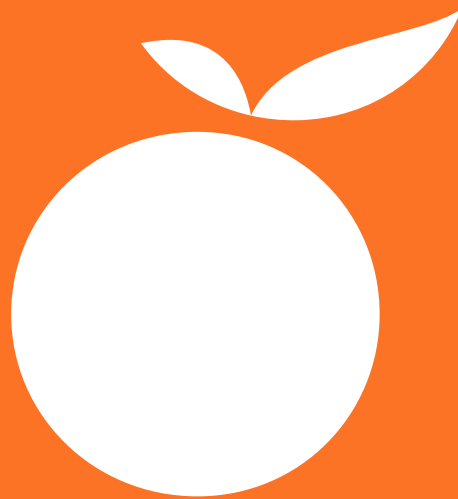


tt performance suite

# Background knowledge



.....

TTPS ANALYTICS DASHBOARD

**Imprint**

Copyright © tts Knowledge Products GmbH. All rights reserved.

August 9<sup>nd</sup>, 2018 – Version 1.0.6

## Contents

<b>1</b>	<b>Introductory Remarks .....</b>	<b>1</b>
1.1	About the ttps Analytics Dashboard.....	1
1.2	Purpose of this Document.....	2
1.3	Installation Prerequisites .....	2
<b>2</b>	<b>Matomo Configuration .....</b>	<b>3</b>
2.1	Setup a Website for Web Publisher Tracking .....	3
2.2	Install the Custom Dimensions Plugin.....	3
2.3	Setup a Custom Dimension for the Website .....	3
2.4	Setup an API User .....	4
<b>3</b>	<b>Integrating the Dashboard into Web Publisher.....</b>	<b>5</b>
3.1	Configuration Based on initial_2018.....	5
3.2	Set Options in templates.<customer>.xml.....	5
<b>4</b>	<b>Data Sent to Matomo .....</b>	<b>6</b>
4.1	Portal Areas: News, Processes, Courses, Topics, Guides.....	6
4.2	Search Results.....	6
4.3	Documents and Guides.....	7
4.4	QuickAccess .....	8

# 1 Introductory Remarks

## 1.1 About the ttps Analytics Dashboard

Statistical evaluations and goal-oriented reports perform the task of dissecting the daily flood of numbers and data in order to highlight precisely the information that is required for corporate management. The analysis of meaningfully processed data facilitates quick and precise decision-making with the goal of introducing immediate improvements and enabling the measurement of success.

This particularly applies to workplace learning and the setting up of Performance Support measures within companies. The analysis of end users' usage behavior via the various distribution channels is vital to the goal-oriented optimization of learning and Performance Support initiatives. Not only that, but it can also act as the basis for examining the ROI of past and future investments in the field of corporate knowledge transfer.

The ttps Analytics Dashboard – which is an optional component of tt performance suite since the launch of Version 2018 – is the ultimate comprehensive solution for the tracking and visualization of usage data. The meaningful, visual processing of usage data, which are generated via the proven web-tracking interface of ttps, lies at the heart of the ttps Analytics Dashboard. These raw data are anonymously collected and saved during every user interaction within the Web Publisher portal and QuickAccess.



## 1.2 Purpose of this Document

This document describes the setup of the ttps Analytics Dashboard as well as its integration with Matomo ([matomo.org](https://matomo.org)), which serves as the analytics backend, and the ttps Web Publisher portal.

## 1.3 Installation Prerequisites

- An installation of tt performance suite 2018 or later
- A Matomo instance that fully supports the “Custom Dimensions” plugin, including full API access to segmentations based on custom dimensions

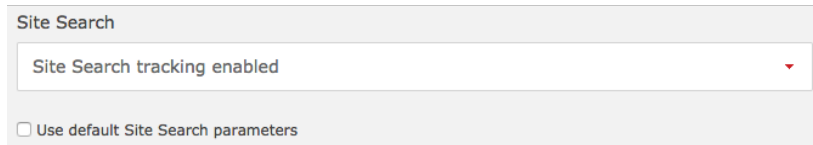
**Note:** We learned that some Matomo cloud providers do not fulfill this requirement. Thus, tts recommends hosting Matomo either in the tts cloud or on premises. The downloadable open source versions support this out-of-the-box.

- A Web Publisher configuration based on initial\_2018 or later

## 2 Matomo Configuration

### 2.1 Setup a Website for Web Publisher Tracking

Tracking data should be sent to its own Matomo “website”. When setting this website up, please ensure that “Site Search Tracking” is enabled:



You can also disable the “default Site Search parameters”, as shown above, as we don’t need Matomo’s automatic search detection. But it won’t harm if this option is enabled either.

The other options of the website setup dialog do not matter.

Once you’ve created the website, please note down its Id.

### 2.2 Install the Custom Dimensions Plugin

Many of the Dashboard’s features rely on the ability to segment tracking data along the type of content (e.g. “Course”, “Document”) a user is viewing in the Web Publisher portal. To enable this, we need the Custom Dimension plugin which can be installed from the Matomo marketplace in the Matomo user interface.

