



Advanced Visualization



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Chapter 1

Overview

Topics:

- [About Advanced Visualization](#)
- [Access the Advanced Visualization Page](#)

About Advanced Visualization

Advanced Visualization provides you a powerful way to visualize the data that is available within GE Digital APM.

The GE Digital APM Advanced Visualization module enables you to create customized dashboards that display alerts, cases, and asset information in the form of charts or reports. This provides advanced business intelligence type capabilities to analyze the vast amount of data that is available to you in the system. These visualizations provide you with access to powerful tools that can be used.

Access the Advanced Visualization Page

Procedure

In the module navigation menu, select **Tools > Advanced Visualization**.
The **Advanced Visualization** page appears.

Chapter 2

Data Sources

Topics:

- [About Advanced Visualization Data Sources](#)
- [Create a Data Source using a GE Digital APM Query](#)

About Advanced Visualization Data Sources

Advanced Visualization provides out of the box capabilities that enable you to visualize data for the following GE Digital APM features and modules:

- Alerts
- Analytics
- Assets
- Baseline entities and queries
- Cases
- Cost Benefit Analysis (CBA)
- General recommendations
- SmartSignal
- Time Series Data

Each of these features is associated with a set of data sources in Advanced Visualization. The data sources contain a set of logically related fields that allow you to create and customize the visualizations based on the access privileges that you have for the specific feature.

Note: Although you have access to all the data sources, you must also have access to the required capabilities to create visualizations using these data sources. You can visualize the data for the assets based on the permissions granted to your GE Digital APM user account.

The following table provides high-level information about the data sources available for the supported modules or features:

Module/Feature	Data Source Description
Alerts	<p>You can visualize data using one of the following types of business views available in the GE Digital APM baseline domain:</p> <ul style="list-style-type: none"> • View that provides access to most of the data available and accessible within Alerts. • Curated view that allows you to create visualizations for specific requirements. <p>Note:</p> <ul style="list-style-type: none"> • You cannot modify the baseline business view. However, you can create a copy of the view that you want to modify within your tenant, and then modify the view as needed. • The Dimensions and Facts tables in the Alerts Business Views facilitate the creation of visualizations using the Alerts data sources.
Analytics	<p>You can visualize analytic data using one of the following types of business views available in the GE Digital APM baseline domain:</p> <ul style="list-style-type: none"> • View that provides access to most of the data available for an analytic. • Curated view that allows you to create visualizations for specific requirements. <p>Note: You cannot modify the baseline business view. However, you can create a copy of the view that you want to modify within your tenant, and then modify the view as needed.</p>

Module/Feature	Data Source Description
Assets	<p>You can visualize assets data using one of the following types of business views available in the GE Digital APM baseline domain:</p> <ul style="list-style-type: none"> • View that provides access to most of the data available for an asset. • Curated view that allows you to create visualizations for specific requirements. <p>Note: You cannot modify the baseline business view. However, you can create a copy of the view that you want to modify within your tenant, and then modify the view as needed.</p>
Cases	<p>You can visualize data using one of the following types of business views available in the GE Digital APM baseline domain:</p> <ul style="list-style-type: none"> • View that provides access to most of the data available and accessible within Cases. • Curated view that allows you to create visualizations for specific requirements. <p>Note:</p> <ul style="list-style-type: none"> • You cannot modify the baseline business view. However, you can create a copy of the view that you want to modify within your tenant, and then modify the view as needed. • The Dimensions and Facts tables in the Cases business views facilitate the creation of visualizations using the Cases data sources.
CBA	<p>You can visualize data using one of the following types of business views available in the GE Digital APM baseline domain:</p> <ul style="list-style-type: none"> • View that provides access to most of the data available and accessible within the Cases module to create visualizations for CBA data. • Curated view that allows you to create visualizations for CBA data based on specific requirements. <p>Note: You cannot modify the baseline business view. However, you can create a copy of the view that you want to modify within your tenant, and then modify the view as needed.</p>
General Recommendations	<p>You can visualize data based on the general recommendations data available within GE Digital APM.</p> <p>Note: In Legacy Predix APM, you cannot create visualizations based on this data source as no date will be available for you in the data source.</p>
GE Digital APM Baseline Entities	<p>You can visualize data using the baseline entity views available in GE Digital APM.</p> <p>Note:</p> <ul style="list-style-type: none"> • The baseline entity view provides access to most of the data that is available for an entity. • Curated views are not created for the baseline entities. However, you can create a custom curated view for an entity within your tenant.
GE Digital APM Baseline Queries	<p>You can visualize data using the baseline query views available in GE Digital APM.</p> <p>Note:</p> <ul style="list-style-type: none"> • The baseline query view displays the result of a query. • As needed, you can create a curated view for the query result within your tenant.

Module/Feature	Data Source Description
SmartSignal	<p>You can visualize SmartSignal analytic models using one of the following types of business views available in the GE Digital APM baseline domain:</p> <ul style="list-style-type: none"> • View that provides access to most of the data available for the SmartSignal analytics. • Curated view that allows you to create visualizations for specific requirements. <p>Note:</p> <ul style="list-style-type: none"> • You cannot modify the baseline business view. However, you can create a copy of the view that you want to modify within your tenant, and then modify the view as needed. • We recommend that you use the following reporting objects as data sources when creating visualizations for SmartSignal events and jobs: <ul style="list-style-type: none"> ◦ events_reporting_object ◦ jobs_reporting_object <p>In addition to the features provided by SmartSignal baseline and custom business views, the reporting objects allow you to filter SmartSignal data for a specific period.</p>
Time Series Data	<p>You can visualize time series data that is collected for a set of asset tags associated with your tenant. The data source is created based on a reporting object and curated for creating customized visualizations.</p>

Create a Data Source using a GE Digital APM Query


Before You Begin

- Make sure that the baseline query or the custom query that you want to use to create a data source exists in the Catalog.

About This Task

This topic describes how to create a data source using a baseline query or a custom query, and configure the data source to enable the Advanced Visualization users to create charts or dashboards using the data source.

Procedure

1. Access the [Advanced Visualization](#) page.
2. Select , and then select **Prepare and Manage Data**.
The **SERVER** page appears.
3. Select **Get Data**.
The **Get Data** window appears.
4. In the **SERVER FILES** section, select **REST**, and then select **Select**.
The **Configure Connections** window appears.
5. Select **APM_QUERY**, and then select **Select**.
The **Create Synonym for REST** window appears.
6. In the **Create Synonym options** section, specify the following parameters:

Note: We recommend that you use the Query Helper to validate the query parameters and copy the field values to the corresponding fields in the **Create Synonym options** section. For more information

on how to use the Query Helper to validate the query parameters, refer to the [Retrieve Query Details of a GE Digital APM Query using Query Helper](#) on page 8 topic.

