

Aruna RPA Manual

(V2.5.6)

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Introduction

Aruna RPA is an automation software based on fingerprint browsers helping you register/manage hundreds of accounts, scrape data from competitors, verify ads, automate all kinds of web tasks, etc. Basically, as long as there is repeating tasks of operations on web pages, there will be a role for Aruna RPA, especially when the tasks require separated browser environments.

This manual describes all of the detailed functions, operations, settings of Aruna RPA. It's suggested you read or search in this manual for a quick answer,when you are not sure of any function or operation. If the content in this manual still can not solve your question, please contact

us on **Telegram:** [@bobkong55](#) or **Email:** support@ArunaRPA.com.

Caution: For tasks requiring browser environments remained, don't change the Browser Config settings on your own unless you have confirmed with us about them. Improper changes on Browser Config settings may cause the environment data changed or deleted.

Prerequisites

System Requirements:

1. Operating System: Win10, Win11, Win2016, Win2019, Win2022(Win2016, Win2019 and Win2022 are preferred.)
2. Hardware: at least 2cores CPU, 4 GB memory; preferably 8 cores CPU, 16GB memory.

Fingerprint Browsers(Any of them):

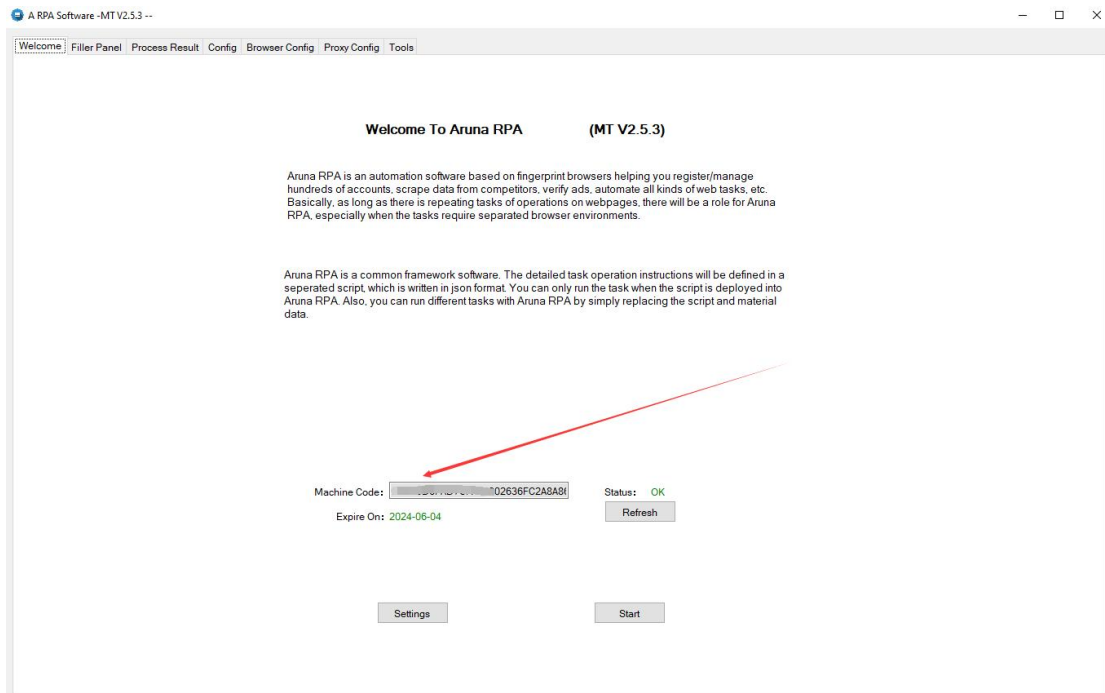
1. Adspower(Strongly recommended)
2. Hubstudio
3. BitBrowser

Machine Code & Account Authorization

To use Aruna RPA, you will need an account created in authorization database on the server side and you also need to send your machine code to us to link to your account, which will activate the machine code authorization function in the software afterwards.

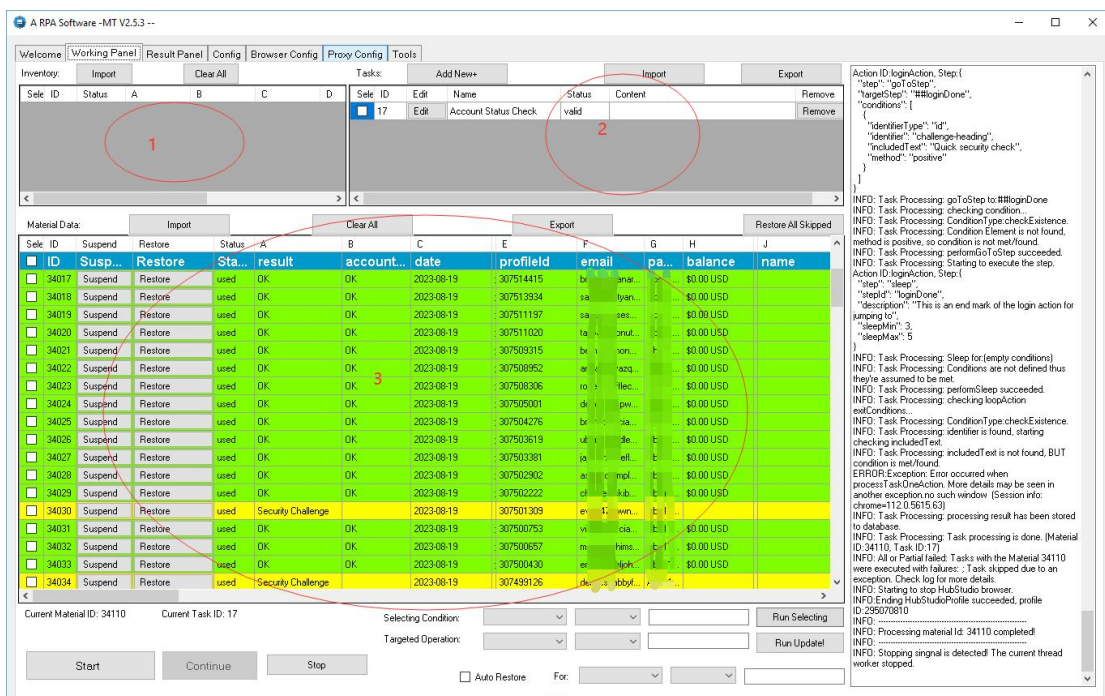
When you are going to use Aruna RPA for a project, we will create an account for you. The account creation job will be done by Aruna RPA team.

