

  
meridium

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AMS™ Analytics

V3.6.0.0.0





**AMS™ Analytics**  
**V3.6.0.0.0**

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# About This Document

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This file is provided so that you can easily print the **AMS Analytics** section of the Meridium APM Help system. This document is not meant to be read electronically using the PDF. If you want to read the documentation electronically, you should use the Help system. This file is set up to facilitate double-sided printing and includes blank pages between sections so that each section will begin on an odd page and will be printed on the *front* of the page.

Because this file represents an excerpt from the Help system, parts of this document may seem incomplete outside of the Help system itself. When you read the documentation via the Help system, you will see links which serve as cross-references to other areas of the documentation. These cross-references are not available in this document.

To access the Meridium APM Help, in the Meridium APM Framework application, click the **Help** menu, and then click **Meridium APM Framework Help**.



# Basics

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## Overview of AMS Analytics

You can use the *AMS™ Analytics* module to view and analyze data that exists in the following external data sources:

- **AMS Analytics Data Sources:** Consists of the following data sources:
  - AMS Suite: Intelligent Device Manager
  - AMS Suite: Machinery Health Manager
  - AMS Suite: Equipment Performance Monitor
  - AMS Suite: Equipment Performance Advisor
- **CMMS Data Sources:** Any other type of external data source, such as an SAP system.

Using AMS Analytics, you can *transfer* data from AMS Analytics data sources into the Meridium APM database. When the data is transferred, records in the AMS Analytics data model are created automatically and populated with values from the data source. You can also use AMS Analytics to *view* data that has already been transferred to the Meridium APM database from an external CMMS data source via an alternate method (e.g., the SAP Interfaces).

All of the *AMS Analytics* data sources listed above are components of the *AMS Suite* and store information that is reported about equipment and locations, such as alerts and events, to provide an indication of their overall health. By incorporating them into your Meridium APM implementation, you can use the tools in AMS Analytics to assess the overall health of equipment and locations in your facility.

After data from the CMMS or AMS Analytics data source exists in the Meridium APM database, you can use AMS Analytics to:

- View the data using queries, graphs, and reports.

- Determine the overall health of the equipment and locations in your facility.
- Identify problematic equipment and locations.
- Create AMS Asset Recommendation records.
- Generate SAP Notifications.

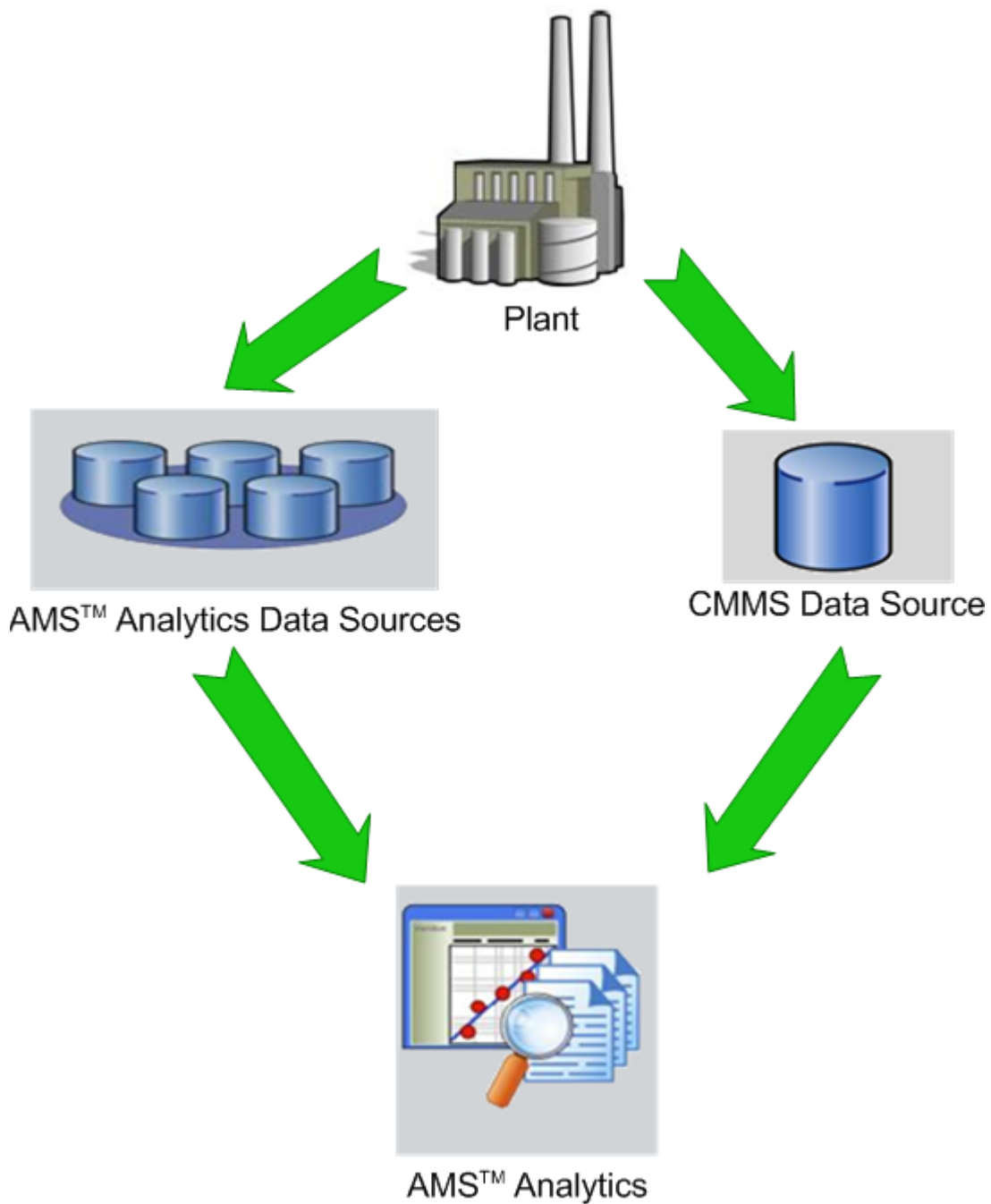
**Note:** The Criticality field in AMS Asset records is disabled and populated automatically based upon the risk assessment for the Equipment or Functional Location to which the AMS Asset records are linked. Because Asset Criticality Analysis (ACA) is the only feature that allows you to define a risk assessment for an Equipment or Functional Location record, the AMS Analytics implementation assumes that you are also using ACA.

## AMS Analytics and the AMS Suite

The *AMS Suite* consists of:

- **AMS Analytics data sources:** Store information collected by external applications. For each AMS Analytics data source, there is a corresponding application that collects the data that is stored in that data source. For example, the *AMS Suite: Intelligent Device Manager data source* corresponds to an *application* by the same name. For the purposes of this documentation, we refer to the *data source* and not the application.
- **The AMS Analytics module:** Lets you transfer data from AMS Analytics data sources to Meridium APM so that you can view the data in one location.

The following image shows how AMS Analytics data sources and CMMS data source are related to the AMS™ Analytics module. The shaded images represent the components of the AMS Suite.



After integrating the AMS Suite into your Meridium APM solution, you can use other Meridium APM modules to view and manipulate the data that has been imported into AMS™ Analytics.

# AMS Analytics System Requirements

To implement the AMS Analytics module, your Meridium APM system must meet the requirements of the basic architecture, and the *AMS Analytics* license must be activated. In addition, you will need to deploy the following additional machines and components:

- **Meridium APM Web Server machine:** Hosts the *Meridium APM Web Services* software and a supporting instance of the Application Server. If you choose to implement AMS Analytics within your system, we recommend using a configuration in which the Web Server exists on a machine that is *separate* from the Meridium APM Application Server (dedicated).

Meridium APM Web Services requires the components listed in the following table.

Software Name and Version	Where You Can Obtain It	Required?	Behavior of Meridium APM Server and Add-ons Installer
Microsoft.net 3.5 SP1	Microsoft	Yes	If this is not found, the installer will close.
ReportViewer2008	Microsoft	Yes	If this is not found, the installer will install it automatically.
Microsoft WSE 3.0 Runtime	Microsoft or Meridium APM 3rd party DVD.	Yes	If this is not found, the installer will close.
Windows 2008R2 or newer	Microsoft	Yes	If this is not found, the installer will close.
Internet Explorer 8, 9, 10, or 11	Microsoft	Yes	If this is not found, the installer will close.



Software Name and Version	Where You Can Obtain It	Required?	Behavior of Meridium APM Server and Add-ons Installer
IIS 7.0 or later	Microsoft	Yes	If this is not found, an error message will appear, and the installer will close.
IIS 6 WMI Compatibility	Microsoft	Yes	If this is not found, the installer will close.
MSXML 3.0 MSXML3 Exception INF	Microsoft Internet Explorer. This is installed automatically with Internet Explorer 6.0 and later.	Yes	None
Visual C++ 8.0 CRT (x86) WinSXS MSM  Visual C++ 8.0 MFC (x86) WinSXS MSM  Visual C++ 10.0 CRT (x86)  Visual C++ 9.0 CRT (x86) WinSXS MSM  Visual C++ 10.0 ATL (x64)  Visual C++ 9.0 ATL (x86) WinSXS MSM	Meridium APM	Yes	If this is not found, the installer will install it automatically.

If you are using a virtual machine (VM) to host your Meridium APM Web Server, we recommend that:

- You increase the physical server CPU and hard drive space requirements by 20% to ensure that the application will perform equivalently in a virtualized environment.
- You double the physical server memory requirements.
- Each VM have its own dedicated processor cores and memory allocation to ensure appropriate performance.

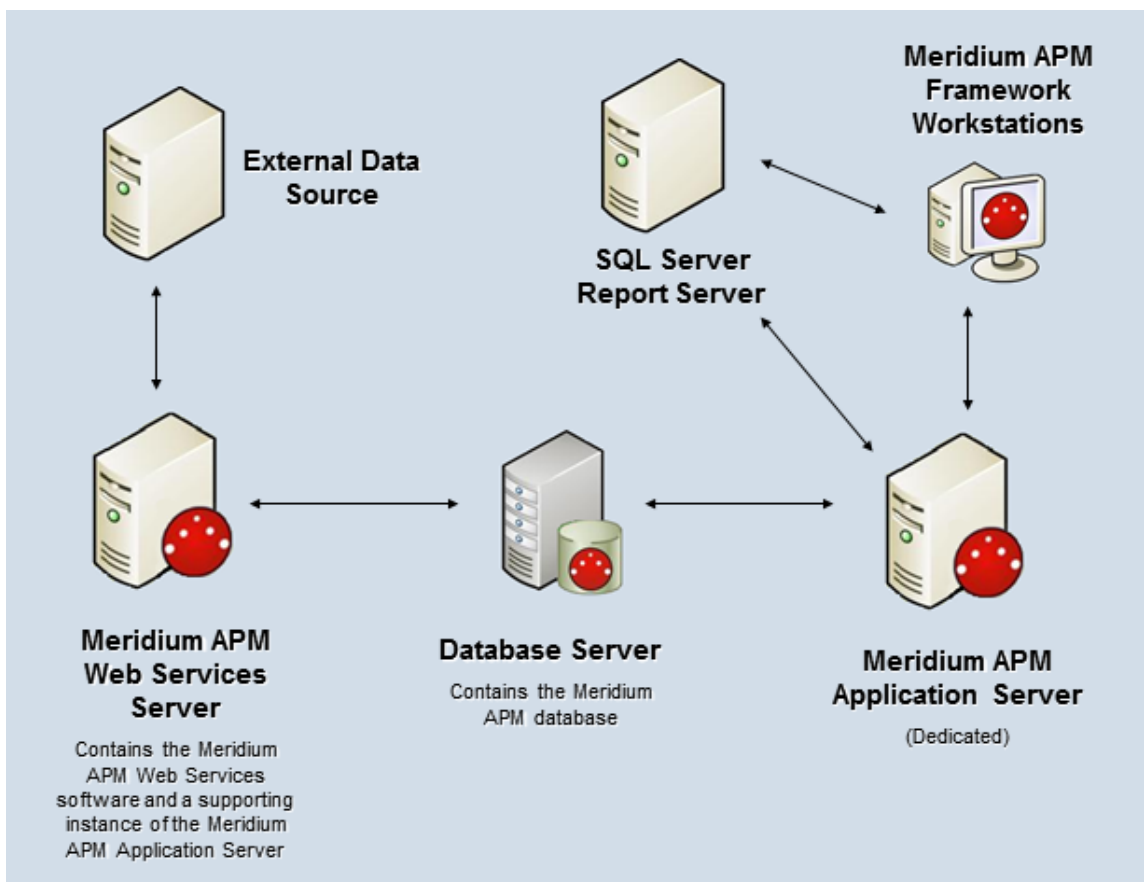
Meridium, Inc. supports Hyper-V and VMWare platforms.

These requirements may not be sufficient, depending upon how your system is configured. Parameters that affect the hardware requirements include the number of users, modules purchased, database size, and other factors that can vary from one customer to another. For help refining your specific system requirements, consult a member of the Meridium Inc. Global Support Services or Professional Services department.

- AMS Machinery Health Manager, which is a third-party component and exceeds the scope of this documentation.
- AMS Device Manager, which is a third-party component and exceeds the scope of this documentation.

[Click here](#) for a directory to the configuration steps that you will need to perform specifically for AMS Analytics.

The following illustration shows how the Meridium APM Web Server connects to the basic Meridium APM system architecture and the third-party machines.



**Note:** While this image depicts only a single, dedicated Meridium APM Application Server, keep in mind that your implementation may contain one or more of these machines. The purpose of this image is to depict the interaction of the Meridium APM Web Server with the basic Meridium APM components and the third-party machines.

## Data Structure

### Overview of the AMS Analytics Data Structure

AMS Analytics leverages the fundamental Meridium APM entity and relationship family infrastructure for storing data that you transfer from an AMS Analytics data source to the Meridium APM database. *AMS Asset Data Source records* are used to store connection information that the Meridium APM system uses to access an AMS Analytics data source and then create records that correspond to the records that exist in the AMS Analytics data source. When data is transferred to the Meridium APM database from an AMS Analytics data source,

one or more records in the following families will be created, depending up on the data that exist in the AMS Analytics data source:

- AMS Asset
- AMS Asset Alert
- AMS Asset Event
- AMS Asset Folder

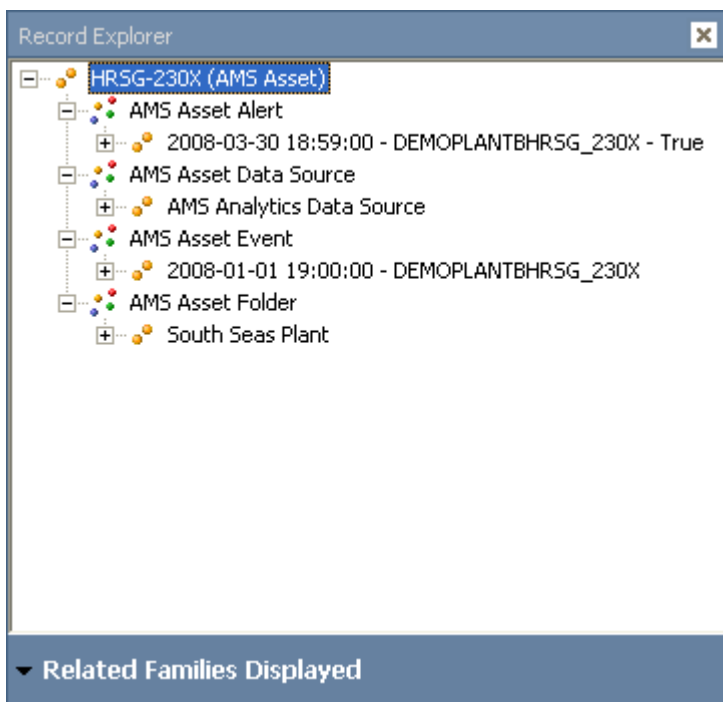
**Note:** If a corresponding record does not exist in the AMS Analytics data source, a record in that family will not be created in the Meridium APM database.

Each record that is created stores the values that exist in the corresponding entities in the AMS Analytics data source. This documentation assumes that you are familiar with the data that is stored in the AMS Analytics data sources.

When the records are created in the Meridium APM database from data in an AMS Analytics data source, links are created between AMS Asset records and the related AMS Asset Alert, AMS Asset Event, and AMS Asset Folder records.

For example, the following image shows an example of the record hierarchy as it appears in the Record Manager when you open an AMS Asset record. In the image, you can see that:

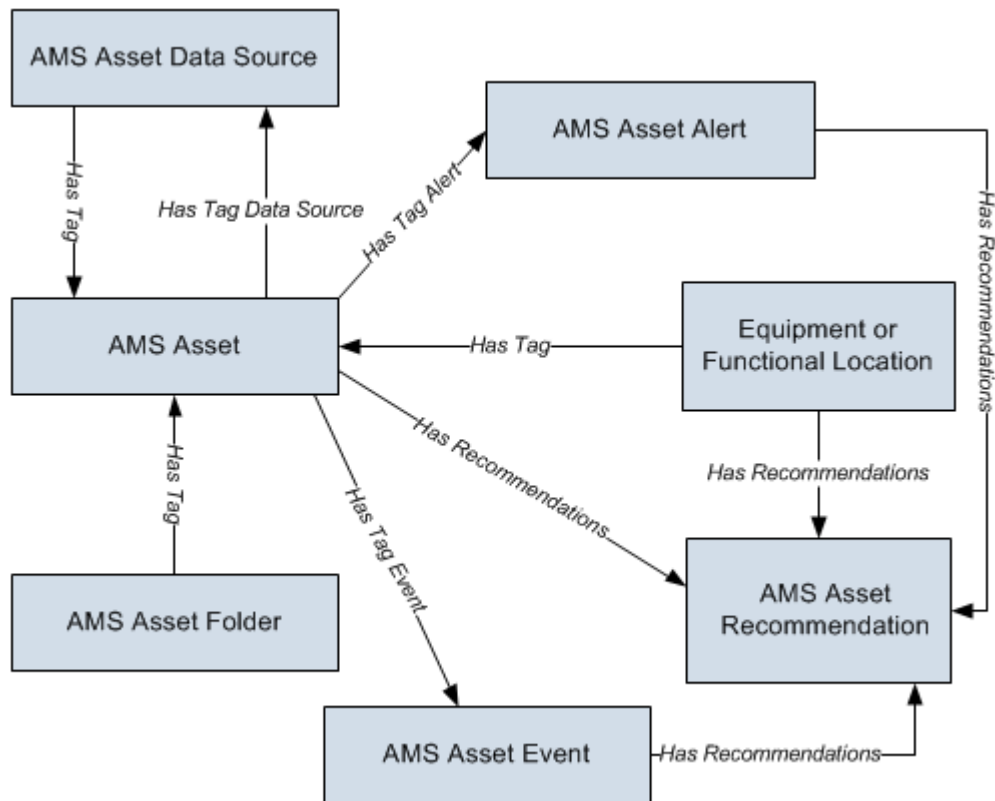
- The AMS Asset record appears at the root level.
- Below the root record, all the related records appear, as indicated by the + (plus) sign to the left of the family name.
- The AMS Asset Data Source record is linked to the AMS Asset record and stores the connection information that the Meridium APM system uses to connect to the AMS Analytics data source from which the data in the linked records originates.



When you are working with records in AMS Analytics, it is helpful to visualize the data model illustration.

## AMS Analytics Data Model

The following diagram illustrates the families that participate in the AMS Analytics data model. The shaded boxes represent entity families, and the arrows represent relationship families. You can determine the direction of each relationship definition from the direction of the arrow head: the box to the *left* of each arrow head is the *predecessor* in that relationship definition, and the box to the *right* of each arrow head is the *successor* in that relationship definition. For example, you can see that AMS Asset Alert records are linked to AMS Asset Recommendation records through the Has Recommendations relationship, where the AMS Asset Alert family is the predecessor.



Notice that in addition to the families described in the overview of the data model section, the following additional families are included in the AMS Analytics data model illustration:

- Equipment and Functional Location
- AMS Asset Recommendation

## About Data Collection

Before you can begin working with data in AMS Analytics, that data must first be collected from an external data source and transferred to the Meridium APM database. An *AMS Analytics data source* is a repository of data that is stored in a format that can be accessed by the Meridium APM system. For example, AMS Device Manager is an AMS Analytics data source that is external to the Meridium APM database and whose data can be transferred to Meridium APM. Using AMS Analytics, you can collect data from multiple AMS Analytics data sources and transfer it to the Meridium APM database.

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To collect data from an AMS Analytics data source and transfer it to the Meridium APM database, an administrative user must complete administrative tasks that are required for data collection, which includes creating:

- One AMS Asset Data Source record per AMS Analytics data source whose data you want to transfer to Meridium APM.
- A scheduled item in the Meridium APM Schedule Manager that specifies the schedule on which data should be transferred from *all* AMS Analytics data sources to Meridium APM.

AMS Asset Data Source records store the connection information that the Meridium APM system uses to connect to AMS Analytics data sources. When the scheduled item is executed, data is transferred from the specified AMS Analytics data sources to the Meridium APM database, and the following actions are executed automatically:

- Records are created in the following families, using data that exists in corresponding entities in the AMS Analytics data sources:
  - AMS Asset Folder
  - AMS Asset
  - AMS Asset Alert
  - AMS Asset Event
- In all AMS Asset Data Source records, the fields on the **Status** tab are populated with the date and time that the data was retrieved from the AMS Analytics data source as well as the status of the data collection process itself.

Each time data is collected from AMS Analytics data sources, any new records that need to be created will be created, and any data that needs to be updated in *existing* records will be updated. For example, if you collect data on a daily basis, if you run the Active Alerts query on Monday, you may see 35 AMS Asset Alert records. However, if an AMS Asset Alert record is later set to inactive in the AMS Analytics data source, then when you run the Active Alerts query again on Tuesday, 34 AMS Asset Alert records will appear because one of the existing AMS Asset Alert records was updated to reflect its inactive status.

If you decide that you no longer want to collect data from an AMS Analytics data source, you can delete the corresponding AMS Asset Data Source record. After you do so, data will no longer be collected from that data source. The AMS Asset and AMS Asset Folder records that were previously transferred to the Meridium APM database from that data source, however, will still exist in the Meridium APM database. Additionally, if an AMS Asset Folder record is re-named in the AMS Analytics data source, the records that were linked to the AMS Asset Folder record with the previous name will not be linked to the AMS Asset Folder record with the new name. If desired, you can delete from the Meridium APM database records that were associated with a deleted AMS Asset Data Source record or an AMS Asset Folder record that was renamed. You can do so via the *AMS Asset datasource Cleanup* strategy rule.

## A Note About Time Data

When the data collection, time information will be converted to match the time zone of the Meridium APM Application Server on which the data collection process occurred at the time that the data collection process occurred. This time zone may be different from the time zone of the AMS data source. The converted time is stored within the Meridium APM record in the Meridium APM database. When you access the following pages, the current time zone of the Meridium APM Application Server to which you are currently connected will be displayed in the **Date/Time** column.

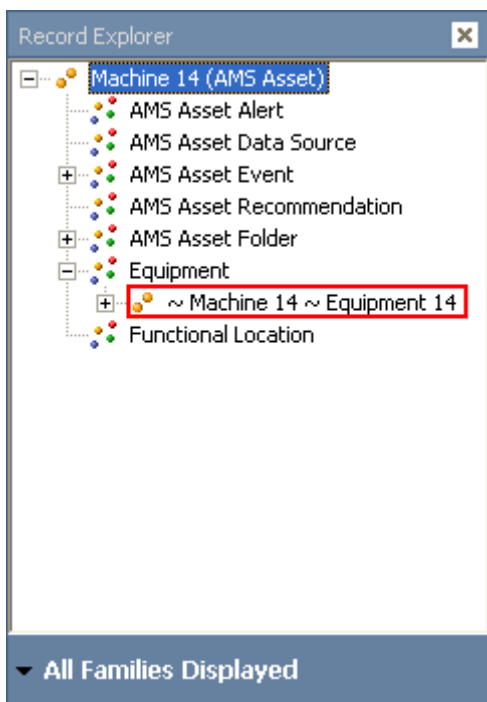
- **AMS Analytics - Active Alerts**
- **AMS Analytics - Events**

## About The Relationship Between Equipment and Functional Location Records and AMS Asset Records

In order to use AMS Analytics, your database must contain records that represent the equipment and locations in your facility, and each of those records must be linked to its corresponding AMS Asset record. In the baseline Meridium APM database, the *Equipment* and *Functional Location* families are related to the AMS Asset family through the Has Tag relationship.

The following image shows an example of the record hierarchy in the **Record Explorer** pane, where a record in the baseline Equipment family is linked to a record in the AMS Asset family. The AMS Asset record appears at the root level, and a red outline has been added to the image to highlight the Equipment record.

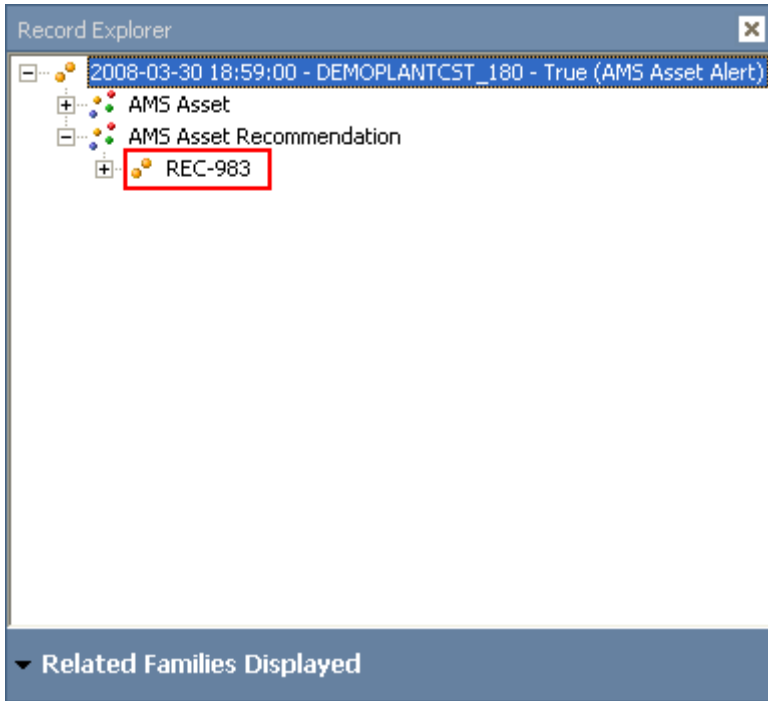




## About AMS Asset Recommendation Records

AMS Asset Recommendation records exist only in the Meridium APM database (i.e., there is no corresponding entity in an AMS Analytics data source) and are used to store information about recommendations for actions that should be taken, based upon the data that was transferred to the Meridium APM system. You can create an AMS Asset Recommendation record via a link on the **Associated Pages** menu when you are viewing an AMS Asset Alert or AMS Asset Event record in the Record Manager. While records in the AMS Asset family can be linked to records in the AMS Asset Recommendation family, the link can be created only manually via the record hierarchy.

The following image shows an example of the record hierarchy in the **Record Explorer** pane, where a record in the AMS Asset Alert family is linked to a record in the AMS Asset Recommendation family. The AMS Asset Alert record appears at the root level, and a red outline has been added to the image to highlight the AMS Asset Recommendation record.



The links between AMS Asset Recommendation records and AMS Asset Event or AMS Asset Alert records are created automatically when you create a new AMS Asset Recommendation record as long as the following conditions are met:

- The AMS Asset Alert record is linked to an AMS Asset record that is linked to a record in the Equipment or Functional family.
- The AMS Asset Event record is linked to an AMS Asset record that is linked to a record in the Equipment or Functional family.

Additionally, when you create an AMS Asset Recommendation record, you can also create a Notification in SAP. If you create a Notification in SAP, that Notification will be associated with the Equipment or Functional Location that exists in SAP and corresponds to the Equipment or Functional record to which the AMS Asset record is linked.

When you are working with records in AMS Analytics, it is helpful to visualize the data model illustration.

# Accessing AMS Analytics

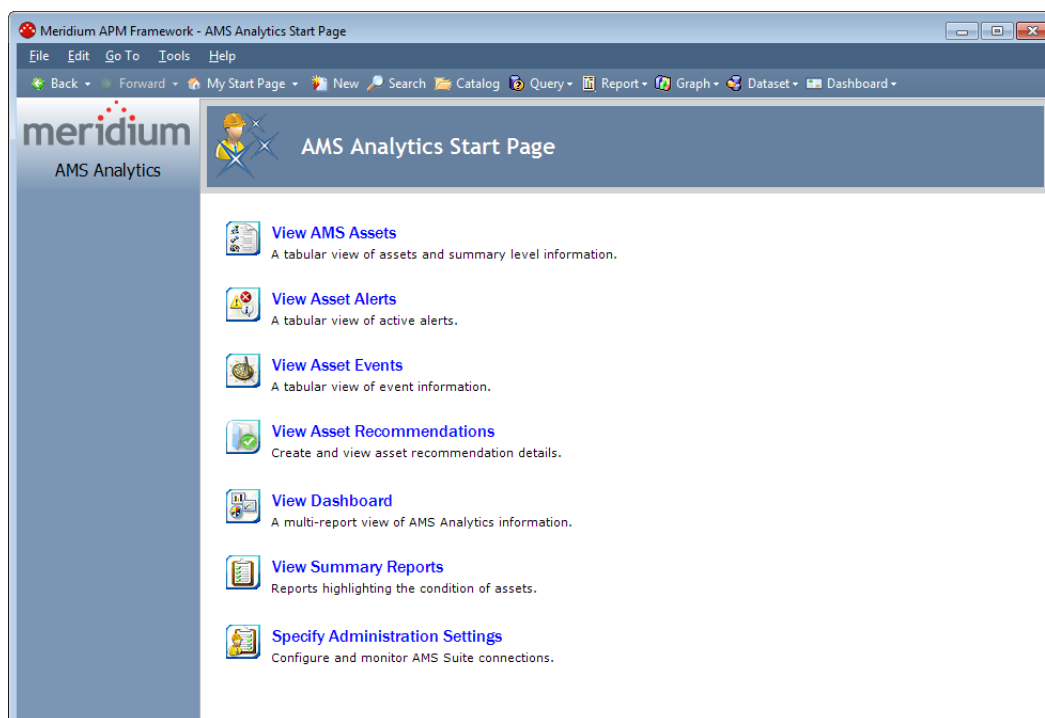
## Accessing the AMS Analytics Start Page

The **AMS Analytics Start Page** provides a starting point from which you can access the features in AMS Analytics. You can use this page to navigate to features in the AMS Analytics module.

To access the **AMS Analytics Start Page**:

- On the Meridium APM Framework main menu, click **Go To**, point to **APM Foundation**, and then click **AMS Analytics**.

The **AMS Analytics Start Page** appears.



## Aspects of the AMS Analytics Start Page

The **AMS Analytics Start Page** displays the following links that provide access to AMS Analytics features:

- **View AMS Assets:** Displays the **AMS Analytics - Assets** page, where you can view a summary of existing AMS Asset records by the AMS Analytics data source in which they originated.
- **View Asset Alerts:** Displays the **AMS Analytics - Active Alerts** page, where you can view a summary of existing AMS Asset Alert records by the AMS Analytics data source in which they originated.
- **View Asset Events:** Displays the **AMS Analytics - Events** page, where you can view a summary of existing AMS Asset Event records by the AMS Analytics data source in which they originated.
- **View Asset Recommendations:** Displays the **Recommendation Management** page, where you can view a list of existing AMS Asset Recommendation records and create new ones.
- **View Dashboard:** Displays the **AMS Analytics - Dashboard** page, where you can view graphs that display various information in AMS Asset, AMS Asset Alert, and AMS Asset Event records by the AMS Analytics data source in which they originate.
- **View Summary Reports:** Displays the **AMS Analytics - Summary Reports** page, where you can view a list of Catalog items that summarize various information for AMS Asset, AMS Asset Alert, and AMS Asset Event records.
- **Specify Administration Settings:** Displays the **AMS Analytics Administration** page, where you can view and manage AMS Asset Data Source records. This link appears only if you are logged in as a Super User or a member of the MI AMS Suite APM Administrator Security Group.

# Installation, Upgrade, and Configuration

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## First-Time Deployment Workflow

Deploying and configuring AMS Analytics for the first time includes completing multiple steps, which are outlined in the table in this topic. The steps in this section of the documentation provide all the information that you need to deploy and configure AMS Analytics on top of the basic Meridium APM system architecture.

Whether a step is required or optional is indicated in the **Required/Optional** cell. Steps are marked as *Required* if you must perform the step to take advantage of AMS Analytics functionality.

The person responsible for completing each task may vary within your organization. We recommend, however, that the steps be performed in relatively the same order in which they are listed in the following table.