More information about the plugin can be found here:

<https://plugins.matomo.org/CustomDimensions>

If you want to learn a bit more about segmentation and custom dimensions in general, you can find the respective documentation here:

<https://piwik.org/docs/segmentation/>

<https://piwik.org/docs/custom-dimensions/>

### 2.3 Setup a Custom Dimension for the Website

Once the plugin is installed, we need to create a “Custom Action Dimension” like this:



In the OpenSource version of Matomo, you will find this option under “Administration (Cogwheel) => Websites => Custom Dimensions”. In the cloud-hosted Piwik Pro, the option can be found under “Personal settings (User Icon) => Manage => Custom Dimensions”. Make sure you have selected the correct website in the main toolbar before setting the custom dimension.

When setting up new “Action Dimension”, use the following parameters:

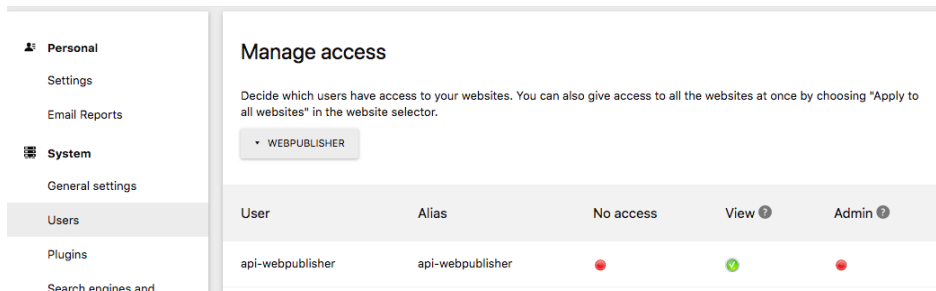
- Name: “Content Type” (doesn’t really matter, it’s just a convention)
- Active: has to be enabled
- Extract Value: Leave this option in its default state

Once you’ve set up the dimension, please note down its Id.

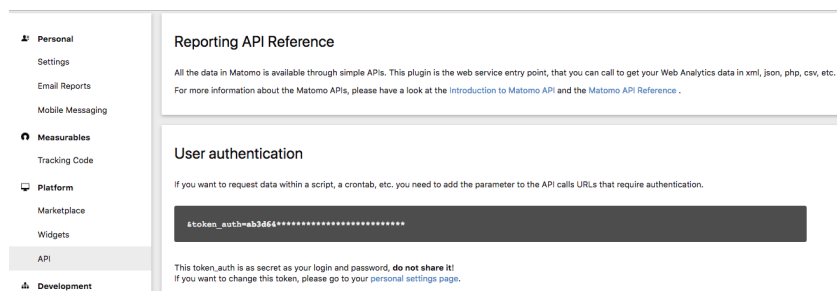
## 2.4 Setup an API User

In order to access Matomo’s data, the Dashboard needs an access token. This access token is linked to a user in Matomo and inherits this user’s access rights. Although you could use any user for this purpose, it is wise to create a special API that has only view access to the one single site you want to use the Dashboard for.

In our sample, we’ve created a user named “api-webpublisher” and granted this user view access to our “WEBPUBLISHER” site exclusively:



Now, log in to Matomo with this user’s credentials, click on the cogwheel in the upper right, and go to the “API” area of the settings panel:



Here you can see the token that has been linked to this user. Click on it to view it in full, and note it down (without the “&token\_auth=” prefix), e.g.

ab3d647fd29381728a93822331432123

We will need it in a later step.

## 3 Integrating the Dashboard into Web Publisher

### 3.1 Configuration Based on initial\_2018

The Dashboard relies on Matomo tracking code that has been introduced with the “initial\_2018” configuration in tt performance suite 2018. Hence, the customer configuration should be based on this “initial\_2018” configuration (or any later version).

### 3.2 Set Options in templates.<customer>.xml

The following properties have to be set in the templates.<customer>.xml file of the customer configuration to match the customer installation:

- “piwikServer”: The address of the Matomo instance that should be used
  - e.g. https://my-instance.my-matomo-hoster.com
- “piwikSiteId”: The id of the website created in Matomo
  - e.g. 7
- “piwikToken”: The API token of the API user we created earlier
  - e.g. ab3d647fd29381728a93822331432123
- “piwikCustomDimensionContentType”: the id of the custom dimension set in Matomo
  - e.g. 1
- “piwikDebug”: Defaults to “false”. If set to “true”, all tracking events sent to Matomo will be mirrored in the browser console, for debugging purposes.

**Note:** Matomo was formerly known as Piwik. The settings still keep this terminology for backwards compatibility reasons.



## 4 Data Sent to Matomo

This section lists all tracking data sent to Matomo. If you want to see this live in action, you can set the “piwikDebug” property in the templates.<customer>.xml configuration file to “true”.

### 4.1 Portal Areas: News, Processes, Courses, Topics, Guides

These structure pages track a “page view” with the following parameters:

- Document title: Navigation/<contenttype>/<title>
  - e.g. Navigation/CourseCategory/SAP

Titles are structured this way to make Matomo auto-generate a navigation tree in the “Page titles” report of Matomo’s own dashboard. This allows the customers to use the standard Matomo reports for further data analysis if they want to.