- a) In the **Select REST Operation** box, select Post.
- b) In the **Service URL Extension** box, enter: v2/catalog/query/path/execute

Note: If you use a GE Digital APM version older than V4.5.0.0.0, enter: v1/catalog/query/path/execute

- c) In the **Provide document sample** box, enter the request body parameters for the Insert (POST) request.
 - The following example provides a template for the request body:

```
{
  "QueryPath": "query path",
  "Page": 0,
  "PageSize": 100,
  "InputSingleParams":
  {
    "parameter1": "value",
    "parameter2": "value2"
  }
,
  "InputMultiParams":
  {
    "parameter1": ["value1", "value2"],
    "parameter2": ["value1", "value2"]
  }
}
```

- The following example provides a sample request body for a query:

```
{
  "QueryPath": "Public\\Meridium\\Modules\\Generation Management
\\Queries\\NERC Queries\\NERC Event Report 07",
  "InputSingleParams": {
    "unitKey": "-1",
    "endDate": "2021-03-04T04:15:20.795",
    "startDate": "2021-03-04T04:15:20.795"
  },
  "InputMultiParams": null
}
```

7. In the **Synonym Field Name Processing Options** section, select the following check boxes:
 - **Validate**
 - **Make Unique**
8. In the **Miscellaneous settings** section, specify the following details:
 - a) In the **Application** box, navigate to the application directory that will contain the data source that you want to create.
 - b) In the **Synonym Name** box, enter a name for the data source that you want to create.
9. Select **Add**.
The data source is created in the Application Directory.
10. Access the Application Directory that contains the data source that you created, right-click the data source, and then select **Open**.
A page appears, displaying the **Table/Column** panel that contains a hierarchy of the query parameters.
11. Configure the following query parameters:

Important: We recommend that you use the Query Helper to validate the query parameters, and copy the parameter values from the **XDEFAULT** section of the **APM Query Helper** window to the **XDEFAULT** box of the **Properties** window for the corresponding parameters. For more information on the Query Helper, refer to the [Retrieve Query Details of a GE Digital APM Query using Query Helper](#) on page 8 topic.

Query Parameter	Actions to be Performed
QUERYPATH	<ol style="list-style-type: none"> Right-click the parameter, and then select Properties. The Properties window appears. In the Miscellaneous section, in the XDEFAULT box, enter the query path that you used to create the synonym, and then select Apply. <p>Important:</p> <ul style="list-style-type: none"> You must use a backslash to separate the server names, folder names, and file names in the query path (for example, <code>Public\Meridium\Queries\TEST_CATALOG_READ_MT</code>).
INPUTSINGLEPARAMS	<ol style="list-style-type: none"> Expand the object to view the parameters. Right-click a parameter, and then select Properties. The Properties window appears. In the Miscellaneous section, in the XDEFAULT box, enter the parameter value, and then select Apply.
INPUTMULTIPARAMS	

12. In the **SERVER** page, select the **Save** button to save the parameters. The data source is configured.

Next Steps

- [Create Charts using a Baseline or Custom Query](#) on page 12

Retrieve Query Details of a GE Digital APM Query using Query Helper

About This Task

When creating a data source using a baseline or custom query, you must have the following query details:

- Sample request body for the Insert (POST) operation
- Service URL extension
- Valid query path
- Valid query parameters and parameter values


Using Query Helper, you can retrieve the parameters of a query and validate the parameter details to ensure that correct data is available for creating the data source.

This task describes how to retrieve and validate the parameter details of a query to create a data source.

Procedure

1. Access the [Advanced Visualization](#) page.
2. Select **Query Helper**. The **APM Query Helper** window appears.
3. In the **Enter Query Catalog Path** box, enter the query for which you want to fetch the parameter details, and then select **Get Details**. The following boxes are populated:

- Service URL Extension
- Sample Request Body
- Query Path
- <Parameter Name>

Note: To copy the data contained in each box, select .

The following table describes the fields available in the **APM Query Helper** window:

Field	Description	Behaviour
Service URL Extension	<p>Displays the following service URL extension by default:</p> <pre>v2/catalog/query/path/execute</pre> <p>Note: If you use a GE Digital APM version older than V4.5.0.0.0, the following service URL extension is displayed: v1/catalog/query/path/execute.</p>	You cannot modify data in this field.
Sample Request Body	<p>Displays the parameter details returned by the query.</p> <p>The following example provides a sample request body returned by a query:</p> <pre>{ "QueryPath": "Public\\Meridium\\ \\Modules\\ \\Generation Management\\Queries\\ \\NERC Queries\\NERC Event Report 07", "InputSingleParams": { "unitKey": "-1", "endDate": "2021-03-04T04:15:20 .795", "startDate": "2021-03-04T04:15:20 .795" }, "InputMultiParams": null }</pre> <p>Note: For GE Digital APM versions older than V4.5.0.0.0, both the parameter and parameter value appear as parameter values for <code>Id</code> and <code>Value</code> parameters, respectively. The following example</p>	<ul style="list-style-type: none"> • If the request body contains valid parameters and the parameter values, you cannot modify data in the field. • If the request body does not contain valid parameter or parameter values, a message appears, asking you to update the parameter values. You must update the parameter values in the XDefault Values section to make the request body valid.

Field	Description	Behaviour
	<p>provides a sample request body returned by a query:</p> <pre data-bbox="683 317 1040 730"> { "QueryPath": "Baseline\\Meridium\\ \Modules\\AHI\\ \Queries\\Health Overview - Tiles", "InputSingleParams": [{ "Id": "unitKey", "Value": "-1" }] }</pre>	
Query Path	Displays the catalog path for the query.	You cannot modify data in this field.
<p><Parameter Name></p> <p>Note: The field is displayed only if the query contains at least one parameter.</p>	<p>Displays the parameter name and the parameter value contained in the sample request body.</p> <p>Note: If a parameter contains multiple values, only the first value is displayed in the <Parameter Name> box.</p>	<p>If there is no valid parameter value for a given parameter, you can add the parameter value to make the request body valid.</p> <p>Note: When configuring data source with a GE Digital APM version older than V4.5.0.0.0, you must manually update the default values for the parameters <code>Id</code> and <code>Value</code> in the corresponding XDEFAULT box of the Properties window.</p>

Chapter 3

Creating Visualizations

Topics:

- [Create Charts using Data Sources](#)
- [Create Charts using Queries](#)
- [Create Charts to Visualize Time Series Data](#)
- [Configure Filters in Visualizations](#)

Create Charts using Data Sources

Create Charts using Data Sources

About This Task

This topic describes how to create charts or dashboards using data sources in Advanced Visualization.

Procedure

1. Access the [Advanced Visualization](#) page.
2. Select **Visualize Data**.
The **Advanced Visualization Designer** page appears, displaying a designer canvas to create the chart.
3. Select the **Add Data** button.
The **Select Data Source** window appears, displaying the available data sources.
4. Select the data source using which you want to create the chart.

Note:

- You can access the baseline data sources and folders containing the baseline data sources by default. If you want to use a specific data source to create the chart, navigate to the data source in the corresponding folder. You can also change the view to access the data sources for a tenant.
- We recommend that you use the following reporting objects contained in the gedigital-baseline workspace when creating visualizations for SmartSignal events and jobs:
 - events_reporting_object
 - jobs_reporting_object

The Dimensions and Variables associated with the data source appear in the **Advanced Visualization Designer** page.