Step	Task	Required/Optional	Notes
1	Install Meridium APM Web Services on the Meridium APM Web Server.	Required	None
2	Modify the file Meridium.Core.Scheduling.Service.exe.config on the Meridium APM Application Server.	Required	None
3	Restart the Meridium APM Schedule Service on the Meridium APM Application Server.	Required	None
4	Assign Security Users to one or more of the AMS Analytics Security Groups.	Required	None

Step	Task	Required/Optional	Notes
5	Create one AMS Asset Data Source record per AMS Analytics data source whose data you want to transfer to Meridium APM.	Required	If you will collect data from AMS Analytics data sources using message queues, you will need to select the <b>Use Message Queuing</b> check box in the AMS Analytics Data Source record.
6	Test the connection to each AMS Analytics data source.	Required	None
7	Create a scheduled item via the Meridium APM Schedule Manager that will execute the data collection process.	Required	None
8	Link each AMS Asset record to the Equipment or Functional record that represents the piece of equipment or location for which the AMS Asset record exists.	Required	This task cannot be completed until data has been transferred to the Meridium APM system.
9	Define the Criticality field in the AMS Asset records.	Required	This task cannot be completed until data has been transferred to the Meridium APM system.

Step	Task	Required/Optional	Notes
10	Configure AMS Analytics to use Oracle-specific queries.	Optional	This task is necessary only if you are using an Oracle Meridium APM database. If you are using a SQL Server database, the baseline queries will work without any manual configuration.

## Upgrade Workflow

### Upgrade Workflow

You can upgrade to V3.6.0.0.0 using the instructions that are provided in this section of the documentation. To access these instructions, click the starting version from which you are upgrading:

- V3.5.1
- V3.5.0 SP1 LP
- V3.5.0
- V3.4.5

### Upgrading AMS Analytics From V3.5.1 to V3.6.0.0.0

The following table lists the steps that are required to upgrade and configure AMS Analytics for V3.6.0.0.0. These steps assume that you have completed the steps for upgrading the basic Meridium APM system architecture.

Step	Task	Required/Optional	Notes
1	Upgrade Meridium APM Web Services on the Meridium APM Web Server.	Required	None
2	Modify the file Meridium.Core.Scheduling.Service.exe.config on the Meridium APM Application Server.	Required	None
3	Restart the Meridium APM Scheduling Service on the Meridium APM Application Server.	Required	None

## Upgrading AMS Analytics From V3.5.0 SP1 LP to V3.6.0.0.0

The following table lists the steps that are required to upgrade and configure AMS Analytics for V3.6.0.0.0. These steps assume that you have completed the steps for upgrading the basic Meridium APM system architecture.

Step	Task	Required/Optional	Notes
1	Upgrade Meridium APM Web Services on the Meridium APM Web Server.	Required	None
2	Modify the file Meridium.Core.Scheduling.Service.exe.config on the Meridium APM Application Server.	Required	None
3	Restart the Meridium APM Scheduling Service on the Meridium APM Application Server.	Required	None

## Upgrading AMS Analytics From V3.5.0 to V3.6.0.0.0

The following table lists the steps that are required to upgrade and configure AMS Analytics for V3.6.0.0.0. These steps assume that you have completed the steps for upgrading the basic Meridium APM system architecture.

Step	Task	Required/Optional	Notes
1	Upgrade Meridium APM Web Services on the Meridium APM Web Server.	Required	None
2	Modify the file Meridium.Core.Scheduling.Service.exe.config on the Meridium APM Application Server.	Required	None



Step	Task	Required/Optional	Notes
3	Restart the Meridium APM Scheduling Service on the Meridium APM Application Server.	Required	None

## Upgrading AMS Analytics From V3.4.5 to V3.6.0.0.0

The following table lists the steps that are required to upgrade and configure AMS Analytics for V3.6.0.0.0. These steps assume that you have completed the steps for upgrading the basic Meridium APM system architecture.

Step	Task	Required/Optional	Notes
1	Upgrade Meridium APM Web Services on the Meridium APM Web Server.	Required	None
2	Modify the file Meridium.Core.Scheduling.Service.exe.config on the Meridium APM Application Server.	Required	None
3	Restart the Meridium APM Scheduling Service on the Meridium APM Application Server.	Required	None

# Installation, Upgrade, and Configuration Steps

## Meridium APM Web Services

### Installing Meridium APM Web Services

The following instructions explain how to install the Meridium APM Web Services and a supporting instance of the Meridium APM Application Server on the Meridium APM Web Server machine. These instructions assume:

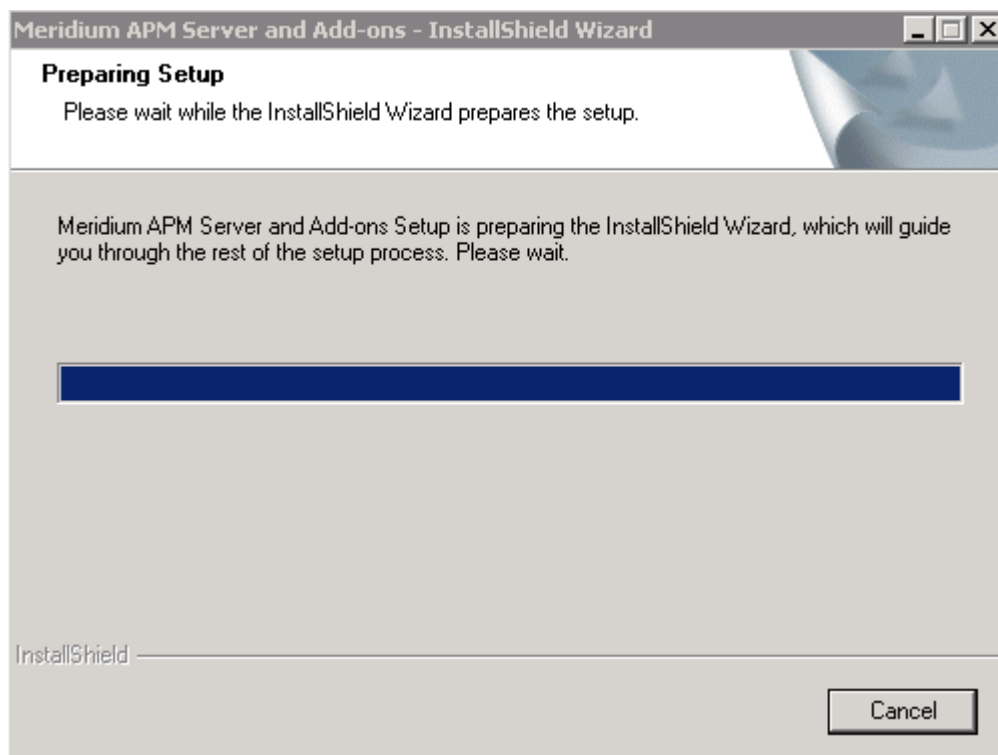
- Your system meets the system requirements for AMS Analytics.
- You are an Administrator with full access to the Meridium APM Web Server machine.

- You want to install only the Meridium APM Web Services software.

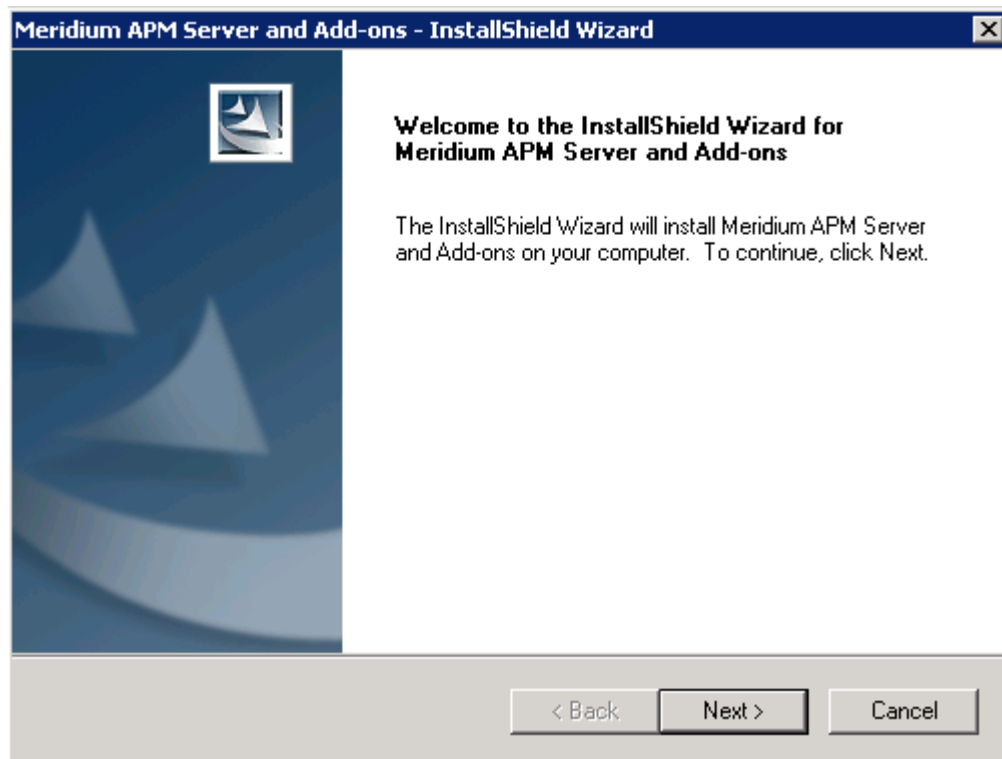
To install Meridium APM Web Services on a Meridium APM Web Server machine:

1. On the machine where you want to install Meridium APM Web Services, insert the Meridium APM Distribution DVD, and navigate to the folder **General Release\Meridium APM Framework and Server Setup\Setup\Meridium APM Server and Add-ons**.
2. Double-click the files **setup.exe**.

The Meridium APM Server and Add-ons installer appears, displaying the **Preparing Setup** screen, which contains a progress bar.

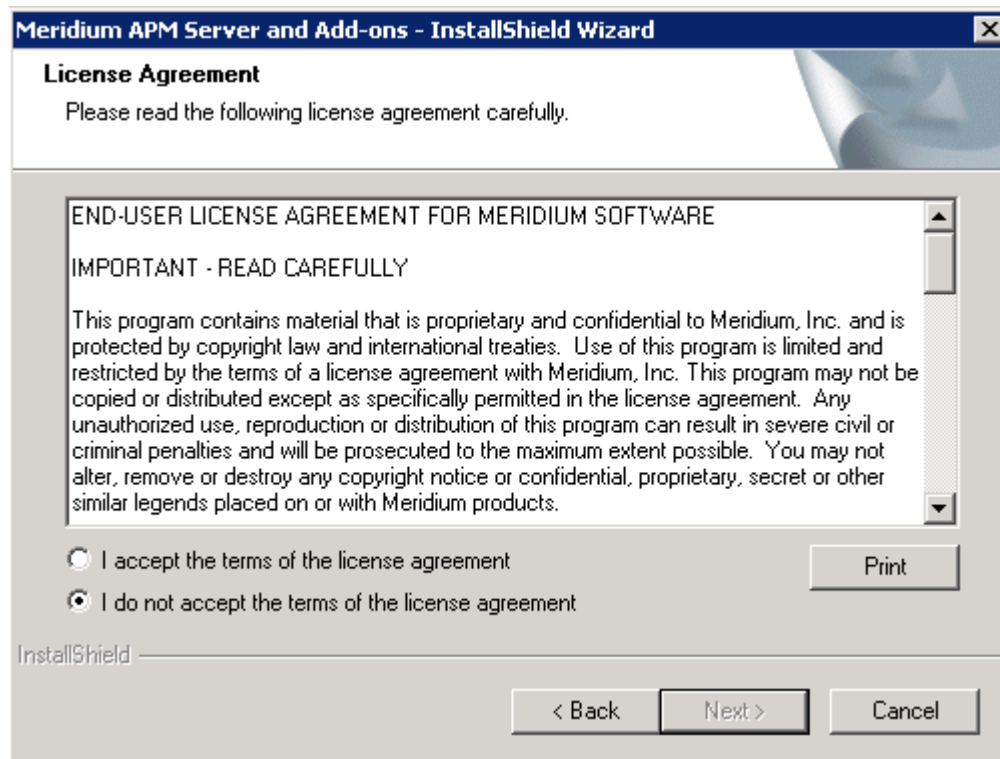


After the progress bar reaches the end, the Welcome screen appears.



3. Click the Next button.

The License Agreement screen appears.



4. Read the entire license agreement, and then select one of the following options:

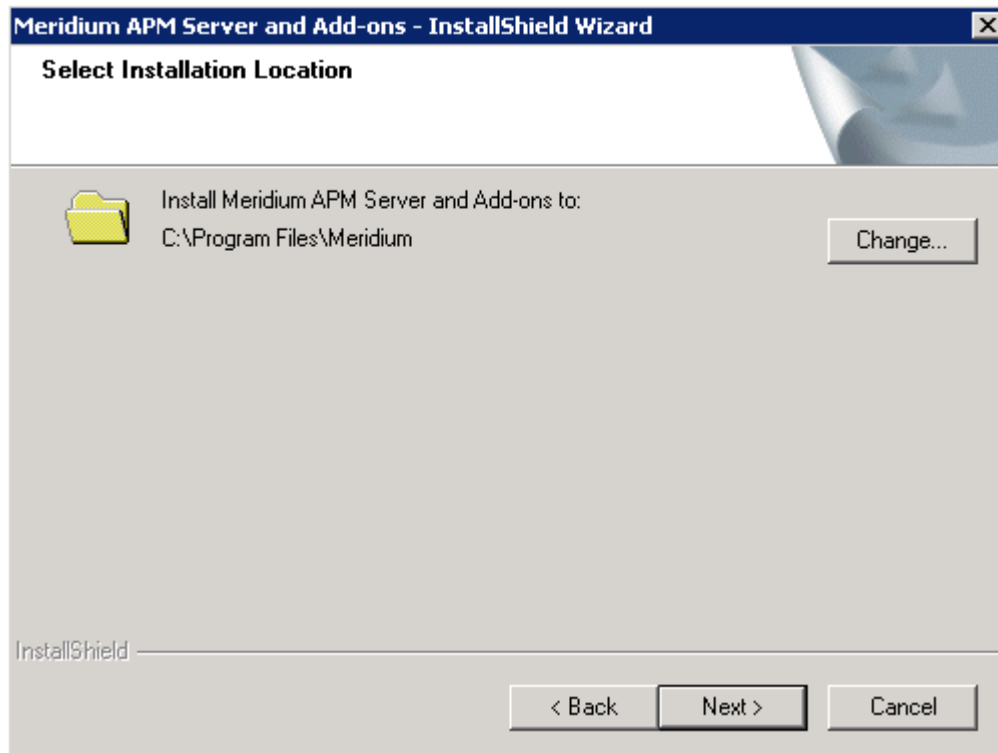
- **I accept the terms of the license agreement**, if you agree to the terms of the license agreement and want to continue. These instructions assume that you want to continue.
- **I do not accept the terms of the license agreement**. This option is selected by default. If you do not agree to the terms of the license agreement and do not want to continue, click the **Cancel** button to exit the installer.

The **Next** button becomes enabled.

**Hint:** If you want to print the license agreement, click the **Print** button.

5. Click the **Next** button.

The **Select Installation Location** screen appears, prompting you to select the location where the Meridium APM Web Services software will be installed. By default, the Meridium APM Web Services software will be saved to the following folder: C:\Program Files\Meridium.

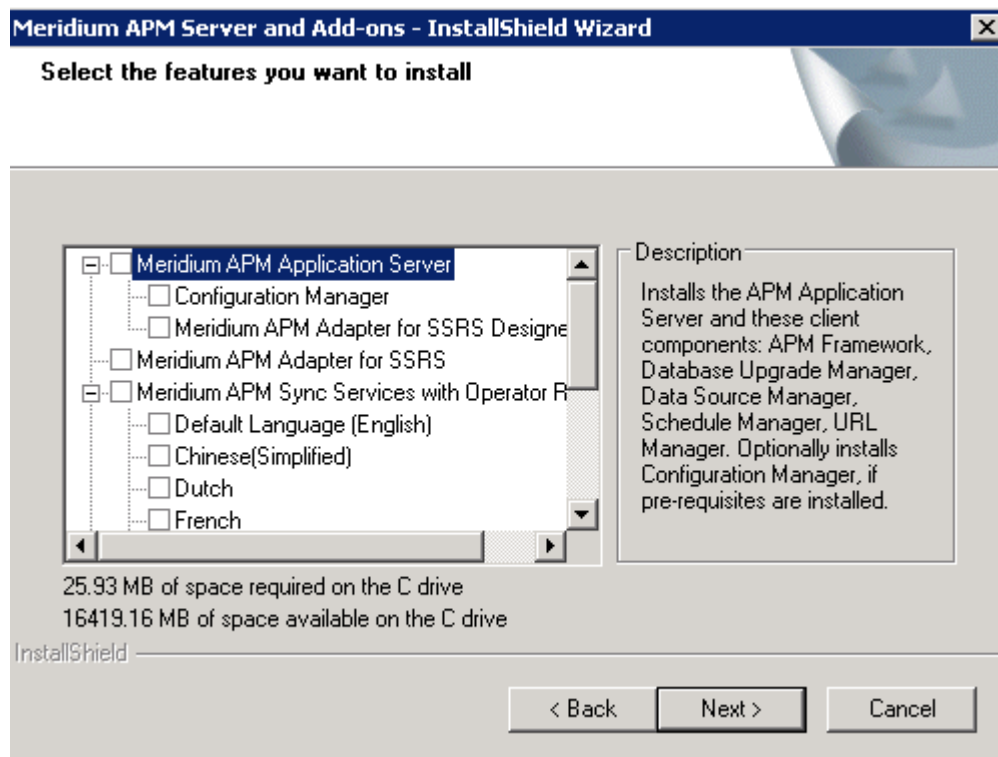


6. If you are satisfied with the default location where the software will be installed, click the **Next** button.

*-or-*

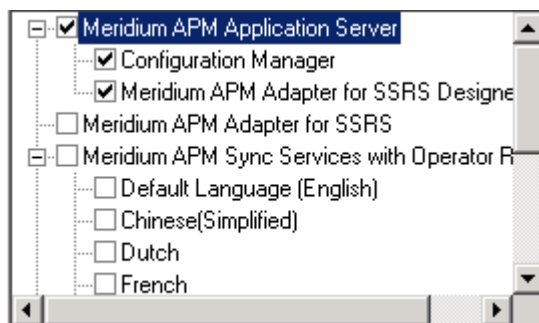
If you want to change the location where the software will be installed, click the **Change** button, and navigate to the location where you want to install the Meridium APM Web Services software. The folder path that you select will be displayed in place of the default folder path. When you are satisfied with the installation location, click the **Next** button.

The **Select the features you want to install** screen appears, and the **Meridium APM Application Server** node is highlighted automatically in the tree.



7. Select the Meridium APM Application Server check box.

The subnodes are selected automatically.



8. Clear the Configuration Manager check box. Keep in mind that you can run this installer again and install the Configuration Manager at a later time.
9. Clear the Meridium APM Adapter for SSRS Designer check box. Keep in mind that you can run this installer again and install the Configuration Manager at a later time.

10. Scroll down in the list of available components, and select the **Meridium APM Web Services** check box.

**IMPORTANT:** While additional options are available for selection in the tree on the Select the features you want to install screen, these options are not meant to be installed on the Meridium APM Web Server machine. *These instructions* assume that you want to deploy only the Meridium APM Web Services software and a supporting instance of the Meridium APM Application Server. When the Meridium APM Application Server software is installed, the Meridium APM System Administration Tool and the following APM Framework applications are also installed automatically: APM Framework, Database Upgrade Manager, Data Source Manager, Schedule Manager, and URL Manager. Corresponding options for these applications are not listed in the tree because these components must be installed with the Meridium APM Application Server software. You can optionally install the *Configuration Manager* and the APM Framework adapter, *Meridium APM Adapter for SSRS Designer*.

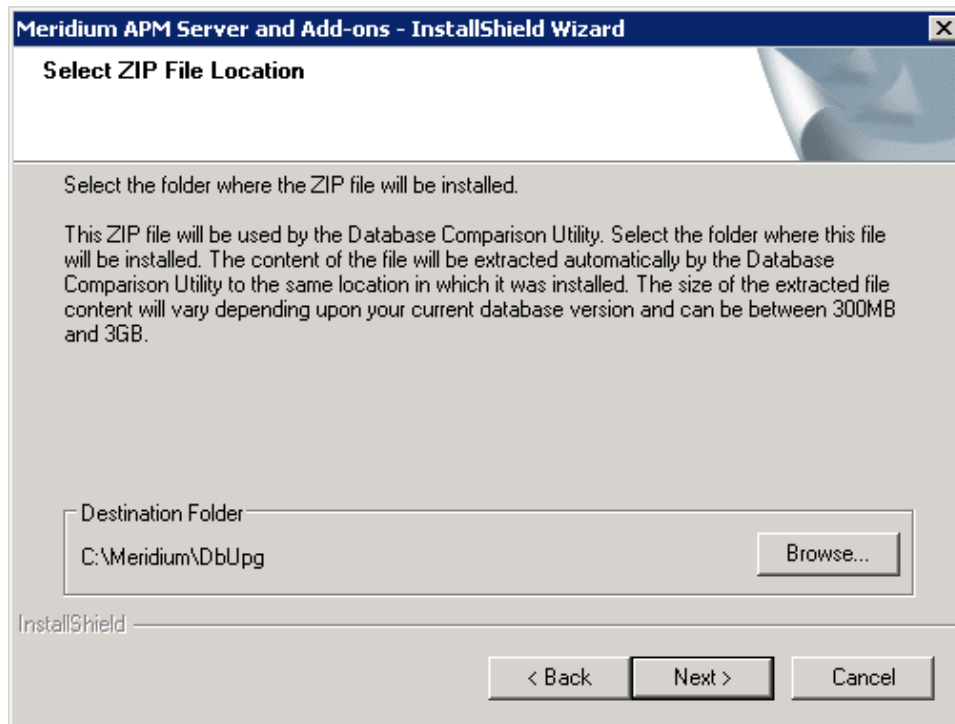
11. Click the **Next** button.

A message appears, indicating that the installer is checking your machine for the required prerequisites for the features that you want to install.

- If one or more prerequisites are missing on the machine, the **Meridium Installer** screen will appear and display a message that indicates which prerequisites still need to be installed on the machine before you can install the feature that is dependent on that prerequisite. This message also indicates what you can do to continue.

If you see this screen, you should read the message in detail, and either click the **Back** button to clear the selection whose prerequisites are missing, and then continue through the installation without installing that component, or close the installer, install the missing prerequisite, and then run the installer again later.

- If all the prerequisites for the selected components are installed on the machine, or you have selected components that do not require any prerequisites, the **Select ZIP File Location** screen appears.



The **Select ZIP File Location** screen lets you specify the location where you want the ZIP file of database content to be installed. This ZIP file is used by the Database Comparison Utility. By default, the ZIP file will be installed in the folder **C:\Meridium\DbUpg**. You can, however, select a different location.

12. Read the information on this screen and note the estimated size of the extracted files from this ZIP file. You should use this information to determine where you want install the ZIP file.
13. If you want the ZIP file to be installed in the default location, accept the default setting.

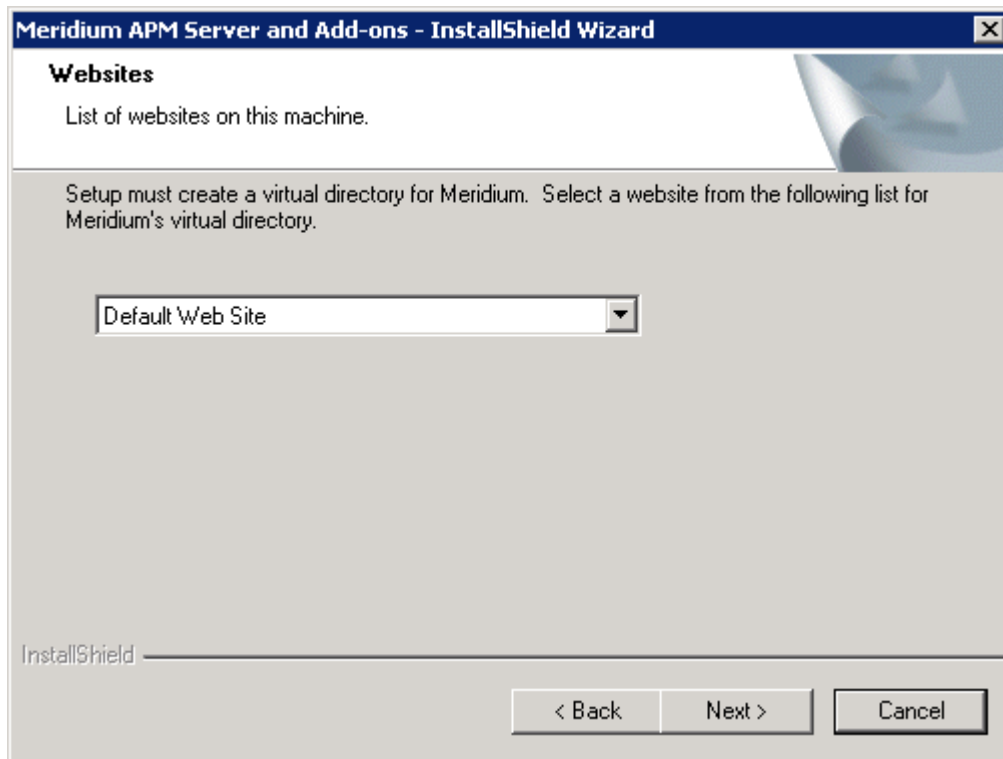
*-or-*

If you want the ZIP file to be installed in a different location, click the **Browse** button, and navigate to the location where you want the ZIP file to be installed. The selected file path will appear in the **Destination Folder** section in place of the default file path.

14. Click the **Next** button.

The **Websites** screen appears.

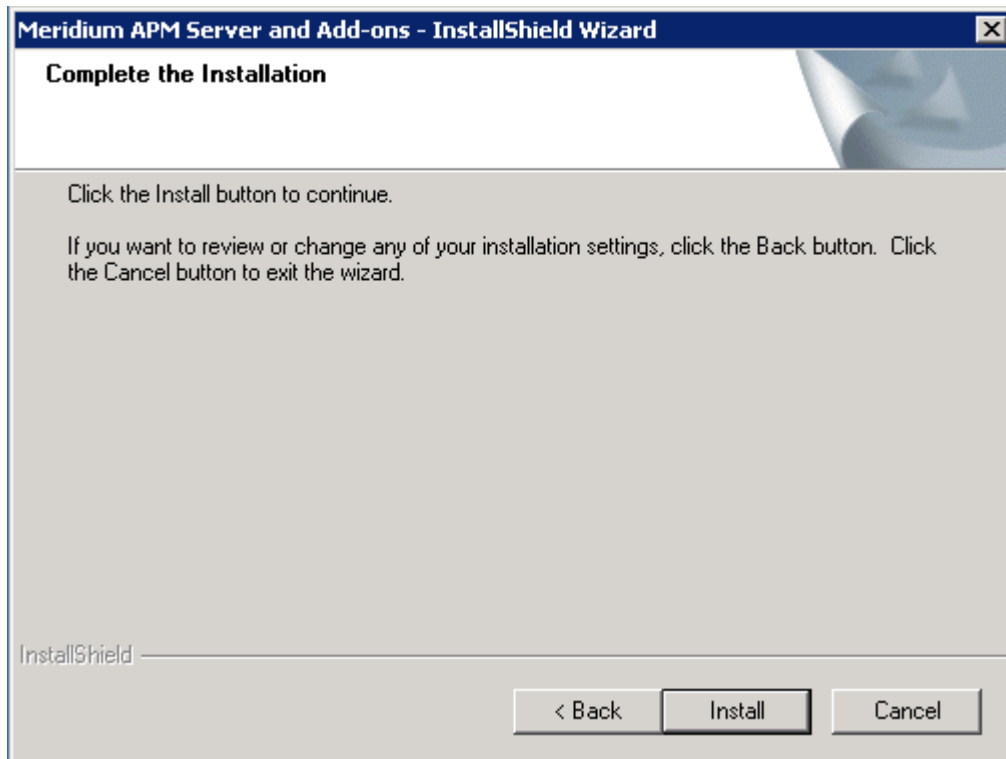




The **Websites** screen lets you specify where the installer will create a virtual directory for Meridium APM. This website is configured in the IIS Manager on the APM Application Server machine. The websites list contains all the websites that are configured on the APM Application Server machine. The default website is *Default Web Site*. Throughout this documentation, we assume that you have chosen to install Meridium APM under the Default Web Site.

15. In the list of websites, select the website where you want the installer to create a virtual directory.
16. Click the **Next** button.

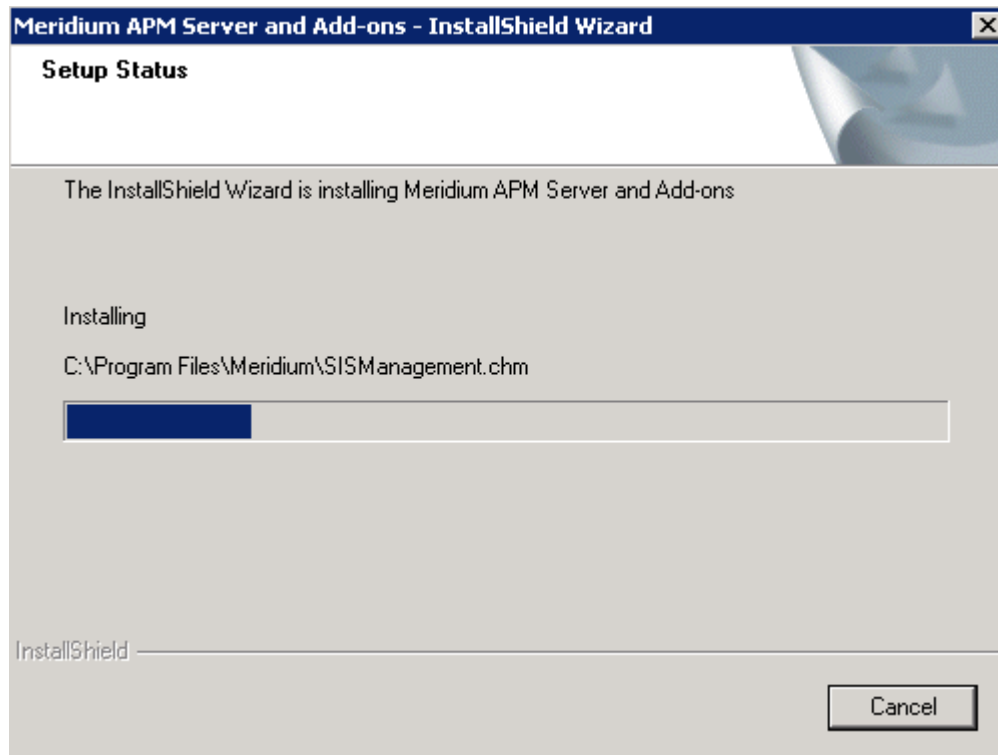
The **Complete the Installation** screen appears.



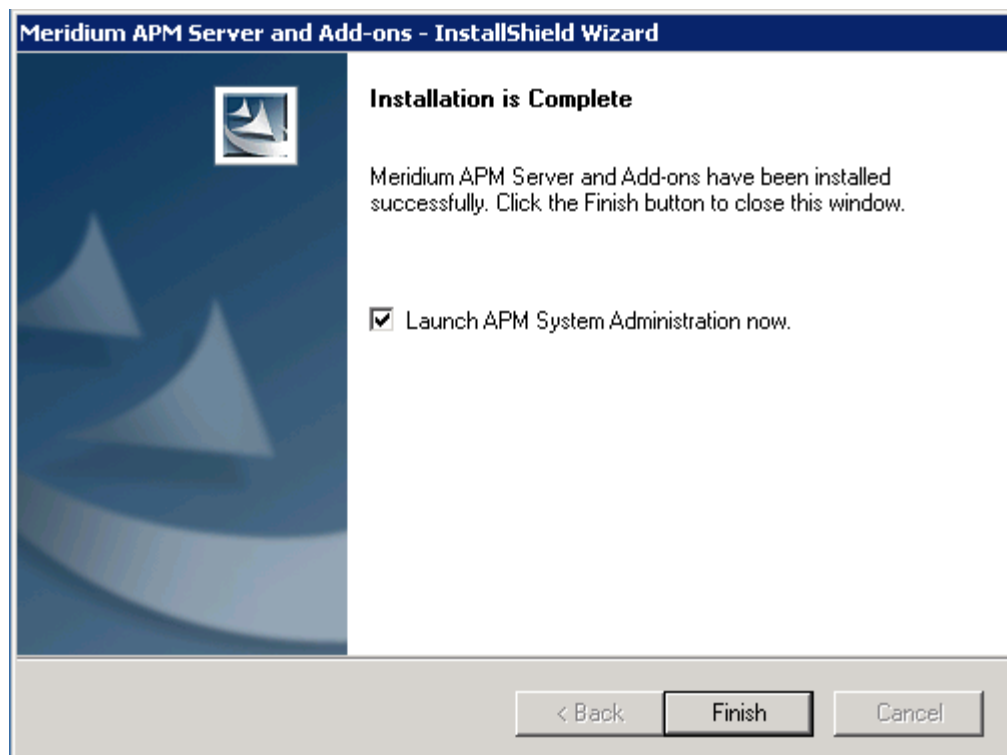
The **Complete the Installation** screen contains a message, indicating that if you want to modify any of the settings that you specified in the preceding screens in the installer, you can use the **Back** button to do so, or if you do not want to complete the installation, you can click **Cancel**. These instructions assume that you are ready to complete the installation process.

