

HarePoint Analytics

For SharePoint

Administrator Guide



HarePoint Analytics for SharePoint 2007 product version: 3.11 HarePoint Analytics for SharePoint 2010 product version: 14.13

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1. Introduction

HarePoint Analytics for SharePoint (formerly MAPILab Statistics for SharePoint) is a solution for web analytics. It is the source of detailed information on the usage and performance of SharePoint-based portals and websites. Product reports cover such aspects as users and their behavior; usage of content, documents, list items and search services.

This manual has been produced by MAPILAB and contains information essential for the successful installation of HarePoint Analytics for SharePoint on your computer. We ask that you read the contents of this manual carefully before starting the installation process. This manual includes technical information regarding installation, upgrade, migration and configuration of the product. It is intended for SharePoint and SQL Server administrators. More information about the product and its usage you can find in User Guide and at:

http://harepoint.com/Products/HarePointAnalyticsForSharePoint/Default.aspx

2. Quick Start

1. Read the <u>Preparation for deployment</u> area of Administrator Guide.

2. Install the product as it described in <u>Installation and deployment</u> area.

3. Create the databases as it described in Initial Settings area

4. Grant the users with permissions to generate the reports as it described in <u>Managing of the access to the</u> <u>reports</u> area.

5. Create the tasks to send generated reports automatically by email as it described in <u>Creation of the tasks</u> to get reports by email area of Administrator Guide.

3. How it works

HarePoint Analytics for SharePoint is deployed on all servers in the SharePoint Farm. The product is deployed as the **Farm solution** and it adds several **Timer Jobs** and the **Site Collection Feature** during the deployment. The product is configured in **SharePoint Central Administration**.

3.1. Data collection

HarePoint Analytics for SharePoint collects data using its own **HTTP module** and **Timer Jobs**. The product doesn't modify SharePoint pages and doesn't add scripts to them. Also it doesn't use the IIS or SharePoint ULS logs for data collection.

To start the data collection it is necessary to activate the **Site Collection Feature** named "HarePoint Analytics for SharePoint" for each site collection where the product should be used. When the **Feature** is activated the product starts data collection. Two separate SQL databases are used for the data storing: the first one is used as a queue database and data is collected into this database. A separate **Timer Job** starts by schedule, takes data from the queue database, enriches it with additional data and stores it in the second database. Two separate databases are used to decrease the loading of SQL server during the data collection and processing. All used **Timer jobs** and their settings are described in <u>HarePoint Analytics Timer Jobs</u> area of this document.

HarePoint Analytics uses the following methods for data collection:

- **HttpModule**. It adds own HttpModule to the web.config files for all web-applications in the farm.
- EventReceivers. It adds several event processors to the site collections where our feature is activated.
- **Timer jobs**. It adds several Timer Jobs for the Microsoft SharePoint Foundation Timer, which collects and processes data.
- Active Directory. It requests data from AD during the data collection using LDAP.
- SharePoint API. It collects data from the SharePoint content databases through the SharePoint object model.
- SQL. It gets some data using calls to SharePoint databases (SQL requests)
- **java-script**. To get details on user's click on search results HarePoint analytics adds java-script which requests data from web service search.asmx or mlsearch.asmx (if the internal SharePoint scripts are not added to the pages).

Data collection stops when a trial period ends. In such situations you will see a notification on the **HarePoint Analytics for SharePoint Settings** page:



and also in the bottom of the displayed report:

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To extend the trial period additional **Trial Registration Key** is required.

Data collection doesn't stop when the number of SharePoint users exceeds the number of purchased licenses. If such situation occurs the product notifies you about it by adding a red string to the **HarePointAnalytics for SharePoint Settings** -> **Licensing** page:

Control			
Administration	Objects	for licensing	
Application Management	(i)	Use the links to receive more data	
System Settings	~		
Monitoring		SharePoint license type:	SharePoint Server 2010
Backup and Restore		Number of servers with Microsoft SharePoint Foundation Web Application:	1
Security		Number of users in the statistics database:	35
Upgrade and Migration			
General Application Settings		Refresh	
Configuration Wizards			
	Summa	ry of available licenses	
	P	To manage licenses, use the links in the bottom of list	
		Trial license (expired):	1
		User license:	25
		Summary of available licenses:	Insufficient number of user licenses (users: 35; licenses: 25).
		 Refresh Add license keys View / delete license keys Purchase HarePoint Analytics for SharePoint 	

And also in the bottom of the reports:

Browse Analyze



Central Administration
HarePoint Analytics for SharePoint 2010

This report allows you to evaluate the rate of growth of the SharePoint server's databate

Date Range: 12/10/2011 - 1/10/2012

Overview

Insufficient number of user licenses (users: 35; licenses: 25).



Data collection continues and the product works without any technical limitations.

3.1.1. Personal data which is collected and stored in the product database

Active directory data

- ObjectGUID Unique user identifier.
- SchemaClassName Active Directory class name. For a user this attribute is equal to User.
 Sid
 - User Security Identifier.
- **ParentObjectVersion** Reference to user's parent Active Directory object - container or organizational unit.
- DistinguishedName String like CN=John Smith,OU=Staff,DC=thecompany,DC=local.
- Name
 User name. Like John Smith.

- **DisplayName** User name. Equal to Name (There are differences in Active Directory object types).
- CanonicalName

String like thecompany.local/Staff/ John Smith.

- **CommonName** User name. Equal to Name (There are differences in Active Directory object types).
- Description
 Custom information about a user.
- Company Company name.
- **Department** Department name.
- City City name.
- **Country** Country name.
- Culture User culture. Two letters like EN or DE.
- Mail User e-mail address.
- PhysicalDeliveryOfficeName

Physical delivery office name.

- SAMAccountName Part of user login name. For example if full login name is THECOMPANY\smith, SAMAccountName equal to smith.
- StateProvince State or province.
- StreetAddress Street address.
- Title

Title name.

- UserPrincipalName
 New form of user login name. Example: smith@thecompany.local.
- WWWHomePage
 User's personal web page URL.
- Groups
 List of user's security groups.

SharePoint data

• Login

Login name. For the Active directory users have form <DOMAIN>/<user name>.

- Name User name.
- Email
- User e-mail.
- Notes Additional custom information.
- Groups List of the SharePoint groups users.

3.2. Data processing

The product collects data in a real-time mode into the database which is used as a queue database. Each 5 minutes (default settings) data from this database is processed and stored in the second database as data of "level 0". Some data can be requested not so often (for example, the size of databases or the number of documents in the document library) and the data collection on such objects is performed by the second **Timer Job** by a separate schedule. Once a day one more **Timer Job** is started. It processes all data collected during a day and prepares data for reports (to speed up the report generation). This process takes time and prepares data of "level 1". So, new data is displayed in the reports on the next day.

The product stores detailed statistics within half of a year (default value is 180 days)

List of data which will be removed after one year

- Daily data on user's browsers (report: Browsers)
- Daily data on types of a document (report: Documents by type)
- Daily data on popularity of documents (report: Document popularity)
- Daily data on usage of documents (reports: Document usage overview, Document usage)
- Daily data on usage of lists (reports: List items usage overview, List items by users)
- Daily data on operation systems used by visitors (report: Platforms)
- Daily data on the results of search requests (report: Search overview, Users searches)
- Daily data on the dynamics of visits (report: Visits trend, also the data is used in reports Users activity and Visits by department)
- Daily data on the depth of visits (report: Depth of visits)
- Daily data on the length of visits (reports: Length of visits)
- Daily data on the number of used documents by the AD groups (report: Documents by Active Directory groups)
- Daily data on the number of used documents by departments (report: Documents by departments)
- Daily data on the number of used documents by the SharePoint groups (report: Documents by SharePoint groups)
- Daily data on the usage of list items by the AD groups, departments and the SharePoint groups (reports: List items by Active Directory groups, List items by departments, List items by SharePoint groups)
- Daily data on the usage of list items (report: List items usage)
- Daily data on the number of viewed pages (report: Pageviews)
- Daily data on the number of visits (report: Visits)

Also all links to the deleted data are removed.

3.3. Report Generation

Reports can be generated in three ways:

- when a user clicks on the necessary report in the Dashboard;
- when a page with a web-part is opened by a visitor (a report is displayed by the HarePoint Analytics web-part);
- when a task sending the report automatically by e-mail is executed by the scheduler.

All the data collected during a day is processed and prepared to be displayed in the reports. So, all necessary data is pre-generated and when the report has to be generated, HarePoint Analytics just reads data from the database and displays it in tables or in a chart. When the user clicks "Export to PDF or XLS" the task is performed at the server side. The necessary data is read from the database tables and converted into the proper format.

3.4. Subscription to the reports

HarePoint Analytics allows you to create the tasks which will generate and send specified reports by e-mail in the specified time. To create a task a user should be granted with the permission of "**Site Settings**". Also, the SharePoint administrator can create necessary tasks for users. It is possible to select the report; specify the time range, exporting format; set the scheduler and specify the recipients which should get this data automatically. The number of the created tasks is unlimited. In a specified time the product prepares the report in a specified format (PDF or XLS) at the server side and sends it by e-mail to the lists of recipients.

To get more details about how to create the tasks, please look at the <u>Creation of the tasks to get reports</u> by email area of the Administrator guide.

4. End User License Agreement (EULA)

This license agreement is concluded between MAPILab Ltd. (hereinafter MAPILab) and you (the collective user, an authorized representative of a commercial or government organization or private person).

Installation and usage of software product HarePoint Analytics for SharePoint (hereinafter the Product) by you, including user programs and report packs, indicates your acceptance of all points of the license agreement set forth below. If you do not agree with the proposed agreement, then you are obligated to refuse installing and using the Product.

1. Terms used in this Agreement

Execution environment — physical or virtual environment in which an operating system runs. <u>SharePoint server</u> – an execution environment where one of the following products is installed: "Office SharePoint Server", "Office SharePoint Server for Search", "Windows SharePoint Services", "Project Server 2007" or "InfoPath Form Services".

<u>SharePoint user</u> – a user authorized in any way on a SharePoint server; including users interacting with a SharePoint server through Microsoft Word, Microsoft Excel or other applications.

<u>Internet site</u> — a website that is controlled by the SharePoint servers under the license from Microsoft or its representatives under the conditions provided by Office SharePoint Server 2007 for Internet sites and/or Office Forms Server for Internet sites.

2. Rights to the Product

2.1 All rights belong to MAPILab and they are protected by the copyright laws of the United Kingdom of Great Britain and Northern Ireland and by international treaties. This product is not sold, this product is licensed.

2.2 This license agreement gives you a nonexclusive right to use the product with the limitations specified in this agreement.

2.3 This license to use the Product may not be resold or transferred to third parties or rented without the written permission of copyright holders.

2.4 The license does not grant the right to modify, decompile, disassemble and clone the Product, except in and within the limits of cases when such actions are expressly authorized by the legislation of the Russian Federation.

2.5 MAPILab reserves all rights that are not clearly indicated in the license.

3. Licensing terms for the Product

3.1 With the exception of special types of licenses, described in paragraphs 4 and 5, the Product is licensed according to the number of users.

3.2 A user license is required for each SharePoint user. One user license can be used on any number of servers in the given organization. The number of user licenses for the Product must not be less than the number of client licenses (CAL) on the SharePoint server; when using the Product on a server with Windows SharePoint Services, the number of user licenses for the Product must not be less than the number of SharePoint users.

4. Product licenses for Internet sites

For Internet sites, the Product is licensed by SharePoint servers, without consideration of the number of users.

5. Trial license and a trial period

5.1 If you install the product without purchasing a license, MAPILab provides you a one-time, 30-day trial license to test the product and all its functions.

5.2 This agreement presupposes that you have used the product and used the test license with the intent to acquire a license for the Product after a successful test. MAPILab may contact you to discuss the progress of the testing of the product and the obtaining of a license.

5.3 After the test license is expired, you must purchase a license for the Product or stop using it and delete all installed copies of the Product.

6. Disclaimer

6.1 MAPILab is not responsible for any loss of profit, or for any other damages arising from the use or misuse of the Product. The Product is used at your own risk.

6.2 MAPILab is not responsible if the Product ceases to function due to changes in your IT-infrastructure.

7. Confidential information

7.1 Any log files of the Product, access credentials, and other information about your infrastructure, which has been given to MAPILab by you, shall be deemed as confidential information.

7.2 If not specifically stated otherwise, MAPILab has the right to send confidential information to its authorized representatives, and to transfer such information outside of your country.

7.3 MAPILab is obligated not to keep your confidential information more than two years and to take all reasonable steps to protect it.

8. Refunds

8.1 For testing the Product, a free test license is granted, according to Paragraph 5. Failure on your side to test the Product before buying it cannot serve as a ground for a refund.

8.2 To obtain a refund it is necessary, but not sufficient in itself, to provide MAPILab, in any convenient manner, with a letter of request outlining the reasons why you want to have funds returned for the Product.

8.3 You are obligated to assist employees of MAPILab in investigating the stated reason(s) for a refund and its (their) resolution in a timely manner, within up to 45 days from the reception of your letter.

9. Technical support and Product updates

9.1 The price of the license for the product includes the cost of technical support and product updates for ONE year from the date of the acquisition of the license. After the expiration of this period, you can continue to use your version of the Product without any limitations, purchase a subscription for technical support and Product upgrades, or purchase a new version of the Product as it becomes available.

9.2 You must have a competent technical staff to deploy and service the product and contact the technical support service.

9.3 All requests for technical support must be made through the <u>online support system</u> on the site of the Product.

Violation of the terms of this License Agreement shall result in the automatic termination of the license for using the Product and could result in administrative and / or criminal prosecution.

5. Preparation for deployment

HarePoint Analytics for SharePoint is deployed on all servers in the SharePoint farm. To install and deploy the program successfully, you must have administrator rights for both SharePoint servers and for the Windows Server on which the Product will be deployed. The product can be installed and deployed in two ways:

- Automatically using Setup.exe
- Manually using Stsadm.exe

We recommend using Setup.exe because it checks whether HarePoint Analytics can be installed and performs the installation automatically. It checks:

- installation of SharePoint
- permissions to install and deploy SharePoint Solution
- whether the necessary services are started

It allows you to:

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- install and deploy the solution;
- repair the solution (retract the solution and deploy it again);
- remove the solution;
- select the web-applications to which the solution should be deployed.

Also, it generates **Installation.log** which simplifies the troubleshooting if any problems occur during the installation or deployment.

5.1. System requirements

5.1.1. HarePoint Analytics for SharePoint 2007

- 1. Microsoft Office SharePoint Server 2007, Windows SharePoint Services 3.0
- Microsoft SQL Server 2005; SQL Server 2005 Express Edition Microsoft SQL Server 2005 Express Edition can be <u>downloaded for free</u> from the web-site of Microsoft Company
- 3. Windows Component: Message Queuing (it is optional. These components are required if you would like to use MSMQ instead of the SQL table as a queue for the data collection).
- Microsoft .NET Framework 2.0 Service Pack 1
 Download x86 version from <u>Microsoft Download Center</u>

 Download x64 version from <u>Microsoft Download Center</u>
- 5. Internet Explorer 7.0 or newest is recommended to view reports

5.1.2. HarePoint Analytics for SharePoint 2010

- 1. Microsoft Office SharePoint Server 2010, SharePoint Foundation 2010
- Microsoft SQL Server 2005 or higher; SQL Server 2005 Express Edition or higher Microsoft SQL Server 2005 Express Edition can be <u>downloaded for free</u> from the web-site of Microsoft Company
- Microsoft .NET Framework 3.5 SP1.
 Microsoft .NET Framework 3.5 SP1 can be downloaded for free from the <u>Microsoft Download</u> <u>Center</u>
- 4. Internet Explorer 8.0 or newest is recommended to view reports

5.2. Before the installation and deployment

Here is a list of items which should be checked before the installation and deployment of the product.

- 1. The latest version of the product is downloaded from HarePoint.com
- 2. The correct product is downloaded (there are two products available on HarePoint.com: HarePoint Analytics for SharePoint 2007 and HarePoint Analytics for SharePoint 2010).
- 3. The downloaded product ZIP is unzipped into the temporary folder on the WFE server.
- 4. The SharePoint farm is configured completely.
- 5. The web-sites and SharePoint Central Administration web-site are working properly.
- 6. All files web.config are not write-protected.

In case of automatic installation and deployment using Setup.exe the following items will be checked automatically. In case of manual installation and deployment you should check also the following:

7. A command-line tool for the SharePoint administration (**Stsadm.exe**) is accessible. You must be an administrator on the local computer to use Stsadm. It is located at the following path on the drive where SharePoint Products and Technologies are installed:

%COMMONPROGRAMFILES%\microsoft shared\web server extensions\12\bin or %COMMONPROGRAMFILES%\microsoft shared\web server extensions\14\bin

- 8. You are starting the installation from the SharePoint Web front-end server.
- 9. You have administrator rights for both SharePoint servers and for the Windows Server on which the Product will be deployed.
- 10. Make sure that Administrative Service is started. The service name is one of the following:
- Microsoft SharePoint Foundation administrative service (for SharePoint 2010);
- Windows SharePoint Services Administration (for SharePoint 2007).
- 11. Make sure that SharePoint Timer Service is started.

5.3. Calculation of the Database size

For example, 500 users * 20 clicks per day * 20 days per month * 11 month = about 2,2 millions of clicks per year.

HarePoint Analytics for SharePoint saves two sets of data: detailed and summary.

For the detailed data, database with 2.2 million hits will have the size of about 15 GB but if you save only the summary data and totals it will take about 40MB.

With the default settings the products saves detailed data during one year, after one year detailed data are deleted. Summary data and Totals are never deleted.

So, the size of the database with 2.2 million hits will be about 15 GB after one year and it will be increasing very slowly with the same number of hits.

If the number of clicks is increased to 2.5 million – the database size will increase to 17 GB.

Growth of the size of the statistics database

Hit count	DB_size	reversed	data	index_size	unused
500000	5625.75 MB	1769840 KB	663424 KB	1091584 KB	14832 KB
1000000	7020.75 MB	3291240 KB	1236272 KB	2037384 KB	17584 KB
2500000	19672.44 MB	6690568 KB	2350552 KB	4315392 KB	24624 KB
3500000	31743.56 MB	8671248 KB	2996352 KB	5649744 KB	25152 KB
5500000	38269.13 MB	12969912 KB	4395576 KB	8545120 KB	29216 KB
8500000	42427.44 MB	14606256 KB	4998432 KB	9577896 KB	29928 KB

6. Installation and deployment

Please, read carefully the **<u>Preparation for deployment</u>** area of the **Administrator guide** before the installation.

The product distributive contains the following files and folders:

Bin – the folder contains a program library for the installation tool
Resources – the folder contains all necessary files to deploy HarePoint Analytics manually
HarePoint.Installer.Core.dll – core program library of the installation tool
installation.log – this file is created when the installation tool is started. It contains installation logs.
Setup.exe – executable file to start the installation tool
Setup.exe.config – XML file with the directions to the installation tool.

HarePoint Analytics for SharePoint can be deployed in the automatic mode and manually.

6.1. Automatic installation and deployment using Setup.exe

The Automatic installation and deployment processes are identical for both products: HarePoint Analytics for SharePoint 2007 and HarePoint Analytics for SharePoint 2010.

Also you can watch video tour that will guide you through all steps of HarePoint Analytics deployment process:

Show tour | Download offline version (7 Mb)

The installation and deployment are performed by a special tool. To start it click file **Setup.exe.**

At the first step the installation tool checks the version of SharePoint which is installed and shows the error message if incorrect distributive of the product is downloaded. If the appropriate version is detected you will see the following window:

HarePoint Analytics for SharePoint		
HarePoint Analytics for SharePoint		
Welcome to the HarePoint Analytics for SharePoir	nt setup wizard.	
This setup wizard will install and deploy the following solutions 1. HarePoint Analytics for SharePoint 2010	: to your SharePoint 2010	farm:
www.harepoint.com	Back Next	Cancel

At the next step the installation tool checks the necessary components and the permission to install and deploy the product. If everything is OK you will see the following window:

HareP	oint Analytics for SharePoint	
Pre Cher mac	erequisites ecking if HarePoint Analytics for SharePoint can be installed from this chine.	
0 0 0 0 0 0 0 0	 Checking if Microsoft SharePoint Foundation 2010 is installed. Microsoft SharePoint Foundation 2010 is installed. Checking permissions to install and deploy SharePoint solutions. You have permissions to install and deploy SharePoint solutions. Checking if Administrative Service is running. Microsoft SharePoint Foundation Administration is running. Checking if Timer Service is running. Microsoft SharePoint Foundation Timer is running. Checking if solutions exist in package. Solutions are detected. Checking if solution 'HarePoint Analytics for SharePoint 2010' file exists. Solution file Resources\2010\MAPILabSharePointStatistics2010.wsp was found. Checking if solution 'HarePoint Analytics for SharePoint 2010' is already installed. Solution 'HarePoint Analytics for SharePoint 2010' is not alled. 	
All ch	hecks succeeded. Please click Next to proceed with the installation.	
www.ł	harepoint.com	9

If you see a red mark in the list – you should fix the problem before continuing the installation.