5. As needed, design the chart, and then save the chart.

Note: For more information on how to create and publish charts, refer to the help documentation integrated with Advanced Visualization.

The chart is created.

Note:

For more information on creating charts, refer to KBA 000039563.

For more information of training videos on how to create visualizations, refer to [Getting Started With WebFOCUS 8207](#).

For detailed documentation on how to create visualization, refer to [Visualizing Data in 8207](#).

Create Charts using Queries

Create Charts using a Baseline or Custom Query

Before You Begin

- [Ensure that the query you want to use to create a chart has a data source.](#)

Procedure

1. Access the [Advanced Visualization](#) page.
2. In the **Advanced Visualization** home page, select **Visualize Data**.
The **Advanced Visualization Designer** page appears, displaying a designer canvas to create the chart.
3. Select the **Add Data** button.
The **Select Data Source** window appears, displaying the available data sources.
4. Navigate to the folder containing the data source associated with the query, and then select the data source.
The Dimensions and Variables associated with the data source appear in the **Advanced Visualization Designer** page.
5. As needed, design the chart, and then save the chart.

Note:

- When designing a chart, we recommend that you use the fields in the **ROWS** section that appear when you expand the **RESPONSE** node and then expand the **ROWS** node.
- For more information on how to create and publish charts, refer to the help documentation integrated with Advanced Visualization.

The chart is created.

Related Tasks

[Configure Filters on a Dashboard using a GE Digital APM Query](#) on page 16

Create Charts to Visualize Time Series Data

About Creating Visualizations for Time Series Data

Advanced Visualization enables you to create visualizations for the time series data that is collected for the asset tags over a specified time period. For more information on retrieving the time series data for asset tags, refer to the [Time Series Data Retrieval Service](#) topic in the Time Series Data help.

You can use the tag browser to access the assets available for your tenant and select the associated asset tags for which you want to retrieve the time series data. Advanced Visualization provides a curated data source for visualizing time series data. The data source is designed using a reporting object and contains fields that can be used to create time series data charts. Based on the selected asset tags and the fields selected from the data source, you can create and customize the visualizations for time series data.

Additionally, using the charts created for time series data, you can create a dashboard. The dashboard has filtering capabilities that allow you to either specify filter criteria to view data for a predefined period of time, or configure a custom date range to display data that matches the duration.

About the Tag Browser

The Tag Browser enables you to choose assets and the associated asset tags to visualize the time series data retrieved for the tags.

The **Tag Browser** window contains the following sections:

- **Asset Browser:** Enables you to select the assets associated with the asset tags for which you want to visualize the time series data. When you select an asset, the asset and the associated assets tags appear in the **Tag Browser** section.
- **Tag Browser:** Enables you to select the asset tags for which you want to visualize the time series data. When you select an asset tag, it appears in the **Plotted Tags** section. Based on the plotted tags and

the fields selected from the Time Series Data data source, the visualizations displaying the time series data are created.

- **Settings:** Contains the following settings:
 - **Time Span:** Enables you to specify the time period for which you want to visualize data when the visualization is created. When you run the visualization, the data for the specified time period appears by default.

Note: The default time period selected in the **Time Span** drop-down list box is one week.
 - **Data Operation:** Enables you to configure the type of data that you want to visualize. Based on your selection, the raw or interpolated time series data appear on the visualization. For more information on the raw and interpolated data types, refer to the Time Series Data help.

Create a Chart or Dashboard to Visualize Time Series Data

Procedure

1. Access the [Advanced Visualization](#) page.
2. Select **Visualize Data**.
The **Advanced Visualization Designer** page appears, displaying a designer canvas to create the chart.
3. Select **Tag Browser**.
The **Tag Browser** window appears, displaying the asset hierarchy in the **Asset Browser** section.
4. In the **Tag Browser** window, do the following:
 - a) In the **Asset Browser** section, select the assets associated with the asset tags for which you want to visualize the time series data.
 - b) In the **Tag Browser** section, select the asset tags for which you want to visualize the time series data.
Note: For more information on the fields available in the **Tag Browser** window, refer to the [About the Tag Browser](#) topic.
5. Select **Apply**.
The settings in the Tag Browser are saved.
6. Select the **Add Data** button.
The **Select Data Source** window appears, displaying the available data sources.
7. In the **WORKSPACE** menu, select **gedigital-baseline**.
A table appears, displaying the folders containing the data sources available in the GE Digital APM baseline domain.
8. Navigate to the `timeseries` folder, select **timeseries_reporting_object**, and then select **Select**.
The Dimensions and Measures associated with the data source appear in the **Advanced Visualization Designer** page.
9. As needed, design the chart, and then save the chart.
The time series data chart is created for the selected asset tags.

Note:

- For more information on how to create and publish charts, refer to the help documentation integrated with Advanced Visualization.
- You can add the chart to a dashboard to filter and view the time series data for a specific period. You can also specify a custom date range to view data corresponding to the period.

Configure Filters in Visualizations

Configure Date Filters using Reporting Objects

Before You Begin

- Ensure that you have permissions to manage Advanced Visualization. If you do not have the permissions, contact your administrator.
For more information on the permissions and permission sets available for the Advanced Visualization users, refer to the [Advanced Visualization Permissions](#) on page 32 topic.

About This Task

When visualizing data in a dashboard, you can configure a custom date range as filter criteria to view data for the specified period. However, you can configure the date filters using a reporting object so that the date filters appear on the dashboard by default. For more information on the reporting objects, refer to the help integrated with Advanced Visualization.

This topic describes how to configure the date filters using a reporting object.

Procedure

1. [Access the Advanced Visualization page.](#)
2. Select **Workspaces.**
A hierarchy of the Advanced Visualization workspaces associated with your tenant appears.
3. In the hierarchy, navigate to the workspace folder to which you want to add the reporting object, and then select the **Action Bar** drop-down list box.
The **Data** section appears, displaying the option to create reporting objects.
4. Select **Reporting Object.**
A new tab appears, displaying a window that contains the data sources available for Advanced Visualization.
5. Navigate to the folder containing the data source using which you want to create the reporting object, select the data source, and then select **Open.**
The **Reporting Object** folder appears.
6. Right-click **Preprocessing Other**, and then select **Edit.**
The **Preprocessing Other** window appears.
7. In the **Preprocessing Other** window, enter the following code:

```
SET DTSTANDARD = STANDARD
-DEFAULTH &STARTTIME='2019-04-01T00:28:03.000Z';
-DEFAULTH &ENDTIME='2020-03-31T00:28:03.000Z';

-DEFAULT &STARTDATE='April 01 2019';
-DEFAULT &ENDDATE='March 31 2020';

-PROMPT &STARTDATE.( |FORMAT=MDYY,REQUIRED=TRUE) .Start
Date.QUOTEDSTRING;

-SET &STARTTIME = DATETRAN(&STARTDATE, '(YYMD)', '(-)', 'EN', 15,
'A10') | 'T00:00:00.000Z';

-TYPE &STARTTIME
```

```

-PROMPT &ENDDATE. ( | FORMAT=MDYY,REQUIRED=TRUE) .End Date.QUOTEDSTRING;
-SET &ENDTIME = DATETRAN(&ENDDATE, '(YYMD)', '(-)', 'EN', 15, 'A10')
| 'T23:59:59.999Z';
-TYPE &ENDTIME

```

8. Select the **Save** button.
9. Right-click **Where Statements**, and then select **New**. The **Create a filtering condition** window appears.
10. Based on the data source that you selected, create the WHERE clause as described in the following table:

Data Source	WHERE Clause
alerts_custom_business_view	EVENTSTARTDATE Greater than or equal to Simple Parameter (Name:STARTTIME) AND EVENTSTARTDATE Less than or equal to Simple Parameter (Name:ENDTIME)
cases_custom_business_view	CREATEDDATE Greater than or equal to Simple Parameter (Name:STARTTIME) AND CREATEDDATE Less than or equal to Simple Parameter (Name:ENDTIME)

11. Select the **Save** button to save the reporting object. The reporting object is created and the date filters are configured.

