

# Deployment and initial setup of HarePoint Analytics for SharePoint

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## Introduction

This Guide has been developed by MAPILab and contains the information necessary to install HarePoint Analytics for SharePoint successfully on your computer. We ask that you carefully review it before starting to install the Product. More detailed information can be obtained at:

<http://www.harepoint.com/Products/HarePointAnalyticsForSharepoint/>.

## Preparation for deployment

### Checking for necessary components

The program requires a set of installed components. Install components in accordance with the list below.

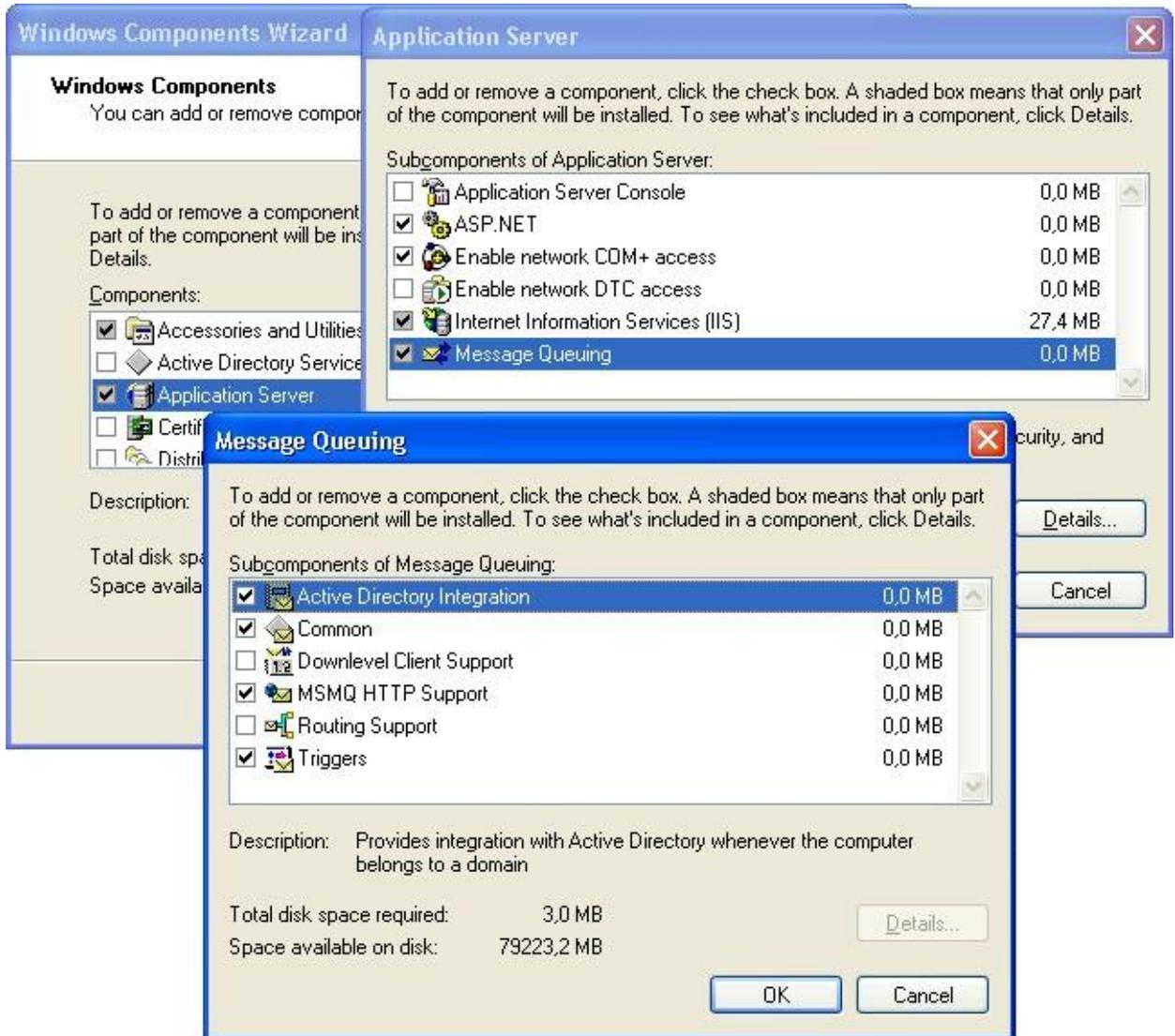
- Windows SharePoint Services 3.0 or Microsoft Office SharePoint Server 2007.
- Microsoft .NET Framework 2.0 with Server Pack 1.  
Download the x86 version from the [Microsoft Download Center](#)  
Download the x64 version from the [Microsoft Download Center](#)
- Microsoft SQL Server 2005; SQL Server 2005 Express Edition; Microsoft SQL Server 2008; SQL Server 2008 Express Edition. Microsoft SQL Server 2005 Express Edition can be [downloaded free](#) from the Microsoft website. Attention: Windows Internal Database (a special edition of SQL Server 2005 that is used in scenarios where WSS is deployment in stand-alone regime) is not supported!

## Installation of Windows component: Message Queuing

Please note, configuring Message Queuing is optional. This component is required by the persons, who would like to use MSMQ as a queue for data collection. In this case Message Queuing must be installed on each server within the SharePoint farm!

The Message Queuing component is included in Windows Server 2003 and higher.

Installation of this component can be done through **Add / Remove Programs** in the Windows Control Panel.



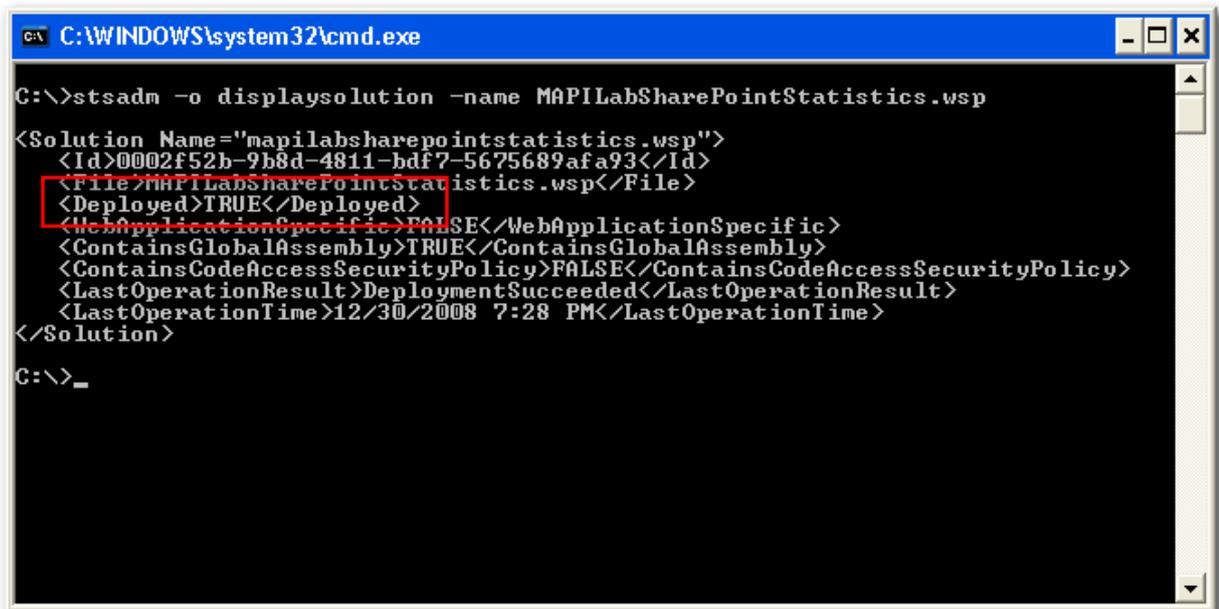
## Deployment of HarePoint Analytics for SharePoint

The procedure for the deployment of HarePoint Analytics for SharePoint is identical for both Windows SharePoint Services 3.0 and Microsoft Office SharePoint Server 2007.

To install the program successfully, you must have administrator rights for both Windows SharePoint Services and for the server on which the Product will be installed.

