



APM Foundation Work Process

V3.6.0.0.0



Meridium APM Foundation Work Process V3.6.0.0.0

Copyright © Meridium, Inc. 2014
All rights reserved. Printed in the U.S.A.

This software/documentation contains proprietary information of Meridium, Inc.; it is provided under a license agreement containing restrictions on use and disclosure. All rights including reproduction by photographic or electronic process and translation into other languages of this material are fully reserved under copyright laws. Reproduction or use of this material in whole or in part in any manner without written permission from Meridium, Inc. is strictly prohibited.

Meridium is a registered trademark of Meridium, Inc.

All trade names referenced are the service mark, trademark or registered trademark of the respective manufacturer.

Table of Contents

<u>ABOUT THIS DOCUMENT</u>	<u>1</u>
<u>DOCUMENTATION CONVENTIONS</u>	<u>3</u>
<u>BASICS</u>	<u>5</u>
ABOUT THE APM FOUNDATION WORK PROCESS _____	5
APM FOUNDATION SYSTEM REQUIREMENTS _____	6
<u>INSTALLATION, UPGRADE, AND CONFIGURATION</u>	<u>9</u>
FIRST-TIME DEPLOYMENT WORKFLOW _____	9
UPGRADE WORKFLOW _____	9
<u>USER INSTRUCTIONS</u>	<u>11</u>
APM FOUNDATION USER INSTRUCTIONS _____	11
<u>REFERENCE INFORMATION</u>	<u>13</u>
DASHBOARD _____	13
ACCESSING THE APM FOUNDATION DASHBOARD _____	13
ASPECTS OF THE APM FOUNDATION DASHBOARD _____	14
APM FOUNDATION DASHBOARD SECTIONS _____	15
Top 10 Bad Actors by Total Cost - Last 2 Years _____	15
Asset Criticality Analyses Completed - 12 Months _____	16
Recommendations Created and Approved - 12 Months _____	16
Top 10 Bad Actors by Failure Count - Last 2 Years _____	17
Asset Criticality Distribution - Current _____	18
Approved Recommendations by Type - All Time _____	19
CATALOG FOLDER STRUCTURE _____	20
DASHBOARDS FOLDER _____	20
QUERIES FOLDER _____	20
Dashboard Queries Folder _____	20

About This Document

This file is provided so that you can easily print a portion of the **APM Foundation** 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 one of the Help systems. 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 Meridium APM Help system, parts of this document may seem incomplete outside 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 system, in the Meridium APM Framework application, click the **Help** menu, and then click **Meridium APM Help**.

Documentation Conventions

Throughout the documentation, we use various stylistic conventions that make it easier to interpret information and instructions. The following table provides a list and description of the conventions that are used throughout the Meridium APM documentation.

Convention	Description	Example
Bold	Identifies labels that appear on the screen. Identifies folder paths and file names when the folder path or file name is included in step-by-step instructions.	The Save As dialog box appears. Click Cancel . In the Catalog folder \\Public\Meridium\Modules\Core\Queries , open the query Field History Records .
\\	Identifies the beginning of a folder path.	The query is located in the following Catalog folder: \\Public\Meridium\Modules\Core\Queries .
Courier New	Identifies text that you must type.	Type root .
<>	Indicates that the data inside the angle brackets is variable.	Click Expand/Collapse <Record>'s Children , where <Record> is the ID of the selected record.
[]	Indicates that the data inside the square brackets is optional.	Type the following text: <Catalog Path>,[Query Parameters] ...where: <ul style="list-style-type: none">• <Catalog Path> is the Catalog path of the desired query.• [Query Prompt Value] is a value that you want to supply for a prompt in the query. If you do not pass in query prompt values, you will be prompted to supply them when you run the query.

Basics

About the APM Foundation Work Process

The *APM Foundation Work Process* is the work process upon which all other Meridium APM Work Processes are built. It consists of the following five components:

- **Asset Taxonomy:** The classification of your assets.
- **Event History:** The collection of information about asset repairs, failures, preventive maintenance events, predictive maintenance events, production incidents, and asset condition history reports.
- **Asset Criticality:** A risk-based evaluation of your assets that allows you to prioritize improvement efforts and plan for work on those assets.
- **Core Analysis:** A set of tools that help you evaluate asset performance based on historical data. Using that data, you can evaluate existing strategies, processes, and procedures in order to improve asset performance.
- **Recommendation Management:** A feature that allows you to propose changes to improve overall asset performance and formally review and track the recommended actions to ensure that they are completed.

