SmarterStats

Help Documentation

SmarterStats Help

Welcome to the SmarterStats Help System.

The tree menu on the left offers links to various pages that can help guide you through a better understanding of what SmarterStats is and how it works. This documentation is also broken down by role, and has pages that correspond to sections within the SmarterStats web interface. Reviewing these pages will help you use SmarterStats more effectively, and each page is linked from within SmarterStats itself: either by clicking on any ? icons on modal windows, or using the "Online Help" link that appears when you click on your avatar. Whichever method you use, you'll be taken to the page in help that directly corresponds to the page you're on.

At the top of each help page, there are links that will allow you to do various things: visit the SmarterTools Community, browse the knowledge base, search through the help documentation, print the page you're on, translate the page you're on, or view the entire help as a PDF file.

If you need assistance beyond what's available in this documentation, feel free to contact customer service . We also offer paid support options or you can visit the self-help options available from our portal : the knowledge base and the SmarterTools Community.

Common Help Topics for Users

• Logging in

Common Help Topics for Site Administrators

• Logging in
• User administration

Common Help Topics for System Administrators

• Logging in for the first time
• Installing SmarterStats
• Adding a Site

Getting Started

Now that you have SmarterStats installed, it's time to get things set up. Below are some helpful links to get you started.

If you're not quite to the point of getting SmarterStats installed, that's okay: SmarterTools offers complimentary installation of any new license purchase! You should have seen that as an option when you placed your order but if not, just email us at sales@@smartertools.com and we can help get you scheduled. In addition, SmarterTools offers paid training to help get you on your way to expert mail server management.

Installing SmarterStats

Installing SmarterStats is a relatively simple process. However, we do offer a step-by-step walkthrough of the entire process, from installing the application, installing the Remote Service (if needed) and even walking through the setup wizard.

- Installation Process

Basic Concepts

Once you get SmarterStats installed, it helps to familiarize yourself with the concepts around the concepts around the various features it has to offer. Below are a few things to get you started.

- Understanding Server Logs and SmarterLogs
- Understanding Report Items
- Understanding Views, Visits and Hits
- SmarterStats vs. Google Analytics

Site Administrators

When a new site is added to SmarterStats by a System Administrator, they set up a "Site Administrator". Basically, this is a user who has the ability to manage the site within SmarterStats.

- Logging In
- General Settings
- Email Settings
- User Administration

System Administrators

System Administrators have the overall responsibility of managing the SmarterStats server as a whole. This includes adding new sites, setting up default options for sites and users, and more.

- Logging In
- Adding a Server
- Default Server Settings
- Adding a Site
- Default Site Settings
- General Settings
- Report Settings

General Information

What is SmarterStats?

SmarterStats is a full suite of business analytics tools that helps a business manage its online presence. For example, SmarterStats cost-effectively delivers accurate and detailed website statistics and web log analytics for websites on Windows and Linux web servers. In addition, web developers can use the Site Tuning features to help find issues with how a website is constructed, identify issues such as broken links or multiple redirects, or other issues that can adversely affect how a site is indexed and spidered by Google, Yahoo!, Bing and even international search engines. Finally, Data Mining allows webmasters, marketers and site owners to dig deep into single page analytics to view things like search phrases used, query items and more.

SmarterStats is an ideal platform for any sized business, from a single site running on a single server to tens of thousands of sites across a fully-distributed, multi-platform network. SmarterStats supports numerous log file types such as Internet Information Server (IIS) and Apache on Windows and Linux Web servers. The unique methodology with which SmarterStats interprets and converts log files reduces disk space utilization up to 85% while creating an ideal platform for reporting statistics, data mining, site tuning and search engine optimization reporting.

Professional vs. Enterprise Editions

SmarterStats Professional is built and priced for companies or individuals who support one or more sites on a single server. It includes virtually the same feature-set as the Enterprise version of the product without the support for a distributed environment.

SmarterStats Enterprise is built for companies such as medium to large web hosts, internet service providers, corporations or various other enterprise-level organizations running a distributed network. Using a single web interface plus a Windows service that is installed on each log-generating server, the functionality of SmarterStats Enterprise is optimally distributed across your network to provide advanced features for system administrators and end users alike. This results in fewer software licenses and a reduction in hardware costs associated with additional servers. SmarterStats Enterprise can reduce the number of reporting servers 30-to-1 over competing products.

Finally, SmarterStats Enterprise provides industry-standard web services that allow easy integration into external applications. This means that the vast majority of management tasks associated with providing log analysis (adding or deleting sites and users, etc.) can be fully automated. This drastically reduces the cost of ownership for system administrators. Because of this, SmarterStats is the log analytics package of choice for some of the largest companies in the world.

SmarterStats Edition Explanation

Professional Edition vs. Enterprise Edition

SmarterStats Professional has all the features you need in a complete business analytics solution, including web log analytics, search engine optimization and site tuning. SmarterStats Enterprise offers additional features, including:

- Custom reporting
- Scheduled and on-demand email reports
- Support for up to 30,000 websites spread over multiple web servers per SmarterStats installation
- Reports across distributed networks on a virtually unlimited number of servers
- Propagation of settings across distributed networks

SmarterStats Free

SmarterStats Free includes the same functionality as SmarterStats Enterprise, but does not include support for distributed analysis and is limited to a single site and a single SEO campaign. This is to give you an opportunity to try all the features out before making a decision on which edition to purchase.

Features	Free 1	Pro	Enterprise
Licensing			
Allows for multiple sites per server		•	•
Distributed analysis across multiple servers			•
Business Analytics			
Site activity reports (traffic, visitors, files, paths, referrals, etc.)	•	•	•
Demographic reports (browsers, devices, OS, geographic, etc.)	•	•	•
Server activity reports (includes server utilization breakdown)	•	•	•
Spider and bot reports	•	•	•
Site tuning	•	•	•
Data mining	•	•	•
Administration			

Administration from a Web browser	•	•	•
Getting Started wizard	•	•	•
Support for rotating logs	•	•	•
Auto-detect log file types	•	•	•
Custom skinning	•	•	•
Custom link in Help menu	•	•	•
Review and download log files from interface	•	•	•
Mass propagation of settings for sites	•	•	•
Mass propagation of settings for servers			•
User impersonation	•	•	•
Import site settings directly from IIS	•	•	•
Requires no database backend	•	•	•
Standalone Web server included	•	•	•
Optional IIS integration	•	•	•
Easy site setup	•	•	•
Background processing	•	•	•
Automation with Web services	•	•	•
Architecture and Log Files			
Support for the most common log formats (including .GZ and .ZIP)	•	•	•
Import from multiple log sources	•	•	•
Automated site diagnostics	•	•	•
Compressed SmarterLog files	•	•	•
Low-impact log processing	•	•	•
Load-balanced log headers	•	•	•
Log file exporting	•	•	•

Query variable support	•	•	•
IP and directory exclusions	•	•	•
Distributed log analysis (FTP , Secure FTP , UNC , and SAMBA)	•	•	•
Distributed log analysis (remote agent)			•
Reporting			
Separation of human and spider/bot traffic data	•	•	•
Dual axis charting	•	•	•
Filter sets (exclude and/or include data in reports)	•	•	•
Page aliases	•	•	•
Data drill down available from report items	•	•	•
Define custom reports	•		•
Scheduled and on-demand email reports (in more than 20 different languages)	•		•
Geographic mapping	•	•	•
Custom data ranges	•	•	•
Time-zone specific reporting	•	•	•
Customizable chart views	•	•	•
Export reports to CSV and PDF	•	•	•
Clickable URLs in report tables	•	•	•
Web Interface			
Multi-language compatible	•	•	•
Optimized AJAX controls provide desktop application performance	•	•	•

Compatible with most mobile devices and tablets (iPad, iPhone, Android, etc.)	•		•

1 SmarterStats Free includes the same functionality as SmarterStats Enterprise, but is limited to a single site. This is to give you an opportunity to try all the features out before making a decision on which edition to purchase.

How SmarterStats Works

There are two main components that work together within SmarterStats: the web interface and the SmarterStats Remote Service.

Web Interface

The Web interface is a browser-based administration platform that installs on a single server and supports all users as well as administrators who are managing the usage of the SmarterStats application. End users use the web interface to check statistics, create filters, create custom reports, and more. System and Site Administrators use the web interface to add, delete or move sites, as well as to check various administrative functions.

The web interface resides on the Management and Reporting Server (MRS). SmarterStats can act as a standalone product that gathers and processes log analytics, display reports and more. When used as a standalone, log files are gathered using FTP, FTPs, UNC paths and other methods. The logs are brought to the MRS, then processed and the reports are generated using that data. All of this is handled by SmarterStats. However, users of distributed networks need a more sophisticated approach: they don't want or need one server gathering and processing millions and millions of lines of log data as it can substantially bog down a server. For these types of installations, the Remote Service is used.

SmarterStats Service

The SmarterStats service is responsible for most of the local processing done by SmarterStats. This includes gathering the log information, processing the log information and communicating results back to the web interface for display. With the Enterprise edition, the service can reside on the same machine as the web interface and/or reside on each separate web server as a Remote Service. This is the primary reason a single web interface can handle up to 30,000 individual websites--the majority of information processing is done on each web server via the Remote Service versus processing on the web interface server. In addition, the local service uses available CPU, but at the lowest priority. This means that if any other application (such as IIS) with a higher priority requires CPU cycles, the stats

engine will fall into the background. Setting up a remote service ensures performance of SmarterStats without affecting other applications on the server.

Installation and Deployment

Browser Requirements

SmarterStats is fully supported by the browsers listed below:

- Google Chrome
- Microsoft Edge
- Firefox
- Safari
- Opera

SmarterStats System Requirements

SmarterStats was designed to operate efficiently with multiple applications on the same server, based on the following minimum system requirements:

- Windows Server 2016+ 64-bit
- Microsoft .NET 4.8 Framework
- Dedicated IP Address
- Active internet connection
- Microsoft Internet Information Server (IIS)*
- Minimal IIS Settings

- Application Development Features

- .NET Extensibility
- ASP.NET
- ISAPI Extensions
- ISAPI Filters
- Common HTTP Features

- Default Documents
- Directory Browsing
- HTTP Errors
- Static Content
- Health and Diagnostics

- HTTP Logging
- Request Monitor
- Performance Features

      • Static Content Compression

      • Security

      • Request Filtering

One of the unique benefits of SmarterStats is its ability to manage the resources it consumes. Therefore, the resources used by SmarterStats can be adjusted to work in any environment with a variety of other desktop or server applications. For example: On a machine with multiple applications running, the system requirements can be adjusted to account for a number of different factors on the server such as other processes that are running, the size of individual websites, the amount of traffic, the size of the log files generated and more. For more information, see the various Deployment Guides available.

SmarterStats Enterprise Remote Service

If you are running SmarterStats Enterprise with the remote service, SmarterTools recommends the following requirements:

Windows

      • Windows Server 2008 R2 or higher

      • Microsoft .NET 4.5 Framework (including all applicable service packs and/or patches)

Linux

      • Debian-based: Debian 12+, Ubuntu 20.04+

      • Red Hat-based: RHEL 8+, Fedora 40+, CentOS Stream 9+, AlmaLinux 8.10+, Rocky Linux 8.10+

The remote service can run on any server on which log files reside. It can also use FTP to pull the log files from other servers or it can be configured to pull log files from a network location. Most sites will require the service to use 256MB of RAM or less. However, sites with an abnormal amount of unique page names or sites with extremely large log files (greater than 1GB per day) could require more RAM. Please keep this in mind when looking at a specific web server's hardware configuration (CPU, available memory, etc.).

Important Note: The web interface communicates with the remote service via port 50003. As a result, communication to port 50003 should be open to internal traffic but otherwise firewalled and restricted for any listeners outside the internal network.

Note: Every installation and environment is unique. Extra load caused by excessive volume and/or other factors may require more disk space, memory, database allocation, etc. No warrantee or

guarantee is expressed or implied as to the efficacy or viability of these recommendations for a particular environment or application.

*SmarterStats no longer includes a basic web server. Therefore, IIS is required.

Installation and Upgrade

Installation

SmarterStats comes as a single installation file that contains everything necessary to run the product and get it set up on your server, regardless of the Edition that you intend to use. The features available are based on the license used during the activation process; if no license is entered, the Free Version will be installed. The SmarterStats installer can be downloaded from the SmarterTools website . Before you get started, however, make sure you have reviewed the System Requirements necessary for SmarterStats to run.

Jump to:

> • Installing SmarterStats - This covers installing SmarterStats as your standalone stats processor and Management and Reporting Server (MRS), for use with local log files, log files accessed over FTP (or sFTP), etc.
> • Installing the Remote Service - This covers installing the SmarterStats service that would be placed on any remote web servers. The Service is only available with SmarterStats Enterprise and runs as a standalone stats processor, gathering and processing log files and reducing the load on the primary SmarterStats server.
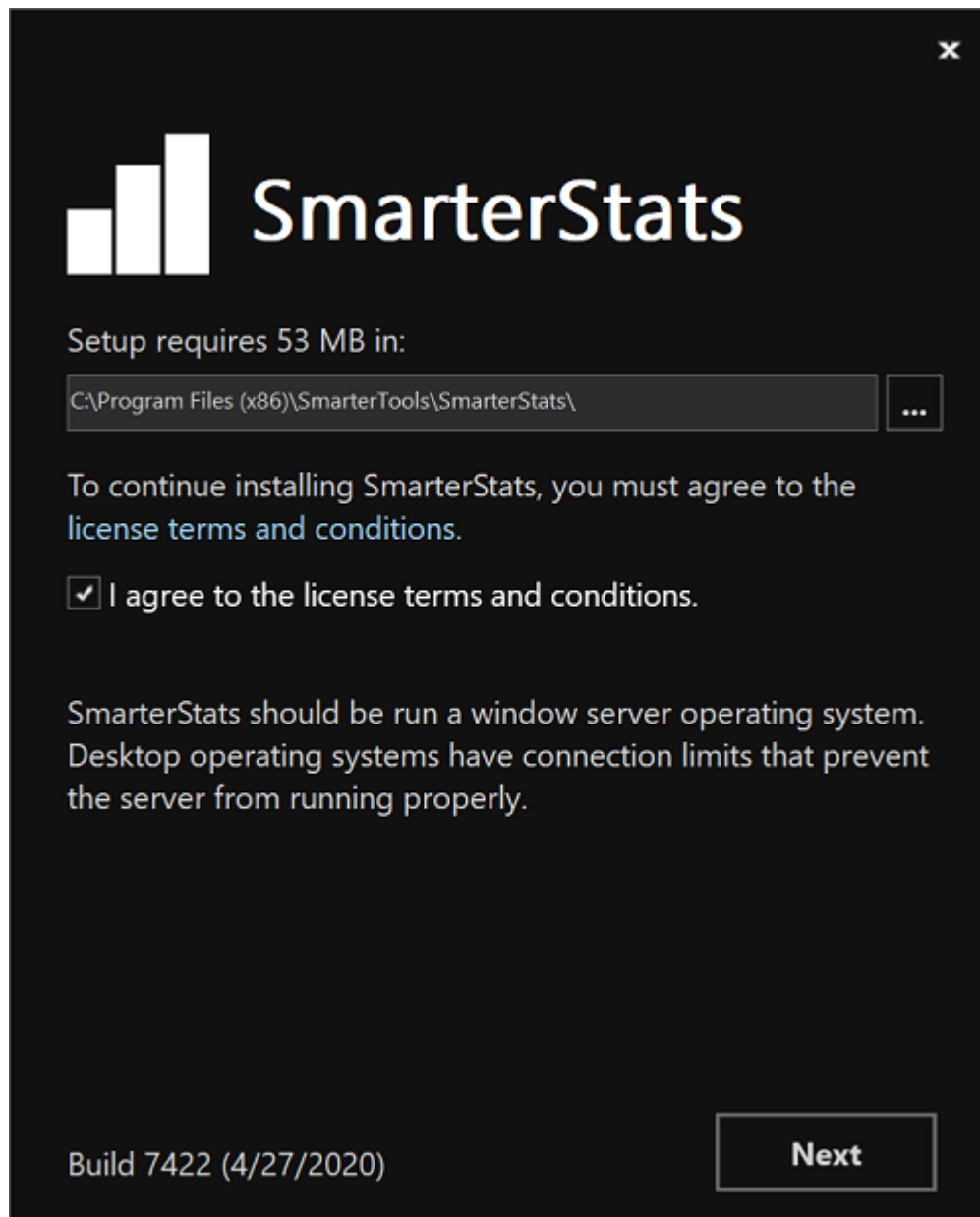
Installing SmarterStats

The SmarterStats installation process is remarkably simple and starts by installing the overall application and application files. This is just like any standard program installation: you start the installation, select the path for the installation and then agree to the SmarterStats license terms and conditions.
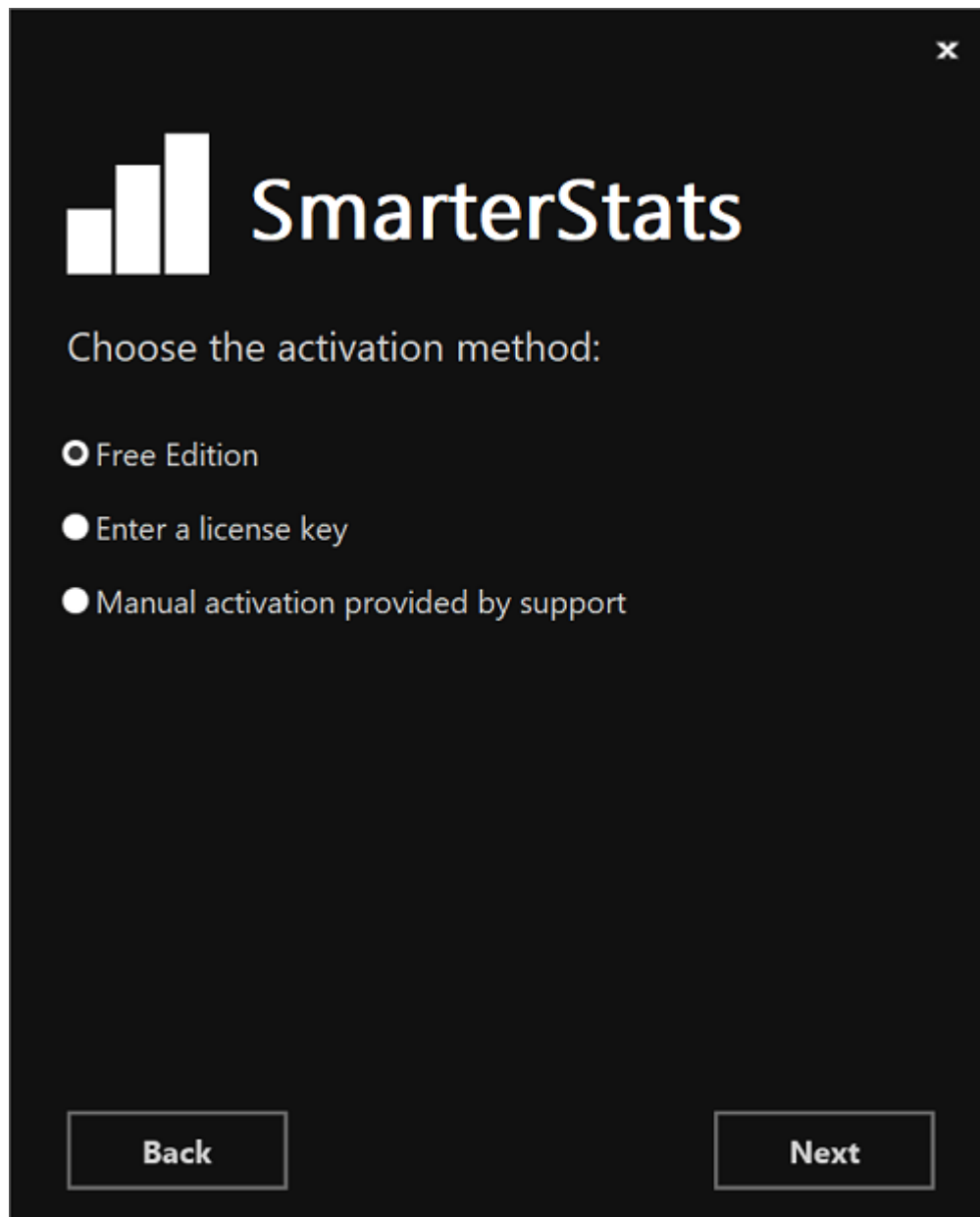
You'll be able to track the progress of the installation as SmarterStats is configured on the server. Once the initial file installation occurs, the next step is walking through the IIS Configuration Tool. This installation process includes:

> • First, you're presented with the default installation path and are asked to agree to the SmarterTools license terms and conditions.• Next, you'll Select your activation method. This includes whether you're installing the Free Edition, whether you have a license key or whether you've been given a manual activation from SmarterTools. Manual activations are used in

circumstances where SmarterTrack will be used on an internal network that has no public access.• Then, the installation process will verify that IIS is installed. If IIS isn't present, the installation will actually install IIS for you as it is a requirement for SmarterStats.

• After the IIS check, a check is performed to see if a SmarterStats site already exists on the server. If not, one can be created. If a site already exists, you can select that site and use it for your installation. Using an existing site is perfect for users who are simply upgrading their installation to the latest version.• If setting up a new site, you set the site name, set you your hostname, select the IP(s) to use for the installation and the file path for the Management and Reporting Server (MRS). If using an existing site, these steps are bypassed; you're asked to select the site you wish to use for the installation.• After setting up your new site, SmarterTrack will create an app pool using that site name, then set up as a site in IIS that uses the new app pool.

• Next, the necessary permissions are set for the site.

• Finally, the installation is verified, and you're presented with the "Ready to Install" page that states the install directory and the licensing information for SmarterStats. If everything looks good, you can press the Install button.• Once everything is verified, the installation occurs. After a successful installation, the Getting Started wizard opens using the server's default browser. (If a default browser is not set, you'll be offered options on which browser to use.)

Setup requires 53 MB in:

C:\Program Files (x86)\SmarterTools\SmarterStats\

To continue installing SmarterStats, you must agree to the license terms and conditions.

☑ I agree to the license terms and conditions.

SmarterStats should be run a window server operating system. Desktop operating systems have connection limits that prevent the server from running properly.

Build 7422 (4/27/2020)

Next
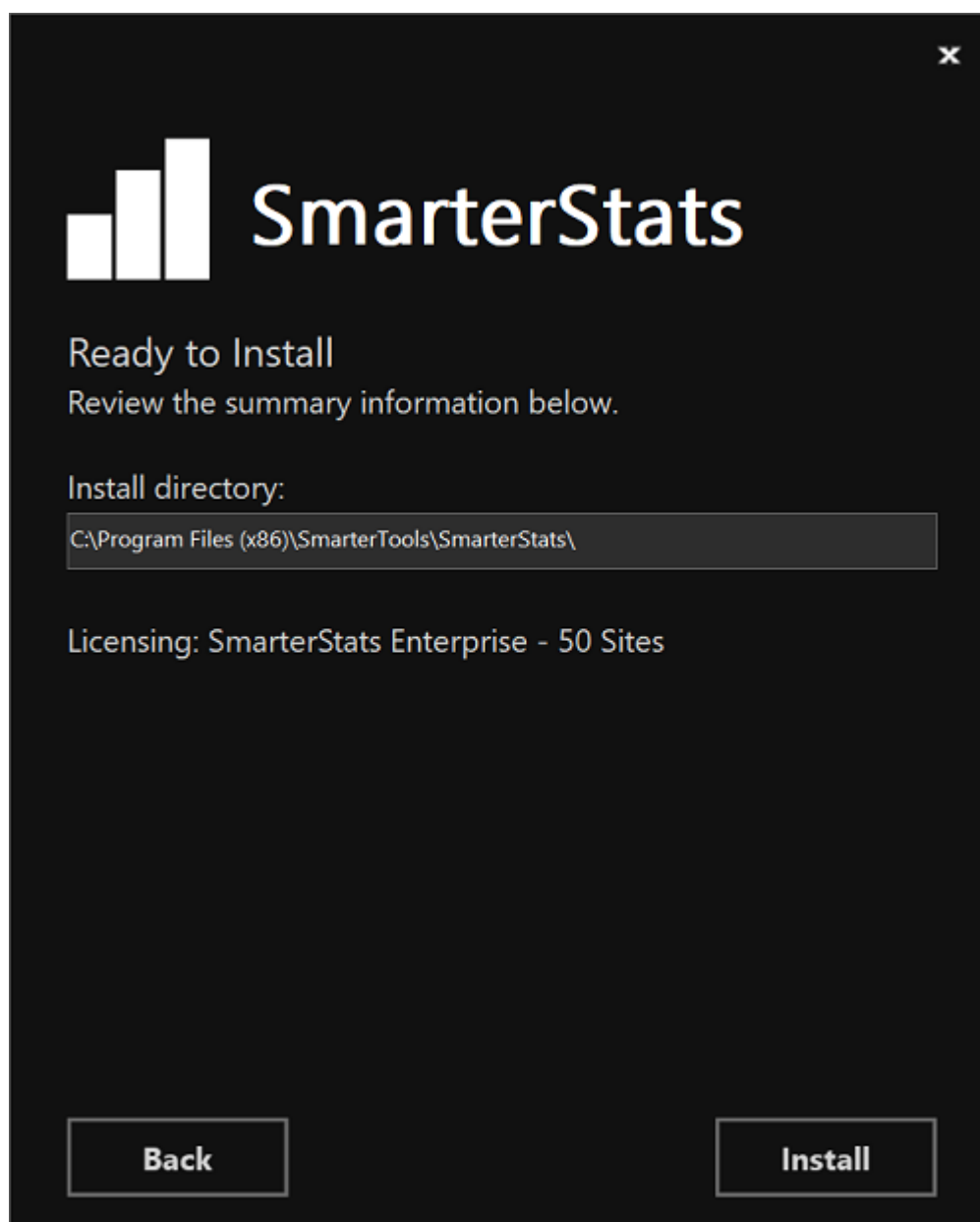
Getting Started Wizard

The Getting Started Wizard is a remarkably simple process that gets SmarterStats up and running on a server. Using it, you walk through the following pages:

> • The first page gives you the ability to begin the setup process. Clicking Begin Setup will configure SmarterStats on the server.• Next, you simply set up your overall System Administrator account and password, then tell SmarterStats where you want the custom SmarterLogs to be stored and the time zone you want to use for displaying report data. (This can be changed on a site-by-site basis, as needed.)• Once this is done, click the Finish button and you'll be logged in to SmarterStats using the System Administrator account you created. From there, you can start adding in websites and start processing log files!