After you have downloaded the software, you will be able to see the machine code in the "Welcome" Tab. Please copy the machine code and send to us to link to your account before the authorization takes effect. This job will also be guided by RPA team when you start to use the software.



Working Panel Operations

The Working Panel is in the 2nd tab. This is the primary operation panel you will run your tasks in. The layout of the panel is as following:



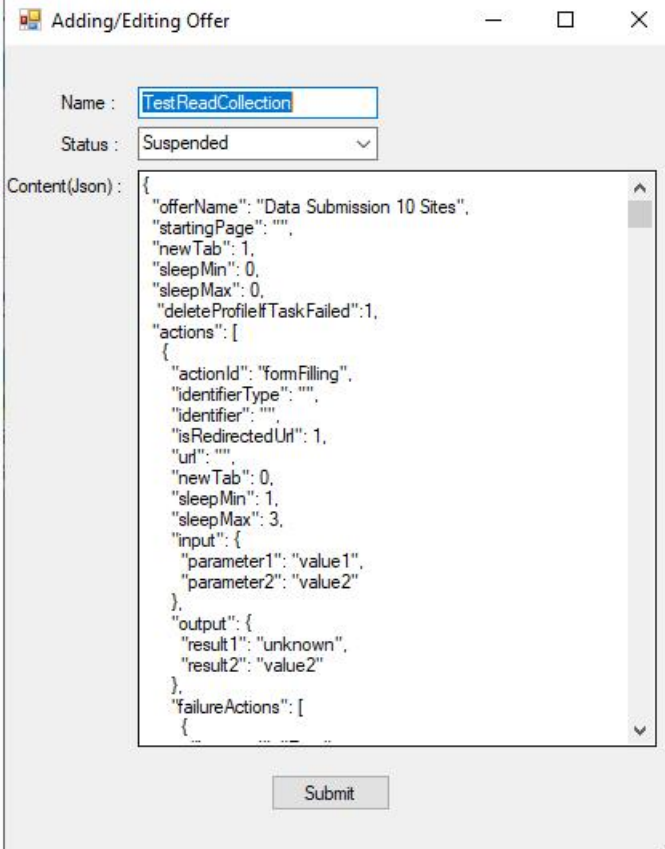
Inventory Table

Inventory is designed for some special tasks which require different material data besides the main material data. It can be treated as an extension of the material table. The operation on the inventory table is very simple, just import the data into it or clear all of the data inside. For different projects, we will send you the different templates for importing the project specific data into inventory table. The inventory data will be referenced by related scripts.

Task Table

Task table is actually where the scripts are deployed. You can add or import more than one scripts into the task table. One script means one project or task. Usually, you may only want to deploy one script in the task table. But for some special projects, you can share the material data for different tasks, thus you may want to deploy multiple scripts here to run the different tasks in parallel, which is also supported.

To deploy a script, you only need to simply click “Add New+” button to bring out the dialog. After that, input the name of the script/task and select the status as valid, and then copy the script content and paste into the script big textbox, and click the “Save” button.



The screenshot shows a dialog box titled "Adding/Editing Offer". It has three main sections: "Name", "Status", and "Content(Json)".

- Name:** A text input field containing "TestReadCollection".
- Status:** A dropdown menu currently showing "Suspended".
- Content(Json):** A large text area containing a JSON object. The JSON defines an offer with the following structure:

```
{
  "offerName": "Data Submission 10 Sites",
  "startingPage": "",
  "newTab": 1,
  "sleepMin": 0,
  "sleepMax": 0,
  "deleteProfileIfTaskFailed": 1,
  "actions": [
    {
      "actionId": "formFilling",
      "identifierType": "",
      "identifier": "",
      "isRedirectedUrl": 1,
      "url": "",
      "newTab": 0,
      "sleepMin": 1,
      "sleepMax": 3,
      "input": {
        "parameter1": "value1",
        "parameter2": "value2"
      },
      "output": {
        "result1": "unknown",
        "result2": "value2"
      }
    }
  ],
  "failureActions": [
    {
      ...
    }
  ]
}
```

At the bottom of the dialog is a "Submit" button.

To change the deployment of the script, you only need to click the “Edit” button in the

specific row of the tasks and the same popup dialog will come out for you to change the name, status and script.

To remove the script, you only need to click the “Remove” button in the task row to remove the specific task’s script.

Material Table

Material table is the primary data table you will run your tasks with. The table is designed to be flexible for all kinds of tasks. When there is a project, Aruna RPA team will design the specific material data template for you to import the data into the material table, which will be consistent with the script.

The first 5 columns (checkbox, ID, Suspend, Restore, Status) are fixed, while the others are designed specifically for your tasks, which means they may vary. The data in the table can be predefined data, or data generated randomly by the software, or even it can be data retrieved/scraped from web pages. The data must match the script as the script will have references to the material data. Improper data will result in errors when you run the tasks.

