



# Analytics Database Manager for Sitecore OMS

# Administrator Guide

*Module overview for Sitecore Administrators*

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# Chapter 1

## Introduction

This document provides the information about Analytics Database Manager. There you will learn how to install and use this module, and also will be introduced with the key features of it.

This manual contains the following chapters:

- **Chapter 1 – Introduction**  
This chapter describes this manual and its key subjects.
- **Chapter 2 – Installation & Usage Notes**  
This chapter contains the important notes about module installation and using.
- **Chapter 3 – Features Overview**  
This chapter provides you with the description of the key features of this module.
- **Chapter 4 – Configuration Notes**  
This chapter contains the description about module settings.
- **Chapter 5 – Common Scenarios**  
This chapter provides some use cases of applying module to help you manage an OMS solution.

## Chapter 2

# Installation & Usage Notes

This chapter contains the important notes about the installation and usage of Analytics Database Manager. There you will learn how to install and use this module.

This chapter contains the following sections:

- Installation and pre-requirements
- User guide

## 2.1 Installation and pre-requirements

The module is distributed as a Sitecore package, so to install it use the Installation Wizard.

Please get introduced with the module requirements:

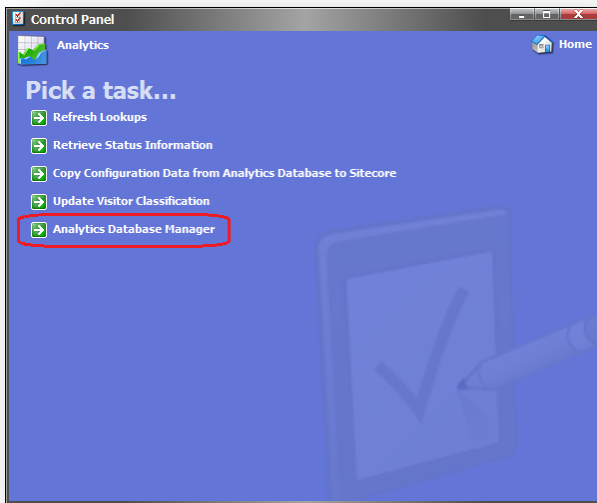
- Sitecore CMS 6.2 – 6.4
- Sitecore OMS for SQL Server

## 2.2 User guide

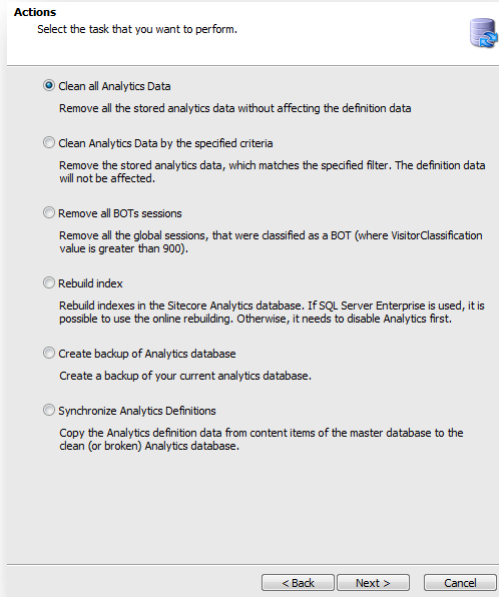
To run the module, open the Sitecore Desktop, go to Sitecore -> Control Panel -> Analytics -> Analytics Database Manager.

### Security Rights

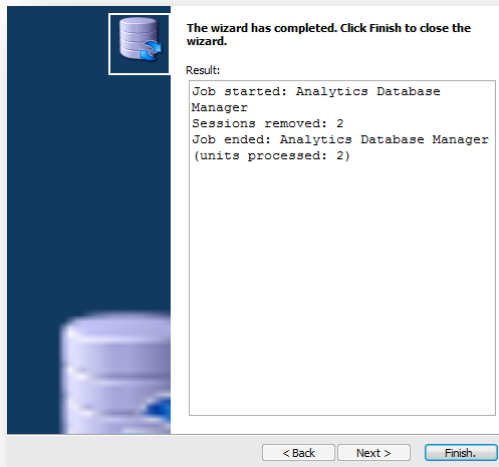
To access the Analytics group in Control Panel you need to be logged in as a Sitecore Administrator or a member of the **sitecore\Analytics Maintaining** role.



