification".
- appLanguage (string) (optional) allows the user to set up the Human Task localization. Currently available options are "en" and "ru". By default, the task displays as "en".
- multipleChoice (boolean) (optional) allows enabling multiple choice mode, where you can select multiple categories instead of one. By default, the setting has a "false" value.
- categories (list of strings) (required) list of predefined classes your documents may relate to
- scoreThreshold (decimal) (optional) is used when multipleChoice is true to auto-select the categories after ML. When multiple Choice is false, the scoreThreshold doesn't matter because the category with the highest score is automatically selected.

Information Extraction Task

Below you can find an example of the Settings JSON for the Sample Information Extraction Task:

Information Extraction Settings JSON example

```
{
    "regexFunctions": {
        "numberMorel0": "(value) => { return Number(value) > 10}",
        "lengthMore3": "(value) => { return value.length > 3}"
    },
    "taskInstructionText": "Carefully read and classify this text using the categories provided.",
```

```
"taskInstructionLink": "https://172.20.194.57:8444/minio/data/ht_articles_classification/instruction.html",
"taskTypeLabel": "Information Extraction",
"autoSave": false,
"allowCustomValue": false,
"appLanguage": "en",
"excludeUndefinedEntities": false,
    "categories": [
            {
                    "name": "Amount",
                    "multiple": true,
                    "regex": "^[0-9]*$"
            },
            {
                    "name": "Description",
                    "multiple": true
            },
            {
                    "name": "ItemQuantity",
                    "multiple": true,
                    "required": true
            },
                    "name": "ItemPrice",
                    "multiple": true,
                    "required": true,
                    "helperText": "Number should be more than 10",
                    "regexFnc": ["numberMore10","lengthMore3"]
            },
            {
                    "name": "ItemAmount",
                    "multiple": true
            }
    ]
```

These settings contain:

}

- regexFunctions (object) (optional) a special object which contains "key" "value" pairs to specify custom fields validators, where "key" is your custom function name which can be used as a link in "regexFnc" option of field settings under "categories" setting. "value" - is your custom JavaScript lambda function.
- taskInstructionText (string) (optional) represents the instructions text that will appear in the popup
- taskInstructionLink (string) (optional) represents the link to the remote instructions source. Having at least one of these fields taskInstructionText or taskInstructionLink will cause the Instructions button to appear.
- taskTypeLabel (string) (optional) allows to configure the task title. By default, it is set to "Information Extraction".
- autoSave (boolean) (optional) allows saving intermediate task results automatically. By default, the setting has "false" value.
- allowCustomValue (boolean) (optional) enables the possibility to enter a custom value without any connection to the input
 document picture. This possibility is useful when OCR failed to extract some text from the document.
- appLanguage (string) (optional) allows the user to set up the Human Task localization. Currently available options are "en" and "ru". By default, the task displays as "en".
- excludeUndefinedEntities (boolean) (optional) allows getting the output only of fields that are configured in "categories" setting. By default, the setting has "false" value.
- categories (list of objects) (required) list of fields to extract from the document, where each item contains:
 - name (string) (required) it serves as a key to receiving data from Human Task output
 - **multiple** (boolean) (required) shows if this field may have multiple values (uses when you have the list with details of some items in your document, e.g. a list of products)
 - required (boolean) (optional) shows if the field is required for extraction, so human won't be able to submit Human Task without specifying the values for all required fields
 - helperText (string) (optional) an additional text which is shown if the value is invalid due to additional validators specified by regexp settings.
 - regex (string) (optional) specify regexp function to use for values validation
 - regexFnc (list of string) (optional) list of names of validator functions, which are specified by in "regexFunctions".

(v. 2.2) Playground

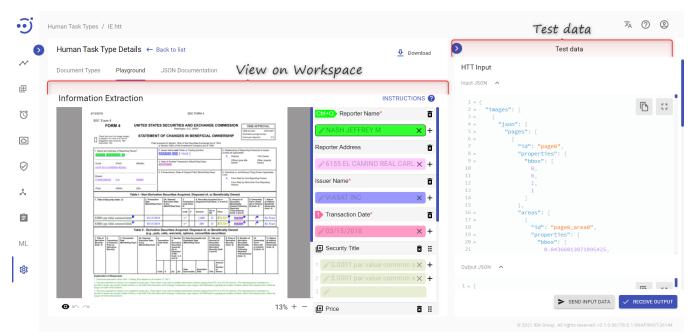
The Playground is a built-in Human Task Type editor that allows users to check how the Human Task operates on the Workspace.

- Form Task
- Classification Task
- Information Extraction Task

Overview

The Playground section consists of the two main areas:

- 1. View on Workspace which represents how the corresponding Human Task Type looks on the Workspace.
- 2. Test Data which contains the Human Task Type Input and Output Data.



It is possible to make changes to both areas and see the effect of those changes straight away.

To see how the changes in the Test Data will reflect the view in the Workspace:

- Make changes to one of the Human Task Type Input JSONs.
- Click Send Input Data.

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æ	Information Extraction	INSTRUCTIONS (2)	Input JSON V Output JSON V
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			© 2021 IBA Group. All rights reserved. v2.1.0-36179/2.1-SNAPSHOT-36144

To see how changes in the Workspace reflect the Human Task Type Output:

- Make changes to the View on WorkSpace area.
- Click Receive Output.

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鐐	Extension of Physeum Texture and a straight of the straightof the straight of the straight of the str		1 \$.0001 par value common s × + 2 \$.0001 par value common s × +		2 Click Receive Output
	In the second seco		3 //		SEND INPUT DATA
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1. The Playground serves only for testing purposes and the changes are not saved. If you refresh the page, it will return to its original view.

Form Task

The Form Task allows conducting surveys and assumes that the user fills out a customizable form.

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		Input JSON 🔦	
For	m	INSTRUCTIONS	ß
		4 "groupTitle": "Group 1", 5 ^ "fields": [
	Group 1	6 ^ { 7 "name": "Email",	
	1.* Enter your email	8 "label": "Enter your email", 9 "type": "text",	
	mail	10 "required": true, 11 "validationRegExp": "^\\S+@\\S+\\.\\S	+\$"
	2.* Select products	12 }, 13 ~ {	
	milk	14 "name": "Products", 15 "label": "Select products",	
		16 "type": "select", 17 "required": true, 18 • "values": [
	3.* Pick a date	19 "eggs",	
	2020-11-12	20 "bread", 21 "milk"	
	4.* Check value	Output JSON 🔦	
	Value1	1 ^ {	5
	Value2	► SEND INPUT DATA	RECEIVE C

Test Data

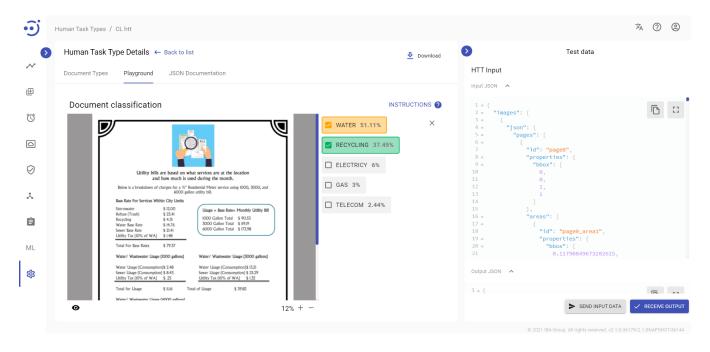
The test data of the Form HTT contains the following information:

- HTTP Input contains the input of the Human Task.
 - *Input JSON* contains the structure of the form that we see on the Workspace.
 - Output JSON contains information entered in the form that we have as input on the Workspace (i.e. ML Model results that the human should review).
 - Settings contain additional settings applied to the Form fields. For more details see Document Type Settings JSON Structure.
- HTTP Output contains the output of the Human Task (the JSON file the automation process receives after the Human Task is completed).
 - Output JSON contains the Human Task results in JSON format.

A The HTTP Output/ Output JSON has the same structure as the HTTP Input/ Output JSON. If there is nothing changed in the Human Task, the Output JSON will be equal to the HTTP Input/ Output JSON.

Classification Task

The Classification Task allows document classification by assigning them one or more categories (in Machine Learning - classes).



Test Data

•

The test data of the Classification HTT contains the following information:

- HTTP Input contains the input of the Human Task.
 - Input JSON represents the document's OCR result in JSON format superimposed on the original document picture.
 - Output JSON contains the information about selected classes in JSON format (i.e. ML model results that came to the Human Task for the human's review).
 - Settings contain the list of categories (classes) and additional Human Task settings in JSON format. For more details see Document Type Settings JSON Structure.
 - HTTP Output contains the output of the Human Task (the JSON file the automation process receives after the Human Task is completed).
 - Output JSON the JSON file contains the output results.

A The HTTP Output/ Output JSON has the same structure as the HTTP Input/ Output JSON. If there is nothing changed in the Human Task, the Output JSON will be equal to the HTTP Input/ Output JSON.

Information Extraction Task

Information extraction (IE) is a process of extracting structured information (or key facts) from unstructured and/or semi-structured documents (invoices, claims, dividend news, etc.).

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	Contract to the second se	Reporter Address	5 ^ "pages": [6 ^ { { 7 "id": "page0", 8 ^ "properties": {
\oslash	Let Prof. Material Control Con	✓ 6155 EL CAMINO REAL CARL × + Issuer Name*	9 * "bbox": [10 0, 11 0, 12 1.
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Ê	CHIEF on this manufacture CH	Transaction Date*	16 ^ "areas": [17 ^ { 18 "id": "page0_area0", 19 ^ "properties": [
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Test Data

The test data of the IE HTT contains the following information:

- HTTP Input contains the input of the Human Task.
 - Input JSON represents the document's OCR result in JSON format superimposed on the original document picture.
 - Output JSON contains the input tagging results in JSON format (i.e. ML model tagging results that came to the Human Task for the human's review).
 - Settings contain the categories to be extracted from the document, the validation rules applied to the categories, and additional Human Task settings in JSON format. For more details see Document Type Settings JSON Structure.
- HTTP Output contains the output of the Human Task (the JSON file the automation process receives after the Human Task is completed).
 - Output JSON the JSON file contains the output tagging results.

A The HTTP Output/ Output JSON has the same structure as the HTTP Input/ Output JSON. If there is nothing changed in the Human Task, the Output JSON will be equal to the HTTP Input/ Output JSON.

(v. 2.2) User Management

- Create a New User
- Password
- System User
- View/Edit a User Properties
- Delete, Disable/Enable, Restore a User
- Download Developer configuration of a User
- User Groups and Role Permissions

The User Management module displays a catalog of all the users in the system and provides access to all User Management functions. The Lightweight Directory Access Protocol, or LDAP for short, is used for easy management user accounts. All users are accessed from your external LDAP resource after adding users to EasyRPA and assigning user group with roles.

You can access the module by clicking **Administration User Management**. Required Permission: User-READ. See (v. 2.2) Role Permissions.

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	CS Configuration		NODE 2 dedicated user	 System 	Nodes	27.04.2021 11:34	$\overline{\Phi}$	49	\oslash	8	1
	Activity Log of		NODE 3 dedicated user	 System 	Nodes	27.04.2021 11:34	$\overline{\Phi}$	£9	\oslash	8	Î
H	License Management 50		NODE 1 dedicated user	 System 	Nodes	27.04.2021 11:33	$\overline{\Phi}$	£9	\oslash	8	Ĩ

EasyRPA Control Server allows to perform the following actions:

- Create a new user via CREATE NEW icon above the table.
- Edit user properties and user groups via Edit User popup panel.
- Delete an existing user via the recycle bin control icon in the table row or Delete icon above the table.
- Disable/Enable an existing user profile via Disable/Enable icon in the table row or above the table.
- Download Developer configuration of an existing user via Download Developer configuration icon in the table row.
- **Restore** a deleted user via Restore icon in the table row.

Filter by text

Filtering allows you to search the user by the columns: Username, E-mail, Full Name, Status, Groups.

Sorting

Ascending/descending sorting is allowed for the columns: Username, E-mail, Full Name, Creation Date.

Create a New User

To create a user:

- 1. Go to the User Management module and click CREATE NEW. Required Permission: User-CREATE. See Role Permissions .
- 2. In the New User popup panel:

- Enter Username, First Name and Last Name, Password, Confirm Password, E-mail (optionally). If LDAP is enabled: Enter at least 3 letters of Username and choose user from available in the dropdown list. The user credentials cannot be changed since it is provided from your external LDAP resource.
- Tick **Enable user**, if necessary.
- Choose the user **Groups** from available in the dropdown list. To add a new User Group, go to **Administration Group Management**.
- Default group contains permissions and selected automatically, when you choose a group.

3. Click CREATE.

>	User N	lanagement									CREA	TE NEW	New User
	Filter by t	ext	φ	Refresh 🔗 Enable 🖉 Dis	sable 🗍 [Delete							Username * easyrpa-bind
		Username ↓↑	E-mail 个	Full Name ↓↑	Status	Groups	Creation Date 个						First Name * easyrpa-bind
		admin	admin@easyrpa.eu	System Admin	Enabled	RO Minio Storage, Administrators	27.04.2021 08:27	<u>⊕</u>	4	Ø	8	T	Last Name * easyrpa-bind
		burak_na	Burak_NA@itd.iba.by	Nastassia Burak	Enabled	Administrators	27.04.2021 16:41	-	Ð	Ø	3	ĩ	E-mail easyrpa-bind@itd.iba.by
		easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	RP Administrators, Administrators	27.04.2021 11:45	$\overline{\mathbb{T}}$	Ð	Ø	2	Î	Enable
		easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	$\overline{\Phi}$	Ð	Ø	2	Î	Groups Administrators
		easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	RP Administrators, Administrators	27.04.2021 11:46	₽	-C)	0	3	ĩ	Default group
		ilyuchyk_ra	llyuchyk_RA@itd.iba.by	Raman Ilyuchyk	Enabled	Administrators	27.04.2021 11:51	$\overline{\mathbb{P}}$	£.	0	2	ĩ	Administrators
		trotskaya_di	Trotskaya_DI@itd.iba.by	Darya Trotskaya	Enabled	Administrators	29.04.2021 12:22	₽	£.	0	8	ĩ	
		zaprutskaya_hg	Zaprutskaya_HG@itd.iba	Hanna Zaprutskaya	Enabled	Administrators	27.04.2021 15:02	-	-C)	0	8	ĩ	
		nodeuser-8e74f6b9		NODE 5 dedicated dedicated user	System	Nodes	27.04.2021 18:10	ψ	£.)	\bigcirc	2	Ĩ	

Password

Password requirements:

- Password should **not** contain the username.
- Passwords should be **longer** than 7 characters.
- Password contain at least 1 alpha, 1 numeric character, 1 character in lower case and 1 character in upper case.

Change password:

1. If LDAP is disabled, admin user clicks the corresponding user row, changes the password in the popup panel, and click **UPDATE**. Required Permissions: User-UPDATE. See (v. 2.2) Role Permissions.

\mathbf{O}	User N	lanagement									CREAT		Edit User	
/	Filter by te	ext	φ	Refresh 🔗 Enable	🖉 Disable	Delete					CREAT		Username * easy_rpa_1	
		Username ↓↑	E-mail ↓↑	Full Name 🎝	Status	Groups	Creation Date ↓↑						Password	3
ĵ		queue		System Queue	 System 		10.06.2021 10:34	₽	<i>-</i> (-)	\oslash	2	T	Confirm Password	۵ ا
]		nodeuser-15d720dc		NODE 1 AP user	 System 	Nodes	10.06.2021 13:41	₽	<i>(</i>)	\oslash	8	î	First Name * easy_rpa_1	
		nodeuser-536252d4		NODE 2 AP user	 System 	Nodes	10.06.2021 13:41	⊉	£.	\oslash	8	Т.	Last Name * easy_rpa_1	
		nodeuser-143a4ec3		NODE 3 AP user	System	Nodes	10.06.2021 13:41	$\overline{\Phi}$	Ð	\oslash	2	Î	E-mail easy_rpa_1@itd.iba.by	
		nodeuser-3fb14bf4		NODE 4 AP user	System	Nodes	10.06.2021 13:41	$\overline{\mathbb{T}}$	Ð	\oslash	2	1	Enable user	
		burak_na	Burak_NA@itd.iba.by	Nastassia Burak	Enabled	Administrators	10.06.2021 15:07	$\overline{\Phi}$	Ð	\oslash	2	î	Groups	
		easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	Administrators	10.06.2021 15:40	₽	€	\oslash	2	i i	Administrators X	
		easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	Administrators	10.06.2021 15:40	⊉	Ð	\oslash	8	î	Default group Administrators	
							Rows per page: 10 👻 1	-10 of 1		<		> >		UPD

2. User clicks on the profile icon in the upper-right corner and selects "Change Password" row, fills in the specified fields: *Current password, New password, Confirm password* according to the password requirements and clicks **CHANGE.**

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System User

The User Management module displays the system users, who are necessary for the correct operation of the application. They can be created automatically (*SCHEDULER*) or manually, when creating a user (*NODE*). System Users have the "System" status.