### Deployment procedure

1. The software package includes the **MAPILabSharePointStatistics.wsp** solution. This solution file will be added to the repository of solutions of Windows SharePoint Services.
2. Enter the following in the command line:  
> **stsadm -o addsolution -filename MAPILabSharePointStatistics.wsp**
3. Next run the command:  
> **stsadm -o deploysolution -name MAPILabSharePointStatistics.wsp -allowgacdeployment**  
Depending on the configuration of your Windows SharePoint Services, additional attributes (for example, **-immediate**) may need to be indicated.
4. Make sure that the deployment of the solution is completed successfully. The following command may be used to verify this:  
> **stsadm -o displaysolution -name MAPILabSharePointStatistics.wsp**  
The above command displays the current state of solutions. In our case, it is important that the **Deployed** parameter be **TRUE**.



```
C:\WINDOWS\system32\cmd.exe

C:\>stsadm -o displaysolution -name MAPILabSharePointStatistics.wsp

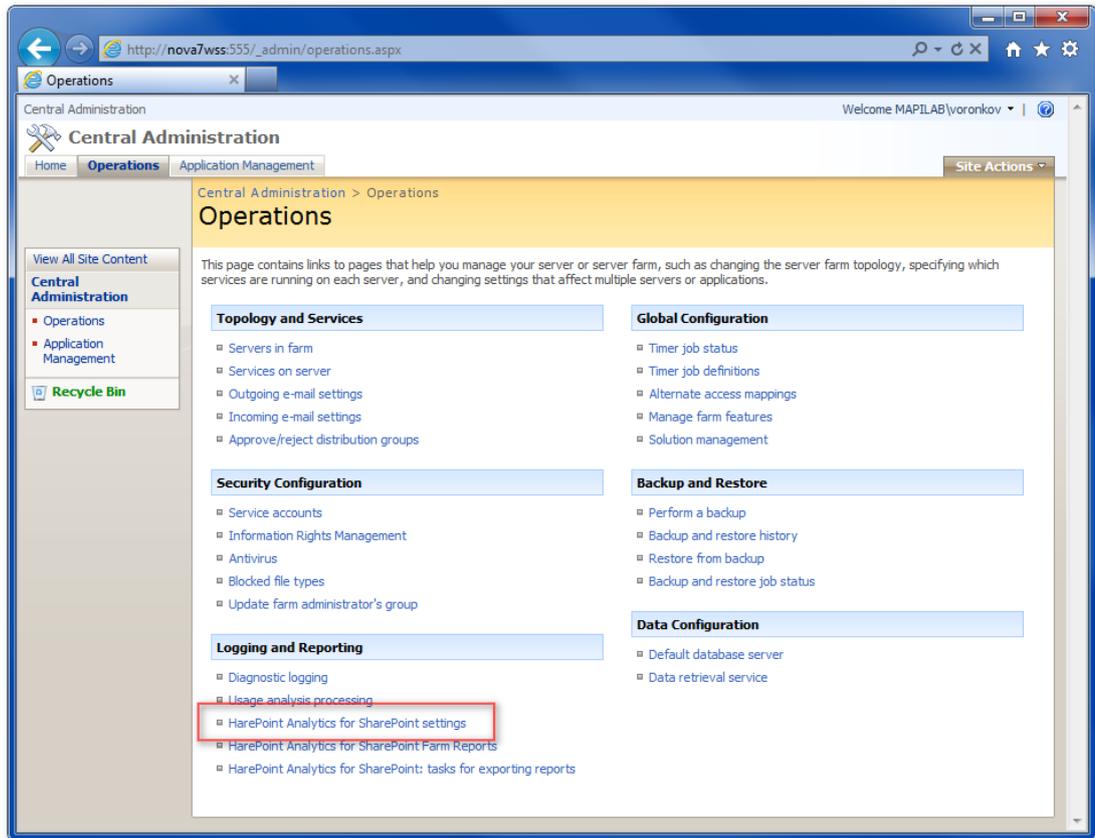
<Solution Name="mapilabsharepointstatistics.wsp">
  <Id>0002f52b-9b8d-4811-bdf7-5675689afa93</Id>
  <File>MAPILabSharePointStatistics.wsp</File>
  <Deployed>TRUE</Deployed>
  <WebApplicationSpecific>FALSE</WebApplicationSpecific>
  <ContainsGlobalAssembly>TRUE</ContainsGlobalAssembly>
  <ContainsCodeAccessSecurityPolicy>FALSE</ContainsCodeAccessSecurityPolicy>
  <LastOperationResult>DeploymentSucceeded</LastOperationResult>
  <LastOperationTime>12/30/2008 7:28 PM</LastOperationTime>
</Solution>

C:\>_
```

5. Next, run the command on each SharePoint farm server:  
> **stsadm -o copyappbincontent**  
Instead of running that specified command you can also run another special command  
> **stsadm -o mlstcopyappbincontent**  
This command is the extension for the stsadm.exe utility distributed with HarePoint Analytics for

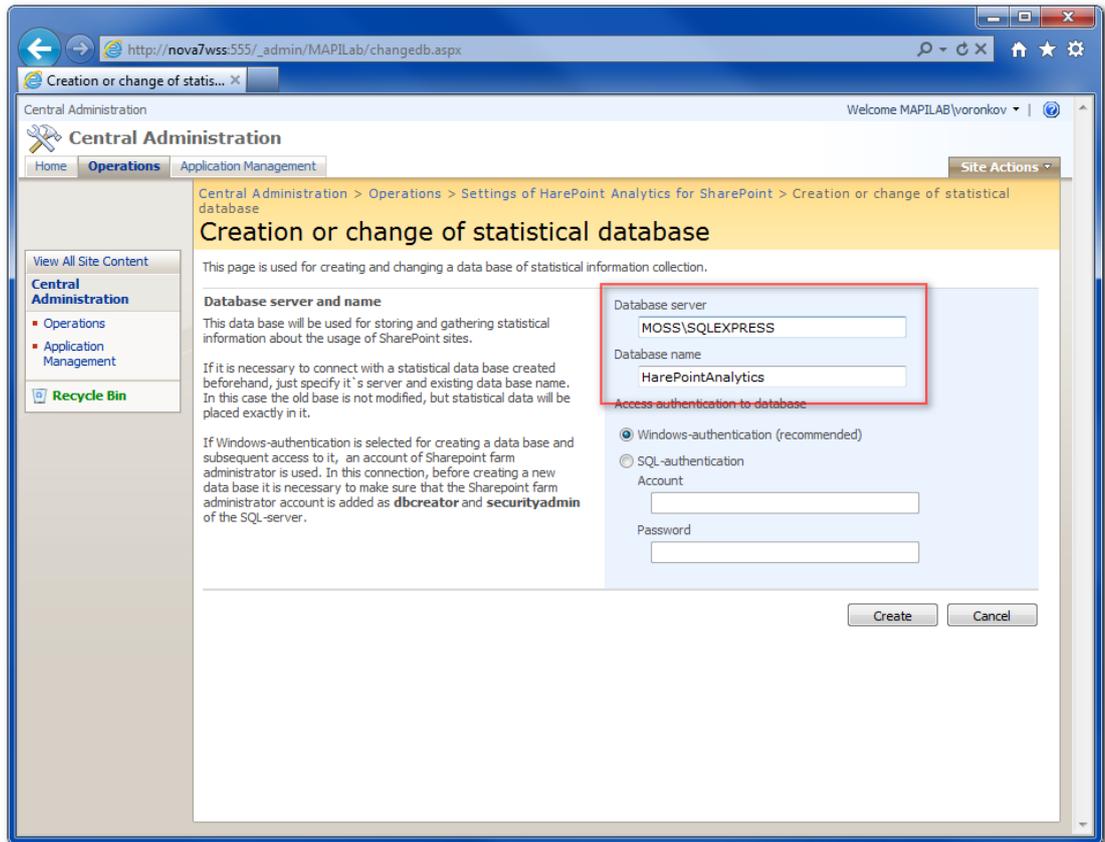
SharePoint. As the result of running this command, **stsadm -o copyappbincontent** will start on each SharePoint farm server.

6. As a result of these actions, the HarePoint Analytics for SharePoint solution will be deployed on the server.
7. Go to SharePoint **Central Administration**. For authorization, you need to use an account with administrator rights for the farm.
8. Open the **Operations** tab.
9. Got to the settings of HarePoint Analytics for SharePoint using the hyperlink located in the **Logging and Reporting** section.

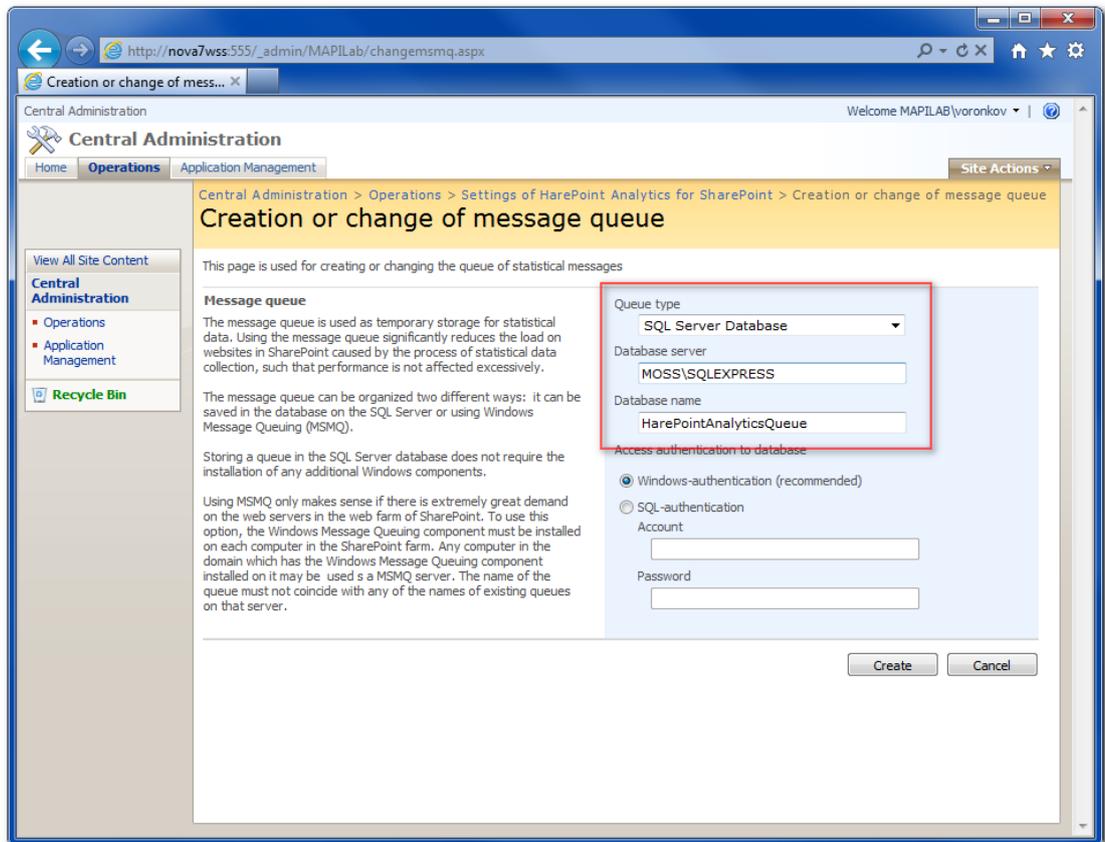


10. Go to **Create or change Database**. Specify the name of the SQL server (for example, MOSS\SQLEXPRESS) and the name of the new database for collecting statistical information.

Click **Create**.