At the next step you should read and accept the License Agreement:

HarePoint Analytics for SharePoint
End-User License Agreement
Please read the following license agreement carefully
License agreement is concluded between MAPILab Ltd. (hereinafter Mapilab) and you (the collective user, an authorized representative of a commercial or government organization or private person). Installation and usage of the software product HarePoint Analytics for SharePoint (hereinafter the Product) by you, including user programs and report packs, indicates your acceptance of all points of the license agreement set forth below. If you do not agree with the proposed agreement, then you are obligated to refuse installing and using the Product. 1. Terms used in this Agreement Frecution environment - physical or virtual environment in which an
www.harepoint.com

At the next step you should select the Web-applications and Site Collections to which the product should be deployed:

HarePoint Analytics for SharePoint
Deployment Targets Select deployment targets for 'HarePoint Analytics for SharePoint 2010'.
Select Site Collections to activate features.
Image: Second state sta
Web Applications / Site Collections
www.harepoint.com

When you click "Next" the product deployment will be started and you will see the window with the status bar and deployment logs:

HarePoint Analytics for SharePoint	
Installation Progress Please wait Press Cancel to stop	
Executing command "stsadm.exe -o mlstrestartsptimer". Skipping inaccessible site collection http://sp14.vlab.mapilab.local:133/sites/Office_Viewing_Service_Cache. Skipping inaccessible site collection http://sp14.vlab.mapilab.local:133/sites/test2. Site feature MLStatSite '3a56844a-8c0d-4f40-826b-a5c0b4254e06' activated in http://sp14.vlab.mapilab.local:133. Site feature MLStatSite '3a56844a-8c0d-4f40-826b-a5c0b4254e06' activated in http://sp14.vlab.mapilab.local:133/sites/blog. Site feature MLStatSite '3a56844a-8c0d-4f40-826b-a5c0b4254e06' activated in http://sp14.vlab.mapilab.local:133/sites/blog. Site feature MLStatSite '3a56844a-8c0d-4f40-826b-a5c0b4254e06' activated in http://sp14.vlab.mapilab.local:133/sites/nick. Finish activating site collection features. Finish activating features for solution HarePoint Analytics for SharePoint 2010. Start executing command ''stsadm.exe -o mlstcopyappbincontent'' Command executed successfully. Start executing command ''stsadm.exe -o mlstrestartsptimer''	
www.harepoint.com	<u>C</u> ancel

When the deployment is finished you will see message "Installation completed successfully" at once after the status bar:

HarePoint Analytics for SharePoint	
Installation Progress	
Completed	
Installation completed successfully	
Site feature MLStatSite '3a56844a-8c0d-4f40-826b-a5c0b4254e06' activated in http://sp14.vlab.mapilab.local:133. Site feature MLStatSite '3a56844a-8c0d-4f40-826b-a5c0b4254e06' activated in http://sp14.vlab.mapilab.local:133/sites/blog. Site feature MLStatSite '3a56844a-8c0d-4f40-826b-a5c0b4254e06' activated in http://sp14.vlab.mapilab.local:133/sites/nick. Finish activating site collection features. Finish activating features for solution HarePoint Analytics for SharePoint 2010. Start executing command "stsadm.exe -o mlstcopyappbincontent" Command executed successfully. Start executing command "stsadm.exe -o mlstrestartsptimer" Command executed successfully. Executing of the installation actions completed. Installation session completed at 1/4/2012 5:54:40 PM.	
www.harepoint.com	<u>C</u> ancel

Click **Next** and **Finish** to exit from the installation tool. The product is installed and deployed.

6.2. Manual installation and deployment

Also you can watch video tour that will guide you through all steps of HarePoint Analytics deployment process in manual mode:

Show tour | Download offline version (9 Mb)

6.2.1. HarePoint Analytics for SharePoint 2007

The process of installing HarePoint Analytics for SharePoint is identical for Windows SharePoint Services 3.0 and for Microsoft Office SharePoint Server 2007. Please read carefully the <u>Preparation for deployment</u> area of the **Administrator guide** before the installation.

The software distributive contains a folder named "**Resources\2007**". There are the necessary files to deploy the product manually:

Tools – folder which contains a tool developed by MAPILab Ltd to simplify the deployment of solutions for SharePoint.

deployment-guide.en.mht – quick guide which contains necessary data to deploy the product manually (English)

deployment-guide.en.pdf – quick guide which contains necessary data to deploy the product manually (English)

deployment-guide.ru.mht – quick guide which contains necessary data to deploy the product manually (Russian)

deployment-guide.ru.pdf – quick guide which contains necessary data to deploy the product manually (Russian)

harepoint-analytics-user-guide.en.mht - user guide (English)

harepoint-analytics-user-guide.en.pdf – user guide (English)

harepoint-analytics-user-guide.ru.mht – user guide (Russian)

harepoint-analytics-user-guide.ru.pdf – user guide (Russian)

license.en.mht – License agreement (EULA, English).

license.en.pdf – License agreement (EULA, English).

license.ru.mht – License agreement (EULA, Russian).

license.ru.pdf – License agreement (EULA, Russian).

MAPILabSharePointStatistics.wsp – the solution file which should be added to the repository of solutions of SharePoint.

Run **Command Prompt** (<u>executable</u> name **cmd.exe**) as **Administrator** and go to the folder where file **MAPILabSharePointStatistics.wsp** is located. Execute the following commands:

stsadm -o addsolution -filename MAPILabSharePointStatistics.wsp

to add a solution file to the solution store.

stsadm -o deploysolution -name MAPILabSharePointStatistics.wsp –allowgacdeployment – immediate

to deploy the solution package to the SharePoint farm. The deployment will be started immediately.

After execution of **deploysolution** it is necessary to wait while the solution is deployed on all servers in the SharePoint Farm. To learn more about the current status of the solution execute the following command:

stsadm -o displaysolution -name MAPILabSharePointStatistics.wsp

If the deployment of the solution is completed you should be able to find "**DeploymentSucceeded**" under the **<LastOperationResult>** section and also value "**TRUE**" must be displayed under the **<Deployed>** section. If both values are displayed you can continue the installation of HarePoint Analytics, if no – wait for a while and execute **displaysolution** again.

Next, run the **stsadm -o mlstcopyappbincontent** command to copy the necessary resource files to all servers in the SharePoint farm. This command is the extension for the **stsadm.exe** utility distributed with HarePoint Analytics. As the result of running this command, **stsadm -o copyappbincontent** will start on each SharePoint farm server.

As a result of these actions, the HarePoint Analytics solution will be deployed on the servers. Now you should configure the product. To learn more about it please visit the <u>Initial Settings</u> area of the **Administrator guide**.



6.2.2. HarePoint Analytics for SharePoint 2010

The process of installing HarePoint Analytics for SharePoint 2010 is identical for SharePoint Foundation 2010 and Microsoft SharePoint Server 2010. Please read carefully the <u>Preparation for deployment</u> area of the **Administrator guide** before the installation.

The software distributive contains a folder named "**Resources\2010**". There are the necessary files to deploy the product manually:

Tools – folder which contains a tool developed by MAPILab Ltd to simplify the deployment of solutions for SharePoint.

HarePointAnalyticsForSharePoint-AdminGuide.EN.mht – guide which contains necessary data to deploy and administrate the product manually (English)

HarePointAnalyticsForSharePoint-AdminGuide.EN.pdf – guide which contains necessary data to deploy and administrate the product manually (English)

HarePointAnalyticsForSharePoint-UserGuide.EN.mht - user guide (English)

HarePointAnalyticsForSharePoint-UserGuide.EN.pdf – user guide (English)

license.en.mht – License agreement (EULA, English).

license.en.pdf – License agreement (EULA, English).

license.ru.mht – License agreement (EULA, Russian).

license.ru.pdf – License agreement (EULA, Russian).

MAPILabSharePointStatistics2010.wsp – the solution file which should be added to the repository of solutions of SharePoint.

Run **Command Prompt** (<u>executable</u> name cmd.exe) as **Administrator** and **g**o to the folder where the file **MAPILabSharePointStatistics2010.wsp** is located. Execute the following commands:

stsadm -o addsolution -filename MAPILabSharePointStatistics2010.wsp

to add a solution file to the solution store.

stsadm -o deploysolution -name MAPILabSharePointStatistics2010.wsp –allowgacdeployment – immediate

to deploy the solution package to the SharePoint farm. The deployment will be started immediately.

After execution of **deploysolution** it is necessary to wait while the solution is deployed on all servers in the SharePoint Farm. To learn more about current status of the solution execute the following command:

stsadm -o displaysolution -name MAPILabSharePointStatistics2010.wsp

If the deployment of the solution is completed you should be able to find "**DeploymentSucceeded**" under the **<LastOperationResult>** section and also the value "**TRUE**" must be displayed under the **<Deployed>** section. If both values are displayed you can continue the installation of HarePoint Analytics, if no – wait for a while and execute **displaysolution** again.

Next, run the **stsadm -o mlstcopyappbincontent** command to copy the necessary resource files to all servers in the SharePoint farm. This command is the extension for the **stsadm.exe** utility distributed with HarePoint Analytics. As the result of running this command, **stsadm -o copyappbincontent** will start on each SharePoint farm server.

As a result of these actions, the HarePoint Analytics solution will be deployed on the servers. Now you should configure the product. To learn more about it please look at the <u>Initial Settings</u> area of the **Administrator guide**.

7. Upgrading of the product version

We are working permanently to improve the product and we strongly recommend you to use the latest available version of the product.

Before starting the upgrading process please check the following:

- 1. The latest version of the product can be downloaded from HarePoint.com
- 2. The correct product is downloaded (there are two products available at HarePoint.com: HarePoint Analytics for SharePoint 2007 and HarePoint Analytics for SharePoint 2010).
- 3. The downloaded product ZIP is unzipped into the temporary folder on the WFE server.
- 4. All files web.config are not write-protected.

In case of automatic upgrading using Setup.exe the following items will be checked automatically. In case of manual upgrading you should check also the following:

5. A command-line tool for the SharePoint administration (**Stsadm.exe**) is accessible. You must be an administrator on the local computer to use Stsadm. It is located at the following path on the drive where SharePoint Products and Technologies are installed:

%COMMONPROGRAMFILES%\microsoft shared\web server extensions\12\bin or

%COMMONPROGRAMFILES%\microsoft shared\web server extensions\14\bin

- 6. You are starting the installation from the SharePoint Web front-end server.
- 7. You have administrator rights for both SharePoint servers and for the Windows Server on which the Product will be deployed.
- 8. Make sure that Administrative Service is started. The service name is one of the following:
 - Microsoft SharePoint Foundation administrative service (for SharePoint 2010);
 - Windows SharePoint Services Administration (for SharePoint 2007).
- 9. Make sure that SharePoint Timer Service is started.

The product distributive contains the following files and folders:

Bin – the folder contains a program library for the installation tool
Resources – the folder contains all necessary files to deploy HarePoint Analytics manually
HarePoint.Installer.Core.dll – core program library of the installation tool
installation.log – this file is created when the installation tool is started. It contains installation logs.
Setup.exe – executable file to start the installation tool
Setup.exe.config – XML file with the directions to the installation tool.

HarePoint Analytics for SharePoint can be upgraded in the automatic mode and manually.

7.1. Automatic upgrading using Setup.exe

Automatic upgrading process is identical for both products: HarePoint Analytics for SharePoint 2007 and HarePoint Analytics for SharePoint 2010.

The installation, upgrading and removing of the product are performed by a special tool. To start it click file **Setup.exe.**

At the first step the installation tool checks the version of SharePoint which is installed and shows the error message if incorrect distributive of the product is downloaded. If the appropriate version is detected you will see the following window:

HarePoint Analytics for SharePoint	
HarePoint Analytics for SharePoint	
Welcome to the HarePoint Analytics for SharePoint setup wizard.	
This setup wizard will install and deploy the following solutions to your SharePoint 2010 farm: 1. HarePoint Analytics for SharePoint 2010	
www.harepoint.com	Cancel

At the next step the installation tool checks the necessary components and the permission to install, upgrade or remove the product. If everything is OK you will see the following window:

HarePoint Analytics for SharePoint	
Prerequisites Checking if HarePoint Analytics for SharePoint can be installed from this machine.	
 Checking if Microsoft SharePoint Foundation 2010 is installed. Microsoft SharePoint Foundation 2010 is installed. Checking permissions to install and deploy SharePoint solutions. You have permissions to install and deploy SharePoint solutions. Checking if Administrative Service is running. Microsoft SharePoint Foundation Administration is running. Checking if Timer Service is running. Microsoft SharePoint Foundation Timer is running. Checking if solutions exist in package. Solutions are detected. Checking if solution 'HarePoint Analytics for SharePoint 2010' file exists. Solution file Resources\2010\MAPILabSharePoint 2010' file exists. Solution file Resources\2010\MAPILabSharePoint 2010' is already installed. Solution 'HarePoint Analytics for SharePoint 2010' is already installed. 	
All checks succeeded. Please click Next to proceed with the installation.	
www.harepoint.com	ncel

If you see a red mark in the list – you should fix the problem before continuing the upgrading of the product. At the next step select **Upgrade** and click the Next button:

HarePoint Analytics for SharePoint	
Upgrade	
Please select the operation you wish to perform	
HarePoint Analytics for SharePoint is already installed. What would you like to do?	
Upgrade Upgrade the solutions.	
© Remove	
Retract the solutions and delete them from the SharePoint solution store.	
www.harepoint.com	Lancel

When you click "Next" the product upgrading process will be started and you will see the window with the status bar and logs:

HarePoint Analytics for SharePoint	
Upgrading Progress Completed	
Start activating features for solution HarePoint Analytics for SharePoint 2010. Start activating site collection features. Site feature MLStatSite '3a56844a-8c0d-4f40-826b-a5c0b4254e06' activated in http://ms. Site feature MLStatSite '3a56844a-8c0d-4f40-826b-a5c0b4254e06' activated in http://ms. Finish activating site collection features. Finish activating features for solution HarePoint Analytics for SharePoint 2010. Start executing command ''stsadm.exe -o mlstcompleteupgrade'' Command executed successfully. Start executing command ''stsadm.exe -o mlstcopyappbincontent'' Command executed successfully. Start executing command ''stsadm.exe -o mlstrestartsptimer'' Command executed successfully. Executing of the installation actions completed. Installation session completed at 1/6/2012 7:17:51 PM.	
www.harepoint.com	<u>C</u> ancel

Click Next and Finish to close the wizard. The product is upgraded.

All settings should be applied automatically and you should change nothing but it is better to check it. Go to the **SharePoint Central Administration** web site and check the HarePoint Analytics settings:

- Connection to the databases;
- Schedulers for the data collection and processing;
- Filters (if you are using the data collection filters)
- Applied policies;
- Entered license keys.

7.2. Manual upgrading

7.2.1. HarePoint Analytics for SharePoint 2007

The process for upgrading HarePoint Analytics for SharePoint is identical for Windows SharePoint Services 3.0 and for Microsoft Office SharePoint Server 2007. Please read carefully the <u>Upgrading of the product</u> <u>version</u> area of the **Administrator guide** before the installation.

The software distributive contains a folder named "**Resources\2007**". There are the necessary files to deploy the product manually:

Tools – folder which contains a tool developed by MAPILab Ltd to simplify the deployment of solutions for SharePoint.

deployment-guide.en.mht – quick guide which contains necessary data to deploy the product manually (English)

deployment-guide.en.pdf – quick guide which contains necessary data to deploy the product manually (English)

deployment-guide.ru.mht – quick guide which contains necessary data to deploy the product manually (Russian)

deployment-guide.ru.pdf – quick guide which contains necessary data to deploy the product manually (Russian)

harepoint-analytics-user-guide.en.mht - user guide (English)

harepoint-analytics-user-guide.en.pdf - user guide (English)

harepoint-analytics-user-guide.ru.mht - user guide (Russian)

harepoint-analytics-user-guide.ru.pdf - user guide (Russian)

license.en.mht – License agreement (EULA, English).

license.en.pdf – License agreement (EULA, English).

license.ru.mht – License agreement (EULA, Russian).

license.ru.pdf – License agreement (EULA, Russian).

MAPILabSharePointStatistics.wsp – the solution file which should be added to the repository of solutions of SharePoint.

Run **Command Prompt** (<u>executable</u> name **cmd.exe**) as **Administrator** and go to the folder where file **MAPILabSharePointStatistics.wsp** is located. Execute the following commands:

stsadm -o upgradesolution -name MAPILabSharePointStatistics.wsp -filename MAPILabSharePointStatistics.wsp -allowgacdeployment -immediate

to upgrade the solution.

After execution of **upgradesolution** it is necessary to wait while the solution is upgraded on all servers in the SharePoint Farm. To learn more about the current status of the solution execute the following command:

stsadm -o displaysolution -name MAPILabSharePointStatistics.wsp

If the deployment of the solution is completed you should be able to find "**DeploymentSucceeded**" under the **<LastOperationResult>** section and also value **"TRUE**" must be displayed under the **<Deployed>** section:



If both values are displayed properly you can continue the upgrade of HarePoint Analytics, if no – wait for a while and execute **displaysolution** again.

Next, run

stsadm -o mlstcompleteupgrade -copyappbincontent -restartsptimer

This command is the extension for the **stsadm.exe** utility distributed with HarePoint Analytics. As the result of running this command, **stsadm -o copyappbincontent** will be started on each SharePoint farm server and the **SharePoint Timer Service** will be restarted on all servers in the farm.

7.2.2. HarePoint Analytics for SharePoint 2010

The process for uninstalling HarePoint Analytics for SharePoint 2010 is identical for SharePoint Foundation 2010 and Microsoft SharePoint Server 2010. Please read carefully the "<u>Upgrading of the product version</u> area of the **Administrator guide** before starting the product upgrade.

The software distributive contains a folder named "**Resources\2010**". There are the necessary files to deploy the product manually:

Tools – folder which contains a tool developed by MAPILab Ltd to simplify the deployment of solutions for SharePoint.

HarePointAnalyticsForSharePoint-AdminGuide.EN.mht – guide which contains necessary data to deploy and administrate the product manually (English)

HarePointAnalyticsForSharePoint-AdminGuide.EN.pdf – guide which contains necessary data to deploy and administrate the product manually (English)

HarePointAnalyticsForSharePoint-UserGuide.EN.mht - user guide (English)

HarePointAnalyticsForSharePoint-UserGuide.EN.pdf - user guide (English)

license.en.mht – License agreement (EULA, English).

license.en.pdf – License agreement (EULA, English).

license.ru.mht – License agreement (EULA, Russian).

license.ru.pdf – License agreement (EULA, Russian).

MAPILabSharePointStatistics2010.wsp – the solution file which should be added to the repository of solutions of SharePoint.

Run **Command Prompt** (<u>executable</u> name cmd.exe) as **Administrator** and go to the folder where the file **MAPILabSharePointStatistics2010.wsp** is located. Execute the following commands:

stsadm -o upgradesolution -name MAPILabSharePointStatistics2010.wsp -filename MAPILabSharePointStatistics2010.wsp –allowgacdeployment -immediate

to upgrade the solution.

After execution of **upgradesolution** it is necessary to wait while the solution is upgraded on all servers in the SharePoint Farm. To learn more about the current status of the solution execute the following command:

stsadm -o displaysolution -name MAPILabSharePointStatistics2010.wsp

If the deployment of the solution is completed you should be able to find "**DeploymentSucceeded**" under the **<LastOperationResult>** section and also value "**TRUE**" must be displayed under the **<Deployed>** section:



If both values are displayed properly you can continue the upgrade of HarePoint Analytics, if no – wait for a while and execute **displaysolution** again.