SmarterStats
Web Analytics Software

Online Help

Begin Setup

Installing the Remote Service

NOTE: These instructions are for Windows. For instructions on installing the Remote Service on Linux-based servers, refer to the help topic Installation and Upgrade (Linux)

SmarterStats Enterprise offers System Administrators the ability to install a Remote Service across various web servers so that the majority of the processing of web logs is handled by those remote servers, leaving the primary SmarterStats installation to act as a Management and Reporting Server (MRS), simply gathering the data and displaying reports. This is especially helpful for organizations having multiple websites scattered across multiple web servers, like web hosts, ISPs or enterprise organizations that manage multiple brands or companies.

One thing to note: Before installing the Remote Service, make sure the appropriate version of the .NET Framework is installed on your remote servers. (Take a look at the System Requirements for the proper version.) In addition, the MRS will need to be installed, using the instructions above.

Installing the Service

• Download the Remote Service Installer (.MSI) from the SmarterTools website . (The link to download the installer is under the main Download button.)• Run the installer -- it takes just a

few minutes, and needs to be done on each remote server. NOTE: As the remote service uses an MSI, the installation process can be automated as needed.

• Follow the steps to accept the EULA, choose the installation location, install the service and finish up the installation.

Build 7422
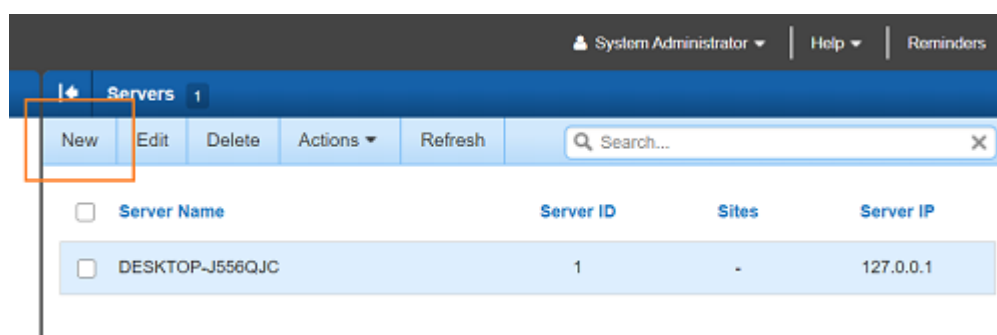
April 27, 2020

Release Notes

Download

Click HERE for the Remote Service Installer

Adding Servers to SmarterStats

Once the Remote Service is installed on your servers, you can begin adding the servers to the MRS. Do the following for each server:

• Log in to SmarterStats as the System Administrator.

• Click the Settings icon.

• Expand the Servers menu, if it isn't already.

• Click on Servers in the navigation pane. The default server the MRS is installed on should show up.

• Click the New button• A pop-out window opens. Complete the following information:

• Server ID - This number auto-increments, but you are able to set it to whatever you like.

• Server IP - The IP address of the server the Remote Service is installed on.

• Server Name - A friendly name associated with the server. This can be the internal server

name (e.g, Web01), the site(s) on the server (e.g., Lincoln Financial sites), etc.

• Regarding Import Settings , if you want the stats to process on the servers independently -- for example, the server is in a geographically different location than the MRS -- the Import Settings can be configured on a server-by-server basis to account for these types of differences. Otherwise, they'll use the default settings.

• Be sure to save your settings prior to closing the pop-out window.

Installation and Upgrade (Linux)

SmarterStats requires a Windows server to be used for the main web interface, but if you use Enterprise Edition, you may install the Remote Service to allow processing of logs on Linux-based servers as well.

NOTE: These instructions are for Linux. For instructions on installing SmarterStats on Windows-based servers, refer to the help topic Installation (Windows)

SmarterStats comes as a single installation file that will automatically download and install the appropriate operating system components required to run the SmarterStats Remote Service on your server.

Jump to:

- Installing SmarterStats Remote Service on Linux
- Upgrading SmarterStats Remote Service
- Uninstalling SmarterStats Remote Service
- Manually Installing SmarterStats Remote Service
- Adding Your Remote Service to SmarterStats

Installing SmarterStats Remote Service on Linux

Run the following in bash command to download and run the SmarterStats installer, which will download and install the current build. Replace the XXXX with the build number you wish to install (a full list of versions is available on the SmarterStats Release Notes page):

```
wget https://downloads.smartertools.com/smarterstats/100.0.XXXX/smarterstats_XXXX \
&& chmod +x smarterstats_XXXX \
&& sudo ./smarterstats_XXXX install Copy
```

This bash command will download and run the SmarterStats installer. This includes setting up all folders and directories needed to run SmarterStats. Therefore, it's just like any standard program installation.

Upgrading SmarterStats

To upgrade SmarterStats, first, backup your SmarterStats installation or take a snapshot of your VM.

Run the following in bash command to download and run the SmarterStats installer, which will download and upgrade the current SmarterStats build. Replacing the XXXX with the build number you wish to install. Yes, this is the same exact bash command that you use to install SmarterStats originally.

```
wget https://downloads.smartertools.com/smarterstats/100.0.XXXX/smarterstats_XXXX \
&& chmod +x smarterstats_XXXX \
&& sudo ./smarterstats_XXXX install Copy
```

Uninstalling SmarterStats

To uninstall SmarterStats, run the following in bash command, in the folder where you downloaded the SmarterStats installer. If you do not have the installer still, you can download it again using the wget and chmod commands in the installation section above.

```
sudo ./smarterstats_XXXX uninstall Copy
```

Manually Installing SmarterStats

To manually install SmarterStats — generally when automating the installation process or installing via scripts — do the following:

• First, you want to download the installer:

```
wget --timeout=6000
https://downloads.smartertools.com/smarterstats/100.0.XXXX/smarterstats_XXXX
```

• Next, download the ZIP package, which contains all of the files necessary to install SmarterStats:

```
wget --timeout=6000
https://downloads.smartertools.com/smarterstats/100.0.XXXX/smarterstats_XXXX.zip
```

• Create a folder called "ss-install-data"

```
mkdir ss-install-data
```

• Then, you'll want to move and rename the ZIP file you downloaded to that new folder:

```
mv smarterstats_XXXX.zip ss-install-data/ss.zip
```

• Now you can run the installer:

```
sudo ./smarterstats_XXXX install
```

• The last step is cleaning up your downloads, otherwise the next upgrade may fail:

```
sudo rm -rf ss-install-data
rm -f smarterstats_*
```

That should do it. SmarterStats is installed and ready for any future upgrade/update.

Things to Know

By default, files are stored in the following locations:

- System Configuration Files - /etc/smartermail
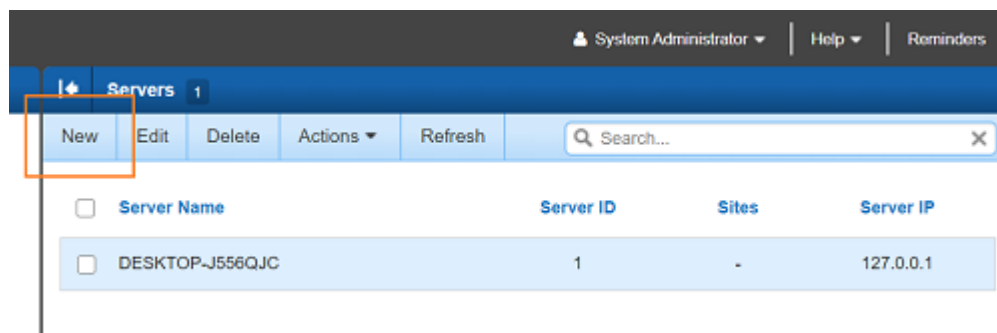- SmarterMail Data Files - /var/lib/smartermail

Additionally:

- The Release Notes for all major and minor versions of SmarterMail, as well as Release Notes for all current Builds, are available on the SmarterMail Release Notes page of our website. It's a great idea to familiarize yourself with all the changes that have been made to SmarterMail between the version you're on and the version you'll BE on once you've upgraded.
- If you are upgrading an installation that utilizes a license key, you WILL need to re-activate that key once the upgrade completes. Please be aware that license keys pertain to the version of SmarterMail you're running as well as the maximum version of SmarterMail you CAN run — you cannot activate a key on a more recent version of SmarterMail if your key does not support that version. However, all license keys are retroactive for previous versions. *@

Adding Your Remote Service to SmarterStats

Once the Remote Service is installed on your servers, you can begin adding the servers to the MRS. Do the following for each server:

- Log in to SmarterStats as the System Administrator.
- Click the Settings icon.
- Expand the Servers menu, if it isn't already.
- Click on Servers in the navigation pane. The default server the MRS is installed on should show up.
- Click the New button• A pop-out window opens. Complete the following information:

• Server ID - This number auto-increments, but you are able to set it to whatever you like.

• Server IP - The IP address of the server the Remote Service is installed on.

• Server Name - A friendly name associated with the server. This can be the internal server name (e.g, Web01), the site(s) on the server (e.g., Lincoln Financial sites), etc.

• Regarding Import Settings , if you want the stats to process on the servers independently -- for example, the server is in a geographically different location than the MRS -- the Import Settings can be configured on a server-by-server basis to account for these types of differences. Otherwise, they'll use the default settings.

• Be sure to save your settings prior to closing the pop-out window. function GenerateCodeBlocks() { let elements = document.getElementsByName('install_code'); elements.forEach(element => { element.innerHTML = GetInstallScript(); }); elements = document.getElementsByName('uninstall_code'); elements.forEach(element => { element.innerHTML = GetUninstallScript(); }); } function GetInstallScript() { let version = 'XXXX'; let text = `wget https://downloads.smartertools.com/smarterstats/100.0.${version}/smarterstats_${version} \\ \n` + ` && chmod +x smarterstats_${version} \\ \n` + ` && sudo ./smarterstats_${version} install`; return text; } function GetUninstallScript() { let version = 'XXXX'; let text = `sudo ./smarterstats_${version} uninstall`; return text; } document.addEventListener('DOMContentLoaded', GenerateCodeBlocks);

Activating SmarterStats

In order for SmarterStats to function for more than a single site the product must be activated using a valid license key. In addition, if SmarterStats is moved to another server or assigned to a different database, the product may need to be reactivated.

To access the product activation wizard, first log in as a system administrator and click the Settings icon. Then click Licensing in the navigation pane. The edition and license level information for the version of SmarterStats currently being used will load in the content pane.

To activate or reactivate a valid license key, click the Activate or Reactivate button in the actions toolbar. (You need to Activate new licenses, but if you move SmarterStats to a new server or modify

the license level, you will need to Reactivate.) Note: Activation of a license key requires the server to contact SmarterTools over port 443 (HTTPS). Please ensure that any firewall or internet security software you have installed allows an outgoing TCP port 443 request.

Return to Getting Started

Upgrading SmarterStats

Because the SmarterStats download contains all of the installation files needed for any licensing level or edition, upgrading editions or levels is relatively easy. With a valid license key, companies can easily upgrade from the Professional to Enterprise edition or increase the number of sites allowed in SmarterStats by simply activating the upgraded license key. For more information, see the Activating SmarterStats help page.

Before getting started, there are a few things worth noting

- SmarterStats Enterprise users that have installed the remote service on machines other than the Web interface server should update the remote service before updating the main SmarterStats server.
- When upgrading SmarterStats you may notice a difference in statistics. Please refer to the Differences in Reported Numbers Between SmarterStats Versions knowledge base article for more information.
- If you're utilizing UNC paths in your SmarterStats environment for log collection that have folder permission restrictions in place, please take note of the account that the SmarterStats collection service is running under within the Windows Services console. When performing the uninstall\reinstall the SmarterStats service is re-registered and will be running under the local system account. This will need to be reset, otherwise access to the UNC paths may become unavailable and prompt the site with a permissions' error.
- Before following the instructions in this article, make sure the appropriate Microsoft .NET Framework is installed for the version to which you will be upgrading, based on the version's System Requirements .

Upgrade Process

The upgrade process for SmarterStats is very, very simple:

- Download the most recent automated installer from the SmarterStats Download Page of the SmarterTools website.
- Back up your SmarterStats installation and data. This is simply a precaution.
- Uninstall your current version of SmarterStats using Add/Remove Programs. Only system files are uninstalled -- no data files are touched during this.

• Stop the SmarterStats site in IIS and its associated App Pool.

• Run the SmarterStats installer.

• During the installation process you will be prompted for the installation path. Install along the existing file path to keep data and settings. (The default installation location is C:\Program Files\SmarterTools\SmarterStats.)

• Once the upgrade finishes, simply restart the SmarterStats site IIS and its associated App Pool.

SmarterStats Deployment Guide

Introduction

Who Should Use This Document

This document is intended for use by all users of SmarterStats to help determine the most effective architecture to gather statistics on their websites and/or in hosted environments.

Determining the Required Architecture

The authors have chosen to divide their recommendations into four categories: individual website deployments, low-volume deployments, medium-volume deployments, and high-volume and specialized deployments. For the purposes of these recommendations:

• Individual website deployments are those in which the Free edition of SmarterStats is utilized to gather statistics on one domain either locally or on a remote, hosted server.
• Low-volume deployments are those where a purchased edition of SmarterStats is reporting on up to 250 websites—based locally and/or on remote servers delivering log files to the SmarterStats server for analysis.
• Medium-volume deployments are those in which a purchased edition of SmarterStats is reporting on up to 2,000 websites from multiple remote Web servers and/or locally hosted websites.
• High-volume and specialized deployments are those in which a higher-level Enterprise edition of SmarterStats is reporting on tens of thousands of websites per Management Reporting Server (MRS) across potentially distributed networks in a variety of methods.

If you have questions about which category may be the best one for your environment, contact sales@@smartertools.com for additional information and assistance.

Calculating Disk Space Requirements

SmarterStats uses advanced data storage techniques that enable it to store log files as relational files (called SmarterLogs) that are faster to query and much smaller than the original log files. On average,

SmarterStats can store the same log data in 10% to 15% of the hard disk space required by the original log files.

SmarterStats can also export log data to the original log format, eliminating the need to keep raw log files for extended periods of time, resulting in a substantial savings in disk space usage. In most cases, customers actually free up hard drive space on their servers when using SmarterStats instead of taking additional space.

In distributed installations, the MRS is a Web reporting engine that only serves as a request/response engine. It is for this reason that an MRS can handle up to 30,000 websites in a single installation. The MRS itself does not store any imported log data (unless there are sites on the MRS being processed). Log data on distributed Web servers is contained on the remote service installations.

Understanding CPU Requirements

SmarterStats was engineered to process statistics quickly, and to reduce CPU requirements when other processes are running. This allows SmarterStats to run on the Web server without negatively affecting the performance or delivery of the websites on the server.

If the server is dedicated to SmarterStats, or if the server is used strictly as a SmarterStats collector (described herein), the authors recommend allocating additional CPU capacity to the SmarterStats and/or collector processes to increase performance. For instructions on how to make this change, please refer to the Knowledge Base article Configure SmarterStats to Use More/Less System Resources .

Recommended CPU requirements for medium and high-volume deployments are included in this section. However, it should be noted that the following recommendations are estimates based on the average utilization by an average number of sites with an average number of hits. System administrators may need to adjust their CPU requirements based on their site and/or server needs.

CPU Requirements for MRS

MRS fall into three different categories: Web servers reporting on up to 250 sites; high-volume MRS that do not act as collectors and process a maximum of 30,000 sites; and high-volume MRS acting as a collector for a maximum of 1,500 sites and reporting on a maximum of 30,000 total sites.

For Web servers reporting on up to 250 sites, the authors recommend a single-core 1.5 GHz processor.

For high-volume MRS that do not act as collectors and process a maximum of 30,000 sites, the authors recommend a single-core 1.5 GHz processor.

The authors also recommend a dual-core 2.5 GHz processor for high-volume MRS that act as a collector for up to 1,500 sites and report on a maximum of 30,000 total sites.

CPU Requirements for Collectors

The authors recommend a single-core 1.5 GHz processor for collector servers that perform no other tasks besides processing log files from a maximum of 2,000 sites.

Web Servers Using Remote Agents

The authors recommend a dual-core 2.5 GHz processor for individual Web servers running remote agents for up to 1,000 websites.

## Individual Websites (SmarterStats Free Edition)

The free edition of SmarterStats can be used to collect statistical data for a single website. In this case, SmarterStats needs to be installed on a user's PC. In the scenario below, the user has a hosted website so the website's log files need to be downloaded via FTP and then imported into SmarterStats. Once the importing process is complete and the SmarterLog files are created, website traffic reports can be generated and viewed via the PC's Web browser.

Remote Web Server and Local SmarterStats Installation
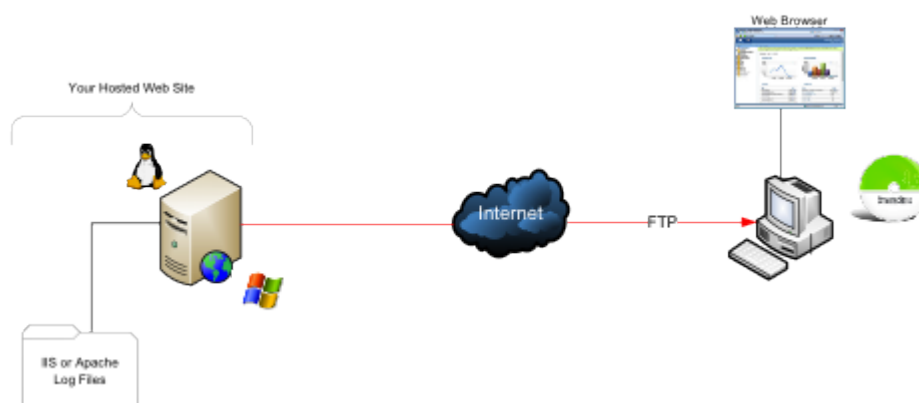
Local Website and SmarterStats Installation

In this scenario, SmarterStats is installed on the same PC or server as the website. This eliminates the need to download the log file via FTP since the website log files are stored locally.
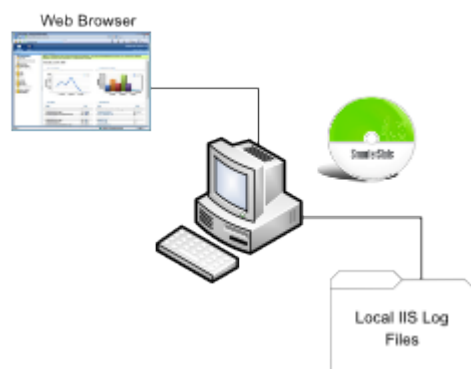
System Recommendations

The authors recommend the following hardware for SmarterStats local machines (PCs):

- 512 MB RAM
- 100 MB hard disk space (only allows for SmarterStats, .NET Framework and small website logs)
- IIS 7* or higher with the Microsoft .NET 4.5 Framework (with all applicable service packs and/or patches)
- Windows Server 2008 R2 64-bit or higher
- The Web interface supports the following browsers:

- Internet Explorer 8 and higher
- Firefox 4 and higher
- Google Chrome 2 and higher
- Opera 10 and higher
- Safari 1.7 and higher

*SmarterStats includes a basic Web server so that the product is fully functional upon installation—even without the existence of IIS or other Web servers. Although not required in single-site and low-volume installations, it is recommended to install IIS 7 or higher in place of the SmarterStats Web server for increased performance and security.

Low-volume Deployment (One Web Server)

Low-volume deployments are those in which a purchased edition of SmarterStats is reporting on up to 250 websites—based locally and/or on remote servers delivering log files to the SmarterStats server for analysis.

SmarterStats Professional or Enterprise Edition

SmarterStats is installed directly on the Web server where it can import the locally stored IIS log files.
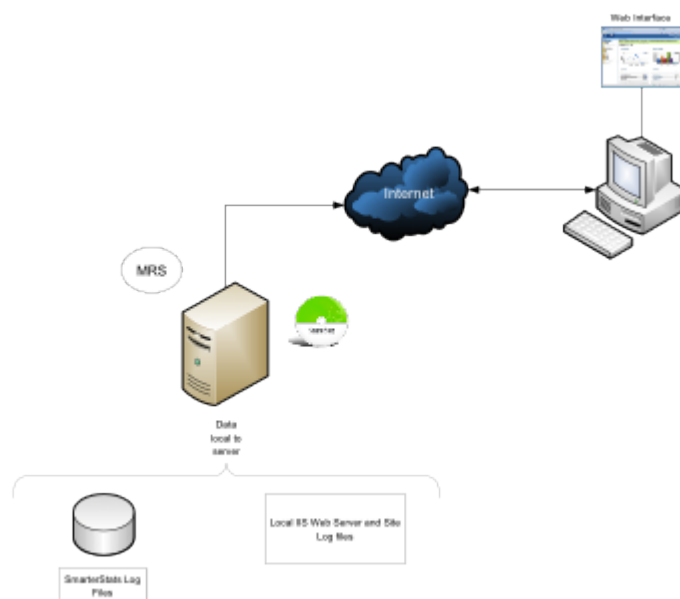
System Recommendations

The authors recommend the following hardware for SmarterStats local servers:

- Windows Server 2008 R2 64-bit or higher
- 1 GB RAM
- 1/5 of the total disk space that would be required to store the raw LOG formats
- IIS 7 or higher

Medium-volume Deployments (Multiple Web Servers)

Medium-volume deployments are those in which a purchased edition of SmarterStats is reporting on up to 2,000 websites from multiple remote Web servers and/or locally hosted websites.

SmarterStats Professional with Shares

SmarterStats Professional can import website logs files from Windows IIS Web servers via UNC Shares or FTP server. In addition, SmarterStats can import log files from Linux Apache servers via Samba Shares and FTP server.

System Recommendations

The authors recommend the following hardware for SmarterStats medium-volume distributed networks:
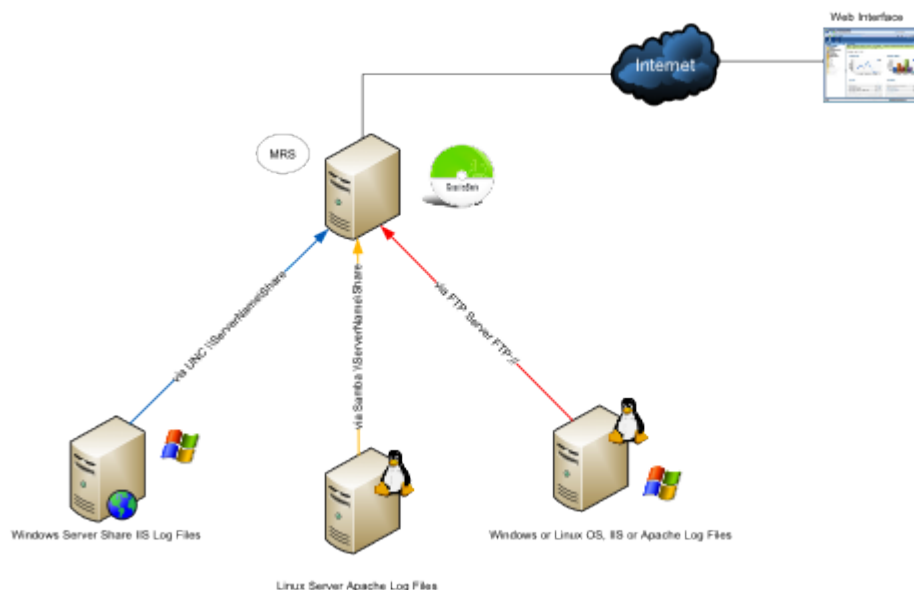
- Windows Server 2008 R2 64-bit or higher
- 1 GB RAM
- 1/5 of the total disk space that would be required to store the raw LOG formats
- IIS 7 or higher

SmarterStats Enterprise Edition

This configuration shows SmarterStats Enterprise edition's flexibility. The imports log files from Linux Apache Web servers via Samba Shares and FTP servers. In addition, SmarterStats receives reports from the SmarterStats Remote Service running on Windows Web servers. MRS

Running the SmarterStats Remote Service on the Windows Web server is the most efficient configuration in terms of speed and system utilization.
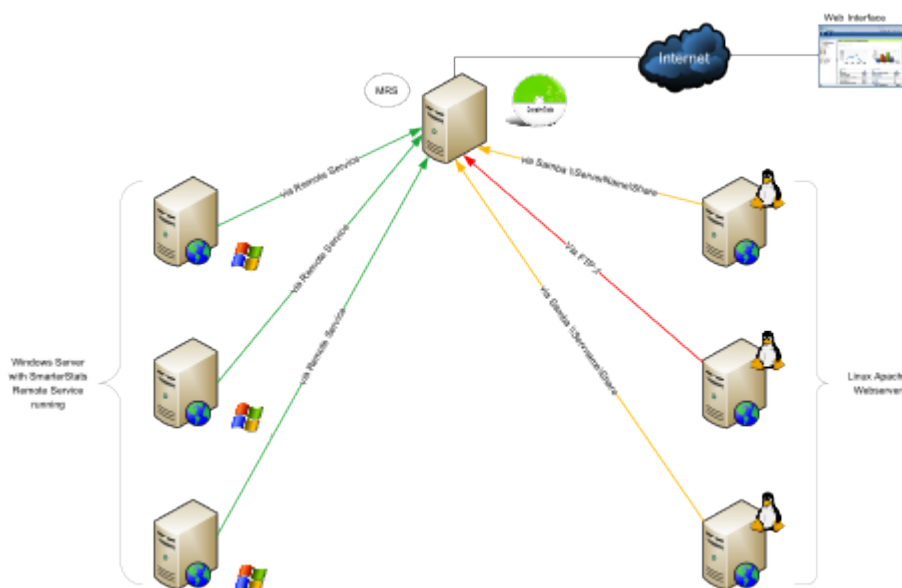
System Recommendations

The authors recommend the following hardware for SmarterStats Enterprise medium-volume distributed networks:

MRS

- Windows Server 2008 R2 64-bit or higher
- 1 GB RAM
- 200 MB hard disk space
- IIS 7 or higher

Web Servers Using Remote Agents

- 2 GB RAM
- 1/5 of the total disk space that would be required to store the raw LOG formats
- Microsoft .NET 4.5 Framework (including all applicable service packs and/or patches)
- Windows Server 2008 R2 64-bit or higher

Note: For ease of installation on Web servers and collectors, an automatable setup package containing just the remote service is available as a separate download.

High-volume and Specialized Deployments

SmarterStats Enterprise Edition with Servers Running in a Collector Role

In this configuration, all collectors are Windows-based servers running the SmarterStats Remote Service. Each collector imports data from other Windows IIS Web servers via UNC Shares or FTP servers. Other collectors can import logs from Linux Apache Web servers via Samba Shares or FTP Server.