Note: When you create a visualization using the reporting object and add the visualization to a dashboard, the default date range appears to filter data.

Configure Filters on a Dashboard using a GE Digital APM Query

Before You Begin

- Make sure that the catalog query that you want to use for populating filter parameters is valid and returns the correct set of values.

About This Task

Advanced Visualization enables you to use a data source to populate filter parameters for filtering a dashboard created for another data source. The data sources are created using GE Digital APM queries. You must use a query that retrieves a set of values from the GE Digital APM database, which can be used as the filter parameters.

For example, you have created a dashboard to visualize work order details, such as work order ID, work order type, work order status, and so on. Each of these parameters may have multiple values. If you want to filter the dashboard with work order types, you will need to create a filter using the work order type field available in the associated data source. You must populate the work order type filter with the values using which you can specify filter criteria. To populate the values, you will need a data source that can be associated with the data source used for visualizing work order details.

This topic describes how to configure a filter and populate filter parameters using a data source created for a GE Digital APM query.

Procedure

1. [Access the **Advanced Visualization** page.](#)
2. Perform the following steps to create and configure the data source for populating filter parameters in the filter:
 - a) [Create a data source using the query that you want to use for populating filter parameters.](#)
 - b) Access the Application Directory that contains the data source that you created, right-click the data source, and then select **Open**.
A page appears, displaying the **Table/Column** panel that contains a hierarchy of the query parameters.
 - c) In the **Table/Column** panel, expand the **RESPONSE** node, and then expand the **ROWS** node.
 - d) In the **ROWS** section, on each field, right-click the field, and then select **Properties**.
The **Properties** window appears.
 - e) In the **General** section, in the **Type** drop-down list box, select Character (Fixed).
 - f) Select **Apply**.
3. Perform the following steps to configure the filter on the dashboard:
 - a) Access the Application Directory that contains the data source associated with the dashboard, right-click the data source, and then select **Open**.
A page appears, displaying the **Table/Column** panel that contains a hierarchy of the query parameters.
 - b) On each query parameter, right-click the parameter, and then select **Properties**.
The **Properties** window appears.
 - c) In the **General** section, in the **Type** drop-down list box, select Character (Fixed).
 - d) In the **Miscellaneous** section, in the **ACCEPT** drop-down list box, select SYNONYM.
 - e) In the **Lookup Synonym** box, navigate to the data source that you created for populating filter parameters.
 - f) In the **Lookup Field** box, enter the filter caption.
 - g) Select **Apply**.
 - h) [Access the **Advanced Visualization** page.](#)
 - i) In the **Advanced Visualization** home page, select **Visualize Data**.
The **Advanced Visualization Designer** page appears, displaying a designer canvas to create the chart.
 - j) Select the **Add Data** button.
The **Select Data Source** window appears, displaying the available data sources.
 - k) Navigate to the folder containing the data source associated with the query, and then select the data source.
The Dimensions and Variables associated with the data source appear in the **Advanced Visualization Designer** page.
 - l) As needed, design the chart, and then save the chart.
Note: For more information on how to create and publish charts, refer to the help documentation integrated with Advanced Visualization.

The chart is created.
 - m) Drag the query parameter that you want to use as a filter to the chart.
The filter is created and populated with the filter parameters. You can add the chart to a dashboard to filter data.

Chapter 4

Schedule Charts and Reports

Topics:


- [Configure a New Connection](#)
- [Configure a Schedule](#)

Configure a New Connection

About This Task

This topic describes how to create a dedicated connection for a UAA user, using either the OData or REST connector.

Procedure

1. Access the [Advanced Visualization](#) page.
2. Select , and then select **Prepare and Manage Data**.
The **SERVER** page appears.
3. Select **Get Data**.
The **Get Data** window appears.
4. Select **OData** or **REST** depending on the data service you are using.
5. Select **New Connection**.
6. Enter the Connect parameters:
 - a. Enter a connection name.
 - b. Enter the base URL.
Note: The base URL should be the same as the baseline connection URL that you have used previously.
 - c. In the **Security** drop-down list box, select **OAuth**.
 - d. In the **OAuth Grant Type** drop-down list box, select **Password**.
 - e. In the **Client Credentials in Body** section, enter your username and password. Also enter the **Client ID** and **Token URL**.
 - f. Select the **Add Custom Headers** check box and enter your tenant ID in the text box (for example, Tenant="your_tenant_uuid").
 - g. Select your tenant from the **Select profile** drop-down list box.
Note: Do not select the default value (edasprof).
 - h. Select **Configure**.

A new connection is configured.

Configure a Schedule

Before You Begin


You must create a dedicated connection for a UAA user, using either the OData or REST connector.

About This Task

This topic describes how you can schedule a chart or a report, and distribute it via email.

Procedure

1. [Configure a new connection](#).
2. [Create a synonym](#) or use a baseline synonym or business view. To do this:

- a. Copy the baseline synonym or business view to your application folder.
- b. Right-click and select **Metadata Management**, then select **Edit Access File as Text**.
- c. Modify the connection name to the new connection created in step 1.
3. [Create a chart](#). Make sure that you select the output format as PDF.
4. Select **Workspaces**.
The Advanced Visualization workspaces associated with your tenant appears.
5. Navigate to the workspace folder in which you have saved the chart and select it.
6. Right-click on the chart and select **Schedule**, then select **Email**.
7. In the **Distribution** section:
 - a. Enter the email addresses to which the email message should be sent.
 - b. Select an option to send the email either as an inline message or as an attachment.
 - c. To compress the report in the email, select the **Add Report to Zip File** check box.
8. In the **Recurrence** section, select how frequently you want to send the email.
9. Select .
The scheduled configuration is saved.

Chapter 5

Navigating from Charts

Topics:

- [About Navigating from a Chart or Dashboard to the Corresponding GE Digital APM Module](#)
- [About Configuring Drill-Downs using URLs](#)
- [Configure a Drill-Down for a Chart to Access Data in the Corresponding Module](#)

About Navigating from a Chart or Dashboard to the Corresponding GE Digital APM Module

Advanced Visualization enables you to navigate from a chart or dashboard to the corresponding feature or module within GE Digital APM. You can create a chart or dashboard using a data source and configure drill-downs for the fields using the filter parameters associated with the data source. When the drill-downs are configured with the filter parameters, you can drill down the chart or dashboard to navigate to the corresponding feature or module, and access the data filtered by the configured filter parameters. For more information on different types of drill-downs and how to configure drill-downs for the charts and reports, refer to the help integrated with Advanced Visualization.