Next, run

stsadm -o mlstcompleteupgrade -copyappbincontent -restartsptimer

This command is the extension for the **stsadm.exe** utility distributed with HarePoint Analytics. As the result of running this command, **stsadm -o copyappbincontent** will be started on each SharePoint farm server and the **SharePoint Timer Service** will be restarted on all servers in the farm.
8. Removing the solution

Before removing the solution please make sure that all files web.config are not write-protected. During the removal, all of the settings, and also all of the collected statistical information stored in the databases will not be deleted.

HarePoint Analytics for SharePoint can be removed in the automatic mode and manually.

In case of automatic removing using Setup.exe the following items will be checked automatically. In case of manual upgrading you should check also the following:

1. A command-line tool for the SharePoint administration (Stsadm.exe) is accessible. You must be an administrator on the local computer to use Stsadm. It is located at the following path on the drive where SharePoint Products and Technologies are installed:

%COMMONPROGRAMFILES%\microsoft shared\web server extensions\12\bin or %COMMONPROGRAMFILES%\microsoft shared\web server extensions\14\bin

- 2. You are starting the installation from the SharePoint Web front-end server.
- 3. You have administrator rights for both SharePoint servers and for the Windows Server on which the Product will be deployed.
- 4. Make sure that Administrative Service is started. The service name is one of the following: Microsoft SharePoint Foundation administrative service (for SharePoint 2010); - Windows SharePoint Services Administration (for SharePoint 2007).
- 5. Make sure that SharePoint Timer Service is started.

The product distributive contains the following files and folders:

Bin – the folder contains a program library for the installation tool **Resources** – the folder contains all necessary files to deploy HarePoint Analytics manually HarePoint.Installer.Core.dll - core program library of the installation tool installation.log – this file is created when the installation tool is started. It contains installation logs. Setup.exe - executable file to start the installation tool

Setup.exe.config – XML file with the directions to the installation tool.

8.1. Automatic removing using Setup.exe

Automatic removing process is identical for both products: HarePoint Analytics for SharePoint 2007 and HarePoint Analytics for SharePoint 2010.

The installation, upgrading and removing the product are performed by a special tool. To start it click file **Setup.exe.**

At the first step the installation tool checks the version of SharePoint which is installed and shows the error message if incorrect distributive of the product is downloaded. If the appropriate version is detected you will see the following window:

HarePoint Analytics for SharePoint	
HarePoint Analytics for SharePoint	
Welcome to the HarePoint Analytics for SharePoint setup wizard.	
This setup wizard will install and deploy the following solutions to your SharePoint 2010 farm: 1. HarePoint Analytics for SharePoint 2010	
www.harepoint.com	<u>C</u> ancel

At the next step the installation tool checks the necessary components and the permission to install, upgrade or remove the product. If everything is OK you will see the following window:

HarePoint Analytics for SharePoint				
Prerequisites Checking if HarePoint Analytics for SharePoint can be installed from this machine.				
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	 Checking if Microsoft SharePoint Foundation 2010 is installed. Microsoft SharePoint Foundation 2010 is installed. Checking permissions to install and deploy SharePoint solutions. You have permissions to install and deploy SharePoint solutions. Checking if Administrative Service is running. Microsoft SharePoint Foundation Administration is running. Checking if Timer Service is running. Microsoft SharePoint Foundation Timer is running. Checking if solutions exist in package. Solutions are detected. Checking if solution 'HarePoint Analytics for SharePoint 2010' file exists. Solution file Resources\2010\MAPILabSharePointStatistics2010.wsp was found. 			
All checks succeeded. Please click Next to proceed with the installation. Back Next				

At the next step select option "Remove" and click the Next button.

HarePoint Analytics for SharePoint			
Upgrade			
Please select the operation you wish to perform			
HarePoint Analytics for SharePoint is already installed. What would you like to do?			
C Repair			
Retract the solutions and deploy them again.			
Remove Retract the solutions and delete them from the SharePoint solution store.			
O Change			
Change deployment targets for the solutions.			
Back Next Cancel			
www.harepoint.com			

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When the product removing process is finished you will see the "**Installation completed successfully**" message below the status bar:

rePoint Analytics for SharePoint	
Removing Progress	
Completed	
Installation completed successfully	
Waiting for deployment job completion (solution HarePoint Analytics for SharePoint 2010) Deployment job completed (solution HarePoint Analytics for SharePoint 2010). Last operation result: RetractionSucceeded, details: SP14-FE2 : The solution was successfully retracted. SP14-FE1 : The solution was successfully retracted. SP14-SRCH : The solution was successfully retracted. SP14-APP : The solution was successfully retracted. Start removing solution 'HarePoint Analytics for SharePoint 2010' (MAPILabSharePointStatistics2010.wsp). The 'HarePoint Analytics for SharePoint 2010' solution was successfully removed from store. Solution 'HarePoint Analytics for SharePoint 2010' version was unregistered. Start executing command 'Resources\2010\tools\mlstadm.exe -o mlstrestartsptimer'' Command executed successfully. Executing of the installation actions completed. Installation session completed at 1/4/2012 5:59:50 PM.	•
ww.harepoint.com	ancel

Click "**Next**" and "**Finish**" buttons to exit the installation tool. The solution is retracted and the product is removed from the SharePoint farm.

8.2. Manual removing

Please read carefully the <u>Removing the solution</u> area of the **Administrator guide** before starting the process of the product removing.

8.2.1. HarePoint Analytics for SharePoint 2007

The process for uninstalling HarePoint Analytics for SharePoint is identical for Windows SharePoint Services 3.0 and for Microsoft Office SharePoint Server 2007.

To remove the product from the SharePoint farm execute the following command:

stsadm -o retractsolution -name MAPILabSharePointStatistics.wsp -immediate

After execution of **retractsolution** it is necessary to wait while the solution is retracted from all servers in the SharePoint Farm. To learn more about the current status of the solution execute the following command:

stsadm -o displaysolution -name MAPILabSharePointStatistics.wsp

If the retracting of the solution is completed you should be able to find "**RetractionSucceeded**" under the **<LastOperationResult>** section and also value "**FALSE**" must be displayed under the **<Deployed>** section: If both values are displayed properly you can continue the upgrade of HarePoint Analytics, if no – wait for a while and execute **displaysolution** again.

Next, run command:

stsadm -o deletesolution -name MAPILabSharePointStatistics.wsp

to delete the solution. After that, restart **Windows SharePoint Services Timer** on each server. You can either do this manually by using Services or using command:

mlstadm -o mlstrestartsptimer

mlstadm tool is included into the package of HarePoint Analytics for SharePoint (it is located in the **tools** subfolder).

8.2.2. HarePoint Analytics for SharePoint 2010

The process for uninstalling HarePoint Analytics for SharePoint 2010 is identical for SharePoint Foundation 2010 and Microsoft SharePoint Server 2010.

To remove the product from the SharePoint farm execute the following command:

stsadm -o retractsolution -name MAPILabSharePointStatistics.wsp -immediate

After execution of **retractsolution** it is necessary to wait while the solution is retracted from all servers in the SharePoint Farm. To learn more about the current status of the solution execute the following command:

stsadm -o displaysolution -name MAPILabSharePointStatistics.wsp

If the retracting of the solution is completed you should be able to find "**RetractionSucceeded**" under the **<LastOperationResult>** section and also value "**FALSE**" must be displayed under the **<Deployed>** section: If both values are displayed properly you can continue the upgrade of HarePoint Analytics, if no – wait for a while and execute **displaysolution** again.

Next, run command:

stsadm -o deletesolution -name MAPILabSharePointStatistics.wsp

to delete the solution. After that, restart **Windows SharePoint Services Timer** on each server. You can either do this manually by using Services or using command:

mlstadm -o mlstrestartsptimer

mlstadm tool is included into the package of HarePoint Analytics for SharePoint (it is located in the **tools** subfolder).

9. Migration

When a site is restored from backup or it is moved to another site collection or farm, the site identifiers are changed. In this case the web-site will be recognized as a new one and data collection will be started from the beginning. You will not see previously collected data in the reports. To avoid such problem a migration of the statistics data is required, too.

9.1. Migration from HarePoint Analytics for SharePoint 2007 to SharePoint 2010

Attention! Remove HarePoint Analytics for SharePoint 2007 before the migration of the SharePoint content database.

HarePoint Analytics for SharePoint 2007 is not compatible with HarePoint Analytics for SharePoint 2010. It is impossible to migrate the product from SharePoint 2007 to SharePoint 2010. You can migrate the collected data only.

Before starting the migration of your SharePoint content you should remove HarePoint Analytics. If it is not done and you migrate the SharePoint Content Database with HarePoint Analytics installed you will get a lot of errors and warnings in the SharePoint ULS logs, because new SharePoint will try to access the incompatible components from HarePoint Analytics. To learn more about removing the product, please visit the "**Removing the solution**" area of the "**Administrator Guide**".

When HarePoint Analytics for SharePoint 2007 is removed you can migrate the SharePoint content. After this process is completed, the farm is configured, all necessary sites and site collections are online and working properly, you can install HarePoint Analytics for SharePoint 2010. To learn more about the product installation please visit the "Installation and deployment" of the "Administrator Guide".

After the installation of HarePoint Analytics for SharePoint 2010 you can connect the same database which has been used in HarePoint Analytics for SharePoint 2007. It should be done using a special wizard, because the data collected previously is connected to the web-sites and site collections with old identifiers, which were changed during the migration of the SharePoint content. So, if you just connect the same databases you will not see old data, only the data collected in new SharePoint will be displayed in the reports.

To learn more about how to use the "Migration wizard" please visit the <u>Migration wizard</u> area of the "Administrator Guide"

9.2. Migration from one Farm to another

Attention! Do not migrate the sites when the data collection is running, otherwise you will lose the data which will be collected while you migrate the sites and change the product databases.

Attention! Do not migrate the sites when the Message queue database is not empty, you can lose the data stored in the Message queue database.

HarePoint Analytics for SharePoint should be installed for each SharePoint farm separately. The product stores data collected from all sites in the farm in one database. It is possible to use the same or different databases for each farm. We advise you to use the same statistics database for all farms, but in case of a great number of the SharePoint users and great number of hits per day it is better to use separate databases for each farm, because the product collects a lot of data and the size of database can be very high.

It is possible to migrate a single site data from one farm to another only when the data collected from different farms are stored in the same database. In such case you just need to reconnect the database to the product using a migration wizard and reassign the sites.

1. Stop the data processing.

In HarePoint Analytics for SharePoint 2007:

Go to SharePoint Central Administration -> Operations -> Timer job definitions, locate timer job "HarePoint Analytics for SharePoint – Process and store statistic information" and disable this job. After that, it is necessary to wait while the job is finished. Go to SharePoint Central Administration -> Operations -> Timer job statuses and locate timer job HarePoint Analytics for SharePoint – Process and store statistic information. Wait while the status is changed to "Succeeded" or "Aborted". If the status is "Initialized" you have to wait. Do not change the database while this job processes data.

In HarePoint Analytics for SharePoint 2010:

 Go to SharePoint Central Administration -> Monitoring ->Job definitions, locate timer job "HarePoint Analytics for SharePoint: Queue Data Processor" and disable this job. After that, it is necessary to wait while the job is finished. Go to SharePoint Central Administration -> Monitoring -> Timer Job statuses and make sure that timer job "HarePoint Analytics for SharePoint: Queue Data Processor" is not listed in the "Running" jobs. If the job is listed there you have to wait. Do not change the database while this job processes data.

When this job is stopped the product will continue collecting data into the queue database but the queue database will not be processed and new data will not appear in the reports. So, you will not lose data while the job is disabled but new data will not be displayed and the number of rows in the queue database will increase.

- 2. Migrate the sites.
- 3. Reconnect the statistics database using the migration wizard. To learn more about how to use the "Migration wizard" please look at the <u>Migration wizard</u> area of the "**Administrator Guide**"

9.3. Migration from one site collection to another or restoring a site from backup

Attention! Do not restore or migrate the sites when the data collection is running, otherwise you will lose the data which will be collected while you migrate the sites and change the product databases.

1. Stop the data processing.

In HarePoint Analytics for SharePoint 2007:

Go to SharePoint Central Administration -> Operations -> Timer job definitions, locate timer job HarePoint Analytics for SharePoint – Process and store statistic information and disable this job. After that, it is necessary to wait while the job is finished. Go to SharePoint Central Administration -> Operations -> Timer job statuses and locate timer job HarePoint Analytics for SharePoint – Process and store statistic information. Wait while the status is changed to Succeeded or Aborted. If the status is Initialized you have to wait. Do not change the database while this job processes data.

In HarePoint Analytics for SharePoint 2010:

 Go to SharePoint Central Administration -> Monitoring ->Job definitions, locate timer job HarePoint Analytics for SharePoint: Queue Data Processor and disable this job. After that, it is necessary to wait while the job will be finished. Go to SharePoint Central Administration -> Monitoring -> Timer Job statuses and make sure that timer job HarePoint Analytics for SharePoint: Queue Data Processor is not listed in the Running jobs. If the job is listed there you have to wait. Do not change the database while this job processes data.

When this job is stopped the product will continue collecting data into the queue database, but the queue database will not be processed and new data will not appear in the reports. So, you will not lose data while the job is disabled, but new data will not be displayed and the number of rows in the queue database will increase.

- 2. Migrate the sites.
- 3. Reconnect the statistics database using the migration wizard. To learn more about how to use the Migration wizard please visit the <u>Migration wizard</u> area of the **Administrator Guide**

9.3.1. Migration wizard

To start the data migration wizard you should point to **SharePoint Central Administration -> Monitoring -> HarePoint Analytics for SharePoint Settings** and click the **Connect the existing database** link:

Central Administration Application Management System Settings Monitoring Backup and Restore Security Upgrade and Migration	Database server and name This base will be used for storing and gathering statistical information about the usage of SharePoint sites.	Database server MS\SharePoint Database name MAPILab_Statistics_2010 Create or change database Connect the existing database
General Application Settings Configuration Wizards	Message queue The message queue is used as an intermediate storage of statistical data. The queue usage allows to essentially decrease the influence of statistics collecting process on the performance of SharePoint sites.	Database server MS\SharePoint Database name MAPILab_Statistics_2010_Queue Create or change queue

The database connection wizard will be started. At the first step you should set the connection to the database server and specify the name of the HarePoint Analytics database that was previously used:

Central		
Administration	Database server and name	Database server
Application Management	This database will be used to store and gather the	
System Settings	statistical information of SharePoint site usage. Indicate server and existing database names to	Database name
Monitoring	continue. If Windows-authentification is selected. SharePoint	
Backup and Restore	farm administrator's account is used to connect and	Access authentication to database
Security	access the database. Therefore before connecting the database, make sure SharePoint farm	Windows-authentication (recommended)
Upgrade and Migration	administrator's account has been added as dbcreator and securityadmin SQL-server.	© SOL-authentication
General Application Settings		Account
Configuration Wizards		Password
		Next Cancel

When you click the **Next** button the wizard looks through the specified database and detects the Site and Site collection identifiers which were previously used and tries to find the same site and site collections to assign the identifiers automatically. The sites and site collections to which the wizard was not able to assign the IDs automatically will be displayed and you can make the assignment manually:

Central Administration	Site collection in the MAPILab Statistics for SharePoint database	SharePoint site collection
Application Management	http://ms	Site collection is not specified
System Settings	http://ms/sites/developers	Site collection is not specified
Monitoring	http://ms/sites/nova	Site collection is not specified
Backup and Restore	http://ms/sites/NovaBackup	Site collection is not specified
Security	http://ms/sites/test	Site collection is not specified
Upgrade and Migration	http://ms	Site collection is not specified
Settings		
Configuration Wizards		OK Cancel

select the site or site collection which should be assigned to the site or site collection in the list, click the **Site collection is not specified** link and select the **Change site collection** option.

Site collection is not specified		•
Site collect	Change site collection	

When a new site collection is assigned it will be displayed in the list:

Site collection in the MAPILab Statistics for SharePoint database	SharePoint site collection
http://ms	http://ms/my
http://ms/sites/developers	Site collection is not specified

You can leave the sites and site collections which were not used anymore unassigned. Click the **OK** button when you finish the assignment and the product will start the database processing. It can take time because the wizard should look through all data in the database and reassign the site and site collection identifiers. Also during this process the wizard changes the database structure to comply with the structure of HarePoint Analytics for SharePoint 2010. While the product makes the changes the following window is displayed:



If this process takes long time the **time-out** error may appear. It is not a problem, the task which was started continues working in the background. Wait for a few minutes and go to the **HarePoint Analytics for SharePoint Settings** page in **SharePoint Central Administration** and make sure that the specified database is listed in the settings. To solve the problem with time-out you can change the **time-out** settings in Internet Information Services for the SharePoint Central Administration web-site. To do this go to the Internet Information Services Manager and click **Advanced Settings**:

То



The connection time-out settings can be adjusted in the **Behavior -> Connection limits** area of settings:



٧ð	anced Settings	?	
Ξ	(General)		
	Application Pool	SharePoint Central Administration v4	
	Bindings	http::9300:	
	ID	925364065	
	Name	SharePoint Central Administration v4	
	Physical Path	C:\inetpub\wwwroot\wss\VirtualDire	
	Physical Path Credentials		
	Physical Path Credentials Logon Type	ClearText	
	Start Automatically	True	
Ξ	Behavior		
Э	Connection Limits		
	Connection Time-out (seconds)	120	
	Maximum Bandwidth (Bytes/second)	42949 <mark>67295</mark>	
	Maximum Concurrent Connections	4294967295	
	Enabled Protocols	http	
Ŧ	Failed Request Tracing		

10. Initial settings

After the product installation and deployment the product should be configured.

10.1. Databases

10.1.1. Creation of new databases

Two separate SQL databases are used:

- Message queue. This database is used as an intermediate storage of statistical data. The queue usage allows to essentially decreasing the influence of the statistics collecting process on the performance of SharePoint and SQL servers.
- Statistics database. This database is used for storing and gathering statistical information about the usage of SharePoint sites.

The databases can be created on the server where SharePoint databases are located or you can use a separate SQL server or database instance. For the high-loaded systems with a great number of users and hits we advise you to use a separate instance of SQL.

HarePoint Analytics for SharePoint <u>collects</u> data in a real-time mode and stores it into the "message queue" database.