7											\dot{x}_{A}	? (
•	User N Filter by te Q	lanagement	φ	Refresh 📀 Enable	🖉 Disable	📋 Delete					CRE	EATE NEW
		Username ↓↑	E-mail ↓∱	Full Name ↓↑	Status	Groups	Creation Date ${\rm Jh}$					
		nodeuser-82a770f0		NODE 1 dedicated user	 System 	Nodes	27.04.2021 11:33	₽	<i>€</i>	\oslash	8	Î
		nodeuser-60ab89e6		NODE 2 dedicated user	 System 	Nodes	27.04.2021 11:34	$\overline{\mathbb{T}}$	Ð	\oslash	2	Î
		nodeuser-7f1a5bbf		NODE 3 dedicated user	 System 	Nodes	27.04.2021 11:34	$\overline{\Phi}$	45	\oslash	2	Ĩ
		nodeuser-59e2b891		NODE 4 dedicated user	 System 	Nodes	27.04.2021 11:35	⊉	4	\oslash	8	Î
		easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	RP Administrators, Administrators	27.04.2021 11:45	₽	45	\oslash	8	Î
		easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	$\overline{\Phi}$	4	\oslash	8	Î
							Rows per page: 10 •	-	1-10 of 16	<	<	>

A System user cannot be edited or deleted.

$\mathbf{>}$	User N	/lanagement									CREAT	E NEW		Edit User	
~	Filter by t	text	ф	Refresh 🔗 Enable	🖉 Disable	Delete							Username * nodeuser-82a	770f0	
ŧ		Username 🅼	E-mail J↑	Full Name 🎝	Status	Groups	Creation Date ↓↑						First Name * NODE 1		
Ó		queue		System Queue	 System 		27.04.2021 08:27	₽	Ð	\oslash	8	Î	Last Name * dedicated use	r	
0		nodeuser-82a770f0		NODE 1 dedicated user	 System 	Nodes	27.04.2021 11:33	<u>+</u>	Ð	\oslash	8	Î	E-mail		
\oslash		nodeuser-60ab89e6		NODE 2 dedicated user	 System 	Nodes	27.04.2021 11:34	₽	Ð	\oslash	8	Î	Enable		
x		nodeuser-7f1a5bbf		NODE 3 dedicated user	 System 	Nodes	27.04.2021 11:34	$\overline{\Phi}$	49	\oslash	8	Ĩ	Groups		
Ê		nodeuser-59e2b891		NODE 4 dedicated user	System	Nodes	27.04.2021 11:35	$\overline{\Phi}$	45	\oslash	8	iii	Nodes X		
		easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	RP Administrators, Administrators	27.04.2021 11:45	₽	45	\oslash	2	Î	Default group		
ML		easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	$\overline{\Phi}$	Ð	\oslash	2	Î			
鐐		easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	RP Administrators, Administrators	27.04.2021 11:46	$\overline{\Phi}$	4	\oslash	2	Î			

View/Edit a User Properties

To view or edit user information, click the corresponding user row, make changes in the popup panel, and click **UPDATE**. Required Permissions: Required Permissions: User-UPDATE. See (v. 2.2) Role Permissions.

If LDAP is enabled, Username, First Name, Last Name, Password, E-mail cannot be changed.

\mathbf{O}	User M	lanagement									CREA	TE NEW		Edit User	×
~	Filter by t	ext	φ	Refresh 🔗 Enable ⊘ Dis	able 🗍 🗍	lelete								Username * easy_rpa_1	
ŧ		Username ↓↑	E-mail 个	Full Name ↓↑	Status	Groups	Creation Date 个						I	First Name * easy_rpa_1	
Ö		admin	admin@easyrpa.eu	System Admin	Enabled	RO Minio Storage, Administrators	27.04.2021 08:27	$\overline{\Phi}$	Ð	Ø	2	Î		Last Name * easy_rpa_1	
0		burak_na	Burak_NA@itd.iba.by	Nastassia Burak	Enabled	Administrators	27.04.2021 16:41	-	45	0	8	Î		E-mail easy_rpa_1@itd.iba.by	
0		easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	RP Administrators, Administrators	27.04.2021 11:45	$\overline{\Phi}$	Ð	Ø	8	Î		Enable	
*		easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	$\overline{\mathbb{P}}$	Ð	Ø	8	Î		Groups RP Administrators	
â		easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	RP Administrators, Administrators	27.04.2021 11:46	$\overline{\mathbb{P}}$	45	\oslash	8	Î		Administrators X	
1L		ilyuchyk_ra	Ilyuchyk_RA@itd.iba.by	Raman Ilyuchyk	Enabled	Administrators	27.04.2021 11:51	₽	-C)	Ø	å	Î		Developers X	
6 4		trotskaya_di	Trotskaya_DI@itd.iba.by	Darya Trotskaya	Enabled	Administrators	29.04.2021 12:22	<u>₽</u>	Ð	\oslash	å	Î		Default group RP Administrators	
ŝ		zaprutskaya_hg	Zaprutskaya_HG@itd.iba	Hanna Zaprutskaya	Enabled	Administrators	27.04.2021 15:02	$\overline{\mathbb{T}}$	s.	Ø	8	Î			
		nodeuser-8e74f6b9		NODE 5 dedicated dedicated user	System	Nodes	27.04.2021 18:10	\oplus	$\mathcal{L}_{\mathcal{L}}$	\bigcirc	2	Î			
	11	nodeuser-8e74f6b9		NODE 5 dedicated dedicated user	System		27.04.2021 18:10	1-10					>1		

Delete, Disable/Enable, Restore a User

To Delete user, use the recycle bin control icon in the table row or Delete icon above the table. Required Permissions: User-DELETE. See (v. 2.2) Role Permissions.

To Disable/Enable or Restore user, use the control icons in the table row or above the table. Required Permissions: User-UPDATE. See (v. 2.2) Role Permissions.

• i										Ŕ	? 9)
~ >>	User Management Filter by text Q	Ø	Refresh 🔗 Enable 🔗	Disable 🗍 🚺	Delete					CRE	EATE NEW	
ŧ	Username ↓↑	E-mail 🛧	Full Name 🅼	Status	Groups	Creation Date $\downarrow\uparrow$						
Ó	easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Disabled	RP Administrators, Administrators	27.04.2021 11:45	$\overline{\mathbb{P}}$	Ð	\odot	8	Î	
	easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	$\overline{\mathbb{T}}$	÷.	Ø	8	Ĩ	
\oslash	easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	 Deleted 	RP Administrators, Administrators	27.04.2021 11:46	$\overline{\Phi}$	Ð	\oslash	8	Î	
×	ilyuchyk_ra	Ilyuchyk_RA@itd.iba.by	Raman Ilyuchyk	Enabled	Administrators	27.04.2021 11:51	$\overline{\Phi}$	€.	\oslash	0		l
	trotskaya_di	Trotskaya_DI@itd.iba.by	Darya Trotskaya	Enabled	Administrators	29.04.2021 12:22	$\overline{\Phi}$	4	\oslash	8	Î	
Ê	zaprutskaya_hg	Zaprutskaya_HG@itd.iba.by	Hanna Zaprutskaya	Enabled	Administrators	27.04.2021 15:02	$\overline{\mathbb{T}}$	45	\oslash	2	Î	
ML	—			• • • • • • • •		07.04.0001.10.10	л.		\sim	0	-	
鐐						Rows per page: 20	•	1-16 of 16	<	<	> >	I
· · · ·						© 2021 IBA	Group. A	All rights reserve	ed. v2.1.0-3	4376/2.1-S	NAPSHOT-343	29

1. Disabled and deleted users cannot log in to Control Server until they are enabled.

Download Developer configuration of a User

To Download Developer configuration of a user, use the control icon in the table row.

• • ;											×	?	9
~ •	User M Filter by te Q	anagement ^{xt}	φ	Refresh ⊘ Enable ⊘ Di	sable 🗍 [Jelete					CRE	ATE NEW]
⊞ ()		Username ↓↑	E-mall 个	Full Name ↓↑	Status	Groups	Creation Date ↓↑						
0		easy_rpa_1 easy_rpa_2	easy_rpa_1@itd.iba.by easy_rpa_2@itd.iba.by	easy_rpa_1 easy_rpa_1 easy_rpa_2 easy_rpa_2	EnabledEnabled	Developers RP Administrators, Administrators	27.04.2021 11:45	⇒ ₽	4) 4)	0	00 Oc	Ĩ	-
Ø		easy_rpa_3 ilyuchyk_ra	easy_rpa_3@itd.iba.by Ilyuchyk_RA@itd.iba.by	easy_rpa_3 easy_rpa_3 Raman Ilyuchyk	EnabledEnabled	RP Administrators, Administrators Administrators	27.04.2021 11:46	수 	D D	0	oj oj	Î	
× Ê		trotskaya_di	Trotskaya_DI@itd.iba.by	Darya Trotskaya	Enabled	Administrators	29.04.2021 12:22	$\overline{\Phi}$	Ð	\oslash	2		-
ML		zaprutskaya_hg	Zaprutskaya_HG@itd.iba.by	Hanna Zaprutskaya	Enabled	Administrators	27.04.2021 15:02	₽.	\$ \$	0	2	-	-
錼							Rows per page: 10 🔻	•	1-10 of 16	<	<	>	>1
							© 2021 IBA	Group. A	ll rights reserve	ed. v2.1.0-34	1376/2.1-S	NAPSHOT-3	34329

A Download Developer configuration icon is available only for a user who is in Developers group. Required Permission: User-READ. See (v. 2.2) Role Permissions.

User Groups and Role Permissions

Each Control Server user may have one or more groups in the system. To view or modify a User membership in Groups, go to **Administ** ration **Group Management Users** or open Edit User popup panel.

You can create a new Role with a custom set of Permissions and grant it to a user via Group membership. To view or modify Permissions for a User Role, go to Administration Group Management Roles.

(v. 2.2) Group Management

- Create a New Group
- View/Edit a Group Properties
- View/Edit Roles in a Group
- View/Edit Users in a Group
- Delete an Existing Group

The Group Management module displays a catalog of all the user groups and provides access to all group management functions.

Groups allow to combine users and assign roles to them. See (v. 2.2) User Management, Group Management#View/Edit Users in a Group, Group Management#View/Edit Roles in a Group.

To manage Groups, users must have Group Management modification permissions. See (v. 2.2) Role Permissions.

You can access the module by clicking **Administration Group Management**. Required Permission: Group-READ. See (v. 2.2) Role Permissions.

• i			× ? @
~	Group Management Filter by text	🖒 Refresh 📋 Delete	CREATE NEW
(III)	Name J↑	Description 17	1
Ó	RP Administrator	s Ri	
	Human Task Types	Read/Wrote access to Minio Storage	
\oslash	User Management	Read only access to Minio Storage	
x	Group Management	Read-only system monitoring	
ê	Notification Management CS Configuration	Process work Items	
ML	CS Logs	Developers	Ŧ
	Activity Log	Nodes	
竣 >	License Management	Rows per page: 10 ▼ 1-8 of 8 <	
		© 2021 IBA Group. All rights reserved. v2.1.0-35	

EasyRPA Control Server allows to perform the following actions:

- Create a new group via CREATE NEW icon above the table.
- Edit an existing group via Edit Group popup panel and its roles and users via Group Details.
- Delete an existing group via the recycle bin control icon in the table row or Delete icon above the table.
- Pull the last updates from the server via Refresh icon.

Filter by text

Filtering allows you to search the group by all columns.

Sorting

Ascending/descending sorting is allowed for all columns.

Create a New Group

To create a group:

- 1. Go to the **Group Management** module and click **CREATE NEW**. Required Permission: Group-CREATE. See (v. 2.2) Role Permissions.
- 2. In the New group popup panel:
- Enter a unique **Name** to distinguish the user group.

• Provide a user group **Description**.

•••				×. ? @
~ 0	Group Management Filter by text Q Refresh	Delete	CREATE NEW	New group X
Œ	□ Name Jî	Description ↓↑	1	Description The group can manage Automation Processes
Ŭ	RP Administrators	RI		
	RW Minio Storage	Read/Wrote access to Minio Storage	Ŧ	
\oslash	RO Minio Storage	Read only access to Minio Storage		
*	Monitors	Read-only system monitoring	•	
Ê	Dperators	Process work items	•	
ML	Developers	Developers		
鐐	Nodes Nodes	Nodes		
*		Rows per page: 10 ♥ 1-8 of 8 <		CREATE

3. Click CREATE.

To combine users and assign roles to them:

- Group Management#View/Edit Roles in a Group
- Group Management#View/Edit Users in a Group

View/Edit a Group Properties

To view or edit group information, click the corresponding group row, make changes in the popup panel, and click **UPDATE**. Required Permissions: Group-READ, UPDATE. See (v. 2.2) Role Permissions.

Group Managem Filter by text Q				×	0	9
Q	nent		CREATE NEW	Edit Group		×
	🖒 Refresh 📋 Delet			Name * RP Administrators		
œ Name ↓↑	· · · · · · · · · · · · · · · · · · ·	Description ↓↑	1	Description The group can manage all modules		
Group for A	AP Administrators	The group can manage Automation Processes				
RP Adminis	istrators	RI	Ŧ.			
	Storage	Read/Wrote access to Minio Storage				
RO Minio S	Storage	Read only access to Minio Storage	Ŧ			
Monitors		Read-only system monitoring	÷.			
ML Operators		Process work items	- + ¹			
Developers	S	Developers				
\$		Rows per page: 10 ▼ 1-9 of 9 <		DETAILS Group. All rights reserved, v2.1.0-34376/2.1-SN		DATE

View/Edit Roles in a Group

To view or edit roles in a group, click Name of a Group, or click the corresponding group row and click DETAILS:

···i	Group Management / RP Administrators				× ? 9
0	Group Details				ADD ROLE
~	Roles Users				
Œ	Filter by text	🗘 Refresh 📋 Delete			
Ũ					
0	Context JT	Context Name ↓↑	Permissions		
\oslash	Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE		
	SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE		
*	User	ALL	READ, UPDATE, DELETE, ACTION, CREATE		î.
Ê	AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE		
ML	Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE		
鐐	☐ Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE		
				Rows per page: 10 ▼ 1-10 of 13	I< < > >I
				© 2021 IBA Group. All rights reserved. v	

Control Icons

- ADD ROLE to add a role in the group. Required Permissions: Group-READ, UPDATE. See (v. 2.2) Role Permissions.
- **Refresh** to pull the last updates from the server via Refresh icon.
- **Delete** to delete the selected role in the group (via the recycle bin control icon in the table row or Delete icon above the table). Required Permissions: Group-READ,UPDATE. See (v. 2.2) Role Permissions.

÷	Group Mana	agement / RP Administrators				Ż	ā (?)	0
0	Group	Details					ADD ROLE	
\sim	Roles	Users						
ŧ	Filter by t	ext						
\bigcirc	~		C Refresh Delete					
6		Context ↓↑	Context Name ↓↑	Permissions				
		Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE			Î	
\oslash		SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE				
*		User	ALL	READ, UPDATE, DELETE, ACTION, CREATE				
Ê		AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE				- 1
ML		Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE			i i	
暾		Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE				
11					Rows per page: 10 👻 1-10	of 13 < <	>	>1
					© 2021 IBA Group. All right	s reserved. v2.1.0-34376/2	.1-SNAPSHOT:	34329

When adding a role you are able to choose:

• Context - to specify what module you are going to manage. See (v. 2.2) Role Permissions.

Ð	Group Management / RP Administrators	×. ? .			
0	Group Details			ADD ROLE	New Context Role
~	Roles Users	Roles Users			Context *
œ	Filter by text				O AutomationProcess
$\overline{\mathbb{O}}$	٩	🗘 Refresh 📋 Delete			O DataStore
	□ Context J↑	Context Name ↓↑	Permissions	1	DocumentSet DocumentType
0	Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE		O Group
\oslash					O HumanTaskType
	SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE		O MIModel
*	User	ALL	READ, UPDATE, DELETE, ACTION, CREATE		O Node
Ê	AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE		O Schedule
ML	Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE		O User
Γ.	Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE		O SecretVault
鐐			Rows per page: 10 ▼ 1-10 of 13	< < > >	O Channel
			Nono po page. To • 1-10 01 10	© 2021 IBA	O Template

• Context Name - to choose all or a specific entity to manage.

• i)	Group Management / RP Administrators				×. ? @
0	Group Details ← Back to list			ADD ROLE	New Context Role
~	Roles Users				Context * DataStore
œ	Filter by text	🍎 Refresh 📋 Delete			Context Name *
Ũ					All
0	☐ Context J↑	Context Name ↓↑	Permissions		HT_SAMPLE_INPUT HT Sample Input DS
\oslash	Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE	· · · ·	HT_SAMPLE_RESULT DS with many columns
0	SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE		Data Store with many columns DS with long data
*	User	ALL	READ, UPDATE, DELETE, ACTION, CREATE		Data store with long data Product
ê	AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE		product Data Store
ML	Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE		
礅	☐ Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE		
			Rows per page: 10 👻	1-10 of 13 < < > >	CREATE
				© 2021 II	3A Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

• Role Permissions - to select appropriate role permissions from the list. See (v. 2.2) Role Permissions.

• i)	Group Management / RP Administrators				× ? @
~ 0	Group Details			ADD ROLE	New Context Role
	Roles Users				DataStore 👻
(H)	Filter by text	🗘 Refresh 📋 Delete			Context Name * All
ڻ ۵	□ Context J↑	Context Name ↓↑	Permissions	1	Role Permissions * UNCHECK ALL
\bigcirc	Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE		READ
	SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE		
*	User	ALL	READ, UPDATE, DELETE, ACTION, CREATE		DELETE ACTION
Ê	AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE	•	
ML	Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE	•	
礅	☐ Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE		_
'			Rows per page: 10 👻	1-10 of 13 < < > >	CREATE

Filter by text

Filtering allows you to search the role by the columns: Context, Context Name.