This method is highly efficient and all SmarterStats log files are created and stored locally. The MRS is only used as the customer user interface when reports are requested from the collectors and then displayed.

System Recommendations

The authors recommend the following hardware for SmarterStats Enterprise high-volume collector networks:

MRS

- Windows Server 2008 R2 64-bit or higher
- 1 GB RAM
- 200 MB hard disk space
- IIS 7 or higher

Collector Servers

- 4 GB RAM
- 1/5 of the total disk space that would be required to store the raw LOG formats
- Microsoft .NET 4.5 Framework (including all applicable service packs and/or patches)
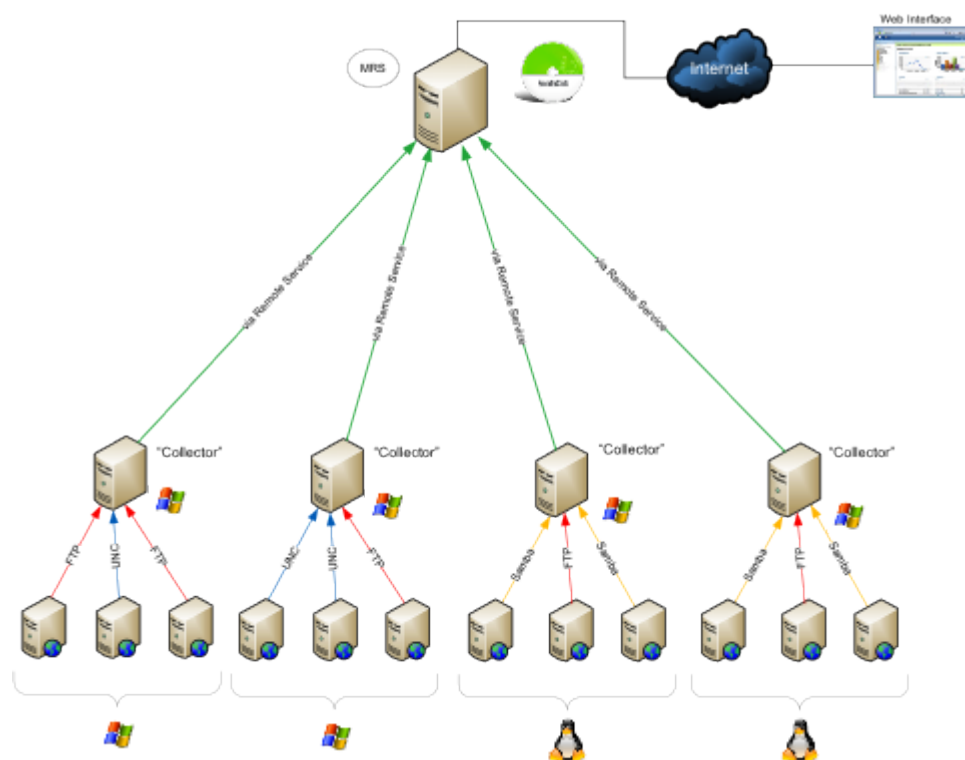- Windows Server 2008 R2 64-bit or higher

Note: For ease of installation on Web servers and collectors, an automatable setup package containing just the remote service is available as a separate download.

SmarterStats Enterprise Edition Hybrid

This configuration demonstrates the power and flexibility of SmarterStats in its ability to import and provide website statistics from many different sources.

System Recommendations

The authors recommend the following hardware for SmarterStats Enterprise high-volume networks with multiple data collection methods:

MRS

- Windows Server 2008 R2 64-bit or higher
- 1 GB RAM
- 200 MB hard disk space
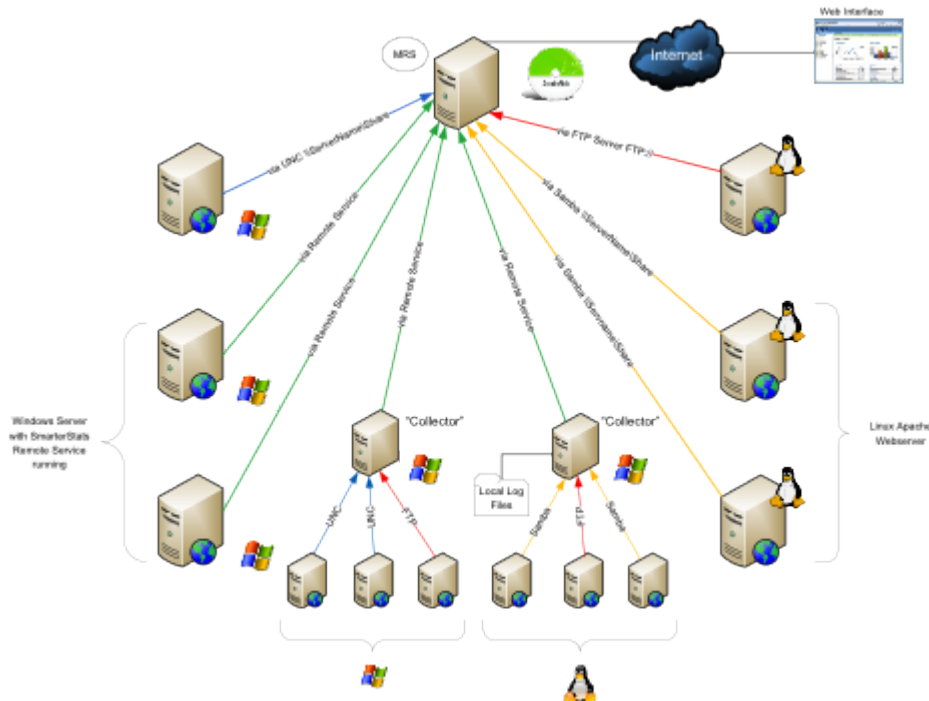- IIS 7 or higher

Collector Servers

- 4 GB RAM
- 1/5 of the total disk space that would be required to store the raw LOG formats
- Microsoft .NET 4.5 Framework (including all applicable service packs and/or patches)
- Windows Server 2008 R2 64-bit or higher

Web Servers Using Remote Agents

- 4 GB RAM
- 1/5 of the total disk space that would be required to store the raw LOG formats

- Microsoft .NET 4.5 Framework (including all applicable service packs and/or patches)
- Windows Server 2008 R2 64-bit or higher

Note: For ease of installation on Web servers and collectors, an automatable setup package containing just the remote service is available as a separate download.

Load-balanced Websites (Clustering) for High Traffic Websites

A load-balanced (clustered) website is one in which a single website is distributed across more than one server. Another common term for this type of structure is "Web farm". This technique is utilized by very high-volume websites, websites that have particularly high up-time requirements, and/or other mission-critical functions that require fail-over resilience exceeding the norm.

There are two common methods of load-balancing: session-based and hit-based. Each method requires following different steps to ensure SmarterStats analyzes the data correctly. Note: The load-balanced deployment is recommended for users of SmarterStats 4.x and earlier. Because the latest versions of SmarterStats allow importing from multiple log sources, this deployment solution does not apply to users of SmarterStats 5.x and later.

Session-based Load Balancing

Session-based load balancers attempt to keep all traffic for a specific visitor on the same server. This is known as "persistence" or "stickiness."

The following steps explain how to copy and rename logs from per-session load-balanced servers to a single server so that SmarterStats can import them. You can alter or adjust these steps to accommodate particular requirements as needed.

On each of the load-balanced servers, do the following:

- Make a new directory on the C: drive called C:\SmarterStatsLogFileMerge
- Create a new batch file using notepad called DoLogFileMerge.bat that contains the code below (all one line).

```
XCOPY "C:\WINDOWS\system32\Logfiles\W3SVC1\*.LOG" "
\\SmarterStats\Logs\Site1\*.LOG_A " /D /Y
```

Note 1: This code assumes that your original logs on this server are contained at C:\WINDOWS\system32\Logfiles\W3SVC1, that SmarterStats is running on a remote server called file://smarterstats/, and that the share \Logs\Site1 is where the logs should be copied to on that server.

Note 2: The file mask *.LOG_A below should be different for each server. For example, other servers may be *.LOG_B, *.LOG_C, etc.
- Save the file and exit Notepad.

• Go to Start –> Programs –> Accessories –> System Tools –> Scheduled Tasks

• Add a new scheduled task.

• Click Browse and click the newly created batch file.

• Choose the frequency of the copy you want. Most will want to set this to Daily, starting around 1:00 AM.

• Enter a username and password for a user that has permission to copy to the share you made.

• Save the scheduled task.

• Test the scheduled task by right-clicking it and choosing Run. After it runs, ensure that the logs were successfully copied.

Hit-based Load Balancing

A hit-based load balancer distributes all requests evenly across its websites. For example, a visitor requesting a Web page may receive the HTML from one server and images from one or more other servers. This is the best performing style of load balancing, but it results in stats that are difficult to track because of time differences and delays in logging the data.

If your website is load balanced and separate log storage locations appear on different servers, you will need to manually combine the logs so that SmarterStats can treat them as one website. To do this, you will need a third-party log combining tool, of which many are available and can be found by searching Google.

Additional information regarding this process and aggregation tools may be available within the SmarterTools Knowledge Base and/or community forums accessible through the Support Portal .

Search Engine Optimization

NOTE: SEO features were removed from the most current version of SmarterStats due to limitations imposed by Google.

Users of SmarterStats 5.x to 11.x benefit from the software's search engine optimization (SEO) tools, which help SEO analysts and webmasters monitor SEO campaigns and enhance optimization efforts. SEO processing is performed by the SmarterStats service and each service is limited in the amount of processing it can complete each day.

SEO Processing

In order to retrieve SEO statistics, SmarterStats needs to retrieve search pages from the supported search engines. In order to avoid getting blocked by search engines, page retrievals are limited to one page every 2 minutes. For this reason, the number of page retrievals SmarterStats can do for a specific search engine is limited to 30 per hour (or 720 per day).

In addition, the number of page retrievals is different for each type of SEO statistic:

- Each keyword added for a site requires 10 page retrievals.
- Each competitor added for a site requires two page retrievals for visibility statistics and one page retrieval for the Google PageRank statistics, resulting in three total page retrievals per competitor.
- Each SEO collection also tracks the user's site, resulting in two page retrievals for visibility statistics and one page retrieval for the Google PageRank statistics (or a total of three page retrievals).

For example, let's assume a SmarterStats site administrator adds two SEO campaigns. The first campaign has four keywords and three competitor sites. The second campaign has six keywords and two competitor sites. The number of page retrievals required is calculated as follows:

Campaign 1				
4 keywords	X	10 page retrievals per keyword	=	40 keyword page retrievals
3 competitor sites	X	3 page retrievals per competitor	=	9 competitor page retrievals
1 local site	X	3 page retrievals	=	3 local site page retrievals

At 2 minutes per page retrieval, it would take 1 hour and 44 minutes to process the SEO statistics for this campaign.

Campaign 2				
6 keywords	X	10 page retrievals per keyword	=	60 keyword page retrievals
2 competitor sites	X	3 page retrievals per competitor	=	6 keyword page competitor
1 local site	X	3 page retrievals	=	3 local site page retrievals

At 2 minutes per page retrieval, it would take 2 hours and 18 minutes to process the SEO statistics for this campaign.

In this example, it would take 4 hours and 2 minutes to process the SEO statistics for the site.

By default, sites are limited to five competitors and five keywords, as a large number of keywords and competitors for a single site could severely limit the processing time available for other sites. SmarterStats installations with a large number of sites should keep these limits low. However, installations with only a few sites may wish to greatly increase these limits.

As a final note to SmarterStats Enterprise users: Because the processing is done by the SmarterStats service (not the website), an Enterprise version of SmarterStats with 30 remote servers can support 30 times as much SEO processing as a single SmarterStats server.

Summary

The proper configuration and system architecture outlined in this document will provide a solid, reliable foundation. Because variations exist due to different volumes and client needs, the authors suggest starting with these recommendations and then adjusting server proportions, limits, and specifications based on the usage patterns that result.

Automation with Web Services

SmarterStats was built with custom configuration and integration in mind. Developers and/or system administrators have the ability to perform operations on the SmarterStats installation using web services to automate a variety of different functions and tasks normally available through the product interface.

The Automation with Web Services documentation may include services that have not been released to the public yet or are not available in the version you are using. For the most accurate web services information, log into SmarterStats as the system administrator and click the settings icon . Then click Web Services in the navigation pane.

Note: Web services are intended for use by high-volume and automated businesses environments and hosting companies as they develop procedures to automate their SmarterStats system and workflow. In addition, this document assumes a basic understanding of web service technologies programming techniques.

Interface Diagrams

SmarterStats User Interface

To better understand the different areas of the user interface, please refer to the diagrams below.

Navigation Pane

The Navigation Pane is used throughout SmarterStats and provides the page options available to users, depending on the section of reports or settings they're in.

Traffic Trend

Visitors Trend

Top Pages

Top Directories

Top Documents

Top Downloads

Top Dynamic Pages

Top Images

Top Files

Top File Types

Page Bounces

Entry Files

Entry Pages

Exit Pages

Content Pane

The Content Pane is also used throughout SmarterStats and is where reports, pages, etc. are presented to users.
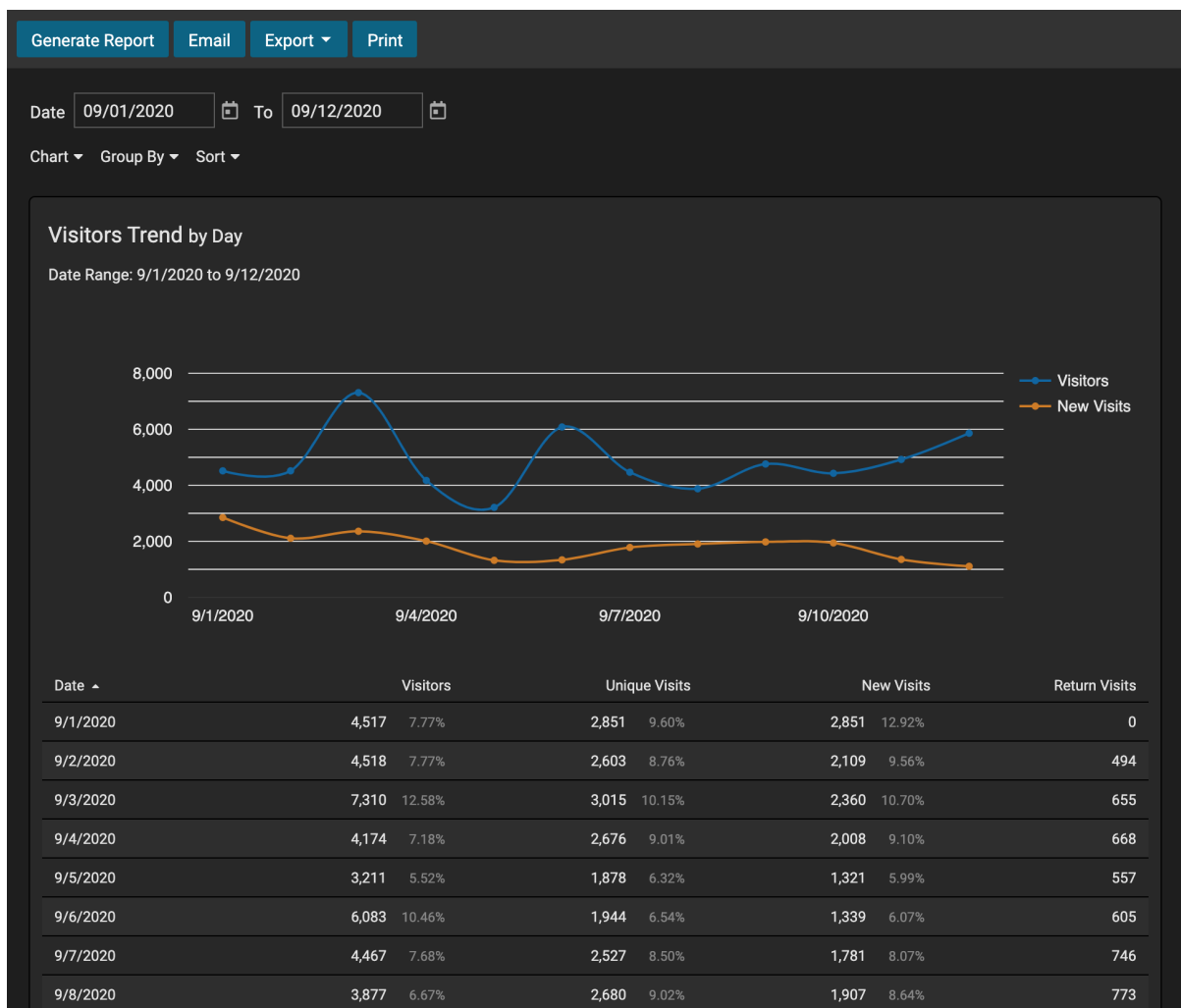
Toolbar

The Toolbar is the last piece of the interface that spans all pages in SmarterStats. It provides the buttons and actions for interacting with the information available on the Content Pane.

Report Options

As the name implies, Report Options are only available for reports. They give users the ability to modify the data displayed (e.g., change date ranges) as well as how the data is displayed (e.g., bar chart, area chart, etc.).

Concepts

Understanding Server Logs and SmarterLogs

SmarterStats was developed for a wide variety of users, from the webmaster with one or two sites to large-scale enterprises with 10,000 sites. With this philosophy in mind, SmarterStats incorporates a data structure that reduces the amount of raw log files stored on a web server.

In a nutshell, SmarterStats acts like an optimized file-based relational database by taking traditional web server log files and segregating redundant data. This step alone can reduce log file sizes up to 80%. Additionally, SmarterStats compresses the already small SmarterLogs even further, adding another 5-10% reduction in the size of the log files. This allows system administrators to easily archive, or even delete, the original log files created by the web server to conserve disk space on the server. However, if the original logs are ever needed, SmarterLogs can easily be exported in their original format.

Because the unique architecture results in smaller log files and smaller disk space requirements, the benefits include:

- Less disk space is required for log file storage
- Less backup space is required for backing up log files
- Shorter download times for clients
- Faster data queries and faster display times
- Faster backup schedules
- Lower overhead for monitoring backups
- Lower initial hardware investment

Supported Log Files

SmarterStats supports these common log file types: W3C, IIS, NCSA, NCSA Extended, Apache, Apache NCSA, and IPlanet Common Logs. Compressed logs in .GZ or .ZIP format are also supported. Rotating logs are also supported as of SmarterStats 8.x.

Understanding Report Items

SmarterStats breaks down virtually every report available within the interface into individual report items, which are considered to be the backbone of the SmarterStats application. Most of these report items display only one type of information pulled from the site's log files or Site Tuning reporting, and typically contain a single table of information and a chart, when applicable. Examples include Top Pages, Referring Sites, Issues by Type and more.

Custom reports are user-created reports that combine a number of individual report items into a single, comprehensive report to meet your business needs. For more information on custom reports, see Custom Reports .

Understanding Visits, Views, and Hits

A visit occurs when an individual or search engine spider comes to your website and looks around a bit. That person or bot may go to one page or may go to 100 pages. However, that visit happens only once per day.

A view refers to the number of pages that were seen during that visit.

A hit refers to the number of physical resources requested from the server during that visit. Pages are made up of many items like images, audio files, video files and even text. Each of those items that are presented to the visitor count as a hit, while the overall view is the presentation of the page in its entirety.

Imagine going to a convenience store and picking up a magazine to buy. You're essentially "visiting" the magazine simply by picking it up. While looking through the magazine, you flip through, looking at various pages, which are your page "views". Each page you look at has text and some pictures, and probably a few ads. Each of these items are "hit" simply by showing up on the page. Taking this all into account, you have one visit, you view many pages of the magazine and incur various hits based on the text and images you see on those pages.

So which value is more useful? It depends on the use of the information. If you're in marketing and you're striving for bragging rights or high activity numbers, use hits. However, if you are using your stats to actually identify trends and the personal impact of your site, use views and visits. Hits can always be inflated artificially by adding a few more images to a page, for example. Visits and views, however, represent people coming to your site and the number of webpages they saw, which is much more useful for analyzing usage patterns.

SmarterStats vs. Google Analytics A Comparison of Log File and Script-based Analysis for Accurate Website Statistics

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, MP3 s, 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	

• Access to server-side information (404 pages, 500 errors, time taken, etc.) • Every resource is counted (images, RSS feeds, etc.) • Bandwidth information is available • Since logs are always stored, privacy software is limited in the information it can mask (browser type and referrer) • Provides the most accurate view of what is actually happening on the web server. • Visits by automated bots are tracked, which can reveal security problems or hack attempts, as well as search engine spider activity.	• Not as good at counting "live" users that may visit the website via proxies • No intrinsic ability to report on browser-side data (resolution, number of colors, etc.)	

Script-based Analyzers		
Pros	Cons	

• More accurate "live" visitor count (for webpages only), if all pages are tagged correctly • Access to browser-side data	• Anti-spyware software and security software now block JavaScript callback methods, leading to untracked users • No server-side information about the website can be collected • Requires more maintenance to get the site set up for analytics • Potential for forgetting to tag some pages with the tracking code, resulting in lost/incomplete analytics • No method for tracking items like downloads or RSS traffic • No information is stored on the server • No way to detect abusers/hack attempts • No access to historical data. Statistics start on the date the tracking code was implemented; data prior to that date is unavailable	

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	•	
Competitor analysis reports	•	
Free	• 1	• 2

1 SmarterStats Free edition is available for download from the SmarterTools website. However, SmarterStats Free is limited to a single site.

2 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
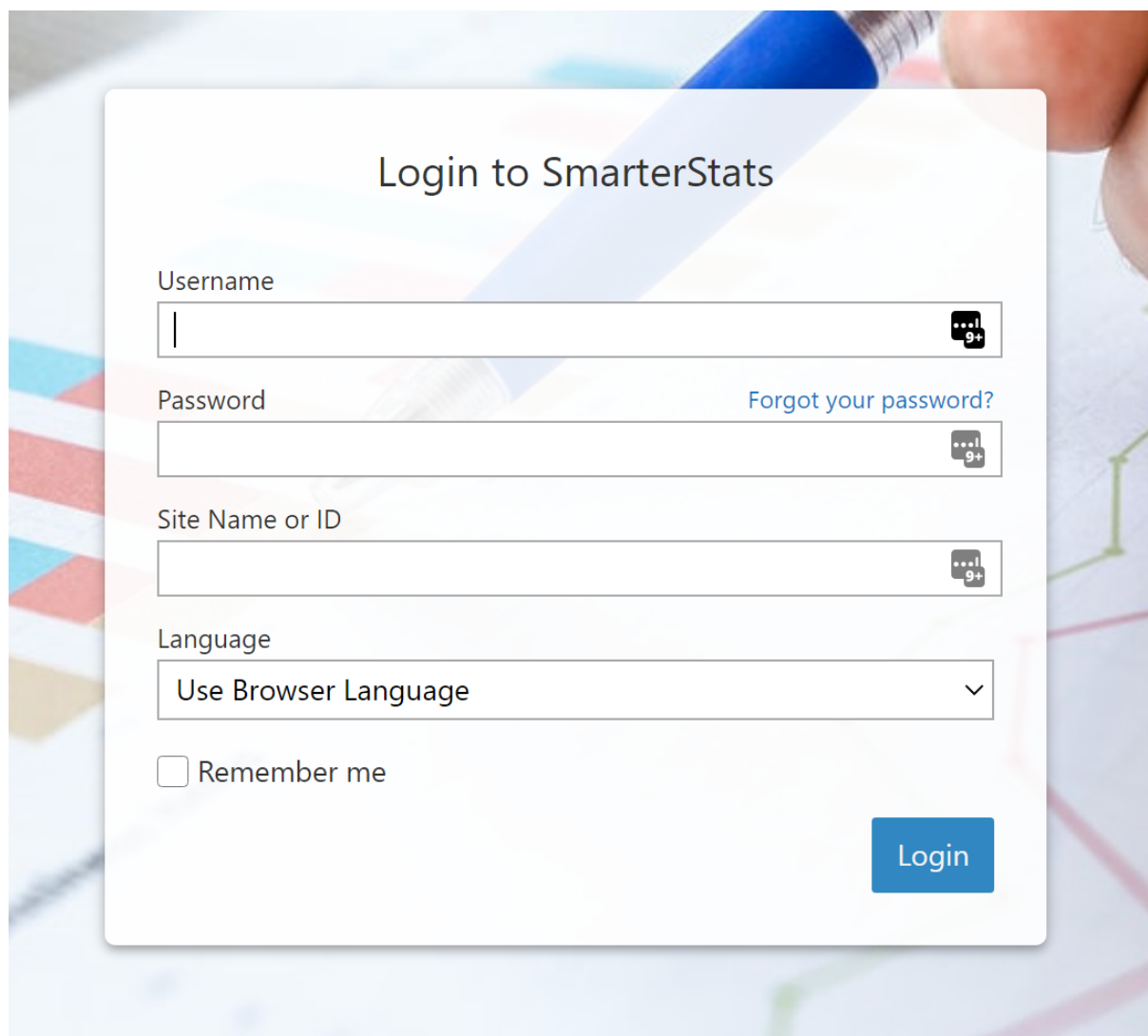
and hits; Google never reports them because JavaScript can't be placed on files, just HTML pages.

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.

Help for Users & Site Administrators

Logging into SmarterStats

Users will need to obtain the link to the SmarterStats web interface login page and their Site ID from their System Administrator. System Administrators can simply use their system admin login and leave the Site ID blank. To log into SmarterStats, type the username, password, and Site Name or ID in the appropriate fields and click Login .

To stay logged into SmarterStats even after closing the browser, be sure to select the Remember Me checkbox. This will allow SmarterStats to encrypt the username and password. This feature works as long as you do not log out of SmarterStats prior to closing your browser window. Note: Browser cookies must be enabled for this feature to work.

Site Activity

Traffic Trend

This report displays your overall website activity (page views, visits, hits, and bandwidth) for the selected date range. Note: You can specify how data is displayed (hourly, daily, weekly, etc.) by using the Group By report option.

If you change any variable information in this report (date range, chart type, etc.) you will need to click the Generate Report button in order for those changes to take effect. You may also email the report, export the report data in CSV or PDF format, or print the report from this page.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Visitors Trend

This report displays information about your website visitors for the selected date range. Note: You can specify how data is displayed (hourly, daily, weekly, etc.) by using the Group By report option.