To create the database go to the product settings page in SharePoint Central Administration:

 for SharePoint 2007: SharePoint Central Administration -> Operations -> HarePoint Analytics for SharePoint Settings:

Central Administration				
🔆 Central Administration				
Home	Operations	Application Management		
Central Administration > Operations				
	Operations			
View All Site Content This page contains links to pages that help you manage your server or server farm, such as changing the server far convices are running on each convert and changing settings that offset multiple converts or antifections				
Admini	stration	services are running on each server, and changing settings that arrect	nuclie servers of applications.	
Opera	ations	Topology and Services	Global Configuration	
 Applic 	ation	Servers in farm	Timer job status	
Manag	gement	Services on server	Timer job definitions	
📴 Recycle Bin		Outgoing e-mail settings	Alternate access mappings	
		Incoming e-mail settings	Manage farm features	
		Approve/reject distribution groups	Solution management	
		Security Configuration	Backup and Restore	
		Service accounts	Perform a backup	
		Information Rights Management	Backup and restore history	
		Antivirus	Restore from backup	
		Blocked file types	Backup and restore job status	
		Update farm administrator's group		
		Leasting and Departing	Data Configuration	
		Logging and Reporting	Default database server	
		Diagnostic logging	Data retrieval service	
		Usage analysis processing		
		HarePoint Analytics for SharePoint settings		
		HarePoint Analytics for SharePoint Farm Reports		
		 HarePoint Analytics for SharePoint: tasks for exporting reports 		

 for SharePoint 2010: SharePoint Central Administration -> Monitoring -> HarePoint Analytics for SharePoint Settings:

Site Actions 👻 😏 Brows	se Page		
SharePoint 2010 Central Administration > Monitoring			
Central Administration		Health Analyzer Review problems and solutions Review rule definitions	
Application Management System Settings		Fimer Jobs Review job definitions Check job status	
Backup and Restore Security	Ma	Reporting /iew administrative reports Configure diagnostic logging	
Upgrade and Migration General Application Settings	A A A A A A A A A A A A A A A A A A A	Review Information Management Policy Usage Reports /iew health reports Configure usage and health data collection /iew Web Analytics reports	
Configuration Wizards		HarePoint Analytics for SharePoint HarePoint Analytics for SharePoint settings Farm Reports Web application filter management Tasks for exporting reports	

To create a statistics database on the SQL server click link: Create or change database:

Central		
Administration	Database server and name	Database server
Application Management	This base will be used for storing and gathering statistical	MS\SharePoint
System Settings	information about the usage of SharePoint sites.	Database name
Monitoring		MAPILab_Statistics_2010
Backup and Restore		Create or change database
Security		Connect the existing database
Upgrade and Migration		
General Application Settings	Message queue The message queue is used as an intermediate storage of	Database server MS\SharePoint
Configuration Wizards	statistical data. The queue usage allows to essentially decrease the influence of statistics collecting process on the performance of SharePoint sites.	Database name MAPILab_Statistics_2010_Queue
		Create or change queue

Specify UNC path to the SQL server, name of the database (for example, HarePoint_Analytics_Db) and select the type of authentication which is used on the SQL server:

used for storing and gathering statistical usage of SharePoint sites.	Datahase name
Inect with a statistical data base ust specify it's server and existing data e the old base is not modified, but placed exactly in it. tion is selected for creating a data base s to it, an account of Sharepoint farm In this connection, before creating a cessary to make sure that the istrator account is added as dbcreator of the SQL-server.	Access authentication to database Windows-authentication (recommended) SQL-authentication Account Password
iti s isof	in the old base is not mounted, but aced exactly in it. ion is selected for creating a data base to it, an account of Sharepoint farm this connection, before creating a ssary to make sure that the trator account is added as dbcreator the SQL-server.

Repeat the last two steps for the "**Message queue**" database. Please note, it is necessary to use two different databases for the statistics data and for the Message queue.

Click the "**Create**" button to create a new database or to connect the existing database if the database with the same name is already created.

Wizard "**Create or change database**" allows you to create a new blank database or to connect the existing database. In case of connecting the existing database this wizard doesn't modify the database, it just configures the connection string. If you have moved the sites or statistics database, it is necessary to use the "**Connect the existing database**" wizard.

10.1.2. Connecting the existing database

To connect the existing statistics database go to:

SharePoint Central Administration -> Operations-> HarePoint Analytics for SharePoint Settings (in SharePoint 2007)

SharePoint Central Administration -> Monitoring -> HarePoint Analytics for SharePoint Settings (in SharePoint 2010)

and click the Connect the existing database link:

Central Administration Application Management System Settings Monitoring Backup and Restore Security Upgrade and Migration	Database server and name This base will be used for storing and gathering statistical information about the usage of SharePoint sites.	Database server MS\SharePoint Database name MAPILab_Statistics_2010 Create or change database Connect the existing database
General Application Settings Configuration Wizards	Message queue The message queue is used as an intermediate storage of statistical data. The queue usage allows to essentially decrease the influence of statistics collecting process on the performance of SharePoint sites.	Database server MS\SharePoint Database name MAPILab_Statistics_2010_Queue Create or change queue

The database connection wizard will be started. At the first step you should set the connection to the database server and specify the name of the HarePoint Analytics database which was previously used:

Central		
Administration	Database server and name	Database server
Application Management	This database will be used to store and gather the	
System Settings	statistical information or SharePoint site usage. Indicate server and existing database names to continue. If Windows-authentification is selected, SharePoint farm administrator's account is used to connect and access the database. Therefore before connecting the database, make sure SharePoint farm administrator's account has been added as dbcreator and securityadmin SQL-server.	Database name
Monitoring		
Backup and Restore		Access authentication to database
Security		Windows-authentication (recommended)
Upgrade and Migration		© SQL-authentication
General Application Settings		Account
Configuration Wizards		Password
		Next Cancel

When you click the "Next" button the wizard looks through the specified database and detects the Site and Site collection identifiers which were previously used and tries to find the same site and site collections to assign the identifiers automatically. The sites and site collections to which the wizard was not able to assign the IDs automatically will be displayed and you can make the assignment manually:

Central Administration	Site collection in the MAPILab Statistics for SharePoint database	SharePoint site collection
Application Management	http://ms	Site collection is not specified
System Settings	http://ms/sites/developers	Site collection is not specified
Monitoring	http://ms/sites/nova	Site collection is not specified
Backup and Restore	http://ms/sites/NovaBackup	Site collection is not specified
Security	http://ms/sites/test	Site collection is not specified
Upgrade and Migration		Site collection is not specified
General Application Settings	http://ms	Site collection is not specified
Configuration Wizards		OK Cancel

select the site or site collection which should be assigned to the site or site collection in the list, click the "Site collection is not specified" link and select the "Change site collection" option.

Site collection is not specified		
Site collect	Change site collection	

When a new site collection is assigned it will be displayed in the list:

Site collection in the MAPILab Statistics for SharePoint database	SharePoint site collection
http://ms	http://ms/my
http://ms/sites/developers	Site collection is not specified

You can leave the sites and site collections which were not used anymore unassigned. Click the "**OK**" button when you finish the assignment and the product will start the database processing. It can take time, because the wizard should look through all data in the database and reassign the site and site collection identifiers (if the identifiers are reassigned). While the product makes changes the following window is displayed:



If this process takes long time a "time-out" error may appear. It is not a problem, the task which was started continues working in the background. Wait for a few minutes and go to the "HarePoint Analytics for SharePoint Settings" page in "SharePoint Central Administration" and make sure that the specified database is listed in the settings. To solve the problem with time-out you can change the "time-out" settings in Internet Information Services for the SharePoint Central Administration web-site. To connect the existing Message queue database, click link "Create or change queue" on the "HarePoint Analytics Settings" page in "SharePoint Central Administration".

То

10.2. Setting the Geographic locations database update

HarePoint Analytics for SharePoint includes two reports that show you the geographical location of visitors:

- Visits by countries;
- Visits by countries details.

The geographical location can be detected based on the visitor IP address or based on the country data specified in User Profile on SharePoint.

10.2.1. Detection the geographical location by IP address

To detect the visitor's country by IP address special "Geographical location database" is used. Geographic locations database should be kept actual to ensure precise visitor geographic coordinates determination. <u>MaxMind®</u> company monthly offers a free version of geographic locations database. The Update process allows you to download the latest version of the geographic locations database and import data into the HarePoint Analytics for SharePoint database.

To update the Geographical location database automatically do the following:

- 1. Use the farm administrator account to open the SharePoint Central Administration web site.
- 2. Go to the **Operations** page (for SharePoint 2007) or **Monitoring** page (for SharePoint 2010).
- 3. Click link "HarePoint Analytics for SharePoint Settings".
- 4. Click link Change Settings in the Geographic locations database update area of the settings:

Geographic locations database update

Geographic locations database shall be kept actual to ensure precise visitor's geographic coordinates determoination. MaxMind® Company offers free version of geographic locations base. This database is supplemented and corrected regularly. Schedule Not used Last run time N/A Change settings Additional setting

5. Check option Update geographic locations database in the Automatic update area of the settings:

Automatic update

MaxMind® Company offers free version of geographic locations base. This database is supplemented and corrected regularly. Update geographic locations database

6. Default schedule is selected in accordance with the updated geographic locations database version published by MaxMind[®].

Attention! We do not recommend updating the geographic locations database more often than once a month.

7. Set Internet access settings. If your SharePoint farm account has no Internet access, you have to specify another account under the **Internet access account**. If necessary, please also specify your

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Internet access account You can specify an account that will be used for internet access and new database version downloading	Account Ouse SharePoint farm account O Account setup
version downloading.	Account Password:

8. Click **OK**.

Geographic location database update runs in the context of **OWSTimer.exe**. You can track the task progress of the HarePoint Analytics for SharePoint - Geographic locations database update on the **Timer Job Status** page.

10.2.2. Detection the geographical location by the data from User Profile

This method can be used only on Microsoft SharePoint Server 2007 and 2010. Windows SharePoint Services 3.0 and Microsoft SharePoint Foundation 2010 doesn't allow to use this method of country detection.

To detect the visitor's country based on data specified in User's Profile on SharePoint do the following:

- 1. Use the farm administrator account to open the **SharePoint Central Administration** web site.
- 2. Go to the **Operations** page (for SharePoint 2007) or **Monitoring** page (for SharePoint 2010).
- 3. Click link "HarePoint Analytics for SharePoint Settings".
- 4. Click link the Additional Settings in the Geographic locations database update area of the settings:

Geographic locations database update	Schedule
Geographic locations database shall be kept actual to ensure	Not used
precise visitor's geographic coordinates determoination.	Last run time
MaxMind® Company offers free version of geographic locations base. This database is supplemented and corrected	N/A
regularly.	Change settings Additional settings

Select option "**Country data is located in the following field in User Profile**" and specify the field which contains the country data:



The selected files should contain the country data in the "**ISO 3166-1 alpha-2**" format (two characters for country codes). To learn more about this format please follow link: <u>http://en.wikipedia.org/wiki/ISO 3166-1</u>

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10.3. Data collection on server performance

Timer job named "HarePoint Analytics for SharePoint - System Metrics Collector" collects the farm server performance data. This timer job is disabled by default. You need to configure the data collection settings to gather additional statistical information on the farm server performance, such as: enable timer job for the statistical data collection and assign permissions to the SharePoint farm account to gather the performance data on relevant farm servers.

10.3.1. Assigning permission to collect the performance data

To allow the collection of the server performance data for the SharePoint farm account it is necessary to grant this account with the permission:

- 1. Open the **Computer Management** window on the server where you want to allow the farm performance data collection.
- 2. From the System Tools menu select Local Users and Groups and click on Groups
- 3. Add the SharePoint farm account to group Performance Monitor Users:



4. Restart **Windows SharePoint Services Timer** on each server. You can either do this manually by using Services or using command:

stsadm -o mlstrestartsptimer

parameter **mlstrestartsptimer** is the extension of the **stsadm.exe** administrative utility, which is added at the time of installing HarePoint Analytics for SharePoint.

10.3.2. Activation of the collecting statistical information on the farm server performance To activate the data collection on the servers performance do the following:

- 1. Use the farm administrator account to open the SharePoint Central Administration web site.
- 2. Go to the **Operations** page (for SharePoint 2007) or **Monitoring** page (for SharePoint 2010).
- 3. Go to Timer Job Definition (for SharePoint 2007) or Review job definitions (for SharePoint 2010).
- 4. Locate a timer job named "HarePoint Analytics for SharePoint System Metrics Collector" in the list of timer jobs:

HarePoint Analytics for SharePoint - Data Collecting from Active Directory	Daily
HarePoint Analytics for SharePoint - Geographic positions database update	Disabled
HarePoint Analytics for SharePoint - Report exporting by schedule	Minutes
HarePoint Analytics for SharePoint - System Metrics Collector	Minutes
HarePoint Analytics for SharePoint: Periodic data collection	Daily
HarePoint Analytics for SharePoint: Queue Data Processor	Minutes
HarePoint Analytics for SharePoint: Report Data Preprocessor	Daily

5. Go to the timer job settings page and enable this timer job.



10.4. Starting the data collection

HarePoint Analytics for SharePoint is deployed on the SharePoint farm. If the product is installed in the automatic mode (using setup.exe) the data collection is started automatically. In case of manual installation you should start the data collection at once after <u>creation of databases</u>. Data collection should be started for each site collection where you would like to use the product.

Data collection can be started using a web-interface or using a command line.

10.4.1. Activation of the data collection using a web-interface

To start data collection on the site collection:

- 1. Open the web-site which is located in the **Site Collection** where the data collection should be activated. Use an account which is added into the "**Site collection administrators**" permission group.
- 2. Go to "Site actions" \ "Site settings":



3. Go to the "Site collection features" page:



Site Collection Administration

Search settings Search scopes Search keywords FAST Search keywords FAST Search site promotion and demotion FAST Search user context Recycle bin Site collection features Site hierarchy Site collection navigation Site collection audit settings

4. Locate a feature named "HarePoint Analytics for SharePoint" and activate it:

HarePoint Analytics for SharePoint Stat.

This feature allows to collect and analyze statistical information about usage of site collection

5. Repeat these steps for each Site collection where the product should collect data and show the reports.

To stop the data collection and turn off HarePoint Analytics for SharePoint on this site collection it is necessary to deactivate this feature.

10.4.2. Activation of the data collection from the command line

To activate / deactivate the statistics collection feature from the command line, execute one of the following commands:

stsadm -o activatefeature -name MLStatSite -url <url>

stsadm -o deactivatefeature -name MLStatSite -url <url>

Where instead of <url> the address of the site collection should be indicated (e.g. http://moss/personal/mysite/).

11. License management

Registration of HarePoint Analytics for SharePoint is performed through the acquisition of the necessary number of licenses in the form of license keys and their subsequent entry on the license management page of the product. The license keys should be entered for each farm where the product is installed.

To open the license management page:

- 1. Use the farm administrator account to open the SharePoint Central Administration web site.
- 2. Go to the **Operations** page (for SharePoint 2007) or **Monitoring** page (for SharePoint 2010).
- 3. Click link "HarePoint Analytics for SharePoint Settings".
- 4. Go to the Licensing page of settings:

Licensing HarePoint Analytics for SharePoint	Summary of available licenses	
This page is designed to manage licenses of HarePoint Analytics for	The product is registered	
SharePoint	Licensing	

11.1. Licensing model

HarePoint Analytics for SharePoint is licensed by purchasing the required number of user licenses.

SharePoint user - a user authorized in any way on a SharePoint server; including users interacting with a SharePoint server through Microsoft Word, Microsoft Excel or other applications.

The number of user licenses for HarePoint Analytics for SharePoint must be equal to the number of users having access to the SharePoint server(s).

11.2. Determining the number of required licenses

HarePoint Analytics for SharePoint calculates unique visitors who have visited the SharePoint sites during the last three months and whose data is stored in the product database.

Determine the number of users with access to the server farm, where HarePoint Analytics for SharePoint is installed on any or all of the servers. The corresponding number of licenses should be purchased. If you know that the number of real users is smaller, but you don't know this number, you can get the necessary data from HarePoint Analytics for SharePoint when the product is installed and used in Trial Mode. To do this go to the "HarePoint Analytics for SharePoint Settings" page on SharePoint Central Administration and click link "Licensing" to open the License Management page. You will find all necessary data there:

Objects for licensing

()	Use the links to receive more data	
	SharePoint license type:	SharePoint Server 2010
	Number of servers with Microsoft SharePoint Foundation Web Application:	1
	Number of users in the statistics database:	35
	🗉 Refresh	
Summa	ry of available licenses	
Þ	To manage licenses, use the links in the bottom of list	
	Trial license (expired):	1
	User license:	25
	Summary of available licenses:	Insufficient number of user licenses (users: 35; licenses: 25).
	🗉 Refresh	
	Add license keys	
	View / delete license keys	
	Purchase HarePoint Analytics for SharePoint	

Please note that this page does not show the total number of users allowed to access SharePoint, but rather the number of users who have visited SharePoint since the start of data collection and whose data has been stored in the Product database.

If the product is not installed on Production and you cannot determine the exact number of required licenses you can purchase an approximate number of licenses, register the product, start using it and purchase additional licenses later. If the number of users exceeds the number of purchased licenses you will get a notification in the bottom of reports:



Browse Analyze



Central Administration > HarePoint Analytics for SharePoint 2010 > This report allows you to evaluate the rate of growth of the SharePoint server's databa

Date Range: 12/10/2011 - 1/10/2012

Overview

Visits & Visitors

Insufficient number of user licenses (users: 35; licenses: 25).



but the data collection will not be stopped. The product continues working without any technical limitations.

If the server can be accessed by anonymous users through the Internet, you need a **special license**. This type of license may also be advantageous in the case of a very large number of SharePoint users.

11.3. Entering the license keys

When the product is installed and deployed for the first time the Trial Registration key is

- 1. Use the farm administrator account to open the SharePoint Central Administration web site.
- 2. Go to the **Operations** page (for SharePoint 2007) or **Monitoring** page (for SharePoint 2010).
- 3. Click link "HarePoint Analytics for SharePoint Settings".
- 4. Go to the Licensing page of the settings:

Licensing HarePoint Analytics for SharePoint	Summary of available licenses	
This page is designed to manage licenses of HarePoint Analytics for	The product is registered	
SharePoint	Licensing	

There are two areas:

- Objects for licensing. It shows you details on the number of the WFE servers and the number of unique users who accessed the SharePoint from the date when the product was deployed and data collection was activated.

- Summary of available licenses. It shows you details on the entered license keys and allows you to manage the license keys:

Objects	for licensing Use the links to receive more data	
	SharePoint license type:	
	Number of servers with Microsoft SharePoint Foundation Web Application:	1
	Number of users in the statistics database:	35
	🗉 Refresh	
Summa P	To manage licenses, use the links in the bottom of list	
	Trial license (expired):	1
	User license:	25
	Summary of available licenses:	Insufficient number of user licenses (users: 35; licenses: 25).
	 Refresh Add license keys View / delete license keys 	

 To add the registration keys (trial and permanent keys) click link "Add license keys". Please note that the code is case-sensitive; so be careful entering it. Or even better, just use copy-n-paste via Clipboard to avoid mistyping.

11.4. Extending the number of licenses

If the number of SharePoint users is increasing it is possible that you will face with the problem when the number of users exceeds the number of purchased licenses. In this case the following notification occurs in the reports:

Insufficient number of user licenses (users: 35; licenses: 25).

and you have to purchase additional licenses. You can purchase it on <u>www.HarePoint.com</u>. The minimal license pack is "50-users license". After purchasing additional licenses you will get one or several registration keys which should be added to the list of registration keys as it described in the <u>Entering the license key</u> area of **Administrator Guide**.

12. Managing the access to the reports

HarePoint Analytics allows the SharePoint Administrators to grant users with the permission to view the reports data and also to remove specified reports from the list of available reports in the dashboard.

12.1. Managing user's permissions to access the reports

By default all users who have permission **View Usage Data** (in SharePoint 2007) or **View Web Analytics Data** (in SharePoint 2010) can open HarePoint Analytics Dashboard and view the reports data. SharePoint Administrator can also set unique permissions to allow specified users to access the reports on a separate site collection or a web-site.

12.1.1. Granting the users with the permission to use any reports of HarePoint Analytics Server administrators can grant or deny access to view the reports. It is managed by granting the users with the **View Usage Data** (in SharePoint 2007) or **View Web Analytics Data** (in SharePoint 2010) permission. You can create a new **Permission level** or edit the existing one.

If you create a new **Permission Level** -- you should also change the user's group permissions and mark with a tick this new **Permission Level** to allow viewing the reports:

1. Go to the SharePoint Central Administration web-site.

2. Point to "Site Actions" \ "Site Settings" and click on "Site Permissions" in the "User and Permissions" area

- 3. Click the Permission Levels ribbon button
- 4. Click on the "Add a Permissions Level" link
- 5. Type a name (for example "View HarePoint Analytics reports")

6. Select checked **View Usage Data** (in SharePoint 2007) or **View Web Analytics Data** (in SharePoint 2010) in the **Site Permissions** area.

- 7. Make sure that **View Pages** and **Open** are checked, too.
- 8. Click on the **Create** button.

New **Permission Level** is created. After that you should open a group of users to which you would like to grant this **Permission Level** and select the checked **Permission Level** there. You can do it on the **Site actions** \ **Site Settings** \ **People and Groups** page.

12.1.2. Granting the permission to use the reports on a separate site collection or a website

HarePoint Analytics allows the SharePoint Administrators to manage the access permissions to use the reports for a separate site collection or a web-site. First, it is necessary to grant users with permission **View Usage Data** (in SharePoint 2007) or **View Web Analytics Data** (in SharePoint 2010) as it described in the <u>previous area</u> of Administrator Guide.