11. Go to **Create or change queue**. Specify a queue type, the name of the server where queue must be created and the name of queue. Click **Create**. **Please note: It is necessary to use two different databases for the queue and for statistical data.**



## Updating HarePoint Analytics for SharePoint

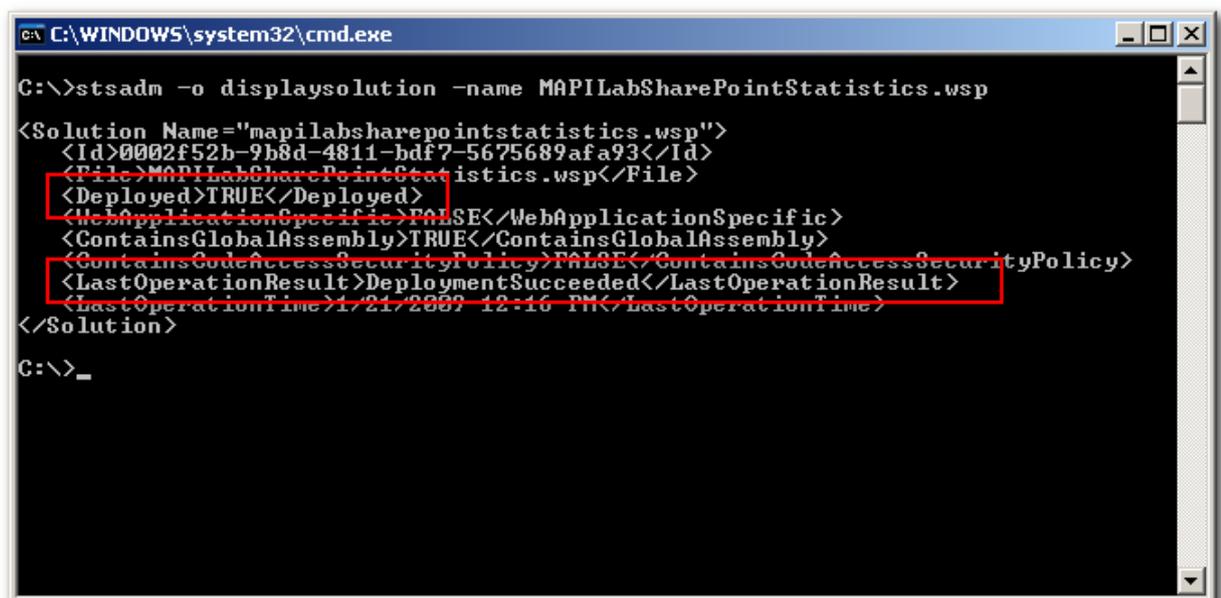
The procedure for updating HarePoint Analytics for SharePoint is identical for Windows SharePoint Services 3.0 and for Microsoft Office SharePoint Server 2007.

To complete the updating procedure successfully, you must have administrator rights for both Windows SharePoint Services and for the server on which the Product is installed.

During updating, all of the settings, and also all of the collected statistical information will remain unchanged.

### Updating procedure

1. The software package includes the solution file: **MAPILabSharePointStatistics.wsp**.
2. Enter the following in the command line:  
**> stsadm -o upgradesolution -name MAPILabSharePointStatistics.wsp -filename MAPILabSharePointStatistics.wsp -allowgacdeployment**  
Depending on your configuration of Windows SharePoint Services, it may be necessary to indicate additional attributes (e.g. **-immediate**).
3. Make sure that the update has been completed successfully; to do this, run the following command in the command line:  
**> stsadm -o displaysolution -name MAPILabSharePointStatistics.wsp**  
Running the above command will display the current state of solutions. In our case, it is important that the **Deployed** parameter be **TRUE**, and that the value of **LastOperationResult** – is **DeploymentSucceeded**.



```
C:\WINDOWS\system32\cmd.exe
C:\>stsadm -o displaysolution -name MAPILabSharePointStatistics.wsp
<Solution Name="mapilabsharepointstatistics.wsp">
  <Id>0002f52b-9b8d-4811-bdf7-5675689afa93</Id>
  <File>MAPILabSharePointStatistics.wsp</File>
  <Deployed>TRUE</Deployed>
  <WebApplicationSpecific>FALSE</WebApplicationSpecific>
  <ContainsGlobalAssembly>TRUE</ContainsGlobalAssembly>
  <ContainsCodeAccessSecurityPolicy>FALSE</ContainsCodeAccessSecurityPolicy>
  <LastOperationResult>DeploymentSucceeded</LastOperationResult>
  <LastOperationTime>1/21/2009 12:16 PM</LastOperationTime>
</Solution>
C:\>_
```

4. Next, run the following command:  
**> stsadm -o mlstcompleteupgrade**  
You can also specify additional attributes **-copyappbincontent -restartstimer**. In such a case, **next steps 5 and 6 can be skipped**.
5. Next, run the command on each SharePoint farm server:  
**> stsadm -o copyappbincontent**

Instead of running that specified command you can also run another special command:

> **stsadm -o mlstcopyappbincontent**

This command is the extension for the stsadm.exe utility distributed with HarePoint Analytics for SharePoint. As the result of running this command, **stsadm -o copyappbincontent** will start on each SharePoint farm server.

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

> **stsadm -o mlstrestartsptimer**

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

## Uninstalling HarePoint Analytics for SharePoint

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

To complete the removal process successfully, you must have administrator rights for both Windows SharePoint Services and for the server from which the Program is removed.

During removal, all of the settings, and also all of the collected statistical information will not be deleted.

### *Removal process*

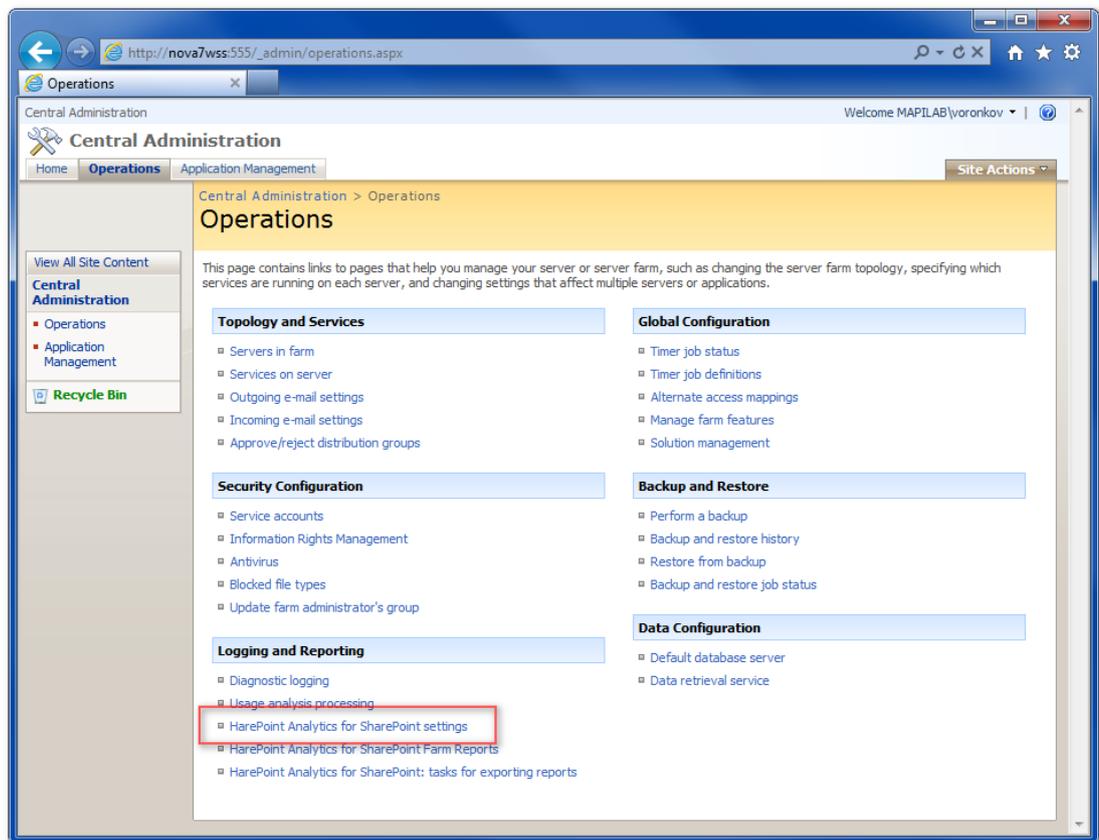
1. Enter the following in the command line:  
> **stsadm -o retractsolution -name MAPILabSharePointStatistics.wsp**  
Depending on your configuration, it may be necessary to indicate additional attributes (e.g. -**immediate**).
2. Make sure that the removal has been successfully complete by checking the feedback from the following command:  
> **stsadm -o displaysolution -name MAPILabSharePointStatistics.wsp**  
Running this command will display the current state of the solution. In our case, it is important that the **Deployed** parameter be **FALSE**, and that the value of **LastOperationResult** – is **RetractionSucceeded**.
3. Remove the solution using the command:  
> **stsadm -o deletesolution -name MAPILabSharePointStatistics.wsp**
4. Restart **Windows SharePoint Services Timer** on each server. You can either do this manually by using Services or using the command:  
> **mlstadm -o mlstrestartsptimer**  
**mlstadm** tool is included into the package of HarePoint Analytics for SharePoint (it is located in the **tools** subfolder).

# HarePoint Analytics for SharePoint Migration

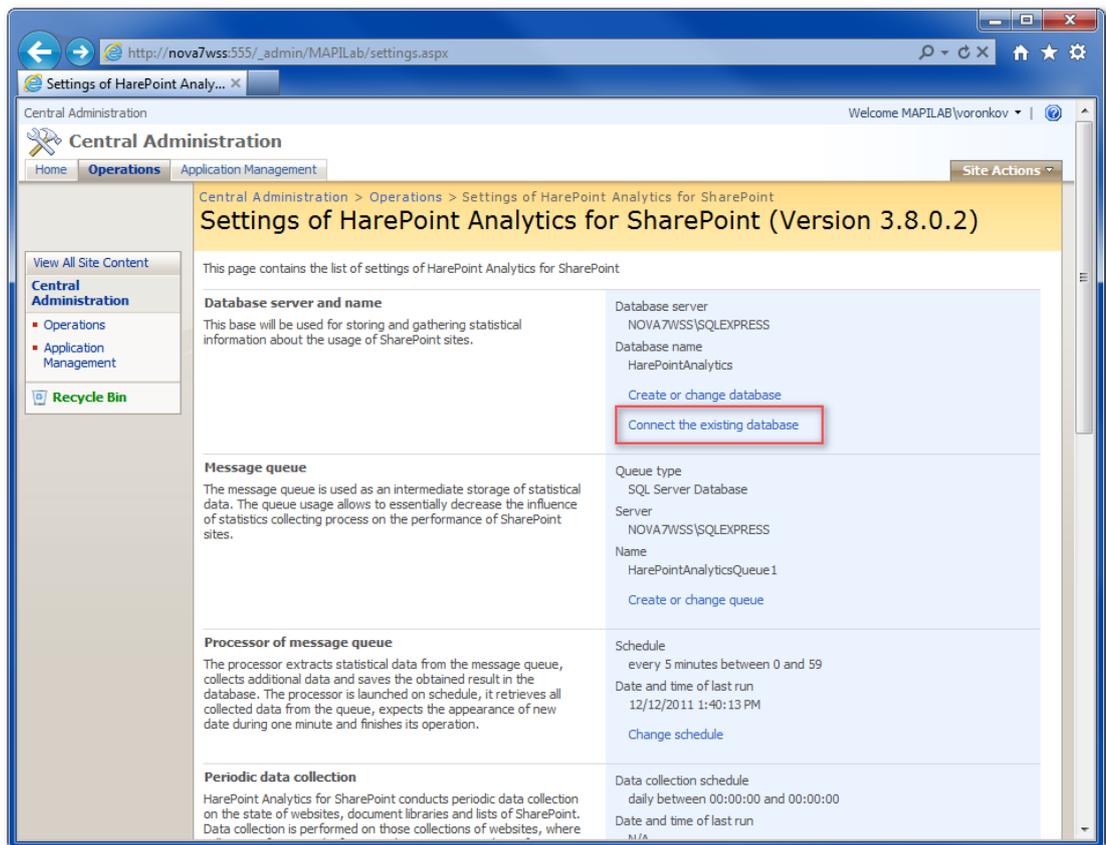
If you need to continue working with existing HarePoint Analytics for SharePoint database without losing statistical information about these site collections while moving site collections from the one farm to another or restoring site collections from the backup copy, you should migrate HarePoint Analytics for SharePoint database. During HarePoint Analytics for SharePoint database migration you should map data of site collections in the database with site collections in the new farm.

