Keysight Resource Arbiter

This document contains latest information on the Keysight Resource Arbiter Plugins and the standalone Keysight Resource Arbiter Server installer.

With its first release, the Resource Arbiter had been a set of two PathWave Test Automation based plugin packages that enable the sharing of instruments between participating DUTs without forcing the DUTs to know about each other, while also guaranteeing that they do not interfere with each other in their use of the instruments.

The Resource Arbiter had consisted of the following two plugin packages:

- KS8108A – Resource Arbiter Server

- KS8109A – Resource Arbiter Client Integration

Version 1.1 of the Resource Arbiter software introduces an integrated installer for installing the PathWave Test Automation software (the main prerequisite for the Resource Arbiter plugins) and KS8108A Resource Arbiter Server using a single executable file. This bundle installer enables you to access the Resource Arbiter Server web GUI, which is especially useful for setting up measurement disaggregation in the Infiniium oscilloscope software based compliance applications.

Related Documents

For detailed information, refer to the following documents for this application:

- The Installation Guide for Resource Arbiter can be accessed from its download page on the Keysight website.

- "ResourceArbiterHelp.pdf" or "ResourceArbiterHelp.chm". These documents can be found at the following location after you install the plugin:

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%TAP_PATH%\Packages\Resource Arbiter

The PathWave Test Automation documents are available at the following location:
%TAP_PATH%
Alternatively, you can also visit www.keysight.com/find/TAP to find the additional and latest versions of PathWave Test Automation help documents.

Version 1.2.4

Software Requirements for the Resource Arbiter Bundle Installer (Resource Arbiter GUI)

The following table lists the supported software for the Resource Arbiter GUI.

Released Date:	June 22, 2021
Operating System:	Microsoft Windows 7
	Microsoft Windows 8
	Microsoft Windows 10
File Name:	Resource Arbiter Server.1.2.4+8c686064

Software Requirements for the Resource Arbiter Plugins

The following table lists the supported software for the Resource Arbiter plugins.

Released Date:	June 22, 2021
Operating System:	Microsoft Windows 7
	Microsoft Windows 8
	Microsoft Windows 10
Software Pre-requisites:	PathWave Test Automation version 9.10
	KS8400A is recommended.
	KS8000A is, however, sufficient after initial setup.
	.NET Framework version 4.6.2
File Name:	Resource Arbiter Server.1.2.4+8c686064.TapPackages
	Resource Arbiter Client.1.2.4+8c686064.TapPackages

Features

- Fixed a bug that was preventing the Resource Arbiter from starting correctly when it was installed via the integrated installer.

- Repaired the Autostart feature.

- All timeouts for the REST API are now optional.

- Minor UI upgrades without any significant impact on the functionality offered by the earlier interface.

Version 1.1

Software Requirements for the Resource Arbiter Bundle Installer (Resource Arbiter GUI)

The following table lists the supported software for the Resource Arbiter GUI.

Released Date:	November 30, 2020
Operating System:	Microsoft Windows 7 Microsoft Windows 8 Microsoft Windows 10
File Name:	Resource Arbiter Server.1.1.1+0f18b1e8.exe

Software Requirements for the Resource Arbiter Plugins

The following table lists the supported software for the Resource Arbiter plugins.

Released Date:	December 04, 2020
Operating System:	Microsoft Windows 7 Microsoft Windows 8 Microsoft Windows 10
Software Pre-requisites:	PathWave Test Automation version 9.10 KS8400A is recommended. KS8000A is, however, sufficient after initial setup. .NET Framework version 4.6.2
File Name:	Resource Arbiter Server.1.1.1+0f18b1e8.TapPackages Resource Arbiter Client.1.1.1+0f18b1e8.TapPackages

Features

- Introduces an integrated installer for installing the PathWave Test Automation software and KS8108A Resource Arbiter Server using a single executable file. This installer enables you to access the Resource Arbiter Server web GUI, which is especially useful for setting up measurement disaggregation in the Infiniium oscilloscope software based compliance applications.

- Introduces the following new REST API:

    o **[GET] /api/Resources** : Returns a list of all the available resources with their public properties.

- o **[POST] /api/Resources** : Adds a new resource to the setup. Please note that this is currently working with resources of type ResourceNode only, as used by disaggregated compliance applications.

- o **[DELETE] /api/Resources/{name}?force=boolean** : Removes the resource with the given name from the setup.