Next, to set unique access permissions for a specified site collection or a web-site do the following:

- 1. Using the SharePoint Administrator account, go to the web-site where you would like to change the permissions.
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Point to "Site Actions" \ "Site Settings" and click link Site usage reports permissions or Site collection usage reports permissions depending on the scope at which you would like to change the permissions:



3. To set unique permissions to view the reports it is necessary to **Stop Inheriting Permissions**. To do this click the button:



4. Now you can set unique permissions to allow specified users to work with the reports.

12.2. Managing the policies

HarePoint Analytics has a set of global parameters named "Policies". Using the policies you can encrypt personal data when it is displayed in the reports, hide some reports, encrypt the personal data during the data collection, etc.

The policies can be set using command line tool stsadm.exe or through the web interface in the product settings. Please note, some policies can be enabled by using stsadm.exe only.

To set policies from the command line execute the following command:

Policies Name	Default value	Description	
maskusername	false	Display the user name in the encrypted form.	
maskaddepartment	false	Display the department name imported from the Active	
		Directory in the encrypted form.	
maskadgroup	false	Display the group name imported from the Active Directory in	
		the encrypted form.	
maskspdepartment	false	Display the department name obtained through the object	
		model of SharePoint in the encrypted form.	
maskspgroup	false	Display the group name obtained through the object model of	
		SharePoint in the encrypted form.	
maskiisrole	false	Display the role name IIS in the encrypted form.	
maskurl	false	Display the web-site addresses in the encrypted name.	
maskdoclibname	false	Display the names of the SharePoint libraries in the encrypted	
		form.	
maskdocliblocation	false	Display the location of libraries in the encrypted form.	
maskdocname	false	Display the document names in the encrypted form.	
maskdoclocation	false	Display the location of documents in the encrypted form.	
masklistname	false	Display the names of the SharePoint lists in the encrypted form.	
masklistlocation	false	Display the location of the SharePoint lists in the encrypted	
		form.	
masklistitemname	false	Display the names of the list items in the encrypted form.	
masklistitemlocation	false	Display the location of the list items in the encrypted form.	
disabledReports	null	The list of the hidden reports identifiers.	
disableReport	null	Remove the report from the report list.	
enableReport	null	Return the report to the report list.	
showAnalyzeTab	false	Show tab Analyze in the interface ribbon for working with	
		reports by default.	
timeExpiration	720	The storage time of the cache when processing the queue of	
		statistics.	
cacheLimit	1000000	The limiting size of the cache of the queue of statistics	
		processing. The value indicates the maximum amount of	
		statistical events.	
encryptuserinfo	false	Encrypt users' personal data at the stage of collection.	
collectAccessDenied	true	Collect the statistics on visiting the Access Denied by users.	
allowModifyReportT	true	Allow users to create and modify their own report templates.	
emplates			
useDataCollection	true	Apply data collection filter rules during HTTP request. Please	
FiltersOnHTTP		notice that this filtration works only for following fields:	

stsadm –o mlstsetpolicy –PolicyName parameter

		RequestUrl, RequestUrlReferrer, RequestUserAgent, RequestHostAddress, RequestHostName, RequestAuthType, RequestIsAuthenticated, RequestAuthenticationName, UserAnonimous, DoNotCollect.
useDataCollection FiltersOnQueuePro cessing	true	Apply data collection filter rules while processing analytics queue.

To manage the policies using a web interface go to SharePoint Central Administration \ Monitoring \ HarePoint Analytics for SharePoint Settings:

Site Actions 👻 🔂 Brows	se Page		
SharePoint 2010 Central Administration > Monitoring			
Central Administration Application Management System Settings		Health Analyzer Review problems and solutions Review rule definitions Timer Jobs Review job definitions Check job status	
Backup and Restore Security Upgrade and Migration General Application Settings	M	Reporting View administrative reports Configure diagnostic logging Review Information Management Policy Usage Reports View health reports Configure usage and health data collection View Web Analytics reports	
Configuration Wizards	111	HarePoint Analytics for SharePoint HarePoint Analytics for SharePoint settings Farm Reports Web application filter management Tasks for exporting reports	

Scroll the page down to **Configure policies** and follow this page of settings:

Statistics filter This page is designed for managing the statistics filter	Configure filter
Statistics policies This page is designed for managing the statistics global policies.	Configure policies

12.2.1. Removing reports from the list

Go to **SharePoint Central Administration** \ **Monitoring** \ **HarePoint Analytics for SharePoint Settings** and click link **Configure Policies**. To remove a report from a list it is necessary to select the "checked" report:

Select Reports	Select reports	
Choose the reports to reject permissions for all users and groups.	Overview	
2 .	Visits & Visitors	
	Site summary	
	Visits trend	
	Visits by hours	
	Length of visits	
	Depth of visits	
	Visits	
	Pageviews	
	Navigation details	
	Users activity	
	Visits by role	

After clicking the **OK** button the selected reports will not be displayed in the dashboard anymore.

You can do the same using command:

stsadm -o mlstsetpolicy -disablereport ReportName

where **ReportName** is the identifier of the report. You can get it from the full report URL, for example for the report named "Visits by countries" URL looks like:

http://ms.local/_layouts/MAPILab/Statistics/Report.aspx?ReportId=VisitsByLocation&Scope=Site

So, to remove this report from the list it is necessary to execute command:

stsadm -o mlstsetpolicy -disablereport VisitsByLocation

To return the report into the list it is necessary to execute command:

stsadm -o mlstsetpolicy -enablereport VisitsByLocation

12.2.2. Encryption of the data in reports

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HarePoint Analytics allows the Administrators to set policy to encrypt data which is displayed in the reports. If such policy is enabled for a specified data type (for example, for User Name) the reports contain something like the following instead of User Name:

Users activity

User name	Visits ↓	Pageviews
[Hidden: B26AB80D]	25	590
[Hidden: 7079C72C]	10	7
[Hidden: 93F22F34]	6	114
[Hidden: 3279AAA9]	4	49
[Hidden: 1CF0362E]	2	21
[Hidden: 8D447C8C]	1	33

View report

HarePoint Analytics allows encrypting the following data types:

- User Name
- Active Directory Department
- Active Directory Group
- Department
- SharePoint Group
- Role
- Url
- Document Library
- Document Library Location
- Document
- Document Location
- List
- List Location
- List Item
- List Item Location

Please note, this policy doesn't encrypt data in the database, which is encrypted during the data output, so disabling this policy restores data in reports.

12.2.3. Encrypt user data during the data collection

The law in some countries doesn't allow to store the user personal data. HarePoint Analytics allows you to encrypt user personal data during the data collection, so, the database will contain data which cannot be restored to detect the user personal data. To turn on this feature it is necessary to use the following command:

stsadm -o mlstsetpolicy - encryptuserinfo true

Please note, the data will be encrypted and cannot be restored even if this policy is disabled: new data will be collected without the encryption, but the previously collected data will be displayed as encrypted.
13. Creation of the tasks to get reports by email

HarePoint Analytics allows users to get reports sent by email automatically. User or Administrator can create a Task and the specified report will be sent to the specified emails automatically by a scheduler.

Lists of subscriptions to receive reports are defined in the range of the SharePoint site collection. You can go to the subscription management page using link **Tasks for exporting reports** in section **HarePoint Analytics for SharePoint** on page **Site Settings** of the corresponding SharePoint site collection.

You can create an unlimited number of tasks. To create a task for sending reports at a site or a site collection scope open the web-site and point to "Site actions" \ "Site Settings" \ "Tasks for exporting reports":



To create a task to send reports the farm scope open the **Central Administration** web-site and point to "Site actions" \ "Site Settings" \ "Monitoring" \ "Tasks for Exporting reports":





To create a new task:

- 1. click the "Create a rule" button on the ribbon
- 2. select the scope:
 - Site collection;
 - This site only;
 - This site and subsites.
- 3. Select the report which should be sent
- 4. Specify the users to which the report should be sent
- 5. Set the scheduler (daily, weekly, monthly)
- 6. Select the format (Microsoft Excel file or PDF)
- 7. In the Filters group of the settings select the data range (yesterday, current week, previous week, current month, etc.) and set the necessary filters.
- 8. Define View for the report
- 9. Click the OK button to save the task.

For the Farm reports located in Central Administration the list of created tasks looks like the following:

		Exporting HarePoint Analytics reports		rts				
Site Actions 👻 📄 Brows	se		Edit					
Create a Edit rule Remove sel rules	ected	1						
Management								
Central		Report	Scope	Send to	Owner	Format	Last Start	Next Start
Administration Application Management		CPU by hours	Central Administration	MS\manchuk	MS\manchuk	PDF (Portrait)	N/A	2/12/2012 12:00:00 AM
System Settings		Database size growth	Central Administration	MS\manchuk	MS\manchuk	PDF (Portrait)	N/A	3/1/2012 12:00:00 AM
Monitoring								
Backup and Restore								
Security								
Upgrade and Migration								
General Application Settings								
Configuration Wizards								
HarePoint Software Management								
Recycle Bin								
En All Site Content								

More information on the task for sending reports settings you can find in section «Sending Reports by <u>email</u>»



13.1 Template Customization in HarePoint Analytics for SharePoint

An option for template customization of the e-mail messages, in which reports are sent, is available in HarePoint Analytics for SharePoint. Moreover, it is possible to use a company logo in the reports exported to .pdf.

For that purpose the product adds the site-collection and farm feature named: "HarePoint Analytics for SharePoint: Templates".

When activating the feature "HarePoint Analytics for SharePoint: Templates" a hidden document library named MLStatTemplates is added at the root web-site of the site collection. The default templates are added to Default folder of this library:

- ExportToPdfHeaderLogo.gif a header logo of PDF file with the report. By default a logo of MAPILab Ltd. company is used (80x80 pixel picture). You may substitute this picture with your own without changing the file name.
- ReportSubscriptionEmailTemplate.htm a template used when sending a message. This template is an HTML document, which may be individually modified. Date from <title></title> tag will be used as the message subject. The file content itself will be used as the message body. You may also use the following macros:
 - #Web_Title# -- website name
 - #Web_Url# -- website address, <u>http://<siteurl>/</u>
 - #Report_Title# -- report name
 - #Report_Url# -- report address. This macro will be substituted with string which looks like the following one: <u>http://<siteurl>/ layouts/MAPILab/Statistics/Report.aspx?ReportId=ReportId&Scope=S</u> ite
 - #ManageReportSubscriptions_Url# -- Address of the page to edit the subscriptions for the automatic report receipt.

You may modify the files of this library with Microsoft SharePoint Designer 2010.

It is also possible to create templates in other languages. For that purpose, you have to create a folder with the first 2 letters of the country code (according to ISO 3166-1) within the document library MLStatTemplates and add the modified files ExportToPdfHeaderLogo.gif and ReportSubscriptionEmailTemplate.htm to this folder.

For example:

MLStatTemplates/DE/ReportSubscriptionEmailTemplate.htm

MLStatTemplates/FR/ReportSubscriptionEmailTemplate.htm

In order to use templates globally, activate feature (1) in the Central Administration.

In order to use templates only for the site collections selected, activate feature (1) in the site collections needed.

14. Advanced Settings

14.1. HarePoint Analytics Timer Jobs

HarePoint Analytics for SharePoint creates several **Timer Jobs** during the solution deployment. The **Timer Jobs** are started by a schedule, which is configured by its settings. By default all **HarePoint Analytics Timer Jobs** are configured optimally for the middle size of the SharePoint Farm. But in some configurations some optimization may be required. Administrator Guide describes each **HarePoint Analytics Timer Job** and ways of optimizing their execution.

HarePoint Analytics adds the following Timer Jobs:

- 1. <u>HarePoint Analytics for SharePoint: Data Collecting from Active Directory</u>
- 2. <u>HarePoint Analytics for SharePoint: Geographic positions database update</u>
- 3. <u>HarePoint Analytics for SharePoint: Report exporting by schedule</u>
- 4. HarePoint Analytics for SharePoint: System Metrics Collector
- 5. HarePoint Analytics for SharePoint: Periodic data collection
- 6. <u>HarePoint Analytics for SharePoint: Queue Data Processor</u>
- 7. HarePoint Analytics for SharePoint: Report Data Preprocessor

14.1.1. Data Collecting from Active Directory

It is a **Timer Job** which imports data from Active Directory into the HarePoint Analytics database.

HarePoint Analytics for SharePoint regularly collects data on the Active Directory users, groups and key structures. The collected data are directed to the HarePoint Analytics for the SharePoint database to be later used for generating several report types, with **Active Directory** filters enabled.

By default, data import **from Active Directory** is performed daily. Because user data stored in **Active Directory**, as a rule, is change very seldom, then the mentioned frequency of imports is more than sufficient for maintaining the relevance of the data. It is unreasonable to import data more often than once a day for two reasons:

- 1. The loading at servers maintaining the operation of Active Directory and the database server increases.
- 2. The preparation of data for reports is performed once a day by default. So, if you make a decision about the necessity for more frequent import from **Active Directory**, then you need to reschedule the task for preparing the data <u>HarePoint Analytics for SharePoint Report Data Preprocessor</u>.

On the other hand, if the changes in your organization's infrastructure occur infrequently or not at all, it is reasonable to increase the frequency of data import from **Active Directory** up to once a week.

To change the schedule of the data import from Active Directory:

- 1. Go to the SharePoint **Central Administration** page. You must use the farm administrator account during the authorization.
- 2. Open the **Monitoring** page.
- 3. Go to the settings of HarePoint Analytics for SharePoint using the hyperlink located in the **HarePoint Analytics for SharePoint** section:

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Site Actions 👻 🔡 Brow	se Page	
SharePoint 2010	Central	Administration Monitoring
Central Administration		Health Analyzer Review problems and solutions Review rule definitions
Application Management		
System Settings		Timer Jobs
Monitoring		Review job definitions Check job status
Backup and Restore	T.A.	Reporting
Security		View administrative reports Configure diagnostic logging
Upgrade and Migration		Review Information Management Policy Usage Reports View health reports Configure usage and health data collection
General Application Settings		View Web Analytics reports
Configuration Wizards	111	HarePoint Analytics for SharePoint HarePoint Analytics for SharePoint settings Farm Reports Web application filter management Tasks for exporting reports

4. Open the page of setting the data import from Active Directory by clicking on link **Change Schedule** in section **Data collection from Active Directory:**

Data collection from Active Directory	Schedule		
HarePoint Analytics for SharePoint regularly collects data about Active Directory	daily between 23:00:00 and 23:00:00		
HarePoint Analytics for SharePoint database to be later used for generating	Last run time		
several report types, with Active Directory filters enabled.	N/A		
	Change schedule		

5. Change the schedule with the help of the settings in section **Recurring Schedule**:

Recurring Schedule Use this section to modify the schedule specifying when the timer job will run. Daily, weekly, and monthly schedules also include a window of execution. The timer service will pick a random time within this interval to begin executing the job on each applicable server. This feature is appropriate for high-load jobs which run on multiple servers on the farm. Running this type of job on all the servers simultaneously might place an unreasonable load on the farm. To specify an exact starting time, set the beginning and ending times of the interval to the same value.	This timer job is scheduled to run: Minutes Starting every day between Hourly Daily Weekly Monthly
--	---

6. Press the **OK** button.

14.1.2. Geographic locations database update

Geographic locations database must be kept actual to ensure precise visitor's geographic coordinates determination. MaxMind[®] Company offers a free version of geographic locations base. This database is supplemented and corrected regularly.

By default, this definition of the task is inactive. It is reasonable to activate and configure the task parameters only if you need to work with the reports on the geographical location of users in your SharePoint farm.

During the task implementation data on the ranges of IP-addresses, which help to determine the geographical location of the visitor, are updated. The MaxMind[®] company, which provides these data, updates them not more frequently than once a month. Therefore, reducing the period of data update is impractical.

Details on how to configure the process of the database of geographical location update you can find in paragraph <u>Geographic locations database update setting</u>.

14.1.3. System Metrics Collector

This Timer Job collects data on the Servers' performance for displaying data in the reports from the **Performance** group in **Central Administration**.

Group **Performance** includes such reports as **CPU Usage, Memory usage, Disk usage, Network usage**, etc. The minimum period of averaging the data in these reports is 5 minutes. Therefore, the task of collecting the relevant data is also performed once every 5 minutes. By default, the task is inactive, i.e. data collection on the performance is not implemented.

Since data collection on the performance in general can create quite a serious load on the SharePoint farm server, it is reasonable to activate this task only for the duration of the respective investigation. Changing the task schedule is not recommended.

The process of activation and setting task System Metrics Collector is described in paragraph Configuring Data Collection Settings for Servers' Performance .

14.1.4. Periodic data collection

HarePoint Analytics for SharePoint conducts periodic data collection on the state of websites, document libraries and lists of SharePoint. Data collection is performed on those collections of websites, where collection of statistical information by HarePoint Analytics for SharePoint has been activated. The collected data is stored in the database of HarePoint Analytics for SharePoint and allows tracking the dynamics of changes in the basic characteristics of SharePoint.

During the task implementation data on the database sizes, the number of records in the lists of the SharePoint sites, etc. are collected. All the collected data are changing slowly. The characteristic period of a significant change in these data is about a week.

By default, the task is implemented once a day. Collecting such data more frequently is not recommended, because it will not add any information content to the respective reports.

In the case of a large number of web-sites (10000 and more), the frequency of data collection can be significantly increased – up to a week or even more.



To change the schedule of the implementation of task **Periodic data collection**:

- 1. Go to the SharePoint **Central Administration** page. You must use the farm administrator account during the authorization.
- 2. Open the **Monitoring** page.
- 3. Go to the settings of HarePoint Analytics for SharePoint using the hyperlink located in the HarePoint Analytics for SharePoint section:

Site Actions 👻 🔂 Brows	Page	
SharePoint 2010 Central Administration > Monitoring		
Central Administration	Health Analyzer Review problems and solutions Review rule definitions	
System Settings	Timer Jobs Review job definitions Check job status	
Monitoring	Review job dominions - Check job status	
Backup and Restore Security	Reporting View administrative reports Configure diagnostic logging Review Information Management Parling Users Presented	
Upgrade and Migration	Keview Information Management Policy Usage Reports View health reports Configure usage and health data collection	
General Application Settings	View Web Analytics reports	
Configuration Wizards	HarePoint Analytics for SharePoint HarePoint Analytics for SharePoint settings Farm Reports Web application filter management Tasks for exporting reports	

4. Open the page of setting the data import from Active Directory by clicking on link **Change schedule** in section **Periodic data collection**:



5. Change the schedule with the help of the settings in section **Recurring Schedule**:

Job Properties	Web application:
This section lists the properties for this job.	Last run time:
Recurring Schedule Use this section to modify the schedule specifying when the timer job will run. Daily, weekly, and monthly schedules also include a window of execution. The timer service will pick a random time within this interval to begin executing the job on each applicable server. This feature is appropriate for high-load jobs which run on multiple servers on the farm. Running this type of job on all the servers simultaneously might place an unreasonable load on the farm. To specify an exact starting time, set the beginning and ending times of the interval to the same value.	This timer job is scheduled to run: Minutes Starting every day between Hourly 12 AM 00 and no later than Daily 00 Weekly Monthly

6. Press the **OK** button.

14.1.5. Queue Data Processor

In HarePoint Analytics for SharePoint statistical information (events of viewing pages, editing documents, etc.) is processed in two stages:

- 1. Information on the statistical event is hosted in an intermediate storage, the so-called queue. The queue is stored in a separate database. This process is optimized in such a way that to minimize the impact of the process of gathering statistical information on the normal operation of the SharePoint web applications.
- Periodically, during the implementation of task HarePoint Analytics for SharePoint Queue Data Processor, statistical events are selected from the queue, processed, supplemented by the data obtained through the SharePoint object model and placed in database HarePoint Analytics, where they are kept long enough.

By default, data processing from the queue is performed once every 5 minutes. In general, such a schedule is optimal.

However, there are situations when the loading of the SharePoint farm servers is strongly pronounced, depending on the time of a day. For example, a very heavy loading during the day and very little at night. In this case, it is reasonable to reschedule the queue processing task in such a manner that it would be conducted only at night.