The following image illustrates these five basic components of the APM Foundation Work Process.



Within the Meridium APM product, each of the components listed above is incorporated into one or more of the following modules, tools, and features:

- Asset Criticality Analysis (ACA)
- Core Analysis
- Recommendation Management
- Asset Health Manager (AHM)
- EAM Interfaces
 - SAP Interfaces
 - Oracle EBS eAM Interfaces
 - Maximo Interfaces
- Online Analytic Interfaces
 - AMS Analytics
 - Process Data Integration
- Operator Rounds
- Lubrication Management

APM Foundation System Requirements

Multiple licenses are required to take advantage of APM Foundation modules, features, and tools. In addition to the following licenses, your system must contain the basic Meridium APM system architecture:

- Asset Criticality Analysis (ACA)
- Asset Health Manager (AHM)
- One or more of the licences representing the third-party EAM systems you plan to integrate with your Meridium APM system:

- SAP Interfaces
- Oracle EBS eAM Interfaces
- Maximo Interfaces
- AMS Analytics
- Process Data Integration
- Operator Rounds *or* Lubrication Management
- Recommendation Management

After you have licensed and configured the basic system architecture, you will need to perform some configuration steps for some features.

Installation, Upgrade, and Configuration

First-Time Deployment Workflow

Deploying and configuring the APM Foundation Work Process for the first time includes completing multiple steps, which are outlined in the following table. *All* of the steps are required to fully implement the APM Foundation Work Process. These steps provide all of the information that you need to deploy APM Foundation with the basic Meridium APM architecture.

Step	Task
1	Deploy and configure the Asset Criticality Analysis tool.
2	Deploy and configure the Asset Health Manager module.
3	Activate the licences representing the third-party EAM systems you plan to integrate with your Meridium APM system (e.g., SAP Interfaces, Oracle EBS eAM Interfaces, and Maximo Interfaces).
4	Deploy and configure the following Online Analytic Interfaces: <ul style="list-style-type: none">• AMS Analytics• Process Data Integration
5	Deploy and configure Operator Rounds <i>or</i> Lubrication Management

Upgrade Workflow

You can upgrade to V3.6.0.0.0 using the instructions that are provided in the Installation, Upgrade, and Configuration documentation for each APM Foundation module, tool, or feature:

- Asset Criticality Analysis
- Asset Health Manager
- EAM Interfaces
 - SAP Interfaces (PI customers or Non-PI customers)
 - Oracle Interfaces (SOA Gateway customers or DB Direct customers)
 - Maximo Interfaces
- Online Analytic Interfaces
 - AMS Analytics
 - Process Data Integration
- Operator Rounds
- Lubrication Management

User Instructions

APM Foundation User Instructions

The user instructions for APM Foundation modules, features, and configuration tools are provided in the section of documentation for the related module, feature, or tool. Documentation for the APM Foundation dashboard is provided in the APM Foundation Reference Information documentation.

