

Purpose

This component addresses the needs of gathering Google AdWords report.

The result can be saved as file or provided as normal input flow.

The component uses the AdWords API and the Authentication API OAuth 2.0 final.

To provide the ability to run in multiple iterations the component has special capabilities to avoid multiple logins through iterations. Usually automated processes should not use personal accounts. This requirement is addressed by using a service account, which are the only preferred way to login into Google AdWords for automated processes. Please in case of problems check the checklist at the end of this document.

Talend-Integration

This component can be found in the palette under Business->Google This component provides an output flow and several return values.

Parameters

Parameters to connect to Google AdWords (setup client)

Property	Content	Data types
Application Name	Not necessary, but recommended by Google. Simple provide the name of your application gathering data.	String
Authentication Method	Choose the method to authenticate: Service Account or Client-ID for native applications	String

Properties to use the authentication method: Service ccount

Property	Content	Data types
Service Account Email	The email address of the service account. Google creates this address within the process of creating a service account. Only for service accounts!	String
Key File (p12)	The Service Account Login works with private key file for authentication. In the process of creating a service account you download this file. Only for service accounts.	String

Properties to use the authentication method: Client-ID for native applications

Property	Content	Data types
User Account Email	Email of the user account or the Client-ID	String
Client secret file (json)	This json file downloaded for the Client-ID	String

The usage of the "Client-ID for native applications" expects on the first run an user interaction with the Google web page and after finishing the form to approve the access right you need to close the browser to let the component continue, otherwise the authentication process will not complete.

Properties to authorize the AdWords user

Property	Content	Data types
Developer Token	This token must be gathered from Google	String
AdWords Account Email	Set here the email address of the user holding the AdWords account	String
AdWords Customer-Id	Set here the customer ID of the AdWords-User. Typically in the format: "999-999-9999"	String

Parameters to define the query

Property	Content
Report Name	Every AdWords report request needs a name. You can specify the name here; otherwise the component generates a name consisting of the report type and the dates. It is recommended to set the name explicit here!
Use AdWords Query Language	If true you can specify in the next input field a query with this SQL like query language. It has to be a String, please encapsulate the query in double quotas. Otherwise you can specify the query with parameters as report definition.
AWQL	Set here your AdWords query. https://developers.google.com/adwords/api/docs/guides/awql
	Define the query as report definition
Start Date	All queries need always a time range (only date, not time). The value can be a String with the pattern "yyyy-MM-dd" or "yyyyMMdd" or a Date object.
End Date	Time range end. If you want gather data for one date, use start date as end date. The value can be a String with the pattern "yyyy-MM-dd" or "yyyyMMdd" or a Date object.
Report Type	Set here the report type. More information about report types can be gathered here: <u>https://developers.google.com/adwords/api/docs/appendix/reports</u> Report types are written in capital letters. E.g. "KEYWORDS_PERFORMANCE_REPORT"
Fields	Define here the fields you want to have in the result. Add here comma separated all attributes, segments and metrics. Please take care about the identifiers because they are case sensitive. Refer to the report descriptions about the correct spelling.
Send Report as AWQL	If true the report definition will be translated into an AWQL query and this gives us the option to add a where condition written in the AWQL syntax.
AWQL Query Clause	Set here the where condition (without the keyword "where") in AWQL language. E.g. "Impression > 0 " (also here, take care of the case sensitive identifiers!)