17. Click the **Install** button.

The **Setup Status** screen appears, which displays a progress bar that shows the progress of the installation process.



After the progress bar reaches the end, a message appears, indicating that your server is being configured. After your server is configured, the **Installation is Complete** screen appears.



This screen contains a message, indicating that the software has been installed successfully. You can also select to optionally launch the APM System Administration tool when the installer window closes. By default, this option is set to Yes.

18. Clear the **Launch APM System Administration now** check box, and click the **Finish** button.

The Meridium APM Server and Add-ons installer closes.

## Upgrading Meridium APM Web Services

### Upgrading Meridium APM Web Services From V3.5.0 or Later to V3.6.0.0.0

The following instructions provide details on upgrading the Meridium APM Web Services software from V3.5.0, V3.5.0 SP1 LP, or V3.5.1. These instructions assume:

- That you are an Administrator with full access to the Meridium APM Web Server machine.
- You understand that when you upgrade the Meridium APM Web Services software, you are also upgrading the supporting instance of the Meridium APM Application Server on that machine (with APM Framework applications), and that when this happens only the files that were updated for V3.6.0.0.0 are replaced on the machine.

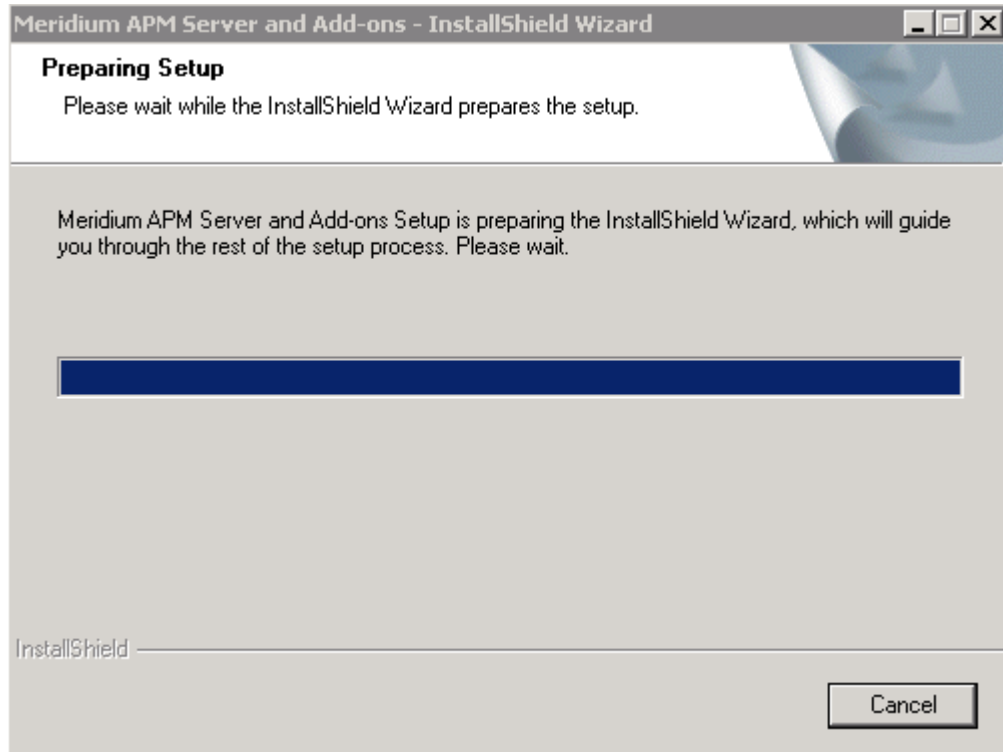
To upgrade Meridium APM Web Services:

1. On the Meridium APM Web Server machine, insert the Meridium APM DVD, and navigate to the folder **General Release\Meridium APM Framework and Server Setup\Setup\Meridium APM Server and Add-ons**.
2. Double-click the file **Setup.exe**.

A message appears, asking if you want to allow setup.exe to make changes to your machine.

3. Click the **Yes** button.

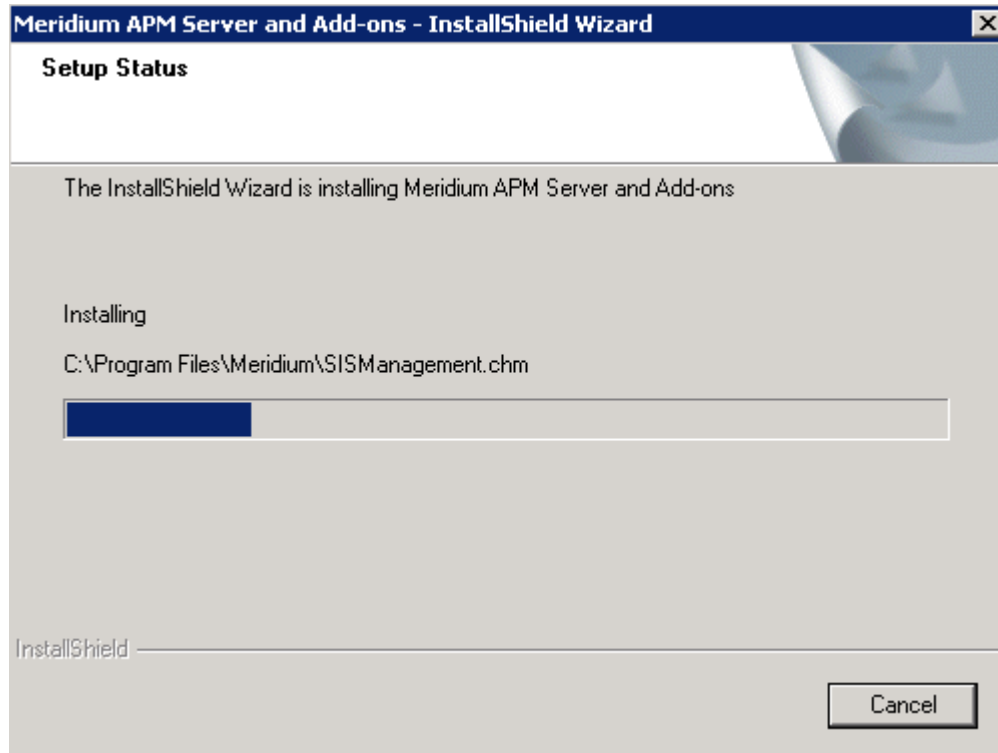
The Meridium APM Server and Add-ons installer appears, displaying the **Preparing Setup** screen. The **Preparing Setup** screen contains a progress bar that indicates when the installer is ready to upgrade components on your machine.



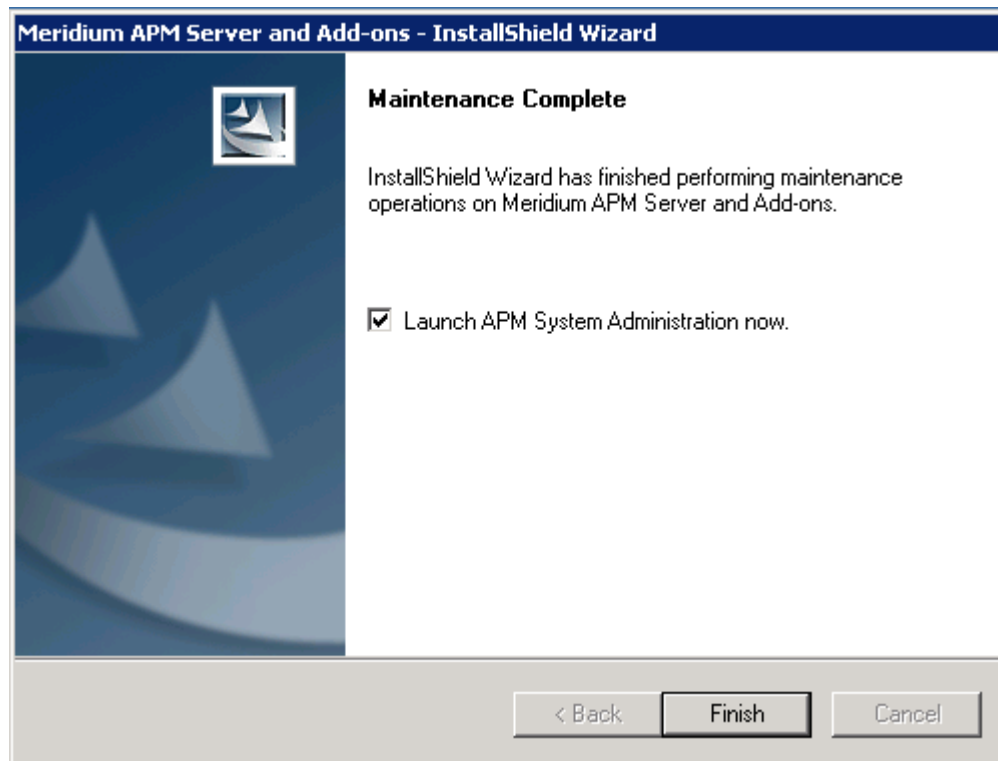
After the progress bar reaches the end, a message appears, asking if you want to upgrade your server.

4. Click the Yes button.

The **Setup Status** screen appears, displaying a progress bar that indicates the status of the upgrade process.



After the progress bar reaches the end, the Maintenance Complete screen appears.



This screen contains a message, indicating that the software has been installed successfully. You can also select to optionally launch the APM System Administration tool when the installer window closes. By default, this option is set to **Yes**.

5. Clear the **Launch APM System Administration now** check box, and click the **Finish** button.

The **Meridium APM Server and Add-ons** installer closes.

### Upgrading Meridium APM Web Services from V3.4.5 to V3.6.0.0.0

The following instructions provide details on upgrading the Meridium APM Web Services software. These instructions assume:

- That you are an Administrator with full access to the Meridium APM Web Server machine.
- You understand that when you upgrade the Meridium APM Web Services software, the older version will be uninstalled automatically before the new version is installed.

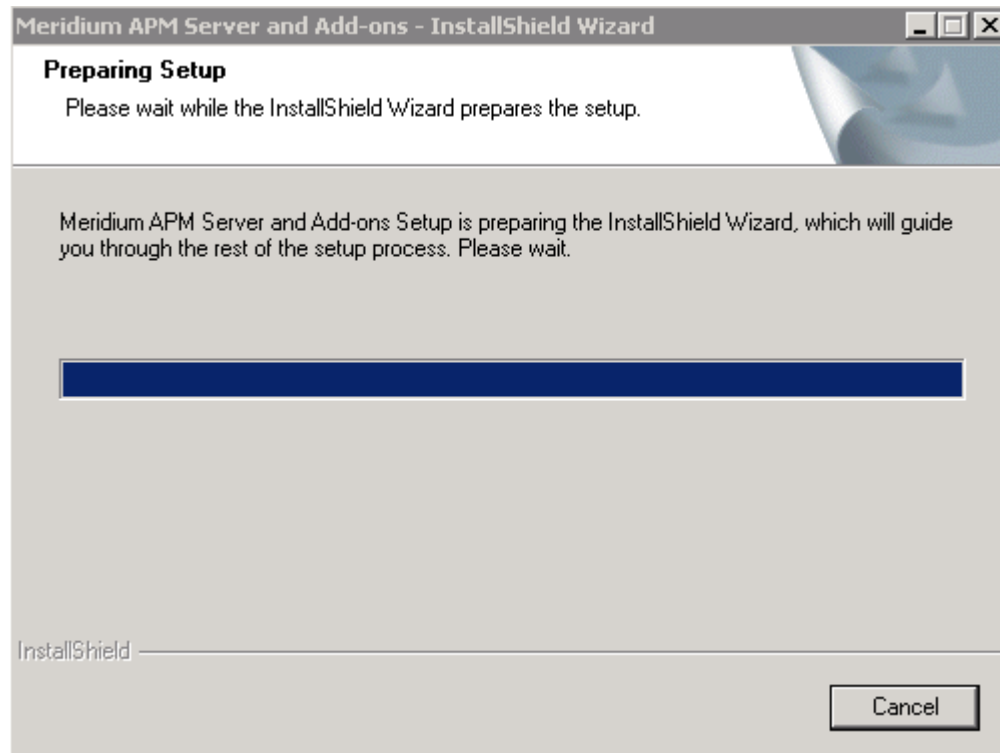
To upgrade Meridium APM Web Services:

1. On the Meridium APM Web Server machine, insert the Meridium APM DVD, and navigate to the folder **General Release\Meridium APM Framework and Server Setup\Setup\Meridium APM Server and Add-ons**.
2. Double-click the file **Setup.exe**.

A message appears, asking if you want to allow setup.exe to make changes to your machine.

3. Click the **Yes** button.

The **Meridium APM Server and Add-ons** installer appears, displaying the **Preparing Setup** screen. The **Preparing Setup** screen contains a progress bar that indicates when the installer is ready to upgrade components on your machine.



After the progress bar reaches the end, the Welcome screen appears.



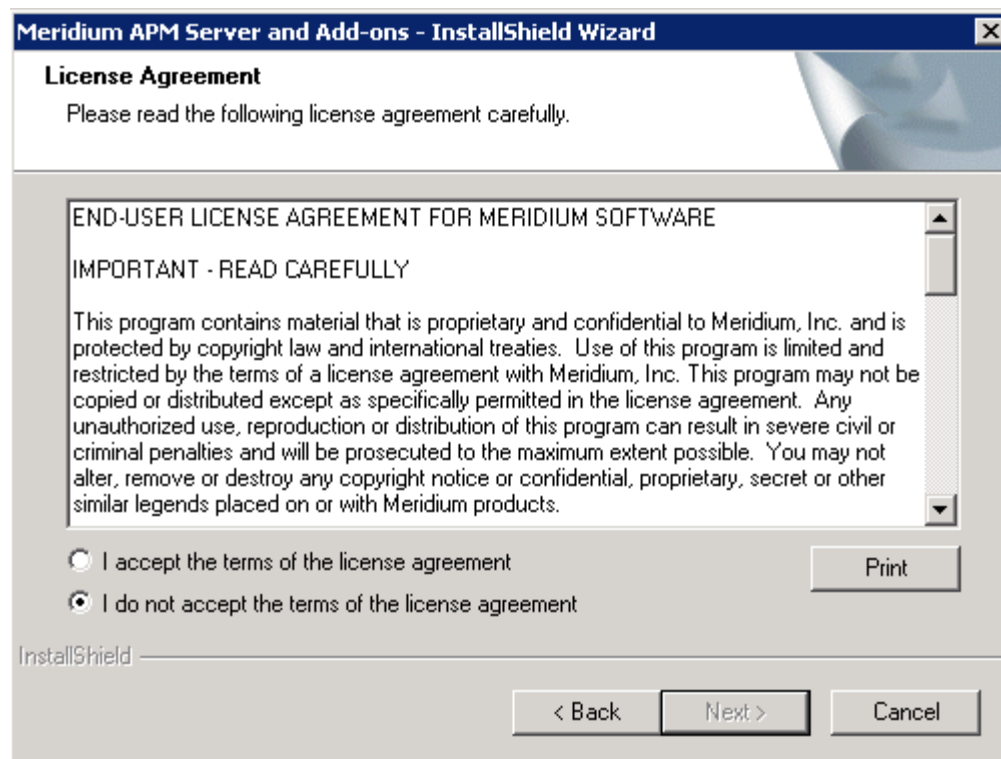


4. Click the Next button.

A message appears, indicating that an older version of Meridium APM Application Server and Add-ons is installed on this machine and that it will be uninstalled automatically before you can install the new version.

5. Click the Yes button.

The License Agreement screen appears.



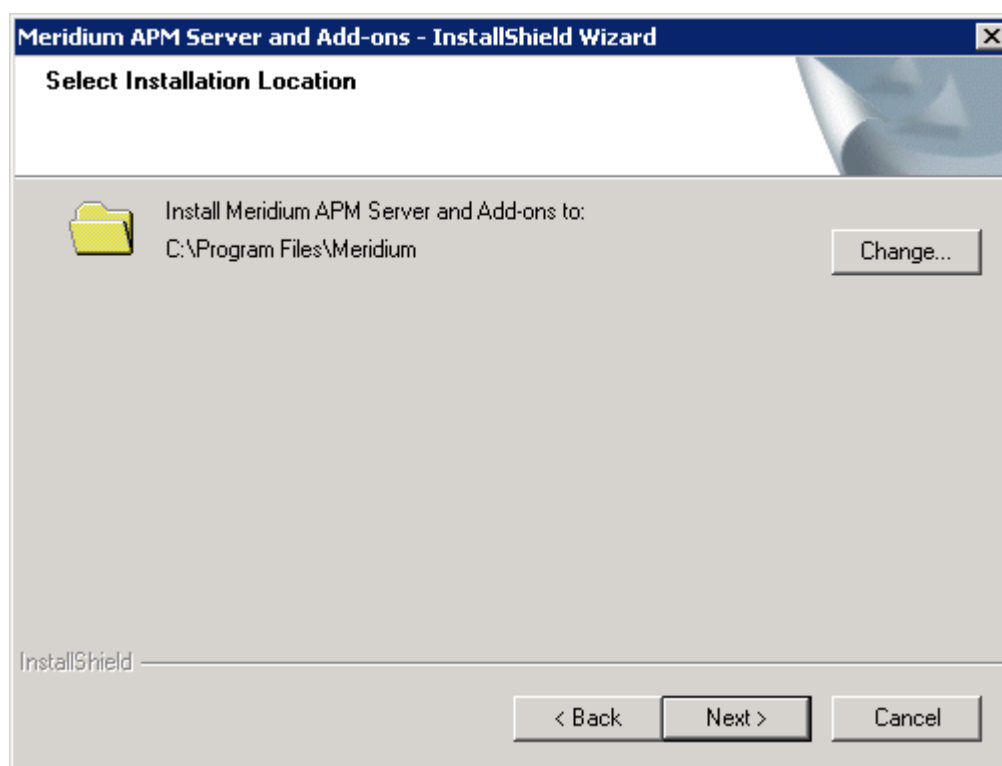
6. Read the entire license agreement, and then select one of the following options:
  - **I accept the terms of the license agreement**, if you agree to the terms of the license agreement and want to continue. These instructions assume that you want to continue.
  - **I do not accept the terms of the license agreement**. This option is selected by default. If you do not agree to the terms of the license agreement and do not want to continue, click the **Cancel** button to exit the installer.

The **Next** button is enabled.

**Hint: If you want to print the license agreement, click the **Print** button.**

7. Click the **Next** button.

The **Select Installation Location** screen appears, prompting you to select the location where the Meridium APM Web Services software will be installed after the older version is uninstalled. The software will be saved to the following folder on the Meridium APM Web Server machine by default: C:\Program Files\Meridium.

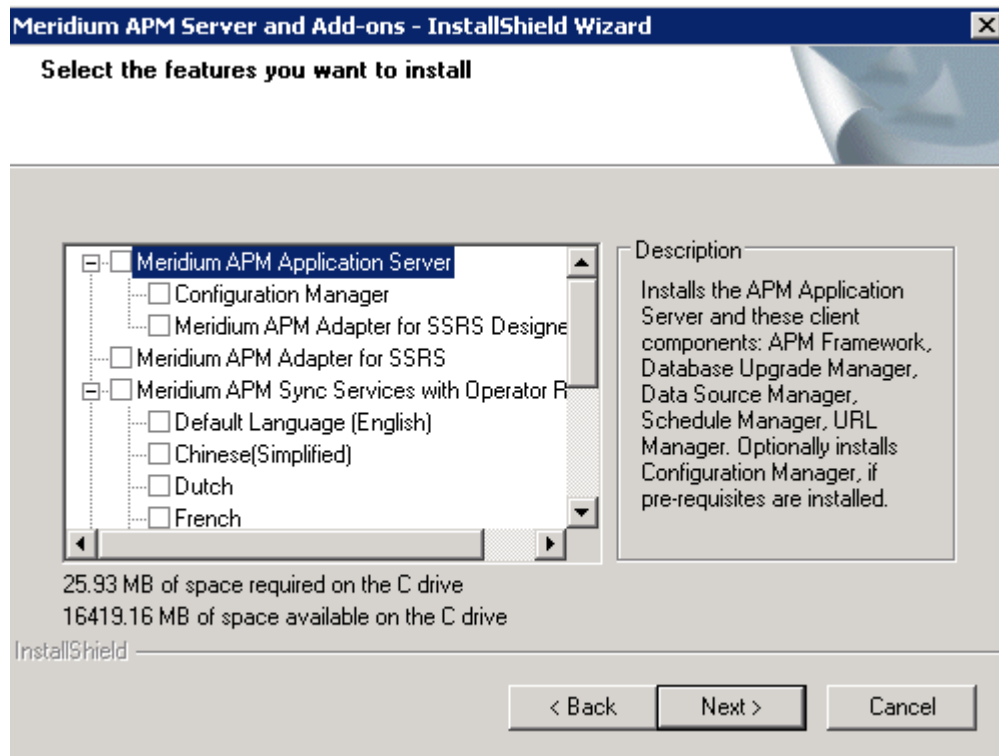


8. If you are satisfied with the default location where the software will be installed, click the **Next** button.

*-or-*

If you want to change the location where the software will be installed, click the **Change** button, and navigate to the location where you want to install the Meridium APM Web Services software. The folder path that you select will be displayed in place of the default folder path. When you are satisfied with the installation location, click the **Next** button.

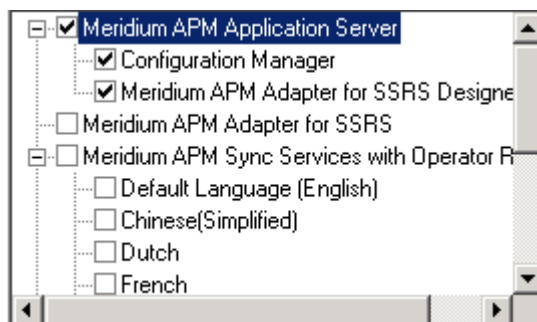
The **Select the features you want to install** screen appears, and the Meridium APM Application Server node is highlighted automatically in the tree.



**Note:** The **Select the features you want to install** screen lets you specify which features you want to install on the Web Server machine. *These instructions* assume that you want to deploy only the Meridium APM Web Services option and a supporting instance of the Meridium APM Application Server (with APM Framework applications).

9. Select the Meridium APM Application Server check box.

The subnodes are selected automatically.



10. Clear the **Configuration Manager** check box. Keep in mind that you can run this installer again and install the Configuration Manager at a later time.
11. Clear the **Meridium APM Adapter for SSRS Designer** check box. Keep in mind that you can run this installer again and install the Configuration Manager at a later time.
12. Scroll down in the list of available components, and select the **Meridium APM Web Services** check box.

**IMPORTANT:** While additional options are available for selection in the tree on the **Select the features you want to install** screen, these options are not meant to be installed on the Meridium APM Web Services machine. *These instructions* assume that you want to deploy only the Meridium APM Web Services software and a supporting instance of the Meridium APM Application Server (with APM Framework applications). This installer is also used to install the additional components *on other machines*.

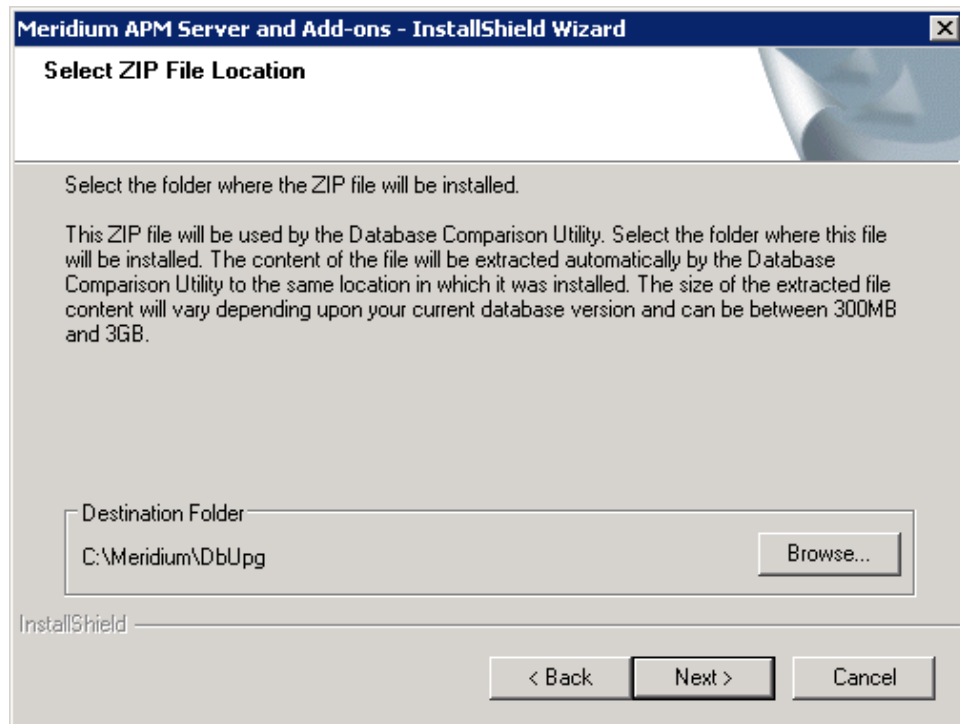
13. Click the **Next** button.

A message appears, indicating that the installer is checking your machine for the required prerequisites for the features that you want to install after the older version is uninstalled.

- If one or more prerequisites are missing on the machine, the **Meridium Installer** screen will appear and display a message that indicates which prerequisites still need to be installed on the machine before you can install the feature that is dependent on that prerequisite. This message also indicates what you can do to continue.

If you see this screen, you should read the message in detail, and either click the **Back** button to clear the selection whose prerequisites are missing, and then continue through the installation without installing that component, or close the installer, install the missing prerequisite, and then run the installer again later.

- If all the prerequisites for the selected components are installed on the machine, or you have selected components that do not require any prerequisites, the **Select ZIP File Location** screen appears.



The **Select ZIP File Location** screen lets you specify the location where you want the ZIP file of database content to be installed. This ZIP file is used by the Database Comparison Utility. By default, the ZIP file will be installed in the folder **C:\Meridium\DbUpg**. You can, however, select a different location.

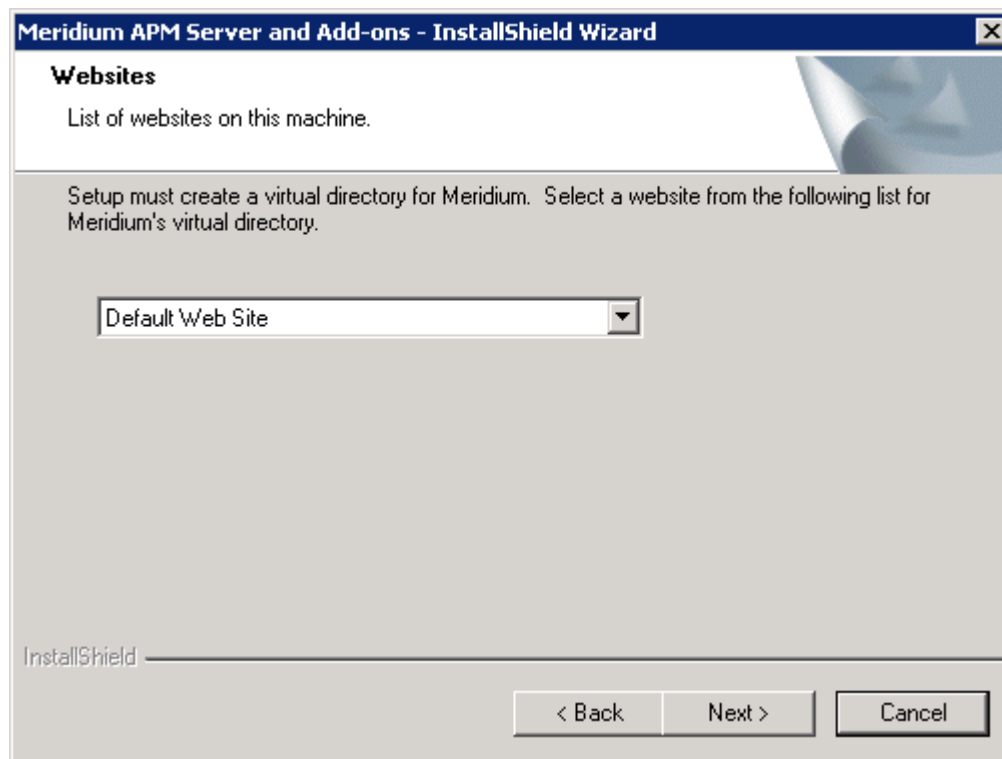
14. Read the information on this screen and note the estimated size of the extracted files from this ZIP file. You should use this information to determine where you want install the ZIP file.
15. If you want the ZIP file to be installed in the default location, accept the default setting.

-or-

If you want the ZIP file to be installed in a different location, click the **Browse** button, and navigate to the location where you want the ZIP file to be installed. The selected file path will appear in the **Destination Folder** section in place of the default file path.

16. Click the **Next** button.

The **Websites** screen appears.



When Meridium APM Web Services is installed, the installer creates a virtual directory within a website that is configured in the IIS Manager on the Meridium APM Application Server. If you have more than one website configured on the Meridium APM Application Server, this screen lets you choose which website to use.

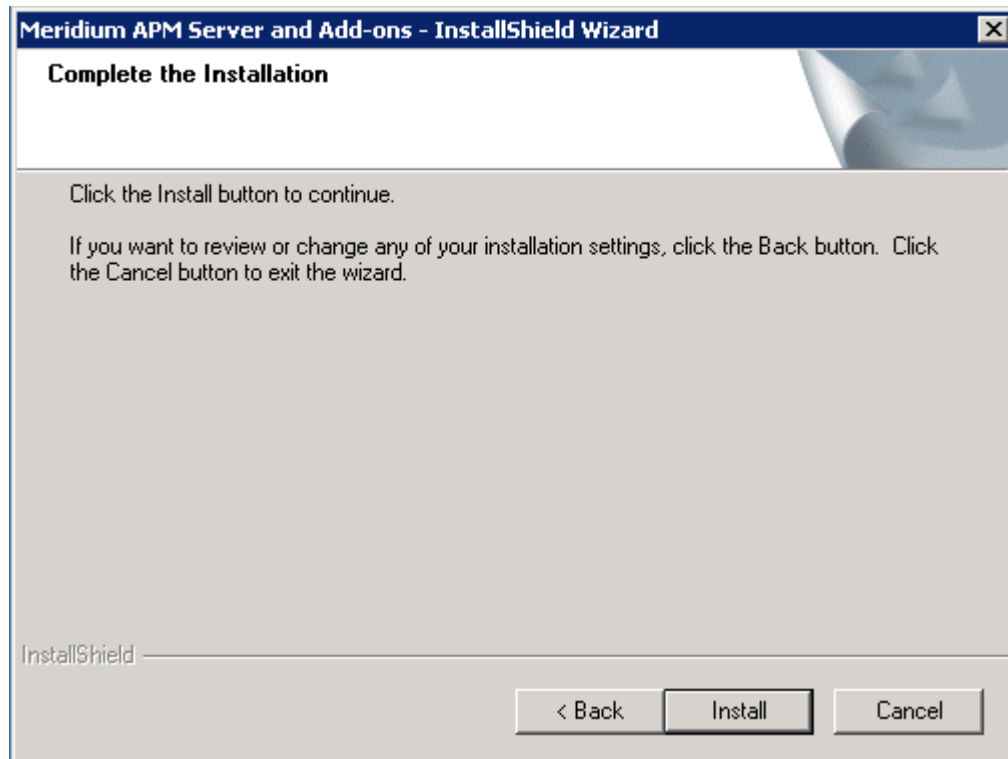
**Note:** Throughout this documentation, we assume that you have chosen to install Meridium APM Web Services under the website *Default Web Site*. If you install it under a different website, wherever our documentation refers to the *Default Web Site*, you will need to substitute the website that you selected during this step.

17. In the list of websites, select the website where you want to create a virtual directory for Meridium APM Web Services.

**Note:** If you have only one website configured, that website will be selected in the list automatically. In this case, you can simply accept the default selection.