Reference Information

Dashboard

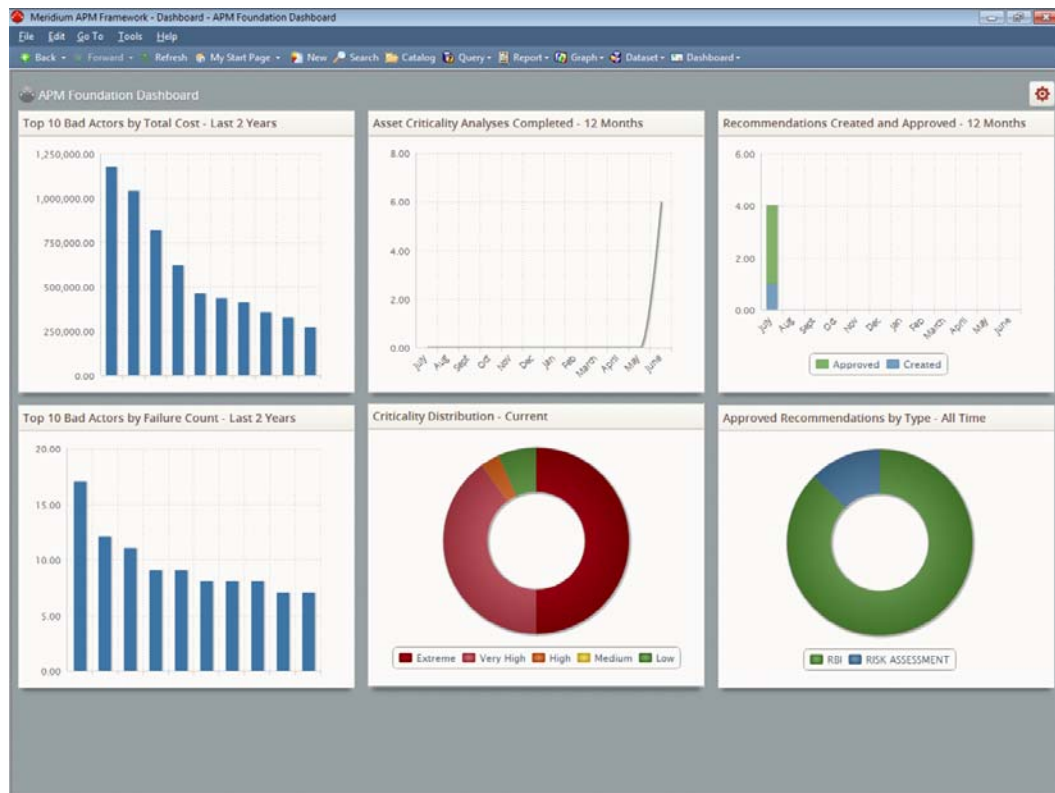
Accessing the APM Foundation Dashboard

You can access the APM Foundation dashboard to view information about pieces of equipment and locations that you analyze using APM Foundation modules and features.

To access the APM Foundation dashboard:

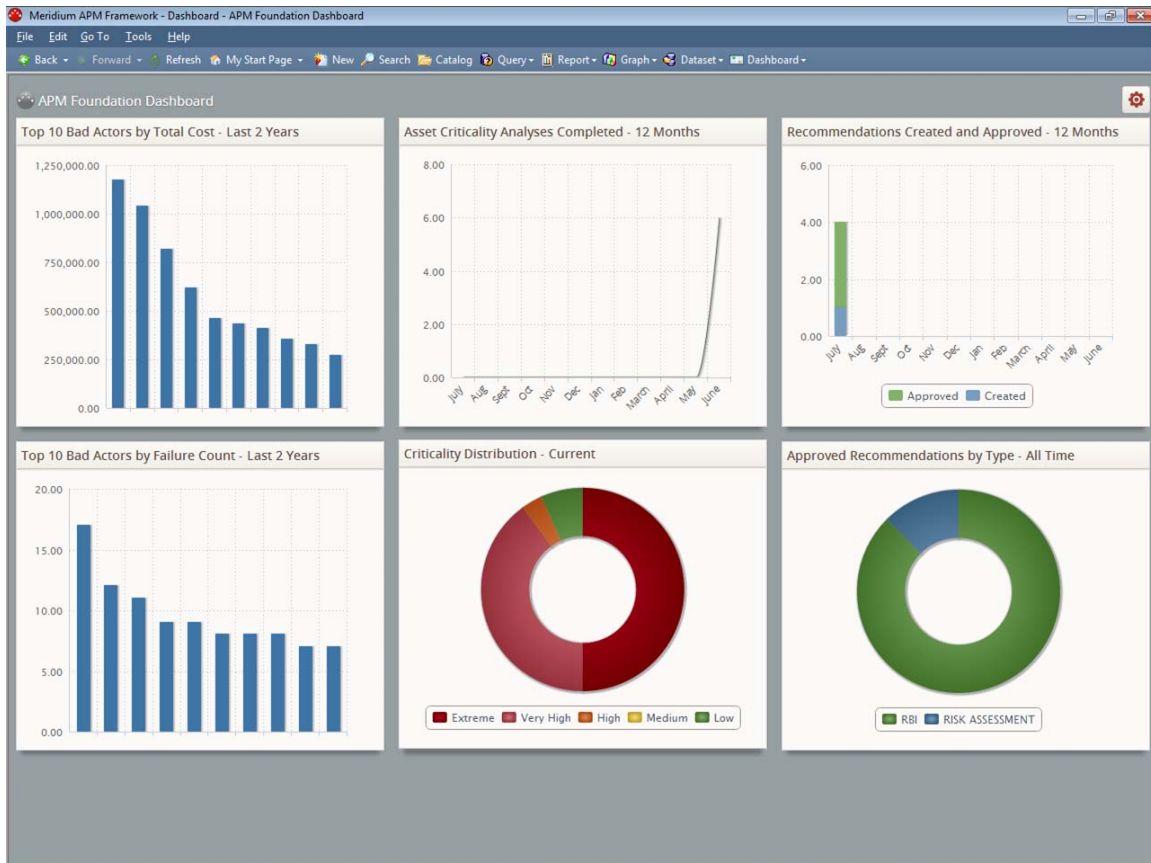
- On the Meridium APM Framework main menu, click **Go To**, point to **APM Foundation**, and then click **Dashboard**.