## Migration process

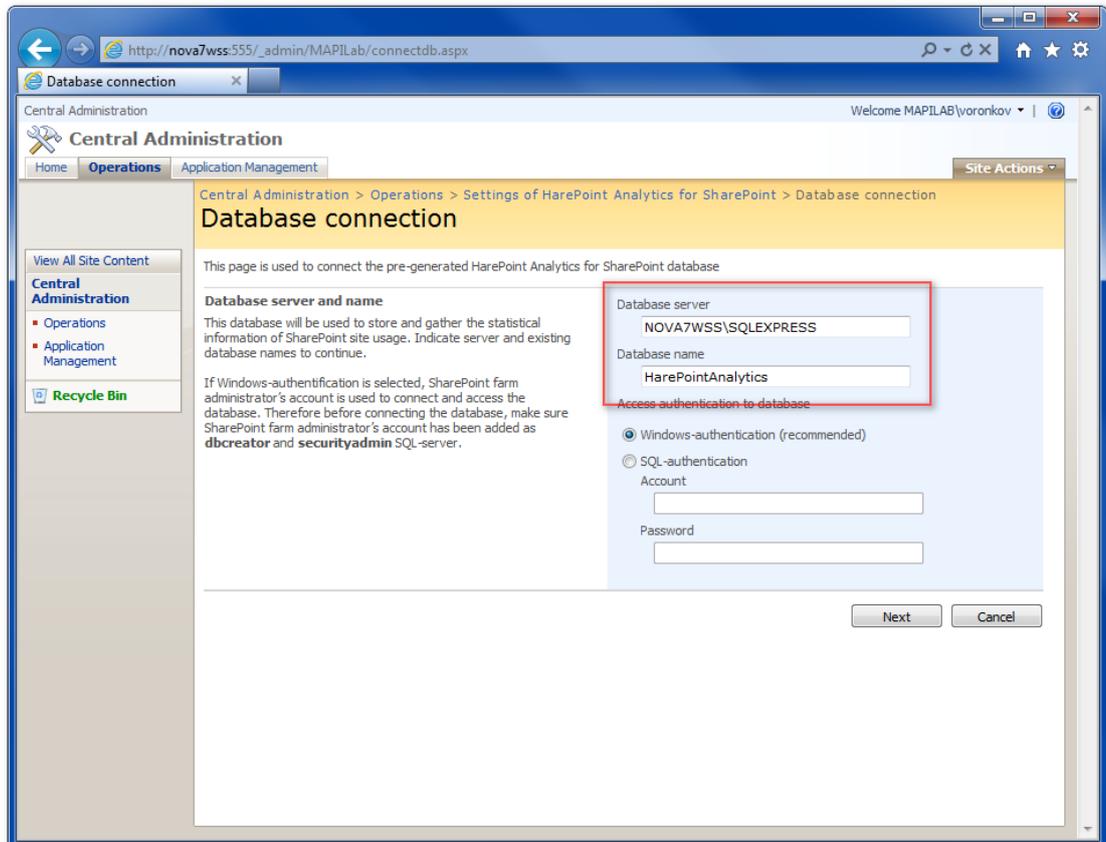
1. Go to the **SharePoint Central Administration** page. You must use farm administrator account during the authorization.
2. Open the **Operations** tab.
3. Go to the HarePoint Analytics for SharePoint settings page using the hyperlink under the **Logging and Reporting**.



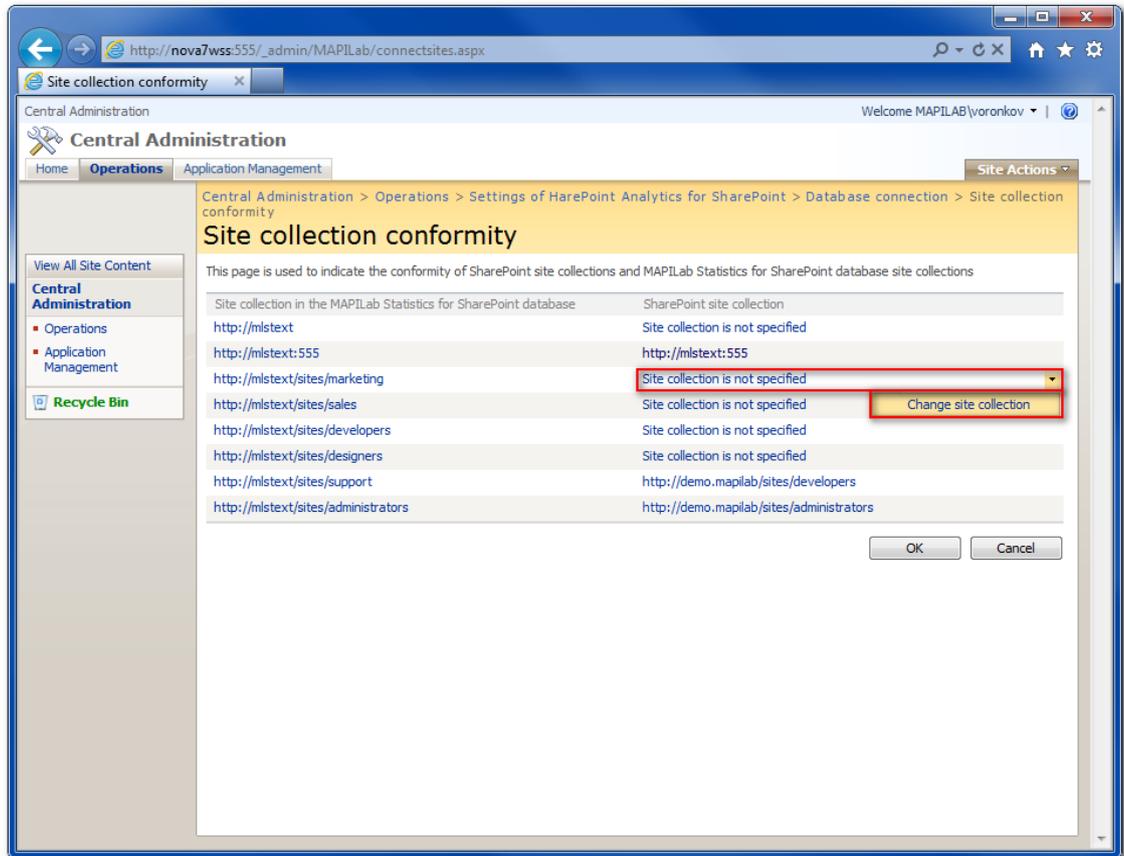
4. Go to the **Connect the existing database** page.



5. To collect statistical information please specify the SQL server name (such as MOSS\SQLEXPRESS) and existing database name. Click **Next**.



- Then you should set the match between HarePoint Analytics for SharePoint database site collections and new SharePoint farm site collections. To do this, please, choose **Change Site Collection** from the dropdown menu of the corresponding line. In case of absence some site collection in the new farm you don't need to set the match for it!



- In the opened windows please specify the web application and the corresponding site collection. Click **OK**.
- You can also view the HarePoint Analytics for SharePoint database site collection details. To do this please click proper link (such as **http://mlstext/sites/developers**). In the opened window you will see webs list of the collection selected.
- After setting all matches click **OK** to complete migration.

