

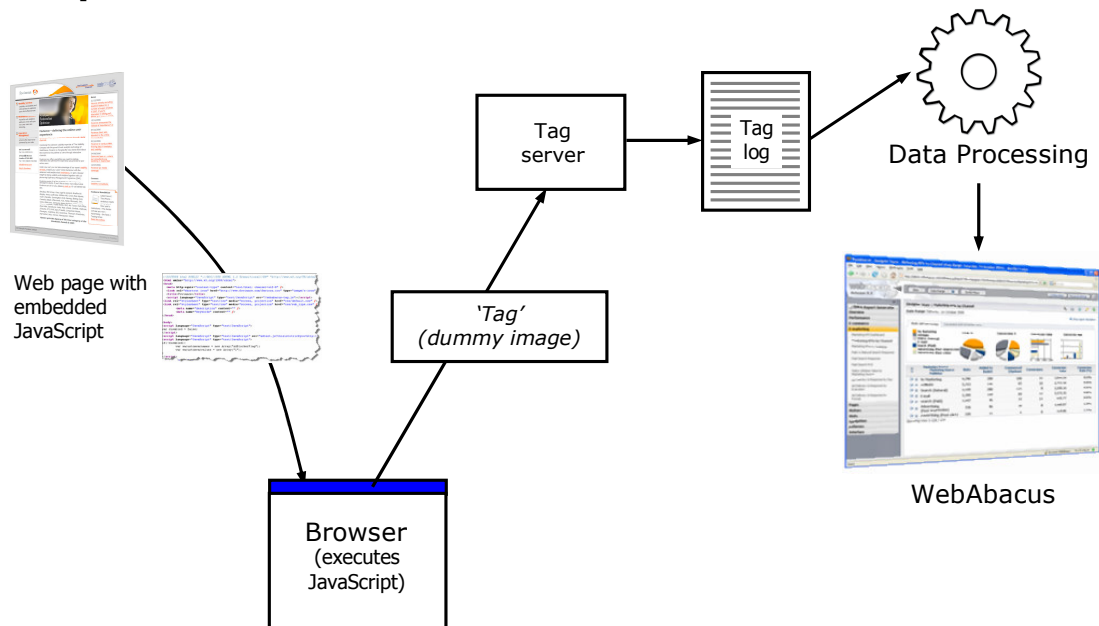


WebAbacus Tagging Implementation Guide

Overview

This document provides a guide to implementing client-side data collection ('tags') for capturing web site behaviour data for analysis with WebAbacus. This document refers to version 3.01 of the WebAbacus tag JavaScript code.

The process



For client-side data collection, the behaviour data is collected in the following way:

- The webmaster or web designer inserts the WebAbacus JavaScript client info code onto each page of the web site that is being measured. This JavaScript is then served with each HTML page, as the page is delivered to the browser of visitors using the site.
- When the browser displays the HTML page, it executes the embedded JavaScript code. This code gathers a range of information about the page it is on, including the page's URL, the URL of the referring page, and information about the user's browser set-up (such as their screen resolution). It also issues and logs the value of a persistent cookie.
- Once the JavaScript routine has gathered all this data, it executes a request for an imaginary graphics file. The URL for this 'file' contains all the information that the script has gathered, as parameters. The request can either be sent back to the original web server, or it can be sent to another web server, known as the 'tag server'.
- When the tag server receives the request for the dummy graphic file, it logs the request in its own log file. The tag server doesn't send anything back, because (by design) there is no file to send. In this way, no intermediate server on the Internet can cache this content, because it never gets served.
- The tag log, which is basically a normal web log in a special format, is processed by WebAbacus. WebAbacus can extract almost all the same information from the tag log as it can from a regular server log.

Implementation

The WebAbacus tag code is a single piece of code which should be applied to all page templates for the site. The code gathers a range of information about the page, plus any custom fields that may be required, before packaging the field values up as a tag request and sending the request to the tag server.

WebAbacus will provide you with the following file:

```
Webabacus-tag.js
```

WebAbacus will endeavour to provide you with code that has been pre-configured to your implementation, but you should check and, if necessary, modify the global settings that are in the code. Details of these settings can be found in the Appendix on pages 6 & 7.