If you change any variable information in this report (date range, chart type, etc.) you will need to click the Generate Report button in order for those changes to take effect. You may also email the report, export the report data in CSV or PDF format, or print the report from this page.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Top Pages

This report displays the most popular pages of your website, as determined by the total number of page views and visits each page receives.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

> • Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more. For more information, see the Data Mining overview .

• Open URL - Opens the item in a new window.

• Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37. For more information, see the Page Alias overview .

• View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Top Directories

This report displays the website directories that received the most page views. Site administrators and users can use this report to determine the most popular areas of a website.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Top Documents

This report displays the most frequently downloaded documents on your website. Note: By default, SmarterStats considers the following extensions to be documents: .CHM, .DOC, .PDF, .PS, .RTF, .TXT, .XLS, .XML. However, the system administrator may set up additional extensions as documents.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

• Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more. For more information, see the Data Mining overview .

• Open URL - Opens the item in a new window.

• Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For

example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37. For more information, see the Page Alias overview .

• View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Top Downloads

This report displays the most frequently downloaded files on your website. By data mining this report item, site administrators and users can identify the websites/pages that referred visitors to these files. Note: By default, SmarterStats considers the following extensions to be downloads: .ASF, .AVI, .DOC, .EXE, .GZIP, .MP2, .MP3, .MPEG, .MPG, .MSI, .MSP, .QT, .QTM, .RA, .RAR, .SWF, .TAR.BZ, .TAR.BZ2, .TAR.GZ, .WMA, .WMF, .WPD, .ZIP. However, the system administrator may set up additional extensions as downloads.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

• Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more. For more information, see the Data Mining overview .
• Open URL - Opens the item in a new window.
• Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37. For more information, see the Page Alias overview .
• View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Top Dynamic Pages

"Dynamic pages" are those pages, most often associated with an ecommerce site, that depend on specific variables to display information. Things such as product name, model number, manufacturer, etc. and be used in a page's path to extract information from a database to display a page that matches whatever is sent with the URL query. These variables are also called "query variables" for this very reason. This report displays the most frequently viewed query variables on your website. An important step in optimizing the performance of your website is to identify the most commonly accessed query variables and speed up the script execution on those pages.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

> • Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more. For more information, see the Data Mining overview .
> • Open URL - Opens the item in a new window.
> • Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37. For more information, see the Page Alias overview .
> • View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Top Images

This report displays the most frequently downloaded image files on your website. Use this report to reduce bandwidth usage on your site by identifying the images that are downloaded most often and optimizing their size. If an image is getting excessive hits, use data mining to identify the direct referrals of the image. This will help you determine if another site is hot-linking to your images. Note: By default, SmarterStats considers the following to be images: .BMP, .CDR, .CGM, .DIB, .EPS, .GIF, .ICO, .IMG, .JAS, .JPEG, .JPG, .PCX, .PIC, .PNG, .PSD, .TIF, .TIFF. However, the system administrator may set up additional extensions as images.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

- • Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more. For more information, see the Data Mining overview .
- • Open URL - Opens the item in a new window.
- • Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37. For more information, see the Page Alias overview .
- • View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Top Files

This report displays the most frequently accessed files on your website, regardless of the file extension. That includes any documents, images, downloads or query variables as defined in their respective Report Items.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over

a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

- • Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more. For more information, see the Data Mining overview .
- • Open URL - Opens the item in a new window.
- • Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37. For more information, see the Page Alias overview .
- • View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Top File Types

This report displays the most popular file extensions on your website, as determined by hits and visits.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Page Bounces

This report displays the pages on which visitors landed and left without navigating to other pages of your site. Site administrators and users can use this report to identify which pages should be optimized to provide the best visitor experience. For example, if a landing page was created to draw visitors into a website and then guide them to other pages or products, but this page has a HIGH bounce rate, that means visitors are coming to the page but then leaving the site rather than exploring further. Therefore, the page should be reviewed and revised to better encourage visitors to visit other pages of the site, view other products, etc.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row containing the Page name. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

- • Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more.
- • Open URL - Opens the item in a new window. For more information, see the Data Mining overview .
- • Set Page Alias - Allows users to set a friendly name for sometimes complex Page URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37. For more information, see the Page Alias overview .
- • View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Entry Files

This report displays the top entry files (the first files downloaded by a visitor during a visit to your website) for the selected date range. Depending on the optimization of the site or the scripting used, any file extension can be the first file that loads. However, image files are often listed as the top entry files, as there are various scripts that enable image files to load in a browser prior to an actual page displaying.

This report is most useful to designers and developers. If the initial files are images or other files that can be larger in size, it is a good indication that designers may want to optimize those files to keep page load times as fast as possible.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row containing the Page name. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

• Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more. For more information, see the Data Mining overview .

• Open URL - Opens the item in a new window.

• Set Page Alias - Allows users to set a friendly name for sometimes complex Page URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37. For more information, see the Page Alias overview .

• View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Entry Pages

This report displays the pages visitors used most frequently to enter your website. Site administrators and users can use this report to identify which pages can be optimized to provide the best visitor experience or to draw traffic to other areas of the site. In addition, if landing pages were created for marketing efforts, this report can give an indication of how well (or not so well) those marketing efforts are attracting visitors.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row containing the Page name. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

• Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more. For more information, see the Data Mining overview .

• Open URL - Opens the item in a new window.

• Set Page Alias - Allows users to set a friendly name for sometimes complex Page URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables

such as ProductID=37. For more information, see the Page Alias overview .

• View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Exit Pages

This report displays the pages on which visitors most frequently left your website. Site administrators and users should review the pages that appear near the top of this list and determine how to change these pages to better retain visitors. This report can be used in conjunction with the Page Bounces report to see where your site is losing traffic and can give some indications about how to better retain visitors.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row containing the Page name. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

• Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more.

• Open URL - Opens the item in a new window. For more information, see the Data Mining overview .

• Set Page Alias - Allows users to set a friendly name for sometimes complex Page URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37. For more information, see the Page Alias overview .

• View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Paths

This report displays the most frequent traffic patterns of your website visitors. When a visitor moves from page to page within a site, they generate a specific path for their movement. For example, if a visitor enters your site via the Default.html page, clicks on a link to Product.html, then proceeds to Order.html, and they finally leave via Thank_you.html, they generate the following path: default.html/product.html/order.html/thank_you.html.

Single-hit paths near the top of the list should be investigated as potential areas for optimization, as they sometimes indicate a lack of interest-generating content or a bad visitor experience (slow load times, bad design, cultural issues, etc.).

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Search Engine Breakdown

This report displays the number of visits referred to your website by each search engine. By default, SmarterStats keeps a list of more than 100 different search engines. SEO analysts can use this report to determine which search engines are directing the most traffic to a website. Knowing this information can give a good indication of how effective search engine optimization efforts are across different search engines.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Phrases

This report displays the most popular search phrases used to find, and access, your website. The phrases listed can be single keywords or long-tail keywords. This report is useful for not only determining the phrases used to find your site via a search engine, but also determine the effectiveness of search engine optimization efforts. If a marketing department optimizes for the phrase "log analytics software", but that phrase is not a top search phrase, that is an indication that either a) the optimization efforts aren't effective, or b) that the phrase being optimized is not a good one to target.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Phrases by Source

This report displays the most popular search phrases used to find, and access, your website by search engine. The phrases listed can be single keywords or long-tail keywords.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Keywords

This report displays the most popular search words that were used to find, and access, your website. The words listed can either be individual keywords used in searches or search phrases broken down into individual words. This report is useful for not only determining the keywords used to find your site via a search engine, but also determine the effectiveness of search engine optimization efforts.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Keywords by Source

This report displays the most popular search words used to access your website by search engine. The words listed can either be individual keywords or search phrases broken down into individual words.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Authenticated Users

This report displays information about website visitors that logged into the site using authentication. Note: Scripted authentication like ASP.NET forms authentication or database mechanisms do not count as authentication. Typically, authentication must be administrated on the Web server.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

IP Addresses

This report displays information about the IP addresses that accessed your website during the selected date range. The IPs are listed in descending order based on the number of page views generated by the IP. This report can prove useful if, for example, your site is under attack. Seeing an IP that counts for a large number of visits can help you determine who your attacker is (or at least his proxy). The IP address can then be handed off to a Server Administrator or security team to assist with mitigating the attack.

Each row returned in this report can be further analyzed by SmarterStats. By hovering your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining and View Details.

> • Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row, including the top files and paths from IP addresses. For more information, see the Data Mining overview .
> • View Details - Displays a number of details about the specific item, including DNS resolution and statistics.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Return Visits

This report displays the number of times website visitors returned to your site during the selected date range. To get the most accurate view of the information, use larger date ranges when viewing this report.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Views per Visit

This report displays the correlation between the number of page views and the number of visits made during the specified date range.

If you visit a site multiple times (regardless of the timeframe between visits), your IP is still counted as a single visit. However, the different pages you access during your various visits are counted

individually as different views. Therefore, one visit can account for one, 10, or a 1,000 different views. As way of explanation, say you have 200 visits that generate 50 views. This means that 200 different IPs have all viewed 50 pages each.

As a general rule-of-thumb, if you have the highest number of visitors only viewing a single page, run the Top Entry Pages report and identify ways to carry visitors to other areas of your site.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Visit Length Trend

This report displays the average visit lengths for the selected date range. Visit lengths are counted in seconds from the moment a website session starts to the moment it ends. A short visit length means you're not holding the attention of your website visitors, so some effort needs to be made to increase the amount of time visitors spend on your site. Note: You can specify how data is displayed (hourly, daily, weekly, etc.) by using the Group By report option.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Referring Sites

Any time a visitor comes to your site, chances are they came from somewhere else. The site that they come from, therefore, is called the "referring site". This report shows you the domain name or IP address that referred a visitor to your site, in descending order, based on the number of times that domain name or IP referred visitors to your site. Note: This report will not display if a valid URL is not configured for the site.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Referring Links

Any time a visitor comes to your site, chances are they came from somewhere else. The link or URL the visitor clicked on to get to your site, therefore, is called the "referring link". This report displays the referring full URL, including any query strings that may be available, that referred a visitor to your

site. Statistics are displayed in descending order, based on the number of times that URL was the referrer. Note: This report will not display if a valid URL is not configured for the site.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

In-Site Referrers

Referring URLs are those that send you traffic. Many times, the referring URL can come from your own website. For example, when someone clicks from one page to another within your site by clicking on a link, page name or other navigation device. This report displays the in-site URLs that referred a visitor to your site, in descending order, based on the number of times that URL was the referrer. Note: This report will not display if a valid URL is not configured for the site.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Demographics

Browsers

This report displays the most popular browsers used by your visitors during the selected date range. Webmasters can use this report to ensure that their website loads properly in all of the browsers used by your visitors. Conversely, if a particular browser becomes less and less popular, or disappears completely from this report, designers can potentially remove any custom coding added to a site specifically for that browser or browser version.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Browser Versions

This report displays the most popular versions of browsers used by your website visitors during the selected date range. Webmasters can use this report to ensure that their website loads properly in all of the browsers used by your visitors. Conversely, if a particular browser version becomes less and less

popular, or disappears completely from this report, designers can potentially remove any custom coding added to a site specifically for that browser version.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Mobile Devices

This report displays the mobile devices used by website visitors during the selected date range. It can be used to better understand the type of traffic that a site receives. For example, if a marked increase in mobile browsing is noticed, changes to the site may need to be made to accommodate that shift.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Device Versions

This report displays the most popular versions of the devices (mobile or desktop) used by your website visitors during the selected date range. Webmasters can use this report to ensure that their website loads properly in all of the devices used by your visitors. In addition, this report can be used to better understand the type of traffic (e.g., mobile versus desktop) that your site receives. If a marked increase in mobile browsing is noticed, changes to the site may need to be made to accommodate that shift.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Operating Systems

This report displays the most popular operating systems used by your website visitors during the selected date range. In addition, this report can be used to better understand the type of traffic (e.g., mobile versus desktop) that your site receives. If a marked increase in mobile browsing is noticed, changes to the site may need to be made to accommodate that shift. Note: Some user agents, such as Microsoft Web Service Client, do not send information about the platform they are running on. In those cases, they will be categorized as "unknown" in this report.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Operating System Versions

This report displays the most popular versions of operating systems used by your website visitors during the selected date range. Webmasters can use this report to ensure that their website loads properly in all of the operating systems used by your visitors. In addition, this report can be used to better understand the type of traffic (e.g., mobile versus desktop) that your site receives. If a marked increase in mobile browsing is noticed, changes to the site may need to be made to accommodate that shift.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

User Agents

A user agent is the raw information relating to the visitor connecting to your site. Whenever someone, or some thing, connects to your website, they are passing information pertaining to the agent used to connect to your site. While most see Internet Explorer as the method of connection, a Web server sees something like: mozilla/4.0 (compatible; msie 6.0; windows nt 5.0). This is the user agent. Web browsers, search engine spiders and robots, and various website monitoring tools all have specific user agents.

This report displays information about the user agent and is most commonly used by advanced users and website developers. For example, this report can be used to determine the proportion of users that are using traditional Web browsers versus accessing your site via mobile phone or other devices.

In addition, the user agent string is one of the criteria by which Web crawlers can be excluded from certain pages or parts of a website using the robots.txt file. This allows webmasters to request exclusion of individual webpages or directories from the data gathered by a particular crawler, or when a particular crawler is using up too much bandwidth, by requesting that crawler not to visit certain pages.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

World Countries

This report shows the traffic from the countries of the world, with the highest activity country being listed first. The countries that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular country it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a version of the website specifically for visitors from that country.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

African Countries

This report shows the traffic from the countries of Africa, with the highest activity country being listed first. The countries that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular country it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a version of the website specifically for visitors from that country.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Asian Countries

This report shows the traffic from the countries of Asia, with the highest activity country being listed first. The countries that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular country it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a version of the website specifically for visitors from that country.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

European Countries

This report shows the traffic from the countries of Europe, with the highest activity country being listed first. The countries that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular country it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a version of the website specifically for visitors from that country.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

North American Countries

This report shows the traffic from the countries of North America, with the highest activity country being listed first. The countries that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular country it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a version of the website specifically for visitors from that country.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Oceanic Countries

This report shows the traffic from the countries of Oceania (i.e., Australia, New Zealand, Tasmania, etc.), with the highest activity country being listed first. The countries that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular country it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a version of the website specifically for visitors from that country.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

South American Countries

This report shows the traffic from the countries of South America, with the highest activity country being listed first. The countries that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular country it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a version of the website specifically for visitors from that country.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

United States

This report shows the traffic from the states of the United States of America, with the highest activity state being listed first. The states that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular state it may be worth starting a PPC campaign to further increase that traffic or, if the business has a brick-and-mortar storefront, exploring the possibility for opening a business in that state.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Canadian Provinces

This report shows the traffic from the provinces of Canada, with the highest activity state being listed first. The provinces that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular province it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a version of

the website specifically for visitors from that province. (e.g., a French Canadian version specifically for Quebec).

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

World Cities

This report shows the traffic from cities around the world, with the highest activity city being listed first. The cities that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular city it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a version of the website specifically for visitors from that city.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

African Cities

This report shows the traffic from the cities and countries of Africa, with the highest activity country being listed first. The cities that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular city it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a landing page specifically for visitors from that city.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Asian Cities

This report shows the traffic from the cities and countries of Asia, with the highest activity city being listed first. The cities that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular city it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a landing page specifically for visitors from that city.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

European Cities

This report shows the traffic from the cities and countries of Europe, with the highest activity city being listed first. The cities that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular city it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a landing page specifically for visitors from that city.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

North American Cities

This report shows the traffic from the cities and countries of North America, with the highest activity city being listed first. The cities that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular city it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a landing page specifically for visitors from that city.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Oceanic Cities

This report shows the traffic from the cities of Oceania, with the highest activity city being listed first. The cities that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular city it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a landing page specifically for visitors from that city.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

South American Cities

This report shows the traffic from the cities and countries of South America, with the highest activity city being listed first. The cities that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular city it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a landing page specifically for visitors from that city.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

United States Cities

This report shows the traffic from the cities and states of the United States of America, with the highest activity city being listed first. The cities that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular city it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a landing page specifically for visitors from that city.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Canadian Cities

This report shows the traffic from the cities and provinces of Canada, with the highest activity city being listed first. The cities that visitors are coming from are identified by IP address.

This report is useful for business owners and/or marketers as it can expose previously unknown potential for growth. If there is a marked increase in website visitors from a particular city it may be worth starting a PPC campaign to further increase that traffic or even possibly creating a landing page specifically for visitors from that city.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Server Health

Result Codes

When a request is made to your server for a page on your website (for instance, when a visitor accesses your page in a browser or when a spider crawls the page), your server returns a result code (also called an HTTP status code) in response to the request. This report item shows the most common codes returned by your server during the selected date range. Codes are grouped according to the list below:

- 200-level codes - Indicate a successful return of data. 2xx codes are good.
- 300-level codes - Indicate that the browser was redirected to another site resource. 3xx codes do not usually indicate a problem.
- 400-level codes - Indicate that a resource was either not found or was denied for some reason. If you get many 4xx codes, it may be worth investigating the cause.
- 500-level codes - Indicate that an error occurred while responding to the request. If you get many 5xx codes, it may be worth investigating the cause.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

404 - Page Not Found

This report displays a list of the files that a visitor attempted to access that no longer exist on the server, possibly because they were deleted, they were never created or the URL was misspelled. While some 404 errors are common due to user error, many 404 errors to a specific resource indicate a problem with your site. Using data mining to find the referrers to the 404 pages will yield useful information as to the cause.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

- Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more.
- Open URL - Opens the item in a new window.
- Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37.
- View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

5xx - Server Errors

This report displays a list of the files that resulted in an internal server error when trying to process the request. These errors tend to be with the server itself, not with the request, and usually occur when there is a problem on your web server preventing the data from being returned (usually a scripting problem). While some 5xx errors occur due to server restarts, any 5xx error that occurs more than a few times should be investigated.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Activity by Server IP

If your website is configured in a load-balanced or Web garden environment, this report displays server activity on a per-server basis. Users and site administrators can use this information to determine if one server is being utilized more than others and/or to get an overall idea of the health of the environment.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Activity by Server Name

If your website is configured in a load-balanced or Web garden environment, this report displays server activity on a per-server basis. Users and site administrators can use this information to determine if one server is being utilized more than others and/or to get an overall idea of the health of the environment.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Activity by Hostname

If your website has multiple host headers pointing to it, this report displays the activity by hostname. Users and site administrators can use this information to determine which host header is more popular.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Time Taken by Server IP

If your website is configured in a load-balanced or Web garden environment, this report displays

server activity on a per-server basis. Users and site administrators can use this information to determine if a specific server is slow to generate pages.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Time Taken by Server Name

If your website is configured in a load-balanced or Web garden environment, this report displays server activity on a per-server basis. Users and site administrators can use this information to determine if a specific server is slow to generate pages.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Time Taken by Hostname

If your website has multiple host headers pointing to it, this report displays the activity by each hostname. Users and site administrators can use this information to determine if a specific host header is slow to generate pages.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Page Bandwidth In

This report displays the incoming bandwidth for pages on the site. Website developers can use this report to identify the pages that will need the most optimization on incoming bandwidth. High utilization scores in this section are typically due to very large amounts of form data or viewstate, but can also be attributed to pages that allow file uploads. Note: If your site is based on ASP.Net, the pages in this page should be examined to see if viewstate can be reduced.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Page Bandwidth Out

This report displays the outgoing bandwidth for pages on the site. Website developers can use this report to identify the pages that will need the most optimization on outgoing bandwidth.

Highly accessed pages that are smaller than others may have a higher score because of the number of hits. In this way, the report shows you the key pages that will have the most impact if optimized. For example, a page that is hit 10,000 times a day that is 500 bytes long causes much more load than a page that is hit 10 times that is 10,000 bytes long.

To optimize the page size, reduce the amount of HTML or content in the page or enable HTTP compression on the web server.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Page Time Taken

This report displays the average time taken for specific pages to load in the given timeframe. Website developers can use this report to identify the pages that need the most optimization with regards to page loading.

To optimize the time taken on the page, optimize the code to reduce database calls, improve the page flow to reduce the work the server has to do, or implement caching.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Document Bandwidth Out

This report displays the outgoing bandwidth for documents on the site. Website developers can use this report to identify files that could be compressed or reduced in size.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Download Bandwidth Out

This report displays the outgoing bandwidth for downloads on the site. Website developers can use this report to identify files that should be compressed for downloads.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Image Bandwidth Out

This report displays the outgoing bandwidth for images on the site. Website developers can use this report to identify images that could be compressed or reduced in size. In addition, site owners can use this report to spot potential image "leechers" - those who steal images or link to images for use on their own websites. Note: Many image optimization software products and services are available online. In general, these can greatly reduce the size of images without sacrificing image quality.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spiders and Bots

Spiders

Spiders and robots are applications that crawl the Web indexing and retrieving content, usually for the benefit of search engines, information resources, and news organizations. For example, the primary search engine robots for Google, Bing, and Yahoo! are Googlebot, Slurp, and MSNbot.

This report displays information about the search engine spider activity (spider, page views, hits, and bandwidth) on your website. Site administrators and users can use this report to evaluate and enhance their SEO efforts.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spider Traffic Trend

This report displays all of the spider and/or bot activity (page views hits, and bandwidth) on your website for the selected date range. Note: You can specify how data is displayed (hourly, daily, weekly, etc.) by using the Group By report option.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Pages Not Indexed

This report displays a list of the webpages that were not indexed by spiders and/or bots. Site administrators and users can use this report to determine which pages may not be available in search engine results pages. Pages can be excluded for a number of reasons. For example, they're excluded in robots.txt files, there are no internal links to the pages, etc.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Pages Indexed Not Viewed

This report displays a list of the webpages that were indexed by spiders and/or bots but that were not viewed by the public. Site administrators and users can use this report to identify pages that may have been deleted recently or that may need to be optimized to increase page views.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spider Pages

This report displays the top pages of your website crawled by spiders and/or bots. By selecting a specific spider in the report options pane, you can see the top pages indexed by that spider.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

• Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more.

• Open URL - Opens the item in a new window.

• Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37.

• View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spider Directories

This report displays the website directories (folders and paths) that received the most page views by spiders and/or bots.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spider Top Files

This report displays the website files (web pages, images, etc.) most frequently accessed by spiders and/or bots, regardless of the file extension.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: Data Mining, Open URL, Set Page Alias and View Details.

• Data Mining - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more.

• Open URL - Opens the item in a new window.

• Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using query variables, which can have cryptic or numerical variables such as ProductID=37.

• View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spider 404 - Page Not Found

This report displays a list of the files that a spider attempted to access that no longer exist on the server, possibly because they were deleted, they were never created or the URL was misspelled. While some 404 errors are common due to user error, many 404 errors to a specific resource indicate a problem with your site. Typically, a 404 result to a spider will result in the page being removed from the spider's index and could affect your SEO efforts.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spider 5xx - Server Errors

This report displays a list of the files that resulted in an internal server error when trying to process the request. These errors tend to be with the server itself, not with the request, and usually occur when there is a problem on your web server preventing the data from being returned (usually a scripting problem). While some 5xx errors occur due to server restarts, any 5xx error that occurs more than a few times should be investigated.

Spiders encountering 500-level errors will usually try loading the page again later. After several failed retries, the page will likely be removed from the spider's index.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spider Page Bandwidth In

This report displays the incoming bandwidth for pages on the site accessed by spiders and bots. Website developers can use this report to identify the pages that will need the most optimization on incoming bandwidth. High utilization scores in this section are typically due to very large amounts of form data or viewstate, but can also be attributed to pages that allow file uploads. Note: If your site is based on ASP.Net, the pages in this page should be examined to see if viewstate can be reduced.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spider Page Bandwidth Out

This report displays the outgoing bandwidth for pages on the site hit by spiders and bots. Website developers can use this report to identify the pages that will need the most optimization on outgoing bandwidth.

Highly accessed pages that are smaller than others may have a higher score because of the number of hits. In this way, the report shows you the key pages that will have the most impact if optimized. For example, a page that is hit 10,000 times a day that is 500 bytes long causes much more load than a page that is hit 10 times that is 10,000 bytes long.

To optimize the page size, reduce the amount of HTML or content in the page or enable HTTP compression on the web server.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Spider Page Time Taken

This report displays the average time taken for specific pages to load in the given timeframe when hit by spiders and bots. Website developers can use this report to identify the pages that need the most optimization with regards to page loading.

To optimize the time taken on the page, optimize the code to reduce database calls, improve the page flow to reduce the work the server has to do, or implement caching.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

For a definition of the terms listed on this page, please refer to the Glossary .

Site Tuning

Site Tuning Overview

Users and site administrators can use SmarterStats' site tuning functionality to scan their site for problems known to affect a site's search engine ranking, such as broken links, excessive linking, META and title tags, and multiple redirects. By correcting the issues site tuning uncovers, you can improve both the visitor experience and your search engine ranking. To access site tuning, click the Site Tuning icon.

Site Tuning Status

During the Site Tuning scan, this page provides updated information on the scan progress: it's status, the internal pages scanned, external pages scanned, etc. Once the scan is completed, it will show the results of the scan, by issue severity.Clicking the Actions (...) button allows a user to export any Site Tuning report to a CSV file that can be used offline, handed to a web team, etc.

Site Tuning Results

Results by Page

Clicking this will list all of the pages that Site Tuning finds that have at least one issue. The page is listed, and then the number of issues are displayed for that page, by the issue severity. Double-clicking on a page name -- or selecting the page and hitting the View button -- will open a modal window that displays the various issues Site Tuning found for that page. Pages can have more than one issue with a given severity, so if a page has more than one, it will be listed multiple times, once for each issue.

High Severity

Clicking this will display all pages that have issues listed as High Severity . Double-clicking on a page name -- or selecting the page and hitting the View button -- will open a modal window that displays the details for the particular issue that Site Tuning found for that page. Pages can have more than one issue with a given severity, so if a page has more than one, it will be listed multiple times, once for each issue.

Medium Severity

Clicking this will display all pages that have issues listed as Medium Severity . Double-clicking on a page name -- or selecting the page and hitting the View button -- will open a modal window that displays the details for the particular issue that Site Tuning found for that page. Pages can have more than one issue with a given severity, so if a page has more than one, it will be listed multiple times, once for each issue.

Low Severity

Clicking this will display all pages that have issues listed as Low Severity . Double-clicking on a page name -- or selecting the page and hitting the View button -- will open a modal window that displays the details for the particular issue that Site Tuning found for that page. Pages can have more than one issue with a given severity, so if a page has more than one, it will be listed multiple times, once for each issue.

Result Details

These are the individual issues that Site Tuning scans for. Clicking on any one will display the pages that contain that issue.