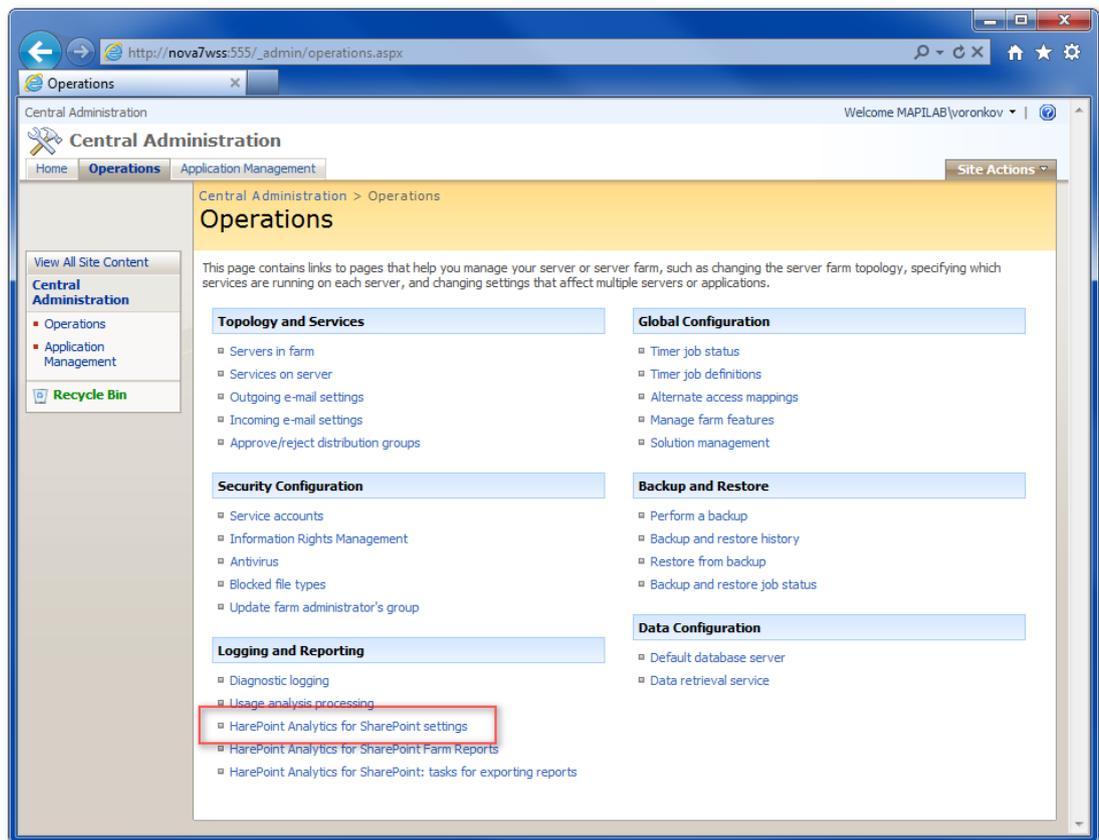
## Initial settings

### Geographic locations database update setting

Geographic locations database should be kept actual to ensure precise visitor geographic coordinates determination. [MaxMind®](#) company monthly offers free version of geographic locations database. Update process lets you download the latest version of the geographic locations database and import data into the HarePoint Analytics for SharePoint database.

#### Update process

1. Go to the **SharePoint Central Administration** page. You must use farm administrator account during the authorization.
2. Open the **Operations** tab.
3. Go to the HarePoint Analytics for SharePoint settings page using the hyperlink under the **Logging and Reporting**.



- Under the **Geographic locations database update** go to the **Change Settings** page.

<p><b>Preliminary data preparation</b></p> <p>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.</p> <p>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.</p>	<p>Storage time of detailed statistical data 365 days</p> <p>Schedule of launching data processing procedure daily between 12:12:00 and 12:12:00</p> <p>Date and time of last run of data processing procedure 8/12/2010 12:12:00 PM</p> <p><a href="#">Change settings</a></p>
<p><b>Geographic locations database update</b></p> <p>Geographic locations database shall be kept actual to ensure precise visitor's geographic coordinates determination.</p> <p>MaxMind® Company offers free version of geographic locations base. This database is supplemented and corrected regularly.</p>	<p>Schedule Not used</p> <p>Date and time of last run N/A</p> <p><a href="#">Change settings</a></p>
<p><b>Statistics filter</b></p> <p>This page is designed for managing the statistics filter</p>	<p><a href="#">Configure filter</a></p>

- If you need to update geographic locations database automatically, check **Update geographic locations database** under the **Automatic update** on the settings page.

Central Administration > Operations > Settings of MAPILab Statistics for SharePoint > Geographic locations database update settings

## Geographic locations database update settings

This page contains settings for geographic locations database update procedure

<p><b>Automatic update</b></p> <p>MaxMind® Company offers free version of geographic locations base. This database is supplemented and corrected regularly.</p>	<p><input checked="" type="checkbox"/> Update geographic locations database</p>
<p><b>Automatic update schedule</b></p> <p>MaxMind® Company provides new database version in the beginning of each month. Updates more frequent than once a month are not recommended.</p>	<p>Schedule</p> <p><input type="radio"/> Daily</p> <p><input type="radio"/> Weekly on <span>Sunday</span></p> <p><input checked="" type="radio"/> Monthly on the <span>3rd</span> day</p> <p>Between <span>1 AM</span> and <span>11 PM</span></p>

- Default schedule is selected in accordance with the updated geographic locations database version published by the **MaxMind®**. **Warning! We do not recommend to update geographic locations database more often than once a month.**
- 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 proxy server settings.

8. If you need to update immediately, please check **Start update under the Start update immediately**.

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

## Configuring Data Collection Settings for Farm Performance Reports

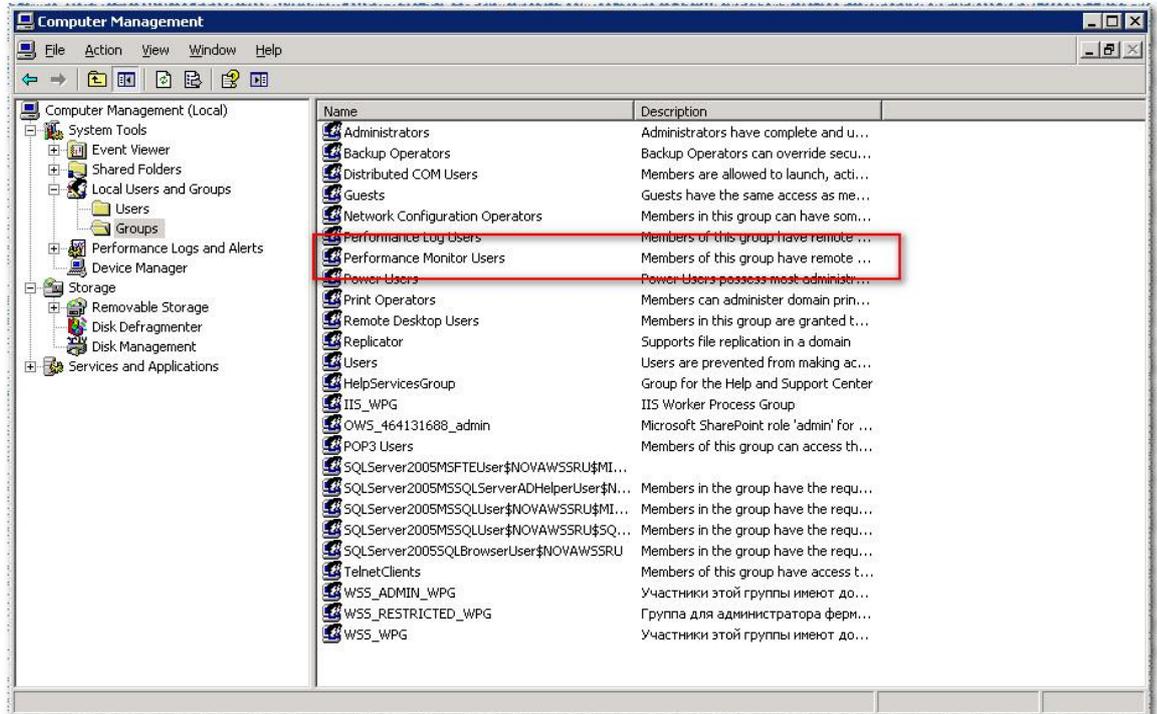
**HarePoint Analytics for SharePoint - System Metrics Collector** collects farm server performance data. This timer job is disabled by default. You will need to configure data collection settings to gather additional statistical information on farm server performance, such as: enable timer job for statistical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

### Activation of Timer Job for Collecting Statistical Information on Farm Server Performance

1. Go to **SharePoint Central Administration** page. You must use farm administrator account during the authorization.
2. Open the **Operations** tab.
3. Go to **Timer Job Definition**.
4. Select **HarePoint Analytics for SharePoint - System Metrics Collector** in the list of timer jobs. Go to the timer job settings page.
5. Click **Enable**.

## Assigning Permissions to SharePoint Farm Account to Collect Performance Data

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



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

```
stsadm -o mlstrestartsptimer
```

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

## User Personal Data Encryption

You will need such a feature in HarePoint Analytics for SharePoint, in case collecting user personal data by gathering statistic information is prohibited by the law in your country, state, region, or city. User personal data encryption while collecting data, can be enabled by running the **stsadm.exe** utility.

**Attention:** after collecting and encrypting, user personal data can not be decrypted!

### *Procedure*

1. Execute the following command:  
> **stsadm -o mlstsetpolicy -encryptuserinfo true**
2. Restart the **Windows SharePoint Services Timer** service on every server. You can perform that manually, with the help of the **Services** applet, or by running the command:  
> **stsadm -o mlstrestartsptimer**
3. If you would like to encrypt previously collected user personal data in the **HarePoint Analytics for SharePoint** database, please execute the following command:  
> **stsadm -o mlstencryptuserinfo**

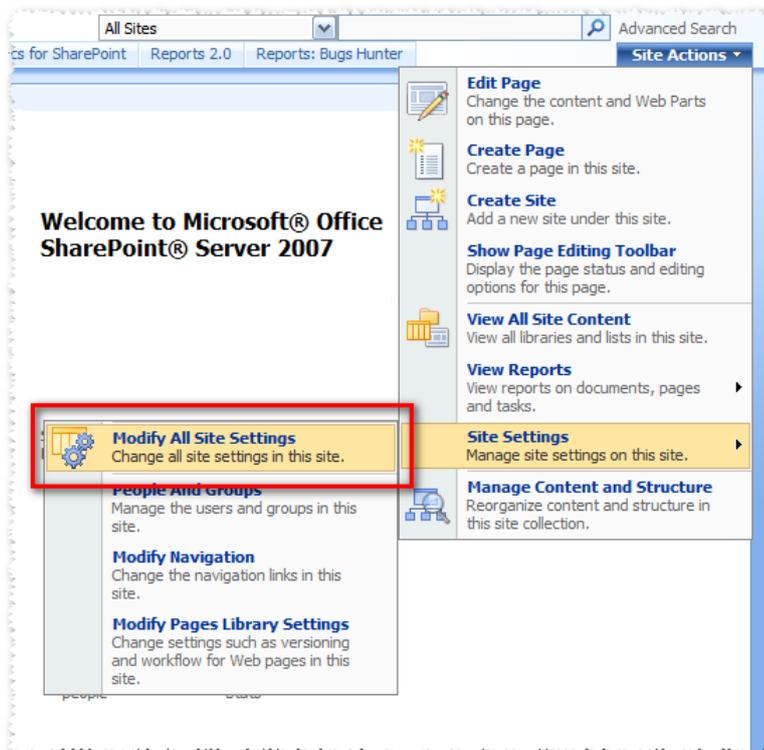
## Activation of the statistics collection feature

Statistical information is collected only for the site collections where the HarePoint Analytics for SharePoint feature has been activated.