Properties to define the output format

Property	Content
Download as File	If true the result will be downloaded in a file
Target Directory for result file downloads	Set here the directory in which the result files have to be saved. The name of the file will be build from the report name and the chosen file format
Report result file format	Choose here the file format: CSV (Comma separated): simple plain csv file in UTF-8 charset. (.csv) CSV (gzip compressed): csv file but compressed with the gz compression (.csv.gz) CSV (with BOM and UFT-8): same as the first but the file starts with a Byte-Order-Mark char. (.bom.csv) TSV: tabulator delimited fields (.tsv) XML: easy to parse XML file. (.xml) XML (gzip compressed): XML file compressed (.xml.gz)
Unarchive gz file	Uncompressing the file (if it compressed)
Remove archive	If the file is uncompressed just now, delete the compressed file.
Schema	If not downloaded as file, the result will be provided as input flow. Define here the schema according to the fields set in the AWQL or in the Fields setting. Attributes and segments are usually String typed; metrics are usually numeric data types like Double, Integer or BigDecimal. The component converts the incoming textual format according to the schema column data type automatically. Refer the manual for the report and the data types of the fields.

Advanced Option Parameters

Property	Content
Timeout for report download (ms)	How long should the component wait for getting the first result and fetching all result with one internal iteration
Static Time Offset (to past) in ms	Within the process of login, the component requests an access token and use the local time stamp (because these tokens will expire after a couple of seconds) Google rejects all requests to access tokens when the request is in the future compared to the timestamp in Google servers. If you experience such kind of problems, this options let the requests appear to be more in the past (5,000-10,000ms was recognized as good time shift)
Reuse Client for Iterations	If you use this component in iterations it is strongly recommended to set this option. It saves time to authenticate unnecessary often and avoids problems because of max amount of connects per time range.
Distinct Name Extension	The client will be kept with an automatically created name: Talend-Name-Component name + job name. In case this is not distinct enough, you can specify an additional extension to the name.

Return values

Return value	Content
ERROR_MESSAGE	Last error message
NB_LINE	Number of delivered lines (only set if normalization is not used)
DOWNLOAD_FILE_PATH	If downloaded as file, the full path of the downloaded file.
NB_LINE	If output as flow, the number of returned records
ERROR_CODE	The last error code as Integer. Default value is 0 at start. This code is the http-status code returned by the web service from Google.

Scenario:

This is common scenario. In the component is a report defined and the result will be send to a database table via the direct flow from the component.



Here the Basic settings: Client setup:

tGoogleAdWo	rdsReport_1	
Paula antilana	Client Setup	
Basic settings	Authentication Method Service Account	
Advanced settings	Service Account Email *462710779198-oiv2uebkpqj49fg5pbdvtu66f8uhkbi4@developer.gserviceaccount.com*	*
Dynamic settings	Key File (* 012) * Molumes/Data/Talend/testdata/as/adwords/bane/03/4715688-53-b0b3802-08-4344a8637e1870b-privatekey 012	*
View		
Documentation	Developer Token	*
	AdWords Account Email	*

Setup the query:



... and finally the output:

			Sc	chema of	tGoogleAdWo	rdsReport 1		
AWQL where claus	Impre:	tGoogleAdWordsReport	_1					
		Column	Key	Туре	Vullab Date	Pattern (Length	Precisior	Defaul Commer
		AdGroupId		String				
		AdNetworkType1		String				
		CampaignName		String				
		Clicks		Integer				
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Set the schema columns according to the fields! Please check the report attributes, segments and metrics about the necessary data type. Typically attributes and segments are String types and metrics are Double typed.

Hints to create the necessary credentials

First create an AdWords account. If you need to manage multiple AdWords accounts use a MCC.

https://support.google.com/adwords/answer/6139186?hl=en

The MCC can be created on the fly, won't take long. Once created you have to add adword accounts to the MCC. These can be extracted from the Adwords API .

A Google AdWords	Master Reporting Accounts Campaigns Reports	Customer ID: 1
Accounts	Accounts	
Alerts	Performance Budger Admin	
Bulk operations		
Conversions	Filter * Search	
Attribution	Account - Edit - Account labels -	
Pending invitations		Account labels 🝸
Account labels		Show rows 50 - 1-1 of 1
What are labels? Watch a short video.	© 2015 Google Editorial Guidelines Privacy Policy	

If you would have clicked the + account you will get something like below where you have to enter the Adwords Account Number you would like to add



If you link and existing account the admin of that account needs to apporve it and if I remember right, you have to approve it again.