To change the schedule of the implementation of task Queue Data Processor:

- 1. Go to the SharePoint **Central Administration** page. You must use the farm administrator account during the authorization.
- 2. Open the **Monitoring** page.
- 3. Go to the settings of HarePoint Analytics for SharePoint using the hyperlink located in the HarePoint Analytics for SharePoint section:



4. Open the page of setting the processing of the message queue by clicking on link Change schedule in section Processor of message queue of the settings:

Processor of message queue	Schedule
The processor extracts statistical data from the message queue, collects	every 5 minutes between 0 and 59
additional data and saves the obtained result in the database. The processor is	Last run time
launched on schedule, it retrieves all collected data from the queue, expects the	2/9/2012 2:45:57 PM
appearance of new date during one minute and finishes its operation.	Change schedule

5. Change the schedule with the help of the settings in section **Recurring Schedule**:

Recurring Schedule This Use this section to modify the schedule specifying when the timer job will run. Daily, weekly, and monthly schedules also include a window of execution. The timer service will pick a random time within this interval to begin executing the job on each applicable server. This feature is appropriate for high-load jobs which run on multiple servers on the farm. Running this type of job on all the servers simultaneously might place an unreasonable load on the farm. To specify an exact starting time, set the beginning and ending times of the interval to the same value.	 Minutes Every 5 minute(s) Hourly Daily Weekly Monthly
---	---

6. Press the **OK** button.

14.1.6. Report Data Preprocessor

In order to speed up the process of building reports, data preparation is performed beforehand, according to a task schedule. During data preparation, outdated data details are deleted. The process of preparation for the report building puts a substantial load on the SQL Server, which may cause a noticeable reduction in the performance of SharePoint.

By default, the process of data preparation is performed once a day.

Determining how often to run the data preparation is a compromise between how fast the statistics will appear in the reports and how often you can use the SQL-server in the increased load mode. The choice depends heavily on how the SharePoint farm web-sites are used.

If your SharePoint farm sites are used extensively during the day, it is reasonable to configure the schedule of task Report Data Preprocessor in such a manner, that its implementation falls on the night. For more intensive use of web-sites, when the load does not decrease even at night, you may run the data preparation weekly, on weekends. However, under such settings, the data in most reports will appear daily or weekly, i.e. with a substantial delay.

If the loading on the sites is small, the data preparation can be performed more frequently, such as hourly. Implementing this task even more frequently is not recommended.

To change the schedule of the implementation of task Report Data Preprocessor:

- 1. Go to the SharePoint **Central Administration** page. You must use the farm administrator account during the authorization.
- 2. Open the Monitoring page.

Go to the settings of HarePoint Analytics for SharePoint using the hyperlink located in the **HarePoint Analytics for SharePoint** section:

Site Actions 👻 🔂 Brows	e Page	
SharePoint 2010 Central Administration > Monitoring		
Central Administration	Review problems and solutions Review rule definitions	
System Settings	Timer Jobs	
Monitoring	Review job definitions Check job status	
Backup and Restore Security Upgrade and Migration General Application Settings	Reporting View administrative reports Configure diagnostic logging Review Information Management Policy Usage Reports View health reports Configure usage and health data collection View Web Analytics reports	
Configuration Wizards	HarePoint Analytics for SharePoint HarePoint Analytics for SharePoint settings Farm Reports Web application filter management Tasks for exporting reports	

3. Open the page of setting the data preparation for reports by clicking on link **Change schedule** in section **Preliminary data preparation**:

Preliminary data preparation	Storage time of detailed statistical data		
In order to speed up the process of building reports, data preparation is performed beforehand, according to a task schedule. During data preparation, outdated data details are deleted.	365 days Schedule of launching data processing procedure daily between 00:00:00 and 00:00:00 Date and time of last run of data processing procedure N/A Change settings		
The process of preparation for report building puts a substantial load on the SQL Server, which may cause a noticeable reduction in the performance of SharePoint. For this reason, it is recommended that the preparation procedure be schedule at a time when the server is least busy.			

4. Change the schedule with the help of the settings in section Recurring Schedule:

Recurring	Sche	dule
-----------	------	------

Use this section to modify the schedule specifying when the timer job will run. Daily, weekly, and monthly schedules also include a window of execution. The timer service will pick a random time within this interval to begin executing the job on each applicable server. This feature is appropriate for high-load jobs which run on multiple servers on the farm. Running this type of job on all the servers simultaneously might place an unreasonable load on the farm. To specify an exact starting time, set the beginning and ending times of the interval to the same value.

This timer job is sch	heduled to run:
Minutes	Starting every day between
Hourly	12 AM 💌 00 💌
O Daily	and no later than
Weekly	12 AM 💌 00 💌
Monthly	

14.1.7. Sending reports by email

By default, the task of sending the report is done once every 10 minutes. In the process of implementation, the bypassing of the web-site collection of the current SharePoint farm and the delivery to the found subscription lists are carried out. Since the lowest frequency of the subscription is one day, the frequency of the implementation of this task can also be increased up to a day. This makes sense if the farm contains a large number of web-site collections.

To change the schedule of the implementation of task Report exporting by schedule:

- 1. Go to the SharePoint **Central Administration** page. You must use the farm administrator account during the authorization.
- 2. Open the **Monitoring** page.
- 3. Open page Job Definitions by clicking on link Review job definitions in section Timer Jobs:



4. On page Job Definitions find link HarePoint Analytics for SharePoint - Report exporting by schedule and click on it to follow to the page of setting the task implementation:

Site Actions 👻 📸			
	Enterprise Metadata site data update	SharePoint - 80	Hourly
	Enterprise Metadata site data update	SharePoint - 81	Hourly
	Expiration policy	SharePoint - 80	Weekly
	Expiration policy	SharePoint - 81	Weekly
	FAST Search Server 2010 for SharePoint Master Job		Minutes
	Gradual Site Delete	SharePoint - 80	Daily
	Gradual Site Delete	SharePoint - 81	Daily
	HarePoint Analytics for SharePoint - Data Collecting from Active Directory	Daily	
	HarePoint Analytics for SharePoint - Geographic positions database update		Disabled
	HarePoint Analytics for SharePoint - Report exporting by schedule		Minutes
	HarePoint Analytics for SharePoint - System Metrics Collector		Disabled
	HarePoint Analytics for SharePoint: Periodic data collection		Daily
	HarePoint Analytics for SharePoint: Queue Data Processor		Minutes
	HarePoint Analytics for SharePoint: Report Data Preprocessor		Daily
	HarePoint Password Expiration Notification	SharePoint - 80	Daily
	HarePoint Workflow Monitor Daily Import Job	SharePoint Central Administration v4	Daily
	HarePoint Workflow Monitor Hourly Import Job	SharePoint Central Administration v4	Hourly

5. Change the schedule in section **Recurring Schedule** and click **OK**:

Site Actions 🕶 📩							
SharePoint 2010	Central Administration > E Use this page to change or delete	dit Timer Job a timer job.					Tags & Notes
Timer Links Timer Job Status Scheduled Jobs	Job Title	HarePoint	Analytics for Sha	rePoint - Report exp	porting by schedule	3	
Running Jobs Job Description Job History Job Definitions Job Definitions Job Properties Central Administration This section lists to the section list to the section lists to the section lists to the section lists	Job Description	Job defini schedule	Job definition which enables sending reports to the recipients in the specified schedule				at by
	Job Properties This section lists the properties for this	yob. Last run t	ication: ime:	N/A 2/9/20	012 12:40 PM		
Application Management System Settings Monitoring Backup and Restore Security Upgrade and Migration General Application Settings Configuration Wizards HarePoint Software Management	Recurring Schedule Use this section to modify the schedule specifying when the timer job will run, weekly, and monthly schedules also in window of execution. The timer servic pick a random time within this interval begin executing the job on each applic server. This feature is appropriate for load jobs which run on multiple servers the farm. Running this type of job on a servers simultaneously might place an urreasonable load on the farm. To spe an exact starting time, set the beginni ending times of the interval to the sam value.	This time Daily, dude a e will to able able con all the cdf and con all the cdf con con con con con con con con con con	r job is scheduled nutes Every urly illy sekly anthly	to run: 10 minute(s)			
		Run Now	Disable		ОК	Cancel	

14.2. Setting the period of saving the detailed data

HarePoint Analytics stores the following sets of data:

- the data for Daily reports (the most detailed data) for 180 days by default
- The data for **Monthly** reports are stored for an **unlimited** period of time, they are never removed from the database
- In addition, the **Raw** (unprocessed) data (that are not used directly to display the reports) are stored for **90 days** by default

You can **increase the retention period** for the detailed data as necessary, however this will result in an **increased database size** – make sure you have sufficient storage resources before setting a longer retention period.

On the other hand, if in your case it is enough to keep the detailed data only for 3 months (for example), it is recommended to reduce the retention period accordingly. This will help keeping the database size smaller.

If your storage resources are limited, you can also reduce the retention period for raw data to 60 or even 30 days. This will not affect data in reports at all.

Important Note: data removed are deleted permanently and cannot be restored!

The data removal, according to the retention period settings, is performed by **Statistic Information Cleaner** timer job, which runs once per week by default.

The Data retention period can be changed or checked using the **command-line interface** only. This setting is not available in the GUI (since version 14.11.5.8).

Note: This is performed by means of **Stsadm.exe**, which is normally located at: *C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\BIN*

14.2.1. Setting new retention period

Use the following command to set the new retention period:

Stsadm -o mlstsetstatdatakeepdays -<parameter> <amountofdays>

Parameters (amount of days should be set for each parameter; 0 (zero) – disables the data removing):

Raw (unprocessed) data (default is 90 days):

- VisitsMain (unprocessed data for visits reports)
- DocsListsMain (unprocessed data for document and list)
- SearchMain (unprocessed data for search reports)

Data in daily reports (default is 180 days):

- VisitsReports
- DocsReports
- ListsReports
- SearchReports
- PerformanceReports (in Central Administration)

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Examples:

Stsadm -o mlstsetstatdatakeepdays -visitsmain 30

Sets a retention period for unprocessed data for Visits reports to 30 days.

Stsadm -o performancereports 0

Disables the data cleanup for performance reports.

14.2.2. Checking the current settings for the retention period

Stsadm -o mlstdisplaystatdatakeepdays

Displays a data retention period in XML-view, for each data type.

14.3. Command-line tools overview

During the deployment of the HarePoint Analytics for SharePoint solution the list of operations of administrative utility **stsadm.exe** extends by a special set of operations. Some of these operations are needed at the stage of deploying or upgrading the solution, while others offer the possibility of customizing the product parameters from the command line.

14.3.1. The guide on the additional Stsadm.exe operations

The names of all additional operations from the extended set start with prefix **mlst**. The table with a brief description of the extended set of operations is given below.

Name	Description
<u>mlstaddfilter</u>	Add a filter rule for data collection.
mistcompleteupgrade	Completing the process of the HarePoint Analytics for SharePoint solution
	upgrade.
mlstcopyappbincontent	Perform operation stsadm-o copyappbincontent on all servers of the
	current SharePoint farm.
mlstdisplayfilter	Display the current state of the filter for data collection.
mlstdisplaypolicies	Display the current state of the HarePoint Analytics for SharePoint global
	policies.
mlstencryptuserinfo	Encrypt the previously collected users' personal data.
<u>mlstexportfilters</u>	Export the filter of data collection to the file on a disk.
mlstimportfilters	Import the filter of data collection from the file on a disk.
<u>mlstremovefilter</u>	Delete a rule from the filter of data collection.
mlstresetfilter	Reset the filter to the default value.
<u>mlstrestartsptimer</u>	Restart the SharePoint 2010 Timer service on all servers of the current
	SharePoint farm.
mlstsetpolicy	Set the value of the global HarePoint Analytics for SharePoint policy.

14.3.2. Operations

Operation mlstaddfilter

The operation adds a filter rule for data collection. Learn more about filtering data during the collection phase in paragraph **Filters of data collection**.

Syntax

stsadm -o mlstaddfilter

-scope <farm | webapp | site | web | list>

[-url <url of web application, site collection, site or list>]

[-fieldid <RequestUrl | RequestUrlReferrer | RequestUserAgent |

RequestHostAddress | RequestHostName | RequestAuthType |

RequestIsAuthenticated | RequestAuthenticationName |

ItemEvent | ItemDisplayName | ItemName | ItemTitle |

ItemCreated | ListTitle | ListDescription | ListDefaultViewUrl |

ListBaseTemplate | ListBaseType | DocumentName |

DocumentCreated | DocumentTitle | DocumentUrl | DocumentLenght |

DocumentFolderName | UserAnonimous | UserLoginName | UserEmail |

UserName | UserNotes | UserIsSiteAdmin | UserIsSiteAuditor |

DoNotCollect>]

[-relop <Greather | GreatherOrEqual | Less | LessOrEqual | Equal |

NotEqual | True | False | StartsWith | NotStartsWith | EndsWith |

NotEndsWith | Contains | NotContains | Empty | NotEmpty |

MatchRegex | NotMatchRegex>]

[-expression <filter expression>]

[-fromscratch]

Parameters

Parameter	Value	Mandatory?	Description
scope	One of the values:	Yes	This parameter specifies the target range of the
	• farm		filter to be formed.
	 webapp 		• farm
	 site 		The SharePoint farm level.
	• web		webapp The Characteristic structure is a set of the set o
	• list		The SharePoint web-application level.
			 Site The site collection level
			• web
			The web-site level
			• list
			The list level.
url	Valid URL-address,	Yes	Depending on the value of parameter scope , url
	for example,		points to a web-application, a collection of web
	http://server_name		sites, a web site or a SharePoint list. In case of
			forming the filter of the farm level, this parameter
			may be omitted.
fieldid	A string identifier of	Yes	The identifier indicates the field of the collected
	the data field. See		data, which is used in the processing of the filtering
	above, in the block		rule. The fields of the collected data are described in
	description		collection filter via a web interface
relop	A string identifier of	Yes	The relation between the field value with identifier
	the relation. See	100	fieldid and the value of parameter expression .
	above, in the block		Greater
	of syntax		Greater than expression .
	description.		GreaterOrEqual
			Greater or equal to expression .
			• Less
			Less than expression .
			LessOrEqual
			Less of equal to expression .
			 Equal to expression
			NotEqual
			Not equal to expression .
			• True
			For the Boolean data types. True.
			False
			For the Boolean data types. False.
			StartsWith
			The string starts with expression .
			NotStartsWith The string descent that with a second seco
			The string doesn't start with expression.
			 Enuswith The string ends with expression
			NotEndsWith
			The string doesn't end with expression .

			 Contains The string contains expression. NotContains The string doesn't contain expression. Empty An empty string. NotEmpty A nonempty string. MatchRegex The string matches regular expression expression. NotMatchRegex The string doesn't match regular expression expression.
expression	Number, string, regular expression.	Yes	An expression for filtration.
fromscratch		No	When creating a filter rule do not inherit the filter rules from the parent object.

Add a filter that excludes the requests on the local network during the data collection:

stsadm -o mlstaddfilter -scope farm -fieldid RequestHostAddress -relop NotMatchRegex -expression "192\.168\.\d+\.\d+"

Operation mlstcompleteupgrade

The operation of completing the upgrade process of the HarePoint Analytics for SharePoint solution. Used only when upgrading the solution.

Syntax

stsadm -o mlstcompleteupgrade

[-restartsptimer]

[-copyappbincontent]

Parameters

Parameter	Value	Mandatory?	Description
restartsptimer	<no></no>	No	After the completion of the upgrade process restart the SharePoint 2010 Timer service on all servers in the current farm SharePoint.
copyappbincontent	<no></no>	No	After the completion of the upgrade process perform operation stsadm-o copyappbincontent on all servers in the current SharePoint farm.

Operation mlstcopyappbincontent

Conduct operation stsadm -o copyappbincontent on all servers of the current SharePoint farm.

stsadm -o mlstcopyappbincontent

Operation mlstdisplayfilter

Display the current state of the filter of data collection.

📾 Administrator: Command Prompt 📃 🗖	×
C:\Windows\system32>stsadm -o mlstdisplayfilter -scope site -url http://harepoir t:4545	_
<pre><rules> <rule> <rule> <id>a3238416-a880-42d2-92a0-3045b4939c19</id> </rule></rule></rules></pre> <pre> <id>a3238416-a880-42d2-92a0-3045b4939c19</id> </pre> <pre> <id>Cld>a3238416-a880-42d2-92a0-3045b4939c19</id> </pre> <pre> </pre>	

```
Syntax
```

```
stsadm -o mlstdisplayfilter
   -scope <farm | webapp | site | web | list>
   [-url <url of web application, site collection, site or list>]
   [-effective]
```

Parameters

Parameter	Value	Mandatory?	Description
scope	One of the values: • farm • webapp • site • web • list	Yes	 The parameter specifies the target range of the filter to be formed. farm The SharePoint farm level. webapp The SharePoint web-application level. site The web-site collection level. web The web-site level. list The list level.
url	Valid URL-address, for example, http://server_name	Yes	Depending on the value of parameter scope , url points to a web-application, a collection of web sites, a web site or a SharePoint list. In case of forming the filter of the farm level, this parameter may be omitted.
effective	<no></no>	No	When specifying this parameter, the state of the filter is displayed taking into account the inheritance of the parent element filter.

Operation mlstdisplaypolicies

Display the current status of the HarePoint Analytics for SharePoint policies. Policies in HarePoint Analytics for SharePoint are global settings of the product that are applied to the entire SharePoint farm as a whole. The list of policies is given in paragraph <u>The HarePoint Analytics for SharePoint policy identifiers</u>.

The result of the operation is as follows:



The displayed data contain a list of policy names and their current values.

Syntax

stsadm -o mlstdisplaypolicies

Operation mlstencryptuserinfo

Encrypt the previously collected users' personal data. Typically, this operation is performed after setting policy **encryptuserinfo** with the help of operation <u>mlstsetpolicy</u>.

Syntax

stsadm -o mlstencryptuserinfo

Operation mlstexportfilters

Export the filter of data collection to the file on a disk. Data on the current state of the filter are exported to the xml format.

Syntax

```
stsadm -o mlstexportfilters
-scope <farm | webapp | site | web | list>
[-url <url of web application, site collection, site or list>]
-filename
```

Parameters

Parameter	Value	Mandatory?	Description
scope	One of the values: • farm • webapp • site • web • list	Yes	 The parameter specifies the target range of the filter to be formed. farm The SharePoint farm level. webapp The SharePoint web-application level. site The web-site collection level. web The web-site level. list The list level.
url	Valid URL-address, for example, http://server_name	Yes	Depending on the value of parameter scope , url points to a web-application, a collection of web sites, a web site or a SharePoint list. In case of forming the filter of the farm level, this parameter may be omitted.
filename	File name	Yes	The name of the file for exporting the filter data in the xml format.

Operation mlstimportfilters

Import the filter of data collection from the file on a disk. For import it is necessary to use the file obtained during export with the help of operation <u>Operation mlstexportfilters</u>.

Syntax

stsadm -o mlstimportfilters

```
-scope <farm | webapp | site | web | list>
```

```
[-url <url of web application, site collection, site or list>]
```

-filename

Parameters

Parameter	Value	Mandatory?	Description
scope	One of the values: • farm • webapp • site • web • list	Yes	 The parameter specifies the target range of the filter to be formed. farm The SharePoint farm level. webapp The SharePoint web-application level. site The web-site collection level. web The web-site level. list

			The list level.
url	Valid URL-address, for example, http://server_name	Yes	Depending on the value of parameter scope , url points to a web-application, a collection of web sites, a web site or a SharePoint list. In case of forming the filter of the farm level, this parameter may be omitted.
filename	File name	Yes	File name with data obtained after operation Operation mlstexportfilters.

Operation mlstremovefilter

Delete a rule from the filter of data collection.

Syntax

```
stsadm -o mlstremovefilter
```

-scope <farm | webapp | site | web | list>

[-url <url of web application, site collection, site or list>]

{-ruleid <filter rule identifier> | -all}

Parameters

Parameter	Value	Mandatory?	Description
scope	One of the values: • farm • webapp • site • web • list	Yes	 The parameter specifies the target range of the filter to be formed. farm The SharePoint farm level. webapp The SharePoint web-application level. site The web-site collection level. web The web-site level. list The list level.
url	Valid URL-address, for example, http://server_name	Yes	Depending on the value of parameter scope , url points to a web-application, a collection of web sites, a web site or a SharePoint list. In case of forming the filter of the farm level, this parameter may be omitted.
ruleid	The string in the form of a3238416-a880- 42d2-92ae- 304Sb4939cl9	No	The identifier of the rule that should be deleted. The list of the values of rule identifiers can be obtained with the help of operation <u>Operation</u> <u>mlstdisplayfilter</u> .
all	<no></no>	No	Delete all filter rules.