Select	ID	Suspend	Restore	Status	A	B	C	E	F	G	H	J
<input type="checkbox"/>	34017	Suspend	Restore	used	OK	OK	2023-08-19	307514415	br...	anar...	\$0.00 USD	
<input type="checkbox"/>	34018	Suspend	Restore	used	OK	OK	2023-08-19	307513934	sa...	tyan...	\$0.00 USD	
<input type="checkbox"/>	34019	Suspend	Restore	used	OK	OK	2023-08-19	307511197	sa...	ses...	\$0.00 USD	
<input type="checkbox"/>	34020	Suspend	Restore	used	OK	OK	2023-08-19	307511020	ta...	onut...	\$0.00 USD	
<input type="checkbox"/>	34021	Suspend	Restore	used	OK	OK	2023-08-19	307509315	br...	non...	\$0.00 USD	
<input type="checkbox"/>	34022	Suspend	Restore	used	OK	OK	2023-08-19	307508952	ar...	raza...	\$0.00 USD	
<input type="checkbox"/>	34023	Suspend	Restore	used	OK	OK	2023-08-19	307508306	ro...	flec...	\$0.00 USD	
<input type="checkbox"/>	34024	Suspend	Restore	used	OK	OK	2023-08-19	307505001	dk...	pw...	\$0.00 USD	
<input type="checkbox"/>	34025	Suspend	Restore	used	OK	OK	2023-08-19	307504276	br...	cia...	\$0.00 USD	
<input type="checkbox"/>	34026	Suspend	Restore	used	OK	OK	2023-08-19	307503619	ut...	lle...	\$0.00 USD	
<input type="checkbox"/>	34027	Suspend	Restore	used	OK	OK	2023-08-19	307503381	ja...	eff...	\$0.00 USD	
<input type="checkbox"/>	34028	Suspend	Restore	used	OK	OK	2023-08-19	307502902	ac...	compl...	\$0.00 USD	
<input type="checkbox"/>	34029	Suspend	Restore	used	OK	OK	2023-08-19	307502222	cl...	lib...	\$0.00 USD	
<input type="checkbox"/>	34030	Suspend	Restore	used	Security Challenge		2023-08-19	307501309	ev...	47 w...		
<input type="checkbox"/>	34031	Suspend	Restore	used	OK	OK	2023-08-19	307500753	vi...	cia...	\$0.00 USD	
<input type="checkbox"/>	34032	Suspend	Restore	used	OK	OK	2023-08-19	307500657	m...	hims...	\$0.00 USD	
<input type="checkbox"/>	34033	Suspend	Restore	used	OK	OK	2023-08-19	307500430	er...	hoh...	\$0.00 USD	
<input type="checkbox"/>	34034	Suspend	Restore	used	Security Challenge		2023-08-19	307499126	de...	s abbyl...		

First 5 Columns

Checkbox column: To select the specific data row.

ID: The ID of the data row

Suspend: It’s the column for holding the “Suspend” buttons

Restore: It’s the column for holding the “Restore” buttons

Status: It represent the data row status, which can be either of the following:

- a.) Unused: the data row is not used.
- b.) Used: the data row was used, but the result can be successful or unsuccessful.
- c.) Skipped: the data was was about to be used but the browser environment was not working well, so it was skipped. Usually, the skipped data rows can be restored to run again.
- d.) Running: the data row is being processed by the working threads now.

Operation: Import Data

To import the data, you will firstly need to prepare it in a datasheet with the template designed for the script, and save it as .csv file or .txt file. After that, click the “import” button to import the file to material table. The import process may take a while. The more data you import, the longer time it will take.

Operation: Clear Data

Just simply click “Click All” button to clear all of the data rows inside the material table.

Reminder: Once the data is cleared, you can not bring it back. Please export the data to backup it before you clear it.

Operation: Export Data

Click “Export” button to export the data into a .csv file.

Operation: Restore All Skipped

If there are a batch of data rows marked as skipped, which need to be used for re-running the task, you can click “Restore All Skipped” button to bring all of the “skipped” rows back to original status “unused”.

Operation: Delete Data

No, there is no such function. The material data is not designed to be deleted individually. You can only suspend a single row or a batch of rows, or clear the entire material table.

Operation: Suspend Data

This function is designed to disable a specific row of material data which you find it’s invalid and want to suspend or abandon it. Just click the “Suspend” button in the specific row to disable it. If you want to suspend a batch of rows with some condition, you can use the “Selecting Condition”

and “Targeted Operation” to make it. The batch operation functions will be described below later.

Operation: Restore Data

If the data row is suspended by a mistake, or the script didn’t run with the data row successfully and you want to re-run it, you can simply click “Restore” button to bring the row status to “unused”, which makes the data row ready for another run. If you want to restore a batch of rows with some condition, you can use the “Selecting Condition” and “Targeted Operation” to make it. This batch operation functions will be described below later.

Operation: Batch Operation for Selecting

Under the material table, you can see “Selecting Condition” and “Targeted Operation”. You can use the “Selecting Condition” to select the targeted material data rows. To make it, you firstly select the column name in the first dropdown list and select the operating mark in the 2nd dropdown list, and input the value in the textbox after it, and then click “Run Selecting”. All the rows meeting the condition in material table will be selected. For example, if you want to select the rows which are with result “OK”, you can simply make it as: [result] [Equals To] [OK] to select the targeted rows.

Selecting Condition:	result	Equals To	OK	Run Selecting
Targeted Operation:				Run Update!

Operation: Batch Operation for Modify Data

Under the material table, you can see “Selecting Condition” and “Targeted Operation”. You can use the “Targeted Operation” here to modify the material data in batch. After you select the targeted data rows in material table, you can select the column name in first dropdown list, select “Replace With” in 2nd dropdown list, and input the value in the textbox, which you want to modify to, and then click “Run Update” to replace all of the cell data in the selected column and selected data rows to be the value you input. For example, if you want to change all of the “result” in selected rows from “OK” to “All Right”, you can simply make it as: [result][Replace With][All Right] to update the data.

Selecting Condition:				Run Selecting
Targeted Operation:	result	Replace Wi	All Right	Run Update!

