



Home Depot

ThousandEyes Script - Functional Specification



Change Control

Title:	ThousandEyes Configuration Script
Version:	1.0
Date of version:	September 21, 2023
Created by:	Helmut Heise
Confidentiality level:	Confidential

Version History

Date	Version	Created By	Description of Change
September 22, 2023	0.1	Daniela Magallan	Initial Draft
September 22, 2023	0.1	Amy Arana	Review
September 25, 2023	0.2	Helmut Heise	
September 26, 2023	0.3	Daniela Magallan	

Resources

The following parties are involved in the engagement.

Name	Contact	Company	Title
Amy Arana	amarana@cisco.com	ThousandEyes	Delivery Architect
Helmut Heise	hheisego@cisco.com	ThousandEyes	Integration Engineer
Daniela Magallan	dmagalla@cisco.com	ThousandEyes	Integration Engineer

Description

This document serves as the functional specification for the script delivered by ThousandEyes to Home Depot



Licensing

All engagements which require ThousandEyes Professional Services to create code for the Client are licensed under the Client's MSA with ThousandEyes. If open-source software is required, ThousandEyes will notify Client of such inclusions and document it appropriately in the final report.

Table of Contents

Contents

Change Control	2
Version History	2
Resources	2
Licensing	3
Table of Contents	3
Introduction	5
Purpose	5
ThousandEyes Solution	5
Overview	5
Solution Components	5
Python Script(s)	5
Requests	5
Purpose	5
Script Configuration Flow.	5
Initial Configuration	6
On the Main.py file:	6
Execution	7
After execution	7
Errata	7
When doing a request	7
Licensing Information	8
MIT License	8
See http://www.opensource.org/licenses/Python-2.0 for full terms	9
Note: backport changes by Raymond were originally distributed under MIT license, but since the original license for Python is more restrictive than MIT, code cannot be released under its terms and still adheres to the limitations of Python license.	9
Apache License	9
Follow up requests	13



Introduction

Purpose

The purpose of this document is to provide a functional specification on the script created by ThousandEyes Professional Services for Home Depot.

The goal of the script is as follows:

- Script gathers the Activity Log ThousandEyes API v6 endpoint and will create a log file with the results.

ThousandEyes Solution

Overview

The following sections describe all deliverables involved for the solution.

Solution Components

The three main components involved in this solution are described in the sections below

Python Script(s)

The script involved in this solution has been written in Python, using 3.11.5 as the target version. The script was developed using Visual Studio Code IDE on Windows 10 and MacOS platforms. Testing of the scripts was performed on Python 3.7.11, 3.9.13 and 3.11.5.

`>pip3 install requests`

Requests

Purpose

Requests allows you to send HTTP/1.1 requests extremely easily. Which in this case will allow us to interact with the Thousandeyes API.

Script Configuration Flow.



Initial Configuration

On the Main.py file:

In order to start any operation please issue an organizational administrator user OAuth Token and the file path (name).

If you are still not sure how to do get the OAuth, please refer to:

<https://docs.thousandeyes.com/product-documentation/user-management/rbac/working-with-a-ccount-settings#user-api-tokens>.

Once you have a valid OAuth Bearer token, please open the Main.py file, scroll down and change the value of the OAUTH variable.

Then, specify the log file where all the information will be stored. The default name is **"home_depot.log"** but if you want to change it you can do it from here.

Finally, specify in a form of a list, the accounts of which you would like to get the activity information. At the end, the main file should look something like this:

```
#####  
#           MAIN  
#####  
  
OAuth = "XXXXXX-XXXX-XXXX-XXXX-XXXX"  
file_path = "home_depot.log"  
account = ["Dani's sandbox", "Switching team"]  
  
#####
```

NOTE: If you want to modify the timeframe from when the activity logs are gathered, you can do it by changing the value of the "window" parameter on the get_logs function. In the example below, the value was modified from 1 to 4 to get info from 4 days ago but the default will be 1.

```
for acc in account:  
    get_logs(headers=headers, window=4, account=acc, file_path=file_path)
```



Execution

Execute the script with the following command (Python's environment variable must be configured):

```
python3 Main.py
```

As the script executes you will be getting information about the requests status on the console, as in the image below.

```
dmagalla@DMAGALLA-M-39J9 PS-E-078526_BigQ % python3 Main.py
Status Code 200: https://api.thousandeyes.com/v6/account-groups.json time: 1.6168859004974365
Status Code 200: https://api.thousandeyes.com/v6/audit/user-events/search.json?window=4d&aid=1088196 time: 0.5207669734954834
Status Code 200: https://api.thousandeyes.com/v6/audit/user-events/search.json?aid=1088196&offset=36804724&from=2023-09-22+22%3A14%3A52+UTC&to=2023-09-26+22%3A14%3A52+UTC time: 0.3551030158996582
Status Code 200: https://api.thousandeyes.com/v6/account-groups.json time: 0.5585119724273682
Status Code 200: https://api.thousandeyes.com/v6/audit/user-events/search.json?window=4d&aid=1091056 time: 0.43485379219055176
Status Code 200: https://api.thousandeyes.com/v6/audit/user-events/search.json?aid=1091056&offset=36872483&from=2023-09-22+22%3A14%3A54+UTC&to=2023-09-26+22%3A14%3A54+UTC time: 0.4092109203338623
```

After execution

Once the script finishes its execution, the logs will be saved on the file that was declared with the `file_path` variable. Each line of the script represents a log. The final structure would look something like:

```
{
  "service_id": "5d24b10e56d4e549a3942585",
  "log_type": "Switch account",
  "tag": "ThousandEyes",
  "message": {
    "date": "2023-09-26 19:35:51",
    "resources": [

    ],
    "user": "ThousandEyes Support",
    "ipAddress": "76.167.131.107",
    "accountGroupName": "Dani's sandbox",
    "event": "Switch account"
  }
}
```

The message field will contain all the information from thousandeyes API.

Errata

When doing a request



This script automatically generates a log file on the same path where the script is running. These logs are intended to show if the Label and the Test is created or if the script couldn't create the label or retrieve the tests and labels for the template.

Where the log file format is made up of the ThousandEyes API call status codes:

200 - information retrieved successfully
201 - Label created and Test mapped
400 - Label and / or Test could not be created / mapped

Licensing Information

Except as expressly agreed by the parties in writing, your use of the ThousandEyes software is governed by the following terms: <https://app.thousandeyes.com/legal/agreement>. In addition, the ThousandEyes software includes the following open-source software licensed under separate terms.

MIT License

Name	Version	License
openpyxl	3.0.10	MIT License

Copyright (c) 2010 openpyxl

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Odict implementation in openpyxl/writer/odict.py uses the following license:

Copyright (c) 2001-2011 Python Software Foundation 2011 Raymond Hettinger
License: PYTHON SOFTWARE FOUNDATION LICENSE VERSION 2



See <http://www.opensource.org/licenses/Python-2.0> for full terms

Note: backport changes by Raymond were originally distributed under MIT license, but since the original license for Python is more restrictive than MIT, code cannot be released under its terms and still adheres to the limitations of Python license.

Apache License

Name	Version	License
requests	2.31	Apache License

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.



"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a



cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work



by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. **Limitation of Liability.** In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. **Accepting Warranty or Additional Liability.** While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.



Follow up requests

Follow up requests may be sent directly to the document author or services@thousandeyes.com.