Example: Access the Number of Alerts Filtered by a Severity Parameter in Alerts Module

This example provides the steps to configure drill-downs for a field associated with the Alerts custom business view and access the number of Alerts filtered by the Severity parameter in the Alerts grid view.

1. [Create a chart using the Alerts custom business view.](#)
2. In the Advanced Visualization Designer, add the ALERTID field as a Measure and the SEVERITY field as a Dimension.
3. Aggregate ALERTID with the count distinct function.
4. In the **Settings** section, right-click ALERTID, and then select **Configure drill downs**.
The **Configure Drill Downs for Alert ID** window appears.
5. In the **Type** section, select the **URL** option.
6. In the **URL** box, enter the URL in the following format:
`/<tenant-name>/advanced-visualization/navigate-to/alerts,`
where `<tenant-name>` is the name of the tenant that you are using to access GE Digital APM.
7. In the **Load In** section, select an option that determines how to load the chart.
8. In the **Parameters** section, select the **Add all target filters** button.
A table appears, displaying the following columns:
 - Parameter Name
 - Type
 - Field/Value
9. In the table, enter the values as follows:
 - a. In the **Parameter Name** box, specify `Severity`.
 - b. In the **Type** box, select **Field**.
 - c. In the **Field/Value** box, select **ALERTS.SEVERITY**.

Note: The alerts in the Alerts grid view are filtered based on the filter parameters specified in the table. For more information on the supported filter parameters for configuring drill-downs, refer to the [Supported Filter Parameters for Alerts](#) topic.
10. Select **Apply**, and then save the chart.
11. Right-click the chart, select **Run...**, and then select **Run in new window**.
The new tab appears, displaying the chart.
12. Select the visual element (for example, bar) for the Severity parameter.

A new tab appears, displaying the number of alerts filtered by the Severity parameter in the Alerts grid view.

Example: Access the Number of Cases Filtered by a Severity Parameter in Cases Module

This example provides the steps to configure drill-downs for a field associated with the Cases custom business view and access the number of Cases filtered by the Severity parameter in the Cases grid view.

1. [Create a chart using the Cases custom business view.](#)
2. In the Advanced Visualization Designer, add the CASEID field as a Measure and the SEVERITY field as a Dimension.
3. Aggregate CASEID with the count distinct function.
4. In the **Settings** section, right-click CASEID, and then select **Configure drill downs**.

The **Configure Drill Downs for Case ID** window appears.

5. In the **Type** section, select the **URL** option.
6. In the **URL** box, enter the URL in the following format:
`/<tenant-name>/advanced-visualization/navigate-to/cases,`
where *<tenant-name>* is the name of the tenant that you are using to access GE Digital APM.
7. In the **Load In** section, select an option that determines how to load the chart.
8. In the **Parameters** section, select the **Add all target filters** button.

A table appears, displaying the following columns:

- Parameter Name
- Type
- Field/Value

9. In the table, enter the values as follows:
 - a. In the **Parameter Name** box, specify *Severity*.
 - b. In the **Type** box, select **Field**.
 - c. In the **Field/Value** box, select **CASES.SEVERITY**.

Note: The cases in the Cases grid view are filtered based on the filter parameters specified in the table. For more information on the supported filter parameters for configuring drill-downs, refer to the [Supported Filter Parameters for Cases](#) topic.

10. Select **Apply**, and then save the chart.
11. Right-click the chart, select **Run...**, and then select **Run in new window**.
The new tab appears, displaying the chart.
12. Select the visual element (for example, bar) for the Severity parameter.
A new tab appears, displaying the number of cases filtered by the Severity parameter in the Cases grid view.

About Configuring Drill-Downs using URLs

Note: This feature is not available in Legacy Predix APM.

You can use GE Digital APM URLs to configure drill-downs for a visual element (for example, bar) of a chart for accessing data associated with the visual element in the corresponding module. For more information on the GE Digital APM URLs and URL syntax, refer to the [URLs](#) help.

When configuring drill-downs, you can create the following types of URLs that are used to navigate to the specific pages or features of the corresponding module:

- URL with parameters: If the URL associated with the module contains a parameter, you must create a URL with the parameter to pass the parameter value from the chart to the corresponding module for accessing the associated data. If the URL uses dynamic parameters (for example, prompts), parameters with the same name are automatically created to pass the value when you select the visual element in the chart. Thus, you are navigated to the target page or feature of the module.
- URL without parameters: If a URL associated with the module does not contain a parameter, you must create a URL without any parameter value.

Configure a Drill-Down for a Chart to Access Data in the Corresponding Module

Note: This feature is not available in Legacy Predix APM.

Before You Begin

- [Create a chart.](#)

About This Task

This task describes how to configure a drill-down for a chart using a URL and navigate to the corresponding module within GE Digital APM to access the associated data. For more information on different types of drill-downs and how to configure drill-downs for the charts and reports, refer to the help integrated with Advanced Visualization.

Procedure

1. [Access the Advanced Visualization page.](#)
2. Access the chart for which you want to configure the drill-down.
3. Right-click the chart, and then select **Edit**.
The **Advanced Visualization Designer** page appears, displaying the chart in the designer canvas.
4. In the **Settings** section, in the **Vertical** box, right-click the field for which you want to configure a drill-down, and then select **Configure drill downs**.
The **Configure Drill Downs for <Field Name>** window appears.
5. In the **Configure Drill Downs for <Field Name>** window, perform the following steps to configure the drill-down:
 - a) In the **Type** section, select the **URL** option.
 - b) In the **URL** box, enter the URL for the page that you want to access when you select the visual element of the chart.

Tip: For more information on the URLs associated with a specific GE Digital APM module, access the help documentation for the module, and then refer to the **<Module Name> URLs** topic.

- If the URL does not contain any parameter, select **Apply**.
- If the URL contains parameters (for example, *{entitykey}* and *{sectionname}* in the URL `health/asset/{entitykey}/{sectionname}`), perform the following steps:
 - i. In the **Parameters** section, select the **Add all target filters** button.

A table appears, displaying the following columns:

- Parameter Name
 - Type
 - Field/Value
- ii. In the table, enter the values as follows:
- In the **Parameter Name** box, enter the name of the parameter.
 - In the **Type** box, select **Field**.
 - In the **Field/Value** box, select a field value based on the parameter that you specified in the **Parameter Name** box.
- iii. Select **Apply**.
6. Select the **Save** button to save the chart in your preferred workspace.
The drill-down for the chart is configured.

Example: Access the Number of Health Indicators for an Asset from the Health Indicator Status by Asset Chart

This example provides the steps to configure drill-downs in the Health Indicator Status by Asset chart and [view the number of health indicators in the Health Summary page](#).