If you want to suspend the selected rows, you only need to select “Suspend” in the 2nd dropdown list and click “Run Update”, without selecting the 1st dropdown list or input the value into the

textbox.

Selecting Condition:	<input type="text"/>	<input type="text"/>	<input type="text"/>	Run Selecting
Targeted Operation:	<input type="text"/>	Suspend	<input type="text"/>	Run Update!

If you want to restore the selected rows, you only need to select “Restore” in the 2nd dropdown list and click “Run Update”, without selecting the 1st dropdown list or input the value into the textbox.

Selecting Condition:	<input type="text"/>	<input type="text"/>	<input type="text"/>	Run Selecting
Targeted Operation:	<input type="text"/>	Restore	<input type="text"/>	Run Update!

Operation: Auto Restore

This is actually a temporary setting instead of a real operation. It’s only used for re-running some material data rows automatically, for example, some data rows which failed in previous processing and was marked as skipped. If you tick the Auto Restore and set the condition as: [Status][Equals To][skipped], Aruna RPA will restore all of the skipped material data rows to “unused” status when the last valid data row is being reached for processing, so that later the software will continue to come back to process all of the restored rows again in turn in another loop.

Start/Continue/Stop Processing

These three buttons are probably the most important buttons in this software. They are used to start, continue, and stop the task processing.

<input type="checkbox"/>	34034	Suspend	Restore	used	Security Challenge	2023-08-19	307499126
--------------------------	-------	---------	---------	------	--------------------	------------	-----------

Current Material ID: 34110 Current Task ID: 17

Selecting Condition:

Targeted Operation:

Auto Restore For:

Start: It’s used to start running/processing. Once the working threads are started, there will be output rolling in the big text area in the right side.

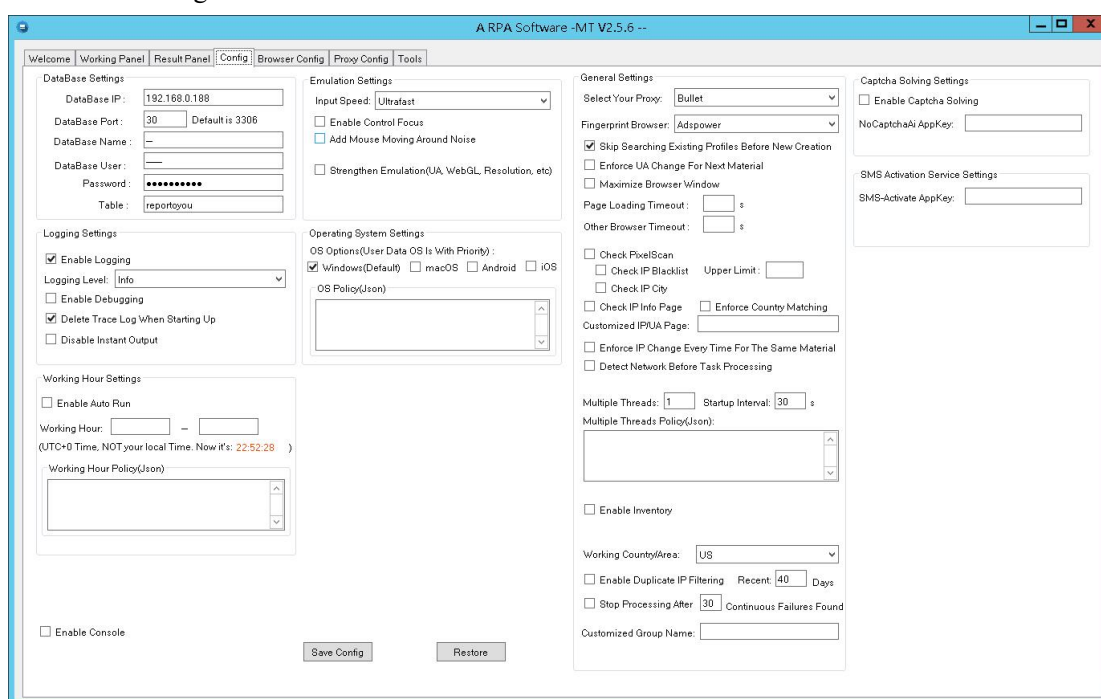
Continue: It’s usually used for continuing the paused task. The pause is usually defined in the script for a special task which requires human interaction. It’s rarely used.

Stop: It’s used to stop the working threads. But keep in mind, clicking the “Stop” button will not stop the working threads immediately. Instead, the working threads will continue to finish the

tasks processing with the current material data rows, which are marked as “running”, before they stop. If you want to stop immediately without delay, just close the software window directly instead.

Config Settings

The Config Tab is the place for general settings except browser and proxy settings. The following is how the Config Tab looks like:



Database Settings

Database settings are reserved settings. They are not really used for now but just reserved for software future evolution, for example to be customized to be a network version connecting to a remote database server for storing material data. You don't need to set them for now.

Logging Settings

They are used to set the trace logging functions. When you are testing the data or scripts, it's suggested to enable the logging to see if there is any issue or error. The trace log will help us diagnose the issue. But it's suggested you turn the logging level to “Error” to only log the error messages or even disable the logging to get better performance, when the tasks can be run stably.

Logging function always makes the software run slower, especially when multiple working threads are enabled.

Enable Logging: Tick it to enable the trace logging function.

Logging Level: Select Info to record full trace; Select Error to record errors only.

Enable Debugging: Reserved option. You can leave it unchecked.

Disable Trace Log When Starting UP: By ticking the “Disable Trace Log When Starting UP”, the trace log will always be overwritten when Aruna RPA software starts up. This is designed to avoid too large trace log file which occupies the disk space, especially when you deploy it on server’s C disk.

Disable Instant Output: Tick it to disable the instant processing output in the right side of Working Panel .

Working Hour Settings

The working hour settings define the time scope in which the software will process. When the time comes out of the time scope, the processing will automatically stop. With the “Enable Auto Run” ticked, you can make the software automatically start processing when the time comes into the time scope and automatically stop when the time come out of the time scope, without manual clicking of Start or Stop. It can work completely automatically.