The Dashboard page appears, displaying the APM Foundation dashboard.



Aspects of the APM Foundation Dashboard

The APM Foundation dashboard contains sections that display information about assets that you analyze using APM Foundation modules and features.



The APM Foundation dashboard contains the following sections:

- Top 10 Bad Actors by Total Cost - Last 2 Years
- Asset Criticality Analyses Completed - 12 Months
- Recommendations Created and Approved - 12 Months
- Top 10 Bad Actors by Failure Count - Last 2 Years
- Asset Criticality Distribution - Current
- Approved Recommendations by Type - All Time

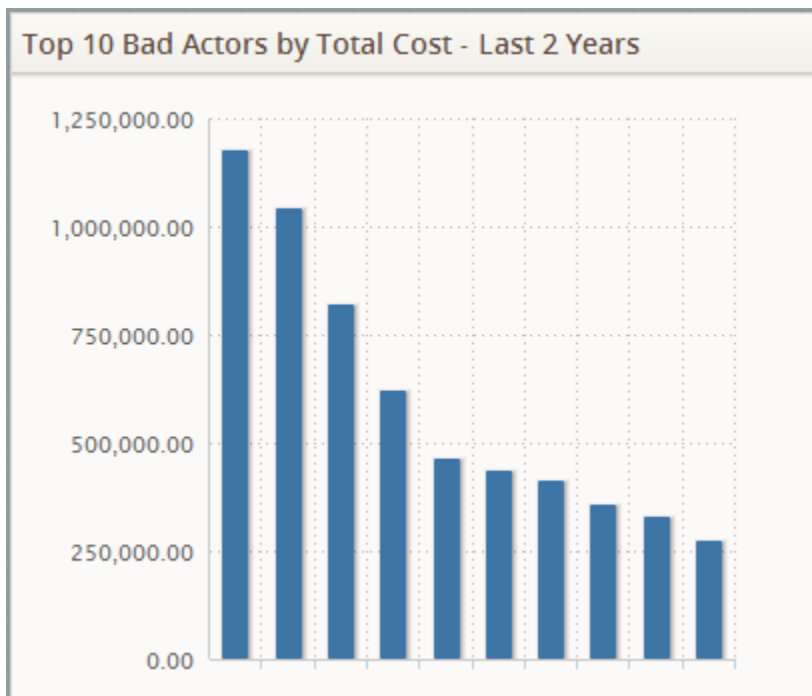
Note: Your use of the APM Foundation dashboard will depend upon your role in your organization and the APM Foundation modules and features that are associated with your role. For example, you might choose to display certain sections and hide others depending upon the type of data that you want to view on the dashboard. This documentation does *not* assume a workflow for using the APM Foundation dashboard. Instead, details on working with dashboards in general and information on the sections that are displayed on the dashboard and their supporting Catalog items are provided.

APM Foundation Dashboard Sections

Top 10 Bad Actors by Total Cost - Last 2 Years

The Top 10 Bad Actors by Total Cost - Last 2 Years section is a configured Chart - Series section that displays a bar graph that plots the results of the Top 10 Bad Actors by Total Cost - Last 2 Years (Chart) query.