Sorting

Ascending/descending sorting is allowed by the columns: Context, Context Name.

View/Edit Users in a Group

To view or edit users in a group, click Name of a Group and open **Users** tab, or click the corresponding group row, click **DETAILS** and open **Users** tab:

Ð	Group Manage	ement / RP Administrators					× ? @
0	Group De	etails \leftarrow Back to list					ADD USER
~	Roles	Users					
Ē	Filter by text Q		🗘 Refresh 📋 Delete				
0		Username ↓↑	E-mail J↑	Full Name ↓↑	Status	Creation Date 🗸	
		easy_rpa_3	easy_rpa_3@ltd.lba.by	easy_rpa_3 easy_rpa_3	Enabled	27.04.2021 11:46	Ť.
\oslash	e	easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	27.04.2021 11:45	Ē
*		easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	27.04.2021 11:45	Î
ê							
ML							
鐐					Rows per page:	: 10 ▼ 1-3 of 3 <	< > >
					© 202	1 IBA Group. All rights reserved. v2.1.0-343	76/2.1-SNAPSHOT-34329

Control Icons

- ADD USER to add a user in the group. Required Permissions: Group-READ, UPDATE and User-READ. See (v. 2.2) Role Permissions.
- **Refresh** to pull the last updates from the server via Refresh icon.

• **Delete** - to delete the selected user in the group (via the recycle bin control icon in the table row or Delete icon above the table) . Required Permissions: Group-READ,UPDATE. See (v. 2.2) Role Permissions.

·ij	Group Management / RP Administrate	ors				×. ? .
	Group Details					ADD USER
~	Roles Users					
Œ	Filter by text	🗘 Refresh 📋 Delete	7			
Ó	<u> </u>	ry kerresn Delete				
6	☐ Username ↓↑	E-mail 🎝	Full Name ↓↑	Status	Creation Date $igstarrow$	
Â	easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	27.04.2021 11:46	
\oslash	easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	27.04.2021 11:45	i.
×	easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	27.04.2021 11:45	Î
Ê						
ML						
鐐						
\$				Rows per p	age: 10 ▼ 1-3 of 3 ≮	< > >
					2021 IBA Group. All rights reserved. v2.1.	

Filter by text

Filtering allows you to search the user by the columns: Username, E-mail, Full Name, Status.

Sorting

Ascending/descending sorting is allowed for the columns: Username, E-mail, Full Name, Creation Date.

Delete an Existing Group

To **delete** the user group, use the recycle bin control icon in the table row or Delete icon above the table. Required Permissions: Group-READ, DELETE. See (v. 2.2) Role Permissions.

• • ;			×. ? .
~ >	Group Management Filter by text Q C B	efresh Delete	CREATE NEW
Œ	Name ↓î	Description ↓↑	1
\bigcirc	Group for AP Administrators	The group can manage Automation Processes	Ĩ
0	RP Administrators	The group can manage all modules	•
\oslash	RW Minio Storage	Read/Wrote access to Minio Storage	1 - E
*	RO Minio Storage	Read only access to Minio Storage	т.
Ê	Monitors	Read-only system monitoring	T.
ML	Operators	Process work items	T.
	Developers	Developers	1 - E
\$\$			Rowsperpage: 10 ▼ 1-9 of 9 < < > >
			© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

(v. 2.2) Role Permissions

- Role Permissions Description
 - AutomationProcess related
 - DataStore related
 - DocumentSet related
 - DocumentType related
 - Group related
 - HumanTaskType related
 - MIModel related
 - Node related
 - Schedule related
 - User related
 - Administration related
 - SecretVault related
 - Channel related
 - Template related
- Permission Restrictions
 - Main menu items are not displayed
 - Action buttons are disabled

Role Permissions can be granted to the user while creating a new User Group or editing an existing one. See (v. 2.2) Group Management.

·J	Group Management / Department 1				×. ? 2
•	Group Details ← Back to list			ADD ROLE	New Context Role 🛛 🗙
\sim	Roles Users				Context* Node
Œ	Filter by text				Context Name *
\bigcirc	<u>q</u>	🗘 Refresh 📋 Delete			All Role Permissions * UNCHECK ALL
6	□ Context ↓↑	Context Name ↓↑	Permissions		CREATE
	AutomationProcess	ALL	DELETE, READ, CREATE, UPDATE, ACTION		READ
\oslash					UPDATE
*					
ê					ACTION
ML					
~					
鐐			Rows per page: 10 ▼ 1-1 of 1	< < > >i	CREATE
				© 2021 IBA	A Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Role Permissions Description

All the Role Permissions are divided into groups according to relation to the modules in use.

There are the following Context types:

- AutomationProcess
- DataStore
- DocumentSet
- DocumentType
- Group
- HumanTaskType
- MIModel
- Node
- Schedule
- User
- Administration

- SecretVault
- Channel
- Template

There are five types of Role Permissions:

- READ
- CREATE
- UPDATE
- DELETE
- ACTION.

Each Context can be configured for a particular entity (i.e. Context Name) or for ALL scope. ALL scope applies to all entities (existing now or created in the future) of a given Context type. If Context type has READ permission configured for ALL scope and only UPDATE permission for a particular Context Name, overall permissions for this Context Name will be READ and UPDATE.

! CREATE permission only applies in ALL scope.

One of the User Groups must be defined as Default group for a user (see (v. 2.2) User Management). Any entities created by the user will be automatically linked to the default User Group. It means that missing permissions in the default User Group are created for the entity. E.g. after *a node "example"* is created with role *Node-ALL-CREATE*, role *Node-example-DELETE*, *UPDATE*, *READ*, *ACTION* is added to the default User Group.

AutomationProcess related

1. The user should have at least READ permission of Channel and Template Context to create/update an automation process notification.

- CREATE
 - to create a new automation process.
 - to upload an automation process.
- READ
 - to view the list of automation processes.
 - to see the list of dedicated automation processes.
 - to view the Automation Process Details.
 - to save automation process as JSON file.
 - to view the list of automation process runs in the Automation Processes/Schedules/Node Management/Document Sets modules.
 - to view and manage an automation process run history.
 - to view and manage an automation process run event log.
 - to view the automation process configuration parameters.
 - to download automation process configuration parameters.
 - to view the automation process JSON input data.
 - to view the automation process notifications.
 - to navigate to Runs Management module and view the list of active runs.
- UPDATE
 - to update an existing automation process.
 - to delete an automation process run.
 - to add a new automation process configuration parameter.
 - to update an existing automation process configuration parameter.
 - to upload a new automation process configuration parameter.
 - to delete an existing automation process configuration parameter.
 - to update/upload input data.
 - to add a new automation process notification.
 - to update an existing automation process notification.
 - to delete an existing automation process notification.
- DELETE
- to delete an existing automation process.
- ACTION
 - to start an automation process run.
 - to stop an automation process run.
 - to retry an automation process run.

DataStore related

- CREATE
 - to create/upload a new data store.

- READ
 - to view the list of data stores.
 - to download an existing data store.
 - to view the list of data store records (Data Stores Data Store Details).
 - to download the list of data store records (Data Stores Data Store Details).
- UPDATE
 - to update an existing data store.
 - to create a new data store record.
 - to update/delete an existing data store record.
- DELETE
- to delete an existing data store.
- ACTION
 - backup permission for future usages.

DocumentSet related

႔ The user should have at least READ permission of AutomationProcess and DocumentType Context to create/update a Document Set.

- CREATE
 - to create a new Document Set.
- READ
 - to view the list of Document Sets.
 - to view the Document Set details.
 - to export a Document Set.
 - to view the list of documents for a Document Set.
 - to view the document details and open output.
- UPDATE
 - to update an existing Document Set.
 - to upload documents.
 - to import a Document Set.
 - to edit an existing document.
 - to delete an existing document.
- DELETE
 - to delete an existing Document Set.
- ACTION
 - to run a process for documents using Process drop-down list.

DocumentType related

A The user should have at least READ permission of HumanTaskType Context to view the list of document types in a Human Task Type and at least READ permission of Channel and Template Context to create/update a Document Type notification.

- CREATE
- to create a Document Type (Human Task Types -> Human Task Type Details -> tab Document Types).
- READ
 - to view the list of document types (Human Task Types -> Human Task Type Details -> tab Document Types).
 - to view the Document Type details (Human Task Types -> Human Task Type Details -> tab Document Types).
 - to view the list of human tasks (Workspace module).
 - to start working with a human task (Workspace module).
 - to view the document type notifications (Human Task Types -> Human Task Type Details -> tab Document Types ->
 - Document Type Notifications).
- UPDATE

- to update a Document Type (Human Task Types -> Human Task Type Details -> tab Document Types).

- to add a new Document Type notification (Human Task Types -> Human Task Type Details -> tab Document Types -> Document Type Notifications).
- to update an existing Document Type notification (Human Task Types -> Human Task Type Details -> tab Document Types -
- > Document Type Notifications).
- to delete an existing Document Type notification (Human Task Types -> Human Task Type Details -> tab Document Types -
- > Document Type Notifications).
- DELETE
 - to delete a Document Type (Human Task Types -> Human Task Type Details -> tab Document Types).
- ACTION
 - to accept a human task (Workspace module).

Group related

🔥 The user should have at least READ permission of User Context to add users in an existing user group

- CREATE
 - to create a user group.
 - to create a user group for the corresponding entity using Security Access.
- READ
 - to view the list of user groups.
 - to view the user group description.
 - to view the list of roles for an existing user group.
 - to view the list of users for an existing user group.
 - to view the list of groups (and roles) for the corresponding entity using Security Access.
- UPDATE
 - to update the user group description.
 - to add/update/delete roles in an existing user group.
 - to add/delete users in an existing user group.
 - to update an existing user group for the corresponding entity using Security Access.
- DELETE
 - to delete an existing user group.
- ACTION
 - backup permission for future usages.

HumanTaskType related

- CREATE
 - to create a human task type.
- READ
 - to view the list of human task types.
 - to view the human task type details.
 - to download application.
- UPDATE
- to update an existing human task type.
- DELETE
- to delete an existing human task type.
- ACTION
 - backup permission for future usages.

MIModel related

- CREATE
 - to import a model.
 - to train a new model.
- READ
 - to view the list of models.
 - to export ML Model Package and Training Config of an existing model.
 - to view model log.
- UPDATE
 - backup permission for future usages.
- DELETE
 - to delete an existing model.
- ACTION
 - backup permission for future usages.

Node related

🔥 The user should have at least READ permission of Channel and Template Context to create/update a node notification.

- CREATE
 - to create a new node.
- READ
 - to view the list of nodes.
 - to view the Node Details.
 - to view the node configuration parameters list.
 - to download the node configuration parameters list.
 - to view the node features list.
 - to view a node feature configuration.
 - to view a node logs and node feature logs.
 - to view the node notifications.
- UPDATE
 - to update an existing node.

- to create a new node configuration parameter.
- to update an existing node configuration parameter.
- to upload a new node configuration parameter.
- to delete an existing node configuration parameter.
- to update a node feature configuration JSON.
- to import CSV with configuration parameters.
- to enable/disable a node feature.
- to add a new node notification.
- to update an existing node notification.
- to delete an existing node notification.
- DELETE
 - to delete an existing node.
- ACTION
- to restart/shut down node.
- to download node agent package.
- to ping all nodes.
- to upgrade node version.
- to restart a node feature.

Schedule related

1. The user should have at least READ permission of AutomationProcess Context to create a Schedule and at least READ permission of Channel and Template Context to create/update a schedule notification.

- CREATE
 - to create a new schedule.
- READ
 - to view the list of schedules.
 - to view the Schedule Details.
 - to view the schedule notifications.
- UPDATE
 - to update/enable/disable an existing schedule.
 - to add a new schedule notification.
 - to update an existing schedule notification.
 - to delete an existing schedule notification.
- DELETE
 - to delete an existing schedule.
- ACTION
 - backup permission for future usages.

User related

1. The user should have at least READ permission of Group Context to create/update a user.

- CREATE
 - to create a new user.
- READ
 - to view the list of users.
 - to view user details.
 - to download Developer configuration.
- UPDATE
- to update/enable/disable/restore an existing user.
- DELETE
 - to delete an existing user.
- ACTION
 - backup permission for future usages.

Administration related

• CREATE

- to create/upload a new control server configuration parameter (the user should have READ permission of Administration Context).

- to update an existing control server configuration parameter using upload with Override existing keys (the user should have READ permission of Administration Context).

- READ
 - to navigate to Control Server Configuration module.
 - to download control server configuration parameters.

- to navigate to Activity Log module and view the activity log history (the user should have READ permission of an appropriate module to view current record state).

- to view and manage Control Server Logs.
- to view current info for an existing license.
- UPDATE

- to update an existing control server configuration parameter using right-side panel (the user should have READ permission of Administration Context).

- to upload a license.
- to update an existing license.
- DELETE
 - to delete an existing control server configuration parameter (the user should have READ permission of Administration Context).
- ACTION
 - backup permission for future usages.

SecretVault related

- CREATE
 - to create/upload a new secret vault entry.
 - to update an existing secret vault entry using upload with Override existing keys.
- READ
- to view the list of secret vault entries.
- UPDATE
 - to update an existing secret vault entry using right-side panel.
- DELETE
- to delete an existing secret vault entry.
- ACTION
 - backup permission for future usages.

Channel related

- CREATE
 - to create a new channel.
- READ
 - to view the list of channels.
- UPDATE
- to update an existing channel.
- DELETE
 - to delete an existing channel.
- ACTION
 - backup permission for future usages.

Template related

- CREATE
 - to create a new template.
 - to validate the template being created.
- READ
 - to view the list of templates.
 - to validate an existing template.
- UPDATE
 - to update an existing template.
- DELETE
 - to delete an existing template.
- ACTION
 - backup permission for future usages.

Permission Restrictions

When a user has a Role without appropriate Permissions, the following restrictions can be applied to the user interface:

Main menu items are not displayed

• Restricted Permissions:

···i		
ı D	Node M	lanagement
*	Filter by te Q	xt
		Name ↓↑
		RI NODE
		NODE 5 dedicated Dedicated
		NODE 4
		NODE 3
		NODE 2
		NODE 1 Dedicated

• All Permissions:

···i					
\mathbf{O}	Node Management				
~	Filter by text				
Œ					
1	□ Name ↓↑				
Ċ	RI NODE				
0	NODE 5 dedicated Dedicated				
\oslash	Human Task Types				
x	User Management				
^	Group Management				
ê	Notification Management				
ML	CS Configuration				
	Activity Log				
হট্টঃ >	License Management				

Action buttons are disabled

• Restricted Permissions:

• 〕										Ŕ	?	0
~ •	Group Filter by te	Management ^{ext}	🗘 Refresh 🛛	Delete						CRE	ATE NEV	v
Œ		Name ↓↑			Description JT							
Ó		RP Administrators									1	1
0		RW Minio Storage			Read/Wrote access to Minio Storage						1	i
\oslash		RO Minio Storage			Read only access to Minio Storage						Î	i
×		Monitors			Read-only system monitoring						Î	1
Ê		Operators			Process work items						1	1
ML												
礅						Rows per page:	5 🔻	1-5 of 8	<	<	>	>
						© 2021				376/2.1-St		

• All Permissions:

• i			×. ? @
0	Group Management		CREATE NEW
~	Filter by text	🗘 Refresh 📋 Delete	
Œ	Name ↓↑	Description <u>↓</u> ↑	
$\overline{\mathbb{O}}$		uescriµun ⊕i	
	RP Administrators		•
0	RW Minio Storage	Read/Wrote access to Minio Storage	
\oslash	RO Minio Storage	Read only access to Minio Storage	
*	Monitors	Read-only system monitoring	
ė	Operators	Process work Items	
4			
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(v. 2.2) Security Access

- Create a new Group for an entity
- Add an entity to a Group
- View/Edit a Group

To view the list of groups (and roles) for the corresponding entity using Security Access, you need to be granted Group-READ permission n. See (v. 2.2) Role Permissions.

To manage a group for a specific entity, click Security Access icon in the table row in of the following modules:

- (v. 2.2) Automation Processes
- (v. 2.2) Schedules
- (v. 2.2) Data Stores
- (v. 2.2) Secret Vault
- (v. 2.2) Node Management
- (v. 2.2) Document Sets
- (v. 2.2) Models
- (v. 2.2) Human Task Types
- (v. 2.2) Document Types
- (v. 2.2) User Management
- Channels
- Templates

\mathbf{O}	Filter by t	ation Processes						1 Upload pack	age CRE	ATE NEV
	Q		🗘 Refresh 📋 Del	ete						
		Name ↓↑	Capabilities	Created By	Creation Date 🗸	Changed By	Last Update ↓↑			
		Invoice Plane Automation DED2		System Admin	14.06.2021 12:53	System Admin	14.06.2021 12:59	$\overline{\Phi}$	8	Î
		Invoice Plane Automation DED		System Admin	14.06.2021 12:46	System Admin	14.06.2021 12:59	$\overline{\Phi}$	ő	Î
		Debtor Analysis		Raman Ilyuchyk	14.06.2021 10:19	Raman Ilyuchyk	14.06.2021 10:19	$\overline{\Phi}$	2	Î
		JNLP/WebStart Demo		Raman Ilyuchyk	14.06.2021 09:51	Raman Ilyuchyk	14.06.2021 09:51	$\overline{\Phi}$	2	Î
		IDP Sample		System Admin	14.06.2021 09:45	System Admin	14.06.2021 09:45	$\overline{\Phi}$	8	Î
		IE Document Processor for RI Sets		Raman Ilyuchyk	11.06.2021 17:01	Raman Ilyuchyk	11.06.2021 17:02	$\overline{\Phi}$	8	Î
		SAP Material Management	NODE1	System Admin	11.06.2021 15:57	Raman Ilyuchyk	14.06.2021 10:30	₫	8	Î

▲ Groups that already have a Context Role with ALL Context Name (see View/Edit Roles in a Group) for the module are displayed and cannot be deleted for the entity. If a Group has a Context Role with ALL Context Name for the module and a permission, the permission is already granted for the entity.