18. Click the Next button.

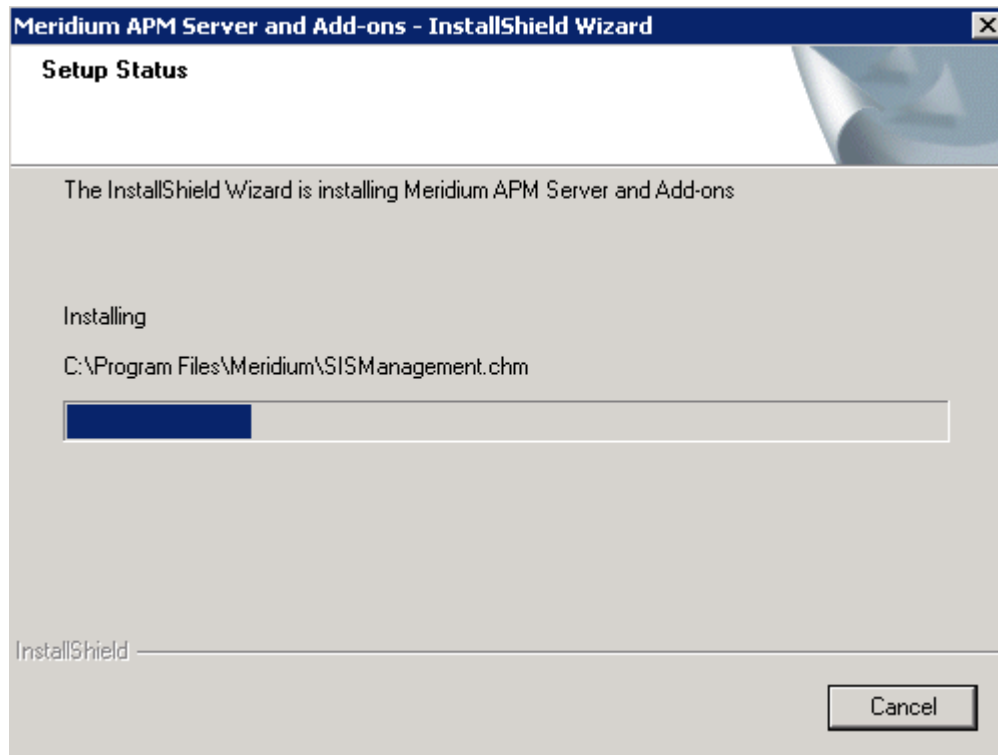
The **Complete the Installation** screen appears.



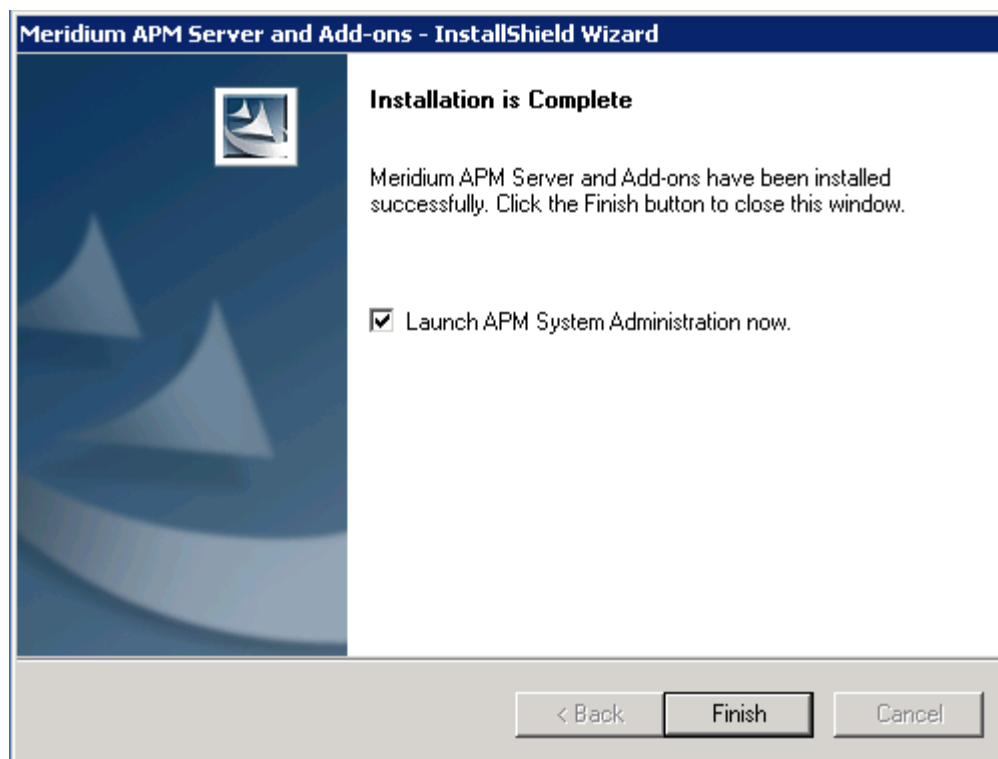
The **Complete the Installation** screen contains a message, indicating that if you want to modify any of the settings that you specified in the preceding screens in the installer, you can use the **Back** button to do so, or if you do not want to complete the installation, you can click **Cancel**. These instructions assume that you are ready to complete the upgrade process.

19. Click the **Install** button.

A message appears, indicating that the older version of Meridium APM is being removed. After the older version is removed, the **Setup Status** screen appears and displays a progress bar, indicating the progress of the installation process.



After the progress bar reaches the end, the Installation is Complete screen appears.





This screen contains a message, indicating that the software has been installed successfully. You can also select to optionally launch the APM System Administration tool when the installer window closes. By default, this option is set to *Yes*.

20. Clear the **Launch APM System Administration now** check box, and click the **Finish** button.

The Meridium APM Server and Add-ons installer closes.

## Modifying the File Meridium.Core.Scheduling.Service.exe.config

To modifying the file Meridium.Core.Scheduling.Service.exe.config:

1. On the Meridium APM Application Server, navigate to the folder <root>\Program Files\Meridium\Services.
2. Open the file Meridium.Core.Scheduling.Service.exe.config in an XML editor.
3. In the file, locate the text <setting name="SleepPeriod" serializeAs="String" <value>15</value>.
4. Between the <value> tags, replace the 15 with 2.
5. Save the file and close it.

## AMS Analytics Security

The following baseline Security Groups are provided for AMS Analytics users:

- **MI AMS Suite APM User:** Provides users with general access to AMS Analytics features and the ability to create and modify AMS Asset Recommendation records.
- **MI AMS Suite APM Power User:** Provides users with general access to AMS Analytics features and the ability to create AMS Asset Recommendation records, Equipment records, and Functional Location records, and modify AMS Asset Recommendation records.

- **MI AMS Suite APM Administrator:** Provides users with administrative access to AMS Analytics features, including the ability to create, modify, and delete AMS Asset Data Source records.

The baseline privileges for these Security Groups is summarized in the following table.

Family	MI AMS Suite APM User	MI AMS Suite APM Power User	MI AMS Suite APM Administrator
Tag	View	View, Update	View, Update, Insert, Delete
Tag Alert	View	View, Update	View, Update, Insert, Delete
Tag Data Source	View	View	View, Update, Insert, Delete
Tag Event	View	View, Update	View, Update, Insert, Delete
AMS Asset Recommendation	View, Update, Insert	View, Update, Insert	View, Update, Insert, Delete
Tag Folder	View	View, Update, Insert	View, Update, Insert, Delete
Equipment	View	View, Update, Insert	View, Update, Insert, Delete
Functional Location	View	View, Update, Insert	View, Update, Insert, Delete
Has Recommendations	View, Update, Insert	View, Update, Insert	View, Update, Insert, Delete
Equipment Has Equipment	View	View, Update, Insert	View, Update, Insert, Delete
Functional Location Has Equipment	View	View, Update, Insert	View, Update, Insert, Delete
Functional Location Has Functional Location	View	View, Update, Insert	View, Update, Insert, Delete
Has Tag	View	View, Update, Insert	View, Update, Insert, Delete

Family	MI AMS Suite APM User	MI AMS Suite APM Power User	MI AMS Suite APM Administrator
Has Tag Alert	View	View, Update, Insert	View, Update, Insert, Delete
Has Tag Data Source	View	View, Update, Insert	View, Update, Insert, Delete
Has Tag Event	View	View, Update, Insert	View, Update, Insert, Delete
Tag Folder Has Tag Folder	View	View, Update, Insert	View, Update, Insert, Delete

## Managing AMS Asset Data Source Records

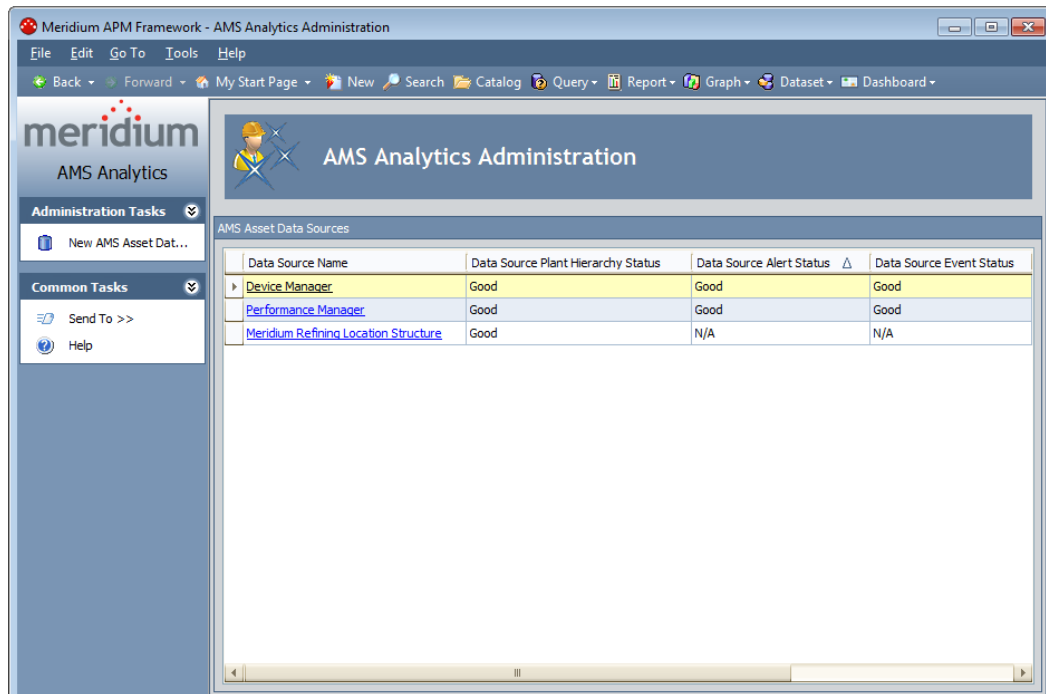
### Accessing the AMS Analytics Administration Page

The **AMS Analytics Administration** page contains options that let you create and modify AMS Asset Data Source records.

To access the **AMS Analytics Administration** page:

- On the **AMS Analytics Start Page**, click the **Specify Administration Settings** link.

The **AMS Analytics Administration** page appears.



## Overview of the AMS Analytics Administration Page

The AMS Analytics Administration page contains the following items:

- **AMS Asset Data Sources workspace:** Contains a grid that displays a list of AMS Asset Data Source records that have been configured for use with AMS Analytics. Each row in the grid represents one AMS Asset Data Source record. For each record, the following information appears:
  - **Data Source Name:** The value that is stored in the Name field in the AMS Asset Data Source record. The Data Source Name is displayed as a hyperlink, which you can click to open the AMS Asset Data Source record.
  - **Data Source Plant Hierarchy Status:** The value that is stored in the AMS Asset Status field in the AMS Asset Data Source record.
  - **Data Source Alert Status:** The value that is stored in the AMS Asset Alert Status field in the AMS Asset Data Source record.
  - **Data Source Event Status:** The value that is stored in the AMS Asset Event Status field in the AMS Asset Data Source record.

- **Test Data Source Connection:** Contains the **Test Connection** link, which you can click to test the connection between the Meridium APM database and the AMS Analytics data source. When you click this link, a dialog box will appear, indicating whether the connection is successful or unsuccessful.
- **Data Source Enabled:** The value that is stored in the **Enabled** field in the AMS Asset Data Source record.

You can use standard grid customization options to customize the appearance of the grid.

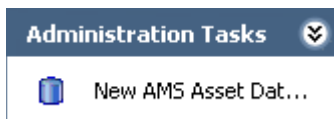
- **Task menus:** Contain options that you can use to perform administrative tasks. The **AMS Analytics Administration** page contains two task menus: **Administration Tasks** and **Common Tasks**.

Using the **AMS Analytics Administration** page, you can:

- Create AMS Asset Data Source records.
- Modify AMS Asset Data Source records.
- Disable connections to AMS Analytics data sources.
- Delete AMS Asset Data Source records.

## Task Menus

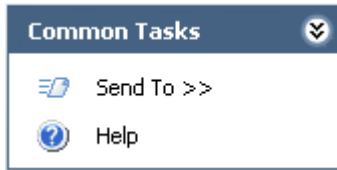
### Administration Tasks



The **Administration Tasks** menu on the **AMS Analytics Administration** page contains the following link:

- **New AMS Asset Data Source:** Displays a new AMS Asset Data Source record, where you can define the connection information for the AMS Analytics data source whose data you want to transfer to the Meridium APM database.

## Common Tasks



The **Common Tasks** menu on the **AMS Analytics Administration** page contains the following links:

- **Send To:** Displays a submenu with options that let you send a link to the current page to your desktop (create shortcut), an email recipient, or a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **AMS Analytics Administration** page.

## Working with AMS Asset Data Source Records

### Creating AMS Asset Data Source Records

#### About Creating AMS Asset Data Source Records

AMS Asset Data Source records store connection information that the Meridium APM system uses to pull data and display it in the tree. Using an AMS Asset Data Source record, you can display data in the tree that originates from the following locations:

- AMS Analytics data sources (e.g., AMS Device Manager)
- CMMS data source (e.g., SAP)

When you create an AMS Asset Data Source record for an *AMS Analytics* data source, you will establish a connection between the Meridium APM Web Service and the Web Service for the specified data source. In this way, the Meridium APM system can pull data from the data source into the Meridium APM database and display it in the tree.

When you create an AMS Asset Data Source record for a *CMMS* data source, you will specify only that the data you want to *view* in the tree comes from a CMMS data source. In this way, you are telling the Meridium APM system that you

want to view the CMMS data that already exists in the Meridium APM database because it has already been transferred previously from a CMMS system via an alternate method (e.g., SAP Interfaces).

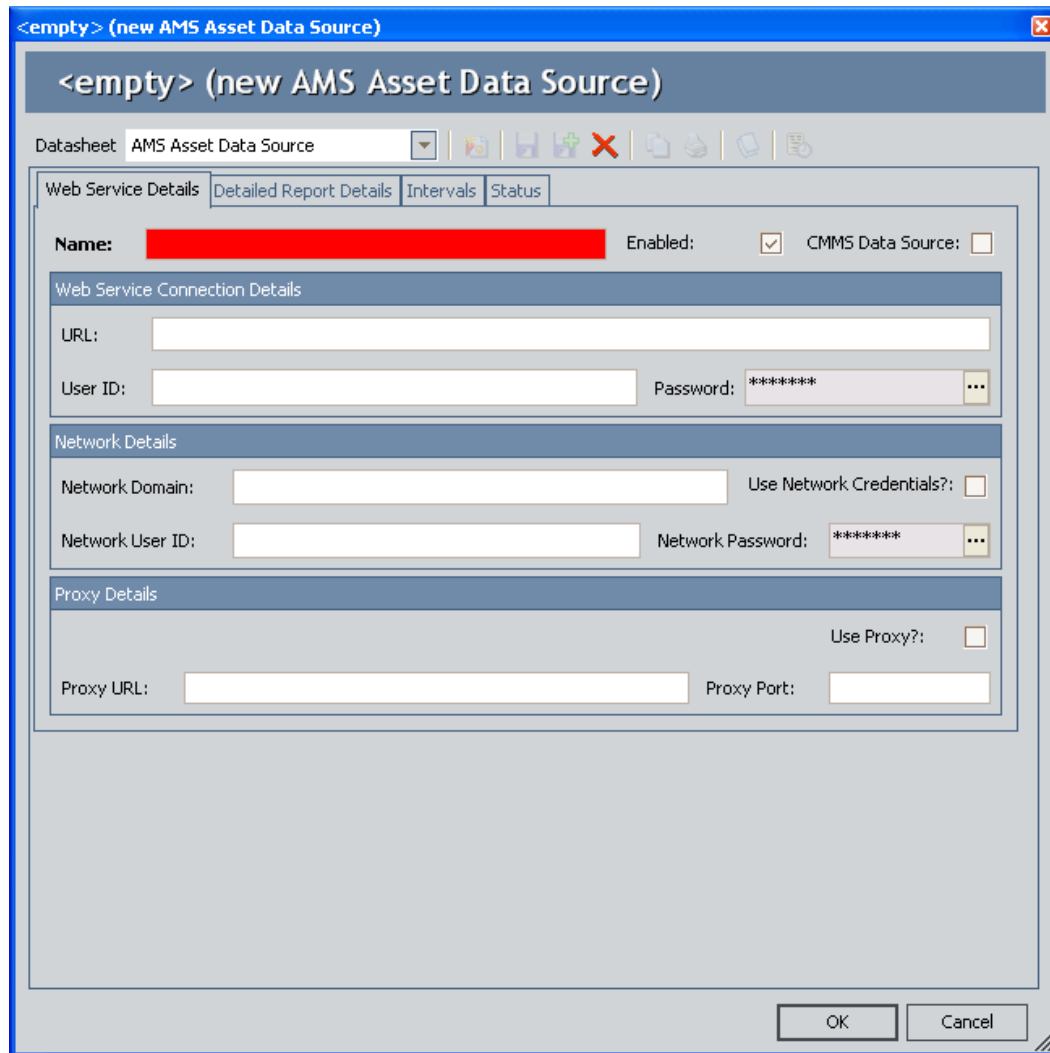
### Creating AMS Asset Data Source Records for AMS Analytics Data Sources

The following instructions provide details on creating an AMS Asset Data Source record to pull data that exists in an AMS Analytics data source into the tree. If desired, you can also create AMS Asset Data Source records that allow you to view data from a CMMS data source in the tree.

**To create an AMS Asset Data Source record for an AMS Analytics data source:**

1. Access the **AMS Analytics Administration** page.
2. On the **Administration Tasks** menu, click the **New AMS Asset Data Source** link.

The <empty> (**new AMS Asset Data Source**) dialog box appears, displaying a new AMS Asset Data Source record.



3. Complete the fields on the datasheet as desired. The Name field is required.
4. Click **OK**.

The dialog box closes and the AMS Asset Data Source record appears in a new row in the grid. At this point, you should test the data source connection.

### Creating AMS Asset Data Source Records for CMMS Data Sources

The following instructions provide details on creating AMS Asset Data Source records that allow you to view data from a CMMS data source in the tree. These instructions assume that you have already transferred data from a CMMS system to the Meridium APM database.



If desired, you can also create AMS Asset Data Source records that pull data from AMS Analytics data sources and display it in the tree.

To create an AMS Asset Data Source record for a CMMS data source:

1. Access the **AMS Analytics Administration** page.
2. On the **Administration Tasks** menu, click the **New AMS Asset Data Source** link.

The **<empty> (new AMS Asset Data Source)** dialog box appears, displaying a new AMS Asset Data Source record.

**<empty> (new AMS Asset Data Source)**

Datasheet: AMS Asset Data Source

Web Service Details | Detailed Report Details | Intervals | Status

**Name:** [Redacted] Enabled:  CMMS Data Source:

Web Service Connection Details

URL: [Empty]

User ID: [Empty] Password: [Masked]

Network Details

Network Domain: [Empty] Use Network Credentials?:

Network User ID: [Empty] Network Password: [Masked]

Proxy Details

Proxy URL: [Empty] Proxy Port: [Empty] Use Proxy?:

OK Cancel

3. In the Name field, specify a name for the CMMS hierarchy that you want to view in the tree. This field is required.

4. Select the **CMMS Data Source** check box.

All other fields are disabled.

5. Click **OK**.

The dialog box closes and the AMS Asset Data Source record appears in a new row in the grid. At this point, you should test the data source connection.

### Modifying AMS Asset Data Source Records

The following instructions provide details on opening and modifying AMS Asset Data Source records.

To modify AMS Asset Data Source records:

1. On the **AMS Analytics Administration** page, locate the row containing the AMS Asset Data Source record you want to modify.
2. In the **Data Source Name** cell, click the hyperlinked data source name.

The <data source name> (**AMS Asset Data Source**) dialog box appears, displaying the contents of the selected AMS Asset Data Source record.

3. Modify the fields as desired.
4. Click **OK**.

The <datasource name> (**AMS Asset Data Source**) dialog box closes, and your changes are saved. At this point, you should test the data source connection.

### Deleting AMS Asset Data Source Records

If you no longer want to use the data that exists in an AMS Analytics data source, you can delete its AMS Asset Data Source record. When you do so, you are deleting the connection between the Meridium APM Web Service and the Web Service for that data source. Note, however, that the AMS Asset and AMS Asset Folder records that were previously transferred to the Meridium APM database from that data source will still exist in the Meridium APM database. If you no longer want to view the data that was transferred from that data source

to the Meridium APM database, you can remove that data from the Meridium APM database by executing the *AMS Asset datasource Cleanup* strategy rule. When you execute this strategy rule, you are deleting from the Meridium APM database records that were created based on data that was transferred from the AMS Analytics data source for which no AMS Analytics Data Source record currently exists.

**Note:** When you execute the *AMS Asset datasource Cleanup* strategy rule, you will also delete from the Meridium APM database records that are not linked to an AMS Asset Folder record. In other words, if you rename an AMS Asset Folder record in an AMS Analytics data source, you can remove the records that were linked to the AMS Asset Folder record with the previous name.

To delete an AMS Asset Data Source record:

1. On the **AMS Analytics Administration** page, locate the row containing the AMS Asset Data Source record that you want to delete.
2. In the **Data Source Name** cell, click the hyperlinked data source name.

The <data source name> (**AMS Asset Data Source**) dialog box appears, displaying the selected AMS Asset Data Source record.

3. At the top of the datasheet, click the **Delete** button. 

A message appears, asking if you really want to delete the record.

4. Click the **Yes** button.

The datasheet is hidden, and a message appears, indicating that the record has been deleted.

5. Click **OK**.

The dialog box closes, revealing the **AMS Analytics Administration** page, and the selected AMS Asset Data Source record no longer appears in the grid.

## Testing Data Source Connections

To ensure that the Meridium APM system can successfully access the data source specified in the AMS Asset Data Source record, you can test the connection to the data source.

To test the data source connection:

1. On the **AMS Analytics Administration** page, locate the row containing the AMS Asset Data Source record whose connection you want to test.
2. In the **Test Data Source Connection** cell, click the **Test Connection** link.

A message appears, indicating the status of the data source connection:

- If the connection is successful, the message indicates that the connection to the data source is successful and provides details on the data source to which you have provided connection information.
  - If the connection is unsuccessful, the message indicates that the connection is not valid and provides details on the values that are invalid. If the connection information is invalid, you will need to modify the values that the Meridium APM system has listed as being invalid and test the connection again.
3. Click **OK**.

The message closes, revealing the **AMS Analytics Administration** page.

## Disabling Data Source Connections

Disabling a data source connection prevents the Meridium APM system from accessing data in the associated AMS Analytics data source and transferring it to Meridium APM. Disabling a data source connection does not disable the fields on the datasheet or the record itself. After you disable the data source connection in an AMS Asset Data Source record, you can still view and modify the contents of the record. When a data source connection is disabled for an AMS Asset Data Source record, until the connection is enabled again:

- That data source will not appear in the tree.

- Data will not be collected from that data source.
- That data source will not be included in any baseline reports, graphs, or queries in AMS Analytics.

#### To disable an AMS Analytics data source connection:

1. On the **AMS Analytics Administration** page, locate the row containing the AMS Asset Data Source record whose data source connection you want to disable.
2. In the **Data Source Enabled** cell, clear the **Data Source Enabled** check box.

The AMS Analytics data source connection is disabled. The AMS Analytics data source will no longer appear in the tree, and data will no longer be collected from the data source specified in the record.

**Note:** To enable a data source connection, select the **Data Source Enabled** check box.

## Scheduling the Data Collection Process

In AMS Analytics, you can create an AMS Asset Data Source record that contains data source connection information that allows Meridium APM to access the specified data source, retrieve data, and transfer it to the Meridium APM database. Then, you can use the Schedule Manager to create a scheduled item that will trigger the Meridium APM system to connect to the data sources specified in the AMS Asset Data Source records and transfer that data to the Meridium APM database.

Use the following guidelines for creating a scheduled item that will transfer data from the specified data source to Meridium APM:

- On the **Choose a Meridium APM Assembly** dialog box, select the file **Meridium.AssetPortal.dll**.
- On the **Task** tab, define a schedule that will execute the scheduled item on a recurring basis. The frequency by which you want to execute the scheduled item is up to you.

- On the **User** tab, specify a user who has at least View and Update privileges on the AMS Asset Data Source family and View, Update, and Insert privileges on the following families:
  - AMS Asset
  - AMS Asset Folder
  - AMS Asset Alert
  - AMS Asset Event
  - Has Tag
  - Has Tag Folder
  - Has Tag Data Source
  - Has Tag Alert
  - Has Tag Event

## Linking AMS Asset Records to Existing Equipment or Functional Records

Linking AMS Asset Records to their associated Equipment or Functional Location records establishes the relationship that is necessary for creating AMS Asset Recommendation records and generating Notifications in SAP. Before you can generate SAP Notifications from an AMS Asset Recommendation record, you will need to link the AMS Asset records to the associated Equipment or Functional Location records that exist in the Meridium APM database.

**To link an AMS Asset record to a Equipment or Functional Location record:**

1. In the Record Manager, open the desired AMS Asset record.

The AMS Asset record appears as the root record in the record hierarchy.

2. Change the filtering option in the record hierarchy to display all possible families.

3. Right-click the Equipment or Functional Location family name, depending upon the family whose record you want to link to the AMS Asset record, and click **Find an existing <Family record> to link to the <root record>**.

The **Find an existing Equipment to link to <Record ID>** window appears, where <Record ID> is the Record ID of the AMS Asset record.

4. Provide the desired search criteria, and then click the **Find Now** button.

Your search results appear in a list below the search form.

5. Select the desired Equipment or Functional Location record, and click the **Link to Selected Record** button.

The search closes, revealing the Record Manager, and the Equipment or Functional Location record that you selected from the search results is linked to the root AMS Asset record.

## About Defining the Criticality Value in AMS Asset Records

The value in the Criticality field in AMS Asset records indicates the importance of the health of the piece of equipment or location that is associated with the AMS Asset record. This field is unique to Meridium APM. A corresponding field does not exist in any AMS Analytics data source. Therefore, when data is transferred from an AMS Analytics data source to Meridium APM and AMS Asset records are created, this field will be empty.

The Criticality field in AMS Asset records is disabled and populated automatically based upon the risk assessment for the Equipment or Functional Location to which the AMS Asset records are linked. Because Asset Criticality Analysis (ACA) is the only feature that allows you to define a risk assessment for an Equipment or Functional Location record, the AMS Analytics implementation assumes that you are also using ACA and that this field is populated automatically.

In addition, the values in the Criticality field of AMS Asset records will be used in combination with values in the Health Index field to calculate the composite health index value for AMS Asset Folder records. After a value exists in the Criticality field of AMS Asset records, when data is collected from an AMS

Analytics data source, the Health Index field in AMS Asset Folder records will be populated with a value.

## Configuring the Product to Use Oracle-specific Queries

The Event Trend Daily and Event Trend Monthly summary reports are built using a number of queries, where some of those queries contain syntax that is database-specific and can be interpreted only on Oracle or SQL Server databases. If you are using a SQL Server database, the product is configured by default to use the SQL Server versions of these queries, so no manual steps are required. If, however, you are using an Oracle database, you will need to configure the product manually to use the Oracle versions of these queries.

Specifically, the following queries are delivered with a SQL Server and Oracle version, where the Oracle version contains the text *\_Oracle* in the name.

SQL Server Version	Oracle Version
Event Trend Daily	Event Trend Daily_Oracle
Event Trend Monthly	Event Trend Monthly_Oracle
Past 10 Days List	Past 10 Days List_Oracle
Past 12 Months List	Past 12 Months List_Oracle

If you are using an Oracle database, to configure the product to use the Oracle versions of the queries, you will need to complete the following steps:

1. Rename the SQL Server versions of the queries. For example, you might want to rename the Event Trend Daily query *Event Trend Daily\_SQL*.
2. In the Oracle versions of the queries, remove the text *\_Oracle* from the name.



# User Instructions

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## Navigating AMS Analytics

### About Navigating AMS Analytics

The AMS Analytics module leverages standard Meridium APM functionality to provide you with access to data that was transferred from an AMS Analytics data source to the Meridium APM database. The documentation in this section of the Help explains how to use the following specific features in AMS Analytics:


- The tree
- The **Navigation** menu
- The **Associated Pages** menu


This documentation assumes that you are familiar with standard Meridium APM functionality and the components of the AMS Suite.

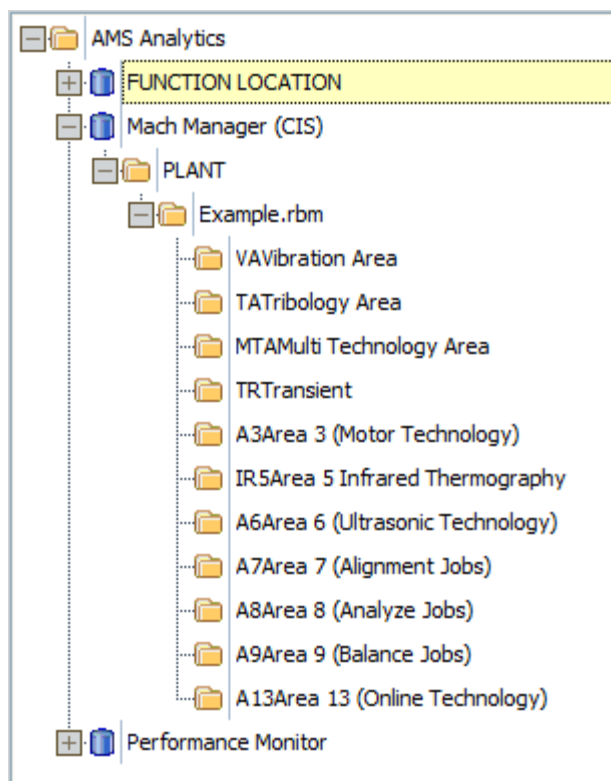
### The Tree

#### About the Tree

The tree in AMS Analytics provides a structured view of the AMS Asset Folder records that were transferred to the Meridium APM database from AMS Analytics data sources. AMS Asset Folder records are represented by *nodes* and make up all levels of the tree.

A folder labeled *AMS Analytics* appears as the root node of the tree. Below the root node, a node appears for each AMS Analytics data source, as represented by a data source icon.  The data source names come from the Name field in the associated AMS Asset Data Source record. After data has been collected from that AMS Analytics data source, the tree displays the AMS Asset Folder records below the root node. The AMS Asset Folder *nodes* that appear in the

tree correspond to the AMS Asset Folder records that exist in the Meridium APM database and are represented by a folder icon.  The following image shows an example of the tree created from the AMS Machinery Manager data source.



**Note:** One AMS Analytics data source node will exist in the tree for each *enabled* AMS Asset Data Source record that exists in the Meridium APM database.

When you select an AMS Asset Folder node in the tree, information about the AMS Asset, AMS Asset Alert, and AMS Asset Event records that are linked to the associated AMS Asset Folder record appears in a Catalog item that is displayed in the workspace to the right of the tree. The Catalog item that is used to display the information will depend on the page where you are viewing the tree.

The following table provides information on where the tree appears in the AMS Analytics module and the Catalog item that appears in the workspace on that page.

The workspace on this page...	Displays this Catalog item...
AMS Analytics - Assets	Assets query.
AMS Analytics - Alerts	Active Alerts query.
AMS Analytics - Events	Events query.
AMS Analytics - Dashboard	Multiple graphs that are stored in the Catalog folder \\Public\Meridium APM\Modules\AMS Asset Portal\Dashboard.
AMS Analytics - <ID>	A single graph that you open via the <b>AMS Analytics - Dashboard</b> page.

## Navigating the Tree

You can select a node in the tree to view information about the records that are linked to the record represented by that node. When you select a node, information about the records that are linked to the associated record is displayed in a Catalog item that appears in the workspace to the right of the tree.