If this is done you need indeed to request a Developer token. This can be done also from within the Adwords MCC Environment.

A Google AdWords	Master Reporting Accounts Campaigns Reports	Customer ID:
Account access		Account settings
Notification Sottings	AdWords API Centre	Send feedback
Nouncation Settings	Developer details	Help
Preferences		
AdWords API Centre	Developer token	Worldwide phone support
	Access level	

The process is also described here: https://developers.google.com/adwords/api/docs/signingup Once the developer token is approved there are some more steps in the Google Cloud Console to get the service account. You need to have a Google Apps domain to be able to use the API with your email address see also: https://developers.google.com/adwords/api/docs/guides/service-accounts

How to create a service account

Service accounts have the advantage to not being personal - a big issue in automated processes. The service account use a key file to authorize and therefore do not need a password.

If you do not already have one, create a so called project in the Google Developer Console.

ck to go forward, hold to see history		Ja
→ C A https://console.	evelopers.google.com/project	
Apps Develop News S	rvice Google Projects CIMT Talend Jasper 🔶 FRITZIBox SAP	» Other Bookmarl
Google Developers Console	Select a project 👻 Sign up for a free trial.	0000
Create Project Filter by label, name or	Columns 👻 🕒 Labels	
Project Name Project ID		
GATalendComp talendcomp-jlo	New Project	
ProzisAnalytics unified-welder-5	Project name 🔞	
	My Project	
	Project ID	
	ageless-sol-108009	
	Hide advanced options	
	App Engine location	
	europe-west	
	Create Cancel	

In the first place you do not see this options except the project name. Click at advanced options to expand the dialog.

Now create new credentials ... we choose here the last option "Service account".



The current releases of the components works with the p12-format for the secured credentials.

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Apps 📄 Develop 🕻	News 📄 Servi	ce 🔲 Google	Projects	СІМТ	Talend	Jasper	🔶 FRITZ!Box	SAP	>>	Ct Ot	her Boo	kmarks
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After the click on Create you will ask for saving the p12-file. Save it on a clear save place. You can move the file at any place you want. Later the components need to have read access to it.

Create service account - M ×									Jan
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My Project-77ecebb3p12 •							Ŧ	Show All	×

Once you have suceeded downloading the file, you see this sucess message.

Yo do not need the pass phrase because it is always the same and the component code knows this pass phrase and applies it internally.

O Credentials - My Project ×							
🗧 -> C n 📓 https://console.developers.google.com/project/ageless-sol-108009/apiui/credential							
Apps 📄 Develop	🛄 News 📋 Service 🛄 Google 🛄 Projects 🛄 CIMT 🔛 Talend 🔛 Jasper 🧇 FRITZ/Box 🔛 SAP 🛄 ssh						
🗿 Google Develop	My Project *						
Home Permissions APIs & auth APIs Credentials	Credentials OAuth consent screen Add credentials Create credentials to access your enabled APIs. Refer to the API documentation for details.						
Push	Service accounts						
Monitoring	Email address ^ Certificate fingerprints						
Source Code	525120905425-pm8bcu0iqbppmh9k6g08u8hl3msubd2n@developer.gserviceaccount.com 77ecebb3a22de681f1ad77a93aab3ce0909a399d						
Cloud Launcher							
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Now you can see the service account email address. This address must be added as user to the views, web properties or accounts (the authorisation will be applied to the lower level elements in the order account->web property->view).

Now we have to enable the necessary APIs for the servive account needed.



It depends on the component what API you have to enable. For tGoogleAnalytics* components you have to anable the Analytics API. In the detail section of an API you can also see the quotas (limitation of usage) you have. Here you can also order an enhancement if necessary.



This way you enable the Analytics API.



Here you can see the quotas.