÷				×. ? 9
~ >>	Group Management (Debto Filter by text Q	r Analysis AutomationProcess) ← Back t	to list Show all groups ADD CREATE NE	K Edit Group X
æ ©	□ Name J↑	Description 🕼	Permissions	Description
0	Department 2		READ, UPDATE	Context Role Context * AutomationProcess
\oslash	Department 1 VLgroup2		READ CREATE	Context Name * Debtor Analysis
*	Monitors	Read-only system monitoring	READ	Role Permissions * CHECK ALL
â	Developers	Developers	CREATE, ACTION, READ, UPDATE	READ
ML	Administrators	Administrators	CREATE, ACTION, READ, DELETE, UPDATE	
鐐			Rows per page: 10 ▼ 1-7 of 7 < < >	
				© 2021 IBA Group, All rights reserved, v2 1.0-37340/2 1-SNAPSHOT-37370

▲ CREATE permission only applies in ALL scope (see (v. 2.2) Role Permissions). CREATE permission cannot be used to create a new Group for an entity (see Create a new Group for an entity) or edit an existing Group (see A dd an entity to a Group and View/Edit a Group).

0	Group	Management (Debto	or Analysis AutomationProcess) 🔶	Pack to liet		Edit Group	>
•			Refresh Delete	Show all groups	DD CREATE NEW	Name * Department 2	
		Name J↑	Description ${\rm J}{\rm f}$	Permissions		Description	
		Department 2		READ, UPDATE		Context Role Context * AutomationProcess	
		Department 1		READ	1	Context Name *	
		VLgroup2		CREATE	1 		CHECK
		Monitors	Read-only system monitoring Developers	READ CREATE, ACTION, READ, UPDATE	Ť		
		Nodes	Nodes	CREATE, ACTION, READ, DELETE, UPDATE		READUPDATE	
		Administrators	Administrators	CREATE, ACTION, READ, DELETE, UPDATE	т		
				Rows per page: 10 ▼ 1-7 of 7 <		DETAILS	

Control Icons

- Show all groups to show all groups.
- ADD to add an entity role to an existing group. See Add an entity to a Group
- CREATE NEW to create a new group for the entity. See Create a new Group for an entity
- **Refresh** to pull the last updates from the server via Refresh icon.
- Delete to delete the selected group (via the recycle bin control icon in the table row or Delete icon above the table).

÷					× ? 8
~ > .~	Group Management (Debtor Analysis A Filter by text Q	AutomationProcess) ← Back to list		Show all groups ADD	CREATE NEW
	□ Name J↑	Description $\downarrow\uparrow$	Permissions		
Ó	Department 2		READ, UPDATE		Î
	Department 1		READ		i.
\oslash	VLgroup2		CREATE		1
×	Monitors	Read-only system monitoring	READ		1
Ê	Developers	Developers	CREATE, ACTION, READ, UPDATE		1
ML	Nodes Nodes	Nodes	CREATE, ACTION, READ, DELETE, UPDATE		î
墩	Administrators	Administrators	CREATE, ACTION, READ, DELETE, UPDATE		
1 ~			Rows per pag	e: 10 🕶 1-7 of 7 <	< > >1
			© 20	121 IBA Group. All rights reserved. v2.1.0-373	40/2.1-SNAPSHOT-37370

Filter by text

Filtering allows you to search the group by the columns: Name, Description.

Sorting

Ascending/descending sorting is allowed by the columns: Name, Description.

Create a new Group for an entity

To create a new Group for an entity, click **CREATE NEW**, fill in the required fields on the New group right-side panel and click **CREATE**. R equired Permissions: Group-READ,CREATE. See (v. 2.2) Role Permissions.

• i				×a @	0
~ 2	Group Management (Debtor Filter by text Q	Analysis AutomationProcess) ← Back t	o list Row all groups ADD CR	EATE NEW Name * Department 3	×
(H)	□ Name ↓↑	Description J↑	Permissions	Description	
0	Department 2		READ, UPDATE	Context * AutomationProcess	
Ø	Department 1		READ	Context Name * Debtor Analysis	
×	Monitors	Read-only system monitoring	READ		CHECK ALL
Ê	Developers	Developers	CREATE, ACTION, READ, UPDATE	READ	
ML	Nodes	Nodes	CREATE, ACTION, READ, DELETE, UPDATE	UPDATE	
\$	Administrators	Administrators	CREATE, ACTION, READ, DELETE, UPDATE Rows per page: 10 ▼ 1-7 of 7 < <		CREATE
			nows pel page. To ♥ T-7 01 7 T € €	© 2021 IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAP	

Add an entity to a Group

To add an entity to an existing Group, click **ADD**, fill in the required fields on the Add Context Role right-side panel and click **UPDATE**. R equired Permissions: Group-READ,UPDATE. See (v. 2.2) Role Permissions.

• i)				×. ? .
~ 2	Group Management (Debtor Filter by text Q	Analysis AutomationProcess) ← Back	c to list CREATE NEW CREATE NEW	Add Context Role X Groups * Department 4
⊞ ()	□ Name ↓↑	Description $\downarrow \uparrow$	Permissions	Context Role Context * AutomationProcess
	Department 3 Department 2		READ, UPDATE	Context Name * Debtor Analysis Role Permissions * CHECK ALI
\bigotimes	Department 1		READ	Role Permissions * CHECK ALI
×	VLgroup2	Read-only system monitoring	CREATE READ	UPDATE
ML	Developers	Developers	CREATE, ACTION, READ, UPDATE	
\$			Rows per page: 10 ▼ 1-8 of 8 < < > >	UPDATE

A Groups list contains only groups that do not have a granted role for the entity (or ALL Context Name for the module).

View/Edit a Group

To view or edit an existing group with the corresponding Context Role, click the corresponding group row, make changes on the Edit Group right-side panel, and click **UPDATE**. Required Permissions: Group-READ, UPDATE. See (v. 2.2) Role Permissions.

0			or Analysis AutomationProcess) ←	Back to list	Show all groups ADD	CREATE NEW	Edit Group	×
~	Filter by te	ext	🗘 Refresh 📋 Delete				Name * Department 4 Description	
Ŭ		Name ↓↑	Description $\downarrow \uparrow$	Permissions			Context Role	
6		Department 4 Department 3		READ, UPDATE			Context * AutomationProcess	
\oslash		Department 2		READ, UPDATE			Context Name * Debtor Analysis	
×		Department 1		READ		i i	Role Permissions *	CHECK ALL
Ê		VLgroup2		CREATE		Î	READ	
ML		Monitors	Read-only system monitoring	READ			UPDATE	
鐐		Developers	Developers	CREATE, ACTION, READ, UPDAT Rows per page:				TAILS

(v. 2.2) Notification Management

- Channels
 - Create a new channel
 - Edit an existing channel
- Templates
 - Create a new template
 - Edit an existing template
 - Validate template
- Examples of templates

The Notification Management module allows users to set up channels and examples for receiving messages about Control server activities: Automation processes, Schedules, Nodes, and Human tasks.

You can access the module by clicking **Administration Notification Management**. Required Permission: Channel-READ and Template-READ. See (v. 2.2) Role Permissions.

Channels

Channels allows configuring the address of the final recipient of the notifications. You are able to set notifications for email and slack (see **Notification Service**).

Also to receive results of some Automation processes (for example, Debtor Analysis, SAP Material Management) you need to add channels with the name that are specified in the Automation process configuration parameters. Option sending results is configured by developers; the templates are included in the AP package and loaded with upload button in Automation Process module.

• i					× ? 8
Ø	Notification Management				CREATE NEW
~	Channels Templates				_
Œ	Filter by text	💋 Refresh 📋 Delete			
Ö	· · · · · · · · · · · · · · · · · · ·				
0	□ Name ↓↑	Description ↓↑	Config Name ↓↑	Channel Type ↓↑	
	SAP Notification Channel		email	email	
\oslash	Invoice Plane Channel			email	î
*	Notification Channel	Slack Notifications		slack	
Ê					
ML					
鐐					
				Rows per page: 10 ▾ 1-3 of 3 <	< > >
				© 2021 IBA Group. All rights reserved. v2.1.0-3	7524/2.1-SNAPSHOT-37634

Columns Description:

- Name the template name.
- **Description** a short description of the template.
- **Config Name** specify additional parameters to configure multiple channels for the notifications.
- A For config name must be specified settings in CS configuration and *notification.channels.config*. See Notification Service.
- Channel Type define, where to send notifications: email or slack.

Filter by text

Filtering allows you to search the channel by the columns: Name, Description, Channel Type.

Sorting

Ascending/descending sorting is allowed for the columns: Name, Description, Config Name, Channel Type.

Control icons

- **Refresh** to refresh the page.
- **Delete** an existing channel via the recycle bin control icon in the table row or Delete icon above the table. Required Permission: Channel-DELETE. See (v. 2.2) Role Permissions.

Ð					×. ? @
~ >	Notification Management Channels Templates				CREATE NEW
⊞ (\)	Filter by text Q	C Refresh			
0	□ Name ↓↑	Description ${\mathbb J}{\mathbb T}$	Config Name ↓↑	Channel Type ${\rm Jr}$	
	SAP Notification Channel		email	email	
\oslash	Invoice Plane Channel			email	
*	Notification Channel	Slack Notifications		slack	
Ê					
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				Rows per page: 10 1-3 of 3 <	$\langle \rangle \rangle$
				© 2021 IBA Group. All rights reserved. v2.1.0	-37524/2.1-SNAPSHOT-37634

1 Channel can't be deleted if it's used in any module.

Create a new channel

To create a channel:

1. Go to the Administration Notification Management module Channels tab and click CREATE NEW. Required Permission: Channel-CREATE. See (v. 2.2) Role Permissions.

• i					×. ? 2
Ø	Notification Management				CREATE NEW
~	Channels Templates				
æ	Filter by text	🔿 Refresh 📋 Delete			
Ö		- Herear			
0	□ Name ↓↑	Description UT	Config Name 🥼	Channel Type JT	
Ø	SAP Notification Channel		email	email	ii -
	Invoice Plane Channel			email	
~	Notification Channel	Slack Notifications		slack	
Ê					
ML					
¢					
				Rows per page: 10 💌 1-3 of 3 🛛 🤇	< > >1

- 2. In the New Channel popup panel enter:
 - Name,
 - Description (optionally),
 - Channel Type email or slack,
 - **Recipients** if Channel Type is email, emails should be from the host added to the Control Server Configuration; if Channel Type is slack, you should add slack channel ID to the Recipients and check that token is added to the Control Server Configuration. See **Notification Service**.

• Config Name (optionally).

3.	Click	CREATE.											
÷											Ŕ	0	٢
Ø	Notific	ation Management						CI	REATE NEW	New Char	nel		×
~	Channel	s Templates								Name * IE Notification Channel			
Œ	Filter by t	ext	🤣 Refresh	Delete						Description			
\bigcirc										Config Name email			
6		Name ↓î		Description ↓↑	Config Name ↓↑		Channel Type ↓↑			Channel Type *			
~		SAP Notification Channel			email		email		Ĩ	email Recipients		+2 Add	•
\oslash		Invoice Plane Channel					email		Î	Search recipients		AUG	ecipient
×		Notification Channel		Slack Notifications			slack		i i	New recipient DTrotskaya@ibagroup.eu			⊘ ×
Ê													<u> </u>
ML										No recipi	ints		
鐐													
					Rows per pag	e: 10 🔻	1-3 of 3	< <	> >		-	-	CREATE
										© 2021 IBA Group. All rights reserved. v2.	.0-37524/2.	1-SNAPSHO)T-37634

Edit an existing channel

To edit a channel:

- 1. Go to the Administration Notification Management module Channels tab and click record with created Channel. Required Permission: Channel-UPDATE. See (v. 2.2) Role Permissions.
- 2. In the **Edit Channel** popup panel change:
 - Name,
 - Description (optionally),
 - Channel Type email or slack,
 - **Recipients** if Channel Type is email, emails should be specified in domain company according to *notification.channels. config* in the Control Server Configuration; if Channel Type is slack, you should add slack channel ID to the Recipients and check that token is added to the Control Server Configuration. See **Notification Service**.
 - Config Name (optionally).

3. Click UPDATE.

i							× ? ?
••	Notification Management				CREATE NEW	Edit Channel	>
	Channels Templates					Name * SAP Notification Channel	
Ð	Filter by text	Refresh 🗍 Delete				Description	
Ŭ	Name 🎝	Description ↓↑	And a Marca M	alered Tree 10		Config Name email	
2	SAP Notification Channel	Description U	Config Name ↓↑ email	Channel Type ↓↑ email		Channel Type *	
9	Invoice Plane Channel			email		Recipients Search recipients	+2 Add recipier
	Notification Channel	Slack Notifications		slack	Î	Q JMorozova@ibagroup.eu	6/1
L							
3							
			Rows per page:	10 ▼ 1-3 of 3 <	< > >		
						© 2021 IBA Group. All rights reserved. v2.1.0-375	i24/2.1-SNAPSHOT-3763

Templates

User is able to design and validate a template containing the information that will be received in the notification. It is currently possible to receive a notification about the **Automation Process, Node, Document Type, or Schedule.**

Ð				沟 (? @
Ø	Notification Management			CREAT	ENEW
~	Channels Templates				_
Œ	Filter by text	↑			
Ö	~	🗘 Refresh 📋 Delete			
6	□ Name ↓↑	Description ↓↑	Template Type ↓↑		
	SAP Email Template	SAP Analysis Email Template	FreeMarker	Z	Î
\oslash	luffy template		ThymeleafText		Î
*	VL AP templ		ThymeleafHtml	Z	i
Ê	V test 1 new assigned		ThymeleafHtml	Z	Î
ML	VL node template	example	ThymeleafHtml	Z	Î
鐐					
·			Rows per page: 10 ▾ 1-5 of 5 <	< :	> >

Columns Description:

- Name the template name.
- **Description** a short description of the template.
- Template Type a template writing format.

Filter by text

Filtering allows you to search the template by the columns: Name, Description, Template Type.

Sorting

Ascending/descending sorting is allowed for the columns: Name, Description, Template Type.

Control icons

- **Refresh** to refresh the page.
- **Delete** an existing template via the recycle bin control icon in the table row or Delete icon above the table. Required Permission: Template-DELETE. See (v. 2.2) Role Permissions.
- Open template details of a current template via icon in the table row.

• i)				× ? (2)
,)	Notification Management			CREATE NEW
~*	Channels Templates			
Œ	Filter by text	C Refresh Delete		
Ó				
6	□ Name J↑	Description ↓↑	Template Type ↓↑	
	SAP Email Template	SAP Analysis Email Template	FreeMarker	
\oslash	luffy template		ThymeleafText	
*	VL AP templ		ThymeleafHtml	
Ê	V test 1 new assigned		ThymeleafHtml	
ML	VL node template	example	ThymeleafHtml	
鐐				
			Rows per page: 10 ▾ 1-5 of 5 <	< > >
			© 2021 IBA Group. All rights reserved. v2.1.0-3	17524/2.1-SNAPSHOT-37634

Create a new template

To create a template:

1. Go to the **Administration Notification Management** module **Templates** tab and click **CREATE NEW**. Required Permission: Template-CREATE. See (v. 2.2) Role Permissions.

5				× 0 (
Ø	Notification Management			CREATE NEW
	Channels Templates			
	Filter by text	1		
	<u> </u>	🗘 Refresh 📋 Delete		
	Name Jî	Description JT	Template Type ↓↑	
	SAP Email Template	SAP Analysis Email Template	FreeMarker	
	luffy template		ThymeleafText	
	VL AP templ		ThymeleafHtml	
	V test 1 new assigned		ThymeleafHtml	
	VL node template	example	ThymeleafHtml	
			Rows per page: 10 💌 1-5 of 5	<
			© 2021 IBA Group, All rights reserved, v2	

- 2. In the New Template page:
 - Enter Name, Description (optionally),
 - Choose Template Type ThymeleafText, FreeMarker, or ThymeleafHtml

Name * Description Template Type * New Template * Template *
Template *
<pre>18 "name": "Truotce Plane Automation", 18 "description": "Extracts unique products", 20 "repositoryId": "wi.tbagroup.samples.ap:easy-rpa-invoiceplane-ap:jar:2.1 21 "moduleClass": "eu:tbagroup.easyrpa.ap.productsreader.ProductsReaderApt 23 "dedicated": false, "dedicated": false, "stoPPLOVING.ON_MODE": 0, 5 "STOPPLOTE": 0, 2 "STOPPLOTE": 0, 3 "SUGMITTED": 0, 4 "ACTION", "dedicated": [], 5 "capabilities: [], 6 "dedicated", 7 "ACTION", 4 "ACTION", 4 "ACTION", 4 "ACTION", 4 "ACTION", 4 "ACTION", 4 "ACTION", 4 "ACTION", 4 "ACTION", 4 "ACTION", 5 "Comparison of the second of the se</pre>

• make **Template** according to selected Template Type

- ThymeleafHtml - allows to make a template using HTML standard, including HTML5, HTML 4, and XHTML. Validation is not performed, and the code/structure of the original template will be followed to the maximum extent possible. Note, that for slack channel better to use other 2 template types.