Blank Page

It's important that every page of your website includes quality content. Empty website pages may indicate that your website is under construction and can lower the credibility of your website to both visitors and search engines. Possible fixes include creating unique content for the page or deleting the page. Note: If you choose to remove the page from your site, there may be unintended consequences, such as newly broken links if other pages linked to this page.

Broken Link

Broken links are a serious problem and can adversely affect your website's search engine ranking. Poor usability from broken links can drive visitors away and can prevent search engines from properly indexing your website. Possible fixes include updating/correcting the URL, using a redirect or removing the link. Note: SmarterTools recommends double-checking any broken links to make sure the website wasn't temporarily offline or overloaded when the scan was performed.

Cache Expiration

Website visitors and search engines like sites that load quickly. Well-coded pages send freshness indicators with each request to the server so the Web browser can pull files directly from the browser's cache on subsequent visits. This negates the need for server validation until the expiration time is reached and greatly improves the responsiveness of the website.

Duplicate Page

Best practices dictate that you should eliminate, to the best of your ability, the occurrence of duplicate pages in search engines. While the site tuning scan does not identify duplicate content issues with another website, it does notify you if pages within your website have duplicate content. Possible fixes include rewriting the content on one page or deleting one of the duplicate pages. Note: If you choose to remove the page from your site, there may be unintended consequences, such as newly broken links if other pages linked to this page.

Images Missing Alt Tags

An alt tag denotes an alternate text for an image if the image cannot be displayed. They are also useful for visually impaired users and improving accessibility of your website. Alt tags should be detailed in nature and used to describe what the images are displaying. In addition, alt tags should contain SEO rich content as they can help increase SEO results.

Long Description

The meta description is used in the search engine results pages (SERPs) to describe the purpose or content of a webpage. Meta description tags can be short or long, but long descriptions won't display in full on SERPs. Most SEO experts recommend that the description be 100-200 characters.

Long Title

The title is the main text that describes a webpage. It is the single most important on-page SEO element (behind overall content) and typically appears in three places: at the top of the browser and/or tabs, in the SERPs and as anchor link text on external websites. Most SEO experts recommend that the title be under 65 characters to ensure the full title displays in the SERPs.

Long View State

Search engines generally ignore ViewState code, but large quantities of ViewState code will force the actual content of the page further down in the HTML. Since search engines may analyze only the first 100 KB of a page, it is possible that the ViewState block may prevent search engines from indexing page content. Possible fixes include disabling ViewState on pages that don't need it or moving the ViewState code to the bottom of the page.

Missing Canonical

If your webpages load with both www.example.com and example.com, you have not specified the preferred link structure. Failing to properly define the canonical URL results in duplicate content penalties, as search engines will view all URL versions of a webpage as different websites. Adding a canonical URL tag to the HTML header or robots.txt file will tell search engines to treat the page as a

copy (rather than a separate and distinct page) and that the link and content metrics should technically flow back to the preferred URL.

Missing Description

The meta description provides the search engine a brief description of the page content. While this description is not visible to website visitors, a search engine usually displays the descriptions in the SERPs. A good description might encourage search engine users to visit your website instead of others. If your page doesn't have a meta description, the search engine may arbitrarily choose text to display in the SERPs, which may result in less search engine traffic. Most SEO experts recommend that the description be 100-200 characters.

Missing Sitemap

A sitemap is an XML file that lists URLs for a site along with additional metadata about each URL so that search engines can more intelligently crawl the site. Creating a sitemap is not difficult and there are services available that can help you create a sitemap quickly.

Missing Sitemap Page

A sitemap is an XML file that lists URLs for a site along with additional metadata about each URL so that search engines can more intelligently crawl the site. It is important to ensure that all the URLs in the sitemap are up-to-date and direct to an existing webpage. Possible fixes include correcting the URL, adding the missing page or removing the URL from the sitemap.

Missing Title

The title is the main text that describes a webpage. It is the single most important on-page SEO element (behind overall content) and typically appears in three places: at the top of the browser and/or tabs, in the SERPs and as anchor link text on external websites. If your page does not have a title, the search engines may arbitrarily choose text to display in the SERPs, which may result in less search engine traffic. Most SEO experts recommend that the title be under 65 characters to ensure the full title displays in the SERPs.

Multiple Descriptions

The meta description is used in the search engine results pages (SERPs) to describe the purpose or content of a webpage. While this description is not visible to website visitors, the search engine usually displays the descriptions in the SERPs. There is no benefit to having multiple meta descriptions as the search engine will only use one of them or display arbitrary text from the site. Keep the most descriptive and keyword-rich description and delete the rest from the page.

Multiple Redirect

Redirection is the process of forwarding one URL to a different URL. A 301 redirect is a permanent redirect which passes between 90-99% of link juice (ranking power) to the redirected page and is the preferred method for implementing redirects on a website. However, multiple 301 redirects (i.e, when a link on page A redirects to page B and page C before going to the intended page) will affect the ranking of that page. For this reason, it is best to do a one-to-one 301 redirect from the old page to the new page.

Multiple Titles

The title is the main text that describes a webpage. It is the single most important on-page SEO element (behind overall content) and typically appears in three places: at the top of the browser and/or tabs, in the SERPs and as anchor link text on external websites. There is no benefit to having multiple titles, as the search engine will only use one of them or display arbitrary text from the site. Keep the most descriptive title and delete the rest from the page.

Robot File Missing

The robots.txt file has become a standard way of giving instructions to the search engines concerning your website, such as the location of the XML sitemap or which pages to exclude from indexing. For this reason, all sites should have a robots.txt file in the root directory.

Same Title and Description

Because the title and meta description summarize the content of a specific webpage, it is important that each page of your site have a unique title and description. These tags help the search engines determine the relevancy of a page and can play an important role in determining how a page ranks in the SERPs. Rewrite the title and descriptions to ensure they are unique and relevant to the content on each page.

Short Description

The meta description is used in the search engine results pages (SERPs) to describe the purpose or content of a webpage. Meta description tags can be short or long, but short descriptions may not provide enough information to entice search engine users to click. Most SEO experts recommend that the description be 100-200 characters.

Short Title

The title is the main text that describes a webpage. It is the single most important on-page SEO element (behind overall content) and typically appears in three places: at the top of the browser and/or tabs, in the SERPs and as anchor link text on external websites. Most SEO experts recommend that the title be at least 20 characters.

Too Many Links

Linking to internal and external webpages is a good practice, provided the links are relevant to the content on the page. However, search engines may penalize a site if there are too many links on a page as this can indicate the site is spammy or is lower quality. Keep the links on a given page to a reasonable number. To help determine the correct number of links on a given page, think about the visitor experience: When they run across a link, they either click the link to get to the information they are searching for or they ignore the link and continue reading the current page. If you have 100 links on a single page, you are asking the visitor to choose 100 times whether they think the link provides the information they seek.

Too Many Scripts

Although scripts like JavaScript can be great for adding interesting elements to your website that will make it more user-friendly, too many scripts they can also slow a site to a crawl. Because both website visitors and search engines like sites that load quickly, it is recommended to remove unnecessary script and/or combine multiple scripts when possible.

Performing a Site Tuning Scan

Users and site administrators can use SmarterStats' site tuning functionality to scan their site for more than 20 problems known to affect a site's search engine ranking, such as broken links, excessive linking, META and title tags, and multiple redirects.

To perform a site scan, click the Site Tuning icon. Then click Site Tuning Details in the navigation pane. The site tuning details will load in the content pane and the following options will be available in the content pane toolbar:

> • Scan Site - Scans/re-scans the site for errors or potential issues affecting the visitor experience and search engine ranking.

Depending on the size of your website, the site tuning may take a few seconds or a few minutes. For more information on site tuning and the possible issues it identifies, see Site Tuning Overview .

Custom Reports

Custom Reports

This feature is only available in SmarterStats Enterprise.

Most of the report items display only one type of statistic pulled from the site's log files. For example, the only purpose of the Top Pages report is to identify the most popular Web pages on your site. It

provides no additional information or analysis. With custom reports, statistics from multiple report items can be combined to give site administrators and users a comprehensive analysis of your website.

To access the custom reports, click the Custom Reports icon. A list of custom reports will load in the navigation pane and the following options will be available in the navigation pane toolbar:

- New - Creates a new custom report.
- Actions (…) - Click this button and choose the appropriate option to select all reports or delete the selected report(s).

By default, SmarterStats includes the following custom reports, which you can modify to meet your unique needs:

- CEO Overview - The CEO report is designed to give the chief executive officer an overview of the website statistics and reports used by the other employees in the organization (such as top pages, referring sites, browsers and traffic trends).
- Marketing - The marketing report is a useful tool for an individual in marketing to make informed decisions about search engine marketing campaigns, as well as to see the impact a banner advertising or showcase advertising campaign has on website traffic and/or sales. This report shows which search engines provide the most referring traffic, and which keywords and phrases are pointing users to their site. Using this report, site administrators and users can target specific entry pages in their advertising campaigns, judge which campaigns are most effective, or even compare the statistics returned by SmarterStats with the statistics given by the sites featuring the advertising.
- Search Engine - The search engine report contains the report items relevant to analyzing and determining a site's presence and prominence on any search engine.
- Site Activity - The site activity report is designed to give you a snapshot of the activity on your website. The report includes statistics relating to views and visits, bandwidth, entry and exit pages, browsers, platforms, IP information, and visitor details.
- Site Usage - The site usage report is designed to give the user a complete and thorough look at bandwidth usage from every angle. Using this report, a site owner can see what files are responsible for the highest bandwidth usage and act accordingly (optimize, etc.).
- Site User - The site user report displays information about the users that are visiting your site, such as browsers, platforms, IPs (by views/visits, hits, bandwidth), and recent visitor stats and details.
- Webmaster - The webmaster report gives the webmaster a look at the browsers and platforms connecting to the site, along with any errors (404, 500, etc.) that may happen. Additionally, the top documents and downloads by views/visits and top entry pages will be displayed. The webmaster can then target obvious or potential trouble spots on a site, optimize pages and/or

graphics, or work in cooperation with a SEO or marketing specialist to help drive traffic to particular pages.

Viewing Custom Reports

Because custom reports may include an unlimited number of report items, some may take a while to load. To view a custom report, select the desired report from the navigation pane. The report will load in the content pane and the following options will be available in the content pane toolbar:

- Generate Report - Processes the report data and loads the custom report in the content pane.
- Edit - Edits the custom report settings.
- Delete - Permanently removes the report from the list of custom reports.
- Email - Sends a copy of the custom report to the desired recipient(s).
- Export - Exports the report in CSV or PDF format.
- Print - Prints the report.

Creating Custom Reports

This feature is only available in SmarterStats Enterprise.

To create a new custom report, click the Custom Reports icon, then click on Manage Custom Reports in the navigation pane. From here, click New in the content pane.

Note: Filter sets can not be applied to custom Trend Reports, even if the Filter Set is marked as a default filter. This is because Trend Reports don't offer the same display of data as Summary Reports. To exclude data from custom Trend Reports, it's best to create a secondary site and apply Log Processing Rules to that sub-site.

When editing or creating a custom report, the following configuration tabs are available:

Custom Report

Use this tab to specify the following options:

- Name - The name of the custom report.

Report Items Use this tab to specify which report items to include in the custom report:

- Report Item - The specific report item to be added to the custom report. Note: Depending on the report item selected, some of the options listed below may not be available.
- Name - The name of the report item. This defaults to the name given by SmarterStats for the report item selected, but can be changed.
- Date Range - The time period for which report item data is collected.

- Rows - The number of rows that should display for this report item in the custom report.
- Sort By - The sort order of the data. Numerical values (like bandwidth, views, etc.) will be sorted in descending order when selected.
- Chart - To specify a specific chart type, select the appropriate option from the list. Note: 3D charts will use the perspective selected in My Settings.
- Values - The values that will be charted. Note: If you have chosen pie as the chart type, only Value 1 will be used.
- Filter Set - The filter set that will be applied to the report item. Note: Filter sets cannot be applied to Trend report items.

Note: To add a report item to the report, click the Report Items tab and click Add Item in the toolbar.

Scheduled Email Reports

This feature is available in Enterprise Edition only

The Enterprise edition of SmarterStats has the ability to email standard and custom reports on a daily, weekly, and monthly basis.

- Daily email reports are sent at 8:00 AM the next day.
- Weekly email reports are sent at 8:00 AM every Monday.
- Monthly email reports are sent at 8:00 AM of the first day of the month.

The reports are generated and sent by SmarterStats according to the time zone configured for that particular site. This gives the Web server a solid opportunity to flush all log files out and allows the system to import the previous day's log file before generating the report. Note: The time zone is configured during the initial site setup, but can be changed by logging in as the site administrator and editing the site importing settings. In addition, system administrators have the ability to change the default time that reports are sent after.

Scheduling Email Reports

Follow these steps to automatically email reports on a regular basis:

- Log in as a site administrator or end user.
- Click the Custom Reports icon.
- Click Scheduled Email Reports in the navigation pane. A list of existing scheduled email reports will load in the content pane.
- Click New in the content pane toolbar.
- In the Custom Report field, select the desired custom report from the list.
- In the Frequency field, select how often the report should be emailed to recipients.
- Type the email addresses of the recipients in the To field. Separate multiple addresses with a

semicolon.

• Click Save .

Note: Email reports are only sent if there is data available in the report. Blank reports are not sent so if no data is available a scheduled email will not be sent.

To see which reports are scheduled to be emailed, click the Settings icon. Then expand the My Settings folder and click Scheduled Email Reports in the navigation pane. A list of scheduled email reports will load in the content pane and the following options will be available in the content pane toolbar:

• New - Creates a new scheduled email report.
• Edit - Edits the email options for the report.
• Delete - Permanently removes the selected report(s) from the emailed reports list.
• Send Now - Sends the selected report immediately.

Data Mining

Data Mining Overview

While the default reports available in SmarterStats provide a general overview of the various statistics extracted from your log files, data mining allows site administrators and users to drill-down and analyze statistical data on a deeper level. These reports are an invaluable resource for tracking customers through your ordering process, for seeing which marketing campaigns are providing the highest return on your investment(s) or for a variety of other tasks requiring a large-scale, detailed analysis of website traffic.

To reduce the complexity often associated with data mining, you can associate a Query Item, and the data returned, to an intuitive question and answer format. For example, by asking the questions, "What are the Referrers of this file?" or "What Paths were taken through a particular Page?" Using this simple method, businesses can get the insight they need to evaluate things like the effectiveness of an online marketing or advertising campaign.

To access data mining reports, click the Data Mining icon. You'll be presented with the following:

Query Items

The type of data returned in Data Mining is dependent on what it is you want to dig down into. By default, SmarterStats offers the following Query Types in the Navigation Pane:

Daily Activity

This query allows you to select a single page or resource contained within your website and see the daily activity over time. This type of mining is good to identify trends in the activity of that resource and to see if people are accessing the file more or less than they used to.

Entry Pages

This query allows you to select a single page contained within your website and see the top pages used to access the page. This is a particularly useful form of data mining that allows you to track where people are coming from when they access a specific page. For example, if a page is specified in an advertising campaign or marketing campaign, users can see exactly how people are accessing that page and verify any information that is given by the particular site that contains the advertising.

Exit Pages

This query allows you to select a single page contained within your website and see the last pages people viewed before exiting the website. This is useful in order to track how far users get in a process (such as placing an order) and where they are exiting your site.

IP Addresses

This query allows you to track which visitors (IP addresses) most often requested a file on your website. When used in conjunction with other data mining queries, this report is helpful in understanding the behavior of visitors that request certain files.

Paths through Page

This query allow you to track the most common paths taken for visitors that request a specific file. This report is useful in understanding how visitors are accessing various files on your website.

Query Items

This query allows you to view the various query string items that are passed to a particular page of your website. A typical example is the SmarterStats help system. Whenever anyone clicks on the "Help" graphic or a "What is this?" link within a specific report, a query string is passed from the SmarterStats application to the SmarterTools Online Help. This query string relates to the particular page or report the user is seeking help with. This report shows which individual items were passed to generate the page. Note: This report differs from the Query Strings report in that it separates each query string item and reports them individually. For example, assuming you have a hit that looks like /help/default.aspx?section=Administrator&page=Getting+Started. The Query Items report will show two lines: One for section=Administrator and one for page=Getting+Started. Conversely, the Query Strings report will show one line that looks like section=Administrator&page=Getting+Started.

Query Strings

This query allows you to view the various query strings that are passed to a particular page of your website. A typical example is the SmarterStats help system. Whenever anyone clicks on the "Help" graphic or a "What is this?" link within a specific report, a query string is passed from the SmarterStats application to the SmarterTools Online Help. This query string relates to the particular page or report the user is seeking help with. This report shows which query string was passed to generate the page. Note: This report differs from the Query Items report in that it does not separate query string items. For example, assuming you have a hit that looks like /help/default.aspx?section=Administrator&page=Getting+Started. The Query Items report will show two lines: One for section=Administrator and one for page=Getting+Started. Conversely, the Query Strings report will show one line that looks like section=Administrator&page=Getting+Started .

Referrers

This query is useful for marketing or to detect image leeching. For example, if you have an image that you have exposed on other websites that resides on your Web server, the URL it was viewed on is recorded every time a browser views your image. This report will list the top URLs or "referrals" in which your image was viewed. If you have a nice graphic, chances are that someone else will want to use it on their website. If they link your image path to their website, this report will list the top URLs that the image or graphic is viewed from.

Referring Sites

This query reports the original source of visitors that came into your site that eventually hit the page or file you choose. This can be most useful for marketing purposes. For example, if you have a "Thank You" page after a person orders your product, you can identify the original sources of visitors that reached that page, effectively discovering where your orders came from.

Usernames

This query allows you to track which authenticated users hit a specific page of your site. This report is useful in understanding the behavior of specific visitors on your website.

Visitor Bandwidth

This query allows users to track the bandwidth usage, total bandwidth usage, and the IP address of requests for specific files you have placed on your website. This report is most useful in detecting website abuse. Typically, you will identify a high-bandwidth file from Top Files or a related report item, then start data mining on it to discover if there are a few IP addresses that are attempting to use your bandwidth by repeatedly downloading files. Those IP addresses can then be metered or denied access on your Web server.

Visits Before Hit

This query allows you to select a single page contained within your website and see the number of times a person visited the site prior to reaching and viewing the page selected. The report itself shows the IP address of the visitor, the initial entry page for that visitor before they viewed the page selected, and the number of visits before the page selected was viewed.

World Cities

This query allows you to identify the geographic regions that accessed a specific file on your website.

Top Files from IP Address

This query allows you to track the files most commonly requested by a particular IP address. This report is useful in understanding the behavior of specific visitors on your website.

Top Paths from IP Address

This query allows you to track the most common paths taken by an IP address during its visits to your website. This report is useful in understanding the behavior of specific visitors on your website.

Report Options

- Filename - The file to be data mined. To browse for a specific file, click the folder icon to the right.
- Start and End Date - The time frame on which the data mining report statistics are generated.
- Chart - The chart type displayed in the data mining report.
- Group By - When available, the timeframe you want the data returned to be grouped by. (E.g., Weekly)
- Sort - The column that will be used to sort the data in the report. (E.g., Views)
- Rows - The number of rows in the data mining report.
- Filter Set - If a filter set exists, this allows you to select the filter set that should be applied to the data mining report.

Where applicable, you can also perform data mining by selecting it from the dropdown arrow next to items returned in a report.

Settings

Account Settings

To edit your personal settings, click the Settings icon. Then click Account Settings in the navigation pane. The account settings will load in the content pane and the following tabs will be available:

User

Use this tab to edit the following user settings:

- • Username - The name used to log into SmarterStats.
- • Email Address - The full email address that's associated with the user.
- • New Password - To change the current password, type in the new password the user wants to use to log into SmarterStats.
- • Confirm Password - Re-type the new password the user wants to use to log into SmarterStats. Note: To successfully change the password, be sure the text typed into this field matches the text typed into the New Password field.
- • Theme - This dropdown allows a user to select either a light or dark theme.

Report Options

Use this tab to edit the following report settings for reports and report items:

- • Default Date Range - The default date range for which statistics are calculated upon login.
- • Default Report Rows - The default number of rows in each table of a report or report item.
- • Enable IP address resolution - Select this option to resolve all IP addresses that show up in reports to their host names. Note: Enabling this feature will increase the amount of time it takes to render report items with IP addresses. System administrators may limit the number of resolutions performed per report item.
- • Show percentage indicators in report columns - Select this option to display percentages next to the data in report columns.
- • Generate reports automatically on page load - Select this option to automatically generate reports when they are selected. Enabling this option will make navigating SmarterStats slower, but will reduce the amount of clicking you have to do to see reports.

Filter Sets

Site administrators as well as general users can use filter sets to view only the data they want to see in reports. Filter sets are created with a combination of website directories or single pages to limit the report data, allowing users to quickly flip between subsets of data when viewing reports.

Filter sets simply manipulate information that appears in a specific report. They do not affect any logs the way log processing rules do. Therefore, they're a safe way to manipulate report data without editing or otherwise changing the raw logs or the SmarterLogs.

Note: Filter sets can not be applied to all reports. For example, Trend Reports, even if the Filter Set is marked as a default filter. This is because Trend Reports don't offer the same display of data as Summary Reports. To exclude data from Trend Reports, it's best to create a secondary site and apply

Log Processing Rules to that sub-site. In addition, Filter Sets can't be used on any report where the primary report column (the far left column) does not contain a list of pages, files, directories, browsers, etc. Finally, if the report content doesn't (or can't) contain any values that might match a Filter Set, then Filter Sets are not usable on that report. This is true for any report that does not contain text as the far left report column. If it contains number values or dates, no Filter Set can be used. For example, the Return Visits report, Views Before Visit, etc. as the far left column on these reports contain only a count of report item or a date.

For example, suppose your company sells furniture. In the reports you want to view the data associated with all bedroom furniture, except for a specific product ID for a nightstand that is being discontinued. The URL for the bedroom furniture page of the website might be "/furniture/bedroom.aspx". To narrow down the reports to only bedroom furniture you would enter this directory in the Included Items field. Then, to exclude the discontinued nightstand, enter "/furniture/bedroom/nightstands/ elegant_collection/detail.aspx?prodid=3" into the Excluded Items field.

To access this section, click the Settings icon. Then click Filter Sets in the navigation pane. A list of the existing filter sets will load in the content pane if any have already been created.

Adding a Filter Set

To create a new filter set, click New in the content pane toolbar. The following options will be available:

- Filter Name - The name of the filter set.
- Included Items (one per line) - Type the items you want added to the filter, one per line. Any text field in reports that contain any item in this list will be kept in the report and its values will remain in the summary line. Note: Filters are NOT case-sensitive .
- Excluded Items (one per line) - Type the items you want excluded from the filter, one per line. Any text field in reports that contain any item in this list will be excluded from the report and its values will be removed from the summary line. Note: Filters are NOT case-sensitive.
- Mark as default filter set - Check this box to automatically apply this filter set to reports upon loading. Note: If left unchecked, you will need to manually apply the filter to each report and click Generate Report to view the report with the selected filter.

General Settings

This feature is only available to site administrators.

Site Administrators can use this page to control how a website's log files are processed. For example, SmarterStats can be configured to ignore specific query strings variables, directories or host headers.

That said, modifying how a site's log files are processed can mean that some data is skipped or that certain types of data are excluded from a site's reporting. Therefore, it's recommended that, prior to any changes being made to the general settings for a site, that at least ONE site is created that processes all of the log data available for a domain. Then, secondary sites can be created that have log processing rules applied and/or items ignored that offer subsets of the primary data. For example:

- SmarterTools Website – This is the primary website that has ZERO settings modifications so that all log data for the smartertools.com domain is processed, and so this site can act as a baseline for other secondary sites that have some data excluded.
- SmarterTools - No Office Traffic – This is a secondary site that has a Log Processing Rule that excludes the IP addresses for the SmarterTools office and/or network so that internal traffic is excluded from any reports.

To access this section, log in as a Site Administrator and click the Settings icon. Then click General Settings in the navigation pane. The general settings will load in the content pane and the following tabs will be available:

Options

Use this tab to specify the following options:

- Site URL - The URL of the website in which you are gathering statistics for.
- Time Zone - Select your time zone from the list.

Ignore Items

Use this tab to specify items that should be ignored:

- Query string items to ignore - If you have query string variables in your site that have near random values such as page refresh randomizers or session IDs, add the names of the query variables to this text box, separated with commas. If you enable this option, the system will start ignoring the value of those variables when calculating page hits. The hits will still be registered, but without that variable. Please note that this option is a pre-filter, meaning that once you enable it, you cannot get the values of those variables back unless you keep the original logs.
- Enable removal of URL items after semicolon - Check this box if the website passes session variables in the URL separated with a semicolon.

Log Processing Rules

Use this tab to add exclusions or inclusions to your stats data. Unlike filter sets, exclusions and inclusions are processed before logs are analyzed, meaning that SmarterStats acts as if removed rows do not exist in the logs whereas filter sets simply hide the data from specific reports.

Log processing rules can be used when creating secondary or sub-sites and shouldn't be set for any primary website. As mentioned, having at least ONE website added to SmarterStats that processes the raw data in the log files, without any exclusions or limitations, is recommended so that the site can act as a baseline. Then, sub-sites can be created, that point to the same log location as the primary site, that have log processing rules applied to exclude items from the reports. (NOTE: After log processing rules are created for a sub-site, that site will need its logs reprocessed. Failure to reprocess the logs for the sub-site means that any processing rules are ignored.)

To create an exclusion or inclusion, click the Add menu in the content pane toolbar and click Log Processing Rule . The following options will be available:

• Type - To specify the type of item to be included or excluded from log processing, select the appropriate option from the list. Depending on the item selected, you may be asked to provide the specific directory, IP address, path, filename or host header. Available rule types are: Exclude an IP Address, Exclude a Range of IP Addresses, Exclude a File, Exclude a Directory (and children), Include a Directory (others will be ignored), Exclude a Host Header, Include a Host Header or Exclude a Request URI.

Query Variables

Query variables can be used to differentiate multiple pages that would normally be processed and displayed as only one page. Use this tab to specify query variables that should be processed as separate pages based on the variables passed through the page. For example, imagine you're tracking the following URLs: http://www.mydomain.com/dir1/page.php?src=test1 http://www.mydomain.com/dir1/page.php?src=test2 http://www.mydomain.com/dir1/page.php?src=test3 Without a query variable, reports would display these pages together as "/dir1/page.php". After adding a query variable and reprocessing the site stats, reports would then display the following: /dir1/page.php?src=test1 /dir1/page.php?src=test2 /dir1/page.php?src=test3

To add a query variable to SmarterStats, click the Add menu in the content pane toolbar and click Query Variable . The following options will be available:

• Match Type - To specify how the page information is used to determine which pages are query variables, select the appropriate option from the list.
• Page - The page information used to determine which pages are query variables. From the example above, if the match type is set to Exact, you would enter "/dir1/page.php". If the match type is set to Ends With, you would enter "page.php".
• Query String Variables - The variables used to determine which pages are query variables. From the example above, the query string variable would be "src". This denotes that if the

variable has a value of 1, it would be treated as a separate page from a value of 3. Note: An equal sign (=) is not required in the list, and a warning will display when one is present.