The working hour policy is a more complex definition of the working time scopes. You can define several time scopes into it rather than only one, for some special tasks.

Working Hour: There are two textboxes. The 1st one is the starting time, and the 2nd one is the ending time. Make sure the time you input here is in Greenwich Mean Time (GMT), or UTC+0 Time, instead of your local time except you are in the same time zone of Greenwich Mean.

Working Hour Policy: It is a Json format content for advanced setting. It should be instructed by Aruna RPA team to set it for you. So, it will not be elaborated here.

Enable Auto Run: Tick this option to have Aruna RPA start processing task automatically everyday when the time comes into to the time scope defined in working hour textboxes or working hour policy.

Emulation Settings

Emulation settings are used to make the robotic operations on the fingerprint browser look more

like a real human's operations. Actually, only special tasks need the emulation settings.

Input Speed: You can select the textbox input/typing speed.

Enable Control Focus: If you tick this option, the textbox will firstly be focused before it's been input, just like real humans do.

Add Mouse Moving Around Noise: This option will emulate mouse's moving around the targeted element before input or click.

Strengthen Emulation: This is to better optimize the fingerprint of the browser to make it more reasonable. It's only used for special tasks.

Operating System Settings

The operating system settings are used to set the targeted operating system the fingerprint browser is going to be emulated to run on. Currently, the following operating systems are supported: Windows, Mac OS, Android, iOS.

OS Options: By selecting the specific operating system, the corresponding User Agents will be called when the software is going to create a fingerprint browser environment/profile. For example, if you select Android, the Android User Agents will be called; if you select iOS, iOS User Agents will be called. Also, some other parameters hidden behind will also be determined by the operating system you select.

OS Policy: This field allows you to adopt multiple operating systems mixed together by percentage. The setting format is in json. The following is an example(Windows:20%; Android:27%; iOS:42%; Mac OS: 11%):

```
[
  {
    "os": "Windows",
    "proportion": 20
  },
  {
    "os": "Android",
    "proportion": 27
  },
  {
    "os": "iOS",
```

```
        "proportion": 42
    },
    {
        "os": "Mac OS X",
        "proportion": 11
    }
]
```

(Note: The total percentage must be 100%, otherwise errors will occur.)

General Settings

The general settings include the most common settings for all tasks. Before you start running a task, you will always need to check these general settings to match your requirements.

Select Your Proxy: Select the proxy types/vendors in the dropdown list. Before you select the proxy type/vendor, you will need to set the proxy settings in Proxy Config tab, which will be explained in **Proxy Config Settings** part.

Fingerprint Browser: Select the fingerprint browser vendor you want to use. Mostly, we suggest Adspower after comparing several different vendors by cost, stability, functions, and update frequency.

Skip Searching Existing Profiles Before New Creation: If you don't want the same material data row to be used for more than one environments/profiles, you need to tick this checkbox. By ticking this checkbox, Aruna RPA will search for the existing fingerprint browser environments/profiles to avoid creating duplicate ones.

Enforce UA Change For Next Material: By default, Aruna RPA will retrieve a random User Agent from User Agent library when creating a new environment/profile, and there might be a very small chance that the two consecutive environments/profiles may be created with the same User Agent. To avoid the same User Agent to be applied to two consecutive environments/profiles, you may want to tick this checkbox to force Aruna RPA change the User Agents to different ones.

Maximize Browser Window: Maximize the browser's window when the browser is being launched.

Page Loading Timeout: The timeout value for page loading. The unit is in second.

Other Browser Timeout: The value for browser's other timeout. The unit is in second.

Check PixelScan: Check <https://pixelscan.net> automatically after the browser is started.

Check IP Blacklist: Check pixelscan's IP black list report. If the IP reaches the upper limit of the

blacklist database count, the environment will be abandoned.

Check IP City: Check pixelscan's IP location report. If the IP city doesn't match the material data, the environment will be abandoned.

Check IP Info Page: Check the fingerprint browser's own IP info page to get the IP and country.

Enforce Country Matching: If the country from IP info page doesn't match the country in material data row, the environment will be abandoned.

Customized IP/UA Page: You can create your own web page for detecting the environment/profile's IP and User Agent.

Enforce IP Change Every Time For The Same Material: In some special cases, one material data needs to be re-used with different IPs. You will need to tick this checkbox to enforce the Aruna RPA to ensure the IPs will be changed.

Detect Network Before Task Processing: Sometimes, the proxy IP you are using is not stable and you may want to detect the network connectivity before the data row is processed. By ticking this checkbox, Aruna RPA will automatically open a tab and navigate to www.google.com. If the google page can't be opened successfully, the environment/profile will be abandoned.

Multiple Threads: This setting is very important. You can decide how many threads will run your tasks in parallel by inputting the number. The thread count decides the task processing speed, so you may always want to adjust the multiple threads count based on your computer's hardware capability: CPU usage, memory usage and disk I/O usage. Usually we suggest the CPU usage and memory usage both to be kept around 80% in average. Too high CPU/memory usage will cause unexpected errors when the tasks are being processed. Too low CPU/memory usage is a waste of your machine resource, which you can use to bear more fruits.

Startup Interval: When multiple threads are set, the threads won't start up at the same time. Instead, they will start up one by one after a time interval. You can define the interval here in unit of second. Usually we suggest the interval to be more than 30 seconds. If more than 10 threads are set, we suggest the interval to be more than 45 seconds.

Multiple Threads Policy: Occasionally, there may be a requirement that you want different numbers of threads running in different time periods. Multiple Thread Policy is to meet this special requirement. As this is advanced setting, it will not be expanded here. You may want to contact our technician to help you define this multiple threads policy.

Enable Inventory: As you see there is an inventory table in the top left part of Working Panel, it must be enabled here before it can work.