- ThymeleafText - allows to use a special syntax for templates without markup. Examples of such templates can be text messages or template documents. Note, that HTML or XML templates can also be processed as TEXT, in which case the markup is not parsed, and each tag, DOCTYPE, comment, and so on will be treated as plain text. Read more about template modes here. Also useful documentation about Thymeleaf dialect is here.

- FreeMarker - template engine: a Java library for generating text output (HTML pages, xml, configuration files, source code, etc.). The input is a template, for example, html, which contains special expressions, prepares data corresponding to this expression, where Freemarker dynamically inserts this data and a dynamically filled document is obtained. Getting started manual is here.

To check what information will be taken for your notification see the Validate template section below. At the end of the page are examples in ThymeleafText format.

4. Click CREATE.

_	New Template ← Back to list				
^	Name * New Template	Description	Template Type * FreeMarker	Ŧ	
	Template *				
i	1 { 2 "_permissions": [3 "string" 4], 5 "capabilities": [
	6 "string" 7], 8 "dedicated": true,				
	<pre>9 "dedicatedNodes": [10 "string" 11],</pre>				
	<pre>12 "description": "This proce 13 "id": 0, 14 "input": { 15 "_id": "string",</pre>	ess automates a lot of work",			
	<pre>16 "variables": {} 17 }, 18 "moduleClass": "eu.ibagrou</pre>	p.easyrpa.demo.FiveStepsDemoModule	¹⁰ ,		
	<pre>19 "name": "Test Process", 20 "params": [21</pre>				
	22 "Key": "string", 23 "value": "string"				

Edit an existing template

To edit a template:

- 1. Go to the Administration Notification Management module Templates tab and click the Open Template Details icon in the row. Required Permission: Template-UPDATE. See (v. 2.2) Role Permissions.
- 2. In the **Edit Template** page:
 - Edit Name, Template Type and Template, Description (optionally). See more details about Template Type and Template in the Create a new template section
- 3. Click UPDATE.

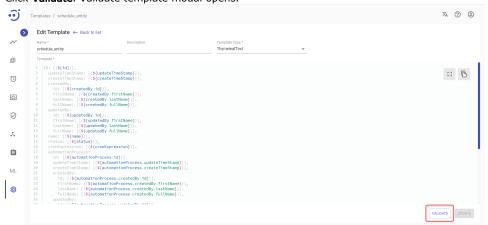
Templates	/ New Template			×. 0 8
> Edit Te	emplate 🔶 Back to lis	t		
Name * New Ten	nplate	Description	Template Type * FreeMarker	
		-45a0-bb3d-e8757614c912",		
19 "(20 ") 21 ")	description": "Extrac repositoryId": "eu.ib repositoryType": "NEX	ts unique products", agroup.samples.ap:easy-rpa-invoicep		
23 "(24 "s	dedicated": false, statistic": { "DEPLOYING_ON_NODE":		uutsneaderγμ ,	
26 27 28	"STOPPED_IDLE": 0, "STOPPING": 0, "FAILED": 2,			
30 31	"COMPLETED": 0, "SUBMITTED": 0, "STOPPED": 0, "QUEUED": 0,			
34 } 35 "("IN_PROGRESS": 1 , capabilities": [], dedicatedNodes": [],			
37 ". 38 39	_permissions": ["READ", "DELETE",			
	"CREATE", "ACTION"			
				VALIDATE
				© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSH0T-37

Validate template

This functionality allows user to validate created template, its format, see what information will be taken if you use special expressions. User can validate templates during developing or editing a template.

To validate template during creating or editing:

- 1. Go to the Administration Notification Management module Templates tab and click CREATE NEW button or open an existing template via Open Template Details icon in the row. Required Permission: Template-CREATE. See (v. 2.2) Role Permissions.
- 2. Click Validate. Validate template modal opens.



- 3. In the Validate Entity field select a module: Automation Process, Node, Document Type, or Schedule.
- Validation Settings section contains response to the GET request in JSON format with information about selected Validate Entity. Note, real request and response can be different, required for check format and results created template according to information in the validate settings. If necessary, user can change Validation Settings. The changes made are saved, when you click CLOSE.
 Click VALIDATE.

Edit Te valdate Entity* valdate Entity* valdate Entity* AutomationProcess	
Name* AutomationProcess 1 ID: 1065, validation Settings* 2 updateTimeStamp: 2021-66-17T16:08:47.6264894+03:00, remplate 1 ^ { 2 "id": 1065, 1 1D: 2 1d: 105, 2 "id": 1065, 3 1D: 1065, 4 createTimeStamp: 2021-66-17T16:08:47.6264894+03:00, 4 createdBy: 5 id: 1, 6 firstName: System,	
schedule 2 updateTimeStamp: 2021-06-1715:08:47.6264894+03:09, createTimeStamp: 2021-06-1715:08:47.6264894+03:09, createEditeStamp: 2021-06-1716:08:47.6264894+03:09, createEdity: Tempäre 1 ~ [1 ~ [2 "1d": 1865, - createEdity: - createEdity:	
Validation Settings* 3 createTimeStamp: 2021-06-17T16:08:47.6264894+03:00, Template 4 createdBy: 10: 2 "id": 1065, 6 ff:rstName: System,	
template 1 * [4 createdBy: 1D: 2 "id": 1065, 6 firstName: System,	
ID: 2 "id": 1065, 6 firstName: System,	
2 Id. 1863, 0 Thistadile. System,	
UD 3 "updateTimeStamp": "2021-06- 7 lastName: Admin	
	53
Cr 17T16:08:47.6264894+03:00", 8 fullName: System Admin,	
4 "createTimeStamp": "201-06- 9 updatedBy:	
17T16:08:47.6264894+03:00", 10 1d: 1,	
5 ~ "createdBy": (11 firstName: System,	
6 "10": 1, 12 LastName: Admin,	
7 "TITStwame": "System", IS Tultwame: System Admin,	
UP 8 "lastName": "Admin", 14 name: ,	
9 "fullName": "System Admin" 15 status: SUBMITTED,	
10 }, 16 cronExpression: ,	
11 * "updatedBy": { 17 automationProcess:	
12 "1d": 1, 18 1d: 1229,	
15 "Trstwame": "System", 19 Updatelimestamp: 2021-06-1/110:32:55.401585+03:00,	
14 "LastName": "Admin" 20 createTimeStamp: 2021-06-17T10:32:55.401585+03:00,	
15 "fullName": "System Admin" 21 createdBy:	
16], 22 1dt 1, 17 "unid": "bfea559-6a63-db2b-8cca-" 23 1dt 1,	
88ecCrllsf2", 24 LastMame: Admin, 18 ~ "automationProcess": (25 fullMame: System Admin,	
10 a ducumertours 1 25 futurame: System Admin, 19 "1d": 1828, 26 updated8:	
20 "updateTimeStamp": "2021-06- 27 id: 1,	
20 "updateTimeStamp": "2021-06- 27 id:1, 17T10:32:55.401585+03:00", 28 firstName: System,	
2/1/19-32:35:491505765:06, 20 TITSTWARE: SyStem, 21 "crcreateTimeStamp": "2021-06- 29 LastMare: Admin,	
Leader intestanty - 22 Lastrate: Aumin, 1710:32:55.401585+03:00", 30 fullName: System Admin,	
22 ^ "createdBy": { 31 uuid: a62d9eae-63a8-4917-84fd-6d1ab4944a8d,	

Examples of templates

Automation Process

Automation Process Template Example

```
ID: [(${id})],
updateTimeStamp: [(${updateTimeStamp})],
createTimeStamp: [(${createTimeStamp})],
createdBy:
id: [(${createdBy.id})],
firstName: [(${createdBy.firstName})],
lastName: [(${createdBy.lastName})],
fullName: [(${createdBy.fullName})],
updatedBy:
id: [(${updatedBy.id})],
firstName: [(${updatedBy.firstName})],
lastName: [(${updatedBy.lastName})],
fullName: [(${updatedBy.fullName})],
uuid: [(${uuid})],
status: [(${status})],
runUuid: [(${runUuid})],
apUuid: [(${apUuid})],
automationProcess:
id: [(${automationProcess.id})],
updateTimeStamp: [(${automationProcess.updateTimeStamp})],
createTimeStamp: [(${automationProcess.createTimeStamp})],
createdBy:
id: [(${automationProcess.createdBy.id})],
firstName: [(${automationProcess.createdBy.firstName})],
lastName: [(${automationProcess.createdBy.lastName})],
fullName: [(${automationProcess.createdBy.fullName})],
updatedBy:
id: [(${automationProcess.updatedBy.id})],
firstName: [(${automationProcess.updatedBy.firstName})],
lastName: [(${automationProcess.updatedBy.lastName})],
fullName: [(${automationProcess.updatedBy.fullName})],,
uuid: [(${automationProcess.uuid})],
name: [(${automationProcess.name})],
description: [(${automationProcess.description})],
repositoryId: [(${automationProcess.repositoryId})],
moduleClass: [(${automationProcess.moduleClass})],
dedicated: [(${automationProcess.dedicated})],
statistic: [# th:if="${automationProcess.statistic.isEmpty()}"]-[/][# th:each="statistic : ${automationProcess.
statistic}" ]
[(${statistic.key})] - [(${statistic.value})][/]
capabilities: [# th:if="${#lists.isEmpty(automationProcess.capabilities)}"]-[/][# th:each="cap :
${automationProcess.capabilities}" ]
[(${cap})][/]
dedicatedNodes: [# th:if="${#lists.isEmpty(automationProcess.dedicatedNodes)}"]-[/][# th:each="node :
${automationProcess.dedicatedNodes}" ]
[(${node})][/]
```

Schedule

Schedule Template Example

```
ID: [(${id})],
updateTimeStamp: [(${updateTimeStamp})],
createTimeStamp: [(${createTimeStamp})],
createdBy:
id: [(${createdBy.id})],
firstName: [(${createdBy.firstName})],
lastName: [(${createdBy.lastName})],
fullName: [(${createdBy.fullName})],
updatedBy:
id: [(${updatedBy.id})],
firstName: [(${updatedBy.firstName})],
lastName: [(${updatedBy.lastName})],
fullName: [(${updatedBy.fullName})],
name: [(${name})],
status: [(${status})],
cronExpression: [(${cronExpression})],
automationProcess:
```

```
id: [(${automationProcess.id})],
updateTimeStamp: [(${automationProcess.updateTimeStamp})],
createTimeStamp: [(${automationProcess.createTimeStamp})],
createdBy:
id: [(${automationProcess.createdBy.id})],
firstName: [(${automationProcess.createdBy.firstName})],
lastName: [(${automationProcess.createdBy.lastName})],
fullName: [(${automationProcess.createdBy.fullName})],
updatedBy:
id: [(${automationProcess.updatedBy.id})],
firstName: [(${automationProcess.updatedBy.firstName})],
lastName: [(${automationProcess.updatedBy.lastName})],
fullName: [(${automationProcess.updatedBy.fullName})],,
uuid: [(${automationProcess.uuid})],
name: [(${automationProcess.name})],
description: [(${automationProcess.description})],
repositoryId: [(${automationProcess.repositoryId})],
repositoryType: [(${automationProcess.repositoryType})],
moduleClass: [(${automationProcess.moduleClass})],
dedicated: [(${automationProcess.dedicated})],
statistic: [# th:if="${automationProcess.statistic.isEmpty()}"]-[/] [# th:each="statistic : ${automationProcess.
statistic}" ]
[(${statistic.key})] - [(${statistic.value})][/]
capabilities: [# th:if="${#lists.isEmpty(automationProcess.capabilities)}"]-[/] [# th:each="cap :
${automationProcess.capabilities}" ]
[(${cap})][/]
dedicatedNodes: [# th:if="${#lists.isEmpty(automationProcess.dedicatedNodes)}"]-[/] [# th:each="node :
${automationProcess.dedicatedNodes}" ]
[(${node})][/]
startDate: [(${startDate})],
endDate: [(${endDate})]
```

Node

Node Template Example

```
ID: [(${id})],
updateTimeStamp: [(${updateTimeStamp})],
createTimeStamp: [(${createTimeStamp})],
createdBy:
id: [(${createdBy.id})],
firstName: [(${createdBy.firstName})],
lastName: [(${createdBy.lastName})],
fullName: [(${createdBy.fullName})],
updatedBy:
id: [(${updatedBy.id})],
firstName: [(${updatedBy.firstName})],
lastName: [(${updatedBy.lastName})],
fullName: [(${updatedBy.fullName})],
name: [(${name})],
description: [(${description})],
status: [(${status})],
workDir: [(${workDir})],
dedicated: [(${dedicated})],
capabilities: [# th:if="${#lists.isEmpty(capabilities)}"]-[/][# th:each="cap : ${capabilities}" ]
[(${cap})][/]
details:
address: [# th:if="${#lists.isEmpty(details.address)}"]-[/][# th:each="addr : ${details.address}" ]
[(${addr})][/]
totalMemory: [(${details.totalMemory})],
freeMemory: [(${details.freeMemory})],
cpu: [(${details.cpu})],
version:
version: [(${details.version.version})],
build: [(${details.version.build})],
sha: [(${details.version.sha})]
features: [# th:each="feature : ${details.features}" ]
type: [(${feature.type})]
enabled: [(${feature.enabled})]
```

```
status: [(${feature.status})]
healthy: [(${feature.healthy})]
details: [# th:if="${feature.details.isEmpty()}"]-[/][# th:each="detail : ${feature.details}" ]
[(${detail.key})] - [(${detail.value})][/][/]
last_seen: [(${last_seen})]
```

DocType

DocType Template Example

```
ID: [(${id})],
updateTimeStamp: [(${updateTimeStamp})],
createTimeStamp: [(${createTimeStamp})],
updatedBy:
id: [(${updatedBy.id})],
firstName: [(${updatedBy.firstName})],
lastName: [(${updatedBy.lastName})],
fullName: [(${updatedBy.fullName})],
uuid: [(${uuid})],
name: [(${name})],
description: [(${description})],
documentType:
id: [(${documentType.id})],
updateTimeStamp: [(${documentType.updateTimeStamp})],
createTimeStamp: [(${documentType.createTimeStamp})],
createdBy:
id: [(${documentType.createdBy.id})],
firstName: [(${documentType.createdBy.firstName})],
lastName: [(${documentType.createdBy.lastName})],
fullName: [(${documentType.createdBy.fullName})],
updatedBy:
id: [(${documentType.updatedBy.id})],
firstName: [(${documentType.updatedBy.firstName})],
lastName: [(${documentType.updatedBy.lastName})],
fullName: [(${documentType.updatedBy.fullName})],
httId: [(${documentType.httId})],
name: [(${documentType.name})],
description: [(${documentType.description})],
settings: [# th:each="setting : ${documentType.settings}" ]
[(${setting.key})] - [(${setting.value})][/]
status: [(${status})],
priority: [(${priority})],
httId: [(${httId})],
inputJson: [# th:if="${inputJson.isEmpty()}"]-[/][# th:each="param : ${inputJson}" ]
[(${param.key})] - [(${param.value})][/]
outputJson: [# th:if="${outputJson.isEmpty()}"]-[/][# th:each="param : ${outputJson}" ]
[(${param.key})] - [(${param.value})][/]
```

(v. 2.2) Control Server Configuration

- Create a New CS Configuration Parameter
- Upload a CS Configuration Parameter
- Update a CS Configuration Parameter

The Control Server Configuration module displays a catalog of system configuration parameters and allows the user to manage them.

You can access the module by clicking **Administration CS Configuration**. To access the CS Configuration module, you need to be granted Administration-READ permission. See Role Permissions .

• ••								$\dot{\mathbf{x}}_{\!A}$? @	Ç
Ð	Control Server Configuration							CREA	TE NEW	
~	Filter by text Q	🖒 Refresh 🚡 Upload	🗍 Delete 👲 Download All							
œ										
Ũ	Key ↓↑ mongodb.timeout		Value ↓↑ 10000		Scope 🗸					
	mongodb.index		longds		AP					
			easyrpa		AP				-	
\oslash	Human Task Types									
*	User Management		https://10.224.0.35		AP				Î	
	Group Management		10.224.0.35		AP				Î	
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较 >	License Management			© 20	21 IBA Group	. All rights reserved	l. v2.1.0-343	76/2.1-SN	APSHOT-34	329

EasyRPA Control Server allows to perform the following actions:

- Create a new CS Configuration Parameter. Required permission: Administration-CREATE + Administration-READ.
- Edit an existing CS Configuration Parameter. Required permission: Administration-CREATE + Administration-READ.
- **Download** existing CS Configuration Parameters in CSV file. Required permission: Administration-READ.
- Upload CS Configuration Parameters in CSV file. Required permission: Administration-CREATE + Administration-READ.
- Delete an existing CS Configuration Parameter. Required permission: Administration-DELETE + Administration-READ.

Filter by text

Filtering allows you to search the CS Configuration Parameter by all columns.

A Filtering does not allow you to search the CS Configuration Parameter with Secret value by the Value column.

Sorting

Ascending/descending sorting is allowed for all columns.