Email Settings

This feature is only available to site administrators using SmarterStats Enterprise.

Site administrators can use this section to customize how SmarterStats sends scheduled email reports. To use the default values set by your system administrator, leave the options on this page blank.

To access this section, click the Settings icon. Then click Email Settings in the navigation pane. The email settings will load in the content pane and the following options will be available.

- • From Address - The email address from which reports will be sent.
- • From Display Name - The friendly name that emails sent from SmarterStats will show as being sent from.
- • SMTP Server - The mail server that will be used to email reports. Note: If you wish to use a port other than 25 for your SMTP Server, include it after the server name or IP with a colon. For example, if your mail server is mail.example.com, and it listens on port 10000, use mail.example.com:10000 as the server name.
- • SMTP Security - Select the proper option that matches the security used by your server. (None, Enable SSL or Enable TLS.)
- • SMTP Server Port - The port number that should be used when sending email through SMTP. In most cases, the SMTP server port is 25.
- • Enable SMTP Authentication - Select this option if SMTP authentication is required to send mail from this email address.
- • Auth Username - The identifier used to authenticate with the SMTP server. In some cases, this may be the full email address of the account.
- • Password - The corresponding password used to authenticate with the SMTP server. Then confirm the password by re-entering it.

Export Logs

Site administrators have the ability to export processed log files into a single compressed file that contains the daily logs for the specified date range. Logs can be exported in any log file format, regardless of the original web server that initially created the log files. This means that, even if your site is hosted on a Windows server running IIS, you will be able to export your log files in an Apache format.

To export log files, click the Settings icon. Then click Export Logs in the navigation pane. The export settings will load in the content pane:

- Start Date - Enter the start date for the desired date range of logs that should be exported.
- End Date - Enter the end date for the desired date range of logs that should be exported.
- Output Type - Select the log file format desired for the exported logs. Available options are IIS - W3Cex Log Format, IIS - Microsoft IIS Log Format, IIS - NCSA Common Log Format, Apache - Common Log Format, Apache - NCSA Extended Log Format, IPlanet - Common Log Format and Other - Common Log Format.

Use the Begin Export button in the content pane toolbar to export the site log files. When the export has completed, click Download to download a zipped, local copy.

Note: Cookies are not maintained in SmarterLogs; if this information is needed by the end user, they will need to maintain a backup of the original log files. SmarterLogs does keep the first cookie used in a session, but does not keep the subsequent cookies.

Page Alias

This feature is only available to site administrators.

Page aliases are a great way to apply "friendly" names to pages on a site that have long, complex URLs. For example, if your site is dynamically generated or uses query strings for pages, which is a common occurrence with Content Management Systems and shopping carts, using Page Aliases is a great way to simplify how your site data is displayed in reports. This makes it much easier to read and understand the copious amounts of data available within SmarterTrack. To better illustrate how Page Aliases work, here is a concrete example.

Suppose the page URL for the details page of a product on your site is "/furniture/home/livingroom/endtables/elegant_collection/detail.aspx?prodid=3," where "prodid=3" is a specific model of end table. In the reports that return that page's URL, that is how the details page is listed in your results. Now imagine you have 150 different living room end tables featured on your site. Trying to keep the data straight about the different products and pages on your site can be a nightmare.

To resolve the confusion, adding in the Page Alias "Elegant End Table - Cherry" for that long URL makes identifying specific pages, and even specific products, much easier when viewing your reports. This is especially true if you are passing that information along to business owners, partners or even investors. The easier it is to identify information, the more impactful that information will be.

To access this section, click the Settings icon. Then click Page Aliases in the navigation pane. A list of existing page aliases will load in the content pane.

In addition, Page Aliases can be added right from reports themselves by selecting that option in the dropdown that appears at the end of rows (where applicable).

To add a new page alias, click New in the content pane toolbar. To edit a page alias, select the desired page alias and click Edit in the content pane toolbar. The following options will be available:

- • Page Path - The page for which the alias is created.
- • Page Alias - The friendly name of the page.

Users

This feature is only available to site administrators.

Site administrators can add or delete users for their particular site in SmarterStats. Users without administrator permissions can access site reports and user settings. However, only users with administrator permissions can access the research tools and change site settings. (And add other users, of course.)

To view a list of users for the site, click the Settings icon. Then click Users in the navigation pane. A list of users will load in the content pane.

To create a new user, click New in the content pane toolbar. To edit a user's settings, select the desired user and click Edit in the content pane toolbar. The user settings will load and the following tabs will be available:

User

Use this tab to specify the following user-based settings:

- • Username - The username the user uses to log in to SmarterStats.
- • Email Address - The email address of the user.
- • Password - The password the user will to use to log in to SmarterStats.
- • Confirm Password - The password the user will to use to log in to SmarterStats. Note: To successfully set the password, be sure the text typed into this field matches the text typed into the Password field.
- • Theme - This dropdown sets either a light or dark theme for the user.
- • Administrator - Select this option to give the user site administrator permissions.

Report Options

Use this tab to edit the following report settings for reports and report items:

- • Default Date Range - The default date range for which statistics are calculated upon login.
- • Default Report Rows - The default number of rows in each table of a report or report item.
- • Enable IP address resolution - Select this option to resolve all IP addresses that show up in reports to their host names. Note: Enabling this feature will increase the amount of time it takes

to render report items with IP addresses. System administrators may limit the number of resolutions performed per report item.

• Show percentage indicators in report columns - Select this option to display percentages next to the data in report columns.

• Generate reports automatically on page load - Select this option to automatically generate reports when they are selected. Enabling this option will make navigating SmarterStats slower, but will reduce the amount of clicking you have to do to see reports.

Log Import Status

This feature is only available to site administrators.

Site Administrators can use this page to check the import status of the site's log files. By default, SmarterStats updates the log files every 15 minutes. Site administrators can also use the information provided under the Good Rows and Bad Rows columns to diagnose problems, such as choosing the wrong log file format.

Help for System Administrators

Adding a Site

System administrators can use this section to add a site to SmarterStats. To access this section, click the Settings icon. Then click Sites in the navigation pane toolbar. To add a site, click the Add button in the content pane. To edit an existing site, select the desired site and click Edit . The site settings will load in a new window and the following options will be available in the toolbar:

- Save - Saves any changes made to the page.
- Cancel - Cancels any changes made.
- View Site Stats - Opens a new tab displaying the statistics for that particular site. NOTE: Displays only when editing an existing site.
- Actions (...) - Offers a number of actions that can be performed for the site. These include:

- Import Settings From IIS - Allows you to import a site from IIS. When websites are set up in Internet Information Services (IIS), using this feature allows the system admin to select the site from IIS and have the site name and log path automatically filled out in the site Options.
- Move Site - Moves the site statistics to another server supported by the SmarterStats Web interface. Note: This option is only available in SmarterStats Enterprise. Selecting this option will only move the SmarterLogs; it will not move the physical site or its standard log files.
- Re-import Log Files - Deletes the SmarterLog files for the site and re-imports them, starting with the earliest files.
- Reprocess Log Files - Reprocesses the log file data. Note: This does not re-import log files.
- Run Diagnostics - Select this option if you suspect one or more files may have gotten corrupted. SmarterStats will run an automated diagnostic of all files required for this site.

The following tabs will be available in the site settings window:

- Options
- Log Analysis
- Site Tuning
- Advanced

Options

Use this tab to specify the following options:

- Site ID - The unique identifier for the site in SmarterStats. Site IDs must be integers greater than 0.
- Site Name - A friendly name for the site. Generally, the domain name for the site, such as

example.com.

• Site URL - Note: This option will only appear if an External Login Provider has been created and configured. For more information see External Providers . The URL used to access the site, such as http://www.example.com

• User Authentication Method - Note: This option will only appear if an External Login Provider has been created and configured. For more information see External Providers . Whether this site should use internal authentication or an external login provider to validate logins.

• Site Admin - The username of the site administrator. This individual will be the primary user account responsible for this site. System administrators also have the ability to create a new Site Admin, should they desier. When this option is selected, administrators will fill out some addtional information about the Site Admin, including:

• Site Admin Username - The username for the new site admin.

• Site Admin Password - The password associated to the site admin username.

• Confirm Password - Re-type the password associated to the site admin username.

• Site Admin Email - The email address associated with the site admin.

• Server - In a distributed environment, the site may reside on a server other than the web interface. Select the web server on which the site's original logs reside. Note: This option is only available in SmarterStats Enterprise.

• Current State - The state in which the site should start. Generally, this should remain as "Started." When editing sites, this is where sites are paused or disabled.

• SmarterLog Path - The full path to the location in which the site's SmarterStats log files will reside. This path must be local to the server and may not be a UNC path. Note: This should be a location dedicated to storing the SmarterLog files on a drive with ample free space.

• Time Zone - The time zone under which log files are processed.

• Enable Log Analysis - Select this option to collect and report on log file data for the site. Note: If you do not have the ability to import the site's log files into SmarterStats, this option should be disabled. If this option is disabled, many reports and options will not be available.

• Enable Site Tuning - Select this option to allow SmarterStats to scan the site for errors and potential issues that could affect its search engine ranking or visitor experience. Note: If this option is disabled, users and site administrators will not have access to the site tuning section of the interface.

Log Analysis

SmarterStats can analyze many different log file types from a variety of locations. Supported log formats include W3C Extended Logs (Default for IIS), Common Log Format (CLF), NCSA Extended/Combined Log Format, and IIS Log Format. Each can be imported into SmarterStats using a

local path, UNC path, or via FTP. Use this tab to specify the following options for pulling logs into SmarterStats. Varyious settings will display based on the log location chosen, as detailed below:

Note: The Import menu button in the window toolbar allows you to import a site from IIS. Imported IIS sites will automatically fill in the site name and log path.

LOCAL PATH

• Log Location - The location of the log files. Select Local Path if the log files are stored on the same server where SmarterStats is installed with no special permissions.

• Log Wildcard - The log file wildcards (i.e. the format of the log titles, with dates or other variable information removed: *.log).

• Log File Paths (one per line) - The directory in which the site's log files are stored. Enter only one path per line break.

• Look for logs in .gz and .zip archives - Select this option to look for logs in compressed archives.

• Include logs stored in subfolders - Select this option if your logs are stored within sub-folders inside a root log folder.

UNC PATH

When selecting UNC Path for the Log Location, the following fields are available in addition to those listed above:

• Use Default UNC Settings - Checkmark this option if this site should use the UNC credentials configured within the General Settings . When checked, the UNC Username, Password and Domain fields below will become disabled.

• UNC Username - The identifier used to authenticate with the UNC account.

• UNC Password - The corresponding password used to authenticate with the UNC account.

• UNC Domain - The corresponding domain used to authenticate with the UNC account.

NOTE: Linux users should review the UNC information in General Settings .

FTP

When using FTP as the Log Location, the following fields are available in addition to most of those listed above:

• FTP Connection Type - The type of connection FTP will use. FTP supports connections through Standard FTP, FTPS - Implicit, FTPS - Explicit or SFTP. Depending on the connection type selected, varying settings may display.

• Server - The location path to the FTP server. Depending on the FTP server setup, this could be entered as a full URL or IP address.

• Test - After the FTP server path and authentication credentials have been completed, use this button to test the connection to the FTP server.

• Paste or Upload OpenSSH Key File - In this textbox, paste the OpenSSH Key File or upload the file containing it. The OpenSSH Key File can be obtained from your FTP provider. Note: This setting will only display when SFTP has been selected for the FTP Connection Type.

• Port - The port the FTP server uses to communicate. The standard port for FTP connections is 21.

• Username - The identifier used to authenticate with the FTP server.

• Password - The corresponding password used to authenticate with the FTP server.

• Directory - The directory, or location, in which FTP logs are stored on the server.

• Interval - The rate at which logs are pulled from the FTP server.

• Enable FTP resuming if available - If the server supports the resume command, select this option to allow the FTP connection to be automatically resumed when the FTP server becomes available again.

• Look for logs in .gz and .zip archives - Select this option to look for logs in compressed archives.

Site Tuning

Use this tab to specify the following site tuning options:

• Max Pages To Crawl - The maximum number of pages SmarterStats should scan for errors and performance issues. By default, this is set to 10,000.

• Max Pages Per Minute - The maximum number of pages SmarterStats crawls per minute. This setting is used to control the load put on Web server. By default, SmarterStats will crawl 120 pages per minute. The maximum is 600 pages per minute.

• Max Query Pages - The number of query string variants that will be inspected on each page of a site. By default the max query pages is 10. The maximum is 1,000 pages. Highly dynamic sites, such as those with a forum, may want to increase this number to ensure all pages of the site are crawled.

• Use Default Settings - Clicking this button will reset all of the above information back to their default values.

Advanced

Use this tab to specify the following options:

• Compress Log Files - The amount of time to wait before compressing original log files.

• Log File Auto-delete - The maximum amount of time original IIS or Apache log files will be stored.

• SmarterLog Auto-delete - The maximum amount of time SmarterLog files will be stored. SmarterLog files are in a compressed format, which allows you to store a wider date range of logs versus saving the standard web server log files.

• Export Directory - When exporting log files for a site, this is the location the exported file(s) will be saved to.

• Export URL - This is the absolute URL that is set up in order to allow users to retrieve the log file(s) when the export is complete. Typically, you'll use the full RUL for the website the log files are affiliated with, such as https://www.smartertools.com. The download path is then appended to the end of the URL.

• Enable removal of URL items after semicolon (used for jsessionid) - Certain sites can generate logs where the page that SmarterStats tries to parse includes a semicolon with some extra information after it. Check this box to automatically remove this extra information when applicable.

• Default Documents (one per line) - Type the default documents for the website in the text box. Any hits to pages that match these filenames will be grouped into a root hit instead. For example, if you enter default.aspx and index.htm, both of these pages will register as page hits to "/".

Reports

Traffic Trend

This report displays the aggregate traffic activity (page views, visits, hits, and bandwidth) for all websites on a server during the selected date range. System administrators can also view the aggregate traffic activity across all servers. This report is useful in identifying traffic trends on a server.

For a definition of the terms listed on this page, please refer to the Glossary .

Traffic Summary

This report displays the aggregate traffic activity (page views, visits, hits, and bandwidth) for all websites on a server during the selected date range. System administrators can also view the aggregate traffic activity across all servers.

For a definition of the terms listed on this page, please refer to the Glossary .

Traffic Summary

This report displays the traffic activity (page views, visits, hits, and bandwidth) for all of the sites on a

server. System administrators can also view the traffic and visitor activity statistics for all sites on all servers.

For a definition of the terms listed on this page, please refer to the Glossary .

Visitors Summary

This report displays aggregate visitor activity (visits, unique visitors, new visitors, and return visitors) for all websites on a server during the selected date range. System administrators can also view the aggregate visitor activity across all servers.

For a definition of the terms listed on this page, please refer to the Glossary .

Visitors Trend

This report displays aggregate visitor activity (visits, unique visitors, new visitors, and return visitors) for all websites on a server during the selected date range. System administrators can also view the aggregate visitor activity across all servers. This report is useful in identifying visitor trends on a server.

For a definition of the terms listed on this page, please refer to the Glossary .

Visitors Summary

This report displays the visitor activity (visits, unique visitors, new visitors, and return visitors) for all of the sites on a server. System administrators can also view the traffic and visitor activity statistics for all sites on all servers.

For a definition of the terms listed on this page, please refer to the Glossary .

Settings

Sites

System administrators can use this section to manage the sites in SmarterStats. To access this section, click the Settings icon then select Sites in the navigation pane.

NOTE: For information on adding or editing a site, see Adding a Site .

Navigating Sites

The content pane displays details about the sites configured on the server. To examine a particular site, you can double-click on it or select it from the list and click the Edit button.

In general, the following options are available:

- New - Adds a new site to SmarterStats.
- Edit - Edits the site settings.
- Delete - Permanently removes the selected site(s) from SmarterStats.
- View Site Stats - Opens the selected site's statistics in a new window. Note: This is also the same as impersonating a site administrator.
- Actions (…) - Click this button and select one of the following options:

- Move Site - Moves the site statistics to another server supported by the SmarterStats Web interface. Note: This option is only available in SmarterStats Enterprise. Selecting this option will only move the SmarterLogs; it will not move the physical site or its standard log files.
- Re-import Log Files - Deletes the SmarterLog files for the site and re-imports them, starting with the earliest files.
- Reprocess Log Files - Reprocesses the log file data. Note: This does not re-import log files.
- Cancel Log Reprocessing - Stops the reprocessing of log file data.
- Run Diagnostics - Select this option if you suspect one or more files may have gotten corrupted. SmarterStats will run an automated diagnostic of all files required for this site.

Viewing an Individual Site

It's possible to view the various settings for individual sites in the list by double-clicking it or selecting it and clicking the Edit button. Whichever you do, that site's settings will fill the content pane. When viewing a site's details, four (4) tabs are available: Options, Log Analysis, Site Tuning and Advanced. The first three (3) tabs are discussed in detail on the Site Defaults page. However, the Advanced tab is only available when viewing a specific site. Use this tab to set the following:

- Compress Log Files - The amount of time to wait before compressing original log files.
- Log File Auto-Delete - The maximum amount of time the original log files (those created by the Web server) should be stored.
- SmarterLog Auto-Delete - The maximum amount of time SmarterLog files should be stored. SmarterLog files are in a compressed format, which allows you to store a wider date range of logs versus saving the standard web server log files.
- Enable removal of URL items after semicolon (used for jsessionid) - Certain sites can generate logs where the page that SmarterStats tries to parse includes a semicolon with some extra information after it. Check this box to automatically remove this extra information when applicable.
- Default Documents - Type the default documents for the website in the text box. Any hits to pages that match these filenames will be grouped into a root hit instead. For example, if you enter default.aspx and index.htm, both of these pages will register as page hits to "/".

Servers

System administrators can use this section to manage the servers that have been added to SmarterStats. This is especially important when running SmarterStats as a standalone Reporting Server, then importing log files from various remote web servers. When accessing this page, a list of the active servers will load in the content pane. If the SmarterStats installation utilizes a remote service that's been added to one or more external servers, the servers will be listed along with the primary Management and Reporting Server. However, some may see a single server listed.

For each server listed, the following details are shown:

- Server Name - The name of the server when it was added.
- Server ID - The ID number assigned to the server when it was added.
- Sites - The number of sites on the server.
- IP Address - The primary IP address of the server.
- Build - The current version of SmarterStats running on the server.
- Build Date - The release date of the Build running on the server.

In addition, several buttons are at the top of the page. These include:

- New - Adds a new server to SmarterStats.
- Edit - Edits the server settings.
- Delete - Permanently removes the selected server(s) from SmarterStats.
- Refresh - Refreshes the list of servers. This will only be used in installations where the Remote Service is also being distributed.
- Actions (…)

- Run Diagnostics - Select this option if you suspect one or more files may have gotten corrupted. SmarterStats will run an automated diagnostic of all files required for this server.

Adding a New Server

To add a new server, click New in the content pane toolbar. To edit an existing server's settings, select the desired server and click Edit in the content pane toolbar. The server settings will load in a new window and the following tabs will be available:

Options

Use this tab to specify the following options:

- Server ID - The unique identifier for the server.
- Server IP - The IP address associated with the server.
- Server Name - The friendly name given to the server.

Import Settings

Use this tab to specify the following importing options:

- Import Time of Day - The start and end times the sever should be importing files.
- Session Timeout - The minutes between when one session counts as a separate session or the time of inactivity between website hits before one session becomes another. For example, if the session timeout is set to 30 minutes and a visitor hits the site and doesn't visit another page of the site until 40 minutes later, this would be considered a new visit.
- Max Sessions Per Site - The number of concurrent sessions tracked when the server is importing log files. This setting should not be changed.
- Debug Level - The level of detail kept in the service log file. This should remain at normal unless instructed to change it by a SmarterTools representative/.
- Resource Usage - The amount of CPU used to process statistics. For more information, refer to the KB article Configure SmarterStats to Use More/Less System Resources .

General Settings

System administrators can use this section to configure general SmarterStats settings. To access this section, click the Settings icon. Then click General Settings in the navigation pane. The general settings will load and the following tabs will be available:

Options

Use this tab to specify the following settings:

- Default Theme - Allows a user or administrator to set a default light or dark theme that carries throughout the interface.
- Send email reports after - Use this setting to specify the time that email reports should be sent. Note: Email reports will be sent after the time configured. While some reports may be sent a few minutes after, others may take a couple of hours.
- Custom Help URL - A URL entered here will be used in place of the default Online Help link that's available when someone clicks on their icon in the upper, right corner of the interface.
- Custom Help Text - This is the text that's displayed when a Customer Help URL is being used.

- Enable notification reminder popups - Select this option to allow SmarterStats to display licensing and other administrative reminders.
- Enable user password reset functionality - Select this option to allow users to reset their password from the login screen if they forget it. Note: The "Forgot your password?" link will only appear on the login page if SMTP settings are configured within the General Settings. In addition, users must have an email address configured in their user settings in order to use the

password reset functionality.

- Send notification emails to system administrator - Select this option to send emails to the system administrator if errors occur.

- Force all traffic over HTTPS - Select this option to force all SmarterStats traffic over HTTPS. This improves SmarterStats security by allowing all traffic to be encrypted. Note: Prior to enabling this setting, SmarterStats must be set up as a site in IIS and have a valid SSL certificate in place for the SmarterStats site.

- Allow interface to be embedded in another site (not recommended) - Enabling this allows you to embed the SmarterStats interface inside an iFrame. As this can cause some security risks, this is not recommended.

UNC

If your log files are secured on a separate server or in a folder with permission restrictions, it may be necessary to specify the UNC account credentials needed to access the raw IIS logs. Use this tab to configure the system level UNC credentials for your installation. NOTE: These credentials are used for each SmarterStats site that's configured. If every site has its own Log Location, regardless of whether the logs are access via UNC or not, it may be better to leave these settings blank. However, if some of the sites are located on a specific server that's accessed via UNC, it may be worthwhile to set these credentials then individual sites separately.

- UNC Username - The identifier used to authenticate with the UNC account.
- UNC Password - The corresponding password used to authenticate with the UNC account.
- UNC Domain - The corresponding domain used to authenticate with the UNC account.

Note: Configuring the UNC credentials here will apply to each site configured within SmarterStats. Individual sites can override the system level UNC account by unchecking the site setting "Use Default UNC Settings".

Note for Linux Users

AS UNC is not available on Linux servers, in order to use shared folders on Linux for SmarterStats, the shared folder should be mounted on the Linux server. Once the shared folder has been mounted, then you can use the local path and point it to the mounted folder. Here is an example on how you can mount a folder on a Linux (Ubuntu) Server.

- Install the modules needed to access remote shares from Linux using:

```
sudo apt install cifs-utils
```

- Navigate into /etc/smartertools and create a file called 'smbcredentials' and place your username/password into the file like so:

```
username=sambauser password=asdf1234
```

• Make the credentials file inaccessible to anyone but the root user on the server using:

```
sudo chmod 0600 /etc/smartertools/smbcredentials
```

• Add a local directory on the server that will be used to link to the share using:

```
sudo mkdir /data
```

• Edit the /etc/fstab file as root and add a line to the bottom of it pointing to your shared folder and credentials:

```
//storage.local/data /data cifs
credentials=/etc/smartertools/smbcredentials,iocharset=utf8,vers=3.0,uid=1000,gid=1000,file_mode=0777,dir_
0 0
```

• Reload the system configuration using:

```
sudo systemctl daemon-reload
```

• Mount the new share using:

```
sudo mount -a Troubleshooting
```

If you run into errors trying to mount the share you should be able to find details as to why by issuing a command like so:

```
sudo journalctl -n 50
```

This will return the last 50 lines of the system log which should provide clues as to why the mount command failed.

SMTP

These settings dictate the details surrounding how, and from whom, email reports and other emailed notifications are sent. System administrators can set up default accounts for emailed reports, and then allow individual site administrators to override these settings so they can set up their own from addresses, etc. Use this tab to specify the following settings:

- • From Address - The email address from which reports will be sent.
- • From Display Name - The name that appears in the From field of emails.
- • SMTP Server - The mail server used to send email reports.
- • SMTP Security - Select this option if the connection to the server must be SSL or TLS.
- • SMTP Server Port - The port used to connect to the mail server. By default, the port is 25. If a

security option is selected, the default port will change to the most common port used. (I.e., 465 for SSL or 587 for TLS.)

• Allow site administrators to override SMTP settings - Select this option to allow site administrators to specify their own SMTP settings. In that way, email reports and other items can be sent from an email address associated with the site being analyzed.

• Enable SMTP authentication - Select this option if SMTP authentication is required to send mail from this email address.

• Auth Username - The identifier used to authenticate with the external email server. In some cases, this may be the full email address of the account.

• Password - The corresponding password used to authenticate with the external email server.

• Confirm Password - Re-type the password used to authenticate with the external email server.

System Administrator

Use this tab to specify the following system administrator-based settings:

• Site ID - The unique identifier for the system administrator area of the SmarterStats site.

• Username - The username of the system administrator. By default, the system administrator username is admin.

• New Password - The new password the system administrator wants to use to log in to SmarterStats.

• Confirm Password - The new password the system administrator wants to use to log in to SmarterStats. Note: To successfully change the password, be sure the text typed into this field matches the text typed into the New Password field.

• Email Address - The email address of the SmarterStats administrator.

CSP

The Content Security Policy (CSP) is a computer security standard that was introduced to help prevent specific types of cross-site scripting (XSS) exploits, click-jacking and other types of code injection attacks. Most web applications, like SmarterStats, have a CSP built-in, with little opportunity for administrators to manage the policy without making code-level changes. SmarterStats, however, allows experienced administrators to add things to SmarterStats' existing CSP to expand on its functionality. For example, adding in the ability to embed videos, fonts or scripts from third-party services. These are normally blocked by an application's CSP as it can lead to pages being hijacked to embed, and therefore execute, malicious code.

NOTE: It is strongly recommended that this page be left untouched, except by an administrator or experienced web professional. There may be some entries by default, which cannot be removed, but any additions to any areas should be made very carefully to avoid any potential security issues.

