

SmarterTools Inc.

# SmarterStats vs. Google Analytics

A Comparison of Log File and Script-based Analysis for Accurate Website Statistics

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## Who Should Use This Document

This document provides a comparison of SmarterTools' SmarterStats Web log analytics and SEO software and the Google Analytics website statistics service. The comparison is from the end user's point of view.

## Overview

Regardless of whether a website is designed for a business or individual, it is important to collect and evaluate the site's analytics. At a very basic level, this involves tracking information about unique visits, page views, bounce rates and conversion rates. Analyzing this data will help you predict visitor behavior and modify your website design and/or marketing campaigns for improved success.

## Methods for Gathering Website Analytics

The Web Analytics Association defines Web analytics as “the measurement, collection, analysis and reporting of Internet data for the purposes of understanding and optimizing Web usage.” There are two main methods for collecting website analytics: log file analysis and script-based analysis.

Every time someone visits a website, the Web server records information about every file request, i.e., the HTML files, CSS files, JavaScript files, graphic files, PDF documents, MP3s, etc., and stores them in log files. These log files also include information on site and Web server errors, page processing time, bandwidth used, visitor IP address, referring websites, and much more. Log file analyzers like SmarterStats interpret this data to create website statistics and reports.

Alternatively, script-based analyzers like Google Analytics require the use of tracking code (usually JavaScript) on each webpage that is to be tracked. As visitors surf the website, the code places a cookie on their computer so they have a unique identifier and can be tracked—provided the visitor is using a browser that supports JavaScript, has cookies enabled and is not using security software to protect the browser.

## Log Analyzers vs. Script-based Analyzers

Each method for gathering website analytics has its benefits and drawbacks. For example, script-based analyzers *only* record data from pages that have the JavaScript tracking code; any pages without the code will not have statistics available. This is also one of the reasons log file analyzers report higher traffic (views, visits and hits) than Google Analytics does, as the Web server log files track every interaction visitors have with a website.

Similarly, because log file analyzers process log file data instead of relying on forward-facing JavaScript, they have access to information that script-based analyzers don't (such as data relating to traffic from spiders and bots, server errors and bandwidth statistics).

Please refer to the following tables for further comparison on the strengths and weaknesses of log file analyzers and script-based analyzers.

Log File Analyzers	
Pros	Cons
<ul style="list-style-type: none"> <li>• Access to server-side information (404 pages, 500 errors, time taken, etc.)</li> <li>• Every resource is counted (images, RSS feeds, etc.)</li> <li>• Bandwidth information is available</li> <li>• Since logs are always stored, privacy software is limited in the information it can mask (browser type and referrer)</li> <li>• Provides the most accurate view of what is actually happening on the Web server.</li> <li>• Visits by automated bots are tracked, which can reveal security problems or hack attempts, as well as search engine spider activity.</li> </ul>	<ul style="list-style-type: none"> <li>• Not as good at counting “live” users that may visit the website via proxies</li> <li>• No intrinsic ability to report on browser-side data (resolution, number of colors, etc.)</li> </ul>

Script-based Analyzers	
Pros	Cons
<ul style="list-style-type: none"> <li>• More accurate “live” visitor count (for webpages only), if all pages are tagged correctly</li> <li>• Access to browser-side data</li> </ul>	<ul style="list-style-type: none"> <li>• Anti-spyware software and security software now block JavaScript callback methods, leading to untracked users</li> <li>• No server-side information about the website can be collected</li> <li>• Requires more maintenance to get the site set up for analytics</li> <li>• Potential for forgetting to tag some pages with the tracking code, resulting in lost/incomplete analytics</li> <li>• No method for tracking items like downloads or RSS traffic</li> <li>• No information is stored on the server</li> <li>• No way to detect abusers/hack attempts</li> <li>• No access to historical data. Statistics start on the date the tracking code was implemented; data prior to that date is unavailable</li> </ul>

## SmarterStats and Google Analytics Feature Comparison

Please refer to the chart below for a comparative list of key features available in SmarterStats and Google Analytics:

Features	SmarterStats	Google Analytics
Install and manage on your own server(s)	•	
Can be used on firewall-protected corporate Intranet	•	
Ability to reprocess historical data (from log files)	•	
Ability to process/reprocess log files locally	•	
Ability to collect information through tags		•
Reports on spider and bot activity	•	
Reports on server errors and status codes	•	
Tightly integrated with Google AdWords		•
Ability to report on paid search campaigns	•	•
Ability to report on banner and traditional marketing campaigns	•	•
Geo-targeted reporting	•	•
Visitor session/navigation path analysis	•	•
Access to raw data for custom report-building	•	
SEO reports to analyze search engine ranking	•	
Competitor analysis reports	•	
Free	• <sup>1</sup>	• <sup>2</sup>

<sup>1</sup> SmarterStats Free edition is available for download from the SmarterTools website. However, SmarterStats Free is limited to a single site and the number of SEO keywords and competitors tracked in SEO campaigns is limited to a maximum of 10 keywords and 10 campaigns.

<sup>2</sup> Google Analytics limits the number of hits (pageviews) it will track for free. Larger sites with high traffic counts are required to link an active Google Adwords account that has at least one active and running campaign that is subject to a minimum budget of \$1 per day. That boosts the cost of Google Analytics to a minimum of \$30 per month for larger sites that want to continue collecting analytics once they reach the maximum number of monthly hits.

## Accuracy of Statistics from SmarterStats and Google Analytics

As previously discussed, users of both analytics program may notice reporting discrepancies, particularly in regards to visitor counts. Because of the limitations of script-based analytics, Google Analytics will underreport or misrepresent some website statistics. Consider:

- When comparing data on website visits, it is important to realize that SmarterStats and Google Analytics process data at different intervals. Google Analytics uses a 30-minute window while SmarterStats uses a 20-minute idle timeout window. For this reason, SmarterStats will report a higher number of visits for visitors that keep the browser window open but do not navigate to new pages within the window.
- Look at the referral reports in SmarterStats. Are there any referrals listed that are part of the base domain (i.e., IP addresses or aliased domains)? These referrals are not available in Google Analytics reporting.
- Hits from people “borrowing” content from your website. Are people linking directly to documents or images on your website? SmarterStats counts any request for those files as visits and hits; Google never reports them because JavaScript can’t be placed on files, just HTML pages.

In the end, SmarterStats provides more accurate website statistics than Google Analytics because SmarterStats reports *all* requests to the server, not just what is tagged with tracking code.

## Glossary

The following is a list of acronyms used in this document.

<b>CSS</b>	Cascading Style Sheets	<b>HTML</b>	HyperText Markup Language
<b>IP</b>	Internet Protocol		

## Important Notice

The recommendations in this document reflect the opinions of its author(s) only and are based upon their knowledge and experience. No warrantee or guarantee is expressed or implied as to the efficacy or viability of the information in this document for a particular environment or application. SmarterStats, SmarterTools, and their respective logos are trademarks of SmarterTools Inc. All other trade-names and/or trademarks in this document are the property of their respective owners.

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