Control icons

- **Refresh** to pull the last updates from the server.
- Upload to upload CS Configuration Parameters in CSV file. Required permission: Administration-CREATE + Administration-READ.
- **Delete** to delete the CS Configuration Parameter (via the recycle bin control icon in the table row or Delete icon above the table). Required Permission: Administration-DELETE + Administration-READ.
- Download All to download existing CS Configuration Parameters in CSV file. Required permission: Administration-READ.
- Show setting to show the Value for the CS Configuration Parameter with Secret value.
- Hide setting to hide the Value for the CS Configuration Parameter with Secret value.

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Create a New CS Configuration Parameter

To create a CS Configuration Parameter:

- Click CREATE NEW.
- On the **New Configuration** popup panel:
 - Enter a unique **Key** to distinguish the Configuration Parameter.
 - Enter the **Value** of the Configuration Parameter.
 - Choose the Scope from the dropdown list (AP for Automation Process level, CS for Control Server level).
 - Tick **Secret value**, if the Value should be hidden.
- Click CREATE.

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A Parameters with the scope "AP" can also be added to the Automation Process and Node Configuration Parameters modules. If all three modules have the same parameter with different values, priority is given to Node Configuration Parameter, then Automation Process, and the last CS Configuration Parameter.

To create the CS Configuration Parameter, you need to be granted Administration-CREATE permission (with Administration-READ). See (v. 2.2) Role Permissions.

Upload a CS Configuration Parameter

The other way to create a CS Configuration Parameter is to Upload file with CS Configuration Parameters in CSV format:

1. Click Upload.

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2. Choose CSV format:

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CSV format settings:

- DEFAULT CSV file as a delimiter comma (,)
- SEMICOLON_SEPARATED CSV file as a delimiter semicolon (;)
- TAB_SEPARATED CSV file as a delimiter tab (\t)
- CUSTOM CSV file as a delimiter comma (,) other options for advanced user.

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- 3. Click ADD to select CSV file and provide CSV file with columns: key, value, scope, secret.
- 4. Please, use **Override existing keys** checkbox if needed.
- 5. Click **UPLOAD** to load the file:

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To upload a CS Configuration Parameter, you need to be granted Administration-CREATE permission (with Administration-READ). See (v. 2.2) Role Permissions.

Update a CS Configuration Parameter

To update an existing CS Configuration Parameter, you need to:

- Click on the corresponding CS Configuration Parameter.
- Change one of the field values on the Edit CS Configuration popup panel
- Click UPDATE.

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鐐						© 2021 IBA	Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

To update the CS configuration parameter, you need to be granted Administration-CREATE permission (with Administration-READ). See Role Permissions .

(v. 2.2) Control Server Logs

Control Server Log module displays the logs of the processes running at Control Server level, such as processes' assigning on nodes, auxiliary db operations, etc. You can access the module by clicking **Administration CS Logs**. The module is available for users from Administrators group only. To access the Control Server Log, you need to be granted Administration-READ permission. See (v. 2.2) Role Permissions.

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Control icons

- **Refresh** to pull the latest logs from the server.
- Autorefresh checkbox to turn on/off an automatic refresh of logs.