Policy Directives and Sources

Each text box represents a specific "policy directive" within the CSP. Policy Directives describe the policy for a specific resource type and each has one or more allowed sources. The editable policy directive, its description and the uneditable default sources are listed, if any. Each policy can have one or more source, and each source should be on its own line.

connect-src

This policy dictates which URLs are able to be loaded via script interfaces. For example, adding in Google Analytics Site IDs. Wildcards are allowed and there are no default sources. (E.g., *.google.com)

frame-ancestors

This policy specifies valid "parent URLs" that may embed a page in a frame, iframe, etc. Wildcards are allowed and there are no default sources.

frame-src

This policy specifies valid sources for nested content that are loaded via frames, etc. This content can include embedded videos, etc. Wildcards are allowed and there are no default sources.

script-src

This policy specifies valid sources for JavaScript. This includes not only URLs loaded directing using a <script> tag, but also things like inline script event handlers (e.g., OnClick events) and XSLT stylesheets, which can trigger script execution.Wildcards are allowed and there are no default sources.

style-src

This policy specifies valid sources for stylesheets. Wildcards are allowed and there are no default sources.

Report Settings

System administrators can use this section to specify general settings for SmarterStats reports. To access this section, click the Settings icon and then click Report Settings in the navigation pane. The report settings will load in the content pane and the following options will be available in the content pane toolbar:

- Save - Saves any changes made on the page.
- Load Defaults - There are default values set for each item listed in Report Settings that are available and that will accommodate the majority of servers running SmarterStats. If, at any time, system admins want to revert to these default settings they simply click this button.

The following tabs will be available in the content pane:

Options

Use this tab to specify the following settings:

> • Custom Report Limit - The maximum number of days for which users can retrieve statistics when creating custom reports. Note: This option is only available in SmarterStats Enterprise.
> • Max Items Per Report - Limits the number of report items that can be added to one custom report. Note: This option is only available in SmarterStats Enterprise.
> • DNS Threads - Depending on your computer's hardware configuration, it may be beneficial to raise or lower how much processing it does by changing the maximum number of IP addresses it resolves at one time. The default value of 100 will work for most servers.
> • DNS Lookup Limit - Allows you to set a limit on the number of resolved IP addresses that are returned when a user checks the Resolve IPs option in their settings. The higher the number of resolved IP addresses you allow, the longer those report items will take to display, which also results in a higher load on your server.

File Extensions

Although SmarterStats automatically assigns file extensions to specific categories, system administrators have the ability to reassign file extensions to different categories, or add new file types. Use this tab to specify whether specific file extensions should be categorized as downloads, documents, dynamic pages or images.

NOTE: When adding or updating any file extensions, those changes will only take effect from that point forward. If you want to have the new extensions show in your legacy reports -- say you add WEBP to your list of images and want to know how often WEBP files were accessed in the previous month -- you will need to reprocess the log files for however far back you want to go.

External Providers

SmarterStats allows you to connect its user authentication checks to an external database or other system, instead of storing passwords inside of SmarterStats itself. This external system is based on code that you create before applying the settings in this section. For more information about creating an External Login Provider see the help topic Creating an External Login Provider .

For more information about how the External Login Provider changes how SmarterStats works, please refer to the section below entitled How External Login Providers Change SmarterStats .

To access this section, click the Setting icon and then click External Providers in the navigation pane.

The external provider settings will load in the content pane, and the following options will be available in the content pane toolbar:

• Save - Saves any changes made on the page.

• Test - Once you have configured the properties of your provider, you can use this button to attempt a test connection to it. This test will only ensure that it receives a properly formatted result from the provider, and will not validate a proper user login.

• Upload Certificate - If you choose to protect your external provider with a client certificate, this option is how you will upload the certificate to SmarterStats for it to send with the request.

• Delete Certificate - This button will only appear if you have already uploaded a client certificate to SmarterStats to use for external provider calls. It allows you to delete the certificate from the calls.

The following tabs will be available in the content pane:

• URL - Enter the full URL to your external login provider, including the HTTP:// or HTTPS:// and the endpoint to use. For instance, it may look like this: https://externalproviders.example.com/login

• Forgot Password URL - Sites that have their authentication method set to External Login Provider will not be able to use the forgot password functionality. If you have your own web form or system for password recovery, enter the URL that the forgot password page should direct users to. If left blank, a simple notification will instruct users to contact their administrator.

• Force all sites to use this URL - Checking this box will force all sites to redirect to the location set in Forgot Password URL, even if the sites are not set to use external authentication. Use this if you have your own systems or restrictions in place for lost passwords. If Forgot Password URL is blank, this option has no effect.

• Client Certificate - The current state of the client certificate that has been uploaded to SmarterStats. For more information on this topic, see Creating an External Login Provider .

• HTTP Headers to Send - If you wish to send any custom headers with calls to your external provider, enter them here. Each header should be on a separate line, and be formatted as Key:Value pairs. For example: x-access-token: MYTOKENHERE . For more information on this topic, see Creating an External Login Provider .

• Allow Provider to Create Users - By default, SmarterStats will only call the external providers for users that are already configured within SmarterStats. If you wish all calls for configured sites to go to the provider and allow the provider to create new users, check this option. It is vital if you use this option to validate the site ID and confirm that the user requesting access should be allowed to access that specific site.

How an External Login Provider Changes SmarterStats

Use of an external login provider can change the way SmarterStats works, and how users and site administrators interact with SmarterStats, in some fundamental ways. Once configured, the provider can be turned on for selected sites, or all sites at once using propagation from Site Defaults. Some of the changes within SmarterStats, once the authentication method is changed to External Provider, include:

- Users will no longer be able to use Forgot Password, unless a Forgot Password URL is configured by the system administrator. (See above.)
- Users will no longer be able to change their password from within SmarterStats.
- Site administrators will no longer be able to add or delete users.
- System administrators WILL be able to add or delete users when impersonating into a site.
- If the external provider is unavailable or has an error, no users on sites that use it will be able to log in until the provider has been restored or if the sites are changed to Internal authentication and passwords are reset.
- The system administrator will always be able to log in, and their authentication is never tied to the provider.
- If a site's authentication is set to "External Login Provider" and then changed back to "Internal" later, some users may not be able to authenticate until you set a new password for them or they use their email address to do a password reset, (If they have an email address configured for their user.)

Licensing

To view licensing information for SmarterStats, click the Settings icon. Then click Licensing in the navigation pane. The edition, status, version, and license level information for the version of SmarterStats currently being used will load in the content pane.

The following options will be available in the content pane toolbar:

- Activate - Activates a new SmarterStats license key.
- Reactivate - Reactivates a SmarterStats license key.
- Purchase - Allows the system administrator to purchase SmarterTools products.

View Logs

System administrators can easily access the log files generated by SmarterStats to view errors and processing information. To access these logs, click the Settings icon. Then click View Logs in the navigation pane. The following options will be available in the content pane:

- Server - The server from which the log files are collected.
- Type - The type of logs you would like to view (general, email reports, exceptions, service communications)
- Date - The date you want to view log files from.
- Search String - The word or phrase for which to search.

To view the logs, click Search in the content pane toolbar. Once clicked, the search results will be displayed in the Results area. You are able to copy items from the Results and use them as needed. To download the logs as a .zip file, click Download in the content pane toolbar.

Active Processes

System administrators can use this page to see the activity of SmarterStats servers and troubleshoot problems. To access this section, click the Settings icon, then click Active Processes in the navigation pane. The active servers will load in the content pane and the following columns will be available:

- Server Name - The name of the server.
- Site - The site on the server that is performing an activity.
- Activity - The action being performed on the site. For example, idle, gathering statistics, reprocessing stats, etc.

Memory Usage

The Memory Usage section provides valuable information regarding each Web server running the SmarterStats remote service, the status of the server, and information pertaining to the sites that cause the highest usage of server resources for the SmarterStats application.

To access this section, click the Settings icon. Then, click Memory Usage in the navigation pane. A list of servers will load and the following columns will be available:

- Server Name - The common name for each Web server running the SmarterStats service as it was named during the time the server was added to the Web interface.
- Status - The status of the SmarterStats service on that particular web server. If an error occurred while communicating with the service, it will show up in red text.
- High/Current/Low - The highest amount of memory used (in MB), the current amount of memory being used, and the lowest amount of memory used for stats processing on that server.
- High Site - The website that used the most memory on that server.
- Queries - The number of queries running on the server at that time.

Site Defaults

Use this section to create global default settings that can be applied to new sites added to SmarterStats. These default settings can be overwritten and are only intended to avoid repetitive data entry. Using site defaults makes it especially easy for ISPs, hosting providers or large enterprises that manage multiple websites to add those sites quickly, easily and to ensure that data is accurate across all of the sites in their network. Note: Modifications to these settings will not affect existing sites.

Using the Propagation button, System Administrators can apply Site Defaults to all of the sites configured in SmarterStats. System admins can opt to propagate all settings, or select individual settings to propagate. For example, if the time zone of the sites needs to change, admins can ONLY propagate that one change.

To access the default site settings, click the Settings icon and then click Site Defaults in the navigation pane. The default site settings will load in the content pane and the following tabs will be available:

Options

Use this tab to specify the following options:

- • SmarterLog Path - The full path to the location in which the site's SmarterStats log files will reside. Note: This should be a location dedicated to storing the SmarterLog files on a drive with ample free space.
- • Time Zone - The time zone under which log files are processed.
- • Enable Log Analysis - Select this option to collect and report on log file data for sites. Note: If you do not have the ability to import sites' log files into SmarterStats, this option should be disabled. If this option is disabled, many reports and options will not be available.
- • Enable Site Tuning - Select this option to allow SmarterStats to scan the site for errors and potential issues that could affect its search engine ranking or visitor experience. Note: If this option is disabled, users and site administrators will not have access to the site tuning section of the interface.

Log Analysis

Use this tab to specify the following options:

- • Compress Log Files - The amount of time to wait before compressing original log files.
- • Log File Auto-Delete - The maximum amount of time the original log files (those created by the Web server) should be stored.
- • SmarterLog Auto-Delete - The maximum amount of time SmarterLog files should be stored. SmarterLog files are in a compressed format, which allows you to store a wider date range of logs versus saving the standard web server log files.

• Default Documents - Type the default documents for the website in the text box. Any hits to pages that match these filenames will be grouped into a root hit instead. For example, if you enter default.aspx and index.htm, both of these pages will register as page hits to "/".

• Look for logs in .gz and .zip archives - Select this option to look for logs in compressed archives.

• Include logs stored in subfolders - Select this option if your logs are stored within sub-folders inside a root log folder.

Site Tuning Options

Use this tab to specify the following site tuning options:

• Max Pages To Crawl - The maximum number of pages on which SmarterStats should scan for errors and performance issues. By default, the max pages to crawl is 10,000.

• Max Pages Per Minute - The maximum number of pages SmarterStats crawls per minute. This setting is used to control the load put on Web server. By default, SmarterStats will crawl 120 pages per minute. The maximum is 600 pages per minute.

• Max Query Pages - The number of query string variants that will be inspected on each page of a site. By default, the max query pages is 10. The maximum is 1,000 pages. Highly dynamic sites, such as those with a forum, may want to increase this number to ensure all pages of the site are crawled.

Server Defaults

Use this section to create global default settings that will be applied to new servers added to SmarterStats. These default settings can be overwritten and are only intended to avoid needless data entry. Using server defaults makes it especially easy for ISPs, hosting providers or large enterprises that manage multiple websites across multiple servers to add those servers quickly, easily and to ensure that settings are consistent across all of the servers in their network. Note: Modifications to these settings will not affect existing servers.

Using the Propagation button, System Administrators can apply Server Defaults to all of the servers in SmarterStats. System admins can opt to propagate all settings, or select individual settings to propagate. For example, if the Import Time of Day needs to change, admins can ONLY propagate that one change.

To access the default server settings, click the Settings icon. Then click Server Defaults in the navigation pane. The default server settings will load in the content pane and the following options will be available:

• Import Time of Day - The start and end times the sever should be importing files.

• Session Timeout - The minutes between when one session counts as a separate session, or the time of inactivity between website hits before one session becomes another.

• Max Sessions Per Site - The number of concurrent sessions tracked when the server is importing log files. NOTE: This setting should not be changed.

• Debug Level - The level of detail kept in the service log file.

• Resource Usage - The amount of CPU used to process statistics. System administrators can modify this setting based on the type of server, the number of sites or other things that may affect log processing. For more information, refer to the KB article Configure SmarterStats to Use More/Less System Resources .

Impersonate User

System administrators have the ability to impersonate other users. This can be useful if a user reports a problem with how reports are being generated, if a site administrator has an issue with a particular setting, and more.

When clicking on Impersonate User in the navigation pane, a modal window opens with the following options:

• Site - The sites configured on the server will appear in this dropdown. Select the site the user belongs to.

• Username - Once a site is selected, the users associated with that site will be listed in this dropdown. Simply select the user to impersonate.

Clicking the OK button will log the administrator in to the site as the user that was selected.

SmarterStats Self Diagnostic

Use the SmarterStats Self Diagnostic to test versions, locale settings, folder permissions, and Internet connectivity. To access this feature, click the Settings icon. Then expand the Activation folder and click Self Diagnostic in the navigation pane. SmarterStats will perform a test and display the results in a popup window.

Additional Help Topics

Creating an External Login Provider

This topic explains the process used to create an External Login Provider. For information about the

settings required to enable your provider after you have coded and deployed it, or for a general overview of the topic, please refer to External Providers .

This help topic is intended for software developers who are tasked with implementing this type of provider for an organization. This help topic will refer to your implementation of the External Login Provider as the "provider" for simplicity.

There are several steps required to get the provider working:

- Creating, testing, and deploying the provider. (Topics covered on this page.)
- Configuring the provider inside of SmarterStats at the system level.
- For each site that you want to use the provider, changing its user authentication setting to External Provider. (This can also be done through site propagation.)

Once it is set up, all users created for sites using the External Login Provider will be authenticated ONLY through the provider. Any login credentials stored within SmarterStats for these sites will no longer function. NOTE: The system administrator is always authenticated internally, and at this time system administrator credentials cannot be attached to the provider.

Implementing the User Login Provider

The provider is a web API endpoint. A sample provider written in ASP.Net Web API using C# and Microsoft.Net 5.0 is available for download. In reality, a provider can be written in any programming language (Node.js, Java, Python, PHP, etc.) that you are comfortable with, as long as it conforms to the requests and responses that SmarterStats expects.

Sample External Login Provider on GitHub

The Provider should be implemented as a single POST API call that takes three inputs as a JSON body in the request:

- site_id (an integer)
- username
- password

For example: POST https://YOUR_ENDPOINT_URL/login { "site_id": 5, "username": "bjones", "password": "mySuperSecurePassword" }

The provider should take this input and generate a response with one of the following result formats as JSON: Failure { "login_successful": false, "reason": "Message to show to the user." } Success { "login_successful": true }

All responses should have a status code of 200 (OK). Any result other than that will be considered an error and will be treated as an authentication failure.

In the sample we have provided, the file LoginController.cs does the bulk of the work of the API call and looking up the users. You can use that sample for reference to replace with your own implementation. Follow the comments in the code to understand why certain things are there, and what areas you'd need to replace with your own logic.

Allowing your Provider to create new users in SmarterStats

By default, your provider is called only if a user already exists with the username and Site ID provided on the SmarterStats login page. In this scenario, the provider is only used as an authentication method, it does not handle user creation. This is how the majority of SmarterStats administrators have the product configured. If you are using SmarterStats this way, you can skip this section. However, if you want the provider to create users for different Site IDs, read on.

If you enable the option within SmarterStats to allow the provider to create users, then your provider will be called on every login attempt for site IDs that exist and are set to authenticate with the provider. If you enable that option, other return values are required from your API in order to know how to create the users, if necessary. Success (if you want to allow the API to create users in SmarterStats) { "login_successful": true, "username": "bjones", "email_address": "bjones@@example.com", "is_site_administrator": false }

- username - The username that should be created. This should match the one sent to the provider, but may be cleaned up (e.g., remove spaces) or normalized to a specific letter casing if need be.
- email_address - The email address for the user for things such as email reports.
- is_site_administrator - Determines whether the user has access to settings for their site, such as site import rules or scheduled reports.

If the user already exists, they will not be recreated or changed in any way. But if they do not, they will be created with the default user settings and the items you pass back.

Unit Testing your Provider

It is strongly advised to test all possible scenarios for your provider. Using unit tests is a fairly straightforward way to do so.

While the specifics of implementing unit tests is beyond the scope of this document, the sample project we provide uses nUnit in c# in the ExternalProviderSample.Tests project to test various

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situations in the provider. You may want to use this for inspiration for your own tests, or expand from it to test things like database disconnects or internet failures.

Securing your Provider

Use one or more of the following to secure access to your API and prevent others from using it to harvest user data. At the very minimum, HTTPS and either firewall rules or IP restrictions are required.

Use HTTPS

Deploying any public facing Web API without HTTPS is a very bad idea. This is especially true for a login provider. The ONLY time that the provider should be deployed without HTTPS is if it is accessible only on a private IP and restricted to intranet callers only. If the API can be accessed at all from the outside world, or if there is any chance that someone may fiddle with the bindings and allow it to be accessed from the outside, you should take the time and configure HTTPS and disable HTTP calls to the provider.

How to do this depends on what web hosting software you use to host your provider, and is beyond the scope of this document.

Protect it with a firewall

If your provider and SmarterStats installs share the same private IP space, there is no need to expose the provider publicly. Use a private IP, or use firewall rules to block access to the provider from the outside world.

How to do this depends on the environment you use to host your provider, and is beyond the scope of this document.

Use IP Restrictions within your hosting software

You may wish to use your hosting software (such as IIS or Apache) to restrict access to the provider to only come from the IP addresses of your SmarterStats MRS server. This is one of the strongest ways to protect your provider.

How to do this depends on what web hosting software you use to host your provider, and is beyond the scope of this document, but some sources of information can be found below:

IIS

- https://docs.microsoft.com/en-us/iis/configuration/system.webserver/security/ipsecurity/
- https://www.ryadel.com/en/iis-restrict-web-site-access-ip-address-mask-block-deny-allow-how-to/

Apache

- https://httpd.apache.org/docs/2.4/howto/access.html
- https://ubiq.co/tech-blog/apache-restrict-access-by-ip/

Requiring an Access Token to use your Provider

If desired, you can add an access token requirement to your provider. You create a restriction inside of your code that requires a certain HTTP Header name/value pair, and in SmarterStats you can configure that same pair. Note that using this option without using HTTPS is strongly discouraged, since the header can be sniffed over the wire and repeated.

In the sample code, linked above, you can see this by searching for uses of RequireHttpHeaderToPass, and you'll see where we implemented a fake access token check that you can replace with your own headers.

Secure connection with Client Certificates

Client certificates can be used to tightly protect your provider if you must expose your API on a public network. How to require client certificates and access them differs on every hosting platform and programming language, so refer to the corresponding documentation if you wish to implement this type of security.

If you configure your provider to require a client certificate, you may attach the client certificate to SmarterStats using the certificate file and password within the External Providers configuration page. This will instruct SmarterStats to always use the certificate when connecting to the provider.

Geographic Reports

SmarterStats uses a very efficient and accurate geographic engine based on data provided by various sources. These databases are very accurate and are able to correctly identify most traffic hitting your server. Because geolocation data changes frequently, SmarterStats releases a new update of these databases with every release of SmarterStats.

Glossary

Below is an alphabetized list of the various terms and phrases used in SmarterStats.

Area Chart - A type of graph that highlights trends in the same manner as a line chart, using colored areas instead of lines. In SmarterStats, the top 10 results are used to create the area chart. All other results are grouped as "other items."

Authenticated Visitor - An authenticated visitor is a website user who successfully logs into a website using authentication. Scripted authentication like ASP.NET Forms Authentication or database mechanisms do not count as authentication. Typically, authentication must be administrated on the web server.

Bandwidth - Bandwidth represents the total number of kilobytes that were sent to people visiting your site. Bandwidth includes all resources requested by the users.

Bar Chart - A type of graph in which different values are represented by rectangular bars. In SmarterStats, the top 10 results are used to create the bar chart. All other results are grouped as "other items."

Browser - Browser represents the program the website visitor used to view your website. Some typical browsers are Internet Explorer (IE), Firefox, and Opera.

Current Page - The current page is the most recent page that the visitor requested on the site.

Directory - A collection of folders that contain files, regardless of their file extensions, associated with a website. Statistics do not include subdirectories, as those are reported separately.

Document - A file that is readable from a web browser using either the browser itself or a third-party plug-in or product. By default, SmarterStats considers the following extensions to be documents: .CHM, .DOC, .PDF, .PS, .RTF, .TXT, .XLS, .XML. Your administrator may set up additional extensions as documents.

Download - A file that can be downloaded, or saved, to a visitor's local machine. Generally, downloads are specified as such by the site owner, and given either freely or charged on a per-download basis. By default, SmarterStats considers the following extensions to be downloads: .ASF, .AVI, .DOC, .EXE, .GZIP, .MP2, .MP3, .MPEG, .MPG, .MSI, .MSP, .QT, .QTM, .RA, .RAR, .SWF, .TAR.BZ, .TAR.BZ2, .TAR.GZ, .WMA, .WMF, .WPD, .ZIP. Your administrator may set up additional extensions as downloads.

Entry File - The entry file for a visit is the very first file that completed downloading for the visitor. These may frequently be images.

Entry Page - The entry page is the first page a website visitor goes to during a visit

Exclusion - An exclusion is a pre-filter used to remove log file entries that may not be pertinent to a site's statistics. A common usage of exclusions is to ignore internal IP addresses or directories with temporary files.

Exit Page - The page a visitor leaving your site was on prior to moving to a different website.

Extension - The extension represents the type of file hit by a website request.

File - Any and all file extensions that were viewed, visited, hit or downloaded from a particular website.

First Hit - First Hit represents the date and time that the visitor first hit your website during this visit.

Hits - A hit represents a request to your website for a file such as an image, a web page, or a CGI script. One web page may contain several related resources, and as a result, a visitor viewing one web page may trigger several hits. Hits generated as a result of an error (either a 400 or 500 level error) are not counted as actual hits to your site, and are kept separate from successful hits.

Image - Images are files that represent graphical bitmaps. By default, SmarterStats considers the following to be images: .BMP, .CDR, .CGM, .DIB, .EPS, .GIF, .ICO, .IMG, .JAS, .JPEG, .JPG, .PCX, .PIC, .PNG, .PSD, .TIF, .TIFF. Your administrator may set up specific extensions as images. Typically, a single web page can link to several images.

Inclusion - An inclusion is a pre-filter that is used to limit a site's statistics to only specific items of a log file. Inclusions are typically used to restrict a site's statistics to only one subdirectory of a larger parent site.

Keyword - A keyword represents a single word in the search string text used by web users to get to your site.

Last Hit - Last Hit represents the date and time that the visitor was last active on your site

Line Chart - A type of graph that highlights trends by drawing connecting lines between data points. In SmarterStats, the top 10 results are used to create the line chart. All other results are grouped as "other items."

New Visitors - A new visitor represents a visit by a computer that has not yet been to the website in the time period of the report.

Page - The basic building blocks of any website. A website generally contains a collection of different pages that are accessible and viewable via a web browser. By default, SmarterStats considers the following extensions to be pages: .ASP, .ASPX, .CFC, .CFM, .CFMX, .CFML, .CGI, .HTM, .HTML,

.IDA, .IDC, .JHTM, .JHTML, .JSP, .JWS, .MHT, .MHTML, .MV, .PHP, .PHP3, .PHTM, .PHTML, .PL, .SHTM, .SHTML, .STM, .WML, .XDL, .XHTML, .XML.

Page Views - A page view is a successful request for a file on your website that is considered to be a page. These usually mean files with extensions such as .txt, .asp, .aspx, .php, etc. Views generated as a result of an error (either a 400 or 500 level error) are not counted as actual views for your site, and are kept separate from successful views.

PageRank - A Google patented method that uses a link analysis algorithm to measure the importance of a webpage. PageRank values range from 0 to 10, with 10 being the best. While no specific page is mentioned in SmarterStats' PageRank reports, it is possible that the PageRank reported in SmarterStats is only for your site's homepage.

Phrase - A phrase shows the entire search string text used by web users to get to your site.

Pie Chart - A type of graph that represents data as wedges in a circle, or pie shape, so that the relationship between the data can be seen and analyzed more easily. In SmarterStats, the top five results are used to create the pie chart. All other results are grouped as "other items."

Platform - Platform represents the operating system that the website visitor is using. Some typical platforms are Windows 2003 Server, Windows XP, and Mac OSX.

Popularity - Refers to the number of links to your website from pages indexed in a search engine.

Query Item - A query item is an individual parameter passed to a web page, typically a script.

Query String - Query strings are parameters that are passed to web pages in the URL string, commonly scripted pages.

Query Variable - Pages built using a variety of different scripting environments and/or scripting languages. Generally, this includes any page with an extension other than .htm or .html. By default, SmarterStats considers the following extensions to be query variables: .ASP, .ASPX, .CFC, .CFM, .CFML, .CFMX, .CGI, .DLL, .JHTM, .JHTML, .JSP, .JWS, .MHT, .MHTML, .MV, .PHP, .PHP3, .PHTML, .PL, .SHTM, .SHTML, .STM, .WML, .XDL, .XHTML, .XML. Your administrator may set up additional extensions as downloads.

Rank - Rank indicates the position of the item when ordered.

Referrer Host - The Referrer Host represents the website from which visitors to your site came from. A value of "No Referrer" represents a visitor typing your website directly into the browser, using a bookmark, or following a link from an email client.

Referrer URL - The Referrer URL represents the exact web page from which visitors to your site came from. A value of "No Referrer" represents a visitor typing your website directly into the browser, using a bookmark, or following a link from an email client.

Result Code - Result codes are returned by your web server, and indicate whether or not resources were successfully downloaded from your website. Large numbers of 404 errors, for example, may indicate a problem with your website links.

Return Visitors - A return visit is counted when a computer that has already been to the site before returns for another visit.

Return Visits - Return visits represent the times when previous visitors come back to the site again. A high percentage of return visits to total visits indicate that your website is holding visitors' attention.

Saturation - Refers to the number of pages that a search engine has indexed from your website.

Score - This is the total for the column shown (e.g. bytes in, bytes out, or time taken) divided by the total for that column for all items multiplied by 10000. It is used to show what pages need the most optimization. Ex. (itemBytesIn/totalBytesin)*10000. When referring to the results listed by the competitor suggestion tool, score refers to the sum of competitor's position rankings across all selected search engines. The actual formula used is Number of Search Engines * (Max Results - Ranking) = Score.