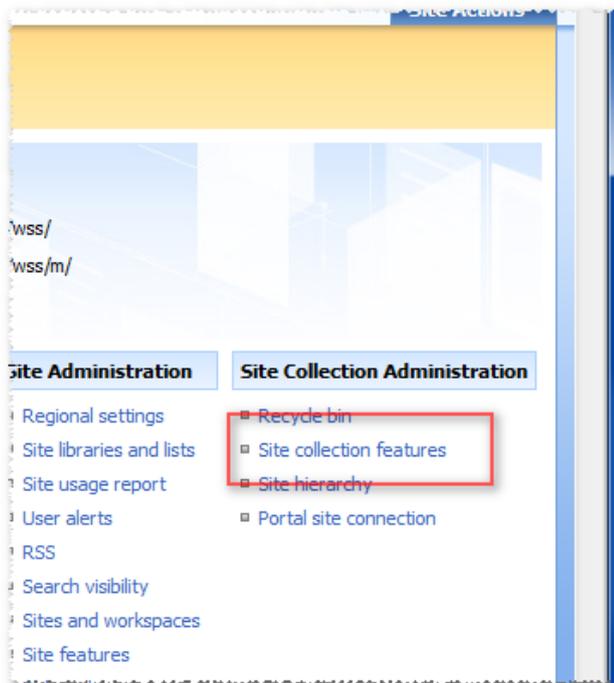
Activation can be performed by one of two ways: using the site settings manager for the site collection, or from the command line, with the help of the **stsadm.exe** utility.

### Activation of data collection through a webpage

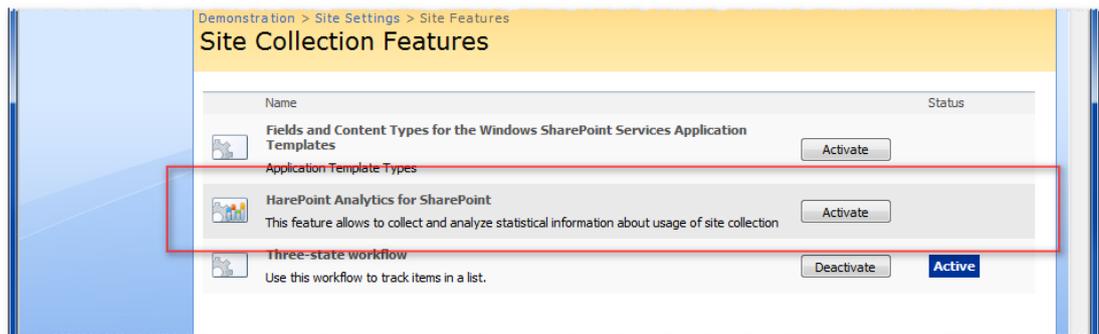
1. Open the SharePoint site using an administrator account.
2. In the **Site Actions** drop-down menu, choose **Site Settings** or **Site Setting - Modify All Site Settings**.



3. In the **Site Collection Administration** section, choose **Site collection features**.



4. Activate the **HarePoint Analytics for SharePoint** feature.



### Activation of data collection from the command line

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

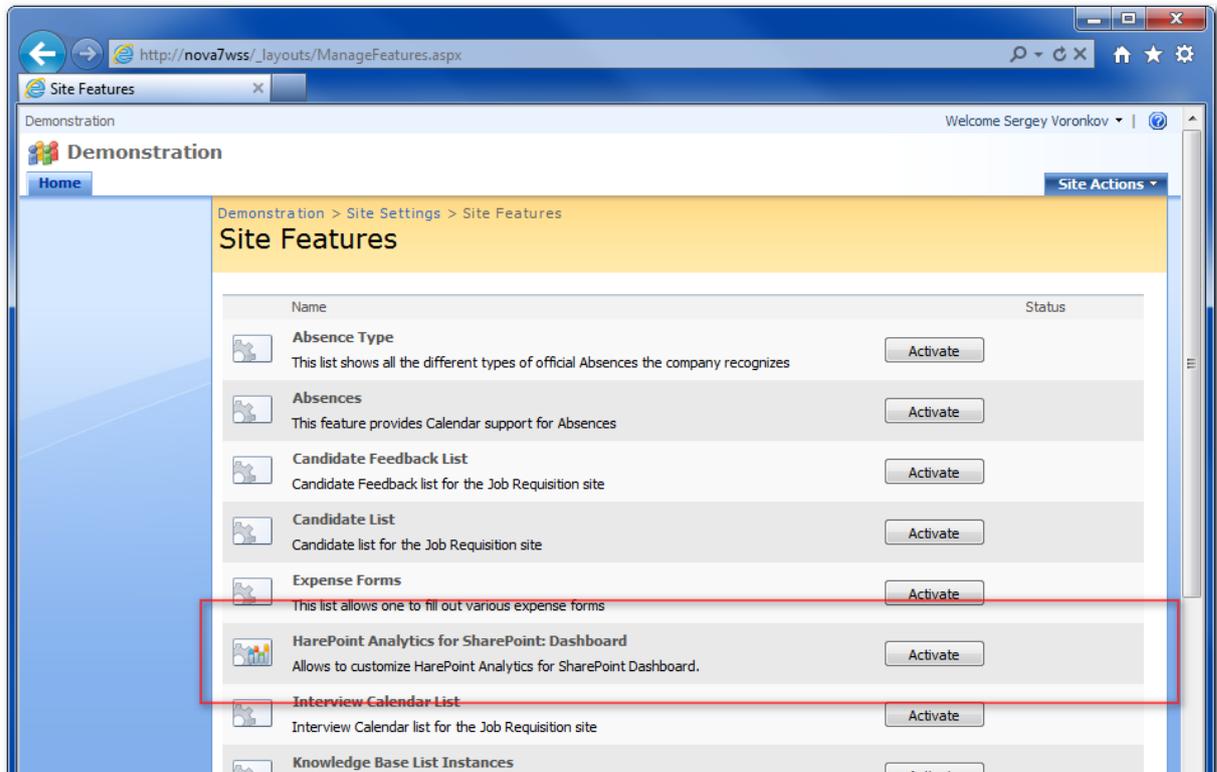
- > `stsadm -o activatefeature -name MLSiteActions -url <url>`
- > `stsadm -o deactivatefeature -name MLSiteActions -url <url>`

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

## Dashboard customization for HarePoint Analytics for SharePoint

Starting from version 3.7, a new feature – customization of Dashboard is available.

Upon upgrading the solution to the new version, a new feature of the web scope will be added:  
**HarePoint Analytics for SharePoint: Dashboard.**



Upon activating of this feature, HarePoint Analytics for SharePoint replaces the default dashboard with a web-part page where you can modify the reports displayed in HarePoint Analytics Dashboard.

If this feature is deactivated, the pages and their settings are not to be removed. Default dashboard will be displayed.

## Viewing of statistical reports

This Product version allows viewing of reports in two statistical ranges: individual sites or an entire site collection. In this respect, the Product fully follows the ideology used by the statistical system of SharePoint.

### Permission for viewing statistical reports

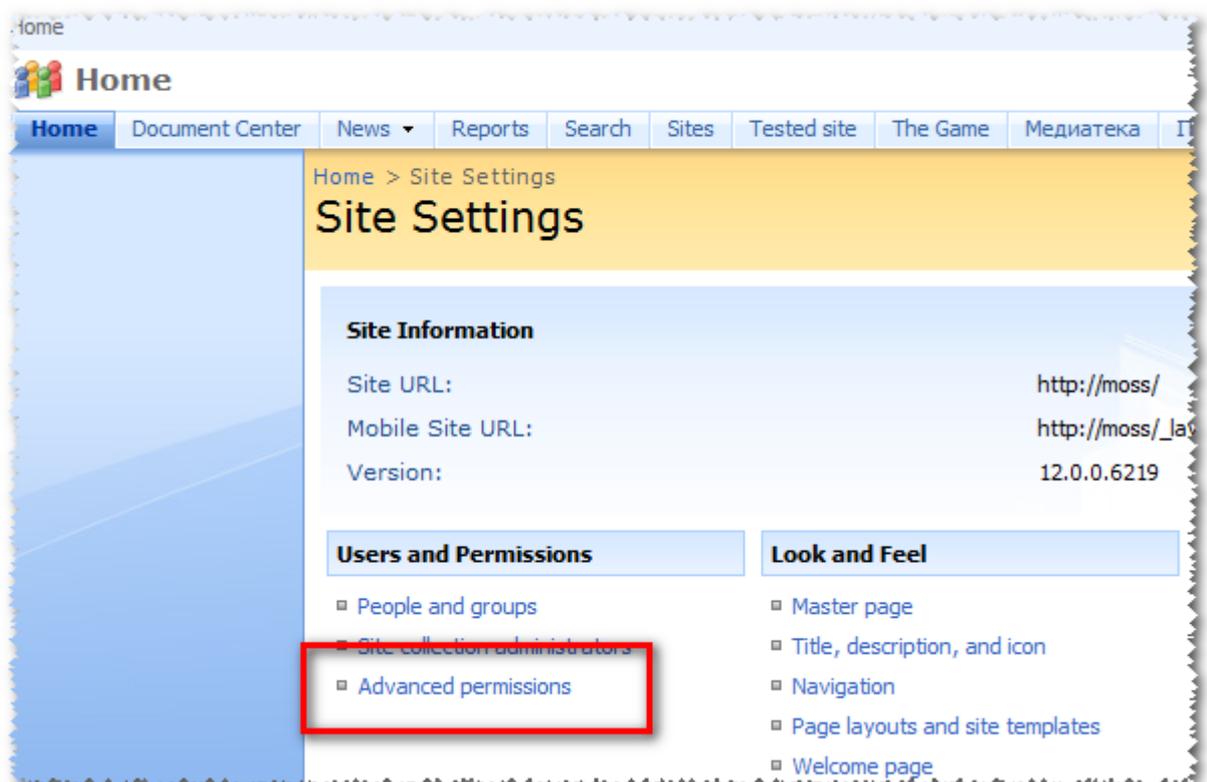
Users which have all of the following permissions have the right to view statistical reports:

- View Usage Data - View reports on Web site usage.
- View Pages - View pages in a Web site.
- Open - Allows users to open a Web site, list, or folder in order to access items inside that container.