Operation mlstresetfilter

During carrying out the operation all rules of the current filter are removed and the inheritance of the parent object filter rule is restored.

stsadm -o mlstresetfilter

-scope <farm | webapp | site | web | list>

[-url <url of web application, site collection, site or list>]

Parameters

Parameter	Value	Mandatory?	Description
scope	One of the values: • farm • webapp • site • web • list	Yes	 The parameter specifies the target range of the filter to be formed. farm The SharePoint farm level. webapp The SharePoint web-application level. site The web-site collection level. web The web-site level. list The list level.
url	Valid URL-address, for example, http://server_name	Yes	Depending on the value of parameter scope , url points to a web-application, a collection of web sites, a web site or a SharePoint list. In case of forming the filter of the farm level, this parameter may be omitted.

Operation mlstrestartsptimer

Restart service **SharePoint 2010 Timer** on all servers of the current SharePoint farm.

Syntax

stsadm -o mlstrestartsptimer

operation mlstsetpolicy

HarePoint Analytics has a set of global parameters named "Policies". Using the policies you can encrypt personal data when displayed in the reports, hide some reports, encrypt the personal data during the data collection, etc.

The policies can be set using command line tool stsadm.exe or through the web interface in the product settings. Please note, some policies can be enabled by using stsadm.exe only.

To set policies execute the following command:

stsadm -o mlstsetpolicy -PolicyName paramether

Policies Name	Default value	Description			
maskusername	false	Display the user name in the encrypted form.			
maskaddepartment	false	Display the department name imported from Active Directory in the encrypted form.			
maskadgroupfalseDisplay the group name imported from Active Direct encrypted form.		Display the group name imported from Active Directory in the encrypted form.			
maskspdepartment	false	Display the department name obtained through the harePoi object model in the encrypted form.			
maskspgroup	false	Display the group name obtained through the SharePoint object model in the encrypted form.			
maskiisrole	false	Display the IIS role name in the encrypted form.			
maskurl	false	Display web-page addresses in the encrypted form.			
maskdoclibname	false	Display the SharePoint library names in the encrypted form.			
maskdocliblocation	false	Display library locations in the encrypted form.			
maskdocname	false	Display document names in the encrypted form.			
maskdoclocation	false	Display document locations in the encrypted form.			
masklistname	false	Display the SharePoint list names in the encrypted form.			
masklistlocation	false	Display the SharePoint list locations in the encrypted form.			
masklistitemname	false	Display the names of list items in the encrypted form.			
masklistitemlocation	false	Display the location of list items in the encrypted form.			
disabledReports	null	The list of the identifiers of disabled reports.			
disableReport	null	Delete the report from the report list.			
enableReport	null	Return the report to the report list.			
showAnalyzeTab	false	Show tab Analyze in the report processing ribbon by default.			
timeExpiration	720	The time of cache storage when processing the queue of the statistical data.			
cacheLimit	1000000	The limit size of the cache of the statistical data processing. The value defines the limit number of statistical events.			
encryptuserinfo	false	Encrypt users' personal data at the collection stage.			
collectAccessDenied	true	Collect the statistics on visiting page Access Denied by users.			

To set policies such as **disableReport** or **maskusername** using a web interface open the Central Administration - > Monitoring -> HarePoint Analytics for SharePoint settings and click link **Configure policies:**

Statistics policies	
This page is designed for managing the statistics global policies.	Configure policies

There you can choose the reports of rejecting permissions for all users and groups and remove the reports from the list. Also you can select data types which should be encrypted in the reports. The following data types can be encrypted:

14.4. Managing the Data collection filters

HarePoint Analytics for SharePoint includes powerful and easy-to-use filtering system of statistical data at the collection stage. The statistics filter rules can be set at 5 different levels: farm level, web application level, site collection level, web level, and list level. Succession of filter rules does exist between these levels.

Statistics collection filters are managed by means of the web interface and command line.

HarePoint Analytics applies some of the filters as early as before basing the data in the database of the queue, on the level of HttpModule. Such filtration does not issue any additional requests to the context database of SharePoint, and therefore does not increase the load time of a webpage. At the same time, such filtration considerably narrows down the database of the queue, which results in the significant reduction of the queue processing time.

The data is also verified during queue processing. This provides filtration for the data which were enqueued but not processed yet.

Please notice that only following fields filtered at the HttpModule level:

```
RequestUrl, RequestUrlReferrer, RequestUserAgent, RequestHostAddress,
RequestHostName, RequestAuthType, RequestIsAuthenticated,
RequestAuthenticationName, UserAnonimous, DoNotCollect
```

By default data collection filter rules are applied both by the HTTP request and by processing queue. You can change it by configuring the "useDataCollectionFiltersOnHTTP" and "useDataCollectionFiltersOnQueueProcessing" <u>policies</u>.

14.4.1. Farm level filter rules.

This is a basic level which is a parent for all other levels. It allows controlling the collection of statistical data across the entire SharePoint farm. To go to the farm level filter rules page the following operations should be performed:

- 1. Go to page **SharePoint Central Administration.** The Farm administrator account should be used for authorization.
- 2. Open the **Monitoring** page.

Go to the settings page of HarePoint Analytics for SharePoint using the hyperlink located in the **HarePoint Analytics for SharePoint** section:



3. Go to the filter rules page using hyperlink **Configure Filter** located in the **Statistics Filter** section:

14.4.2. Web application filter rules level

This level inherits by default the filter rules of the farm level. The inheritance can be broken and a unique set of statistics collection rules can be created for each web application. To go to the web application filter rules management page the following operations should be performed:

- 1. Go to page **SharePoint Central Administration.** The Farm administrator account should be used for authorization.
- 2. Open the Monitoring page.
- 3. Go to the **Web application filter management** page:



4. Select the required application:



14.4.3. Site collection level filter rules

This level inherits by default the filter rules of the respective web application. The inheritance can be broken and a unique set of statistics collection filter rules can be created for the respective site collection. To go to the site collection filter management page the following operations should be performed:

- 1. Open a web-site which belongs to the site collection where you would like to create or change the data collection filter
- 2. Select Site Settings from the dropdown Site Actions menu.
- 3. In the HarePoint Analytics for SharePoint section select Site collection filter management :



HarePoint Analytics for SharePoint Site usage reports Site collection usage reports Site usage reports permissions Site collection usage reports permissions Site filter management Site collection filter management Tasks for exporting reports

14.4.4. Site level filter rules

This level inherits by default the filter rules of the respective site collection. The inheritance can be broken and a unique set of statistics filter rules can be created for the respective site. To go to the statistics site filter management page the following operations should be performed:

- 4. Open a web-site for which you would like to create or change the data collection filter
- 5. Select Site Settings from the dropdown Site Actions menu.
- 6. In the HarePoint Analytics for SharePoint section select Site filter management :



HarePoint Analytics for SharePoint Site usage reports Site collection usage reports Site usage reports permissions Site collection usage reports permissions Site filter management Site collection filter management Tasks for exporting reports

14.4.5. List level filter rules

This level inherits by default the filter rules of the respective site. The inheritance can be broken and a unique set of statistics filter rules can be created for the respective list. To go to the statistics list filter management page the following operations should be performed:

- 1. Select List Settings from the List tab of the list setting ribbon.
- 2. Select HarePoint Analytics list filter management in the General Settings section of the list parameters.

Site Actions 👻 🐋

test → Calenda	r ► List Settings				
test					
Libraries	List Information				
Site Pages Shared Documents Lists	Name: Calendar Web Address: http://ms/test/Lists/Calend Description: Use the Calendar list to ke	Calendar http://ms/test/Lists/Calendar/calendar.aspx Use the Calendar list to keep informed of upcoming meetings, deadlines,			
Calendar Tasks	General Settings	Permissions and Management			
Discussions Team Discussion	Title, description and navigation Versioning settings Advanced settings Validation settings	Delete this list Save list as template Permissions for this list Workflow Settings			
Recycle Bin	Rating settings Audience targeting settings Metadata navigation settings Per-location view settings	Generate file plan report Enterprise Metadata and Keywords Settings Information management policy settings			
	HarePoint Analytics list filter management				
	Form settings				

14.5. Management of the statistics collection rules via the web interface

Statistics filter rules are managed in the same manner at various levels. The statistics filter rules management page contains the list of rules (marked with 2 on the print screen) and actions menu (marked with 1):

Site Actions 👻 🐋						
MOSS 2010 → Collection of statistics filter rules for a list Tasks This page is designed for managing the statistics filter HarePoint Analytics for SharePoint					Tags & Notes	0
Libraries Site Pages	New + Actions + Settings +	1			~	
Shared Documents	Filtration field	Relationship type	Expression			
MS FSS Test doc library	DocumentLenght	Greather	1000000			
	DocumentCreated	Greather 2	9/28/2010 12:16:00 A	м		
Lists	RequestIsAuthenticated	True				
Calendar	RequestUrl	NotContains	_layouts			
Tasks Links list	ItemEvent	NotEqual	View			
Discussions						

This page enables to create, edit, delete, export and import statistics collection filter rules. Moreover, the statistics collection filter rules can be inherited or the inheritance of parent object rules can be terminated. In addition, statistics collection can be completely disabled.

14.5.1. Adding a rule

- 1. Go to the statistics collection filter management page of the respective level.
- 2. By default the statistics collection filter rules at all levels except the farm are inherited from the parent object. In this case creation, editing, removal and import of rules are inaccessible. To create unique rules for the current object, the inheritance of parent object rules should be terminated. For this purpose select **Break rule inheritance** from the **Actions** menu. The inheritance will be terminated and the parent object rules will be copied from the current object and become available for editing.
- 3. Select Add rule from the New menu
- 4. Indicate **Filtration field** on the opened page (marked with 1 on the print screen), according to which the statistics will be filtered, specify **Relation option** (marked with 2) and specify **Expression** (marked with 3):

Site Actions 👻 🐋							
MOSS 2010 • Create rule for the statistics filter							
MOSS 2010 Airplan	nes Basic Search Site			All Sites	-]	
Libraries Site Pages						* indicates a required field	
Shared Documents	Filtration field *	1	RequestUrl		.	1	
MS FSS	Relationship type *	2	NotContains		• (
Lists	Expression *	3	_layouts				
Calendar							
Tasks						-	
LINKS list							
Discussions					OK	Cancel	
Team Discussion							

5. Press OK.

Filter rule fields can be divided into several categories:

- 1. http requests
 - RequestUrl http/https address of the request
 - RequestUrlReferrer URL of the page the user came from
 - RequestUserAgent UserAgent request line
 - RequestHostAddress IP address
 - RequestHostName Host address
 - RequestAuthType Authentication type
 - RequestIsAuthenticated Authenticated request
 - RequestAuthenticationName Authentication name
- 2. List items
 - ItemEvent List item event
 - ItemDisplayName Displayed list item name
 - ItemName List item name
 - ItemTitle List item title
 - ItemCreated List item creation time
- 3. Lists
 - ListTitle List title
 - ListDescription List description
 - ListDefaultViewUrl List URL
 - ListBaseTemplate List base template
 - ListBaseType List base type
- 4. Documents
 - **DocumentName** Document Name
 - DocumentCreated Document creation time
 - **DocumentTitle** Document title
 - DocumentUrl Document URL
 - DocumentLength Document size in bytes
 - DocumentFolderName Document folder
- 5. Users
 - UserAnonimous Anonymous user
 - UserLoginName User login name
 - UserEmail User email box
 - UserName User name
 - **UserNotes** User notes
 - UserIsSiteAdmin User site collection administrator
 - UserIsSiteAuditor Site collection auditor

14.5.2. Rule editing

- 1. Go to the statistics filter management page of the respective level.
- 2. Select the required rule from the list of rules on the statistics filter management page and go to editing page using a hyperlink, e.g. **RequestUrl**
- 3. On the opened page please select the required values for **Filtration field**, **Relation option**, **Expression** and press **OK**. The rule can also be removed by the **Delete** button.

14.5.3. Rule deletion

- 1. Go to the statistics filter management page of the respective level.
- 2. Tick the rules to be deleted.
- 3. In the Actions menu select Remove selected rules.
- 4. Press **OK** in the appearing window.

14.5.4. Rule export

- 1. Go to the statistics filter management page of the respective level.
- 2. In the Settings menu select Export rules.
- 3. Specify the file name and press **Save**. Statistics collection rules will be saved in the respective XML file.

14.5.5. Rule import

- 1. Go to the statistics filter management page of the respective level.
- 2. In the New menu select Import statistics collection rules .
- 3. In the opened page press **Browse...**, select XML file with statistics collection filter rules and press **Open**.
- 4. Press OK.

14.6. Managing the statistics collection filter rules via the command line

In addition to managing statistics collection filter rules via the web interface, it is also possible to manage the rules from the command line using the extension commands for **stsadm** utility: **mlstdisplayfilter**, **mlstaddfilter**, **mlstremovefilter**, **mlstresetfilter**, **mlstexportfilters**.

14.6.1. Viewing of rules

To display filter rules of any level the following command should be used:

stsadm -o mlstdisplayfilter

-scope <farm | webapp | site | web | list> - level of the statistics collection filter rules, permissible values of a farm, webapp (web application), site(site collection), web, list.

[-url <url of web application, site collection, site or list>] - address of the object of the corresponding level, required field for a web application, site collection, site and list.

[-effective] – effective set of rules, i.e. filter rules of the current object together with the filter rules of all parent objects.

14.6.2. Resetting the rule

To delete all unique rules for the given level and restore the inheritance of parent object rules, the following command should be used:
stsadm -o mlstresetfilter

-scope <farm | webapp | site | web | list> - level of the statistics collection filter rules, permissible values of a farm, webapp (web application), site(site collection), web, list.

[-url <url of web application, site collection, site or list>] - address of the object of the corresponding level, required field for a web application, site collection, site and list.

14.6.3. Adding a rule

To create a filtration rule for any level the following command should be used:

stsadm -o mlstaddfilter

-scope <farm | webapp | site | web | list> - level of the statistics collection filter rules, permissible values of a farm, webapp (Web application), site(site collection), web, list.

[-url <url of web application, site collection, site or list>] - address of the object of the corresponding level, required field for a web application, site collection, site and list.

[-fieldid <RequestUrl | RequestUrlReferrer | RequestUserAgent | RequestHostAddress | RequestHostName | RequestAuthType | RequestIsAuthenticated | RequestAuthenticationName | ItemEvent |ItemDisplayName | ItemName | ItemTitle | ItemCreated | ListTitle | ListDescription | ListDefaultViewUrl | ListBaseTemplate | ListBaseType | DocumentName | DocumentCreated |DocumentTitle | DocumentUrl | DocumentLenght | DocumentFolderName | UserAnonimous |UserLoginName | UserEmail | UserName | UserNotes | UserIsSiteAdmin | UserIsSiteAuditor>] - filter field.

[-relop <Greather | GreatherOrEqual | Less | LessOrEqual | Equal | NotEqual | True | False | StartsWith |NotStartsWith | EndsWith | NotEndsWith | Contains | NotContains | Empty | NotEmpty | MatchRegex | NotMatchRegex>] - - type of the relation between the filter field and this field value

[-expression <filter expression>] - expression for the filter field

[-fromscratch] - create a rule without copying the parent object rules

14.6.4. Rule deletion

To delete a rule/rules the following command should be used:

stsadm -o mlstremovefilter

-scope <farm | webapp | site | web | list> - level of the statistics collection filter rules, permissible values of a farm, webapp (web application), site (site collection), web, list.

[-url <url of web application, site collection, site or list>] - address of the object of the corresponding level, required field for a web application, site collection, site and list.

{-ruleid <filter rule identifier> | -all} – unique identifier of the deleted rule (when viewing the rule) or all – delete all rules.

14.6.5. Rule export

To export the list of rules of a certain level the following command should be used:

stsadm -o mlstexportfilters

-scope <farm | webapp | site | web | list> - level of the statistics collection filter rules, permissible values of a farm, webapp (Web application), site(site collection), web, list.

[-url <url of web application, site collection, site or list>] – address of the object of the corresponding level, required field for a web application, site collection, site and list.

-filename – name of a file the list of rules in XML format will be written to.

14.6.6. Rule import

To import the list of rules of a certain level, the following command should be used:

stsadm -o mlstimportfilters

-scope <farm | webapp | site | web | list> - level of the statistics collection filter rules, permissible values of a farm, webapp (Web application), site(site collection), web, list.

[-url <url of web application, site collection, site or list>] - address of the object of the corresponding level, required field for a web application, site collection, site and list.

-filename - name of a file containing the list of filter rules in XML format.

15. Managing of the statistics database

HarePoint Analytics for SharePoint works a lot with the databases of statistics and queues, which greatly increases the log file (*.ldf) of the statistics database. One of the measures of the statistics database maintenance is the cleaning up of its log file.

15.1. The process of cleaning up the log file

- 1. Open SQL Management Studio
- 2. Right click on the chosen database, select Properties.
- 3. In the left tab select menu item Options
- 4. In Recovery model select Simple. This option means that the changes made since the last backup are not protected. In the case of an accident, these changes must be redone.

🧻 Database Properties - TestBa	aseGrows		
Select a page General Files	Script 🔻 🚺 Help		
Filegroups Change Tracking Pemissions	<u>C</u> ollation: Recovery <u>m</u> odel: Compatibility <u>l</u> evel:	Latin1_General_C1_AS_K3_W3 Simple SQL Server 2008 (100)	
	Other options:	False	<u> </u>

- 5. Click OK.
- 6. Right click on the chosen database, then Tasks, then Shrink and at last Files.
- 7. In the new window select Log.

ws_log		
Script 👻 📑 Help		
The size of the databas shrink all database file	se is reduced by shrinking in s, use Shrink Database.	dividual files to release unallocated space. To
<u>D</u> atabase:	TestBaseGrows	
Database files and files	roups	
File type:	Log	▼
Filegroup:	<pre><net applieable=""></net></pre>	
<u>F</u> ile name:	TestBaseGrows_log	•
Location:	C:\Program Files\Microsoft	SQL Server\MSSQL10_50.MSSQLSERVER\MS
Currently allocated s	pace:	25602.88 MB
<u>Available free space</u>	E.	25576.04 MB (99%)
Shrink action		
<u>R</u> elease unused	space	

- 8. Click OK.
- 9. Right click on the chosen database, select Properties.
- 10. In the left tab select menu item Options
- 11. In Recovery model select Full.
- 12. Click OK.

If you have SQL Server Agent installed on your SQL server you can make the cleaning up of the log file of the statistics database in the form of a task and run it by schedule.

16. Customizing the Dashboard

By default the HarePoint Analytics Dashboard cannot be modified. It is a predefined page which contains the summary of a web-site or a site collection. There is a possibility to replace the predefined Dashboard with a web-part page where the necessary reports can be placed. It can be done by activation of feature **HarePoint Analytics for SharePoint: Dashboard** on the scope where a Dashboard should be replaced.

16.1. Customizing the Dashboard for a separate web-site

To replace the predefined HarePoint Analytics Dashboard with a web-part page for a separate web-site do the following:

- 1. Using the Site Owner account open the web-site for which the Dashboard should be changed
- 2. Point to Site actions \ Site Settings
- 3. Click the Manage site features link:



4. Locate the HarePoint Analytics for SharePoint: Dashboard feature and activate it:

Site Actions 👻 할	
test → Site Se	ttings → Features
test	
Libraries	Name
Site Pages Shared Documents	Content Organizer Create metadata based rules that move content submitted to this site to the correct library or folder.
Lists Calendar Tasks	E-mail Integration with Content Organizer Enable a site's content organizer to accept and organize email messages. This feature should be used ony in a highly managed store, like a Records Center.
Discussions Team Discussion	Group Work Lists Provides Calendars with added functionality for team and resource Activate Activate
Recycle Bin	HarePoint Analytics for SharePoint: Dashboard Activate Activate
All Site Content	Hold and eDiscovery This feature is used to track external actions like litigations, investigations, Activate or audits that require you to suspend the disposition of documents.