The application is running as a wizard, where you have to select the appropriate task and its parameters, and then execute the selected task.



After task completion, the result log will be shown in the textbox on the wizard final page.



### Usage Note

We recommend running the tasks of Analytics Database Manager during the period with the lowest load on the server, because some commands could affect the newly inserted data, when the task is running.

## Chapter 3

### Features Overview

The Analytics Database Manager provides a set of tasks that might be helpful to optimize the using of OMS. There are tasks for removing old / unnecessary data from analytics database and also a few general tasks for maintaining the OMS. Performing of these tasks helps you to prevent many issues like timed out reports, unnecessary analytics data after testing, problems with performance etc.

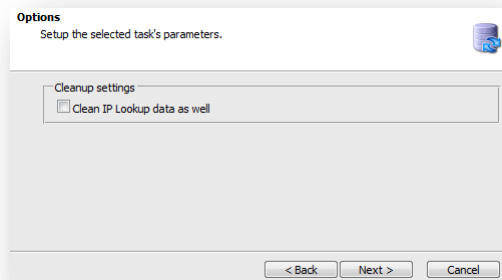
This chapter describes the following tasks:

- Clean all Analytics data
- Clean Analytics data by the specified criteria
- Remove all BOTs sessions
- Rebuild index
- Create backup of Analytics database
- Synchronize Analytics Definitions



### 3.1 Clean all Analytics data

This task is dedicated to clean all the harvested data from Analytics database. When you deploy the site into production environment, it is very unlikely that you need all the test data harvested during development or acceptance testing. To remove this data, just run the 'Clean all Analytics data' task.

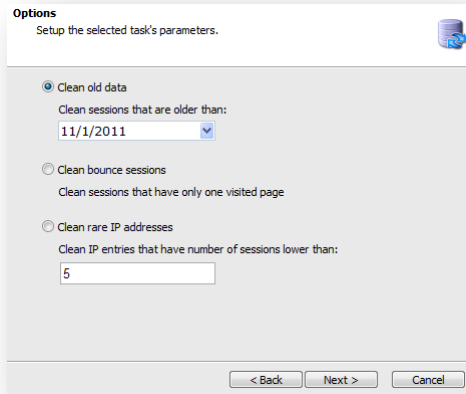


#### Task Parameters

- **Clean IP Lookup data as well**  
Runs the additional command, which removes all the data related to Geo IP lookups.

## 3.2 Clean Analytics Data by the specified criteria

This task allows you to remove data that matches one of the selected conditions.



### 3.2.1 Clean old data

This filter removes the Sessions and all related information that were last accessed early than the specified date.

#### Task Parameters

- **Clean sessions that are older than**  
The parameter, which specifies the date of the earliest entry, which won't be removed.

### 3.2.2 Clean bounce sessions

This filter removes the Sessions and all related information, which have only one page visited during the session. This kind of data is not valuable in most cases.

### 3.2.3 Clean rare IP addresses

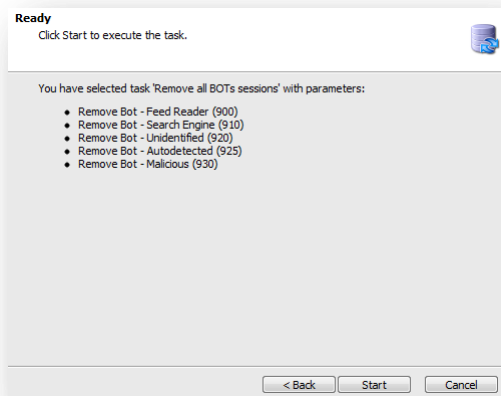
This filter removes the IP addresses and all related information that have a low amount of sessions.