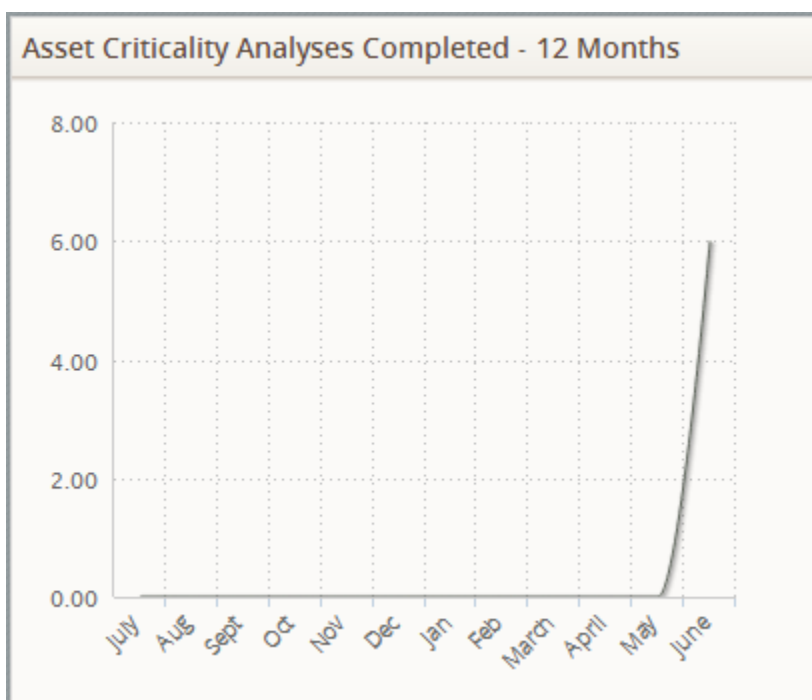
The following image shows an example of the Top 10 Bad Actors by Total Cost - Last 2 Years section.



Asset Criticality Analyses Completed - 12 Months

The **Asset Criticality Analyses Completed - 12 Months** section is a configured **Chart - Series** section that displays a line chart that plots the number of Asset Criticality Analysis records in the Complete state that exist in your database, on a monthly basis, for the last 12 months.

The following image shows an example of the **Asset Criticality Analyses Completed - 12 Months** when *six* Asset Criticality Analysis records in the Complete state existed in the database in the month of *June* and *zero* records in this state existed in the database in the 11 preceding months.



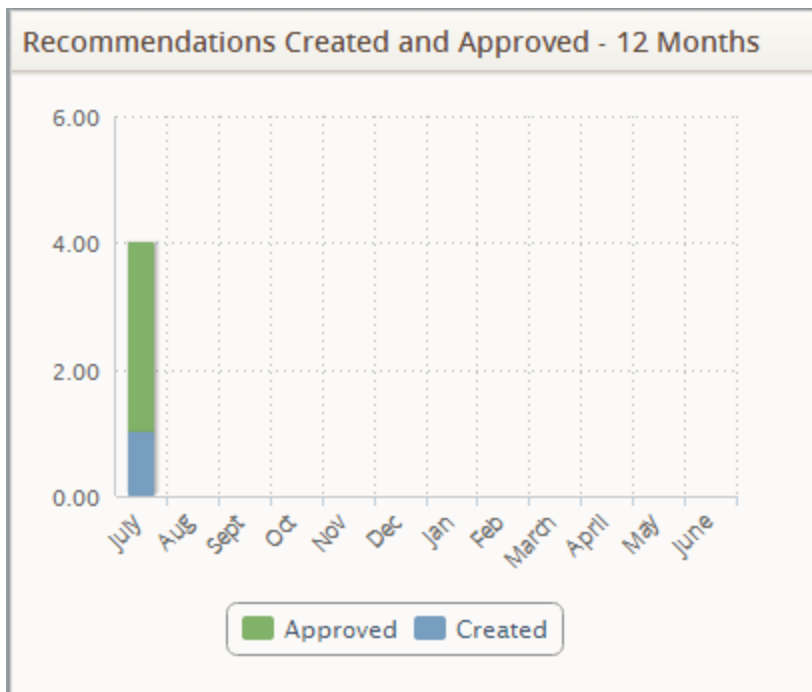
Recommendations Created and Approved - 12 Months

The **Recommendations Created and Approved - 12 Months** section is a configured **Chart - Series** section that displays a bar graph that plots the number of Recommendation records in the following states that exist in your database, on a monthly basis, for the last 12 months:

- Created
- Approved

The following image shows an example of the **Recommendations Created and Approved - 12 Months** section when the following number of Recommendation records in the following states existed in the database in the month of *July* in the *preceding* year, and *zero* Recommendation records in these states existed in the database in the 11 succeeding months:

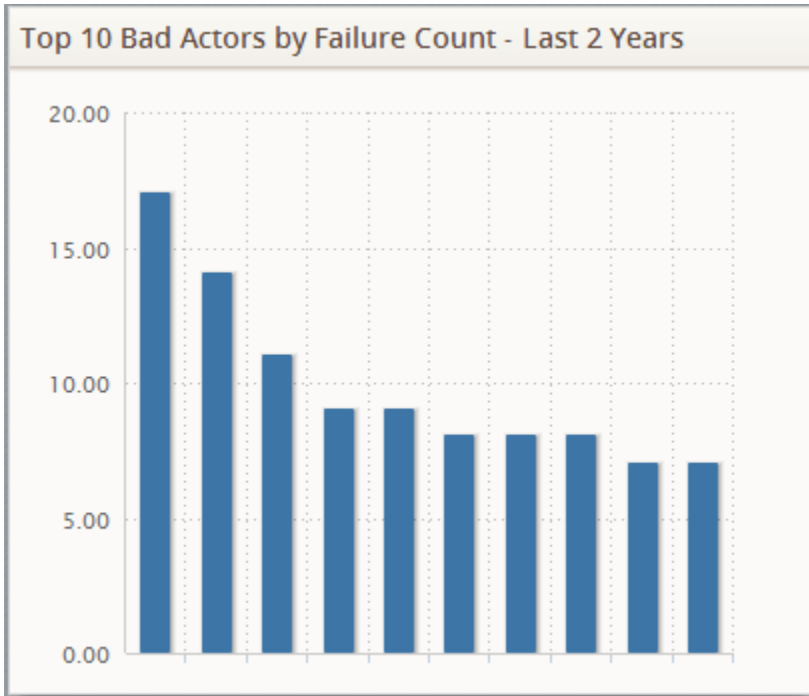
- Created: 1
- Approved: 4



Top 10 Bad Actors by Failure Count - Last 2 Years

The **Top 10 Bad Actors by Failure Count - Last 2 Years** section is a configured **Chart - Series** section that displays a bar graph that plots the results of the **Top 10 Bad Actors by Failure Count - Last 2 Years (Chart)** query.

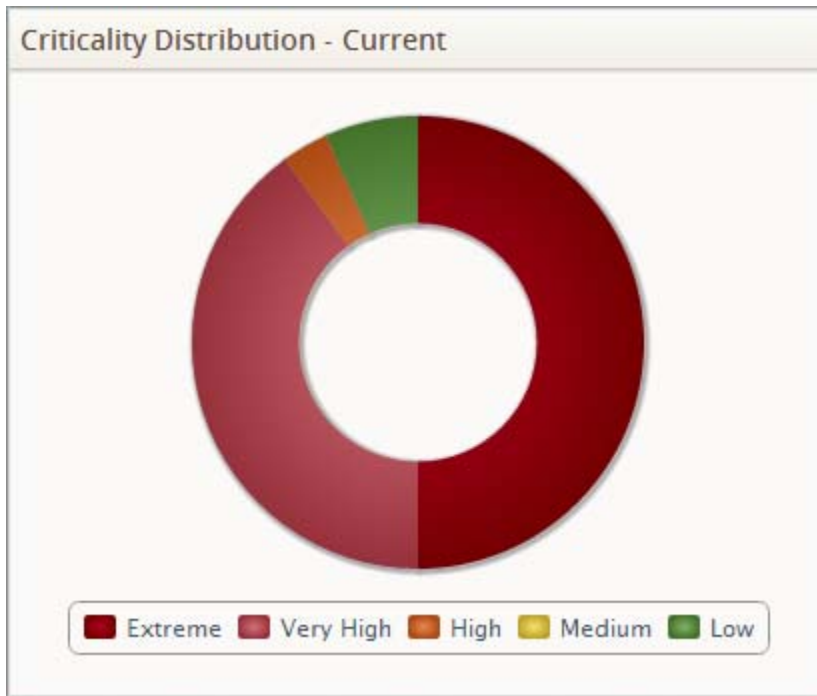
The following image shows an example of the **Top 10 Bad Actors by Failure Count - Last 2 Years** section.



Asset Criticality Distribution - Current

The Asset Criticality Distribution - Current section is a configured Chart - Category section that displays a doughnut chart that plots the results of the Asset Criticality Distribution - Current (Chart) query.