Once you have checked and/or modified the variables, save and close the file.

Phase One: Basic tagging

Basic implementation instructions are as follows:

1. Place customized version of tag code into a publicly available area of your web site
2. Insert a JavaScript reference to this file into the HEAD section of every page on your web site, for example:



```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1" >
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <meta http-equiv="content-type" content="text/html; charset=utf-8" />
  <link rel="shortcut icon" href="http://www.foviance.com/favicon.ico" type="image/x-icon" />
  <title>Foviace</title>
  <script language="JavaScript" type="text/JavaScript" src="/webabacus-tag.js"></script>
  <link rel="stylesheet" type="text/css" media="screen, projection" href="css/default.css" />
  <link rel="stylesheet" type="text/css" media="screen, projection" href="css/sub_type.css" />
  <meta name="description" content="" />
  <meta name="keywords" content="" />
</head>
</html>
```

3. Test that the tag code is working correctly.
 - a. Ensure that there are no JavaScript errors on the page
 - b. Turn on debugging by adding the following URL variable 'wa_debug=true' to any page containing the tag code, for example
http://www.foviace.com/?wa_debug=true

Phase Two: Extended tagging

In addition to the basic data capture, the tag code can also be configured to capture extra information - details of which are shown over the following three sections:

1. Automated capture of document, links, and flash versions

Activate these settings, by editing the following variables which can be found near the top of the tag code:

- a. **checkFlash:** Setting this variable to 'True', will result in the tag code returning the version of Adobe Flash installed on the user's machine.
- b. **autoTagDocuments:** Defining a list of document extensions, will result in the tag code automatically 'tagging' links to these documents, along with the click type (e.g. right or left mouse click) and the x/y co-ords of the link.
- c. **autoTagExternalLinks:** Setting this variable to 'True' will result in the tag code automatically 'tagging' links to external sites, along with the click type (e.g. right or left mouse click) and the x/y co-ords of the link.
- d. **autoTagTrustedDomain:** Defining a list of domains, will result in the tag code automatically adding the WebAbacus ID value to the link allowing for the IDs to be synchronized across domains.
- e. **sourceParamName:** Defines the variable name used to identify traffic from a defined Marketing Source, such as email or PPC. This will then be stored as a permanent cookie, allowing for identification of deferred conversions.

2. Capture additional information about the pages content

In addition to the automated capture, you may wish to capture extra information about the content of the page, such as the pages location within the site, or a unique transaction value. The WebAbacus tag code supports the capture of the following defined JavaScript variables, all of which are optional:

- **wa_SiteName** – defines the name of a site if using the same physical tag code across multiple site domains.
- **wa_UniqueUserID** – defines the unique User ID for the user visiting the site, e.g. a registration ID. Note that this should not be directly personally identifiable, as this may break your site privacy policy and the Data Protection Act.
- **wa_UniquePageName** – defines a unique name for the given page. This should be used if the HTML title tag is not unique or meaningful, which is often the case due to Search Engine Optimisation.
- **wa_SiteBreadCrumb** – defines the location of the page relative to the overall site architecture, e.g. "Home > Products > Product A > Detail Description"
- **wa_ProductID** – defines a unique ID for a product. If more than one product is present (i.e. in a basket) use a '|' separated list.
- **wa_ProductValue** – defines the value of the individual product. If more than one product is present (i.e. in a basket) use a '|' separated list.
- **wa_TotalTransactionValue** – defines the overall value of a transaction. Please note to ensure that this compares to your internal systems, with particular attention to VAT, Delivery charges, and discounts.

- **wa_UniqueTransactionId** – defines the unique transaction ID for the relevant transaction.
- **wa_TransactionCurrency** – defines the currency for the relevant transaction.
- **wa_SearchPhrase** – defines the search term used for an internal search results page. Note that this is only relevant if the term is NOT present in the URL of HTML page title.
- **wa_SearchResultsReturned** – defines the number of search results that were returned for the relevant search term.