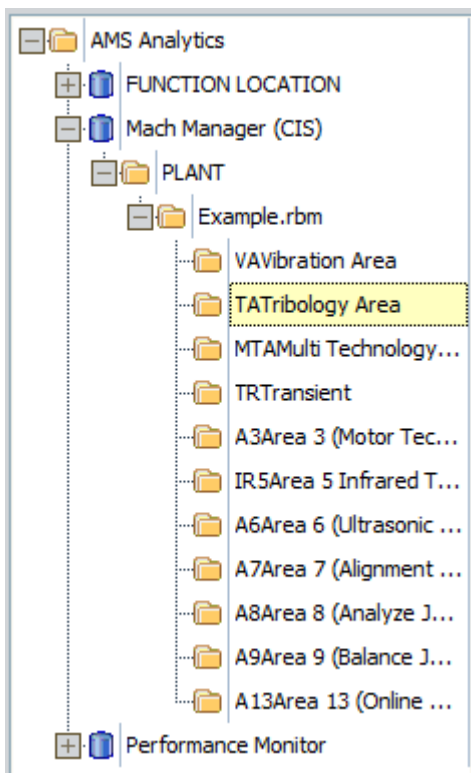
A plus sign (+) to the left of a node in the tree indicates that you can expand that level of the tree. A minus sign (-) indicates that a given level of the tree is fully expanded. The absence of a plus or minus sign means that you have reached the lowest level of the tree. You can expand a node by clicking the plus sign or by double-clicking the name of the node. Additionally, you can use the options on the shortcut menu to expand and collapse nodes in the tree.

After you have expanded nodes in the tree, if you navigate away from the page and back again using the **Back** button, your previous selection in the tree will be retained.

When you navigate to a node in the tree and select it, a Catalog item will be executed to display information about the records that are linked to:

- The selected node.
- and-
- Every node that appears *below* that node in the tree.

For example, on the **AMS Analytics - Assets** page, assume the tree is configured as shown in the following image.



- If you select the root **AMS Analytics** node, the workspace to the right will display query results for **ALL** the AMS Asset records that exist in *any* AMS Analytics data source.
- If you select a data source node, the workspace to the right will display query results for *all* the AMS Asset records that exist in that AMS Analytics data source. If you select the node **VAVibration Area**, which appears below the node **Example.rbm**, the query results will display all the AMS Asset records that are linked to **VAVibration Area** only. The following image shows the AMS Asset records that are linked to the AMS Asset Folder record VAVibration Area. The record count below the query results shows that the VaVibration Area record is linked to 16 AMS Asset records.

AMS Analytics - Assets

AMS Analytics

- FUNCTION LOCATION
- Mach Manager (CIS)
- PLANT
  - Example.rbm
    - VAVibration Area
    - TATribology Area
    - MTAMulti Technology Area
    - TRTransient
    - A3Area 3 (Motor Technology)
    - IR5Area 5 Infrared Thermography
    - A6Area 6 (Ultrasonic Technology)
    - A7Area 7 (Alignment Jobs)
    - A8Area 8 (Analyze Jobs)
    - A9Area 9 (Balance Jobs)
    - A13Area 13 (Online Technology)
- Performance Monitor

Name	Health	Criticality	Type	Model	Manufacturer	Descrip
Machine 1	63	2	90 KW			Loosen
Machine 10	N/A		Reduktor			Broken
Machine 11	N/A		pomp			Misalign
Machine 12	54	3	100 KW			Loosen
Machine 13	N/A		HCCHFODTFO V1 DD			Oilwhirl
Machine 14	N/A		DROOGCYLINDER			Crack in
Machine 15	48	4	VENTILATOR			Rolelem
Machine 16	N/A					Rotor k
Machine 2	100	5	Screw Compressor			Outer F
Machine 3	N/A		Reduktor			Outer a
Machine 4	N/A					Inner R
Machine 5	N/A		Reduktor			Bearing
Machine 6	N/A		Stoomturbine			Rub at
Machine 7	44	6	VENTILATOR			Belt pro
Machine 8	N/A		HC6OHF1DLF1 E2JUJ			Softfoc
Machine 9	N/A		90 KW			Rotorb

Page: 1 of 1 16 records found    Page Size: 100

- If you were to select the node *Example.rbm*, however, the query results would display all AMS Asset records that are linked to *any* of the records that appear in the level of the tree below that node (which includes *VAVibration Area*). The following image shows the AMS Asset records that are linked to the AMS Asset Folder records that appear below the AMS Asset Folder record *Example.rbm*. The record count below the query results shows that there are 71 AMS Asset records linked to these AMS Asset Folder records.

Name	Health	Criticality	Type	Model	Manufacturer	Desc
3ph Brkr 7	100					Breaker
AL_056	N/A		Air System			Plant
C1	N/A					Comp
C2	N/A					Comp
CrownRoll	100					Strain
D7DSL	9					D7 DSL
EQUIP#11	49					Equip
Fan RunOut	N/A					Fan f
Furn 742	100					Furn
Machine 1	63	2	90 KW			Loosi
Machine 1	0		REDUCTEUR			Mixer
Machine 10	N/A		Reduktor			Brok
Machine 11	N/A		pomp			Misal
Machine 12	54	3	100 KW			Loosi
Machine 13	N/A		HCCHFODTFO V1 DD			Oilw
Machine 14	N/A		DROOGCYLINDER			Crad
Machine 15	48	4	VENTILATOR			Rolel
Machine 16	N/A					Roto

Page: 1 of 1 71 records found    Page Size: 100

## Shortcut Menu in the Tree

When you right-click a node in the tree, a shortcut menu appears and contains the following options:

- **Expand <Node name>**: Expands the level of the tree directly below the selected node.
- **Expand <Node name> and all child nodes**: Expands every level of the tree below the selected node.
- **Collapse <Node name>**: Collapses all levels of the tree below the selected node.

## Viewing Information from a Different Data Source

You can view information that was collected from an AMS Analytics data source other than the one that is currently selected in the tree.

To view information from a different AMS Analytics data source:

- In the tree, navigate to the desired AMS Analytics data source.

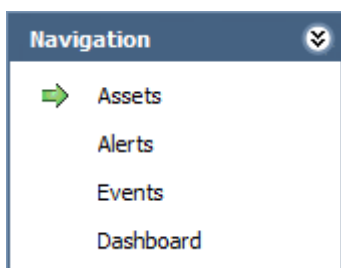
The workspace to the right of the tree refreshes and displays data for the selected AMS Analytics data source.

## The Navigation Menu

The Navigation menu appears on the following pages in AMS Analytics:

- AMS Analytics - Assets
- AMS Analytics - Active Alerts
- AMS Analytics - Events
- AMS Analytics - Dashboard

The following image shows what the Navigation menu looks like on the AMS Analytics - Assets page.

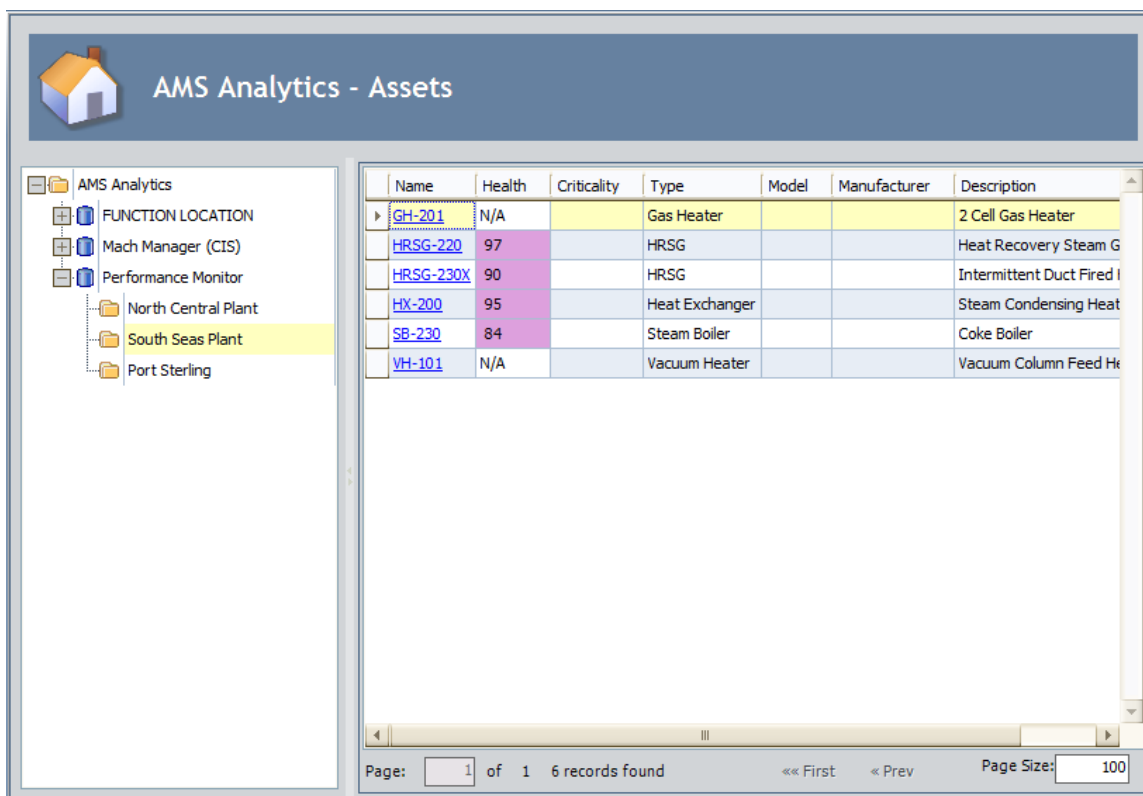


The Navigation menu contains the following links:

- **Assets:** Displays the AMS Analytics - Assets page.
- **Alerts:** Displays the AMS Analytics - Active Alerts page.
- **Events:** Displays the AMS Analytics - Events page.
- **Dashboard:** Displays the AMS Analytics - Dashboard page.

You can click any link on the **Navigation** menu to access the corresponding page. In addition, to refresh the results that appear on the current page, you can click the link representing that page. The **Navigation** menu contains a green arrow next to the link representing the page that you are currently viewing. When you click a link on the **Navigation** menu, on the page that appears, the tree will be expanded to the same node that is displayed on the current page. All nodes that are not directly related to the currently selected node, however, will be collapsed automatically when the new page appears.

For example, suppose the tree on the **AMS Analytics - Assets** page is expanded as in the following image, where the *South Seas Plant* node is selected.



The screenshot displays the 'AMS Analytics - Assets' interface. On the left, a navigation tree shows the following structure:

- AMS Analytics
  - FUNCTION LOCATION
  - Mach Manager (CIS)
  - Performance Monitor
    - North Central Plant
    - South Seas Plant** (selected)
    - Port Sterling

The main content area shows a table of assets:

Name	Health	Criticality	Type	Model	Manufacturer	Description
<a href="#">GH-201</a>	N/A		Gas Heater			2 Cell Gas Heater
<a href="#">HRSG-220</a>	97		HRSG			Heat Recovery Steam G
<a href="#">HRSG-230X</a>	90		HRSG			Intermittent Duct Fired I
<a href="#">HX-200</a>	95		Heat Exchanger			Steam Condensing Heat
<a href="#">SB-230</a>	84		Steam Boiler			Coke Boiler
<a href="#">VH-101</a>	N/A		Vacuum Heater			Vacuum Column Feed H

At the bottom of the interface, the status bar indicates: Page: 1 of 1 6 records found. Navigation controls include '<< First', '< Prev', and 'Page Size: 100'.

If you were to click the **Alerts** link on the **Navigation** menu, the **AMS Analytics - Active Alerts** page would appear, and the tree would be expanded as in the following image, where the *South Seas Plant* node is still selected.



The screenshot displays the Meridium AMS Analytics - Active Alerts interface. On the left, there is a sidebar with the following sections:

- Common Tasks:** Print, Send To >>, Help
- Other Tasks:** Export to File, Export to Dataset
- Navigation:** Assets, Alerts (selected), Events, Dashboard
- Associated Pages:** (empty)

The main area shows a tree view of the AMS Analytics structure:

- AMS Analytics
  - FUNCTION LOCATION
  - Mach Manager (CIS)
  - Performance Monitor
    - North Central Pl...
    - South Seas Plant
    - Port Sterling

The main table displays the following data:

Date/Time	Name	Criticality	Severity	Description	Model
2008-03-30 18:59:00	HX-200		ADVISORY	Previously operated outside defined limits.	
2008-03-30 18:59:00	HRSG-230X		ADVISORY	Previously operated outside defined limits.	
2008-03-29 18:59:00	SB-230		ADVISORY	Previously operated outside defined limits.	
2008-03-21 10:59:00	VH-101		MAINTENANCE	Currently operating outside defined limits.	
2008-03-21 07:59:00	GH-201		MAINTENANCE	Currently operating outside defined limits.	

At the bottom of the table, there is a pagination control showing: Page: 1 of 1 5 records found. Navigation buttons include « First, « Previous, Next, and Page Size: 100.

## The Associated Pages Menu in AMS Analytics

The Associated Pages menu appears throughout the AMS Analytics module on pages where the tree appears. The Associated Pages menu displays Associated Pages that have been configured for the AMS Asset Folder and AMS Asset Data Source families, depending upon which node is selected in the tree. If no Associated Pages have been configured for either entity family, the Associated Pages menu will be empty.

## The Associated Pages Menu in the Record Manager

The Associated Pages menu contains the following links when you are viewing an AMS Asset Event or AMS Asset Alert record:

- **Generate Work Notification:** Displays a new AMS Asset Recommendation record. This link appears only when you are viewing an AMS Asset Event or AMS Asset Alert record.
- **Detail Report:** Displays the Detailed report that corresponds to the family whose record is currently selected in the tree.

The Associated Pages menu contains the following links when you are viewing an AMS Asset record:

- **Detail Report:** Displays the Detailed report that corresponds to the AMS Asset family.
- **Alert Trend:** Displays a submenu with the following options:
  - **by Severity:** Displays the Alert Trend by Asset graph.
  - **by Description:** Displays the Alert Trend by Asset by Event Description graph.

In addition to the links described here, the **Associated Pages** menu will display links that have been configured manually for the family of the currently selected record.

## AMS Analytics - Assets Page

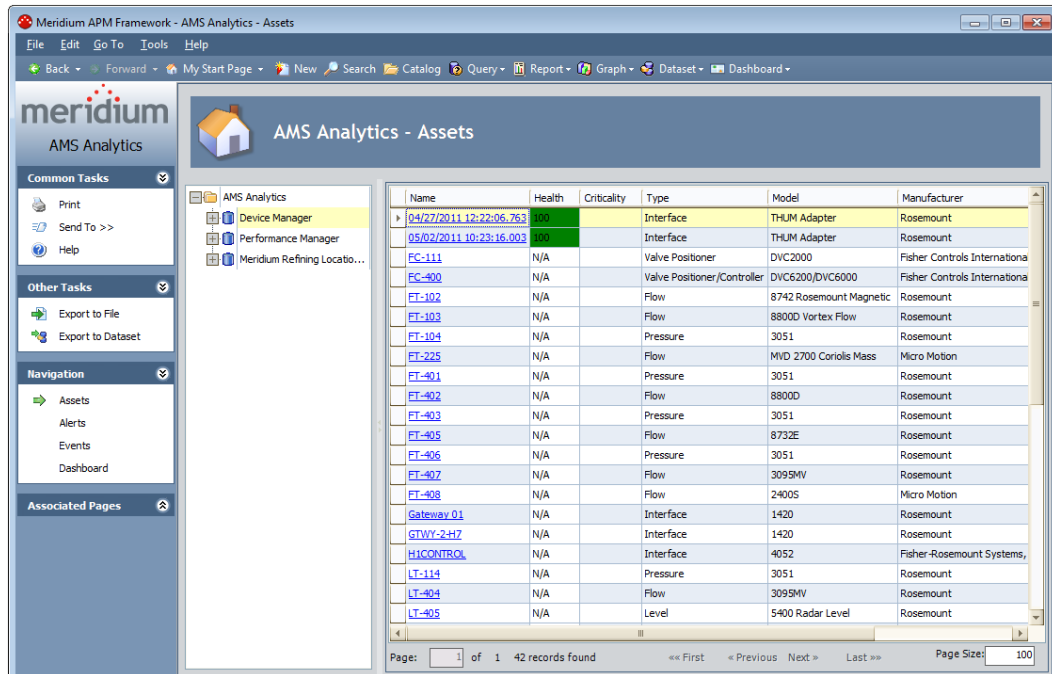
### Accessing the AMS Analytics - Assets Page

The **AMS Analytics - Assets** page lets you view a summary of the information stored in AMS Asset records. You can use the **AMS Analytics - Assets** page to view the AMS Asset records that are linked to an AMS Asset Folder record.

To access the **AMS Analytics - Assets** page:

- On the **AMS Analytics Start Page**, click the **View AMS Assets** link.

The **AMS Analytics - Assets** page appears.



## Aspects of the AMS Analytics - Assets Page

The AMS Analytics - Assets page contains the following items:

- **AMS Analytics - <Caption> text:** The text *AMS Analytics - <Caption>* appears at the top of the page, where <Caption> is the Catalog caption of the Assets query.
- **The left pane:** Contains a tree containing nodes representing records.
- **Query results section:** Displays the results of the Assets query based upon your selection in the tree. You can click the hyperlinked Record ID of an AMS Asset record to view the contents of the record in the Record Manager.

Below the Asset query results are options that you can use to navigate the query results.

- **Task menu pane:** Contains task menus that you can use to perform tasks related to the AMS Analytics - Assets page. The following task menus appear on the AMS Analytics - Assets page:
  - Common Tasks menu

- **Other Tasks** menu
- **Navigation** menu
- **Associated Pages** menu

You can resize the left pane and the query results section by clicking the divider and dragging it to the desired width. As one section grows narrower, the other section grows wider.

## About the Assets Query

The Assets query is stored in the Catalog folder `\\Public\Meridium APM\Modules\AMS Asset Portal\Queries` and appears in the query results section on the **AMS Analytics - Assets** page. The Assets query results contains a summary of all the AMS Asset records that are linked to a given AMS Asset Folder record in an AMS Analytics data source. The results that appear are determined by the node that is currently selected in the tree. Each row in the query results represents one AMS Asset record.

You can use the Assets query to:

- View a list of all the AMS Asset records that exist in a given AMS Analytics data source.
- Determine the health of the equipment and locations for which the AMS Asset records exist.
- Open an AMS Asset record and view its contents in the Record Manager.

For each AMS Asset record that appears in the query results, the following information is displayed:

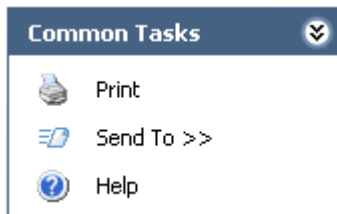
- Name
- Health Index
- Criticality
- Type

- Model
- Manufacturer
- Description

You can use standard grid functionality to modify the appearance of the query results.

## Task Menus

### Common Tasks



The **Common Tasks** menu on the **AMS Analytics - Assets** page contains the following links:

- **Print:** Displays the **Preview** window, where you can view the query results as they will appear after you print them, modify the layout of the query results, and then print the results.
- **Send To:** Displays a submenu with options that let you send a link to the current page to your desktop (create shortcut), an email recipient, or a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **AMS Analytics - Assets** page.

### Other Tasks



The **Other Tasks** menu on the **AMS Analytics - Assets** page contains the following links:

- **Export to File:** Displays the **Query Results Export Wizard**, which you can use to export the query results to a Microsoft Excel, text, or XML file.
- **Export to Dataset:** Displays the **Save dataset** dialog box, where you can save the query results as a dataset to a folder in the Catalog.

## AMS Analytics - Active Alerts Page

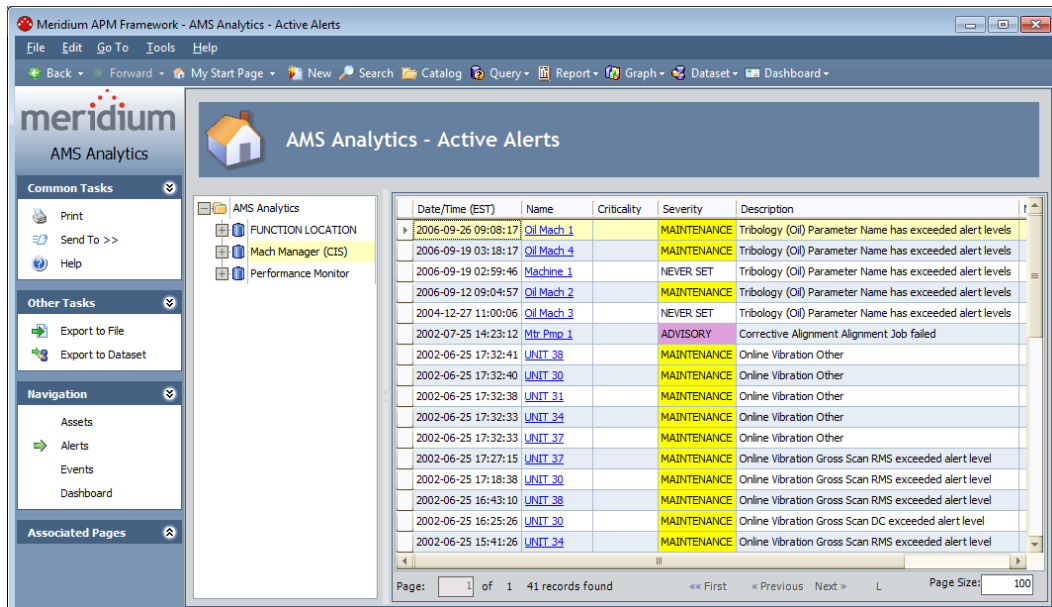
### Accessing the AMS Analytics - Active Alerts Page

The **AMS Analytics - Active Alerts** page lets you view a summary of the information stored in the **AMS Asset Alert** records that exist for the **AMS Asset** records in the Meridium APM database. You can use the **AMS Analytics - Active Alerts** page to determine the types of alerts that have been created for an **AMS Asset** record that is linked to an **AMS Asset Folder** record.

To access the **AMS Analytics - Active Alerts** page:

- On the **AMS Analytics Start Page**, click the **View Asset Alerts** link.

The **AMS Analytics - Active Alerts** page appears.



## Aspects of the AMS Analytics - Active Alerts Page

The AMS Analytics - Active Alerts page contains the following items:

- **AMS Analytics - <Caption> text:** The text *AMS Analytics - <Caption>* appears at the top of the page, where <Caption> is the Catalog caption of the Active Alerts query.
- **The left pane:** Contains a tree containing nodes representing records.
- **Query results section:** Displays results for the Active Alerts query based on your selection in the tree. You can click the hyperlinked Record ID of a given AMS Asset Alert record or AMS Asset record to view the contents of the record in the Record Manager.

Below the Active Alerts query results are options that you can use to navigate the query results.

- **Task menu pane:** Contains task menus that you can use to perform tasks related to the *AMS Analytics - Active Alerts* page. The following task menus appear on the *AMS Analytics - Active Alerts* page:
  - Common Tasks menu
  - Other Tasks menu

- **Navigation menu**
- **Associated Pages menu**

You can resize the left pane and the query results section by clicking the divider and dragging it to the desired width. As one section grows narrower, the other section grows wider.

## About the Active Alerts Query

The Active Alerts query is stored in the Catalog folder **\\Public\Meridium APM\Modules\AMS Asset Portal\Queries** and appears in the query results section on the **AMS Analytics - Active Alerts** page. The Active Alerts query results contains a summary of all the AMS Asset Alert records that are linked to AMS Asset records in an AMS Analytics data source. The results that appear depend on the node that is currently selected in the tree. Each row in the query results represents one AMS Asset Alert record.

You can use the Active Alerts query to:

- View a list of AMS Asset Alert records that exist in a given AMS Analytics data source.
- View the corresponding AMS Asset record to which the AMS Asset Alert record is linked.
- Determine the health of the equipment and locations for which the AMS Asset Alert records exist.
- Open an AMS Asset or AMS Asset Alert record and view its contents in the Record Manager.

For each AMS Asset Alert record that appears in the query results, the following fields from the AMS Asset Alert record are displayed:

- Date/Time



**Note:** In the Active Alerts query, the Date/Time column is configured to include the time zone of the *Meridium APM Application Server*. When you access the **AMS Analytics - Active Alerts** page, a label will appear to the right of the **Date/Time** column header to identify the time zone of the Application Server. The time zone label will not appear if you run the query outside of AMS Analytics.

- Severity
- Description

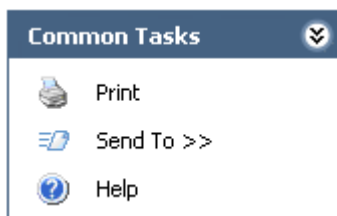
For each AMS Asset Alert record that appears in the query results, the following fields from the AMS Asset record to which the AMS Asset Alert record is linked are displayed:

- Name
- Criticality
- Model
- Manufacturer

Both the Date/Time and Name columns contain hyperlinks that provide you with access to the associated records.

## Task Menus

### Common Tasks



The **Common Tasks** menu on the **AMS Analytics - Active Alerts** page contains the following links:

- **Print:** Displays the **Preview** window, where you can view the query results as they will appear after you print them, modify the layout of the query results, and then print the results.
- **Send To:** Displays a submenu with options that let you send a link to the current page to your desktop (create shortcut), an email recipient, or a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **AMS Analytics - Active Alerts** page.

## Other Tasks



The **Other Tasks** menu on the **AMS Analytics - Active Alerts** page contains the following links:

- **Export to File:** Displays the **Query Results Export Wizard** that you can use to export the query results to a Microsoft Excel, text, or XML file.
- **Export to Dataset:** Displays the **Save dataset** dialog box, where you can save the query results as a dataset to a folder in the Catalog.

# AMS Analytics - Events Page

## Accessing the AMS Analytics - Events Page

The **AMS Analytics - Events** page lets you view a summary of the information stored in the AMS Asset Event records that exist for AMS Asset records in the Meridium APM database. You can use the **AMS Analytics - Events** page to determine the types of events that have been created for an AMS Asset record that is linked to an AMS Asset Folder record.

To access the AMS Analytics - Events page:

- On the AMS Analytics Start Page, click the View Asset Events link.

The AMS Analytics - Events page appears.

Date/Time (EST)	Name	Type	Description	Severity
2012-02-13 09:59:05	TT-207W	Configuration Change	Field change	Failed
2012-02-13 09:49:11	TT-207W	Alert Active	Field device malfunction	Abnormal
2012-02-13 09:49:11	TT-207W	Alert Active	Sensor 1 Failure	Abnormal
2012-02-12 21:49:47	05/02/2011	Alert Inactive	Device Not Responding	Abnormal
2012-02-12 21:49:47	PT-305	Alert Active	Configuration Changed	Advisory
2012-02-12 21:49:47	PT-305	Alert Inactive	Device Not Responding	Abnormal
2012-02-12 21:49:47	TT-102	Alert Active	Configuration changed	Advisory
2012-02-12 21:49:47	TT-102	Alert Inactive	Device Not Responding	Abnormal
2012-02-12 21:49:47	TT-207W	Alert Inactive	Device Not Responding	Abnormal
2012-02-12 21:49:46	04/27/2011	Alert Inactive	Device Not Responding	Abnormal
2012-01-05 14:55:59	04/27/2011	Alert Active	Device Not Responding	Abnormal
2012-01-05 14:55:56	TT-102	Alert Active	Device Not Responding	Abnormal
2012-01-05 14:55:53	05/02/2011	Alert Active	Device Not Responding	Abnormal
2012-01-05 14:55:50	PT-305	Alert Active	Device Not Responding	Abnormal
2012-01-05 14:55:47	TT-207W	Alert Active	Device Not Responding	Abnormal
2011-12-19 16:30:31	04/27/2011	Alert Active	Device Not Responding	Abnormal
2011-12-19 16:30:28	TT-102	Alert Active	Device Not Responding	Abnormal
2011-12-19 16:30:25	05/02/2011	Alert Active	Device Not Responding	Abnormal
2011-12-19 16:30:22	PT-305	Alert Active	Device Not Responding	Abnormal
2011-12-19 16:30:19	TT-207W	Alert Active	Device Not Responding	Abnormal
2011-12-19 16:04:57	04/27/2011	Alert Active	Device Not Responding	Abnormal

## Aspects of the AMS Analytics - Events Page

The AMS Analytics - Events page contains the following items:

- **AMS Analytics - <Caption> text:** The text *AMS Analytics - <Caption>* appears at the top of the page, where <Caption> is the Catalog caption of the Events query.
- **The left pane:** Contains a tree containing nodes representing records.
- **Query results section:** Displays the results of the Events query based on your selection in the tree. You can click the hyperlinked Record ID of an AMS Event record to view the contents of the record in the Record Manager.

Below the Events query results are options that you can use to navigate the query results.

- **Task Menu pane:** Contains task menus that you can use to perform tasks related to the **AMS Analytics - Events** page. The following task menus appear on the **AMS Analytics - Events** page:
  - **Common Tasks** menu
  - **Other Tasks** menu
  - **Navigation** menu
  - **Associated Pages** menu

You can resize the left pane and the Events query results section by clicking the divider and dragging it to the desired width. As one section grows narrower, the other section grows wider.

## About the Events Query

The Events query is stored in the Catalog folder \\Public\Meridium APM\Modules\AMS Asset Portal\Queries and is used to display results on the **AMS Analytics - Events** page. The Events query results display information that is stored in the AMS Asset Event records for a given AMS Analytics data source. The results that appear depend upon the node that is currently selected in the tree. Each row in the query results represents one AMS Asset Event record. For each AMS Asset Event record that appears in the query results, the following fields are displayed:

- Date/Time

**Note:** In the Events query, the Date/Time column is configured to include the time zone of the *Meridium APM Application Server*. When you access the **AMS Analytics - Events** page, a label will appear to the right of the **Date/Time** column header to identify the time zone of the Application Server. The time zone label will not appear if you run the query outside of AMS Analytics.

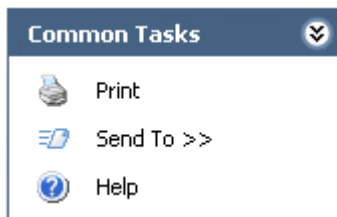
- Type
- Description
- Severity

Additionally, the Name column is displayed and contains the value that appears in the Name field in the AMS Asset record to which the AMS Asset Event record is linked.

Both the Date/Time and Name columns contain hyperlinks that provide you with access to the associated records.

## Task Menus

### Common Tasks



The **Common Tasks** menu on the **AMS Analytics - Events** page contains the following links:

- **Print:** Displays the **Preview** window, where you can view the query results as they will appear after you print them, modify the layout of the query results, and then print the results.
- **Send To:** Displays a submenu with options that let you send a link to the current page to your desktop (create shortcut), an email recipient, or a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **AMS Analytics - Events** page.

### Other Tasks



The **Other Tasks** menu on the **AMS Analytics - Events** page contains the following links:

- **Export to File:** Displays the **Query Results Export Wizard** that you can use to export the query results to a Microsoft Excel, text, or XML file.
- **Export to Dataset:** Displays the **Save dataset** dialog box, where you can save the query results as a dataset to a folder in the Catalog.

## Working with AMS Asset Recommendation Records

### Accessing a List of AMS Asset Recommendation Records

AMS Asset Recommendation records store information about recommendations for actions that should be taken based upon the Asset Alert or AMS Asset Event records that have been linked to an AMS Asset record.

The following instructions provide details on accessing Recommendation Management from the **AMS Analytics Start Page**.

To access a list of AMS Asset Recommendation Records:

- On the **AMS Analytics Start Page**, click the **View Asset Recommendations** link.

The **Recommendation Management** page appears, displaying the results of the Available Recommendations query in the **AMS Analytics - Recommendations** workspace, as shown in the following image.

Recommendation ID	Recommendation Headline	Recommendation Priority	Asset ID	Functional Location ID	Work Request Reference
REC-1121	Motor shaft current working level exceeded	Low			

## About the Available Recommendations Query

The Available Recommendations query is stored in the Catalog folder \\Public\Meridium APM\Modules\AMS Asset Portal\Queries and is used to display results in the **AMS Analytics - Recommendations** workspace on the **Recommendation Management** page when you access Recommendation Management via a link on the **AMS Analytics Start Page**. The query results contain a list of all the existing AMS Asset Recommendation records. Each row in the query represents one AMS Asset Recommendation record.

For each AMS Asset Recommendation record that appears in the query results, the following fields are displayed:

- Recommendation ID
- Recommendation Headline
- Recommendation Priority
- Asset ID
- Functional Location ID
- Work Request Reference

The Recommendation ID appears as a hyperlink that you can click to open the AMS Asset Recommendation record in the Record Manager.

Below the Available Recommendations query results are options that you can use to navigate the query results.

## Creating AMS Asset Recommendation Records

The following instructions provide details on creating an AMS Asset Recommendation record via a link on the **Associated Pages** menu in the Record Manager. When you create an AMS Asset Recommendation record in this way, you can simultaneously create a Notification in SAP.