The following image shows an example of the Asset Criticality Distribution - Current section.

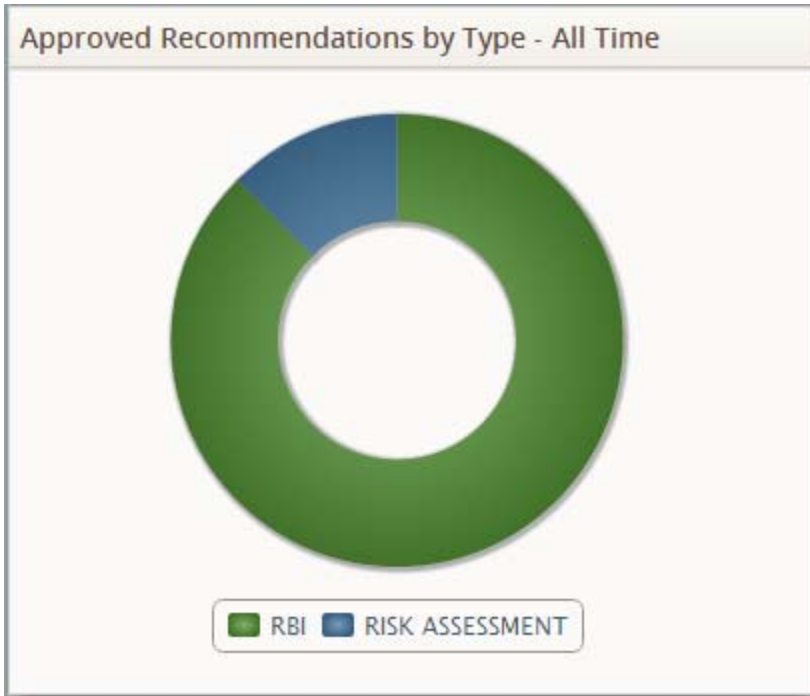


Approved Recommendations by Type - All Time

The **Approved Recommendations by Type - All Time** is a configured **Chart - Category** section that displays a doughnut chart that plots one slice for each Recommendation subfamily for which records in the Approved state exist in your database.

The following image shows an example of the **Approved Recommendations by Type - All Time** section when records in the Approved state in the following Recommendation subfamilies only exist in your database:

- RBI Recommendation
- Risk Assessment Recommendation



Catalog Folder Structure

Dashboards Folder

The dashboard listed in the following table is stored in the Catalog location \\Public\Meridium\Modules\Core\Dashboards. The dashboard is listed by name in the table. The dashboard name and caption are the same.

Query	Behavior and Usage
APM Foundation Dashboard	Displays the APM Foundation dashboard on the Dashboard page.

Queries Folder

Dashboard Queries Folder

The following table lists the queries that are stored in the Catalog location \\Public\Meridium\Modules\Core\Queries\Dashboard Queries. The queries are listed by name in the table. The query name and caption are the same.

Query	Behavior and Usage
Approved Recommendations	This query is used by a source query to the APM Foundation dashboard.
Asset Criticality Analyses Completed - 12 Months (Chart)	Used to return results that are displayed in the Asset Criticality Analyses Completed - 12 Months section on the APM Foundation dashboard.
Asset Criticality Distribution - Current (Chart)	Used to return results that are displayed in the Asset Criticality Distribution - Current section on the APM Foundation dashboard.
Completed Analyses	This query is used by a source query to the APM Foundation dashboard.
Created Recommendations	This query is used by a source query to the APM Foundation dashboard.
Last 12 Months	This query is used by a source query to the APM Foundation dashboard.
Recommendations Approved by Type - All Time (Chart)	Used to return results that are displayed in the Approved Recommendations by Type - All Time section on the APM Foundation dashboard.
Recommendations Created and Approved - 12 Months (Chart)	Used to return results that are displayed in the Recommendations Created and Approved - 12 Months section on the APM Foundation dashboard.
Top 10 Bad Actors by Failure Count - Last 2 Years (Chart)	Used to return results that are displayed in the Top 10 Bad Actors by Failure Count - Last 2 Years section on the APM Foundation dashboard.
Top 10 Bad Actors by Total Cost - Last 2 Years (Chart)	Used to return results that are displayed in the Top 10 Bad Actors by Total Cost - Last 2 Years section on the APM Foundation dashboard.