#### Task Parameters

- **Clean IP entries that have number of sessions lower than**  
The parameter, which specifies the minimum number of sessions by the same IP, which is required to keep these entries in the database.

### 3.3 Remove all BOTs sessions

This task runs the script, which removes all the sessions, classified as robots.

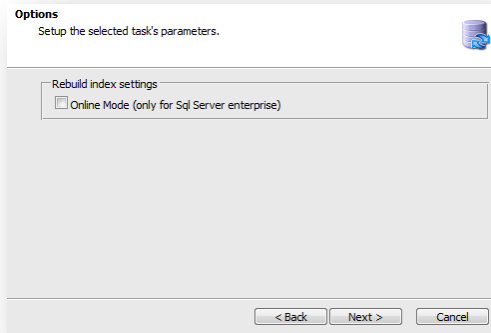


The following kind of sessions will be removed:

- 900, Bot - Feed Reader
- 910, Bot - Search Engine
- 920, Bot - Unidentified
- 925, Bot - Autodetected
- 930, Bot – Malicious

## 3.4 Rebuild index

This task runs the SQL script, which rebuilds the indexes on the high loaded tables of Analytics database.



### Task Parameters

- **Online mode**  
Runs the rebuild index command in online mode.

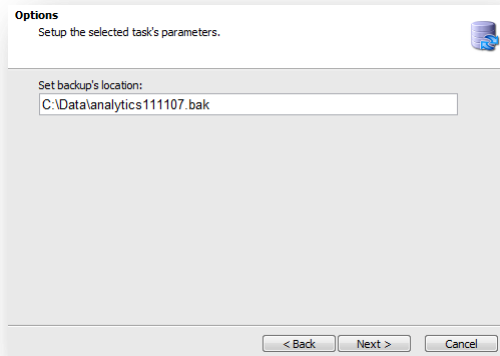
#### Online index rebuild

SQL Server Enterprise provides an option (ONLINE = ON or OFF) to help manage the performance and concurrency requirements while rebuilding an index. With the enabled setting (ONLINE=ON) you can continue to make queries and operations on the underlying table during the index rebuild, while the Offline indexing (ONLINE=OFF) blocks the table.

There is an important thing to remember: Online index rebuild (ONLINE=ON) provides maximum concurrency, but uses more resources and takes longer to complete.

## 3.5 Create backup of Analytics database

This task allows you to create a backup of your current analytics database. It might be helpful to perform this task before clearing the data, if this data could be required later.



### Task Parameters

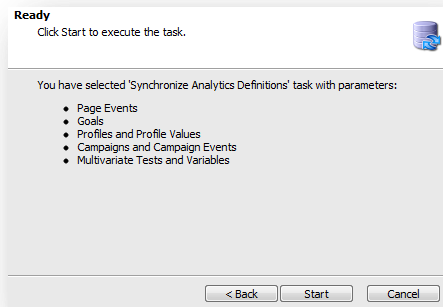
- **Backup location**  
This parameter identifies the output filename of the backup.

### Note

Analytics Database Manager automatically fills the *backup's location* field with the path to directory, which was used to create a backup last time (or Sitecore data folder by default), and adds a generated backup file name. The template for backup file name generation can be configured via *AnalyticsDatabaseManager.BackupFileName* setting.

## 3.6 Synchronize Analytics Definitions

This task copies the Analytics definition data from content items of the master database to the clean (or broken) Analytics database.



The following definition items will be synchronized:

- Page Events
- Goals
- Profiles and Profile Values
- Campaigns and Campaign Events
- Multivariate Tests and Variables

## Chapter 4

# Configuration Notes

This chapter contains notes about module configuration. Analytics Database Manager stores settings in a number of locations: in the configuration file and in the content items under /sitecore/system/modules

This chapter contains the following sections:

- Configuration File
- Content Items

## 4.1 Configuration File

The basic settings are stored in the /App\_Config/Include/Sitecore.AnalyticsDatabaseManager.config. Please read the comments under the appropriate settings in this file for default values.