To create an AMS Asset Recommendation record:

1. Open the AMS Asset Alert or AMS Asset Event record that is linked to the AMS Asset record for which you want to create the AMS Asset Recommendation record.

The record appears in the Record Manager.

2. On the **Associated Pages** menu, click the **Generate Work Notification** link.

A new AMS Asset Recommendation record appears.



REC-761 (new AMS Asset Recommendation)

Datasheet: AMS Asset Recommendation

Recommendation Details

**Recommendation ID:** REC-761

Recommendation Headline: Device identified

Recommendation Description:

Recommendation Priority:

Asset ID:

Technical Number:

Functional Location ID:

Create Work Request?:

Work Request Reference:

Work Request Equipment:

Work Request Functional Location:

Target Completion Date:

OK Cancel

**Note:** Certain fields on the datasheet are populated automatically with data from the corresponding fields in the AMS Asset Alert and AMS Asset Event record that is currently selected. In addition, if the AMS Asset record is linked to an Asset record, the **Create Work Request?** check box is selected. The remaining instructions assume that the **Create Work Request?** check box is selected.

3. Modify the fields as desired.
4. If you do not want to create a Notification in SAP, clear the **Create Work Request?** check box.
5. Click **OK**.

The AMS Asset Recommendation record is created. If the **Create Work Request?** check box is selected and the required criteria is met, an SAP Notification or Oracle EBS eAM Work Request is created.

## Generating SAP Notifications from AMS Asset Recommendation Records

You can create an SAP Notification automatically when you create an AMS Asset Recommendation record via the **Generate Work Notification** link that appears on the **Associated Pages** menu in the Record Manager. For Notifications to be created automatically, the SAP Interfaces license must be active and the user creating the AMS Asset Recommendation record must be a member of the MI SAP Interface User Security Group.

The **Generate Work Notification** link appears only when you are viewing an AMS Asset Alert or AMS Asset Event record. When you click the **Generate Work Notification** link, the Meridium APM system automatically:

- Creates a new AMS Asset Recommendation record and populates certain fields with the corresponding value that is stored in the AMS Asset Alert or AMS Asset Event record that is currently selected.

If you create an AMS Asset Recommendation from an AMS Asset Event record and the AMS Analytics data source is *AMS Suite: Machinery Health Manager*:

- The value in the Type field in the AMS Asset Event record is used to populate the Recommendation Headline field in the AMS Asset Recommendation record.
- The value in the Recommended Actions field in the AMS Asset Event record is used to populate the Recommendation Description field in the AMS Asset Recommendation record.

If you create an AMS Asset Recommendation from an AMS Asset Event record and the AMS Analytics data source is anything *other* than *AMS Suite: Machinery Health Manager*:

- The value in the Description field in the AMS Asset Event record is used to populate the Recommendation Headline field in the AMS Asset Recommendation record.
- The value in the Recommendation Description field in the AMS Asset Recommendation record is not populated.

**Note:** The AMS Analytics data source is determined by the value in the URL field in the corresponding AMS Asset Data Source record. If the value ends with *csidataprovider.asmx*, the data source is assumed to be AMS Suite: Machinery Health Manager. All other URLs are treated as other AMS Analytics data sources.

- Selects the Create Work Request? check box, provided that the AMS Asset record is linked to an Equipment or Functional Location record.
- Links the AMS Asset Recommendation record to the AMS Asset Alert or AMS Asset Event family of the record that is currently selected (through the Has Recommendations relationship).
- Links the AMS Asset Recommendation record to the AMS Asset record that is linked to the selected AMS Asset Alert or AMS Asset Event record (through the Has Recommendations relationship).
- Links the AMS Asset Recommendation record to the Asset record that is linked to the AMS Asset record (through the Has Recommendations relationship).

After you save the AMS Asset Recommendation record, the Notification is automatically created in SAP. For more information in the SAP Interfaces module, [click here](#).

## Generating Oracle EBS eAM Work Requests from AMS Asset Recommendation Records

You can create an Oracle EBS eAM Work Request automatically when you create an AMS Asset Recommendation record via the **Generate Work Notification** link that appears on the **Associated Pages** menu in the Record

Manager. For Work Requests to be created automatically, the Oracle EBS eAM Interfaces license must be active and the user creating the AMS Asset Recommendation record must be a member of the MI CMMS Interface User Security Group.

The **Generate Work Notification** link appears only when you are viewing an AMS Asset Alert or AMS Asset Event record. When you click the **Generate Work Notification** link, the Meridium APM system automatically:

- Creates a new AMS Asset Recommendation record and populates certain fields with the corresponding value that is stored in the AMS Asset Alert or AMS Asset Event record that is currently selected.

If you create an AMS Asset Recommendation from an AMS Asset Event record and the AMS Analytics data source is *AMS Suite: Machinery Health Manager*:

- The value in the Type field in the AMS Asset Event record is used to populate the Recommendation Headline field in the AMS Asset Recommendation record.
- The value in the Recommended Actions field in the AMS Asset Event record is used to populate the Recommendation Description field in the AMS Asset Recommendation record.

If you create an AMS Asset Recommendation from an AMS Asset Event record and the AMS Analytics data source is anything *other* than *AMS Suite: Machinery Health Manager*:

- The value in the Description field in the AMS Asset Event record is used to populate the Recommendation Headline field in the AMS Asset Recommendation record.
- The value in the Recommendation Description field in the AMS Asset Recommendation record is not populated.

**Note:** The AMS Analytics data source is determined by the value in the URL field in the corresponding AMS Asset Data Source record. If the value ends with *csidataprovider.asmx*, the data source is assumed to be AMS Suite: Machinery Health Manager. All other URLs are treated as other AMS Analytics data sources.

- Selects the **Create Work Request?** check box, provided that the AMS Asset record is linked to an Equipment or Functional Location record.
- Links the AMS Asset Recommendation record to the AMS Asset Alert or AMS Asset Event family of the record that is currently selected (through the Has Recommendations relationship).
- Links the AMS Asset Recommendation record to the AMS Asset record that is linked to the selected AMS Asset Alert or AMS Asset Event record (through the Has Recommendations relationship).
- Links the AMS Asset Recommendation record to the Asset record that is linked to the AMS Asset record (through the Has Recommendations relationship).

After you save the AMS Asset Recommendation record, the Work Request is automatically created in Oracle EBS eAM. For more information in the Oracle EBS eAM Interfaces, [click here](#).

## Overview of the AMS Analytics - Dashboard Page

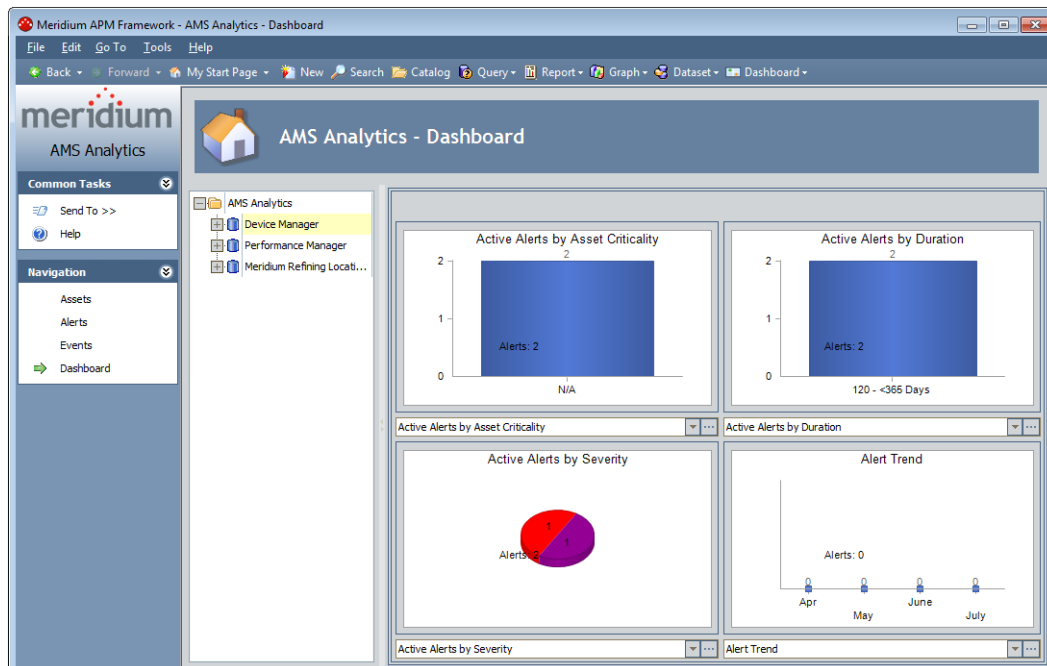
### Accessing the AMS Analytics - Dashboard Page

The **AMS Analytics - Dashboard** page lets you view graphs that contain a summary of various information in the AMS Asset, AMS Asset Alert, and AMS Asset Event records that exist in the Meridium APM database. You can use the **AMS Analytics - Dashboard** page to view the graphs that are stored in the Dashboard Catalog folder to determine the overall health of the equipment and locations in your facility.

To access the **AMS Analytics - Dashboard Page**:

- On the **AMS Analytics Start Page**, click the **View Dashboard** link.

The **AMS Analytics - Dashboard** page appears.



## Aspects of the AMS Analytics - Dashboard Page


The AMS Analytics - Dashboard page contains the following items:

- Task menu pane: Contains the following task menus:
  - Common Tasks menu
  - Navigation menu
- The left pane: Contains a tree containing nodes representing records.
- Graph Workspace: Contains the following features:
  - **Composite Health Index text box:** Displays the composite health index value that exists in the Health Index field in the selected AMS Asset Folder record. This field appears only when an AMS Asset Folder node is selected in the tree. This field is always disabled and is color-coded according to the value that appears in the text box.

**Note:** If a composite health index value is not available for the selected record, this text box is grayed out.

- **Graph quadrants:** Display one graph each that is stored in the Catalog folder \\Public\Meridium APM\Modules\AMS Asset Portal\Dashboard. The first four graphs that appear in the Dashboard Catalog folder are displayed by default, but you can choose to display different graphs if you wish.

Each quadrant contains the following items:

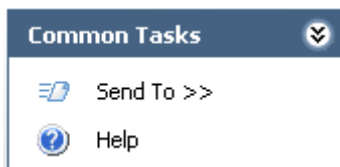
- **Graph:** Displays the information that it is configured to display, based upon the underlying query and the record that is currently selected in the tree. At the bottom of each graph, the number of AMS Asset Alert, AMS Asset Event, or AMS Asset records whose data are included in the graph is displayed in the format **<Record type>: <number of records>**, where **<Record Type>** can be:
  - *Alert* (for AMS Asset Alert records)
  - *Event* (for AMS Asset Event records)
  - *Asset* (for AMS Asset records).
- **Graph list:** Displays the captions of all the graphs that exist in the Dashboard Catalog folder.
-  **button:** Displays the currently selected graph on the **AMS Analytics - <ID>** page.

Using the graph workspace, you can:

- View data for a different data source.
- View a graph other than the one that is currently displayed.
- View a single graph on the **AMS Analytics - <ID>** page.
- View the underlying query for any graph.

**Note:** While the standard graph options that let you modify the appearance of the graph are available in the graph workspace, any changes you make to the graphs on the **AMS Analytics - Dashboard** page will not be saved. The next time that you view the graph, the default layout will appear. Additionally, the standard graph options that appear may not represent *all* the graph options that are available on the **Graph Viewer** page.

## Common Tasks



The **Common Tasks** menu on the **AMS Analytics - Dashboard** page contains the following options:

- **Send To:** Displays a submenu with options that let you send a link to the current page to your desktop (create shortcut), an email recipient, or a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **AMS Analytics - Dashboard** page.

## Changing the Graph Selection

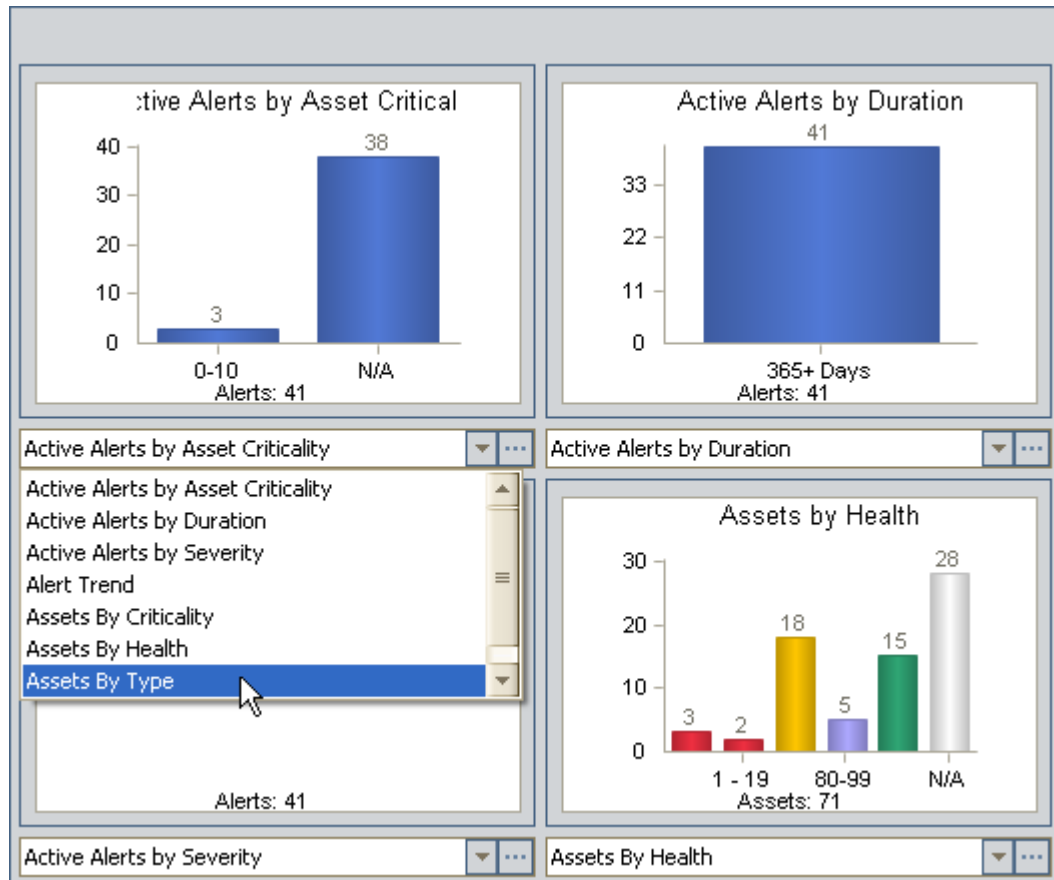
The following instructions provide details on viewing a graph other than the one that is currently displayed in a quadrant on the **AMS Analytics - Dashboard** page.

To change the graph selection:

1. In the graph workspace, in the quadrant where you want to view a different graph, click the down arrow to the right of the graph list.

The graph list appears, displaying the Catalog captions of the available graphs.





2. Click the caption of the desired graph.

The quadrant is refreshed, and the selected graph appears.


## Overview of the AMS Analytics - <ID> Page

### Viewing a Single Graph

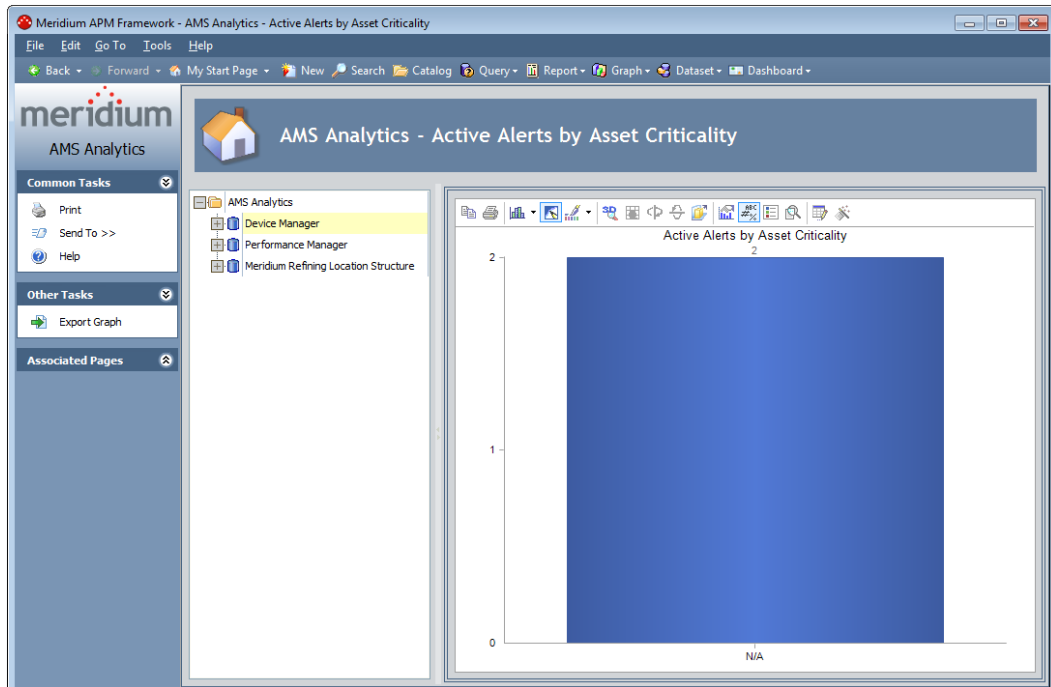
The following instructions provide details on viewing a single graph on the **AMS Analytics - <ID>** page, where <ID> is the name of the graph that is displayed. You can use these instructions to access the **AMS Analytics - <ID>** page.

To view a single graph:

1. Access the **AMS Analytics - Dashboard** page.

2. In the quadrant containing the graph that you want to view by itself, to the right of the graph list, click the  button.

The **AMS Analytics - <ID>** page appears, displaying the selected graph.



If you are viewing a single graph on the **AMS Analytics - <ID>** page and you want to view a different graph, you will need to navigate back to the **AMS Analytics - Dashboard** page, change the graph selection, and then open that graph on the **AMS Analytics - <ID>** page.

## Aspects of the AMS Analytics - <ID> Page

The **AMS Analytics - <ID>** page can be accessed by opening a single graph via the **AMS Analytics - Dashboard** page, where <ID> is the name of the graph as it appears in the Catalog. You can use the **AMS Analytics - <ID>** page to work with an individual graph that is stored in the Catalog folder \\Public\Meridium APM\Modules\AMS Asset Portal\Dashboard.

The **AMS Analytics - <ID>** page contains the following items:

- **Task Menu pane:** Contains task menus that contain options that you can use to perform tasks related to the **AMS Analytics - <ID>** page. The following task menus appear on the **AMS Analytics - <ID>** page:

- Common Tasks menu
- Other Tasks menu
- Associated Pages menu
- The left pane: Contains a tree containing nodes representing records.
- Graph workspace: Displays a single graph that was opened via the **AMS Analytics - Dashboard** page.

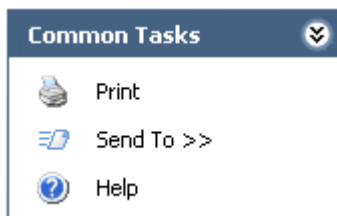
Using the graph workspace, you can:

- View data for a different data source.
- View a graph other than the one that is currently displayed.
- View the underlying query.
- Modify the graphs using standard graph options.

**Note:** If you make changes to the graph on the **AMS Analytics - <ID>** page, when you navigate away from the page, you will be prompted to save those changes. If you choose to save the changes, your changes will be saved to the graph provided that you have update permissions to the Dashboard Catalog folder. Additionally, the standard graph options that are available in the graph workspace may not represent *all* the graph options that are available on the **Graph Viewer** page.

## Task Menus

### Common Tasks



The **Common Tasks** menu on the **AMS Analytics - <ID>** page contains the following links:

- **Print:** Displays the **Print** dialog box, where you can specify printer settings and then print the results.
- **Send To:** Displays a submenu with options that let you send a link to the current page to your desktop (create shortcut), an email recipient, or a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **AMS Analytics - <ID>** page.

## Other Tasks



The **Other Tasks** menu on the **AMS Analytics - <ID>** page contains the following links:

- **Export Graph:** Displays the **Export Graph to File** dialog box, where you can specify the location on your computer and file type to which you want to save the graph, and then export the graph.

## Exporting Graphs

The following instructions provide details on exporting a graph to a file on your computer via the **AMS Analytics - <ID>** page.

To export a graph to a file on your computer:

1. Open the desired graph on the **AMS Analytics - <ID>** page.
2. On the **Other Tasks** menu, click the **Export Graph** link.

The **Export Graph to File** dialog box appears.

3. Navigate to the desired location.

4. In the **File name** text box, type a name for the file.
5. In the **Save as type** list, select the file type that you want to use. You can save a graph as:
  - **Bitmap File (\*.BMP)**: Saves the graph as a bitmap image.
  - **Windows Metafile (\*.WMF)**: Saves the graph as a Windows metafile image.
  - **Text File (\*.TXT)**: Saves the data in the graph as a text file.
6. Click the **Save** button.

The graph is saved to the selected locations.

**Note:** When you export a graph to a text file, the x-axis label does not appear in the text file. You will need to add the label manually.

## Overview of the AMS Analytics Summary Reports Page

### Accessing the AMS Analytics - Summary Reports Page

The **AMS Analytics - Summary Reports** page lets you view a list of graphs, queries, and reports that are stored in the following Catalog folders:

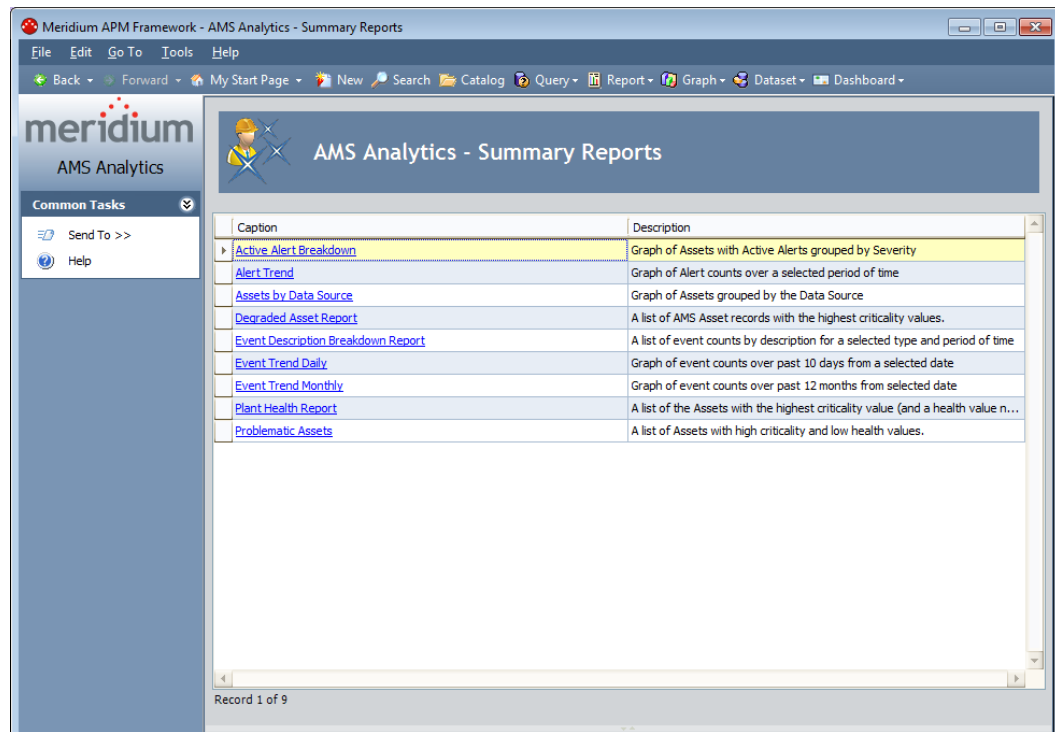
- \\Public\Meridium APM\Modules\AMS Asset Portal\Summary Reports
- \\Personal\

From this page, you can also open an item to view its contents in the tool that is used to display that item. For example, if you open a report from the **AMS Analytics - Summary Reports** page, the contents of the report will appear on the **Report Viewer** page.

To access the AMS Analytics - Summary Reports page:

- On the AMS Analytics Start Page, click the View Summary Reports link.

The AMS Analytics - Summary Reports page appears.



## Aspects of the AMS Analytics - Summary Reports Page

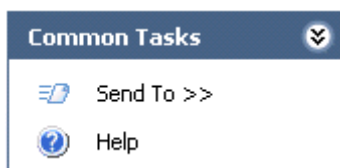
The AMS Analytics - Summary Reports page contains the following items:

- **Summary Reports list:** A grid that displays a list of Catalog items that are stored in the Summary Reports Catalog folder. Each row in the grid represents one Catalog item. For each item that appears in the list, the following information appears:
  - **Caption:** The caption of the item as it appears in the Catalog. The caption of the item appears as a hyperlink, which you can click to open the item.
  - **Description:** The description of the item as it appears in the Catalog.

You can use standard grid functionality to modify the appearance of the grid.

- **Task menu pane:** Contains one task menu, Common Tasks.

## Common Tasks Menu



The **Common Tasks** menu on the **AMS Analytics - Summary Reports** page contains the following links:

- **Send To:** Displays a submenu with options that let you send a link to the current page to your desktop (create shortcut), an email recipient, or a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **AMS Analytics - Summary Reports** page.

## Opening Catalog Items from the AMS Analytics - Summary Reports Page

To open a Catalog Item from the **AMS Analytics - Summary Reports** page:

1. On the **AMS Analytics Start Page**, click the **View Summary Reports** link.

The **AMS Analytics - Summary Reports** page appears.

2. In the **Summary Reports** list, locate the Catalog item that you want to open.
3. In the **Caption** cell, click the hyperlinked caption of the item.

The selected Catalog item appears on the:

- **Report Viewer** page, if you are viewing a report.

- Query Builder page, if you are viewing a query.
- Graph Viewer page, if you are viewing a graph.

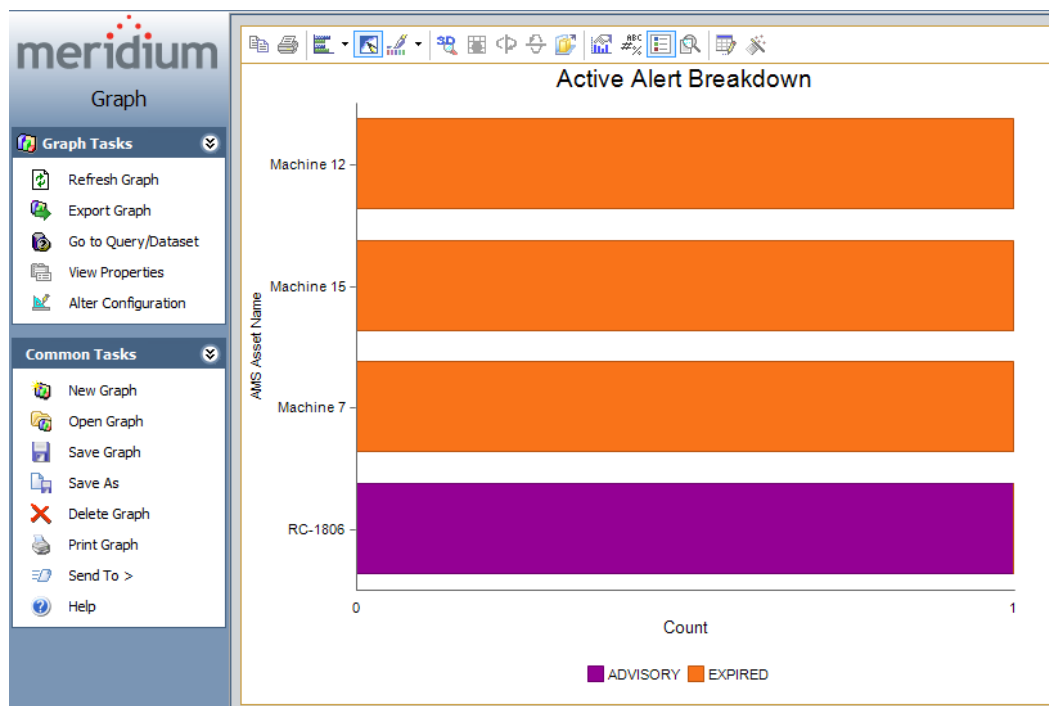
## Opening AMS Asset Records from the Active Alert Breakdown Graph

Unlike the other graphs in AMS Analytics that let you view their underlying query, the Active Alert Breakdown graph lets you open an *AMS Asset record* from the graph and view its contents in the Record Manager.

To open an AMS Asset record from the graph Active Alert Breakdown:

1. Open the graph Active Alert Breakdown.

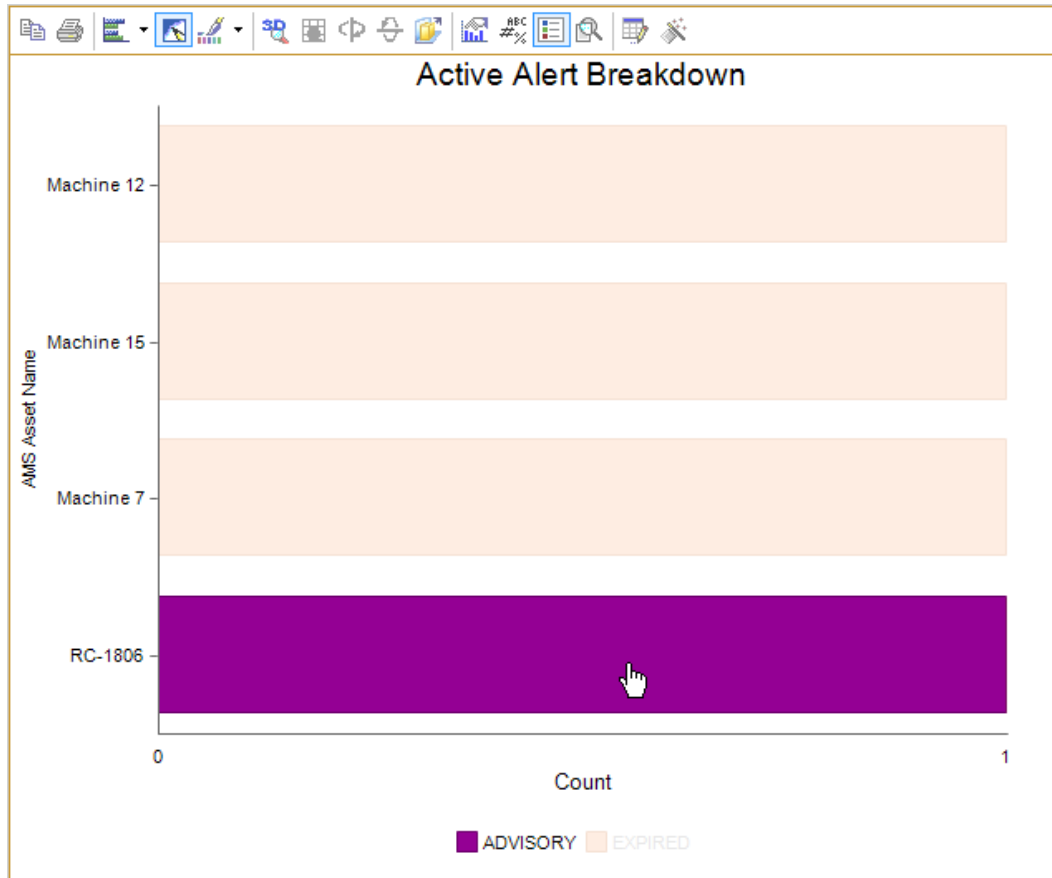
The graph appears on the Graph Viewer - Active Alert Breakdown page.



2. Point to the series in the graph that represents the AMS Asset record whose contents you want to view.



Your cursor appears as a hand, the series to which you are pointing is highlighted, and all the other series are grayed out, as shown in the following image.



3. Click the highlighted series.

The selected AMS Asset record appears in the Record Manager, where you can view all the families that are currently related to that record.

## The Plant Health Report

The query Plant Health Report is stored in the Catalog folder \\Public\Meridium\Modules\AMS Asset Portal\Summary Reports. You can access this query via the [AMS Analytics - Summary Reports](#) page. The query Plant Health Report contains the following columns:

- **Plant:** Contains the name of the plant that appears as the first level node (below the AMS Asset Data Source node) in the tree.

- **Composite Health:** Contains the composite health index value for all the AMS Asset records that appear below the plant level node in the tree.
- **Critical Asset:** Contains the number of AMS Asset records that contain a health index value that is lower than 100.
- **Critical Asset Type:** Contains the value that appears in the Type field of the AMS Asset record with the highest criticality value.
- **Total Assets:** Contains the total number of AMS Asset records that appear below the plant level node in the tree.
- **Monitored Assets:** Contains the total number of AMS Asset records that contain a health index and criticality value.
- **Degraded Assets:** Contains the total number of AMS Asset records with a health index value that is lower than 100.