To capture these fields, insert the required variables anywhere on the page, for example:

```
<script language="JavaScript" type="text/JavaScript">
  var wa_UniqueUserID = "1234567";
  var wa_UniquePageName = "Search Results";
  var wa_SiteBreadCrumb = "Home > Search";
  var wa_SearchPhrase = "Test search phrase";
  var wa_SearchResultsReturned = "0";
</script>
```

3. Capture of custom information

To allow complete flexibility, you can also define your own fields and values. This allows you to capture any information that you require for reporting. This is achieved by defining a list of name/value pairs for every field that you wish to capture. For example:

```
<script language="JavaScript" type="text/JavaScript">
  var wacustomvarnames = new Array("Field 1", "Field 2", "Field 3");
  var wacustomvarvalues = new Array("Value 1", "Value 2", "Value 3");
</script>
```

In addition to the above, you can also capture custom page level events, such as Adobe Flash interactions, or Streaming Media events. In essence, you will be making a 'fake' tag request, which will be logged just like any other page. In order to use this feature, call the following JavaScript function:

```
WEBABACUS.logclientdata(0, '/CustomEvent=XXX&Description=YYY&Action=ZZZ');
```

Where:

- 'xxx' is the type of event you wish to capture, such as 'StreamingVideo';
- 'yyy' is the description of the event, such as 'My Video Stream'
- 'zzz' is the action related to the event, such as 'Play'

Appendix I – WebAbacus tag code field definition

This section describes the user editable fields at the top of the WebAbacus tag code. Whilst we encourage you to review the fields, please take caution when editing the code, as changes may result in the tag code causing errors on your site, as well as failure to send the tag resulting in data loss. If you are hosting a copy of WebAbacus yourself, the details below will help you to configure the tag for your environment.

To do this, edit the `\webabacus-tag.js` file and verify and or amend the following JavaScript variables, which are found near the top of the file:

- **Server** - this variable provides the web address of tag server (see the diagram above) to which the tag request will be sent. If WebAbacus will be hosting your analytics service, this will be set to a server in the webabacus.com domain. If you are hosting the tag server yourself, ensure that this variable identifies the full address of the server, including the `http://` part, and the port if the server is not listening on port 80. To use your site's web server itself as the tag server, rather than sending tags to another server, leave this field blank. The tag code will send tag requests for non-secure pages to this address.
- **Secureserver** - tag requests on secure pages will be sent to the server specified in this variable. Unless you are sending tag requests back to the same web server as is serving the site, you must ensure that the value of this variable includes the protocol specifier `https://` at the start.
- **Site** - this is a text string which identifies the site. If WebAbacus is hosting your tag server, **do not** change this value. If you are hosting your own tag server, you can enter a value in this variable if you need to distinguish between the tags generated by two different sites and sent to the same server.
- **CookieLife** - the WebAbacus tag code issues a persistent cookie for user tracking purposes. This value determines the life of the cookie (after which it expires), in days. The default is 730 days (two years).
- **CookieDomain** - by default, the tag code will issue its cookie for the full host name of the server (e.g. `www.yoursite.com`) that it is served on. If your site spans several subdomains (e.g. `www.yoursite.com`, `secure.yoursite.com`, `google.yoursite.com`) and you want the cookie that is issued to be valid for all these domains, enter the domain suffix here, starting with a full stop (e.g. `.yoursite.com`). **Note:** You must always include at least two full stops (for top level domains such as `.com` and `.net`) or three full stops (for second level domains like `.co.uk`), and include your domain name; you cannot issue cookies for `.com` or `.co.uk`.
- **Sourceparamname** - the tag code can capture and log (in a cookie) the value of a particular URL parameter, to aid with allocation of drive-to-site campaigns over multiple visits. If you use a dummy URL parameter (for example, "source") to identify the source of a visit, enter the name of that parameter in this variable. **Note:** The tag code will capture all parameters and their values as part of the URL string. You only have to enter a value here if you want to use a URL parameter to identify the source of a visitor over multiple visits.
- **checkFlash** - Setting this variable to `'True'`, will result in the tag code returning the version of Adobe Flash installed on the user's machine.
- **autoTagDocuments** - Defining a list of document extensions, will result in the tag code automatically 'tagging' links to these documents, along with the click type (e.g. right or left mouse click) and the x/y co-ords of the link.
- **autoTagExternalLinks** - Setting this variable to `'True'` will result in the tag code automatically 'tagging' links to external sites, along with the click type (e.g. right or left mouse click) and the x/y co-ords of the link.