Working Country/Area: This is a reserved function. It may be used in future version.

Enable Duplicate IP Filtering: When you run a task, and you don't want any IP to be used duplicate for any of the material data row, you will need to tick this checkbox to filter duplicate IPs. If duplicate IP is found, the environment/profile will be abandoned. You can also define the filtering time scope in recent days, for example, recent 30 days.

Stop Processing After X Continuous Failures Found: Sometimes your network may be not stable, so continuous failures will be found when you run a task. The continuous failures will waste your proxy IPs/traffics and your fingerprint browser opening counts(some fingerprint browser vendors charge different prices for daily opening counts). This setting allows you to enforce the Aruna RPA to stop processing tasks when the defined number of continuous failures are found.

Customized Group Name: When Aruan RPA is going to create a new environment/profile in fingerprint browser vendor's system, a group name will always be required. You can define the group name here. It's especially useful when you use the fingerprint browsers for multiple purposes, so that you can easily identify and access these environments/profiles.

Captcha Solving Settings

If the task you are going to run is with captcha recognizing, you may want to use captcha solving service to go through this obstacle. This setting is used to integrate third party captcha solving service. However, due to the complexity and target website terms, Aruna RPA currently stopped integrating captcha solving service. If you still want to use the captcha solving service, you may want to use related captcha solving Chrome extensions instead. You can google and find many extension providers. The following link about capsolver.com is recommended by Adspower: <https://www.adspower.com/blog/capsolver-your-go-to-captcha-solver-of-any-captcha-type>

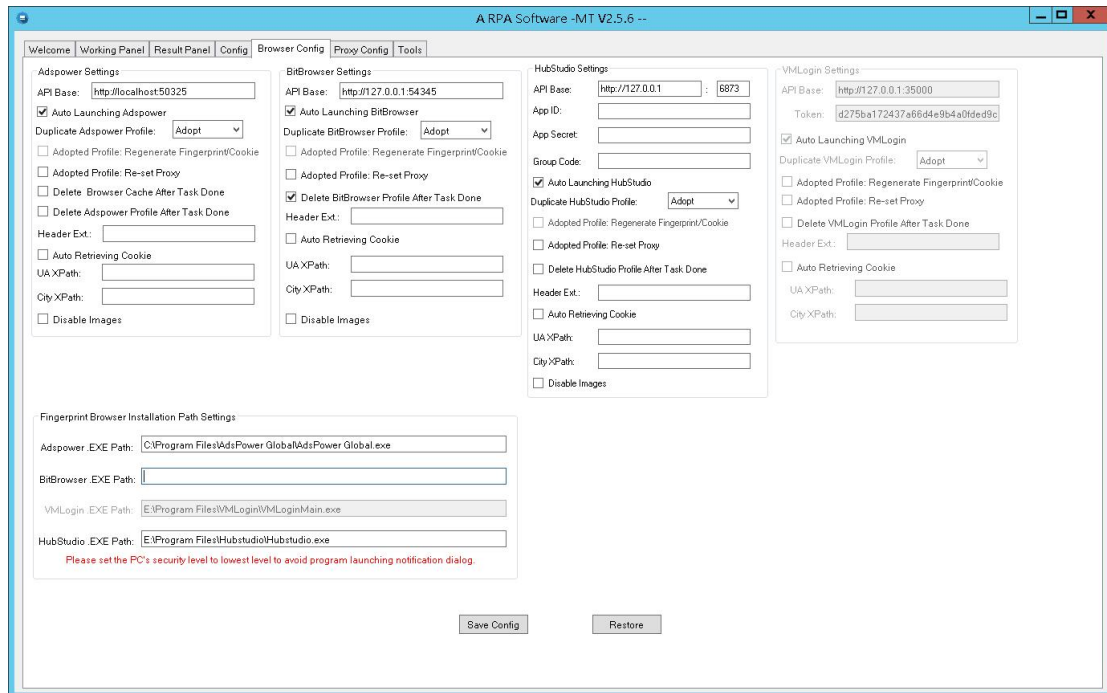
SMS Activation Service Settings

When you are going to register some website's accounts, you may be challenged to verify a code in sms message. Aruna RPA integrates sms-activate.org's API, allowing you to use the sms-activate's verification code service. Of course, the thing is not only a simple setting, but also requires related codes in script, which will not be expanded here. You will need to contact our technician if you want to run some task with sms code required.

SMS-Activate AppKey: The AppKey of your sms-activate.org account.