## Viewing Detailed Reports

### About Viewing Detailed Reports

*Detailed reports* are stored in the Device Manager, Machinery Manager, Performance Advisor, and Performance Monitor Catalog folders that exist as subfolders in the Catalog folder \\Public\Meridium APM\Modules\AMS Asset Portal\Detail Reports. Each subfolder contains the following Detailed reports that are configured to display information about records stored only in that AMS Analytics data source:

- **Alert Details Report:** Displays information about an AMS Asset Alert record.
- **Asset Details Report:** Displays information about an AMS Asset record.
- **Event Details Report:** Displays information about an AMS Asset Event record.

**Note:** An Event Details Report does not exist for the AMS Performance Advisor data source.

You can open these reports via a link on the **Associated Pages** menu in the Record Manager when you are viewing an AMS Asset, AMS Asset Alert, or AMS Asset Event record.

The information that appears in the report comes from the values that are stored in the record in the Meridium APM database and additional information for the record that exists only in the AMS Analytics data source about an AMS Asset, AMS Asset Alert, or AMS Asset Event record. When you open a Detailed report, the Meridium APM system uses the Entity Key of the selected record to:

- Pull information that is stored in the Meridium APM database about the selected record.
- Identify the AMS Analytics data source from which the record originated and then use the parameters on the **Detail Report Details** tab in the associated AMS Asset Data Source record to:
  - Pull *additional* information about the selected record directly from the data source.
  - Convert the external data into the format used to display the information in a SQL Server Reporting Services report.

**Note:** If no additional data exists in the AMS Analytics data source about a record, the report will display only the data that exists in the Meridium APM database.

## Opening Detailed Reports

To open a Detailed report:

1. Open the desired AMS Asset, AMS Asset Alert, or AMS Asset Event record in the Record Manager.

The record appears in the Record Manager as the root node in the record hierarchy.

2. On the **Associated Pages** menu, click the **Detail Report** link.

The following report appears in the Report Viewer depending on record that you selected:

- Asset Details Report, for AMS Asset records.
- Alert Details Report, for AMS Asset Alert records.
- Event Details Report, for AMS Asset Event records.

## Interpreting Query Colors

Certain fields in AMS Asset, AMS Asset Alert, and AMS Asset Event records have format rules that cause them to be color-coded based upon their values. These fields are included in some of the queries that appear throughout AMS Analytics. When you run one of these items, cells in the query results are color-coded according to the format rule. This topic provides information on how to interpret the colors that you see in query results.

The following fields will be color-coded in query results:

- **Health Index:** The following table shows the color associated with each health index range and what it indicates about the health of the piece of equipment or location.

This health index range...	Corresponds to this color...	Indicating that the health is...
0 - 19	Red	Poor
20-79	Yellow	Moderate
80-99	Purple	Good
100	Green	Perfect

- **Severity:** The following table shows the possible severity levels and their corresponding color.

This color...	Corresponds to this severity level...
Yellow	Maintenance

This color...	Corresponds to this severity level...
Purple	Advisory Abnormal
Orange	Expired
Red	Communication Failure Failed
White/No fill	Default Not defined

## Viewing a Graph's Underlying Query

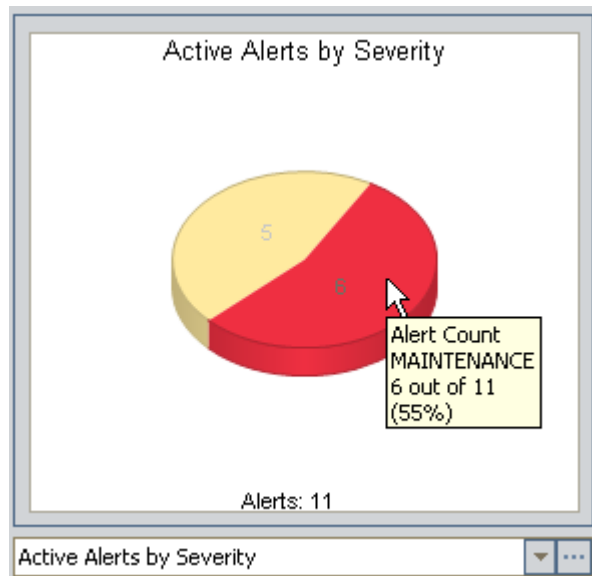
The following instructions provide details on viewing the query results that support a given series in a graph that appears on the **AMS Analytics - Dashboard** or **AMS Analytics - <ID>** page. For example, if you are viewing the *Active Alerts by Asset Criticality* graph, you can click the 0-10 column to view the query results that display the list of records that are included in that measurement.

To view a graph's underlying query:

1. Access the graph whose underlying query you want to view.

The graph appears on the **AMS Analytics - Dashboard** page or the **AMS Analytics - <ID>** page.

2. Locate the chart box area on the graph (i.e., the area that corresponds to the values being measured). When you point to an individual measure in the graph, all other measures will become grayed out, indicating that area to which you are currently pointing is the area whose underlying query results will appear.



3. Click the series whose underlying query results you want to view.

The results of the underlying query for the selected graph appear in the Query Builder.

## Opening Records from Query Results

You can open a record from query results and view its contents in the Record Manager. Via the Record Manager, you can:

- View all the families containing records that are currently linked to the root record.
- View all the families that are related to the family of the root record.
- Link existing records to the root record.
- Generate a Work Notification in SAP.
- Create an AMS Asset Recommendation record to link to an AMS Asset record.
- View the Detail report for the family of the selected record.

**To open a record in the Record Manager:**

1. In the query results, locate the row containing the record that you want to open.
2. In the cell containing the hyperlinked Record ID for the record, click the hyperlinked Record ID.

The selected record appears in the Record Manager.





# Reference Information

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## Associated Pages

### AMS Asset Associated Pages

The following Associated Pages are configured by default for the AMS Asset family.

**Note:** To see the underlying URL for each Associated Page, you can use the URL Manager application.

Caption	Description
Detail Report	Displays on the <b>Report Viewer</b> page the Detailed report for the selected AMS Asset record.
by Severity	Displays on the <b>Graph Viewer</b> page the graph <i>Alert Trend by Asset</i> for the selected AMS Asset record. This Associated Page appears on the <b>Alert Trend</b> submenu.
by Description	Displays on the <b>Graph Viewer</b> page the graph <i>Alert Trend by Asset by Event Description</i> for the selected AMS Asset record. This Associated Page appears on the <b>Alert Trend</b> submenu.

### AMS Asset Alert Associated Pages

The following Associated Pages are configured by default for the AMS Asset Alert family.

**Note:** To see the underlying URL for each Associated Page, you can use the URL Manager application.

Caption	Description
Generate Work Notification	Displays a new AMS Asset Recommendation record and links it to the selected AMS Asset Alert record automatically.

Caption	Description
Detail Report	Displays on the Report Viewer page the Detailed report for the selected AMS Asset Alert record.

## AMS Asset Event Associated Pages

The following Associated Pages are configured by default for the AMS Asset Event family.

**Note:** To see the underlying URL for each Associated Page, you can use the URL Manager application.

Caption	Description
Generate Work Notification	Displays a new AMS Asset Recommendation record and links it to the selected AMS Asset Event record automatically.
Detail Report	Displays on the Report Viewer page the Detailed report for the selected AMS Asset Event record.

## Catalog Folder Structure

### About the AMS Analytics Catalog Folder Structure

AMS Analytics Catalog folders contain queries, graphs, and reports that retrieve and display various information for AMS Analytics families. The items stored in these folders appear throughout the AMS Analytics module and display a range of information stored in AMS Asset, AMS Asset Alert, and AMS Asset Event records. The Catalog folder \\Public\Meridium APM\Modules\AMS Asset Portal contains the following subfolders:

- **Dashboard:** Contains graphs that are used by the **AMS Analytics - Dashboard** page to display various information stored in AMS Asset, AMS Asset Alert, and AMS Asset Event records.
- **Detailed Reports:** Contains the following subfolders, which contain reports that display a comprehensive summary of information for an AMS Asset, AMS Asset Alert, or AMS Asset Event record:

- Device Manager
  - Machinery Manager
  - Performance Advisor
  - Performance Monitor
- **Graphs:** Contains the Alert Trend by Asset graph.
  - **Queries:** Contains queries that are used throughout AMS Analytics to display various information stored in AMS Asset, AMS Asset Event, and AMS Asset Alert records and support the graphs and reports that exist in the Dashboard and Summary Reports Catalog folders.
  - **Summary Reports:** Contains graphs and queries that you can use to view various information stored in AMS Asset, AMS Asset Event, and AMS Asset Alert records.

The topics in this section of the Help system describe the content of each Catalog folder listed above. You should not modify the names of these Catalog folders or the names of the items that exist in these folders or move the items to another Catalog folder.

## Dashboard Folder

The Catalog folder \\Public\Meridium\Modules\AMS Asset Portal\Dashboard contains the graphs that appear on the **AMS Analytics - Dashboard** page.

The following table provides a summary of the graphs that exist in the Dashboard folder.

Graph Name	Behavior and Usage
Active Alerts by Asset Criticality	Displays active AMS Asset Alert records grouped by the value that appears in the Criticality field of the AMS Asset records to which the AMS Asset Alert records are linked.
Active Alerts by Duration	Displays active AMS Asset Alert records grouped by the length of time they have been active.

Graph Name	Behavior and Usage
Active Alerts by Severity	Displays active AMS Asset Alert records grouped by the value that appears in the Severity field in the record.
Assets by Criticality	Displays AMS Asset records grouped by their criticality ranking as it appears in the Criticality field in the record.
Assets by Health	Displays AMS Asset records grouped by the value that appears in the Health Index field in the record. The datapoints on this graph are color-coded based on the health index value.
Assets by Type	Displays AMS Asset records grouped by the value that appears in the Type field in the record.
Alert Trend	Displays AMS Asset Event records grouped by the month in which the associated event occurred (i.e., using the values in their Date/Time fields). By default, the graph displays data for the current month and 90 previous days (based upon the current date).
Events by Type	Displays AMS Asset Event records grouped by the value that appears in the Type field in the record.

## Detailed Reports Folder

The Catalog folder \\Public\Meridium\Modules\AMS Asset Portal\Detailed Reports contains the reports that appear when you click the **Detail Report** link, which appears on the **Associated Pages** menu in the Record Manager while you are viewing an AMS Asset, AMS Asset Alert, or AMS Asset Event record. These reports display a comprehensive summary of information in an AMS Asset, AMS Asset Alert, or AMS Asset Event record.

If you open these reports from the Catalog folder, you must specify an Entity Key value before you can view the report. You should not modify the names of any of the items stored in this folder.

**Note:** Before you can view these reports, an administrative user must set up the connection to the AMS Analytics data source from which the report data will be retrieved.

The following table provides a summary of the items that exist in the Detailed Reports folder.

Item Name	Behavior and Usage
Device Manager	Subfolder that contains the following reports.
Alert Details Report	Displays all the information that is available for a given AMS Asset Alert record that exists in the AMS Device Manager data source, including information about records that are linked to the AMS Asset Alert record.
Asset Details Report	Displays all the information that is available for a given AMS Asset record that exists in the AMS Device Manager data source, including information about records that are linked to the AMS Asset record.
Event Details Report	Displays all the information that is available for the specified AMS Asset Event record that exists in the AMS Device Manager data source, including information about records that are linked to the AMS Asset Event record.
Machinery Manager	Subfolder that contains the following reports.
Alert Details Report	Displays all the information that is available for a given AMS Asset Alert record that exists in the AMS Machinery Manager data source, including information about records that are linked to the AMS Asset Alert record.
Asset Details Report	Displays all the information that is available for a given AMS Asset record that exists in the AMS Machinery Manager data source, including information about records that are linked to the AMS Asset record.
Event Details Report	Displays all the information that is available for a given AMS Asset Event record that exists in the AMS Machinery Manager data source, including information about records that are linked to the AMS Asset Event record.
Performance Advisor	Subfolder that contains the following reports.
Alert Details Report	Displays all the information that is available for a given AMS Asset Alert record that exists in the AMS Performance Advisor data source, including information about records that are linked to the AMS Asset Alert record.
Asset Details Report	Displays all the information that is available for a given AMS Asset record that exists in the AMS Performance Advisor data source, including information about records that are linked to the AMS Asset record.
Performance Monitor	Subfolder that contains the following reports.

Item Name	Behavior and Usage
Alert Details Report	Displays all the information that is available for a given AMS Asset Alert record that exists in the Performance Monitor data source, including information about records that are linked to the AMS Asset Alert record. This report displays the information that is stored only in the Meridium APM database. The Performance Monitor does not contain additional information about AMS Asset Alert records that is not already stored in Meridium APM.
Asset Details Report	Displays all the information that is available for a given AMS Asset record that exists in the Performance Monitor data source, including information about records that are linked to the AMS Asset record.
Event Details Report	Displays all the information that is available for a given AMS Asset Event record that exists in the Performance Monitor data source, including information about records that are linked to the AMS Asset Event record. This report displays the information that is stored only in the Meridium APM database. The Performance Monitor does not contain additional information about AMS Asset Event records that is not already stored in Meridium APM.

## Graphs Folder

The Catalog folder \\Public\Meridium\Modules\AMS Asset Portal\Graphs contains the following graphs.

Graph Name	Behavior and Usage	Notes
Alert Trend by Asset	Displays on a line graph the AMS Asset Event records that are linked to the AMS Asset record that was selected when you accessed the graph and for which active AMS Asset Alert records exist. The AMS Asset Event records are categorized by the value in the Severity field and organized horizontally on the x-axis by the dates on which the associated events occurred.	When you access the Alert Trend by Asset graph, a prompt appears for the period, date, and severity values that are stored in AMS Asset Event records. After you specify the period, date, and severity parameters in the prompt, the graph displays the AMS Asset Event records that contain the specified values. This graph appears when you click the <b>by Severity</b> link on the <b>Alert Trend</b> submenu from the <b>Associated Pages</b> menu when you are viewing an AMS Asset record.

Graph Name	Behavior and Usage	Notes
Alert Trend by Asset by Event Description	Displays on a line graph the AMS Asset Event records that are linked to the AMS Asset record that was selected when you accessed the graph and for which active AMS Asset Alert records exist. The AMS Asset Event records are categorized by the value in the Description field and organized horizontally on the x-axis by the dates on which the associated events occurred.	When you access the Alert Trend by Asset by Event Description graph, a prompt appears for the asset, period, date, and description values that are available for AMS Asset Event records. After you specify the period, date, and description parameters in the prompt, the graph displays the AMS Asset Event records that contain the specified values. This graph appears when you click the <b>by Description</b> link on the <b>Alert Trend</b> submenu from the <b>Associated Pages</b> menu when you are viewing an AMS Asset record.

## Queries Folder

The Catalog folder \\Public\Meridium\Modules\AMS Asset Portal\Queries stores queries that are used to support the reports, graphs, and other queries that appear throughout the AMS Analytics module.

The following table provides a summary of the queries that exist in the Queries folder.

Item Name	Behavior and Usage
Active Alert Breakdown	Supports the Active Alert Breakdown graph.
Active Alerts	Displays a list of AMS Asset Alert records that are linked to AMS Asset records. The results of this query appear when you access the <b>AMS Analytics - Asset Alerts</b> page from the <b>AMS Analytics Start Page</b> .
Active Alerts by Asset Criticality	Supports the Active Alerts by Asset Criticality graph.
Active Alerts by Asset Criticality List	Supports the Active Alerts by Asset Criticality graph.
Active Alerts by Duration	Supports the Active Alerts by Duration graph.

Item Name	Behavior and Usage
Active Alerts by Duration List	Supports the Active Alerts by Duration graph.
Active Alerts by Severity	Supports the Active Alerts by Severity graph.
Active Alerts by Severity List	Supports the Active Alerts by Severity graph.
Active Tags with Alerts	Supports the Active Alert graphs.
Alert Details	Supports the Alert Details reports.
Alert Rate List	Supports the Alert Trend graph.
Alert Trend	Supports the Alert Trend graph.
Alert Trend by Asset and Event Description	Supports the Alert Trend by Asset by Event Description graph.
Alert Trend by Asset by Days by Event Description	Supports the Alert Trend by Asset by Event Description graph.
Alert Trend by Asset by Weeks by Event Description	Supports the Alert Trend by Asset by Event Description graph.
Alert Trend Alert Data	Supports the Alert Trend query.
Alert Trend Alert Data by Asset	Supports the Alert Trend by Asset graph.
Alert Trend by Asset	Supports the Alert Trend by Asset graph.
Alert Trend by Asset by Days	Supports the Alert Trend by Asset graph.
Alert Trend by Asset by Months	Supports the Alert Trend by Asset graph.
Alert Trend by Asset by Weeks	Supports the Alert Trend by Asset graph.
Alert Trend Data	Supports the Alert Trend query.
Alert Trend Data by Asset	Supports the Alert Trend by Asset graph.
Alert Trend Data by Asset and Event Description	Supports the Alert Trend by Asset by Event Description graph.
Alert Trend Data Source Days	Supports the Alert Trend query.
Alert Trend Data Source Months	Supports the Alert Trend query.
Alert Trend Data Source Weeks	Supports the Alert Trend query.
Asset Active Alerts	Displays a list of active AMS Asset Alert records that are linked to a specified AMS Asset record.
Asset Details	Supports the Asset Details reports.
Asset List with Data Source	Displays the list of ALL AMS Asset records.
AssetKey_DayFilter	Supports the Problematic Assets report.



Item Name	Behavior and Usage
AssetKey_HourFilter	Supports the Problematic Assets report.
AssetKey_MonthFilter	Supports the Problematic Assets report.
AssetKey_WeekFilter	Supports the Problematic Assets report.
Assets	Displays a list of AMS Asset records that are linked to the record represented by the node selected in the tree. The results of this query appear when you access the <b>AMS Analytics - Assets</b> page from the <b>AMS Analytics Start Page</b> .
Assets by Criticality	Supports the Asset by Criticality graph.
Assets by Data Source	Supports the Assets by Data Source graph.
Assets by Data Source List	Displays a list of AMS Asset records that are linked to an AMS Asset Folder record.
Assets by Health	Supports the Assets by Criticality graph.
Assets by Type	Supports the Assets by Type graph.
Available Recommendations	Displays a list of all the AMS Asset Recommendation records that exist in the Meridium APM database. The results of this query appear when you access Recommendation Management from the <b>AMS Analytics Start Page</b> .
Day List	Supports various AMS Analytics Catalog items.
Distinct_AssetKey_DayFilter	Supports the Problematic Assets report.
Distinct_AssetKey_HourFilter	Supports the Problematic Assets report.
Distinct_AssetKey_MonthFilter	Supports the Problematic Assets report.
Distinct_AssetKey_WeekFilter	Supports the Problematic Assets report.
Event Breakdown by Asset	Supports the Event Description Breakdown Report.
Event Breakdown by Asset and Description	Supports the Event Description Breakdown Report.

Item Name	Behavior and Usage
Event Description List by Type	Supports the Event Trend Daily report and the Event Trend Monthly report.
Event Details	Supports the Event Details Reports.
Event Rate	Supports the Alert Trend graph.
Event Rate Data	Supports the Alert Trend graph.
Event Rate List	Supports the Alert Trend graph.
Event Trend Daily	Supports the Event Trend Daily report. This query works only on SQL Server databases. If you are using an Oracle database, you will need to configure the system to use the Event Trend Daily_Oracle query.
Event Trend Daily_Oracle	Supports the Event Trend Daily report. This query works only on Oracle databases. If you are using a SQL Server database, you will not need to use this query. The product is configured to use the SQL Server equivalent query (Event Trend Daily) by default. If you are using an Oracle database, you will need to configure the product to use this query.
Event Trend Monthly	Supports the Event Trend Monthly report. This query works only on SQL Server databases. If you are using an Oracle database, you will need to configure the system to use the Event Trend Monthly_Oracle query.
Event Trend Monthly_Oracle	Supports the Event Trend Monthly report. This query works only on Oracle databases. If you are using a SQL Server database, you will not need to use this query. The product is configured to use the SQL Server equivalent query (Event Trend Daily) by default. If you are using an Oracle database, you will need to configure the product to use this query.
Events	Displays a list of AMS Asset Event records that are linked to AMS Asset records. The results of this query appear when you access the <b>AMS Analytics - Events</b> page from the <b>AMS Analytics Start Page</b> .
Events by Type	Supports the Events by Type graph.
Events by Type List	Supports the Events by Type graph.

Item Name	Behavior and Usage
Events Report	Supports the Event Description Breakdown Report.
Event_Count_By_Plant	Supports the Event Description Breakdown Report.
List of Assets by Criticality	Supports the Assets by Type graph.
List of Assets by Health	Supports the Assets by Type graph.
List of Assets by Type	Supports the Assets by Type graph.
Month List	Supports various AMS Analytics Catalog items.
Past 10 Days List	Supports the Event Trend Daily report. This query works only on SQL Server databases. If you are using an Oracle database, you will need to configure the system to use the Past 10 Days List_Oracle query.
Past 10 Days List_Oracle	Supports the Event Trend Daily report. This query works only on Oracle databases. If you are using a SQL Server database, you will not need to use this query. The product is configured to use the SQL Server equivalent query (Past 10 Days List) by default. If you are using an Oracle database, you will need to configure the product to use this query.
Past 12 Months list	Supports the Event Trend Monthly report. This query works only on SQL Server databases. If you are using an Oracle database, you will need to configure the system to use the Past 12 Months List_Oracle query.
Past 12 Months list_Oracle	Supports the Event Trend Monthly report. This query works only on Oracle databases. If you are using a SQL Server database, you will not need to use this query. The product is configured to use the SQL Server equivalent query (Past 12 Months List) by default. If you are using an Oracle database, you will need to configure the product to use this query.
PlantCriticalAsset	Supports the Plant Health Report.
PlantCriticalAssetData	Supports the Plant Health Report.
PlantDegradedAssets	Supports the Plant Health Report.
PlantHealthIndex	Supports the Plant Health Report.

Item Name	Behavior and Usage
PlantMonitoredAssets	Supports the Plant Health Report.
PlantTotalAssets	Supports the Plant Health Report.
Problematic Assets Alert List	Supports the Problematic Assets report.
Week List	Supports various AMS Analytics Catalog items.

## Summary Reports

The Catalog folder \\Public\Meridium\Modules\AMS Asset Portal\Summary Reports stores the reports, queries, and graphs that appear on the **AMS Analytics - Summary Reports** page. You can add custom queries, graphs, and reports to this folder so that they will appear on the **AMS Analytics - Summary Reports** page.

The following table provides a summary of the Catalog items that exist in the Summary Reports folder.

Item Name	Behavior and Usage
Active Alert Breakdown	Graph that displays AMS Asset records grouped by the value in the Severity field of the AMS Asset Alert records that are linked to that AMS Asset record.
Alert Trend	Graph that displays the number of AMS Asset Alert records whose date and time values fall within a specified time frame.
Assets by Data Source	Graph that displays AMS Asset records grouped by the data source from which they originated. This graph displays information from ALL data sources that appear in the tree.
Event Description Breakdown Report	Report that displays the number of AMS Asset Event records, grouped by the data source from which they originated, whose event type, start date, and end date match a specified set of criteria.
Event Trend Daily	Report that displays the number of AMS Asset Event records, grouped by the data source from which they originated, whose event type, description, and end date match a specified set of criteria. This report shows only the AMS Asset Event records whose date and time falls within the 10 days prior to the end date that you specified in the prompt when running the report.

Item Name	Behavior and Usage
Event Trend Monthly	Report that displays the number of AMS Asset Event records, grouped by the data source from which they originated, whose event type, description, and end date match a specified set of criteria. This report shows only the AMS Asset Event records whose date and time falls within the 12 months prior to the end date that you specified in the prompt when running the report.
Degraded Asset Report	Query that displays the total number of AMS Asset records that contain a health index value that is lower than 100.
Plant Health Report	Query that displays summary information about the overall health of the equipment and locations per plant.
Problematic Assets	Query that displays AMS Asset records with high criticality values and low health index values.

## Family Field Descriptions

### Properties of AMS Asset Records

The following fields are included in the AMS Asset family and store the value that was transferred from the AMS Analytics data source and are disabled in the baseline Meridium APM database:

- Name
- Type
- Description
- Manufacturer
- Model
- Revision

**Note:** The Revision field is populated automatically only if you are using Device Manager 11.5. If you are using an earlier version of Device Manager or you are using a data source other than Device Manager, this field will not be populated.

- Protocol

**Note:** The Protocol field is populated automatically only if you are using Device Manager 11.5. If you are using an earlier version of Device Manager or you are using a data source other than Device Manager, this field will not be populated.

- Health Index
- Criticality
- Tag Path (unavailable on the baseline datasheet)

The Record ID of each AMS Asset record contains the value in the Name field (based upon the default ID Template for the AMS Asset family).

## Properties of AMS Asset Alert Records

The following fields are included in the AMS Asset Alert family and store the value that was transferred from the AMS Analytics data source.

- Date/Time
- Active?
- Severity
- AMS Asset ID
- Description
- Help
- ID

**Note:** Unlike the other fields, when the AMS Asset Alert records are transferred to Meridium APM, the value in the Date/Time field is converted from UTC time as it is stored in the AMS Analytics data source to the local time, using the time zone setting on the Meridium APM application server.

The Record ID of each AMS Asset Alert record is constructed using the ID Template <Date/Time> - <Severity> - <Description>.

## Properties of AMS Asset Event Records

The following fields are included in the AMS Asset Event family and store the value that was transferred from the AMS Analytics data source.

- Date/Time
- Type
- AMS Asset ID
- Severity
- Description
- Status
- Analyst
- Certainty
- Urgency
- Operational Significance
- Recommended Actions

**Note:** Unlike the other fields, when the AMS Asset Event records are transferred to Meridium APM, the value in the Date/Time field is converted from UTC time as it is stored in the AMS Analytics data source to the local time, using the time zone setting on the Meridium APM application server.

The Record ID of each AMS Asset record is constructed using the ID Template <Date/Time> - <Type> - <Description>.

## AMS Asset Folder

The following fields exist for the AMS Asset Folder family and are disabled in the baseline Meridium APM database:

- Name
- Health Index

The Health Index field stores the *composite health index value*. This field contains a rule, which determines the composite health index value based upon the health index values and criticality values that are stored in the AMS Asset records that are linked to an AMS Asset Folder record. The composite health index value indicates the overall health of all the assets associated with an AMS Asset Folder record. This value is calculated each time data is transferred to the Meridium APM database from an AMS Analytics data source. The Health Index field is not included on the AMS Asset Folder datasheet by default. The composite health index value is displayed on the **AMS Analytics - Dashboard** page.

This text box is always disabled and is color-coded according to the value that appears in the text box. The following table provides details on the color coding that is used in the **Composite Health Index** text box and what this indicates.

This health index range...	Corresponds to this color...	Indicating that the health is...
0 - 19	Red	Poor
20-79	Yellow	Moderate
80-99	Purple	Good
100	Green	Perfect

**Note:** If a composite health index value is not available for the selected record, this text box is grayed out.

The Record ID of each AMS Asset Folder record contains the value in the Name field (based upon the default ID Template for the AMS Asset Folder family).



## Fields in AMS Asset Recommendation Records

The following table provides notes about AMS Asset Recommendation records and their field behavior. The list is limited to field behavior that is unique to AMS Asset Recommendation records. If a field behaves the same way in AMS Asset Recommendation records as it does in other Recommendation records, the field is not included in the list.

Field Caption	Data Type	Description	Behavior and Usage
Recommendation Headline	Character	A short description of the recommended action.	When the record is created, this field is populated automatically with the value that appears in Description field in the AMS Asset Alert or AMS Asset Event record to which the AMS Asset Recommendation record is linked. You can modify this value if desired.
Recommendation Priority	Character	The priority of the recommended action.	This field stores a value between 0 and 5 that represents the priority level of the recommendation. The value should be calculated manually based upon the severity value of the associated AMS Asset Alert or AMS Asset Event record and the criticality value of the associated AMS Asset record.
Recommendation Description	Text	A short description of the recommended action.	When the record is created, this field is populated automatically with the value in the <i>Help</i> field in the associated AMS Asset Alert record. You can modify this value if desired.

Field Caption	Data Type	Description	Behavior and Usage
Asset ID	Character	The Record ID of the Equipment record to which the Recommendation record is linked.	This field is populated automatically when the AMS Asset Recommendation record is created. If the AMS Asset Recommendation record is not linked to an Equipment record, this field will be empty.
Functional Location ID	Character	The Record ID of the Functional Location record to which the Recommendation record is linked.	This field is populated automatically when the AMS Asset Recommendation record is created. If the AMS Asset Recommendation record is not linked to a Functional Location record, this field will be empty.
Create Work Request?	Logical	Specifies whether or not an SAP Notification or Oracle EBS eAM Work Request should be created from this Recommendation record when it is saved.	This check box is selected by default if the AMS Asset record that is associated with the AMS Asset Alert or AMS Asset Event record on which you are basing the recommendation is linked to an Asset record.

**Note:** The information in this table assumes that the AMS Asset Recommendation record was created via the **Generate Work Notification** link that appears on the **Associated Pages** menu in the Record Manager when you are viewing an AMS Asset Alert or AMS Asset Event record.

## AMS Asset Data Source

### The AMS Asset Data Source Datasheet

AMS Asset Data Source records store connection information that the Meridium APM system uses to:

- Connect to an external AMS Analytics data source and transfer that data to the Meridium APM database.
- Display data in the tree that was transferred from a CMMS system and already exists in the Meridium APM database.

The AMS Asset Data Source datasheet consists of four tabs:

- **Web Service Details**
- **Detailed Report Details**
- **Intervals**
- **Status**

After you create the AMS Asset Data Source record, you can test the connection to the data source to ensure that the connection is successful.


### Fields on the Web Service Details Tab


The **Web Service Details** tab on the AMS Asset Data Source datasheet stores connection information that the Meridium APM system uses to connect to the AMS Analytics data source. If you are creating the AMS Asset Data Source record to indicate that you want to view data from a CMMS data source in AMS Analytics, you can also use the **Web Service Details** tab to specify a name for the CMMS data source.

The following table provides a summary of the fields that appear on the **Web Service Details** tab on the AMS Asset Data Source datasheet.

This field...	Stores this value...	Used by Meridium APM to...	Notes
<b>Name</b>	Name of the AMS Analytics data source.	Identify the record.	This field is required and must be unique. If you try to save the record with the same value in the Name field as an existing AMS Asset Data Source record, a message appears, indicating that the name is not valid.
<b>Enabled</b>	True or False	Enable connection to the web service.	The value in this field determines whether or not Meridium APM will attempt to retrieve data from this AMS Analytics data source when the scheduled item is executed. When the AMS Asset Data Source record is created, the <b>Enabled</b> check box is selected by default, indicating that the connection is enabled. You can clear the <b>Enabled</b> check box to disable the data source connection.

This field...	Stores this value...	Used by Meridium APM to...	Notes
CMMS Data Source	True or False	Identify that you want to use the Asset hierarchy that was polled from a CMMS system into the Meridium APM database.	<p>The value in this field indicates that the Meridium APM system should display the Asset hierarchy in the Meridium APM database that was polled from a CMMS system. When the <b>CMMS Data Source</b> check box is selected, ALL remaining fields on the datasheet are disabled except:</p> <ul style="list-style-type: none"> <li>• Name</li> <li>• Enabled</li> <li>• AMS Asset Interval (on the <b>Intervals</b> tab)</li> </ul> <p>Only one <i>enabled</i> AMS Asset Data Source record can be specified as a CMMS at a time. If an AMS Asset Data Source record has been specified as a CMMS and you select the <b>CMMS Data Source</b> check box on a new AMS Asset Data Source record, an error message will appear, indicating that an AMS Asset Data Source record is already specified as a CMMS data source.</p>
<b>Web Service Connection Details section</b>			
URL	The URL for accessing the web service associated with the AMS Analytics data source.	Access the web service.	This field is required. After you type a URL in this field and navigate to a different field, parameters on the <b>Detailed Report Details</b> tab are populated automatically based upon the AMS Analytics data source that you specify in the URL. Not all the fields on this tab are populated for all AMS Analytics data sources. For more information, see the description of the <b>Detailed Report Details</b> tab.

This field...	Stores this value...	Used by Meridium APM to...	Notes
User ID	The User ID used to access the AMS Analytics data source.	Log in to the data source at the location specified in the <b>URL</b> text box.	This field is required.
Password	The password for the User ID used to access the AMS Analytics data source.	Log in to the data source at the location specified in the <b>URL</b> text box.	This field is disabled. To modify this field, click the  button to the right of the field, and on the <b>Enter AMS Asset Data Source Password</b> dialog box, type the password and then click <b>OK</b> .
<b>Network Details section</b>			
Network Domain	The name of the network domain associated with the AMS Analytics data source.	Access the web service.	This field is required only if you must first log in to a network to access the web service for the AMS Analytics data source. The Meridium APM system will use this information only if the <b>Use Network Credentials?</b> check box is selected.
Use Network Credentials?	True or False	Enable network connection information.	Select this check box to indicate that the Meridium APM system should use the network connection information when accessing the web service.
Network User ID	The User ID used to access the network.	Log in to the network.	This field is required only if you must first log in to a network to access the web service for the AMS Analytics data source. The Meridium APM system will use this information only if the <b>Use Network Credentials?</b> check box is selected.