5. Get Back to the Site Settings and click link Site usage report:

Site Actions 👻 🐋		
test → Site Se	ttings	
test		
Libraries Site Pages Shared Documents	Users and Permissions People and groups Site permissions	Look and Feel Title, description, and icon Tree view Site theme Navigation
Lists Calendar Tasks	Galleries Site columns Site content types Master pages	Site Actions Manage site features Save site as template Reset to site definition
Discussions Team Discussion	Site Administration Regional settings Site libraries and lists User alerts	Delete this site Site Web Analytics reports Site Collection Web Analytics reports
All Site Content	Search and offline availability Sites and workspaces Workflow settings	Reporting Services Manage Shared Schedules Reporting Services Site Settings
	Related Links scope settings Term store management Content and structure Searchable columns Content and structure logs	HarePoint Analytics for SharePoint Site usage reports Site collection usage reports
	Site Collection	Site usage reports permissions



Site Collection Administration Go to top level site settings

6. Point to the **Page** tab on the ribbon and click the **Edit Page** button:

Site collection usage reports

Tasks for exporting reports

Site filter management Site collection filter management

permissions



Now you can delete the web-parts, add new or change the settings of the existing one. To learn more about how to place a web-part with the report to the page visit the <u>following area</u> of Administrator Guide.

16.2. Customizing the Dashboard for a site collection

To replace the predefined HarePoint Analytics Dashboard with a web-part page for a site collection scope reports do the following:

- 1. Using the Site Collection Administrator account open the root web-site for which the Dashboard should be changed
- 2. Point to Site actions \ Site Settings
- 3. Click the Manage site features link:

Site Actions 👻 🐋			
test + Site Se	ttings		
test			
Libraries Site Pages Shared Documents	÷	Users and Permissions People and groups Site permissions	Look and Feel Title, description, and icon Tree view Site theme Navigation
Lists Calendar Tasks		Galleries Site columns Site content types Master pages	Site Actions Manage site features Save site as template Reset to site definition
Discussions Team Discussion		Site Administration Regional settings Site libraries and lists User alerts	Delete this site Site Web Analytics reports Site Collection Web Analytics reports

4. Locate the HarePoint Analytics for SharePoint: Dashboard feature and activate it:

Site Actions 👻 🐋		
SharePoint 2010	Central Administration > Site Settings > Features	
Central Administration Application Management System Settings Monitoring Backup and Restore	Name Content Organizer Create metadata based rules that move content submitted to this site to the correct library or folder. E-mail Integration with Content Organizer Enable a site's content organizer to accept and organize email messages.	Activate
Security Upgrade and Migration	This feature should be used ony in a highly managed store, like a Records Center.	
General Application Settings Configuration Wizards	Group Work Lists Provides Calendars with added functionality for team and resource scheduling.	Activate
Recycle Bin	HarePoint Analytics for SharePoint: Dashboard Allows to customize HarePoint Analytics for SharePoint Dashboard.	Activate

- 5. Go to the Monitoring page of Central Administration
- 6. Click link Farm Reports

Site Actions 👻 📄 Brow	se Page	
SharePoint 2010	Central	Administration > Monitoring
Central Administration		Health Analyzer
Application Management	Ť	Review problems and solutions Review rule demittions
System Settings	(1)	Timer Jobs
Monitoring		Review job definitions Check job status
Backup and Restore	the.	Reporting
Security		View administrative reports Configure diagnostic logging
Upgrade and Migration		Review Information Management Policy Usage Reports View health reports Configure usage and health data collection
General Application Settings		View Web Analytics reports
Configuration Wizards	111	HarePoint Analytics for SharePoint HarePoint Analytics for SharePoint settings Farm Reports Web application filter management Tasks for exporting reports

7. Point to the Page tab on the ribbon and click the Edit Page button:



Now you can delete the web-parts, add new or change the settings of the existing one. To learn more about how to place a web-part with the report to the page visit the <u>following area</u> of Administrator Guide.

16.3. Customizing the Dashboard for the Farm scope reports

The Customization of the Dashboard for the Farm scope reports is not available currently. This feature will be added in one of the next product versions.

16.4. Adding a report to dashboard Overview

To add a new report to the report dashboard:

- 1. Open the report dashboard.
- 2. Open tab **Page** in the ribbon.

Site Action	s v 😏 Brow	se Page								
Edit Page	Edit Properties - X	Versions Permissions Delete Page	E-mail a Link	Alert Me ▼	Approve	Reject	W orkflows	Edit Mobile Page +	Make Homepage	Title Bar Properties
Edit	Mana	ge	Share 8	Track	Appro	val	Workflow	P	age Actions	
Overvie Visits & Visits tre	w Visitors nd	Visits t	trend						Visits 🧕 L	Jsers

3. Click Edit Page.

4. In one of the columns click Add a Web Part.

Site Actions 👻	対 Br	rowse	Page								
Stop Editing	Edit Properties	v © 9 9 ₽ 9 × × ⊏	ersions ermissions Delete Page	E-mail a Link	Alert Me +	Approve	R eject	Ö Workflows	Edit Mobile Page +	Make Homepage	Title Bar Properties
Edit		Manage	2	Share &	Track	Appr	oval	Workflow	P	age Actions	
Overview Visits & Vis	sitors		Left Column								
Visits by ho	urs						Add a V	Veb Part			
Length of vi	sits										
Depth of vis	sits		Visits t	rend							
Visits											

5. On the next panel select category **HarePoint**, and then web-part **HarePoint Analytics for SharePoint**. Click **Add**.

Site Actions 🗸	🐋 Browse	Page T Page Inse	ools rt					Sergey Voronkov 👻 🔩
Stop Editing Edit	Edit Properties + X Manag	Versions Permissions Delete Page Ge Sha	ail a Alert Me +	Approve Reject	Workflows	Edit Mobile Make Page + Page Actions	Title Bar Properties	
Categories	We	b Parts		About th	e Web Pa	rt		
Lists and I Content Ro Forms HarePoint Media and Social Coll	Libraries ollup F Content laboration	HarePoint Analytics	for SharePoi	HarePoil Use to disp	nt Analytic ay HarePoint /	ES FOR SharePoint W	/eb Part orts of your c	hoice
Upload a Web	Part 🔻			Add Web	Part to: Left	: Column 🔻		Add Cancel

6. A new web-part will appear in the selected area. To complete the process of adding a report it must be configured properly.

Site Actions 🗸	🐋 Brov	vse	Page	Page Tools Insert							
Stop Editing	Edit Properties +	© V Ø₽ X D	ersions ermissions elete Page	E-mail a Link	Alert Me ▾	Approve Reject	Ö Workflows	Edit Mobile Page +	Make Homepage	Title Bar Properties	
Edit	M	anage		Share 8	Track	Approval	Workflow	F	age Actions		100
Overview Visits & Vis	sitors		Left Column								RI
Visits by ho	urs					Add a	Web Part				100
Length of vi	sits	ſ									٦
Depth of vis	its		HareP	oint Analy	tics fo	or SharePoint V	/eb Part				
Visits											
Pageviews			Please	open the t	ool pan	e and configure t	ne Web Part :	settings.			
Navigation of	letails									_	
Users activit	ty	1	Visits	trend							
Visits by Sh department.	arePoint										

7. In the web-part menu select **Edit Web Part**, or click the link **open the tool part**.



8. In the next panel of web-part settings select any report from dropdown list **Select report**.

						HarePoint Analytics for SharePoint Web	Par
ght Column						Report settings	
	Ad	d a Web Pa	irt			Insert url of the site http://nova7	
HarePoint Ana	alytics for	SharePoin	t Web I	Part	• V	This Site only	
Please open the	e tool pane a	ind configu	re the We	eb Part s	ettings.	Select report	
Document uni	ique event	s overviev	v			Document popularity Not used documents Documents by site	1
Web Part shows 1/19/2012 for site collectio	s data for the	e period fro a7	m 12/20, ws 🔍 Ec	/2011 to dits		 Documents by type Documents by SharePoint departments Documents by Active Directory departments Documents by Active Directory groups Documents by Active Directory groups Documents by SharePoint groups Documents size by type 	
12/20/2011 12/2	7/2011 1/3/20	012 1/10/20	12 1/17/	2012	a share	List items Lists summary Lists growth trends List items usage overview	
Date	views	caits Ci	eated	Deleted	Authors	List items usage List items popularity	
12/29/2011	6	4	4	0	4	List items by roles	-
1/12/2012	4	1	1	0	1	List items by Active Directory departments	

9. Click OK at the bottom of the panel of web-part settings.

As a result of the above actions the selected report will appear on the report dashboard.



Web-part **HarePoint Analytics for SharePoint** allows you to customize a lot of parameters that determine the appearance of a report, data range included into the report, and much more. More details about the process of adding and configuring this part are given in paragraph <u>Adding and configuring web-part</u> <u>HarePoint Analytics for SharePoint</u>.

16.5. Deleting a report from dashboard Overview

To delete a report from the report dashboard:

- 1. Open the report dashboard.
- 2. Open tab **Page** in the ribbon.

Site Action	s 🕶 过 Brow	se Page							
Edit Page	Edit Properties - X	Versions Permissions Delete Page	E-mail a Link	Alert Me +	Approve Reject	W orkflows	Edit Mobile Page +	Make Homepage	Title Bar Properties
Edit	Manag	Share &	Track	Approval	Workflow	Pa	age Actions		
Overview Visits & Visitors		Visits t	rend						

- 3. Click Edit Page.
- 4. In the web-part menu of the report that you would like to delete, click Close or Minimize, depending on how you would like to delete the report from the dashboard.

Visits trend		
		Minimize
		Close
2	8 0	Edit Web Part
-		Export
1.5 -		Export report
1		About HarePoint Analytics for SharePoint Web Part
0.5 -		

17. Adding and configuring web-part

In the process of deployment and activation of functions of HarePoint Analytics solution for SharePoint, special web-part **HarePoint Analytics for SharePoint** is added to the web-part collection of site collection SharePoint.

Using this web-part you can:

- Add a report to any page of the SharePoint site.
- Create any report dashboards.
- Provide users with low access level with the ability of viewing statistical reports without providing access to the standard interface for working with reports.

17.1. Adding a web-part

Let's consider the process of adding web-part HarePoint Analytics for SharePoint by example of modifying the cover page of the standard SharePoint web-site.

Site Actions 👻 📝	Browse Page		Sergey Voronkov 👻 🍢
👔 Web Part Us	age → Home		I Like It Tags & Notes
Home		Search this site	P 0
Libraries Site Pages Shared Documents Lists Calendar Tasks Discussions Team Discussion	Welcome to your site! Add a new image, change this welcome text or add new lists to this page by clicking the edit button above. You can click on Shared Documents to add files or on the calendar to create new team events. Use the links in the getting started section to share your site and customize its look. Shared Documents		
		Getting Started Share this site Change site theme Set a site icon	
		😰 Customize the Quick Launch	

To add web-part HarePoint Analytics for SharePoint to the page:

1. Open tab **Page** in the ribbon. Click Edit to enter the edit page mode.



- 2. Place the cursor at the location where you would like to add the web-part.
- 3. On contextual tab Insert of the ribbon click Web Part.

						Editing T	ools	
Site Actio	ons 👻 🐋	- F	Browse	Page	Form	nat Text	Insert	
		Q				ж —		
Table	Picture	Link	Upload File	Web Part	Existing List	New List		
Tables	Media	Lir	nks 📘		Web Parts	5		

4. On the next panel select category **HarePoint**, and then web-part **HarePoint Analytics for SharePoint**. Click **Add**.

						Editing T	ools	
Site Actio	ons 👻 🐋	- K	Browse	Page	Form	nat Text	Insert	
Table Tables	Picture •	Cink	Upload File	Web Part	Existing List Web Parts	New List		
Catego	ories		Web Pa	arts			A	bout the Web Part
Con Forr Hard Med	s and Librai tent Rollup ms ePoint lia and Conf ial Collabora	ies ent ation	Har	ePoint An	alytics for	SharePoir	nt	HarePoint Analytics for SharePoint Web Part Use to display HarePoint Analytics for SharePoint reports of your choice
Upload a	Web Part	•						Add Web Part to: Rich Content 💌
								Add Cancel

5. The web-part will be added to that place of the page where the cursor is located.



6. In the web-part menu select Edit Web Part or click the link open the tool part.



7. In the resulting panel of web-part settings, select any report from dropdown list Select report.



8. Click **OK** at the bottom of the panel of web-part settings.

Selecting a report is the minimum possible configuration of the web-part. Detailed configuration of the web-part is discussed in paragraph <u>Configuring a web-part</u>.

17.2. Configuring a web-part

Configuring web-part **HarePoint Analytics for SharePoint** doesn't differ from configuring another web-part delivered with distributive SharePoint.

The web-part setting dashboard is opened in the standard way, by choosing item **Edit Web Part** of the web-part menu.

/2011 to 1		Minimize	▼ ▼
_	×	Close Delete	s
	I	Edit Web Part Connections	
		Export Export report	•
		About HarePoint Analytics for SharePoint Web Part	

The setting dashboard of the web-part, in addition to standard sections Appearance, Layout and Advanced, contains special sections (tool panel - instrumental parts) to set specific parameters. These instrumental



parts are not displayed as long as you select any of the reports in dropdown list **Select report**.

✓ Visits trend	×
Report settings	\$
Insert url of the site	
http://nova7	
Select scope	
This Site only	
Select report	
Visits trend 🔹	
Show description	
Description	
Web Part shows data for the period from #DATE_START# to #DATE_END# #SITE_WEB# #URL#	
Report results settings	
Report appearance	
+ Appearance	
+ Layout	
Advanced	
OK Cancel Apply	

17.2.1. Tool panel Report settings

The tool panel contains the minimum possible set of web-part settings.

• Insert url of the site

The address of a web site for which the report is built. By default, this address is selected as the address for the current web site. If it is necessary to show reports of one web site on the page of another one, the address can be changed. Such approach may be useful in the case when you need to compare the statistics of different web sites.

• Select scope

The parameter determines the data range used for building the report: **Site collection, This Site only, This Site and Subsites**. Adding multiple web-parts to one page, showing the same record, but with different data ranges is a good way to analyze which of the web sites contributes most to a particular statistical parameter.

• Select report

The dropdown list contains a list of reports available for displaying through a web-part. This includes all reports available in the product, except specifying reports and reports at the level of SharePoint farm.

• Show description

To show the description in the report header.

• Description

The template of description in the report header.



The description template includes macros that are replaced by context-dependent values during creation of the web-part contents. The following macros are available:

a. #DATE_START#

The date of the reporting period start.

b. **#DATE_END#**

The date of the reporting period finish.

c. #SITE_WEB#

The macro is replaced by word **site** or **site collection**, depending on the range specified in field **Select scope**.

d. #URL#

Address, specified in field Insert url of the site.

17.2.2. Tool panel Report results settings

The tool part contains filter settings for building the report. The content of this tool part is completely dependent on what report is selected in field <u>Select report</u>.

Report results settings	
Select date range to display data	
Last month 🔻	
Filter by Active Directory fields	
All logons	
Canonical Name	
Account name	
Active Directory Department	
Software Development Testing Lab	
Filter by SharePoint groups and users	
Nova7 Owners	
Nova7 Members	
Account name	
User name	
SharePoint Department	
Software Development	

The filter list fully repeats the list of report filters. How to work with such filters is described in paragraph <u>Filters use</u>.

17.2.3. Tool panel Report appearance

The tool panel allows you to configure the parameters of displaying the report web-part.

Conventionally, the settings displayed on the panel can be divided into two groups: chart displaying settings and table displaying settings with the report data. Displaying settings of the chart for some reports are not available, since these reports do not include charts.

 Report appearance
Show chart
Width: 600 px. Height: 300 px.
Legend position
TopRight -
Show argument labels
Select chart type
Display a chart as a Bar 🔻
Select series to show on the chart
Visits
Pageviews
Pages per visit
Avg. length of visit (seconds)
Sort by the series
Visits 🔹

The group of chart settings contains the following fields:

• Show chart

A flag that allows you to completely hide a chart in the report.

• Width, Height

The chart size in pixels.

• Legend position

The position of the report legend. In addition, by using this option, you can hide the legend. Here are some examples of possible legend position:



• Show argument labels

The option allows you to hide labels near the horizontal axis.



• Select chart type

The chart type. You can use two types: Bar or Pie. Not every report has the option.

- Select series to show on the chart Selecting data series to be displayed in the chart.
- Sort by the series Sorting series in the chart.

 Report appearance
Show table
Table width
100 Percentage 💌
Show grid pager
Show summary bellow table
Rows on page in a table
25 💌
Select columns to show in table
Time of pageview
D +::-
Ho page
Sort by column
Time of pageview Descending
Group by column
The number of characters to be displayed in data fields (0 – use default settings)
Show link to the report

The group of table settings allows you to configure the following parameters:

• Show table

The parameter allows you to hide a table in the report.

• Show grid pager

Displaying the grid pager under the table.

	1/19/2012 5:10:34 PM	11		1	Sergey Voronkov	fe80::8d2b:5e5b:ccb4:3c52% 20
	Page 1 of 2 (27 items)	•	[1]	2	•	
2						

• Show summary bellow table

Displaying the summary string under the table.

Page 1 of 2	(31 items)	[1] 2 →				-	-
	Total: 1	Total: 1	Total: 0 To	otal: 1	Total: 27	Avg.: 0.87	Avg.: 00:00:09
12/27/2011	0	0	0	0	0	0.00	00:00:00
12/28/2011	0	0	0	0	0	0.00	00:00:00
12/29/2011	0	0	0	0	0	0.00	00:00:00

• Select columns to show in table, Sort by column, Group by column Selecting columns to be included in the report, sorting and grouping.

• The number of characters to be displayed in data fields

The parameter provides the ability of specifying the maximum length of rows in the table. If any of the rows in the table exceeds the specified length, then it is cut off:

Time of pageview	↓Visit IDVisit	or IDUser name	IP	Page	
1/19/2012 6:03:22 PM	11	1 Sergey Voronkov	fe80::8d2b:5e5b:ccb4:3c52% 20	http://nova7/ages/Home.aspx	
1/19/2012 6:03:06.		1. Sergev	fa80::8d2b:5e5b:scb4:3c52%	http://poya7/ages/Home_aspx	

• Show link to the report

To show the link to the standard page of viewing the report.

18. Adding tracker for Java Script events (HarePoint Analytics 2010 only)

During the site operation you may need to track JavaScript events or you may need to perform an analysis of user activity on the page. **SharePoint Analytics for SharePoint** provides a mechanism for the collection of such information.

18.1. Track page events

To track JavaScript events on a page, you need to connect the haloader.js script. To do this, add the following piece of code to the end of the <head>section of your page:

```
<script type="text/javascript"
src="<webUrl> layouts/MAPILab/Statistics/haloader.js" ></script>
```

Where,

<webUrl> is a server relative URL of the current site/subsite. It will be equal to "/" for the root site of a site
collection.

Further, insert the following code string to the method that is called when an event to be registered occurs:

```
_haq.push(['trackEvent', '<eventType>', '<eventName>', '<eventDescription>
', '<eventValue>']);
```

Where,

<eventType> is an event type with the length of not more than 100 symbols (required),

<eventName> is an event name with the length of not more than 100 symbols (optional),

<eventDescription> is additional information of the event with the length of not more than 200 symbols (optional),

<eventValue> is a real numerical value of the event (optional).

Example:

```
<ahref="#" onclick="_haq.push(['trackEvent', 'Purchase', 'Myproduct', 'Purchasepage', 0.99]);">Buy (0.99$)</a>
```

18.2. Track events on page load

To track JavaScript events when loading the page, add the following code to the end of the <head> section of your page:

```
<script type="text/javascript">
var _haq = _haq || [];
_haq.push(['trackEvent', '<eventType>', '<eventName>', '<eventDescription>
', '<eventValue>']);
</script>
<script type="text/javascript"
src="<webUrl> layouts/MAPILab/Statistics/haloader.js"></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></sc
```

Where,

<eventType> is an event type (required),

<eventName> is an event name (optional),

<eventDescription> is additional information of the event (optional),

<eventValue> is a numerical value of the event (optional),

<webUrl> is a server relative URL of the current site/subsite. For the root site of a site collection it will be equal to "/".

Example:

```
<scripttype="text/javascript">
var _haq = _haq || [];
_haq.push(['trackEvent', 'Page view', 'Main page']);
</script>
<script
type="text/javascript"src="/_layouts/MAPILab/Statistics/haloader.js">
</script>
</script></script>
```