Search Engine - A search engine is a website whose primary function is providing a search engine for gathering and reporting information available on the Internet or a portion of the Internet.

Spider - A spider is an automated program that searches and indexes websites, usually with the intent of providing information for search engines.

Unique Visitors - A unique visitor represents any number of visits from the same computer. If a person returns to the site again, a visit is counted, but a unique visit is not.

User Agent - The User Agent string is sent by browsers to identify the browser, the operating system they are running on, and installed browser extensions. There are countless varieties of user agent strings.

Visit Length - The number of seconds that a visit lasts. On reports dealing with visit length, the average visit length is calculated and shown for all visits. Visits length assumes that the visitor stays several seconds after their last hit.

Visits - Visits represent the total number of times people have visited your website. A visit is counted whenever a website user requests one or more files from the web server. If the user becomes idle for

more than a certain amount of time (usually 20 minutes), a new visit is generated when they come back.

Web Site Path (Path) - When a visitor moves from page to page within a site, they follow, or generate, a specific path for their movement. For example, a visitor enters your site via the Default.html page, clicks on a link to Product.html, proceeds to Order.html, and finally leaves via Thank_you.html. The path for this visit would look like: default.html/product.html/order.html/thank_you.html.

SMARTERTOOLS END USER LICENSE AGREEMENT

This End User License Agreement ("EULA") is between SmarterTools, Inc. ("SmarterTools") and the License holder ("You" or "Your") of the product this EULA accompanies ("Software"), whether the License was acquired individually, or on behalf of a company, organization, or other entity. It is important to read and understand all the terms, limitations, and conditions contained in this EULA prior to installing and using the Software because they affect how You may use the Software and Your rights under this License. By explicitly accepting this EULA by installing, copying, downloading, accessing, or otherwise using the Software, You agree to be bound by the terms of this EULA. If, prior to using or installing the Software, You decide that You are unable or unwilling to agree to the terms of this EULA, promptly and completely uninstall and destroy any electronic copies of the Software and accompanying items in your possession.

This EULA shall apply to this Software, future versions of this Software, updates, add-ons, and plug-ins to this Software, features selection(s), including, but not limited to, "Professional," "Enterprise" and "Free" editions of the Software, and maximum allowed numbers of users, profiles, devices, email addresses, domains, web sites, or agents ("level"), in addition to any services, technical support, advice, and recommendations related to this Software that may be made available by SmarterTools on the internet, on websites, in the Software documentation, via email or by telephone.

DEFINITIONS

The following definitions shall apply for the purposes of this EULA:

"Confidential Information" shall mean any information or material provided by SmarterTools to You, regardless of how it is provided, that is labeled "Confidential" or has any similar designation, or is information logically understood to be confidential by any reasonable person. This information also includes, but is not limited to, license keys, information related to SmarterTools pricing, any product roadmap, any marketing plans, any Software improvements, or any other information not made available to the public.

"Dedicated Hosting" shall refer to an individual, group, or organization ("Dedicated Host") that maintains a physical server device that is wholly or, in the case of Virtual Private Servers ("VPS"), a dedicated portion of a physical server device that is sold, leased, or otherwise made available to a third party; whether or not a fee or other compensation is exchanged; and in which the third party has authorization and/or access to the activation areas of the software and/or to system administration functions.

"Effective Date" shall be the date upon which this EULA was accepted by You.

"Guest Operating System" shall mean any operating system for which You are officially licensed that runs as a guest, or instance, on top of another operating system, such as in the use of one or more VPS that are used to run the Software.

"License" shall refer to the revocable, non-exclusive, non-transferable license to use the Software in accordance with the terms and conditions of this EULA. The term License applies to purchased and non-purchased Licenses, including but not limited to the object code, source code, and any accompanying alphanumeric combinations used to enable and/or activate the software or certain Features Selection(s) in the Software (collectively, "License Keys")

"License Key" shall apply to the alphanumeric combination entered/applied upon installation and used to access Feature Selections. License Keys are delivered to the owners of purchased (paid for) Licenses and to those who may receive authorized promotional or trial Licenses, if applicable (pursuant to this EULA). This EULA remains in full force and effect for the Software whether a License Key is required or provided by SmarterTools.

"Maintenance and Support" shall mean a yearly, optional licensing subscription that provides You with the ability to download and install any software updates released by SmarterTools and submit support requests as outlined on the Technical Support page of the SmarterTools website. Maintenance and Support is required for the continued use of any Third-Party add-on based on the agreements in place with Third-Party vendors.

"Periodic License" shall be a License with a defined start and end date whether such License is subject to renewal, automatically renews, effectively terminates, or is extended (e.g., Monthly/Lease Licenses, Trial Licenses, Development Licenses). Periodic Licenses may be governed by additional terms and conditions in a separate written agreement.

"Shared Hosting" shall refer to an individual, group, or organization ("Shared Host") that maintains a physical server device upon which software and/or tools are owned and installed by the Shared Host and made available to third parties for access or use; whether or not a fee or other compensation is exchanged; and in which the third parties do not have authorization or access to the activation areas of the Software and/or do not have authorization or access to system administration functions.

"Software" or "Product" shall mean any products developed by SmarterTools, and any third-party products and/or services provided as part of those products and installed by end users and/or system administrators, regardless of where that installation occurs.

"Third Party Providers" shall be any other software, application, plug-in, add-on, utility, tool, device, or methodology by any individual, group, organization, affiliation, company, or other entity that connects, modifies, links, and/or integrates to/with the Software for any purpose whatsoever.

1. License.

A. Grant of License.

Subject to the terms and conditions of this EULA, SmarterTools hereby grants You a revocable, non-exclusive, non-transferable, non-assignable, limited license to use the Software ("License"). This License shall commence on the purchase date of the Software and shall remain in effect until terminated in accordance with the terms of this EULA or superseded by another end user license agreement pursuant to installation of an Update or changes in Features Selection. SmarterTools, together with any third-party content providers whose software code is incorporated in the Software or distributed with it, retains all right, title, and interest to the Software, including, but not limited to, copyrights, trademarks, proprietary methods, and trade secrets ("Intellectual Property") incorporated into the Software.

This License to use the Software is conditioned upon You paying all related charges and fees imposed by SmarterTools for purchase of the Software, monthly license of the Software, or for the authorized delivery of the Software as a service (SaaS). SmarterTools may, in its sole discretion, disable this License if You fail to pay such charges or fees within the time allowed by SmarterTools or otherwise violate any terms in this EULA.

B. Use of the Software.

You shall use the Software for Your own personal or internal business purposes. Personal or internal business purposes shall include the installation of the Software and activation of only one License on any single instance (i.e., personal computer, server, virtual private server (VPS), Cloud instance, etc.) by You or Your Customer(s) pursuant to the terms of section 1.C. below.

C. Sublicense, Resale, Lease, Sub-lease, or Transfer

You may sublicense this License to a third party(ies) ("Customer") only pursuant to a Shared or Dedicated Hosting agreement and the terms and conditions of this EULA, if applicable. You represent and warrant that each Customer has accepted this EULA prior to allowing the Customer access to or utilization of the Software and You shall promptly provide confirmation of each Customer(s) s acceptance of the EULA upon request by SmarterTools. You shall indemnify, defend, and hold SmarterTools harmless against any claims asserted by or against You by any of Your Customer(s) or by any third party related to Your Customer(s) s use of the Software, including but not limited to claims of infringement of the intellectual property rights of any third party and the additional warrantee, liability, and indemnification provisions found in Sections 3 and 5.

Certain authorized parties ("SmarterTools Partner") may Resell, Lease, or Transfer this License (collectively, "Transfer") to any third-party subject and pursuant to a separate authorizing agreement

with SmarterTools. For the purposes of this EULA, Transfer shall refer to any transaction whereby sole use, management, ownership, and/or control of the software is assigned to any third-party for that party's benefit, pursuant to the terms and conditions of this EULA, whether a fee or other compensation is charged and whether such Transfer is permanent or temporary. Transfers by or between any party(ies) other than SmarterTools or a SmarterTools partner must be approved by SmarterTools in advance and in writing.

You may install and maintain the Software on behalf of a third party; however, all SmarterTools Licenses in such circumstances must be purchased by the third party directly through SmarterTools or through a SmarterTools Partner and the Software must be activated under the name of the related third party; thereby, the related third party assumes full ownership of the License subject to the terms and conditions of this EULA.

D. Limitations on Use of the Software and License Keys

You shall not modify, reverse engineer, reverse assemble, decompile, disassemble, decrypt, reflect, or use reflection on the Software, or otherwise attempt to discover or obtain the source code or structure, sequence, or organization of the software in whole or in part, except as provided in Section 9 of this EULA. You may distribute copies of the software code in the same format that you received it, pursuant to the terms of this EULA, so long as You do not modify the Software in any way and so long as all copyright, trademark, and other notices contained in the Software remain intact.

You shall not attempt to bypass, circumvent, disable, design around, or obviate the License Keys for any reason, including but not limited to attempts to access features, capacity, or capabilities in the Software not included in your Features Selection. Further, other than pursuant to Section 1.C. of this EULA, You shall not disclose or disseminate any License Keys associated or distributed with the Software, publicly or to any third party, nor shall You allow anyone else to use any such License Keys.

You may reassign/migrate this Software to a different device owned, leased, or rented by You subject to SmarterTools' approval in its sole discretion, if You completely uninstall or delete the Software from any personal computer, server, Virtual Private Server, or other device on which the Software was previously installed. SmarterTools reserves the right to require, in its sole discretion, reauthorization, re-registration, or another form of authentication at no additional charge to enable reassignment of the Software and may disable the related License Key and/or access to the Software at any time if it determines, in its sole discretion, that such reassignment is prohibited by the terms of this EULA or constitutes fraud.

You shall not use the Software to harm third parties, disseminate unsolicited communications (emails, etc.), requests, or harmful data or programs including but not limited to malicious scripts and viruses.

You shall not use the Software to disseminate pornography, child pornography, or other harmful or illegal materials, or in any way that may disparage or bring disrepute to SmarterTools.

E. Beta Services

SmarterTools may, from time to time, offer certain Software or Services as closed or open beta services ("Betas", "Beta Software", "Beta Service(s)") for the purpose of testing and evaluation by You. You agree that SmarterTools has the sole authority to determine the period for this testing and evaluation. In addition, You agree that SmarterTools will be the sole judge as to the success of such testing and evaluation and the decision, if any, to include or otherwise offer the Software or Services tested. You further agree that SmarterTools will not be liable to you or to any third part for any harm related to, or arising out of our caused by, any Betas.

2. Term and Termination.

This EULA is effective as of the date You install or use the Software, or as of the date You accept this EULA, whichever is sooner. You may terminate this EULA by completely deleting and wholly destroying any copies of the Software and documentation in Your possession or control. SmarterTools may terminate and/or disable the License or EULA if, in its sole discretion, SmarterTools determines that You have breached any of the terms and conditions of this EULA, with or without notice to You of such termination. Sections 1.B., 1.C., 1.D., 3, 5, 6, 7, 8, 9, 10, 11, 12, and 13 shall survive termination of this EULA.

3. Limited Warranty and Limitation of Liability.

A. No Warranties

SmarterTools does not warrant that the Software will meet Your requirements, that the operation of the Software will be uninterrupted or error-free; that any data supplied by the Software will be accurate; or that the Software will work with any 3rd-party or supplemental software or hardware furnished with or accompanying the Software. Further, SmarterTools does not warrant the efficacy, functionality, or operation of such Accompanying Software or Hardware. ALL HARDWARE, SOFTWARE, OR OTHER PRODUCTS OR SERVICES PROVIDED BY SMARTERTOOLS UNDER THIS EULA ARE PROVIDE AS-IS, AND SMARTERTOOLS EXPRESSLY DISCLAIMS ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

B. No Liability for Damages

SmarterTools shall not be liable for any damages under this EULA, including but not limited to consequential, statutory, punitive, incidental, or indirect damages, including but not limited to any loss of data, loss of profits, loss of savings, loss of time or convenience, or additional cost arising out of the

use of or inability to use the Software, documentation, support, or any 3rd-party or accompanying software or hardware; even if SmarterTools has been advised of the possibility of such damages.

SmarterTools only provides the Software; it does not, and cannot, provide any additional products, policies, or services that should be included as part of an organization's use of the Software. Examples of these products, policies, or services include networking appliances, network configurations, firewalls, backup software or services, backup policies, backup retention policies, data protection policies, data protection services, or any other product or service that should be used to mitigate the potential for issues that may cause loss of data, loss of profits, loss of savings, loss of time, or any additional costs arising out of the use of, or inability to use, the Software.

It is Your responsibility to verify whether the Software or service matches the level of risk, security considerations, compliance regulations, or other mitigating circumstances based on your particular use case for the Software, your industry, laws, rules, and guidelines, or any other factor. SmarterTools documentation should not be the sole factor referenced or reviewed for you to make this judgement/verification. Product installation and testing should be performed in addition to communicating with SmarterTools, reviewing documentation, and other exploratory research and analysis as part of your due diligence.

You undertake to keep SmarterTools indemnified from and against all claims and demands of any third party relating to an unauthorized access to or exposure of sensitive or confidential information and/or relating to a data breach, including any exposure of sensitive or confidential information as defined by article 33 GDPR, in Your infrastructure and/or Software and against all charges, costs and expenses incurred in defending, contesting or settling such claims or demands, unless the same can be shown to be attributable solely to the acts or default of SmarterTools.

Further, SmarterTools shall not be liable for nor bound by any claims, representations, promises, assertions, or other statements made by anyone other than SmarterTools employees or officers, including but not limited to resellers and sales representatives.

SmarterTools shall not be liable for any damages or inconvenience resulting from errant data or misreporting of data, nor failures to relay information that may be deemed important by the user, any errant or substantial mistranslation of language or information, and/or for any damages arising from events listed in Section 5 of this EULA.

C. Third Party Providers and Web Services

The Software is designed to integrate and/or to be used in conjunction with Third Party Providers through web services. SmarterTools assumes no liability and makes no warranty or guarantee regarding the applicability or effectiveness of this Software when used in conjunction with these products or whether such integration or use might interfere with the operation therein. You agree to

hold SmarterTools harmless in all matters resulting from the integration or use with Third Party Providers.

D. Limitation of Liability

Your sole remedy under this Agreement shall be limited to replacement of the Software.

4. Technical Support

Currently, SmarterTools provides technical support for the Software via SmarterTools personnel, documentation, and internet resources. For a period after initial purchase of a License, and for subsequent periods when Maintenance and Support is active for a License, technical support from SmarterTools personnel is provided at no charge. If Maintenance and Support is no longer active on a License or if the License is for a product that is no longer in development by SmarterTools, technical support is only available via documentation and internet resources. SmarterTools also provides fee-based tickets for emergencies related to SmarterTools products, as well as training and installation of SmarterTools products. These fees may vary from time to time. Technical support is provided AS-IS, and the provisions of section 3.A., 3.B., 3.C, and 3.D. apply to technical support.

SmarterTools provides no guarantee, expressed or implied, regarding the efficacy or continuation of technical or other support for this Software or version of this Software for any length of time and SmarterTools may choose to discontinue such support at any time and for any reason.

5. Indemnification.

SmarterTools shall defend you against any third-party claim that Your use of the Software, as authorized under this EULA, infringes any patent, copyright, or trademark of a third party, and indemnify you from the resulting costs and damages awarded against You to the third party making the infringement claim. This is dependent upon you (a) notifying SmarterTools, in writing, of any Infringement Claim within thirty (30) days of notice of the claim; (b) giving SmarterTools sole control of the defense of any Infringement Claim and any related negotiations or settlement; and (c) giving SmarterTools all information and assistance necessary to settle or defend the Infringement Claim.

Exclusions to the above include for any Infringement Claim arising out of Your, or any party's other than SmarterTools, modification(s) to the Software, the use of other than the most current version of the Software if the infringement would have been avoided by use of the most current version, the use of Open Source Software in conjunction with the Software, the use of the Software with materials not furnished by SmarterTools or not in accordance with this EULA, or use of the software outside the scope of this EULA.

You shall defend, indemnify, and hold harmless SmarterTools and its suppliers, licensors, successors, affiliates, agents, employees, executives, and assigns (hereafter "SmarterTools Indemnified Parties")

from any claims, damages, losses, or expenses (including without limitation attorney fees and costs) incurred in connection with any and all damages, losses, claims, suits, judgments, or causes of action asserted against SmarterTools Indemnified Parties by third parties or Your Customers related to:

Damages arising from Your breach or Your Customer's breach of this EULA; Any loss, misdirection, or inaccuracy of any and all data, message, and/or information (partial or complete) by, or directed to, You, Your Affiliates, Your Customers, Your vendors, Your assignees, or any related third party and from any action, inaction, or consequence arising out of such loss, misdirection, or inaccuracy of any data, message, or information; Any misuse, abuse, hostile transmission, fraud, or unlawful action arising from or related to the use of the Software or any portion thereof by, or directed at, You, Your affiliates, Your Customers, Your vendors, Your assignees, and/or any related third party; Any claim, damage, loss, or expense related to the installation, quality, use, operation, functionality, transfer, or de-installation of the Software by You, Your Customer(s), or third parties; Any charges imposed by You or third parties on You or Your Customers related to Your or Your Customer(s) s use of the Software, including but not limited to charges for data transmission and bandwidth, regardless of whether you have followed any recommendations provided with the Software or Software documentation.

6. Transfers

The rights under the License may be sublicensed under the terms of Section 1.C. or transferred to any of Your successors, heirs, or assigns. Any other attempt to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void unless You have a separate written agreement with SmarterTools allowing for such transfer(s).

7. Jurisdiction.

This Agreement shall be governed in all respects by the laws of the United States and the State of Arizona, except for conflict of law's provisions. The parties agree that for any dispute, controversy, or claim arising out of or in connection with this Agreement, venue and personal jurisdiction shall be in the federal, state, or local court with competent jurisdiction located in Maricopa County, Arizona. The prevailing party will be entitled to an award of reasonable attorney's fees.

In the case that You are an agency or entity of the United States Government, the following additional terms apply:

* The Software qualifies as Restricted Computer Software, as defined in the Rights in Data-General clause at Federal Acquisition Regulations 52.227-14.

* Use, duplication, or disclosure by the Government is subject to restrictions as set forth in

subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013.

8. Payments and Pricing.

You shall pay the total fee(s) for the Software imposed by SmarterTools at the time of purchase. You shall pay all invoices rendered by SmarterTools within thirty (30) calendar days after the invoice date, or within another time frame set forth by SmarterTools in writing in a separate agreement. All payments shall be made in United States Dollars ($).

Pricing for the Software and any associated products is available on the SmarterTools website. Additional fees may apply when upgrading to a version of the Software significantly enhanced with features previously not existing in Your License. In addition, SmarterTools may update pricing of the Software and any associated products, to reflect current exchange rates, inflation, material, workforce and suppliers' costs, additional fees imposed by Third Parties, or other reasons.

A. Effect of Non-Payment

If You fail to pay any amount due within the above timeframe, SmarterTools may impose late charges equal to the lesser of 1.5% per month or the highest interest rate allowable by applicable law, together with all related expenses and collection costs, including reasonable attorneys' fees, incurred by SmarterTools collecting any amounts owed under this EULA. Further, You shall reimburse SmarterTools for any out-of-pocket expenses incurred in connection with duties performed by SmarterTools hereunder. Upon request by You, SmarterTools shall provide You with reasonable documentation evidencing the out-of-pocket expenses incurred by SmarterTools.

9. Limitations to Customization.

Altering the appearance and/or user interface of the Software can only be achieved, and is only supported, by using the tools and options provided within the Software itself. (E.g., using the tools within the software to customize login pages and/or providing custom links to help documentation.) Any changes to any files installed with the Software that are made outside of the Software's interface is done at your own risk and will not be supported, retained, or otherwise preserved during any upgrade, downgrade, or other installation of the Software.

All applicable copyright and trademark information shall not be removed in any way, shall remain visible to the naked eye and free from any clutter or similar color scheme. In addition, any proprietary notices in the Software shall be maintained and neither removed nor obscured in any way.

10. Transmission of Information and Communication.

At purchase of the Software and at other times during the term of this EULA You will be required to supply certain information including, but not limited to, email address(es), password(s), street addresses, personal and/or company information, payment information (e.g., credit card information), and/or other personally identifiable and potentially valuable information. Acceptance of this Agreement indicates Your willingness to provide this information, to keep Your information up to date and current, and to have it transmitted to SmarterTools via internet, phone, facsimile, verbally, or otherwise and Your assumption of the incumbent risks associated with such transfers. SmarterTools takes the privacy and security of data very seriously and will make efforts to protect data in accordance with our privacy policy. A copy of the SmarterTools privacy policy is available by request and incorporated herein by reference. In any event, SmarterTools and its suppliers, licensors, successors, affiliates, agents, employees, executives, and assigns shall not be liable for any stolen, misdirected, or otherwise mishandled information pursuant to this EULA.

From time-to-time SmarterTools may contact You at any address, including any email address(es), You have provided to SmarterTools regarding the Software, available Updates or Features Selection for the Software, or for promotional purposes. You hereby expressly consent to such communications. If you do not wish to receive further notices, you may notify SmarterTools of your preferences via your account on the SmarterTools website.

From time to time the Software may use the internet or other means to exchange data with computers, servers, or other electronic devices owned by SmarterTools to maintain licenses, communicate updates or instructions, provide utilization metrics, gauge performance, enforce SmarterTools' rights with regard to licensing and this EULA, or other information as is needed. Acceptance of this Agreement indicates Your acceptance of this communication and Your assumption of the incumbent risks associated with such communication. Any attempt to prevent, preclude, disrupt, or modify this communication is not allowed under this EULA and may result in the disabling of the Software and license key.

SmarterTools may, at its discretion, offer products and/or services related to the software directly to any user and/or administrator of its Software. The ability of such users and/or administrators to purchase, subscribe or otherwise make use of such products/services is done at their request and any transaction will occur between such users and/or administrators and SmarterTools directly.

11. Third-party Correspondence, Interaction, Purchase, Service, or Promotion

During use of the Software, You may enter into correspondence with, purchase goods and/or services from, or participate in promotions of third party advertisers or sponsors displaying goods and/or services through the Software, and you recognize, however, that certain third-party providers of ancillary software, hardware, or services may require Your agreement to additional or different licenses agreements or other terms prior to Your use of or access to such software, hardware, or

services.. Any such activity, and any terms, conditions, warranties, or representations associated with such activity, is solely between You and the applicable third party. SmarterTools shall have no liability, obligation, or responsibility for any such correspondence, interaction, purchase, service, or promotion between You and any such third-party including, but not limited to, translations, mapping, sharing, or any other service or transfer, even if such third-party correspondence, interaction, purchase, service, or promotion is listed as a benefit or feature of the Software. SmarterTools explicitly disclaims any liability, obligation or responsibility for the continuation, viability, quality, reliability, or availability of any such third party provided correspondence, interaction, purchase, service, or promotion.

In all events, conditions, and circumstances the provisions and limitations of Sections 3, 5, and 7 shall apply.

12. Severability.

The provisions of this Agreement will be deemed severable, and the invalidity or unenforceability of any provision(s) will not affect the validity or enforceability of any other provision(s) herein.

13. Disabling of License Keys

SmarterTools may disable License Keys at any time at its sole discretion. Examples of instances where License Keys may be disabled include, but are not limited to the following: for invoices that are not paid within a reasonable timeframe as determined by SmarterTools payment terms; License Key purchases that are made fraudulently and/or deceptively; License Key purchases that result in a charge-back or disputed charge; Instances where License Key owners threaten legal action against SmarterTools; Instances where License Key owners are deemed by SmarterTools to be abusive towards SmarterTools and/or SmarterTools employees, or otherwise refuse to work collectively with SmarterTools to resolve issues with our software whether through phone conversation, email, live chat, online message boards or community posts, or other means.

14. Dispute Resolution

Any disputes, claims or controversies arising out of, relating to, concerning, or pertaining to the terms of this Agreement, or to either Party's performance or failure of performance under this Agreement ("Disputes"), which Disputes the Parties have been unable to resolve by informal methods, will first be submitted to mediation.

Either Party may initiate mediation by providing Notice to the other Party of a written request for mediation, setting forth a description of the Dispute and the relief requested. Unless otherwise agreed to by the Parties, the mediation will not be scheduled for a date that is greater than 60 days from the date of Notice of the request for mediation.

The Parties will cooperate with one another in selecting the mediator ("Mediator") and in scheduling the time and place of the mediation, per Section 7. Such selection and scheduling will be completed within 30 days after Notice of the request for mediation.

The Parties covenant that they will participate in the mediation, and that they will share equally in its costs (other than each Party's individual attorneys' fees and costs related to the Party's participation in the mediation, which fees and costs will be borne by such Party).

Results of the mediation will not be subject to discovery and will be confidential, privileged, and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding between or involving the Parties, or either of them; provided, however, that evidence that is otherwise admissible or discoverable will not be rendered inadmissible or non-discoverable because of its use in the mediation.

15. Export Control and Regulation

You may not use, export, import, or transfer the Software except as authorized by U.S. law, the laws of the jurisdiction in which you obtained the Software, and any other applicable laws. In particular, but without limitation, the Software may not be exported or re-exported (a) into any United States embargoed countries, or (b) to anyone on the U.S. Treasury Department's list of Specially Designated Nationals or the U.S. Department of Commerce's Denied Person's List or Entity List. By using the Software, you represent and warrant that (i) you are not located in a country that is subject to a U.S. Government embargo, or that has been designated by the U.S. Government as a "terrorist supporting" country and (ii) you are not listed on any U.S. Government list of prohibited or restricted parties. You also will not use the Software for any purpose prohibited by U.S. law, including the development, design, manufacture, or production of missiles, nuclear, chemical, or biological weapons. You acknowledge and agree that products, services, or technology provided by SmarterTools are subject to the export control laws and regulations of the United States. You will comply with these laws and regulations and will not, without prior U.S. government authorization, export, re-export, or transfer SmarterTools products, services, or technology, either directly or indirectly, to any country in violation of such laws and regulations.

16. Entire Agreement.

This EULA constitutes and expresses the entire agreement and understanding between the parties hereto with respect to the subject matter, all revisions discussions, promises, representation, and understanding relative thereto, if any, being herein merged. This Agreement replaces and supersedes any prior agreement entered between the parties hereto with respect to the subject matter herein. This EULA may change, from time to time, and when changes are made, the "Revision Date" at the bottom of this document will change to note when the EULA was last updated.

Rev. 20240422