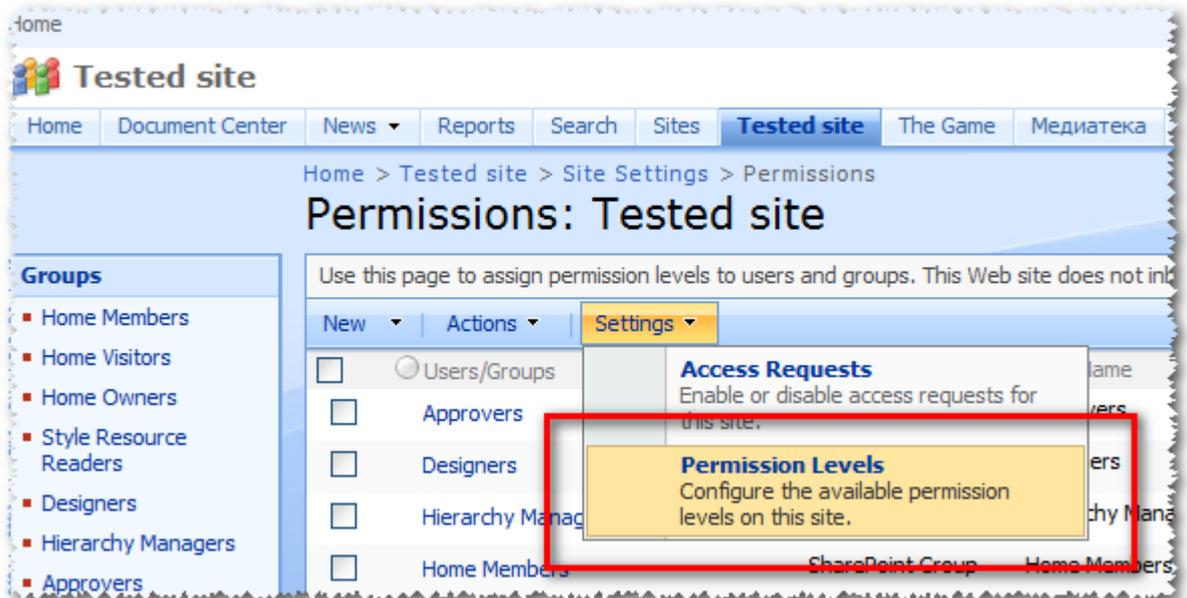
By default, these rights are given to owners of site groups or site collections.

If necessary, access rights to statistical reports may be given to additional groups of users by completing the following steps:

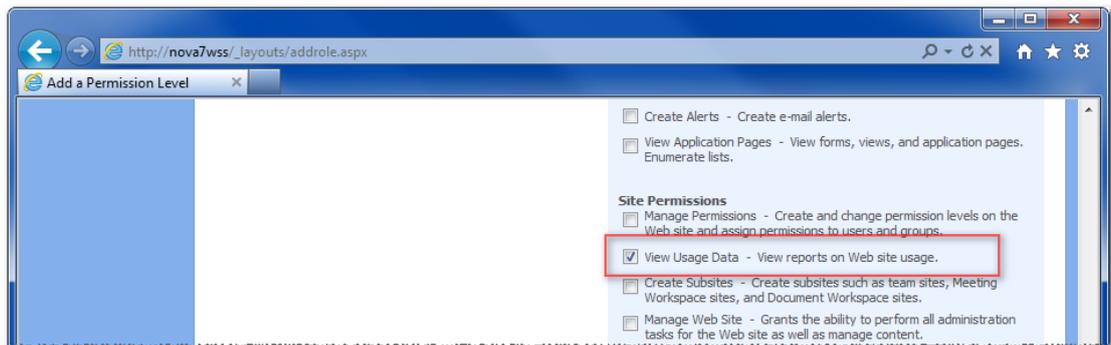
1. Open **Permissions** for the node or site by clicking on **Advanced permissions** in the parameters.



2. In the **Settings** menu, click on **Permission Levels**.



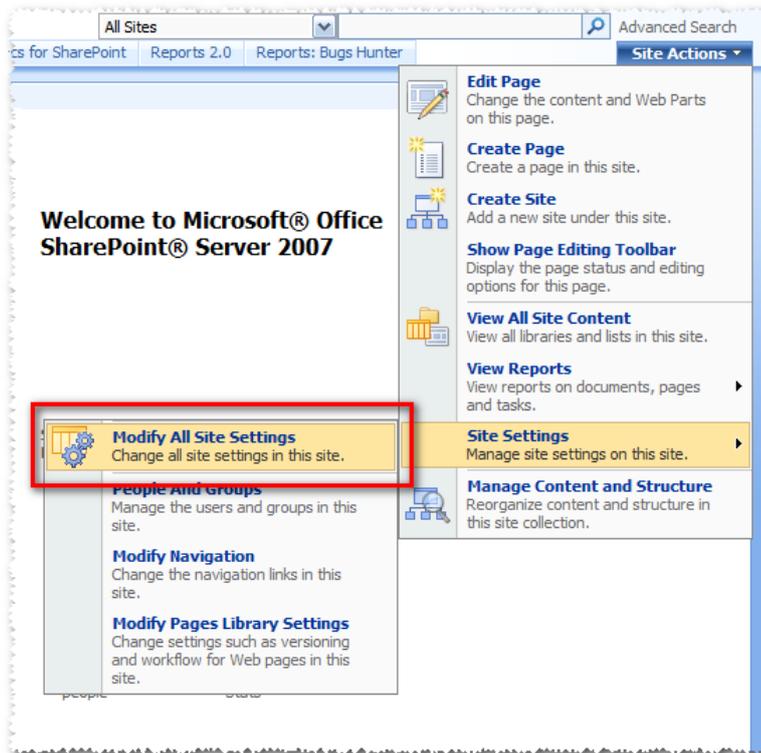
3. In **Permission Levels** choose the existing level of permissions or create a new one.
4. In **Edit Permission Level** flag the **View Usage Data - View reports on Web site usage** permission. The other two permissions will be marked automatically.



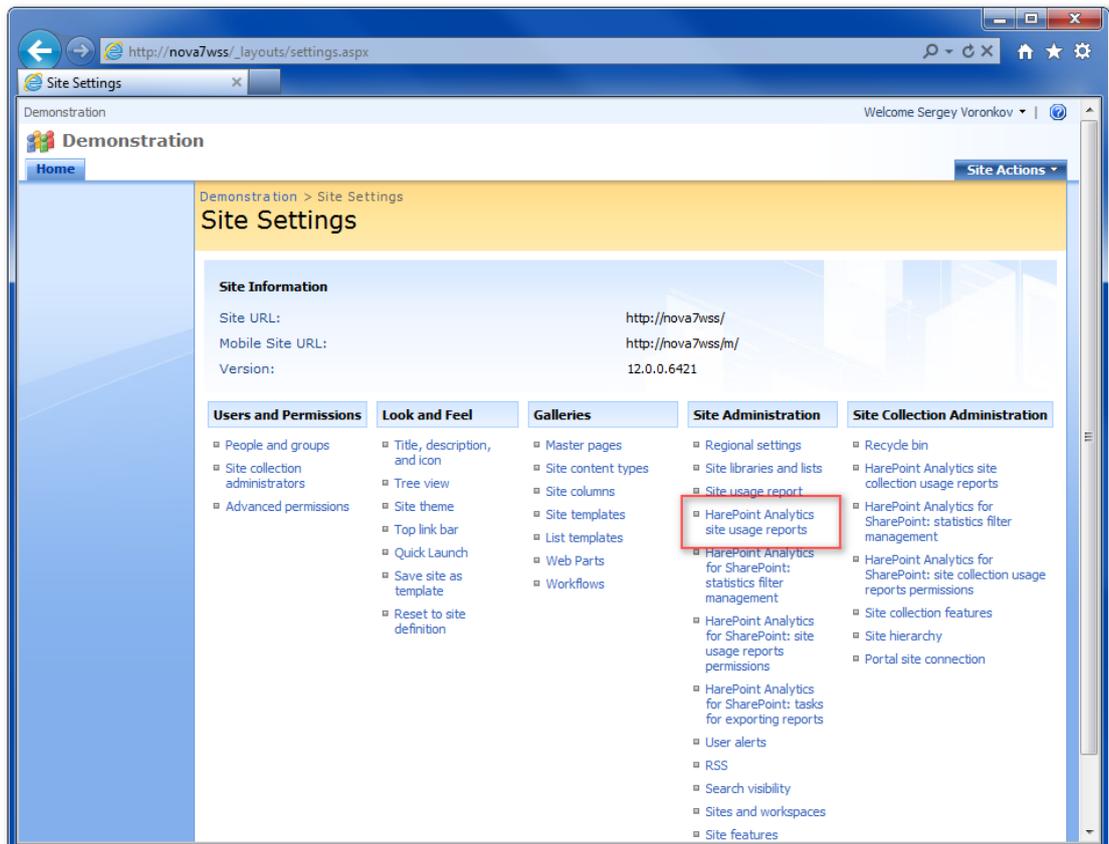
## Viewing reports using a SharePoint node

To view reports, complete the following actions:

1. From the **Site Actions** drop-down menu, choose **Site Settings** or **Site Setting - Modify All Site Settings**.



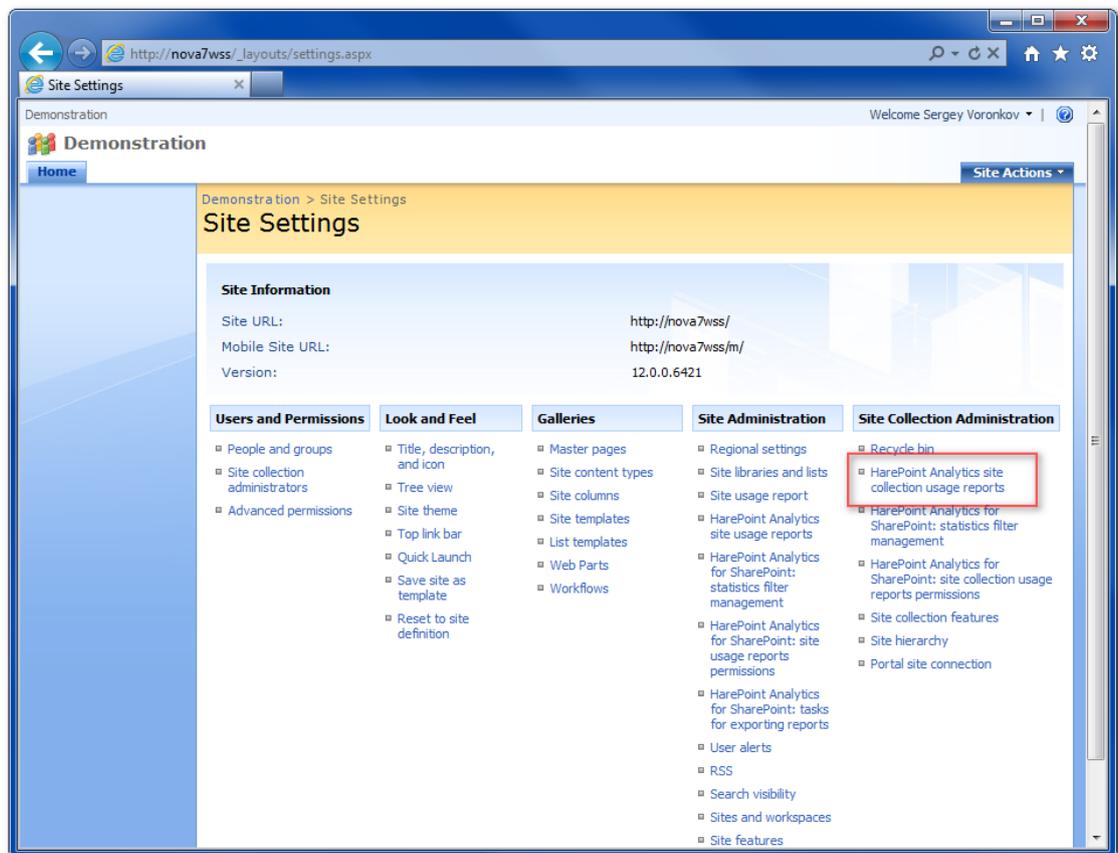
2. In the **Site Administration** section, choose **HarePoint Analytics site usage reports**.



## Viewing reports using a site collection in SharePoint

To view reports you need to complete the following:

1. In the **Site Actions** drop-down menu, choose **Site Settings** or **Site Setting - Modify All Site Settings**.
2. In the **Site Collection Administration** section, choose **HarePoint Analytics site collection usage reports**.



## 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 in the license management page of your product.

To open the license management page:

1. Go to SharePoint Central Administration. You need to log in using an administrator account for the farm.
2. Open the Operations tab.
3. Go to the HarePoint Analytics for SharePoint settings through the hyperlink located in the section **Logging and Reporting**.
4. Go to the **Licensing** page.

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

The Product is considered to be registered when the types and number of license keys entered fully satisfy the relevant points of the license agreement of HarePoint Analytics for SharePoint.

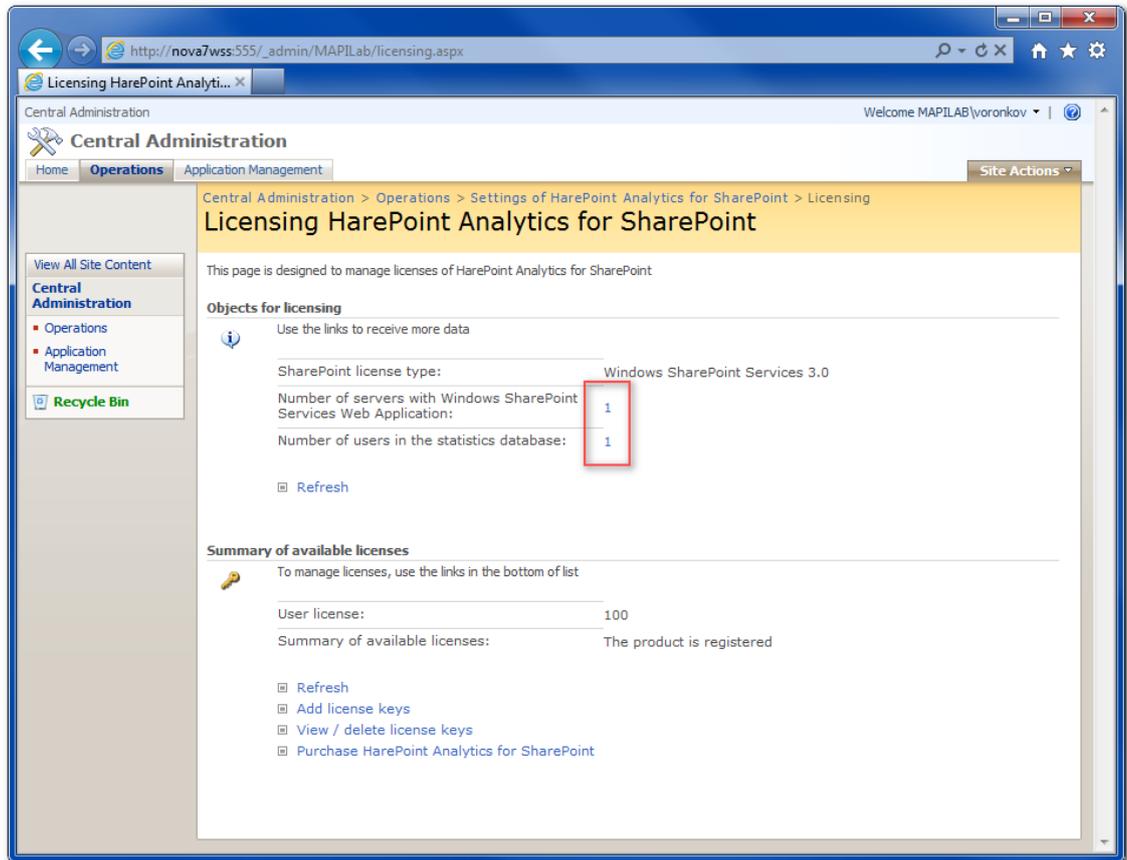
Detailed information about HarePoint Analytics licensing can be found here:

<http://www.harepoint.com/Purchase/HarePointAnalyticsForSharePoint/Default.aspx>

## Determining the number of licenses required

To determine the necessary number and types of licenses, the following is recommended:

- Determine the number of servers in the SharePoint farm, where HarePoint Analytics for SharePoint is installed.
- 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.
- 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.
- To ease the evaluation process of determining how many license keys you need, you can use the information provided on the license page. 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's database.



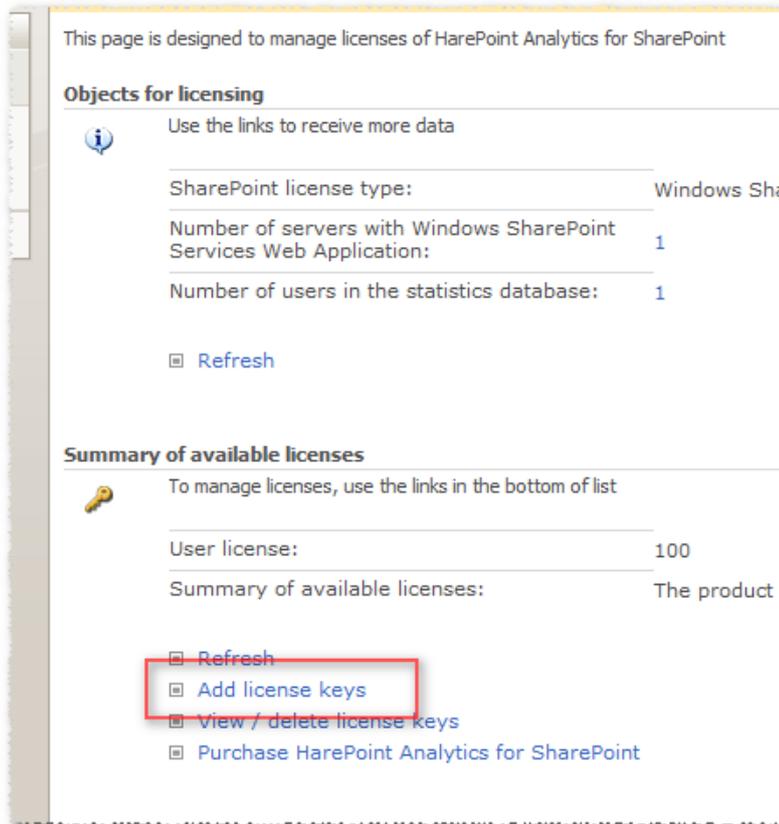
- Determine the type of server licenses for SharePoint. You need to find out whether you have installed the free server edition of the SharePoint - Windows SharePoint Services or not. These data are shown on the license management page in the section "SharePoint license type" (see figure above).
- Based on the findings and the information contained in the Product license agreement, obtain the necessary number of licenses. You can purchase licenses for the product at: <http://www.harepoint.com/Purchase/HarePointAnalyticsForSharePoint/Default.aspx>

## Entering license keys

To enter license keys:

1. Go to SharePoint **Central Administration**. You need to log in using an administrator account for the farm.
2. Open the **Operations** tab.
3. Go to HarePoint Analytics for SharePoint settings through the hyperlink located in the section **Logging and Reporting**.
4. Go to **Licensing**.

5. In Licensing, go to **Add license keys**.



6. Enter the license keys on the Add license keys page. To avoid the possibility of a mistake when entering the key, use the copy and paste functions in the Windows clipboard. Click OK.

## Diagnostics of errors encountered during use

All errors occurring during the deployment of solutions, as well as in their subsequent operation, are listed in the log files of SharePoint. By default, these files are created in a folder, **C:\Program Files\Common Files\Microsoft Shared\web server extensions\12\LOGS\**, and are named according to the following rule: <SERVER>-YYYYMMDD-HHMM.log (for example, MOSS-20080918-1318.log).

All diagnostic records created in HarePoint Analytics for SharePoint, have **EventID** equal to **mlst**.

If, when working with or deploying the Product, you encounter any kind of error, you should examine the log files of each of the servers in the SharePoint farm to determine the presence of an **mlst** tag. You should send information obtained in this process to technical support:

<http://www.harepoint.com/Support/Default.aspx>).