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Œ	[2021-00-24 14:41:10.007]		Retransmitting [34662385-0166-43/0-6/68-028/369/8	aaio, 330012005-0441-4682-006C-004C42CCC	240] FO HODE MODE 7	
	[2021-05-24 14:41:16.728]		Retransmitting [34ee2aa5-dlee-437b-878a-d2af3e9fa	aaf5, 93c6d7b2-805d-4f0b-aa47-85188d880	a03] to node NODE 2	
([2021-05-24 14:41:16.887]		Retransmitting [34ee2aa5-dlee-437b-878a-d2af3e9fa			C3 🕞 🕂
\odot	[2021-05-24 14:41:16.899]		Assigning [34ee2aa5-dlee-437b-878a-d2af3e9faaf5,			
	[2021-05-24 14:41:16.921]		Sending message into queue ocr.input.queue for ta		1	
	[2021-05-24 14:41:16.943] [2021-05-24 14:41:16.970]	[INFO] [WARN]	Completing OCR Task 80d6a65f-ae67-4cc5-a06e-adb1b OCR error S3 bucket parameter is required during		recorder	
0	[2021-05-24 14:41:17.045]	[INFO]	Retransmitting [34ee2aa5-dlee-437b-878a-d2af3e9fa			
	[2021-05-24 14:41:17.078]		Assigning [34ee2aa5-dlee-437b-878a-d2af3e9faaf5.	· · · · · · · · · · · · · · · · · · ·	-	
\bigcirc	[2021-05-24 14:41:17.092]		Retransmitting [34ee2aa5-d1ee-437b-878a-d2af3e9fa	-		
\oslash	[2021-05-24 14:41:17.098]		Sending message into queue ocr.input.queue for ta	ask 4c6baad3-3eca-4441-8082-3d50a31b89d	c	
	[2021-05-24 14:41:17.115]		Completing OCR Task 4c6baad3-3eca-4441-8082-3d50a	a31b89dc		
*	[2021-05-24 14:41:17.135]	[WARN]	OCR error S3 bucket parameter is required during	4c6baad3-3eca-4441-8082-3d50a31b89dc p	rocessing.	
^	[2021-05-24 14:41:17.190]		Retransmitting [34ee2aa5-dlee-437b-878a-d2af3e9fa	· · · · · · · · · · · · · · · · · · ·	9dc] to node NODE 2	
	[2021-05-24 14:41:18.866]		AP status updated, id: 34ee2aa5-dlee-437b-878a-d2	2af3e9faaf5 status: FAILED		
Ê			Nexus Component Search error			
			ourceAccessException: I/O error on GET request for .client.RestTemplate.doExecute(RestTemplate.java:7		st/vi/search": PKIX path building faile	ed: sun.security.provider.certpath.SunCertPat
			.client.RestTemplate.execute(RestTemplate.java:717			
ML			.client.RestTemplate.getForEntity(RestTemplate.jav			
IVIL			service.nexus.NexusRestClient\$SearchComponentAdapt			
	at eu.ibagroup.eas	yrpa.cs.	service.impl.MlModelArtifactManager.findModelCompo	onents(MlModelArtifactManager.java:102)		
齒			service.impl.MlModelArtifactManager.delete(MlModel			
~~~			service.impl.MlModelServiceImpl.preDelete(MlModelS			
			reflect.NativeMethodAccessorImpl.invoke0(Native Me			Not Full Logs
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						Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

#### Search by text

You can search for a particular log by its text. The logs found are highlighted in yellow.

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Ø	Control Server Logs				
~	Search by text Q human ta	📉 🗘 Refresh 🗹 Autorefresh	Filter by severity	view columns ✓ timestamp, severity	▼ Sort by timestamp 个
Œ	[2021-05-24 14:42:42 020] [TNCO	AP status updated, 1d: c2415e82-f23c-4fd3-8372-660a4	Idebased statust DEBLOYING ON NODE		
	[2021-05-24 14:43:42.930] [INFO				
~	[2021-05-24 14:43:43:443] [INFO		-	node NODE 4	C: ID 🕹
$\odot$	[2021-05-24 14:43:47.765] [INFO				
	[2021-05-24 14:43:49.648] [INFO				
_	[2021-05-24 14:43:49.649] [INFO	SELECT COUNT(*) AS total FROM ds_df9d36bea73b4131			
2	[2021-05-24 14:43:54.347] [INFO	Retransmitting [c2415e82-f23c-4fd3-8372-660a41d5ba52.	, b3c31882-ce66-4b38-9e90-8d487cf720c	8] to node NODE 4	
	[2021-05-24 14:43:54.547] [INFO	Retransmitting [c2415e82-f23c-4fd3-8372-660a41d5ba52	, b3c31882-ce66-4b38-9e90-8d487cf720c	8] to node NODE 4	
	[2021-05-24 14:43:54.777] [INFO	Retransmitting [c2415e82-f23c-4fd3-8372-660a41d5ba52	, a21c6342-f1a8-40fa-b42d-1e3aedca060	a] to node NODE 4	
0	[2021-05-24 14:43:54.982] [INFO	Retransmitting [c2415e82-f23c-4fd3-8372-660a41d5ba52	, a21c6342-f1a8-40fa-b42d-1e3aedca060	a] to node NODE 4	
	[2021-05-24 14:43:55.088] [INFO	Assigning [c2415e82-f23c-4fd3-8372-660a41d5ba52, 033]	1b437-4979-4c6f-8da3-42c6bf11dbca] or	node CS	
	[2021-05-24 14:43:55.144] [INFO	Assigning [c2415e82-f23c-4fd3-8372-660a41d5ba52, b5aa	a48c2-4b7b-4a45-b921-67dc80d7a8b0] or	node CS	
<u>.</u>	[2021-05-24 14:43:55.168] [INFO	Creating Human Task for task 0331b437-4979-4c6f-8da3-	-42c6bf11dbca		
	[2021-05-24 14:43:55.182] [INFO	Creating Human Task for task b5aa48c2-4b7b-4a45-b921-	-67dc80d7a8b0		
	[2021-05-24 14:43:55.306] [INFO				
	[2021-05-24 14:43:55.360] [INFO				
	[2021-05-24 14:44:17.796] [INFO	-	C OFFSET 0 LIMIT 10		
	[2021-05-24 14:44:17.806] [INFO				
L	[2021-05-24 14:44:31.324] [INFO	-	C OFFSET 0 LIMIT 10		
	[2021-05-24 14:44:31.332] [INFO				
	[2021-05-24 14:44:36.482] [INFO	-	C OFFSET 0 LIMIT 10		
2	[2021-05-24 14:44:36.483] [INFO				
~	[2021-05-24 14:44:36.500] [INFO [2021-05-24 14:44:36.506] [INFO	-	C OLLZEI O FIMII IG		
	[2021-05-24 14:44:36.506] [INFO [2021-05-24 14:44:48.873] [INFO		C DEESET & LIMIT 18		Not Full Logs
	[2021-05-24 14:44:48.873] [INFO	-	C OFFSET O LIMIT 10		

#### Filter by severity

Filtering allows you to choose the level of severity of the displayed logs from the dropdown menu. The available options are as follows:

Autorefresh	Filter by	severity	*	View columns timestamp, severity	•
teHttpsURLConnection.connect(Abstrac	۲	ALL			
tionImpl.connect(HttpsURLConnectionI ntHttpRequest.executeInternal(Simple	()	TRACE			50
<pre>ientHttpRequest.executeInternal(Abst equest.execute(AbstractClientHttpReq</pre>	()	DEBUG			
ttpRequest\$InterceptingRequestExecut ticationInterceptor.intercept(BasicA	$\cap$	INFO	-	java:109)	
ttpRequest\$InterceptingRequestExecut ttpRequest.executeInternal(Intercept	$\cap$	WARN	-	java:93)	
<pre>ientHttpRequest.executeInternal(Abst equest.execute(AbstractClientHttpReq te(RestTemplate.java:742)</pre>	$\cap$	ERROR			

#### View columns

You can add or remove the columns **timestamp/severity/node** name from the event log view.

View columns timestamp, severity -. Sort by timestamp 1 timestamp  $\checkmark$ -9025-1f5bf9338c -rpa-debtors-ap/: 0.0 severity  $\checkmark$ -rpa-debtors-ap/1 KE -rpa-debtors-ap/: 11.0 KB/sec) -rpa-debtors-ap/2.1-SNAPSHOT/maven-metadata.xml (785 B at 10.2 KB/sec) -rpa-debtors-ap/2.1-SNAPSHOT/maven-metadata.xml (785 B at 12.4 KB/sec) -rpa-debtors-ap/2.1-SNAPSHOT/maven-metadata.xml (785 B at 10.2 KB/sec) 1b0a-a29a-467d-8ce5-081878eb1079

#### Sort by timestamp

Ascending/descending logs sorting by the timestamp is allowed.

In the upper-right corner of the logs window there are buttons for opening logs in the full browser window, copying logs to the clipboard and downloading a .txt file with logs:

					沟 ⑦ (
Ø	Control Server Logs				
	Search by text Q	🥠 Refresh 🗹 Autorefresh	Filter by severity	View columns	<ul> <li>Sort by timestamp</li> </ul>
	[2021-05-24 14:08:28.103]	RN] AP 12fc9252-f03e-477c-8fa8-7898f14f5062 is finished b	ut got update for [d7fde6e5-205e	e-45bb-8863-cb8434016b07, 715df5a1-a1c7-428c-9fa	c-d673972a5f(0]
	[2021-05-24 14:08:33.406]	[F0] SELECT * FROM ds_29b4e0c197234a30 ORDER BY "uuid" ASC	OFFSET 0 LIMIT 10		
	[2021-05-24 14:08:33.415]	FO] SELECT COUNT(*) AS total FROM ds_29b4e0c197234a30			C 1 <u>0</u> ⊻
	[2021-05-24 14:08:35.591]	[F0] Completing OCR Task 34605fab-5561-4399-9b4c-c6f01b58b	363		
	[2021-05-24 14:08:35.705] [)	<pre>RN] AP 12fc9252-f03e-477c-8fa8-7898f14f5062 is finished b</pre>	ut got update for [d7fde6e5-205¢	e-45bb-8863-cb8434016b07, 34605fab-5561-4399-9b4	c-c6f01b58b363]
	[2021-05-24 14:08:43.295]	[F0] Completing OCR Task 0f348984-c392-4286-80cf-ce6355692	cb7		
	[2021-05-24 14:08:43.413] [)	<pre>RN] AP 12fc9252-f03e-477c-8fa8-7898f14f5062 is finished b</pre>	ut got update for [d7fde6e5-205e	2-45bb-8863-cb8434016b07, 0f348984-c392-4286-80c	f-ce6355692cb7]
	[2021-05-24 14:08:51.119]	[F0] Completing OCR Task c4bf8635-c0e9-4c0f-b335-cff389e81	b3f		
	[2021-05-24 14:08:51.240] [	<pre>AP 12fc9252-f03e-477c-8fa8-7898f14f5062 is finished b</pre>	ut got update for [d7fde6e5-205e	e-45bb-8863-cb8434016b07, c4bf8635-c0e9-4c0f-b33	5-cff389e81b3f]
	· · · · · · · · · · · · · · · · · · ·	[F0] Completing OCR Task f535fbda-901f-4755-a8ac-a0477e1ed			
	[2021-05-24 14:08:58.718] [)	<pre>IRN] AP 12fc9252-f03e-477c-8fa8-7898f14f5062 is finished b</pre>	ut got update for [d7fde6e5-205e	e-45bb-8863-cb8434016b07, f535fbda-901f-4755-a8a	c-a0477e1edc36]
	[2021-05-24 14:09:05.971]	[F0] Completing OCR Task 5903d18b-e981-4331-836e-c53b2e34a	7ac		
	[2021-05-24 14:09:06.093] [)	<pre>kRN] AP 12fc9252-f03e-477c-8fa8-7898f14f5062 is finished b</pre>	ut got update for [d7fde6e5-205e	e-45bb-8863-cb8434016b07, 5903d18b-e981-4331-836	e-c53b2e34a7ac]
		[F0] Completing OCR Task 0104d6c7-1855-4203-a7e7-f6c3011ed			
	[2021-05-24 14:09:14.213] [)	<pre>RN] AP 12fc9252-f03e-477c-8fa8-7898f14f5062 is finished b</pre>	ut got update for [d7fde6e5-205e	e-45bb-8863-cb8434016b07, 0104d6c7-1855-4203-a7e	7-f6c3011edf0d]
	[2021-05-24 14:09:21.201]	[F0] Completing OCR Task 03b20314-3196-4fc2-b5ff-3e95a8659	cd3		
	[2021-05-24 14:09:21.331] [)	<pre>RN] AP 12fc9252-f03e-477c-8fa8-7898f14f5062 is finished b</pre>	ut got update for [d7fde6e5-205e	e-45bb-8863-cb8434016b07, 03b20314-3196-4fc2-b5f	f-3e95a8659cd3]
		IFO] Downloaded: https://10.224.0.35/nexus/repository/easy	rpa-group/eu/ibagroup/easy-rpa-o	cldp-ap/2.1-SNAPSHOT/maven-metadata.xml (337 B a	t 4.2 KB/sec)
		IFO] Downloaded: https://10.224.0.35/nexus/repository/easy			
		IFO] Downloaded: https://10.224.0.35/nexus/repository/easy			
	· · · · · · · · · · · · · · · · · · ·	IFO] Downloaded: https://10.224.0.35/nexus/repository/easy			t 4.8 KB/sec)
		ROR] S1000-3306-1519 - Unexpected error occurs:No property			
		ROR] S1000-1887-8858 - Unexpected error occurs:No property			
		ROR] S1000-2211-9535 - Unexpected error occurs:No property			Not Full Land
		<pre>FO] CREATE TABLE ds_f9b7942c51fa418b(_id_oao_ SERIAL,"uui</pre>			son" TEXT, "input, Ver Full Logs
	[2021-05-24 14:20:29.523] [E	ROR] S1000-5621-6286 - Unexpected error occurs:No property	status found for type Documents	Set!	

"Not Full Logs" indicator appears at the bottom right corner when the log becomes too long for one page:

Σ	Control Server Logs								
	Search by text Q	🧳 Refresh 🗹 Autor	refresh	Filter by severity ALL		View columns timestamp, severity		<ul> <li>Sort by timestamp</li> </ul>	
	[2021-05-24 15:45:20.831] [INFO]								
	[2021-05-24 15:45:21.037] [INFO]	Downloaded: https://10.224.0.35/nexus/	/repository/easyrpa-grou	up/eu/ibagroup/samples/ap/easy-rpa	a-debtors-ap/	2.1-SNAPSHOT/maven-metadata	a.xml (785 B at	t 1,8,2 K8∰sec) J	
	[2021-05-24 15:45:22.844] [INFO]	Submitted Debtor Analysis by ilyuchyk_	ra						
	[2021-05-24 15:45:23.067] [INFO]	Downloaded: https://10.224.0.35/nexus/	/repository/easyrpa-grou	up/eu/ibagroup/samples/ap/easy-rpa	a-debtors-ap/	2.1-SNAPSHOT/maven-metadata	a.xml (785 B at	t 12.4 KB/sec)	
	[2021-05-24 15:45:23.288] [INFO]	Downloaded: https://10.224.0.35/nexus/	/repository/easyrpa-grou	up/eu/lbagroup/samples/ap/easy-rpa	a-debtors-ap/	2.1-SNAPSHOT/maven-metadata	a.xml (785 B at	t 10.2 KB/sec)	
	[2021-05-24 15:45:23.357] [INFO]	AP status updated, id: 5a8e107e-5f39-4	4e05-8b82-66ce23c36106 s	status: QUEUED					
	[2021-05-24 15:45:23.359] [INFO]	AP Debtor Analysis 5a8e107e-5f39-4e05-	-8b82-66ce23c36106 submi	itted into queue. Session 82411b0a	a-a29a-467d-8	ce5-081878eb1079			
	[2021-05-24 15:45:23.388] [INFO]	Assigning [5a8e107e-5f39-4e05-8b82-66c	ce23c36106] on node NODE	E 1					
)	[2021-05-24 15:45:23.524] [INFO] AP status updated, 1d: 5a8e107e-5f39-4e05-8b82-66ce32c36106 status: DEPLOYING_ON_NODE								
	[2021-05-24 15:45:24.078] [INFO] AP status updated, 1d: 5a8e107e-5f30-4e05-0b02-06ce23c36106 status: IN_PROGRESS								
	[2021-05-24 15:45:25.729] [INFO]	Downloaded: https://10.224.0.35/nexus/							
	[2021-05-24 15:45:25.729] [INFO] [2021-05-24 15:45:25.947] [INFO]	Downloaded: https://10.224.0.35/nexus/ Downloaded: https://10.224.0.35/nexus/							
	[2021-05-24 15:45:25.947] [INFO] [2021-05-24 15:45:28.193] [INFO]	Downloaded: https://10.224.0.35/nexus/ Assigning [5a8e107e-5f39-4e05-8b82-66c	/repository/easyrpa-grou ce23c36106, 843efe96-871	up/eu/ibagroup/samples/ap/easy-rp	a-debtors-ap/				
	[2021-05-24 15:45:25.947] [INFO]	Downloaded: https://10.224.0.35/nexus/	/repository/easyrpa-grou ce23c36106, 843efe96-871	up/eu/ibagroup/samples/ap/easy-rp	a-debtors-ap/				
	[2021-05-24 15:45:25.947] [INFO] [2021-05-24 15:45:28.193] [INFO]	Downloaded: https://10.224.0.35/nexus/ Assigning [5a8e107e-5f39-4e05-8b82-66c easy-rpa-engine-parent-2.0-SNAPSHOT.pc secret.3.json	/repository/easyrpa-grou ce23c36106, 843efe96-871	up/eu/ibagroup/samples/ap/easy-rp	a-debtors-ap/				
	[2021-05-24 15:45:25.947] [INFO] [2021-05-24 15:45:28.193] [INFO] [2021-05-24 15:46:11.632] [INFO]	Downloaded: https://10.224.0.35/nexus/ Assigning [5a8e107e-5f39-4e05-8b82-66c easy-rpa-engine-parent-2.0-SNAPSHOT.po	/repository/easyrpa-grou ce23c36106, 843efe96-871	up/eu/ibagroup/samples/ap/easy-rp	a-debtors-ap/				
	[2021-05-24 15:45:25.947] [INFO] [2021-05-24 15:45:28.193] [INFO] [2021-05-24 15:46:11.632] [INFO] [2021-05-24 15:46:11.632] [INFO]	Downloaded: https://10.224.0.35/nexus/ Assigning [5a8e107e-5f39-4e05-8b82-66c easy-rpa-engine-parent-2.0-SNAPSHOT.pc secret.3.json	/repository/easyrpa-grou ce23c36106, 843efe96-871	up/eu/ibagroup/samples/ap/easy-rp	a-debtors-ap/				
	[2021-05-24 15:45:25.947] [TNF0] [2021-05-24 15:45:28.193] [INF0] [2021-05-24 15:46:11.632] [INF0] [2021-05-24 15:46:11.632] [INF0] [2021-05-24 15:46:11.632] [INF0]	Downloaded: https://10.224.0.35/nexus/ Assigning [Sa@e107e_5f39-4e65-8b82-66c eaay-rpa-engine-parent=2.0=SNAPSHOT.pc eaay-rpa-debtors-ap-2.0=SNAPSHOT.pom ap.json secret.2.json	/repository/easyrpa-grou ce23c36106, 843efe96-871	up/eu/ibagroup/samples/ap/easy-rp	a-debtors-ap/				
	[2021-65-24 15:45:25.047]         [INF0           [2021-65-24 15:45:28.193]         [INF0           [2021-65-24 15:46:11.632]         [INF0	Downloaded: https://l0.224.0.35/nexus/ Assigning [5a&1076-5130-4065-8b82-66c easy-rpa-engine-parent-2.0-SNAPSHOT.po secret.3.json easy-rpa-debtors-ap-2.0-SNAPSHOT.pom ap.json secret.2.json secret.1.json	/repository/easyrpa-grou ce23c36106, 843efe96-871	up/eu/ibagroup/samples/ap/easy-rp	a-debtors-ap/				
	[2021-05-24         15:45:25.947]         [INF0]           [2021-05-24         15:45:28.193]         [INF0]           [2021-05-24         15:46:18.20]         [INF0]           [2021-05-24         15:46:11.632]         [INF0]	Downloaded: https://10.224.0.35/nexus/ Assigning [3a&107=5739-4e55-8b2-86c easy-rpa-engine-paret-2.0-SNAPSHOT.po secret.3.json easy-rpa-debtors-ap-2.0-SNAPSHOT.pom secret.2.json secret.1.json easy-rpa-debtors-ap-2.0-SNAPSHOT.jar	/repository/easyrpa-grou ce23c36106, 843efe96-871	up/eu/ibagroup/samples/ap/easy-rp	a-debtors-ap/				
	[2021-65-24 15:45:25.947]         [IIN60]           [2021-65-24 15:45:28.103]         [IIN60]           [2021-65-24 15:46:11.632]         [IIN60]	Downloaded: https://10.224.0.35/nexus/ Assigning [53&107e-5f39-4e05-8b82-66c easy-rpa-engine-parent-2.0-5NAPSHOT.por secret.3.json easy-rpa-debtors-ap-2.0-5NAPSHOT.por secret.1.json easy-rpa-debtors-ap-2.0-SNAPSHOT.jar easy-rpa-debtors-2.0-SNAPSHOT.jar	/repository/easyrpa-grou ce33336106, 843efe96-871 m	up/eu/ibagroup/samples/ap/easy-rp	a-debtors-ap/				
	[2021-65-24 15:45:25.947]         [INFO]           [2021-65-24 15:45:28.193]         [INFO]           [2021-65-24 15:46:11.632]         [INFO]	Downloaded: https://10.224.0.35/nexus/ Assigning [Sa@el07e-5f39-465-8082-60c easy-rpa-engine-parent-2.0-SNAPSHOT.por easy-rpa-debtors-ap-2.0-SNAPSHOT.pon ap.json secret.1.json easy-rpa-debtors-ap-2.0-SNAPSHOT.jar easy-rpa-debtors-2.0-SNAPSHOT.jar easy-rpa-debtors-2.0-SNAPSHOT.jar	/repository/easyrpa-gro. e23636106, 843efe06-871 m	µp/eu/fbagroup/samples/ap/easy-rpi 19-4bca−b7fd-6466df93776f] on nod4	a-debtors-ap/				
	[2021-05-24 15:45:25.947] [INFO] [2021-05-24 15:45:28.193] [INFO] [2021-05-24 15:45:11.632] [INFO] [2021-05-24 15:46:11.632] [INFO]	Downloaded: https://10.224.0.35/nexus/ Assigning [53&107e-5f39-4e05-8b82-66c easy-rpa-engine-parent-2.0-5NAPSHOT.por secret.3.json easy-rpa-debtors-ap-2.0-5NAPSHOT.por secret.1.json easy-rpa-debtors-ap-2.0-SNAPSHOT.jar easy-rpa-debtors-2.0-SNAPSHOT.jar	/repository/easyrpa-gro. e23636106, 843efe06-871 m	µp/eu/fbagroup/samples/ap/easy-rpi 19-4bca−b7fd-6466df93776f] on nod4	a-debtors-ap/				
	[2021-65-24 15:45:25.947]         [INFO]           [2021-65-24 15:45:28.193]         [INFO]           [2021-65-24 15:46:11.632]         [INFO]	Dominoladed: https://l0.224.0.35/nexus/ Assigning [Sa@el07=5130-4065-8082-60c eaay-rpa-engine-parent-2.0-SNAPSHOT.por secret.3.json secret.2.json secret.2.json secret.1.json eaay-rpa-debtors-2.0-SNAPSHOT.jar eaay-rpa-debtors-2.0-SNAPSHOT.jar eaay-rpa-debtors-2.0-SNAPSHOT.jar eaay-rpa-debtors-2.0-SNAPSHOT.jar	/repository/easyrpa-gro. e23636106, 843efe06-871 m	µp/eu/fbagroup/samples/ap/easy-rpi 19-4bca−b7fd-6466df93776f] on nod4	a-debtors-ap/				

#### To download full logs use **Download** button:

View columns	
<ul> <li>timestamp, severity</li> </ul>	▼ Sort by timestamp 个
юı/maven-metadata.xmı (зз/ в ат 4.6 кв/sed ЮТ/maven-metadata.xml (зз7 В at 4.8 КВ/sed	
rl" TEXT,"s3_path" TEXT,"ocr_json" TEXT,"i	input_json" TEXT,"output_j
To copy the displayed logs only use <b>Copy</b> button:	



To view more log records simultaneously enter the full screen mode via pressing the corresponding button:

## View columns timestamp, severity ✓ Sort by timestamp ↑ 94-94aefa9070a7.pdf 16-42e0-9a27-5a73590f5004.pdf 16-42e0-9a27-5a73590f5004.pdf 16-4d84-af57-eec6d7131294.pdf 157-eec6d7131294.pdf 125-4c87-a3c5-ec62df0c0774.pdf

## (v. 2.2) Activity Log

- View Activity Log History
- View Activity Log Record Changes

The Activity Log module provides audit functionality to track user and system actions (login sessions, editing Automation Processes /Data Stores, creating AP runs, etc.).

EasyRPA Control Server allows to perform the following actions:

- View the activity log history. To access the Activity log module, you need to be granted Administration-READ permission. See R ole Permissions .
- View the particular activity record changes.

## View Activity Log History

To view the Activity Log history, you need to:

<ul> <li>Navigate to Administration Activity Log</li> </ul>	٠	Navigate t	o Administration	Activity	Loa.
-------------------------------------------------------------	---	------------	------------------	----------	------

• <b>•</b> ;						Â	0 9
•	Activity Log						
~	Choose object name * Document Type	Choose object field	- SEARCH				
æ	Record ID Chan	де Туре	Version Name	Changed By	Changed Fields	Event Date	
Ũ	1016 🌒 🛙	NITIAL_CHANGE_STATUS	1 htt_doc_type_refresh_che	admin	settings, humanTaskType,	04.05.2021 17:16	۹
õ	1015 🌒 II	NITIAL_CHANGE_STATUS	1 htt_doc_type_refresh_che	admin	settings, humanTaskType,	04.05.2021 17:09	۹
Ø	Human Task Types	AL_CHANGE_STATUS	1 htt_doc_type_refresh_che	admin	settings, humanTaskType,	04.05.2021 16:56	۹
	User Management	TE_CHANGE_STATUS	2 CL taska	burak_na	settings	04.05.2021 14:58	۹
*	Group Management	AL_CHANGE_STATUS	1 CL taska	burak_na	settings, humanTaskType,	04.05.2021 14:56	۹
â	Notification Management	AL_CHANGE_STATUS	1 htt_doc_type_refresh_che	admin	settings, humanTaskType,	04.05.2021 14:32	۹
ML	CS Configuration						
	Activity Log					Rows per page: 10 👻	< >
\$\$ <mark>-</mark>	Lieense Management				© 2021 IBA G	roup. All rights reserved. v2.1.0-34908/2.1	-SNAPSHOT-3494

- Chose object name from the dropdown list.
- Chose object field from the dropdown list.
- If necessary, fill field value (the records can be found only if complete case-sensitive field values are entered).
- Click Search button.

APlease note, that the searchable value should be entered completely into the Search field. A full match is the only way to search.

• <b>•</b> •		,				ץ	0 9
~	Automation Process	Choose object field	Fill field value Q. CL Document Processor X	RCH			
Œ	Automation Process Run Automation Process Parameter		Version Name	Changed By	Changed Fields	Event Date	
Ũ	Data Store Gl	E_STATUS	1 CL Document Processor	admin	updatedBy, createdBy, mo	04.05.2021 12:28	٩
0	Node Parameter Schedule						
Ø	Secret Vault User						
*	User Group Human Task Type						
Ê	Document Type Human Task						
ML	ML Model Document Set				R	ows per page: 10 👻	< >
鐐					© 2021 IBA Group.	All rights reserved, v2.1.0-34908/2.1-5	SNAPSHOT-34949

#### To apply filter by Record ID, you need to click on loupe

Ð				× 7 9
<b>∂</b> ~	Activity Log Choose object name * Choose object field Automation Process    All	SEARCH		
æ	Record ID Change Type	Version Name	Changed By Changed Fields	Event Date
Ö	1047 OUPDATE_CHANGE_STATUS	5 Automation Test DeleteSo	admin params	04.05.2021 18:04 Q
o	1047 😑 UPDATE_CHANGE_STATUS	4 Automation Test DeleteSo	admin params	04.05.2021 18:03
Ó	1047 • UPDATE_CHANGE_STATUS	3 Automation Test DeleteSo	admin params	Apply filter by Record ID

#### **Columns Description**

- **Record ID** the ID of the entity on which the action was performed.
- Change Type the type of the activity (Update, Create, Delete)
- Version the entity change version.
- Name the Name of the object.
- Changed By an author of the performed action.
- Changed Fields the field(s) that have been changed.
- Event Date the date and time of the performed action.

## View Activity Log Record Changes

To view the particular activity record changes, you need to:

- Navigate to Administration Activity Log.
- Click on the corresponding Activity Log Record ID.

÷	Activity Log / 1047.0	.1289.AutomationProcess				ズ _A	? (3	9
0	View Activity C	hanges ← Back to list				VIEW CURRENT REC	ORD STATE	
~	Filter by text	🧔 Refrest	1					
ŧ	Field Name ↓↑	Change Type ↓↑	Value Type ↓↑	Old Value ↓↑	New Value ↓			
Ó	updatedBy	• CREATED_CHANGE_STATUS	Reference		User/1		$\overline{\Phi}$	
õ	createdBy	CREATED_CHANGE_STATUS	Reference		User/1		$\overline{\Phi}$	
Ø	moduleClass	CREATED_CHANGE_STATUS	Value		eu.ibagroup.easyrpa.ap.productsreader.ProductsReaderAp		$\overline{\Phi}$	
	name	CREATED_CHANGE_STATUS	Value		Invoice Plane Automation 2021.05.04 18:02:17		<u>₽</u>	1
	repositoryType	CREATED_CHANGE_STATUS	Value		NEXUS		<u>₽</u>	
Ê	repositoryId	CREATED_CHANGE_STATUS	Value		eu.ibagroup.samples.ap:easy-rpa-invoiceplane-ap:jar:2.1-SNAPSHOT		<u>₽</u>	
ML					Rows per page: 10 ▼ 1-10 of 12	< <	> >	۹.
鐐					© 2021 IBA Group. All rights resen	ved. v2.1.0-34908/2.1-	SNAPSHOT-349	949

#### **Columns Description**

- Field Name the name of the field modified.
- Change Type the type of action performed. (Created, Deleted, Updated)
- Value Type the type of value on which the action was performed. (Value, List, Reference)
- Old Value the value before the action is performed (empty for "Created" Change Type)
- **New Value** the value after the action is performed (empty for "Deleted" Change Type)
- **Download Activity** to download existing record.

#### View Current Record State

#### Button View current record state allows to view the actual state and others details of the Record:

• <b>i</b> )								
	View Activity Changes ← Back to list         Filter by text							
~	Filter by text	φ	Refresh					
Œ	Field Name ↓↑	Change Type ↓↑	Value Type ↓↑	Old Value ↓↑	New Value ↓↑		1	
$\odot$	updatedBy	CREATED_CHANGE_STATUS	Reference		User/1		<u>₽</u>	

### If record doesn't exist anymore, its details are empty:

•••	Activity Log / 1047.0	0.1289.AutomationProcess					× 0 0
•	View Activity C	hanges 🔶 Back to list					VIEW CURRENT RECORD STATE
~	Filter by text		🗘 Refresh				
œ			*				
	Field Name 🕼	Change Type ↓↑	Value Type ↓↑	Old Value ↓↑ New Va	lue ↓↑		
Ó	updatedBy	CREATED_CHANGE_ST	Record Details				<u>₽</u>
	createdBy	CREATED_CHANGE_ST					<u>₽</u>
$\oslash$	moduleClass	CREATED_CHANGE_ST.		Record does not exists yet!		oductsReaderAp	<u>⊅</u>
	name	CREATED_CHANGE_STAT	US Value	Invoice	Plane Automation 2021.05.04 18:0:	2:17	Ŷ

#### For existing records the details are displayed in JSON format:

	Activity Log / 1044	4.1.13485.Auton	nationProcess							× _A (?	
6	View Activity	Changes ←	Back to list	Reco	ord Details	^		VIE	W CURREN	IT RECORD S	TATE
~	Filter by text			2 3 4 ^	<pre>"updateTimeStamp": "2021-03-03T23:19:31.792585+03:00", "createTimeStamp": "2021-02-28T11:29:56.929067+03:00", "createdBy": {</pre>						
Œ	Field Name	Change Type	Value Type	5 6 7 8	<pre>"updateTimeStamp": "2021-02-28T10:03:36.215051+03:00", "createTimeStamp": "2021-02-28T10:03:36.215051+03:00", "id": 1040, "firstName": "Veranika",</pre>						
Ũ	runs	Updated	List	9 10 11 12	"lastName": "Letska", "email": "Letska_VS@itd.iba.by", "username": "letska_vs",		AutomationProc	essRun/2030,	.Automati	onProcessF	Run/2031,
				13 ^ 14 ^ 15	<pre>"active": true, "groups": [         {         {</pre>						
$\bigcirc$				16 17 18 19	"createTimeStamp": "2021-02-26T08:38:37.331005+03:00", "id": i, "name": "ADMIN", "description": "Administrator Build-in Group",						
*				20 21 22	"systemGroup": true, "users": [], "contextGroupRoles": []						
Ê				23 24 25 26	} ], "deleted": false, "systemUser": false,						
ML	—			27 28 29 ^ 30	<pre>"permissions": [] }, "updatedBy": {     "updatefimeStamp": "2021-02-28T10:03:36.215051+03:00",</pre>						
礅				- 30	upuater mestamp . 2022 02 2010.03.36.213031703.00 ;	CLOSE	er page: 10 👻	1-1 of 1		< >	

## (v. 2.2) License Management

- License General Information
- Upload the License
  - Online License
  - Offline License
- Replace the License
  - Offline License
    - Online License

The License Management module displays the current license information and allows you to upload and replace the current license.

You can access the module by clicking Administration License Management.

····			× ? 9
~	>		
œ		License Management	
Ó		System Id: e1758fe2d6ac84c85042b34ac  Product name: EasyRpa Customer_name: Customer_1	
0	Human Task Types	Expiry date: 2022-09-09 00:00:00 UTC Components: Registered Processes: 100	
Ø	User Management	Registered ML/OCR Processes: 10 Robot Workplaces: 10 Users: 100	
x	Group Management	Access to Internet: Offline CHANGE LICENSE CHANGE ONLINE	
Ê	CS Configuration		
ML	CS Logs Activity Log		
<b>1</b> 200 >	License Management		
		© 2021 IBA Group, All rights	reserved, v2.2.0-41179/2.2.0-SNAPSHOT-40865

To access the License Management module, you need to be granted Administration-ALL-READ permission. See (v. 2.2) Role Permissions.

## License General Information

The current license information displays the following information specified in the license:

- System Id a unique system identifier of the particular instance.
- Product name the name of the licensed product
- Customer name the name of the customer to whom the license is granted.
- Expiry date the expiration date of the license.
- Components:
  - Registered Processes the maximum number of RPA processes that can be registered in the Control Server (including the number of ML/OCR Processes).
  - Registered ML/OCR Processes the maximum number of ML or OCR processes that can be registered in the Control Server. A process involving both ML and OCR counts as one process.
  - Robot Workplaces the maximum number of Nodes available for automation processes execution.
  - Users the maximum number of users in enabled status that can work simultaneously in the Control Server.
  - Access to Internet a type of license access (Online/Offline).

## License Management

System Id: e1758fe2d6ac84c85042b34ac... Product name: EasyRpa Customer name: Customer_1 Expiry date: 2022-09-09 00:00:00 UTC Components: Registered Processes: 100 Registered ML/OCR Processes: 10 Robot Workplaces: 10 Users: 100 Access to Internet: Offline

CHANGE LICENSE

#### Control icons

• Copy System Id 🗅 - to copy a unique system identifier of the particular instance.

## Upload the License

There are two possible ways to upload the license, depending on the required type of License Access: Online or Offline.

CHANGE ONLINE

### **Online License**

To upload the Online Licence, you know the need to:

1. Create a new Online License in the License Manager. See Create a new License.

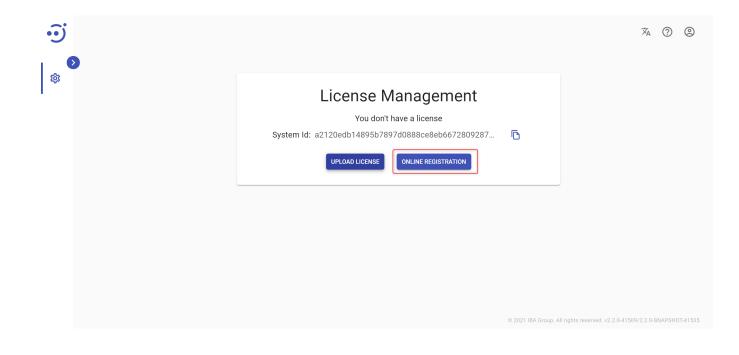
	Sustomers / UAT_2									
	Customer Details ← Back to list						CREA	ATE NEW		
£	Details Licenses									
20	Filter by text Q	🗘 Refresh 🔗 Enable 🔗 Disable								
<u>م</u> م	☐ Product Name Version ↓↑	License UUID	Description	Expiry Date ↓↑	Status ↓↑	Created By				
~~	EasyRpa 2.X.X-SNAPSHOT	c4eb518e-25a7-407a-a839-86e4d2d5ded1		21.08.2024	Enabled	Iryna Nestsiarchuk	Б	$\oslash$		
				Rows p	er page: 10 🔻	1-1 of 1 🛛 🕹 🕹	<	> >		
					© 2021 IBA Group.	All rights reserved. v1.0.0-414	87/1.0.0-SN	APSHOT-41521		

2. Add License Components in the License Manager. See Create a New Component.

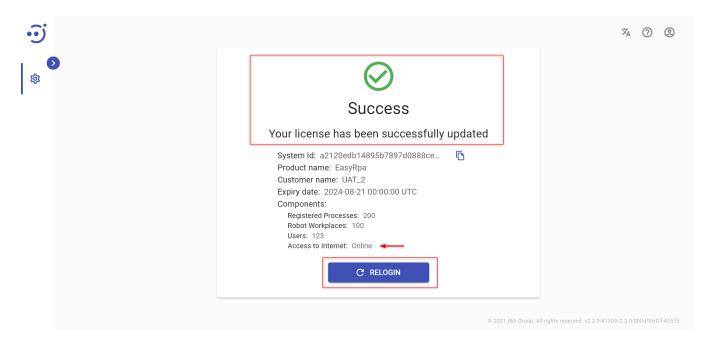
• <b>i</b>	Customers / UAT_2 / EasyRpa (2.X.X-SNAPSHOT)		×. ? .
	License Details ← Back to list		CREATE NEW
£	Components Instances		
20	Filter by text Q Petereh Delete		
2	☐ Key.↓↑	Value	
鐐	Registered Processes	200	
	Robot Workplaces	100	
	Users	123	
	Access to Internet	Online	
		Rows per page: 10 <del>▼</del> 1-4 of 4   <	< > >
		© 2021 IBA Group. All rights reserved. v1.0.0-41	487/1.0.0-SNAPSH0T-41521

- 1. The Access to Internet component should be chosen as **Online**.
- 3. Copy the appropriate License UUID from the License Manager Customer Details.

• •	Custon	ner Details 🗧	- Back to list						CREAT	E NEV
¢1	Details	Licenses								
20	Filter by te	ixt		🗘 Refresh 🛛 🛇 Enable 🖉 Disable						
2		Product Name	Version $\downarrow \uparrow$	License UUID	Description	Expiry Date ↓↑	Status ↓↑	Created By	Ļ	
琼		EasyRpa	2.X.X-SNAPSHOT	c4eb518e-25a7-407a-a839-86e4d2d5ded1		21.08.2024	Enabled	Iryna Nestsiarchuk	ß	e
									Copy License UUI	D



• <u>;</u>	License Mar		× ⑦ ②
	Online Registration License UUID* c4eb518e-25a7-407a-a839-86e4d2d5ded1	CLOSE APPLY	



## Offline License

Copy Sistem Id:

•i)				×A	?	٢
\$	License Management Vou don't have a license System Id: a2120edb14895b7897d0888ce8eb6672809287 UPLOAD LICENSE ONLINE REGISTRATION	■				
		© 2021 IBA Group /	All rights reserved, v2.2.0-4150			41535

#### Click Upload License:

••••••••••••••••••••••••••••••••••••••	Customers / UAT_2 / EasyRpa (2.X.X-SNAPS	HOT)				沟 (?	) (2)
	License Details ← Back to list						
÷	Components Instances						
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			Empty Collection				
		Press Cre	eate New button to start your work				
			CREATE NEW				
				Rows per page: 10 👻	0-0 of 0  <	< >	>
2.				© 2021 IBA Group. Al	ll rights reserved. v1.0.0-41	1487/1.0.0-SNAPS	HOT-41521

1. Create a new Instance and Copy License UUID in the License Manager. See Create a New Instance.

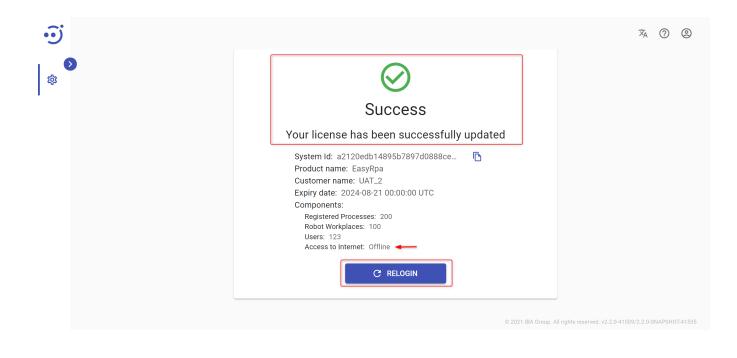
•••	Customers / UAT_2 / EasyRpa (2.X.X-SNAF	°SHOT)	× ? @
	License Details		CREATE NEW
£	Components Instances		
20	Filter by text		
0		Create Instance ×	
竣	System Id	system Id * ed By a2120edb14895b7897d0888ce8eb667280928730e0b07b06c69467557971f752	
~~~	a2120edb14895b7897d0888ce8eb	a2120edb14895b7897d0888ce8ebb67280928730e0b07b06c694675b79711752 m Service D	章 章
		CLOSE CREATE	
		Rows per page: 10 👻 1-1 of 1 🛛 K	< > >I
		© 2021 IBA Group. All rights reserved. v1.0.0-4148	37/1.0.0-SNAPSHOT-41521