- Custom Action Dimension Content Type: <contentType>
  - e.g. “CourseCategory”

For detailed information about Matomo page view tracking, please refer to:

<https://developer.piwik.org/guides/tracking-javascript-guide>

### 4.2 Search Results

If the user performs a portal search, this is tracked as a Matomo “site search” with the following parameters:

- Keyword: Set to the search query, e.g. “Order”. The query is taken from the “q” parameter of a Web Publisher search URL.
- Category: If the user clicks on exactly one of the “search facet” tabs on the search results page, e.g. to display only processes, this parameter is set to the corresponding facet, e.g. “process”. The facet is taken from the “t” parameter of a Web Publisher search URL. If the user clicks on more than one facet (or none), the category is set to “false”.
- Search Count: Set to the number of search results, e.g. “42”.
- Custom Action Dimension Content Type: “SearchResult”

For detailed information about Matomo site search tracking, please refer to:

<https://piwik.org/docs/site-search/>

## 4.3 Documents and Guides

If the user clicks on a document or guide link, two events and a page view will be fired:

### Document View Event / Guide View Event

This event tracks access to the document or guide itself. It populates the “Content” widget of the “Content” area of the Dashboard.

- Event Category: “documentView” or “guideView”
  - guideView is used for “Quick Guides” only; since “Editorial Guides” are technically documents, the category will be “documentView” for these
- Event Action: Title of the structure view where the document was opened
  - e.g. Navigation/Course/Course/Sales Order Processing
  - if the document or guide was opened from within a deep link’s landing page, the event action will be set to “deeplink” instead
- Event Name: Title of the document or guide
  - e.g. “Create Sales Order”

### Document Instance View Event

This event tracks the document instance (e.g. short instruction) the link points to. It populates the “Content Types” widget of the “Content” area of the Dashboard.

- Event Category: “documentInstanceView”
- Event Action: <instanceType>
  - e.g. “shortinstruction”
  - for “Quick Guides”, the instance type is set to “guide”; for “Editorial Guides”, the instance type is set to “guidance”
- Event Name: Title of the document or guide
  - e.g. “Create Sales Order”

### Page View

In addition to the events, a “page view” will be tracked as well. This is sent to populate Matomo’s own “Page titles” report, it is not being used by the ttps Analytics Dashboard.

- Document title: Content/Document/<title>
  - e.g. Content/Document/Create customer order
- Action Dimension Content Type: “Document”

Note: If the document appeared in a search result, the “page view” will be ignored by Matomo, since Matomo can either track a “site search” *or* a “page view”, but not *both* for the same page. Thus, document links opened from within a search results page won’t appear in Matomo’s own “Page titles” widget. But they will still be tracked by the ttps Analytics Dashboard, since it evaluates the events instead.

## 4.4 QuickAccess

One of the main goals for building the Analytics Dashboard was to allow for detailed analysis of Performance Support usage. Thus, on each visit of a QuickAccess result page, Web Publisher sends quite a number of tracking events to Matomo:

### Page view

First, a generic “page view” is being recorded, with the following parameters:

- Document title: “QuickAccess”  
Sending this title will result in a separate line “QuickAccess” in Matomo’s own “Page titles” report, representing the total of all QuickAccess result page views.
- Action Dimension Content Type: “QuickAccess”

### Application Context

Second, a number of custom tracking events are fired which describe the application context the user requested help for. This is reflected by the following “event actions”:

- searchMandatory: the mandatory part of the application context; typically refers to the application itself e.g. “Microsoft Word”
- searchOptional: the optional part of the application context, if defined
- searchField: the ID of an active field in an application dialog
- searchUserInput: manual inputs of the user into the search query field
- searchQuery: a combination of all the fields mentioned above

Which of these event actions are actually triggered, depends on the application context. The respective values are sent as Matomo “event names”.

The “event category” is set to

- “quickAccess”, if the search returns at least one result, or
- “quickAccessMiss” if no result was returned.

The concrete number of results is sent as the “event value”.

### Link Tracking

Once the user clicks on one of the links inside a QuickAccess result page, an additional event is being fired:

- Event Category: “quickAccessClick.<contentType>”
  - e.g. “quickAccessClick.document”
- Event Action: <mandatoryContext>
  - e.g. “VA01”
- Event Name: <contentTitle>
  - e.g. “Create Sales Order”

This event is used in the Dashboard to allow a drill down to documents and guides that have been opened for a specific application context.

Please note that this event is not being sent if the “mandatory” context has been cleared. This happens if the user removes the mandatory context from the search input field and performs two searches in succession.

### Performance Category Tracking

In addition, each click on a result link also triggers a “page view” with the following information:

- Document title: QuickAccess/<psc>/<contentType>/<title>
  - where <psc> is the technical name of the performance support category the content resides in
  - e.g. QuickAccess/steps/document/Create Sales Order
- Custom Action Dimension Content Type: “PerformanceSupportCategory”

This is used to populate Matomo’s “Page titles” report with all clicks on content inside QuickAccess results, grouped by performance support category and content type.