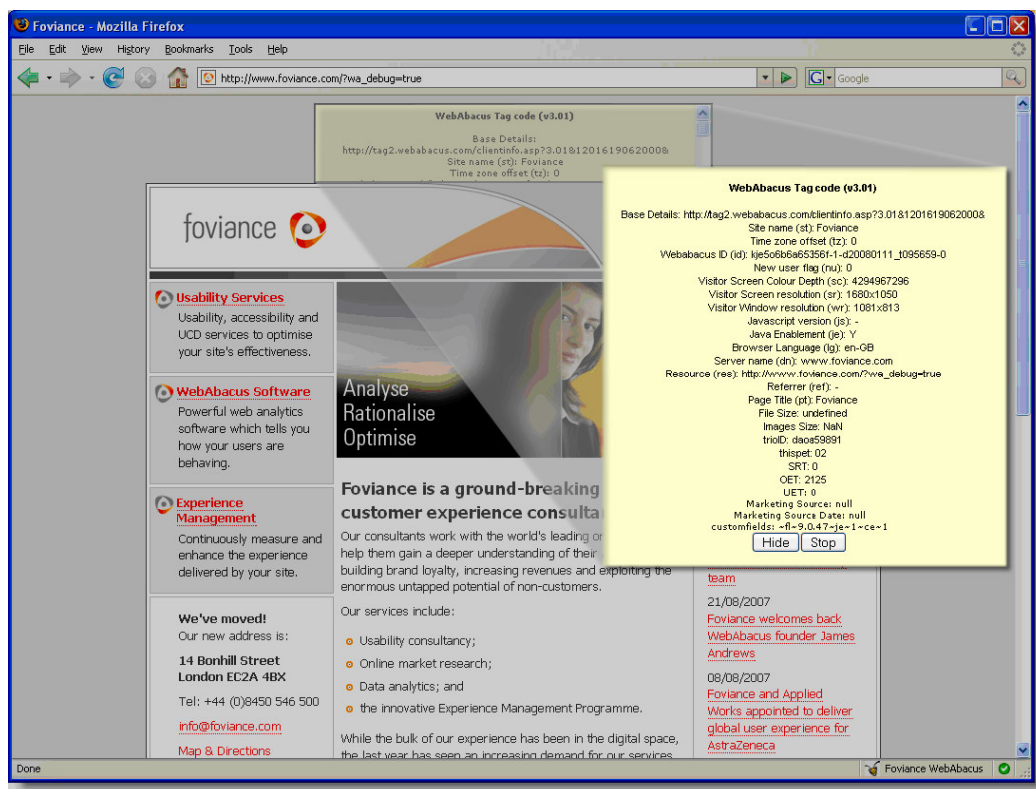
- **autoTagTrustedDomain** - Defining a list of domains, will result in the tag code automatically adding the WebAbacus ID value to the link allowing for the IDs to be synchronized across domains.
- **sourceParamName** - Defines the variable name used to identify traffic from a defined Marketing Source, such as email or PPC. This will then be stored as a permanent cookie, allowing for identification of deferred conversions.

Appendix II – Debug mode

The tag code can be set into 'debug' mode by adding 'wa_debug=true' to the end of any URL. This will cause the tag code to display a layer at the top of the page containing all the variables captured on the page

For example:

To enable debug – http://www.foviance.com/?wa_debug=true



The screenshot shows a Mozilla Firefox browser window displaying the Foviance website. A WebAbacus debug overlay is visible, showing the following details:

```

WebAbacus Tag code (v3.01)
Base Details: http://tag2.webabacus.com/clientinfo.asp?3.01&1201619062000&
Site name (st): Foviance
Time zone offset (tz): 0

WebAbacus Tag code (v3.01)
Base Details: http://tag2.webabacus.com/clientinfo.asp?3.01&1201619062000&
Site name (st): Foviance
Time zone offset (tz): 0
Webabacus ID (id): kj508b6a635561-1-d20080111_1095659-0
New user flag (nu): 0
Visitor Screen Colour Depth (sc): 4294967296
Visitor Screen resolution (sr): 1680x1050
Visitor Window resolution (wr): 1081x813
Javascript version (js): -
Java Enablement (je): V
Browser Language (lg): en-GB
Server name (dn): www.foviance.com
Resource (res): http://www.foviance.com/?wa_debug=true
Referrer (ref): -
Page Title (pt): Foviance
File Size: undefined
Images Size: NaN
triolD: da0a59881
thispst: 02
SRT: 0
OET: 2125
UET: 0
Marketing Source: null
Marketing Source Date: null
customfields: -fl=9.0.47-je-1-cv-1
  