• • ;	Customers / UAT_2 / EasyRpa (2.X.X-SNAPSH	IOT)						×	0 0	
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錼	a2120edb14895b7897d0888ce8eb66724	809 Registered	01.01.1970 03:00	20.09.2021 16:31	System Admin	٦	<u>₽</u>	礅	Î	
				Power or	erpage: 10 👻	1-1 of 1	<	<	> >	
0	New license instance was successfully created!	-			© 2021 IBA Group. All					
🗋 licen	se_a2120edb14lic ^								Show all	×

• ៊				沟 (99
	License Management Fou don't have a license System Id: a2120edb14895b7897d0888ce8eb6672809287 UPLOAD LICENSE ONLINE REGISTRATION	© 2021 IBA Group. A	UI rights reserved. v2.2.0.4	1509/2.2.0-SNAI	25H0T-41535

		× 0 ©
*	License Management	
	Please, Provide License Please, provide license file CANCEL UPLOAD	

• <u>;</u>		×	?	٢
\$	License Management			
Plea	ase, Provide License ×			
	CANCEL UPLOAD			



Replace the License

There are 2 ways to replace the current license depending on the type of license access (Offline or Online).

Offline License

To replace the Offline License, you need to:

1. Click the Copy System Id icon.

÷		× ? 2
~		
æ	License Management System Id: e1758fe2d6ac84c85042b34ac	
Ũ	Product name: EasyRpa Customer name: Customer_1 Expiry date: 2220-099 00:0000 UTC	
0	Components: Registered Processes: 100 Registered MUCOR Processes: 10	
\oslash	Robot Workplaces: 10 Users: 100 Access to Internet: Offline	
*	CHANGE LICENSE CHANGE ONLINE	
Ê		
ML		
傘		

- Create a new Instance in the License Manager. See Create a New Instance.
 Click Change License.

•)		× 0
٥		
~	License Management	
æ	System Id: e1758fe2d6ac84c85042b34ac	
Ŭ	Product name: EasyRpa Customer name: Customer_1	
۵	Expiry date: 2022/09-09 00:00:00 UTC Components: Registered Processes: 100	
Ø	Registered ML/OCR Processes: 10 Robot Workplaces: 10 Users: 100	
x	Access to Internet: Offline	
自	CHANGE LICENSE	
ML		
¢		
	0 2021 18-	A Group. All rights reserved. v2.2.0-41179/2.2.0-SNAPSH0T-4

4. Click Add and choose the downloaded license file from the file system.

<u>ି</u>		* 0 9
~		
Ø	License Management System Id: e1758fe2d6ac84c85042b34ac 6	
0	Product name: EasyRpa Customer name: Customer_1	
	Please, Provide License ×	
0	Please, provide license file	
*	ADD	
8	CANCEL UPLOAD	
ML		
-		

5. Click Upload.

ં	0	× O ©
	License Management System ld: e1758lfe2d6ac84c85042b64ac	
Ö	Product name: EasyRpa Customer name: Customer_1 Exercise 2022.00.01010101.UTC	
	Please, Provide License	×
Ø	license_e1758fe2d6ac84c85042b X	
*	CANCEL UPLO	
ML		
will top		

- 6. As a result, the Success message will appear.
- 7. Click Relogin to apply the license and login to the EasyRPA Control Server.

ગ		×. ? 2
*	Success Your license has been successfully updated	
	System Id: 2916aab0cf379/9b905e413114_ Product name: Caustomer,1 Expiry date: 2022-09-09 00:0300 UTC Components: Registered Processes: 10 Registered Processes: 10 Regis	

1 If any changes have been made to the Offline license, you need to re-export the license file from the License Manager and replace the license file in the EasyRPA Control Server Lisence Management module.

Online License

To replace the Online License, you need to:

1. Copy the appropriate License UUID from the License Manager Customer Details.

\odot	Customer Detail	S ← Back to list						CREAT	E NEW
	Details License	5							
	Filter by text		🗘 Refresh 🔗 Ensble 🖉 Disable						
	Product Na	me Version J↑	License UUID	Description	Expiry Date ↓↑	Status 个	Created By	Ļ	
	EasyRpa	x.x.x	7d3c4e96-b729-47e8-ad47-cbf312f6c4bc	demo license	31.10.2021	Enabled	Julia Mikitjuk	6	Ø
	EasyRpa	X.X.X	d845b2d9-4128-470a-94f7-0cd362f7741b		09.09.2022	Enabled	Julia Mikitjuk	ß	0

2. Click Change License.

Ĩ			×. (?)	0
~	>			
æ		License Management		
Ø		Product name: EasyRpa Customer name: Customer_1 Expiry date: 2022-09-09 00:00:00 UTC		
0		Components: Registered Processes: 100		
\oslash		Registered ML/OCR Processes: 10 Robot Workplaces: 10 Users: 100 Access to Internet: Offline		
*		CHANGE LICENSE CHANGE ONLINE		
Ê				
ML				
\$				

- Paste the copied License UUID to the Change Online dialog.
 Click Apply.

ා ම		× 0 ©
æ	License Management	
Ø	System Id: acb270fadf9a22794001833c62 Product name: EasyRpa Customer name: Customer_1 Evice date: 2022.06.04.00.00.00.01.07.0	
	Change Online ×	
\otimes	License UUD * 7d324e36-b729-4768-ad47-cbf312f6c4bd	
*	CLOSE APPLY	
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ML		
\$		
		© 2021 IBA Group, All rights reserved, v2.2.0-41092/2.2.0-SNAPSH0T-41143

- 5. As a result, the Success message will appear.
- 6. Click Relogin to apply the license and login to the EasyRPA Control Server.

÷		× 0 ©
~		
⊞	Success	
Ũ	Your license has been successfully updated	
0	System id. act/2016/1932/24001833c62 🖪 Product name: EasyRoy Costomer name: Oustomer, 1	
\oslash	Expiry date: 2021-10-31 00:00:00 UTC Components: Registered Processes: 100	
×	Registered ML/OCR Processes: 10 Robot Workplaces: 10 Users: 20	
Ê	Access to Internet: Online	
ML	C'RELOGIN	
\$		