1. [Access the Advanced Visualization page](#).
2. Select **Visualize Data**.
The **Advanced Visualization Designer** page appears, displaying a designer canvas to create the chart.
3. Select the **Add Data** button.
The **Select Data Source** window appears, displaying the available data sources.
4. Navigate to the `ahi` folder, and then select the **health_overview_status_by_asset** data source.
The Dimensions and Variables associated with the data source appear in the **Advanced Visualization Designer** page.
5. In the **Advanced Visualization Designer** page, perform the following:
 - a. From the **Measures** section, drag the following measures to the **Vertical** box of the **Display** section:
 - Alert
 - No Status
 - Normal
 - Warning
 - b. From the **Dimensions** section, drag the following measures to the **Horizontal** box of the **Display** section:
 - Asset ID
 - Asset Key
6. In the **Settings** section, in the **Vertical** box, right-click an indicator status, and then select **Configure drill downs**.
The **Configure Drill Downs for <Health Indicator Status>** window appears.
7. In the **Configure Drill Downs for <Health Indicator Status>** window, perform the following steps to configure the drill-down for the health indicator status:
 - a. In the **Type** section, select the **URL** option.
 - b. In the **URL** box, enter the URL in the following format:

health/asset/{entitykey}/indicator, where {entitykey} denotes the asset in the asset hierarchy for which you want to view the health indicators.

Note: For more information on how to construct the URLs associated with Asset Health Manager, refer to [AHM URLs](#).

- c. In the **Parameters** section, select the **Add all target filters** button.
A table appears, displaying the following columns:
 - Parameter Name
 - Type
 - Field/Value
 - d. In the table, enter the values as follows:
 - In the **Parameter Name** box, specify `entitykey`.
 - In the **Type** box, select **Field**.
 - In the **Field/Value** box, select **HEALTH_OVERVIEW__STATUS_BY_ASSET.ROWS.ASSET_KEY**.
Note: You must select the field value based on the parameter that you specified in the **Parameter Name** box.
 - e. Select **Apply**.
8. Select the **Save** button to save the chart in your preferred workspace.
The Health Indicator Status by Asset chart is created and saved in the workspace.
 9. Access the Health Indicator Status by Asset chart.
 10. Right-click the chart, select **Run...**, and then select **Run in new window**.
The new tab appears, displaying the chart.
 11. Select the visual element (for example, bar) associated with the asset for which you want to view the number of health indicators.
A new tab appears, displaying the number of health indicators for the selected asset in the **Health Summary** page.

Chapter 6

Setting Dashboard as Home Dashboard


Topics:

- [Set a Dashboard as the Home Dashboard](#)

Set a Dashboard as the Home Dashboard


Note: This feature is not available in Legacy Predix APM.

About This Task

You can access the home dashboard when you sign in to GE Digital APM or select  in the main navigation bar. This topic describes how to set a dashboard created in Advanced Visualization as your home dashboard.

Procedure

1. Access the [Advanced Visualization](#) page.
2. Access the dashboard that you want to set as the home dashboard.
3. Right-click the dashboard, and then select **Run in new window**.
A new window appears, displaying the dashboard.
4. Select **Assign as Home Dashboard**.
The **Caution** window appears.
5. Select **Apply**.
The dashboard is set as the home dashboard for GE Digital APM.

Tip: To access the home dashboard, select  in the main navigation bar.

Chapter 7

Exporting Dashboard

Topics:

- [About Exporting Dashboard](#)

About Exporting Dashboard

Advanced Visualization enables you to export a dashboard to a PDF or PNG file. You must configure the settings to enable the **Export to File** button in the dashboard and the file format to which you want to export the dashboard.

Note: The following configuration options in the dashboard settings enable the **Export to File** button in the dashboard and the file format to which you want to export the dashboard:

- Show Export: Enables the **Export to File** button in the dashboard.
- PDF: Enables you to export the dashboard to a PDF file.
- Image: Enables you to export the dashboard to a PNG file.

Important: The **Export to File** button is enabled in a new dashboard based on the page settings for the dashboard. However, if you want to enable the button for an existing dashboard, you must access and save the dashboard in Advanced Visualization.

The following examples provide steps on how to export a dashboard (namely Alerts data by severity) to PDF and PNG files:

Example: Export the Alerts Data by Severity Dashboard to a PDF File

1. Access the page settings for the Alerts data by severity dashboard and ensure that the following check boxes are selected:

- Show Export
- PDF

Note: For more information on how to access the page settings for a dashboard, refer to the help documentation for the dashboard in Advanced Visualization.

2. Access the Alerts data by severity dashboard.
3. Select the **Export to File** button, and then select **PDF**.
The dashboard is exported to a PDF file.

Note: You can access the downloaded file in your local drive.

Example: Export the Alerts Data by Severity Dashboard to a PNG File

1. Access the page settings for the Alerts data by severity dashboard and ensure that the following check boxes are selected:

- Show Export
- Image

Note: For more information on how to access the page settings for a dashboard, refer to the help documentation for the dashboard in Advanced Visualization.

2. Access the Alerts data by severity dashboard.
3. Select the **Export to File** button, and then select **Image**.
The dashboard is exported to a PNG file.

Note: You can access the downloaded file in your local drive.

Chapter 8

Reference

Topics:

- [General Reference](#)
- [Supported Filter Parameters](#)

General Reference

Advanced Visualization Terms

The following terms and definitions apply to advanced visualization dashboard components.

Chart

An individual visualization of data using a data source.

Data Source

A repository that contains the data that can be visualized in advanced visualization in the form of charts or reports.

Page

A collection of charts that can be combined to create a view like a dashboard. These pages can be shared with other users or used as private dashboards for the users

Domain

The workspace to create visualizations, where the tenant can configure their own custom data sources. The data sources can be used to access the data and combine that data with the other data that the tenants have access to through the baseline domain that cannot be modified by the users.

Folders

A way to organize data in a user domain. This can be used to create various types of content and then saved in different folders that the users can access later.

Advanced Visualization Permissions

Access to advanced visualization is controlled using user level permissions after the feature has been enabled for the tenant.

The features at the permission set level allow the tenant administrators to give the required access to the features to users based on individual user permissions or group permissions in user management. The permissions that are available to the tenant administrator are listed in the table below.

Table 1: Advanced Visualization Permissions For Tenant Administrators

Permission Name	Permission Description
Manage Advanced Visualization	Allows you to add new connections or modify existing data connections other than the baseline content that cannot be updated.
Create Advanced Visualization	Allows you to create new visualizations based on the data sources that are available to them.
View Advanced Visualization	Allows you to view the visualizations that have been created in your tenant and which other users have shared.

Supported Filter Parameters

Supported Filter Parameters for Alerts

The following table lists the supported filter parameters for configuring drill downs in the charts or dashboards created for Alerts.

Filter Name	Parameter Name	Field/Value
SEVERITY	severity	ALERTS.SEVERITY
STATUS	status	ALERTSTATE.ALERTSTATUS
ALERT ID	alertId	ALERTS.ID
ASSET NAME	assetName	ASSET.ASSETNAME1
SITE NAME	siteName	ASSET.SITENAME
ENTERPRISE NAME	enterpriseName	ASSET.ENTERPRISENAME

Supported Filter Parameters for Cases

The following table lists the supported filter parameters for configuring drill downs in the charts or dashboards created for Cases.