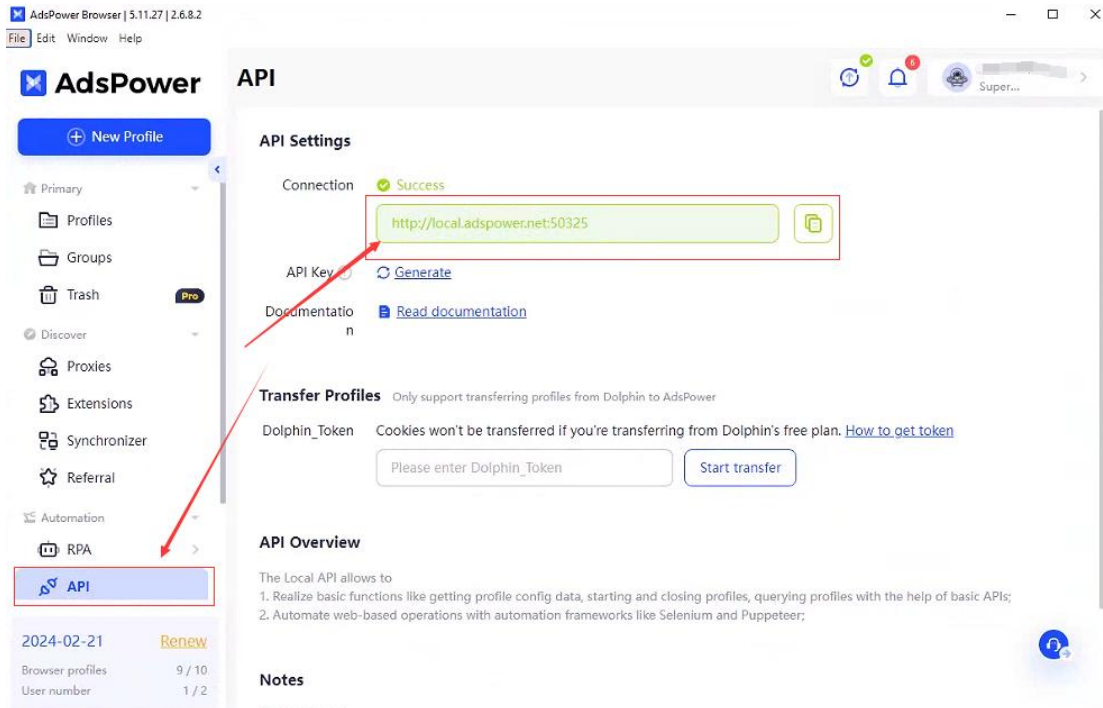
Browser Config Settings

Currently Aruna RPA has integrated with the following fingerprint browsers: Adspower, BitBrowser, Hubstudio. However, for international users, Adspower is suggested for the reasons of advantages on supported languages, customer service, functions, browser kernel update frequency and system stability.



The following setting instructions are based on the Adspower fingerprint browser.

API Base: The Adspower's API base URL. It can be found in the Adspower software's API page. In this example, it's: `http://local.adspower.net:50325`.



Auto Launching Adspower: This checkbox enables Aruna RPA to start Adspower software automatically, when you click “Starting” button to process the task. However, you must set the Adspower installation path before this function can take effect, which is in another setting field below.

Duplicate Adspower Profile: By setting this dropdown list, you can decide what action will be taken, if there is an existing environment/profile found for the same material data row, when you are processing the data. The options are: Adopt, Skip and Delete. Adopt means the existing environment/profile will just be taken and launched, with the previous persisting cookies and histories, which is usually used for persisting accounts accessing. Skip means this material data row will be skipped and the existing environment/profile will not be launched, which is usually used for account creating. Delete means the existing environment/profile will be deleted, and a new environment/profile will be created to run the task with the material data row.

Adopted Profile:Regenerate Fingerprint/Cookie: For the existing environments/profiles, you can tick this checkbox to regenerate the fingerprint and clear the cookies when the environment/profile is being launched. This function is rarely used and very few case requires this function.

Adopted Profile:Re-set Proxy: For the existing environments/profiles, you can tick this checkbox to re-set the proxy when the environment/profile is being launched. This function is rarely used and very few case requires this function.

Delete Browser Cache After Task Done: By ticking this checkbox, the browser’s cache in the machine will be cleared before it’s being closed. It’s not suggested to enable this function as some

web elements may bring errors when this function is enable, for example, the javascript alert dialog. So, it's only suggested for some special cases.

Delete Adspower Profile After Task Done: By ticking this checkbox, the environment/profile will be deleted right after the task with the specific material data row is done. It's usually used for a large number of material data rows, which can only be used once. Those environments/profiles will not be re-used so they can be deleted automatically. This setting is frequently used.

Header Ext: You can define a customized header data here.

Auto Retrieving Cookie: This function is to automatically collect the cookie data from the browser and note down into the material table, which later can be exported out.

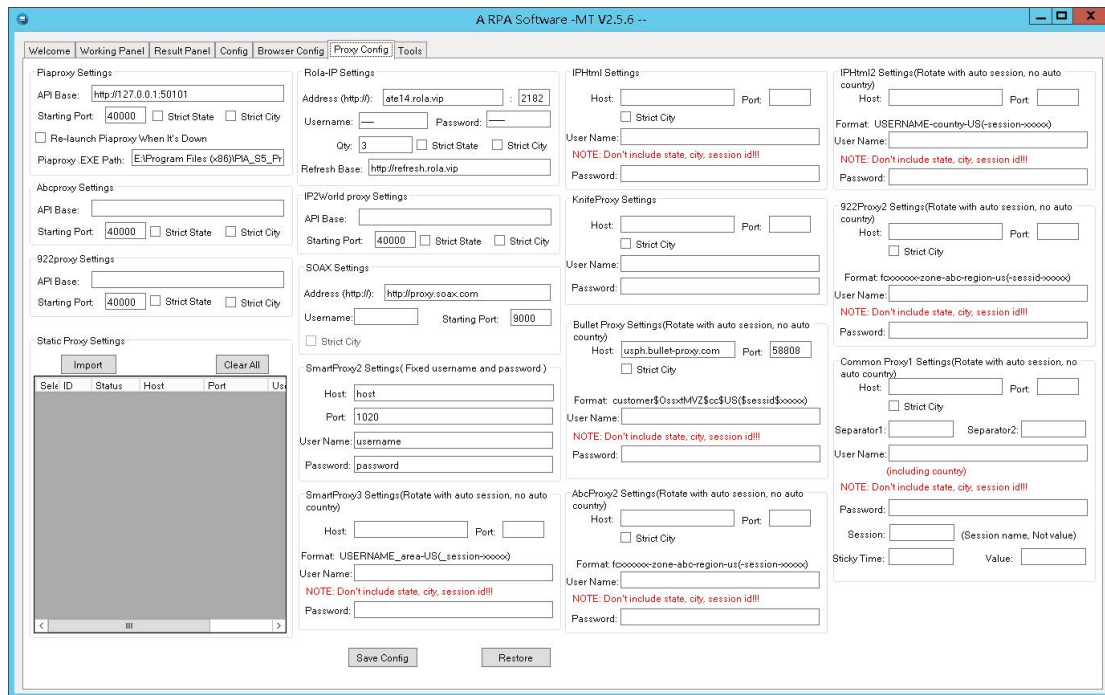
UA Xpath: It's used for locating User Agent data in the Adspower browser's self-checking page. Usually you don't need to set it.