```

To temporarily hide the debug message, scroll down and click on the 'Hide' button. To switch out of debug mode, click on the 'Stop' button or add 'wa_debug=false' to any page containing the WebAbacus tag code.

Appendix III – Standard Fields

By implementing the WebAbacus tag code, you will be capturing the following information:

- **Site name** – The name of the site where the WebAbacus tag code resides. For example 'Foviance'.
- **Time zone offset** – The number of hours from GMT of the client machine. For example GMT= 0, British Summer Time (BST) = 1.
- **Webabacus ID** - A first-party cookie created by the WebAbacus tag code. By default this is set for a two-year period but can be amended by changing the 'Cookie Life' tag variable. The WebAbacus ID is a 37 character string created from the concatenation of a 17 random character string and the time and date that the cookie was set. For example: kje5o6b6a65356f-1-d20080111_t095659-0
- **New user flag** – If when the WebAbacus tag code is launched it cannot find the existence of the WebAbacus ID on the client machine, then it will assume that the visitors has never been to the site before and will set the New User Flag to '1'. Subsequent page views will set the New User Flag to '0', but WebAbacus will classify a visit as coming from a new visitor if any page impression has the New User Flag set to '1'.
- **Visitor Screen Colour Depth** – The number of colours that the client machine can support, for example '65536'.
- **Visitor Screen resolution** – The total screen resolution of the client machine, shown as the horizontal pixel width followed by the vertical pixel height. For example '1680x1050'.
- **Visitor Window resolution** - The size of the window with which the user is viewing the page, shown as the horizontal pixel width followed by the vertical pixel height. For example '1550x998'.
- **Java Enablement** – Flag stating whether Java is enabled on the client machine, 'Y' for enablement, and 'N' for disabled.
- **Browser Language** – The language settings of the client browser, for example 'en-GB'.
- **Server name** – The domain name of the site that the user was viewing when the tag code launched, for example 'www.foviance.com'.
- **Resource** – The URL that was request, i.e. the page the user was viewing, for example 'http://www.foviance.com/webabacus.asp'.
- **Referrer** – the referrer page, i.e. the page containing the link to the page that the user is currently viewing.
- **Page Title** - The HTML title of the page being viewed, for example 'Foviance - WebAbacus Software'.
- **File Size** – The size or weight of the page, in bytes, being viewed. Note that this is only available if the user is using Internet Explorer 5.x or above.
- **Images Size** – The size of weight of the images on the page being viewed. Note that this is only available if the user is using Internet Explorer 5.x or above.
- **Page Load time** – The time taken for the page to finish loading.
- **Page Dwell Time** – The time taken between the page having completely loaded, and the user navigating away from the page.
- **Marketing Source** – The marketing source taken from the 'Sourceparamname' query variable, for example 'PPC_Google_web-analytics'. This is stored in a cookie, and is sent back on all subsequent visits during the life of the cookie.
- **Marketing Source Date** – The date on which the the marketing source was seen in the URL.

- **Custom Fields** – The tilda (~) separate string of field name / value pairs. By default WebAbacus will write out the flash version, cookie and Java enablement. For example '~fl~9.0.47~je~1~ce~1'.

In addition to the fields captured by the WebAbacus tag code, the raw web logs should be configured to log:

- **User Agent** – The 'cs(User Agent)' field as defined by most common web servers, such as IIS and Apache. This defines the environment of the client machine, such as the Operating System and Browser.
- **Client IP address** – The 'cs-ip' field as defined by most common web servers, such as IIS and Apache.

For further information regarding the WebAbacus tag code, please contact WebAbacus Support using the details below:

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