Filter Name	Parameter Name	Field/Value
SEVERITY	severity	CASES.SEVERITY
STATUS	status	CASESTATUS.STATUSNAME
CASE ID	caseId	CASES.CASEID
ASSET NAME	assetName	ASSET.ASSETNAME
SITE NAME	siteName	ASSET.SITENAME
ENTERPRISE NAME	enterpriseName	ASSET.ENTERPRISENAME

Chapter 9

Release Notes

Topics:

- [First Quarter of 2023](#)
- [Second Quarter of 2021](#)
- [Fourth Quarter of 2020](#)
- [Third Quarter of 2020](#)
- [Second Quarter of 2020](#)
- [First Quarter of 2020](#)
- [Fourth Quarter of 2019](#)

First Quarter of 2023

Release Date: March 30, 2023

This topic provides a list of product changes released for this module on this date.

Table 2: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
To enhance usability, when visualizing time series data in a dashboard, you can now modify asset tags in the Tag Browser section and reload the dashboard; the charts that use the selected asset tags will be refreshed. The modified asset tags are not saved, and when you exit the session and reconnect, the dashboard will display the charts with the tag information selected previously.	US573466
To enhance usability, you can now set up a schedule to send charts or reports via email.	US534178

Table 3: Known Issues and Limitations

The following known issues and limitations exist.

Description	Tracking ID
When you schedule a chart to be sent as an inline HTML in an email message, an error occurs. As a work around, follow these steps: <ol style="list-style-type: none">1. Save the chart by selecting the default output format as HTML.2. Open the HTML file using a text editor.3. Change the PCHOLD format from JSCHART to SVG.	US534178

Second Quarter of 2021

Release Date: June 4, 2021

This topic provides a list of product changes released for this module on this date.

Table 4: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
To ensure that correct data is available when creating a data source using a query, you can now retrieve the parameters of the query and validate the parameter details. To facilitate this enhancement, a new button, Query Helper , has been added to the Advanced Visualization home page.	US468229

Table 5: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
<p>Previously, when visualizing time series data using an Absolute line chart, if there were multiple asset tags with the same name, the tags were grouped, and you could not view data corresponding to each tag on the dashboard. This issue has been resolved. Now, in this scenario, a level of asset hierarchy associated with each tag is displayed with the tag name to make the tag name unique.</p> <p>Tip: To display the tag name containing the asset hierarchy level, choose the Tag Name_Display Name or Tag Name field when creating the Absolute line chart in Advanced Visualization Designer.</p>	DE150652

Table 6: Known Issues and Limitations

The following known issues and limitations exist.

Description	Tracking ID
For some queries that are imported, and not created using the queries designer tool, the Query Helper does not consider filter parameter for generating sample request body.	DE157103
When you attempt to access the Advanced Visualization page in a tenant, that is accessed by another user associated with the tenant, an error may occur.	<ul style="list-style-type: none">DE154179DE153806

Fourth Quarter of 2020

Release Date: December 11, 2020

This topic provides a list of product changes released for this module on this date.

Table 7: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
<p>In the Legacy Predix APM environment, you can now create and customize visualizations for the time series data that is collected for a set of asset tags associated with your tenant. To facilitate this enhancement, a new data source, timeseries_run_custom_business_view, has been added to Advanced Visualization.</p> <p>Additionally, a new button, Tag Browser, has been added to the Advanced Visualization Designer page. The Tag Browser window allows you to browse assets and the associated asset tags to access the corresponding time series data.</p>	F56211
<p>When accessing SmartSignal data in a dashboard, you can now filter the data for a specific period. To facilitate this enhancement, the following baseline reporting objects have been added to the gedigital-baseline workspace:</p> <ul style="list-style-type: none"> • events_reporting_object • jobs_reporting_object <p>Note: In addition to the features provided by SmartSignal baseline and custom business views, the reporting objects allow you to configure a custom date range in dashboards to view SmartSignal data for the specified duration.</p>	US456584
<p>You can now configure the time series data visualizations to display the Units of Measure (UOM) based on the System of Measure setting of the My Preferences page. To facilitate this enhancement, the following fields have been added to the timeseries_run_custom_business_view data source:</p> <ul style="list-style-type: none"> • Time Zone • User Preferred Data Time 	US445903
<p>You can now configure the time series data visualizations to display the timestamps based on the Time Zone setting of the My Preferences page. To facilitate this enhancement, the Tag Name_Display Name field has been added to the timeseries_run_custom_business_view data source.</p>	US445902

Table 8: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
<p>Previously, when you copied or moved a time series data chart to another folder, the selections in the Tag Browser were not retained for the new chart. This issue has been resolved.</p>	DE143629

Table 9: Known Issues and Limitations

The following known issues and limitations exist.

Description	Tracking ID
When creating a chart using timeseries_reporting_object, preview of the chart may take longer than expected to appear and a timeout error may occur.	DE149972
When you run a time series data chart, an error occurs in the following scenarios: <ul style="list-style-type: none"> You copy or move the folder containing the chart to another folder. You rename the folder containing the chart. 	DE149941
When creating a chart using an odata-m-baseline data source, if the data source contains a large amount of data, preview of the chart does not load.	DE141482

Third Quarter of 2020

Release Date: September 25, 2020

This topic provides a list of product changes released for this module on this date.

Table 10: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
You can now visualize the Cost Benefit Analysis (CBA) data associated with cases. To facilitate this enhancement, the following baseline and custom business views have been added to Advanced Visualization: <ul style="list-style-type: none"> cba_base cba_custom_business_view 	F55482
You can now set a dashboard created in Advanced Visualization as the home dashboard for GE Digital APM. To facilitate this enhancement, a new button, Assign as Home Dashboard , has been added to the Advanced Visualization dashboards. <p>Note: This feature is not available in Legacy Predix APM.</p>	F50778
You can now create and customize visualizations for the time series data that is collected for a set of asset tags associated with your tenant. To facilitate this enhancement, a new data source, timeseries_run_custom_business_view, has been added to Advanced Visualization. <p>Additionally, a new button, Tag Browser, has been added to the Advanced Visualization Designer page. The Tag Browser window allows you to browse assets and the associated asset tags to access the corresponding time series data.</p> <p>Note: This feature is not available in Legacy Predix APM.</p>	F50734

Description	Tracking ID
<p>You can now use multiple query parameters at a time to filter data of a chart in the following scenarios:</p> <ul style="list-style-type: none"> The chart is created using a GE Digital APM query as the data source. The GE Digital APM query contains multiple parameters. 	US441000
<p>You can now navigate from a visualization created using a GE Digital APM Baseline Queries data source to the corresponding module within GE Digital APM. This enhancement allows you to access the filtered data and take actions on the data in the user interface of the corresponding module.</p> <p>Note: This feature is not available in Legacy Predix APM.</p>	US434713

Table 11: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, when you created a chart to visualize data for multiple sites, the data for some of the sites did not appear in the chart. This issue has been resolved.	DE138673

Table 12: Known Issues and Limitations

The following known issues and limitations exist.