City Xpath: It's used for locating city data in the Adspower browser's self-checking page. Usually you don't need to set it.

Disable Image: By ticking this checkbox, the browsers launched will block the images and videos from web pages. The purpose of this function is to save your traffic and to speed up the processing speed. But the disadvantage is that many web pages are relying on the images and disabling the images may cause task processing failures. It's suggested to test fully before using this function.

Proxy Config Settings

Proxy configurations look a little bit complex as many proxy vendors are having their own format and parameters. However, we just sorted out 4 types. There may be more, very possibly. If you are using a different type of proxy, please contact our customer service to add it for you.



Proxy with local client application:

For Piaproxy, 922 proxy, Abcproxy, IP2World, they do have an option to install their client application to retrieve the proxy info. And there are also APIs available in their client application, which can be called by Aruna RPA to retrieve the proxy info. For these proxy settings, you will need to fill the following:

API Base: The base URL of the API. For example: <http://127.0.0.1:50101>

Starting Port: The starting port used to listen to the proxy client application. For more details, please check the proxy client application document.

Strict State: Tick this option if you want the IP retrieved to be accurate to the specific state.

Strict City: Tick this option if you want the IP retrieved to be accurate to the specific city. Usually it's not suggested as there may be very few IP available in some specific cities.

Proxy with User+Pass Auth:

In most cases, users use this User+Pass Auth method to retrieve proxy info directly from the proxy vendor's server without any client application installed. SOAX, Smartproxy, IPhtml, KnifeProxy, Abcproxy, Bulletproxy, 922proxy are supporting the User+Pass Auth method. The proxy info consists of four elements:

Host: The proxy host address.

Port: The proxy port.

Username: The user name for proxy authentication. The other parameters are usually also included in user name.

Password: The password for proxy authentication. The other parameters are sometimes also included in password, if they are not included in user name.

As the parameters and separators from different proxy vendors are designed differently, Common Proxy1 is designed in Aruna RPA to try match more other unlisted formats. If you found your proxy vendor is different from the ones listed on this page, you may want to contact Aruna RPA team to try use this Common Proxy1 or add your specific proxy format for you.

Static proxy:

This is a special kind of proxy, which is rarely used. As its name indicates, it's static, and the IPs will not change. It consists of host, port, username, password. You will firstly need to purchase and export from your proxy vendor for the static proxy list and import it into the static proxy table. Aruna RPA will take the static proxies one by one from this table when the tasks are being processed. The static proxies are usually used for registering accounts which requires the IPs to be fixed all the time.

Troubleshooting

Unable to launch the Aruna RPA.

Possible Reasons:

1. The operating system is not with .net framework 4.5.2 or above installed. Please make sure .net framework 4.5.2 or higher version is installed on the machine. Usually Win10, Win11, Win2016, win2019, Win2022 are already having the related .net frameworks installed by default.
2. There is already one Aruna RPA instance running on the same machine. You can only run one instance on one machine.
3. Different formats of material data was imported by mistake previously, which caused Aruna RPA crashed. Please replace the data file with the original file, or contact customer service to fix it for you.

Machine Code Authorization always failed.

Possible Reasons:

1. The machine code has not be added into authorization database. Please contact our customer service to add it for you after the purchase is made.
2. Your local internet network is having connectivity issue. Please check your local internet service.
3. The machine code authorization has already expired. Please contact our customer service to

make another purchase.

4. You changed the machine's hardware, which caused the machine code changed. Please contact our customer service to update the machine code in authorization database accordingly.

Auto Run didn't work as expected.

Possible Reason:

1. Auto Run function must be with the working hour(including both starting time and ending time) set. Please check the time format must be as HH:mm:ss, for example: 16:38:00. The time is always in GMT+0 (UTC+0) time zone, which is actually the time in United Kingdom.
2. "Enable Auto Run" checkbox was not checked. It must be checked to make it work.
3. Check your machine's time setting. Make sure it's correct.
4. There is a conflict that **Auto Run** and **Stop Processing After X Continuous Failures Found are conflicting** can't work together. The former one will try to start the task processing, while the latter one will try to stop task processing after X continuous failures found. Therefore, don't enable them both. You can only enable one of them.

No browser was launched after task processing started.

Please check the error messages in the output field in Working Panel or trace log. There may be different reasons because of configuration issues or limitations from proxy/fingerprint browser vendors. The error message will indicate where the problem is from.

Possible Reasons:

1. Improper proxy settings.
2. Improper fingerprint browser configurations.
3. Limitations from proxy vendor or fingerprint browser vendor.
4. Internet connectivity issue.

A lot of browser windows were opened which caused system crashed.

Please check the trace log to find the diagnostic info.

Possible Reason:

1. There is internet connectivity issue between the fingerprint browser client application and server. This reason is the primary reason we saw before, especially when BitBrowser and Hubstudio are used. Adspower is much more stable, so we strongly suggest Adspower.
2. Your machine's resources(including CPU, memory, hard disk I/O) are occupied by other softwares. Please check your computer's CPU, memory and hard disk I/O usage. Especially hard disk I/O usage is usually not visible in windows task manager, but can only be seen in Resource Monitor. One of the causes of high resource issues is windows auto update. Win10 and Win11 are always with auto update enabled by default and they will download and install latest update frequently, which causes the high hard disk I/O and system's slowness, even though the CPU and memory look fine. Therefore, we suggest users to use Win2016, Win2019 and Win2022 servers.

All of the material data rows were used, but all of them turned yellow.

Please check the trace log to find the diagnostic info.

Possible Reason:

1. Scripts are not well designed. There are constant errors inside.
2. Proxy issue.
3. Fingerprint issue.
4. Material data is not consistent.