### 4.1.1 AnalyticsDatabaseManager.SqlTimeout

Set the timeout of running the SQL command in the application. Note, that each task could contain more than one SQL query.

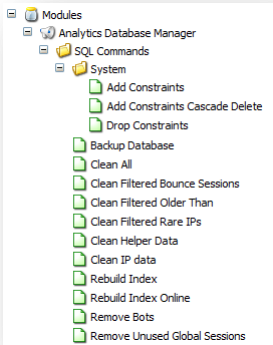
### 4.1.2 AnalyticsDatabaseManager.BackupFileName

Set the mask of the backup file name, which will be automatically added into the field 'Backup's location' during the configuration of the Backup task.



## 4.2 Content Items

The core settings of the Analytics Database Manager tasks are stored under the content item /sitecore/system/Modules/Analytics Database Manager/.



### 4.2.1 SQL Commands

The list of the items with SQL commands that are used in the application tasks.

## Chapter 5

### Common Scenarios

This chapter contains a few use cases of applying the module to optimize your OMS environment. Reading them helps you to understand the module purposes for the real solutions.

## 5.1 Deploy on the live server

### *The issue*

After performing development and acceptance tests you are ready to deploy your solution onto production server. However, there is a lot of test data that is unnecessary and it could affect some Analytics results in the reports. Also, during the development, you have used the custom lookup provider, which sets the mock data to not waste the real lookups.

### *Possible solution*

Execute the Analytics Database Manager, select the 'Clean all Analytics data' task, set the 'Clean IP Lookup data as well' to **'true'** and run the task.

### *Another possible solution*

Re-attach the new clear Analytics database to your database server.

Then execute the Analytics Database Manager, select the 'Synchronize Analytics Definitions' task and run the task.

### *Result*

The Analytics database contains all the definitions data and is ready to use, but the collected test data has been removed.

## 5.2 Reports are timed out

### *The issue*

You noted, that the running the reports of Sitecore Analytics takes a lot of time so that a few reports are timed out. This happens, because OMS database contains a high amount of data. In some cases, increasing the timeout up to 20-30 minutes is not a solution, so there must be another way.

Not all the data from Analytics database is valuable. Suppose that you are tracking some active campaigns, MV tests and latest statistics of the website. In this case, the old data will be unnecessary.

### *Possible solution*

Execute the Analytics Database Manager, select the 'Clean Analytics data by the specified criteria' task, set the filter to 'Clean old data' and set its parameter to the date, which is the start of the current tracking period. Then run the task.

### *Result*

The Analytics database will contain the lesser amount of data so that helps reports to be shown faster.

## 5.3 End of tracking period

### *The issue*

This is the end of the quarter and you have a lot of analytics results for the Q2. The next quarter starts with absolutely new campaigns, goals and the old data becomes waste. However, you need to keep Q2 data to be able to review it later.

### *Possible solution*

Execute the Analytics Database Manager, select the 'Create backup of Analytics database' task, set the location to 'C:\AnalyticsData\Analytics2011-April-June.bak' and run the task.

Then execute the Analytics Database Manager again, select the 'Clean all Analytics data' task, set the 'Clean IP Lookup data as well' checkbox to 'false' (to keep the already retrieved IPs) and run the task.

### *Result*

The new quarter will be started with no early collected data, so it won't affect the current tracking information, but you will be able to restore it later (if it is needed).

## 5.4 Performance issues with Analytics features

### *The issue*

After a certain period of running Analytics, you have noticed that OMS database size has grown up critically. That causes a lot of problems with performance on your solution such as slowness during the analytics code execution, “hanging” reports etc.

### *Possible solution*

Execute the Analytics Database Manager, select the ‘Remove all BOTs sessions’ task and run it.

Then execute the Analytics Database Manager again, select the ‘Rebuild index’ task, set the ‘Online Mode’ to ‘false’ and run the task (please note that it blocks the database so that it affects all the traffic coming during the rebuilding).

### *Result*

Fragmented indexes and high amount of BOT sessions are the most likely causes of the performance problems with Analytics. So, running those tasks allows you to optimize the Analytics database for better performance.