Description	Tracking ID
<p>When you copy or move a time series data chart to another folder, the selections in the Tag Browser are not retained for the new chart.</p> <p>Workaround: When you create a time series data chart, save the chart to a folder where you always want to access the chart.</p>	DE143629
<p>When you drill down a chart created for the Alerts or Cases module, you cannot access the data in the corresponding module in the following scenarios:</p> <ul style="list-style-type: none"> The drill-down is configured for an asset to visualize the associated alerts or cases. The name of the asset contains the character, Hash (#). 	DE140227

Second Quarter of 2020

Release Date: June 26, 2020

This topic provides a list of product changes released for this module on this date.

Table 13: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
To improve performance when visualizing data using non-aggregation queries, the maximum number of records that you can view has now been restricted to 100,000.	US410707
You can now export a dashboard to a PDF or PNG file.	US365725
<p>The user interface of the Advanced Visualization module has been enhanced with a new look and feel. Additionally, when visualizing data using Advanced Visualization, the performance has been improved. The following list provides some of the key capabilities offered by the enhanced user interface:</p> <ul style="list-style-type: none"> • Enhanced Home Page: Provides improved accessibility and navigability of the tools, functions, properties, and features within Advanced Visualization. The new interactive landing page automatically displays your favorites and last viewed items, based on your activity. • Enhanced Usability: Enables you to access the Advanced Visualization Designer from the home page. You also have a centralized view of your private content repository and the content shared by other users, improved searchability, and so on. • Enhanced Designer: Provides an integrated canvas that enables you to join data, visualize the data, and arrange your new content into an interactive page in a user session. Using the new features added to the designer, you can create a variety of standard or custom chart types and report layouts. You can customize each item by adding temporary fields, customizable subtotals, or contextualized links to other content items and web pages. • Enhanced Filter: Provides enhanced filtering capabilities to filter content based on the values of the associated fields. You can also specify filter criteria based on the visual elements selected in the designer, and then transform your chart or report instantly into a page, where you can customize the existing content or add additional content. • Enhanced Data Management: Provides improved accessibility to your data from a single, streamlined environment, which enables you to upload and modify data, connect to various data sources, configure adapters, and add or modify connections. 	F51570

Description	Tracking ID
<p>You can now create and customize analytic charts and visualize analytic data using the Analytics and SmartSignal data sources. To facilitate this enhancement, the following baseline and custom business views have been added to Advanced Visualization:</p> <ul style="list-style-type: none"> • For application analytics: <ul style="list-style-type: none"> ◦ caf_deployments ◦ caf_deployments_custom_business_view • For SmartSignal analytics: <ul style="list-style-type: none"> ◦ assets_base ◦ assets_custom_business_view ◦ assets_models_clustered_business_view ◦ models_base ◦ models_custom_business_view • For SmartSignal jobs, events, and statistics: <ul style="list-style-type: none"> ◦ jobs_base ◦ jobs_custom_business_view ◦ event_base ◦ events_custom_business_view ◦ statistics_base ◦ statistics_custom_business_view 	F50901
<p>You can now navigate from a chart or dashboard created in Advanced Visualization to the corresponding feature or module within GE Digital APM. This enhancement allows you to access the filtered data and take actions on the data in the user interface of the corresponding module.</p> <p>Note: Currently, this feature is available for the following modules:</p> <ul style="list-style-type: none"> • Alerts • Cases 	F48016

Table 14: Known Issues and Limitations

The following known issues and limitations exist.

Description	Tracking ID
<p>When using the following business views, you can visualize data for only one asset at a time:</p> <ul style="list-style-type: none"> • assets_models_clustered_business_view • models_custom_business_view 	N/A

Release Date: May 8, 2020

This topic provides a list of product changes released for this module on this date.

Table 15: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
The OData families now support the grouping and aggregation functionalities on the associated entities. This enhancement allows you to group and aggregate the records for an OData family and create advanced visualizations using the aggregated data. Additionally, you can filter an aggregation based on the filter parameters specified in the aggregate query.	F49093

Table 16: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, you could not visualize data based on a site because the corresponding MI_SITE_KEY field associated with the OData-M families was not exposed by the OData services. This issue has been resolved. Now, the MI_SITE_KEY fields have been added to the OData services that allow you to visualize data based on the sites.	DE127160

Table 17: Known Issues and Limitations

The following known issues and limitations exist.

Description	Tracking ID
The OData aggregation extensions associated with the OData-M families do not support the groupby function for the records defined with one-to-many relationships.	DE129102

First Quarter of 2020

Release Date: March 27, 2020

This topic provides a list of product changes released for this module on this date.

Table 18: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
When querying data to create visualizations using the Alerts and Cases data sources, performance has been improved. To facilitate this enhancement, two folders, <i>Dimension</i> and <i>Facts</i> , and their associated synonyms have been added to the Alerts and Cases business views.	US401029
A new field, <i>AnalyticName</i> , has been added to the Alerts Base and Alerts Custom business views. This field determines the number of alerts generated by an analytic.	US397115
The GE Digital APM baseline queries and baseline entities have now been added to Advanced Visualization using which you can create visualizations.	US392953
All the user interface elements in Advanced Visualization except the data retrieved from the database are now translated based on the language selected in the My Preferences page.	US390685

Table 19: Known Issues and Limitations

The following known issues and limitations exist.

Description	Tracking ID
The GE Digital APM queries do not support multi-value parameters in Advanced Visualization.	DE130622
The MI_SITE_KEY field associated with the Odata-M families is not exposed by the Odata services.	DE127160
The Odata aggregation extensions associated with the Odata-M families do not support the groupby clause.	N/A

Table 20: Obsolete Features

The following features are no longer available.

Description	Tracking ID
The default business views for the following modules are no longer available in Advanced Visualization. <ul style="list-style-type: none">AlertsAssetsCases	N/A

Fourth Quarter of 2019

Advanced Visualization

This topic provides a list of product changes released for this module on the specified dates.

Release Date: December 13, 2019

Table 21: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
You can now save the visualizations that you have created using Advanced Visualization and share it with others in the tenant. This will allow you to save both stand alone visualizations as well as dashboards created using these visualizations	F46516
You can now create visualizations using Advanced visualizations on Alerts , Cases , Asset and General Recommendations data as long as you have access to these features.	F46502
You can view Alerts , Cases , Asset and General Recommendations data models using Advanced Visualization. The data sources are automatically created for you.	F45629
You can now launch Advanced Visualization in APM and create visualizations using the new capabilities that have been added to the product	F44729

Table 22: Known Issues and Limitations

The following known issues and limitations exist.

Description	Tracking ID
Filters in the dashboards created using Advanced Visualization do not work when you use CNT.DST to aggregate the count for alerts, cases, and so on. This is much faster in terms of rendering data. The workaround is to use CNT to aggregate the data; however if the number of records is greater than 1M, then timeouts may occur.	DE124632
You can access a maximum of 1000 assets using a data source for assets.	N/A