This field...	Stores this value...	Used by Meridium APM to...	Notes
Network Password	The password for the User ID used to access the network.	Log in to the network.	This field is disabled. To modify this field, click the  button to the right of the field, and on the <b>Enter AMS Asset Data Source Password</b> dialog box, type the password and then click <b>OK</b> . This field is required only if you must first log in to a network to access the web service. The Meridium APM system will use this information only if the <b>Use Network Credentials?</b> check box is selected.
<b>Proxy Details section</b>			
Use Proxy?	True or False	Enable proxy connection information.	The value in this field indicates that Meridium APM should use proxy connection information when accessing the web service.
Proxy URL	The URL to the proxy server.	Access the web service.	This field is required only if you must first access a proxy server to access the web service for the AMS Analytics data source. The Meridium APM system will use this information only if the <b>Use Proxy?</b> check box is selected.
Proxy Port	The port number of the proxy server.	Access the proxy server.	This field is required if a port number is associated with the proxy server. The Meridium APM system will use this information only if the <b>Use Proxy?</b> check box is selected.

## Fields on the Detailed Report Details Tab

The **Detailed Report Details** tab on the AMS Asset Data Source datasheet stores connection information that Meridium APM uses to obtain for an AMS Analytics data source:

- The contents of the Detailed Reports for that data source.

- The file used to convert the external data into the format that SQL Server Reporting Services can use to display the information in the report.

All the fields on the **Detailed Report Details** tab are populated automatically when you type a valid URL in the **URL** text box on the **Web Service Details** tab. The following table provides a summary of these fields.

This field...	Stores this Value...	Used by Meridium APM to...
AMS Asset Detailed Report Web Service URL	The URL <code>http://&lt;Application Server Name&gt;/DetailReportService/DetailReporting.aspx</code> , where <code>&lt;Application Server Name&gt;</code> is the name of the Meridium APM Application server where the file <code>DetailReporting.aspx</code> is stored.	Connect to the data source specified on the <b>Web Service Details</b> tab and obtain the required content from the data source.
AMS Asset Detail Report Path	The Meridium APM Catalog path <code>\\Public\Meridium APMModules\AMS Asset Portal\Detailed Reports\&lt;Data source Name&gt;</code> , where <code>&lt;Data Source Name&gt;</code> is the name of the Catalog folder where the Asset Details Report is stored.	Locate the associated Asset Details Report for the desired AMS Analytics data source.
AMS Asset XSL Path	The URL <code>http://&lt;Application Server Name&gt;/DetailReportService/XSL/&lt;Data Source Name&gt;/GetAssetDetails.xsl</code> , where <code>&lt;Application Server Name&gt;</code> is the name of the Meridium APM Application server and <code>&lt;Data Source Name&gt;</code> is the name of the folder where the file <code>GetAssetDetails.xsl</code> is stored.	Transform the data from the AMS Analytics data source into the format required to display the report in Meridium APM.



This field...	Stores this Value...	Used by Meridium APM to...
AMS Asset Alert Detail Report Path	The Meridium APM Catalog path <b>\\Public\Meridium APM\Modules\AMS Asset Portal\Detailed Reports\&lt;Data Source Name&gt;</b> , where <b>&lt;Data Source Name&gt;</b> is the name of the Catalog folder where the Alert Details Report is stored.	Locate the associated Alert Details Report for the desired AMS Analytics data source.
AMS Asset Alert XSL Path	The URL <b>http:// &lt;Application Server Name&gt;/DetailReportService/XSL/&lt;Data Source Name&gt;/GetAlertDetails.xsl</b> , where <b>&lt;Application Server Name&gt;</b> is the name of the Meridium APM Application server and <b>&lt;Data Source Name&gt;</b> is the name of the folder where the file GetAlertDetails.xsl is stored.	Transform the data from the AMS Analytics data source into the format required to display the report in Meridium APM.
AMS Asset Event Detail Report Path	The Meridium APM Catalog path <b>\\Public\Meridium APM\Modules\AMS Asset Portal\Detailed Reports\&lt;Data Source Name&gt;</b> , where <b>&lt;Data Source Name&gt;</b> is the name of the Catalog folder where the Event Details Report is stored.	Locate the associated Event Details Report for the desired AMS Analytics data source.
AMS Asset Event XSL Path	The URL <b>http://&lt;Application Server Name&gt;/DetailReportService/XSL/&lt;Data Source Name&gt;/GetEventDetails.xsl</b> , where <b>&lt;Application Server Name&gt;</b> is the name of the Meridium APM Application server and <b>&lt;Data Source Name&gt;</b> is the name of the folder where the file GetEventDetails.xsl is stored.	Transform the data from the AMS Analytics data source into the format required to display the report in Meridium APM.

**Note:** The AMS Performance Monitor data source does not have associated files `GetAlertDetails.xsl` or `GetEventDetails.xsl`.

## Fields on the Intervals Tab

The **Intervals** tab on the AMS Asset Data Source datasheet stores values that specify:

- How often data is collected for a family.
- Which AMS Asset Event records should be collected, based on how far back in time the associated events occurred.

For *each* field on the **Intervals** tab, a text box and list field appears. Together, the value that you specify in the text box and select from the list make up the interval at which the data for a family should be collected or which AMS Asset Event records to collect based on when the associated event occurred. In the text box you will need to type a *number*, and in the list, you will need to select one of the following *units of time*:

- Minutes
- Hours
- Days
- Weeks
- Months
- Years

The number that you type and the unit of time that you select indicate the desired interval. For example, if you specify the number 2 and select the interval *Hours*, you have indicated that data should be collected every 2 *hours*.

**Note:** The fields on this tab serve as one aspect of determining how often a given type of data will be collected from the AMS Analytics data source. The actual data collection schedule is determined by a scheduled item, which must be created within the Meridium APM Schedule Manager. For the data collection process to work properly, the intervals that you define here must correspond to the schedule defined for the scheduled item. For example, if you specify that AMS Asset record data should be collected every hour but the scheduled item is set up to run once per day, data will be collected once a day only, not every hour.

The following table provides a summary of the fields that appear on the **Intervals** tab on the AMS Asset Data Source datasheet.

Field	Description
AMS Asset Interval	Specifies how often data should be collected from the specified AMS Analytics data source to create and update records in the AMS Asset family.
AMS Asset Alert Interval	Specifies how often data should be collected from the specified AMS Analytics data source to create and update records in the AMS Asset Alert family.
AMS Asset Event Interval	Specifies how often data should be collected from the specified AMS Analytics data source to create and update records in the AMS Asset Event family.
AMS Asset Event History	Specifies which AMS Asset Event records should be collected based on when the associated events occurred. For example, if you wanted to see AMS Asset Event records for events that took place only over the past two months, you would the number 2 and then select the value <i>Months</i> from the list.

## Fields on the Status Tab

The **Status** tab on the AMS Asset Data Source datasheet stores the following values for each family whose data has been collected:

- The dates on which data was last collected.
- The status of the collection process, including any errors that occurred during the data collection process.

The fields on the **Status** tab on the AMS Asset Data Source datasheet are disabled. You cannot modify the values in these fields.

The following table provides a summary of the fields that appear on the **Status** tab.

Field Name	Description	Notes
AMS Asset Processed Date	Stores the date and time on which data for the AMS Asset family was collected from the specified AMS Analytics data source.	The field is populated automatically after the collection process for the AMS Asset family is executed.
AMS Asset Status	Stores a value that indicates if there were errors while collecting AMS Asset data.	This field is populated automatically after the collection process for the AMS Asset family is complete. If no errors occurred, the value <i>Good</i> will appear in the field. If errors have occurred, this value will reflect the type of error that occurred (e.g., <i>Fatal Error</i> ).
AMS Asset Alert Processed Date	Stores the date and time on which data for the AMS Asset Alert family was collected from the specified AMS Analytics data source.	The field is populated automatically after the collection process for the AMS Asset Alert family is executed.
AMS Asset Alert Status	Stores a value that indicates if there were errors while collecting AMS Asset data.	This field is populated automatically after the collection process for the AMS Asset Alert family is complete. If no errors occurred, the value <i>Good</i> will appear. If errors have occurred, this value will reflect the type of error that occurred (e.g., <i>Fatal Error</i> ). If the <b>CMMS Data Source</b> check box on the <b>Web Service Details</b> tab is selected, this value will always be <i>N/A</i> .
AMS Asset Event Processed Date	Stores the date and time on which data for the AMS Asset Event family was collected from the specified AMS Analytics data source.	The field is populated automatically after the collection process for the AMS Asset Event family is executed.

Field Name	Description	Notes
AMS Asset Event Status	Stores a value that indicates if there were errors while collecting AMS Asset Event data.	This field is populated automatically after the collection process for the AMS Asset Event family is complete. If no errors occurred, the value <i>Good</i> will appear. If errors have occurred, this value will reflect the type of error that occurred (e.g., <i>Fatal Error</i> ). If the <b>CMMS Data Source</b> check box on the <b>Web Service Details</b> tab is selected, this value will always be <i>N/A</i> .

## Time Zone Mappings

When you access the following pages, the current time zone of the Meridium APM Application Server to which you are currently connected will be displayed in the **Date/Time** column.

- **AMS Analytics - Active Alerts**
- **AMS Analytics - Events**

On these pages, the abbreviated time zone is displayed. The following table maps the time zones that are available on your Windows operating system (which you can select on the Meridium APM Application Server) to their standard time zone names and the abbreviations that will be displayed on the **AMS Analytics - Active Alerts** and **AMS Analytics - Events** pages.

Windows Time Zone Name	Standard Time Zone Name	Abbreviation (Displayed in Meridium APM)
(UTC) Casablanca	Morocco Standard Time	MST
(UTC) Coordinated Universal Time	Coordinated Universal Time	CUT

Windows Time Zone Name	Standard Time Zone Name	Abbreviation (Displayed in Meridium APM)
(UTC) Dublin, Edinburgh, Lisbon, London	GMT Standard Time	GST
(UTC) Monrovia, Reykjavik	Greenwich Standard Time	GST
(UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna	W. Europe Standard Time	WEST
(UTC+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague	Central Europe Standard Time	CEST
(UTC+01:00) Brussels, Copenhagen, Madrid, Paris	Romance Standard Time	RST
(UTC+01:00) Sarajevo, Skopje, Warsaw, Zagreb	Central European Standard Time	CEST
(UTC+01:00) West Central Africa	W. Central Africa Standard Time	WCAST
(UTC+01:00) Windhoek	Namibia Standard Time	NST
(UTC+02:00) Amman	Jordan Standard Time	JST
(UTC+02:00) Athens, Bucharest	GTB Standard Time	GST
(UTC+02:00) Beirut	Middle East Standard Time	MEST
(UTC+02:00) Cairo	Egypt Standard Time	EST
(UTC+02:00) Damascus	Syria Standard Time	SST
(UTC+02:00) Harare, Pretoria	South Africa Standard Time	SAST
(UTC+02:00) Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius	FLE Standard Time	FST
(UTC+02:00) Istanbul	Turkey Standard Time	TST
(UTC+02:00) Jerusalem	Jerusalem Standard Time	JST
(UTC+02:00) Nicosia	E. Europe Standard Time	EEST
(UTC+03:00) Baghdad	Arabic Standard Time	AST

Windows Time Zone Name	Standard Time Zone Name	Abbreviation (Displayed in Meridium APM)
(UTC+03:00) Kaliningrad, Minsk	Kaliningrad Standard Time	KST
(UTC+03:00) Kuwait, Riyadh	Arab Standard Time	AST
(UTC+03:00) Nairobi	E. Africa Standard Time	EAST
(UTC+03:30) Tehran	Iran Standard Time	IST
(UTC+04:00) Abu Dhabi, Muscat	Arabian Standard Time	AST
(UTC+04:00) Baku	Azerbaijan Standard Time	AST
(UTC+04:00) Moscow, St. Petersburg, Volgograd	Russian Standard Time	RST
(UTC+04:00) Port Louis	Mauritius Standard Time	MST
(UTC+04:00) Tbilisi	Georgian Standard Time	GST
(UTC+04:00) Yerevan	Caucasus Standard Time	CST
(UTC+04:30) Kabul	Afghanistan Standard Time	AST
(UTC+05:00) Islamabad, Karachi	Pakistan Standard Time	PST
(UTC+05:00) Tashkent	West Asia Standard Time	WAST
(UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi	India Standard Time	IST
(UTC+05:30) Sri Jayawardenepura	Sri Lanka Standard Time	SLST
(UTC+05:45) Kathmandu	Nepal Standard Time	NST
(UTC+06:00) Astana	Central Asia Standard Time	CAST
(UTC+06:00) Dhaka	Bangladesh Standard Time	BST
(UTC+06:00) Ekaterinburg	Ekaterinburg Standard Time	EST

Windows Time Zone Name	Standard Time Zone Name	Abbreviation (Displayed in Meridium APM)
(UTC+06:30) Yangon (Rangoon)	Myanmar Standard Time	MST
(UTC+07:00) Bangkok, Hanoi, Jakarta	SE Asia Standard Time	SAST
(UTC+07:00) Novosibirsk	N. Central Asia Standard Time	NCAST
(UTC+08:00) Beijing, Chongqing, Hong Kong, Urumqi	China Standard Time	CST
(UTC+08:00) Krasnoyarsk	North Asia Standard Time	NAST
(UTC+08:00) Kuala Lumpur, Singapore	Malay Peninsula Standard Time	MPST
(UTC+08:00) Perth	W. Australia Standard Time	WAST
(UTC+08:00) Taipei	Taipei Standard Time	TST
(UTC+08:00) Ulaanbaatar	Ulaanbaatar Standard Time	UST
(UTC+09:00) Irkutsk	North Asia East Standard Time	NAEST
(UTC+09:00) Osaka, Sapporo, Tokyo	Tokyo Standard Time	TST
(UTC+09:00) Seoul	Korea Standard Time	KST
(UTC+09:30) Adelaide	Cen. Australia Standard Time	CAST
(UTC+09:30) Darwin	AUS Central Standard Time	ACST
(UTC+10:00) Brisbane	E. Australia Standard Time	EAST
(UTC+10:00) Canberra, Melbourne, Sydney	AUS Eastern Standard Time	AEST
(UTC+10:00) Guam, Port Moresby	West Pacific Standard Time	WPST
(UTC+10:00) Hobart	Tasmania Standard Time	TST



Windows Time Zone Name	Standard Time Zone Name	Abbreviation (Displayed in Meridium APM)
(UTC+10:00) Yakutsk	Yakutsk Standard Time	YST
(UTC+11:00) Solomon Is., New Caledonia	Central Pacific Standard Time	CPST
(UTC+11:00) Vladivostok	Vladivostok Standard Time	VST
(UTC+12:00) Auckland, Wellington	New Zealand Standard Time	NZST
(UTC+12:00) Coordinated Universal Time+12	UTC+12	U
(UTC+12:00) Fiji	Fiji Standard Time	FST
(UTC+12:00) Magadan	Magadan Standard Time	MST
(UTC+12:00) Petropavlovsk-Kamchatsky - Old	Kamchatka Standard Time	KST
(UTC+13:00) Nuku'alofa	Tonga Standard Time	TST
(UTC+13:00) Samoa	Samoa Standard Time	SST
(UTC-01:00) Azores	Azores Standard Time	AST
(UTC-01:00) Cape Verde Is.	Cape Verde Standard Time	CVST
(UTC-02:00) Coordinated Universal Time-02	UTC-02	U
(UTC-02:00) Mid-Atlantic	Mid-Atlantic Standard Time	MST
(UTC-03:00) Brasilia	E. South America Standard Time	ESAST
(UTC-03:00) Buenos Aires	Argentina Standard Time	AST
(UTC-03:00) Cayenne, Fortaleza	SA Eastern Standard Time	SEST
(UTC-03:00) Greenland	Greenland Standard Time	GST

Windows Time Zone Name	Standard Time Zone Name	Abbreviation (Displayed in Meridium APM)
(UTC-03:00) Montevideo	Montevideo Standard Time	MST
(UTC-03:00) Salvador	Bahia Standard Time	BST
(UTC-03:30) Newfoundland	Newfoundland Standard Time	NST
(UTC-04:00) Asuncion	Paraguay Standard Time	PST
(UTC-04:00) Atlantic Time (Canada)	Atlantic Standard Time	AST
(UTC-04:00) Cuiaba	Central Brazilian Standard Time	CBST
(UTC-04:00) Georgetown, La Paz, Manaus, San Juan	SA Western Standard Time	SWST
(UTC-04:00) Santiago	Pacific SA Standard Time	PSST
(UTC-04:30) Caracas	Venezuela Standard Time	VST
(UTC-05:00) Bogota, Lima, Quito	SA Pacific Standard Time	SPST
(UTC-05:00) Eastern Time (US & Canada)	Eastern Standard Time	EST
(UTC-05:00) Indiana (East)	US Eastern Standard Time	UEST
(UTC-06:00) Central America	Central America Standard Time	CAST
(UTC-06:00) Central Time (US & Canada)	Central Standard Time	CST
(UTC-06:00) Guadalajara, Mexico City, Monterrey	Central Standard Time (Mexico)	CST
(UTC-06:00) Saskatchewan	Canada Central Standard Time	CCST
(UTC-07:00) Arizona	US Mountain Standard Time	UMST
(UTC-07:00) Chihuahua, La Paz, Mazatlan	Mountain Standard Time (Mexico)	MST

Windows Time Zone Name	Standard Time Zone Name	Abbreviation (Displayed in Meridium APM)
(UTC-07:00) Mountain Time (US & Canada)	Mountain Standard Time	MST
(UTC-08:00) Baja California	Pacific Standard Time (Mexico)	PST
(UTC-08:00) Pacific Time (US & Canada)	Pacific Standard Time	PST
(UTC-09:00) Alaska	Alaskan Standard Time	AST
(UTC-10:00) Hawaii	Hawaiian Standard Time	HST
(UTC-11:00) Coordinated Universal Time-11	UTC-11	U
(UTC-12:00) International Date Line West	Dateline Standard Time	DST

## URLs

### URL Paths for AMS Analytics Features

The following table lists and describes the paths for AMS Analytics features. Note that to construct a valid URL, you must prepend **meridium://** to the path. In some cases, you must define parameters following the paths.

Feature	Path	Description
AMS Analytics Start Page	AMSAalytics	Displays the <b>AMS Analytics Start Page</b> . This URL does not accept any parameters.

Feature	Path	Description
<b>AMS Analytics Administration</b>	AMSAnalytics/Admin	Displays the <b>AMS Analytics Administration</b> page. This URL does not accept any parameters.
<b>AMS Analytics - Alerts</b>	AMSAnalytics/Alerts	Displays the <b>AMS Analytics - Alerts</b> page. This URL accepts parameters that let you specify a Catalog item that you want to display and an AMS Asset Folder record that you want selected by default.
<b>AMS Analytics - Assets</b>	AMSAnalytics/Assets	Displays the <b>AMS Analytics - Assets</b> page. This URL accepts parameters that let you specify a Catalog item that you want to display and an AMS Asset Folder record that you want selected by default.

Feature	Path	Description
<b>AMS Analytics - Dashboard</b>	AMSAalytics/Dashboard	Displays the <b>AMS Analytics - Dashboard</b> page. This URL accepts parameters that you let you display the multiple graphs on one page or a single graph that you specify.
<b>AMS Analytics Detailed Reports</b>	AMSAalytics/DetailReport	Displays the Detail report specified in the required parameters. This path requires two parameters that let you specify the type of report that you want to view and the Entity Key of the record whose data you want to view in the report.

Feature	Path	Description
Analytics - Events	AMSAalytics/Events	Displays the <b>AMS Analytics - Events</b> page. This path accepts parameters that you let you specify a Catalog item that you want to display and an AMS Asset Folder record that you want selected by default.
AMS Asset Recommendation records	AMSAalytics/GenerateNotification	Creates the Has Recommendations relationships that are necessary to create an AMS Asset Recommendation record and displays a new AMS Asset Recommendation record, populated with values from the record identified by the Entity Key that is specified with the Key parameter.

Feature	Path	Description
AMS Analytics - Recommendations	AMSAalytics/Recommendations	Displays a list of AMS Asset Recommendation records in Recommendation Management. This URL accepts parameters that let you specify a query that you want to appear.
AMS Analytics - Summary Reports	AMSAalytics/SummaryReports	Displays the AMS Analytics - Summary Reports page. This URL does not accept any parameters.

**Note:** For each AMSAnalytics URL path, there is a corresponding AssetPortal URL path (e.g., AssetPortal/Admin). The AssetPortal URL paths are included in the Meridium APM baseline database to support backward compatibility. Beginning in V3.4.2, however, you should use the AMSAnalytics URL paths.

## Alerts URLs

### Parameters for the Alerts URL

The URL for accessing the **AMS Analytics - Alerts** page, `meridium://AMSAalytics/Alerts`, accepts the parameters described in the following table. Note that a link created from the path with *no* parameters displays the **AMS Analytics - Alerts** page using the default query, Active Alerts, stored in the Catalog folder `\\Public\Meridium\Modules\AMS Asset Portal\Queries`.

Parameter Name	Description	Accepted Value(s)	Notes
CatalogPath	Specifies the Catalog item that you want to display.	Catalog folder path.	If no value is specified for this parameter, the Active Alerts query appears. When you use the CatalogPath parameter to display a query, you can also use the Title parameter.
Title	Specifies the title that appears in the title bar and in the workspace.	User specified text.	This parameter is only valid for displaying query results. If no value is specified for this parameter, the default value appears (i.e., the name of the query prepended by <i>AMS Analytics -</i> ).
FolderKey	Specifies the AMS Asset Folder record that will be selected in the tree.	The Entity Key of the desired AMS Asset Folder record.	If no value is specified for this parameter, the first node in the tree is selected by default.

## Examples of the Alerts URL

- meridium://AMSAalytics/Alerts

Displays the query Active Alerts on the **AMS Analytics - Alerts** page. The first node in the tree is selected by default.

- meridium://AMSAalytics/Alerts?CatalogPath=Public\Meridium\Modules\AMS Asset Portal\Queries\Active Alerts by Duration

Displays the query Active Alerts by Duration on the **AMS Analytics - Active Alerts by Duration** page. The first node in the tree is selected by default.

- meridium://AMSAalytics/Alerts?CatalogPath=Public\Meridium\Modules\AMS Asset Portal\Queries\Active Alerts by Duration&Title=My Title

Displays the query Active Alerts by Duration. The page title is **My Title** instead of **AMS Analytics - Active Alerts by Duration**, and the first node in the tree is selected by default.



- `meridium://AMSAalytics/Alerts?FolderKey=1233456`

Displays the query Active Alerts on the **AMS Analytics - Alerts** page. In the tree, the node representing the AMS Asset Folder record that is linked to the record with the Entity Key 1233456 is selected.

## Assets URLs

### Parameters for the Assets URL

The URL for accessing the **AMS Analytics - Assets** page, `meridium://AMSAalytics/Assets`, accepts the parameters described in the following table. Note that a link created from the path with *no* parameters displays the **AMS Analytics - Assets** page using the default query, Assets, stored in the Catalog folder `\\Public\Meridium\Modules\AMS Asset Portal\Queries`.

Parameter Name	Description	Accepted Value(s)	Notes
<b>CatalogPath</b>	Specifies the Catalog item that you want to display.	Catalog folder path.	If no value is specified for this parameter, the query Assets appears. When you use the CatalogPath parameter to display a query, you can also use the Title parameter.
<b>Title</b>	Specifies the title that will appear in the title bar and in the workspace.	User specified text.	This parameter is only valid for displaying query results. If no value is specified for this parameter, the default value appears (i.e., the name of the query prepended by <i>AMS Analytics -</i> ).
<b>FolderKey</b>	Specifies the AMS Asset Folder record that will be selected in the tree.	The Entity Key of the desired AMS Asset Folder record.	If no value is specified for this parameter, the first node in the tree is selected by default.

### Examples of the Assets URL

- `meridium://AMSAalytics/Assets`

Displays the query Assets on the **AMS Analytics - Assets** page. The first node in the tree is selected by default.

- `meridium://AMSAalytics/Assets?CatalogPath=Public\Meridium\Modules\AMS Asset Portal\Queries\Assets by Type`

Displays the query Assets by Type **AMS Analytics - Assets by Type** page. The first node in the tree is selected by default.

- `meridium://AMSAalytics/Assets?CatalogPath=Public\Meridium\Modules\AMS Asset Portal\Queries\Assets by Type&Title=My Title`

Displays the query Assets by Type. The page title is **My Title** instead of **AMS Analytics - Assets by Type**. The first node in the tree is selected by default.

- `meridium://AMSAalytics/Assets?FolderKey=1233456`

Displays the query Assets on the **AMS Analytics - Assets** page. In the tree, the node representing the AMS Asset Folder record with Entity Key 1233456 is selected.

## Dashboard URLs

### Parameters for the Dashboard URL

The URL for accessing the **AMS Analytics - Dashboard** page, `meridium://AMSAalytics/Dashboard`, accepts the parameters described in the following table. Note that a link created from the path with *no* parameters displays the first four graphs that appear in the Catalog folder `\Public\Meridium\Modules\AMS Asset Portal\Dashboard` on the **AMS Analytics - Dashboard** page.

Parameter Name	Description	Accepted Value(s)	Notes
Mode	Specifies whether the page displays one or multiple Catalog items.	Single Quad	<ul style="list-style-type: none"> <li>Single: Indicates that you want to display only one graph. If Mode=Single, the CatalogPath is required.</li> <li>Quad: Indicates that you want to display the first four graphs that appear in the Dashboard Catalog folder.</li> </ul> <p>If the Mode parameter is omitted, the <b>AMS Analytics - Dashboard</b> page will display the first four graphs that appear in the Dashboard Catalog folder.</p>
CatalogPath	Specifies the graph that you want to display.	Catalog folder path.	If no value is specified for this parameter, the first four graphs that appear in the Dashboard folder will appear by default. This parameter is required when Mode=Single.

## Examples of the Dashboard URL

- meridium://AMSAalytics/Dashboard

Displays the first four graphs that appear in the Dashboard Catalog folder on the **AMS Analytics - Dashboard** page.

- meridium://AMSAalytics/Dashboard?Mode=SINGLE&CatalogPath=Public\Meridium\Modules\AMS Asset Portal\Dashboard\Assets By Criticality

Displays the Assets By Criticality graph on the **AMS Analytics - Assets By Criticality** page.

## Detail Report URLs

### Parameters for the Detail Report URL

The URL for accessing the Detail report for a given AMS Asset Data Source, `meridium://AMSAalytics/DetailReport` requires the parameters described in the following table. Note that a link created from the path with *no* parameters is not a valid URL.

Parameter Name	Description	Accepted Value(s)	Notes
Type	Specifies the type of Detail report that you want to display.	Asset Alert Event	This parameter must be used with the Key parameter.
Key	Specifies the Entity Key of the record whose information you want to display	The Entity Key of the desired record	This parameter must be with the Type parameter.

**Note:** For the preceding URL to work, an administrative user must complete AMS Analytics administrative tasks.

### Examples of the Detail Report URL

- `meridium://AMSAalytics/DetailReport?Type=ASSET&Key=64251874259.`

Displays the Detail report for the AMS Asset record with the Entity Key 64251874259.

## Events URLs

### Parameters for the Events URL

The URL for accessing the **AMS Analytics - Events** page, `meridium://AMSAnalytics/Events`, accepts the parameters described in the following table. Note that a link created from the path with *no* parameters displays the **AMS Analytics - Events** page using the default query, `Events`, that is stored in the Catalog folder `\\Public\Meridium\Modules\AMS Asset Portal\Queries`.

Parameter Name	Description	Accepted Value(s)	Notes
<b>CatalogPath</b>	Specifies the query that you want to display.	Catalog folder path.	If no value is specified for this parameter, the query <code>Events</code> appears. When you use the <code>CatalogPath</code> parameter to display a query, you can also use the <code>Title</code> parameter.
<b>Title</b>	Specifies the title that will appear in the title bar and in the workspace.	User specified text.	This parameter is only valid for displaying query results. If no value is specified for this parameter, the default value appears (i.e., the name of the query prepended by <i>AMS Analytics -</i> ).
<b>FolderKey</b>	Specifies the AMS Asset Folder record that will be selected in the tree.	The Entity Key for the desired AMS Asset Folder record.	If no value is specified for this parameter, the first node in the tree is selected by default.

### Examples of the Events URL

- `meridium://AMSAnalytics/Events`

Displays the query `Events` on the **AMS Analytics - Events** page. The first record in the tree is selected by default.

- `meridium://AMSAnalytics/Events?CatalogPath=Public\Meridium\Modules\AMS Asset Portal\Queries\Events by Type`

Display the query Events by Type on the **AMS Analytics - Events by Type** page. The first record in the tree is selected by default.

- `meridium://AMSAalytics/Events?CatalogPath=Public\Meridium\Modules\AMS Asset Portal\Queries\Events by Type&Title=My Title`

Displays the query Events by Type. The page title is **My Title** instead of **AMS Analytics - Events by Type**. The first node in the tree is selected by default.

- `meridium://AMSAalytics/Events?FolderKey=1233456`

Displays the query Events on the **AMS Analytics - Events** page. In the tree, the node representing the AMS Asset Folder record with Entity Key 1233456 is selected.

## Generate Notification URLs

### Parameters for the Generate Notification URL

The URL for opening a new AMS Asset Recommendation record and simultaneously generating a Notification in SAP, `meridium://AMSAalytics/GenerateNotification`, requires the parameters described in the following table. Note that a link created from the path with *no* parameters is not a valid URL.

Parameter Name	Description	Accepted Value(s)
Key	Specifies the record whose information you want to display.	The Entity Key of the desired record.

### Examples of the Generate Notification URL

- `meridium://AMSAalytics/GenerateNotification?Key=64251874400`

Displays a new AMS Asset Recommendation record that contains values from the AMS Asset Alert record with the Entity Key 64251874400.

## Recommendations URLs

### Parameters for the Recommendations URL

The URL for accessing a list of AMS Asset Recommendation records in the Recommendation Management, `meridium://AMSAalytics/Recommendations`, accepts the parameters described in the following table. Note that a link created from the path with *no* parameters displays a list of AMS Asset Recommendation records in Recommendation Management using the default query, Available Recommendations, that is stored in the Catalog folder `\\Public\Meridium\Modules\AMS Asset Portal\Queries`.

Parameter Name	Description	Accepted Value(s)	Notes
CatalogPath	Specifies the query that you want to display	Catalog folder path.	If no value is specified for this parameter, the query Available Recommendations appears. When you use the CatalogPath parameter to display a query, you can also use the Title parameter.
Title	Specifies the title that will appear in the title bar and in the workspace.	User specified text.	This parameter is only valid for displaying query results. If no value is specified for this parameter, the default value appears (i.e., the name of the query prepended by <i>AMS Analytics -</i> ).

### Examples of the Recommendations URL

- `meridium://AMSAalytics/Recommendations`

Opens Recommendation Management and displays the AMS Asset Recommendation records that are returned in the query Available Recommendations.

- `meridium://AMSAalytics/Recommendations?CatalogPath=Public\Meridium\Modules\AMS Asset Portal\Queries\RecommendationQuery2`

Opens Recommendation Management and displays the AMS Asset Recommendation records that are returned in the query RecommendationQuery2.

- `meridium://AMSAalytics/Recommendations?CatalogPath=Public\Meridium\Modules\AMS Asset Portal\Queries\Available Recommendations&Title=My Title`

Opens Recommendation Management and displays the AMS Asset Recommendation records that are returned in the query RecommendationQuery2. The page title is **AMS Analytics - My Title** instead of **AMS Analytics - RecommendationQuery2**.

## Glossary

### AMS Analytics Data Source

One of the following data sources:

- AMS Suite: Intelligent Device Manager
- AMS Suite: Machinery Health Manager
- AMS Suite: Equipment Performance Monitor
- AMS Suite: Equipment Performance Advisor

### AMS Suite

Consists of:

- **AMS Analytics data sources:** Store information collected by external applications. For each AMS Analytics data source, there is a corresponding application that collects the data that is stored in that data source. For example, the AMS Suite: Intelligent Device Manager *data source* corresponds to an *application* by the same name. For the purposes of this documentation, we refer to the *data source* and not the application.
- **The AMS Analytics module:** Lets you transfer data from AMS Analytics data sources to Meridium APM so that you can view the data in one location.



## CMMS Data Source

Any type of external data source, such as an SAP system, where that data source is not an AMS Analytics data source.