- o **[PUT] /api/Resources/{name}** : Updates the specified resource. Please note that this is currently working with resources of type ResourceNode only, as used by disaggregated compliance applications.

- o **[POST] /api/Resources/{name}/release** : Releases all the current locks of the specified resource.

- o **[POST] /api/Utilization** : Resets the utilization clocks for all the resources.

Version 1.0

Software Requirements for the Resource Arbiter Plugins

The following table lists the supported software for the Resource Arbiter plugins.

Released Date:	November 27, 2019
Operating System:	Microsoft Windows 7 Microsoft Windows 8 Microsoft Windows 10
Software Pre-requisites:	PathWave Test Automation version 9.4.2 or later KS8400A is recommended. KS8000A is, however, sufficient after initial setup. .NET Framework version 4.6.2
File Name:	Resource Arbiter Server.1.0.2.TapPackages Resource Arbiter Client.1.0.2.TapPackages

Features

- • Initial release. For more information, see Resource Arbiter documentation.

Installation Steps

When installing the Resource Arbiter GUI from the .exe file, it is strongly recommended to install the application on a machine with no prior PathWave Test Automation installation. Existing PathWave Test Automation users intending to make use of the Resource Arbiter web GUI are

strongly recommended to install Resource Arbiter server version 1.1 or above from the .TapPackages file and follow the steps for accessing the web GUI after starting the Resource Arbiter server.

Installing and Accessing the Resource Arbiter GUI from the .exe file (Version 1.1)

1. **Install the Resource Arbiter GUI** by double-clicking the executable (.exe) file and responding to the installer prompts.

2. **Install the following license** using Keysight License Manager, on the machine with the Resource Arbiter installation.

   KS8108A

3. **Start the Resource Arbiter server** using ANY of the following techniques:

   a. Use `the ResourceArbiter.bat` shortcut in the Start Menu:

      Start > Keysight Test Automation > Keysight Resource Arbiter

   b. Start the ResourceArbiter.bat batch file from your Keysight Test Automation installation folder. The default location for this batch file is C:/Program Files/Keysight/Test Automation

   c. Enter the following commands on a command prompt on the machine with the Resource Arbiter installation:
      ```
      cd Program Files\Keysight\Test Automation
      tap resourcearbiter
      ```

4. **Access the Resource Arbiter GUI** from a web browser on ANY machine:
   ```
   http://<resourcearbiter_server_ip>:55441
   ```

Note: It is strongly recommended to not to use the Internet Explorer web browser for accessing the Resource Arbiter GUI.

Installing Resource Arbiter Server-side Package (Version 1.0 and higher)

1. Download and install PathWave Test Automation software from http://www.keysight.com/find/TAP (if not already done).
   Install the required license for using the platform (if not already done).

2. When you have PathWave Test Automation KS8400A installed and licensed, you can install the server packages simply via double clicking the file.

3. When you have PathWave Test Automation KS8000A installed and licensed, you can install the server packages using the following commands from a command line:

```
cd %TAP_PATH%

tap package install ["yourpathtothepackage"]
```

4. Install the following license using Keysight License Manager.

    - KS8108A

Installing Resource Arbiter Client-side Package (Version 1.0 and higher)

1. Install Microsoft Visual Studio to write your own test steps and define your own DUTs and instruments.

2. Download and install PathWave Test Automation software from http://www.keysight.com/find/TAP (if not already done).
Install the required license for using the platform (if not already done).

3. When you have PathWave Test Automation KS8400A installed and licensed, you can install the client packages simply via double clicking the file.

4. When you have PathWave Test Automation KS8000A installed and licensed, you can install the client bundle using the following commands from a command line:

```
cd %TAP_PATH%

tap package install ["yourpathtothepackage"]
```

5. Install the following license using Keysight License Manager.

    - KS8109A

For information related to verification of the installation of the server and client bundles, starting and stopping the service in case of server-side installation, refer to the *Resource Arbiter Installation Guide.*

Getting Started with the Resource Arbiter Plugins and the Resource Arbiter GUI

To know how to use the Resource Arbiter plugins and the Resource Arbiter GUI, refer to the *Keysight Resource Arbiter Help.*

Known Issues

- If during package installation you get a package dependency warning, but the dialog is empty not listing a conflict, just ignore and continue installation.

- The Resource Arbiter GUI is not supported on the Internet Explorer web browser.