



Search



Contents

Chapter 1: Overview	1
Overview of Search	2
Supported Search Syntax for Complex Searches	2
Perform a Search	2
Access the Bulk Data Form Page	4
Chapter 2: Advanced Search	7
Overview of the Advanced Search Module	8
Access the Advanced Search Page	8
Create an Advanced Search	8
Access an Advanced Search	10
Chapter 3: Search Configuration	11
Search Configuration	12
Access the Search Configuration Page	12
Configure Search	13
Build the Search Index	14

Copyright GE Digital

© 2020 General Electric Company.

GE, the GE Monogram, and Predix are either registered trademarks or trademarks of All other trademarks are the property of their respective owners.

This document may contain Confidential/Proprietary information of and/or its suppliers or vendors. Distribution or reproduction is prohibited without permission.

THIS DOCUMENT AND ITS CONTENTS ARE PROVIDED "AS IS," WITH NO REPRESENTATION OR WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF DESIGN, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. ALL OTHER LIABILITY ARISING FROM RELIANCE UPON ANY INFORMATION CONTAINED HEREIN IS EXPRESSLY DISCLAIMED.

Access to and use of the software described in this document is conditioned on acceptance of the End User License Agreement and compliance with its terms.

Chapter 1

Overview

Topics:

- [Overview of Search](#)
- [Supported Search Syntax for Complex Searches](#)
- [Perform a Search](#)
- [Access the Bulk Data Form Page](#)

Overview of Search

The Search tool is available throughout GE Digital APM, and allows you to search for records, families, analyses, or entire modules.

Supported Search Syntax for Complex Searches

The following query syntax is supported by GE Digital APM.

Note: If you would like additional information about complex searches, as well as instructions on how to configure it for your GE Digital APM system, see the [Search Configuration](#) documentation.

Boolean Operators

Boolean operators allow terms to be combined via the logic operators AND, OR, and NOT. The AND operator is the default conjunction operator. This means that if there is no Boolean operator between two terms, the AND operator is implied. If either of the two terms specified exist in a document, the AND operator links them and finds a matching document.

Grouping

Parentheses can be used to group clauses to form sub-queries. For example, to search for either "centrifugal" or "rotating" and "pump," you can enter `(centrifugal OR rotating) AND pump` as your search criteria.

Minimum Character Length

Each search term must be at least two characters in length.


Perform a Search

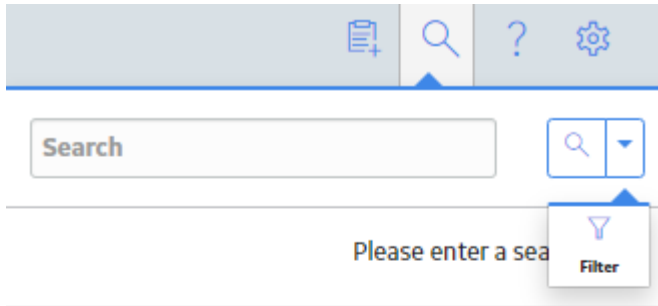
About This Task

You can use the global GE Digital APM search feature to locate records, applications, and Catalog items.


Note: Records that were recently added to GE Digital APM via a large data load or bulk import may not appear in the search results immediately. For more information, see the [Search Configuration](#) documentation.

Procedure

1. On the top navigation bar, select .
The search menu appears.



Need Help?

2. Enter a search term, and then select . Search terms are case-insensitive and can contain any number of characters and alphanumeric values.

Note: If you are searching the Asset Hierarchy, the search term must contain at least three characters or alphanumeric values.



Tip: You can enter a [supported search syntax](#) to perform a complex search.

The following items appear in the search results:

- Records whose record IDs or family captions contain the search term.
- Applications whose names contain the search term.
- Catalog items: Includes Catalog items containing the search term in the item name, caption, or Catalog path.

Tip: For records, a Related - <n> link appears next to the result, where <n> is the number of records related to the record shown in the search results. You can select the link to view a list of these records.

3. If you are searching for a record, you can filter the results as follows:

- a. Select  and then select .
- b. Select a family in the **Look In** box.
The results are filtered to include only the records within the selected family.
- c. Selected a family in the **Linked to** box.

- The results are filtered further to include only the records linked to a record in the selected family.
4. Select a search result to open the item.

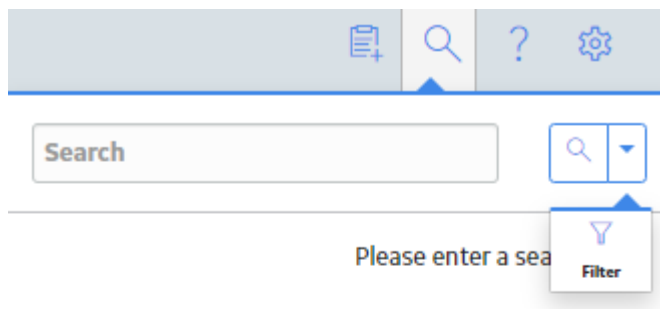
Tip: You can select the **Need Help?** link at the bottom of the search menu to search the GE Digital APM documentation for the specified search term.

Access the Bulk Data Form Page


Procedure

1. On the top navigation bar, select .

The search menu appears.



[Need Help?](#)

2. Enter a search term, and then select . Search terms are case-insensitive and can contain any number of characters and alphanumeric values.

Tip: You can enter a [supported search syntax](#) to perform a complex search.

Search results appear for the search term according to the following criteria:

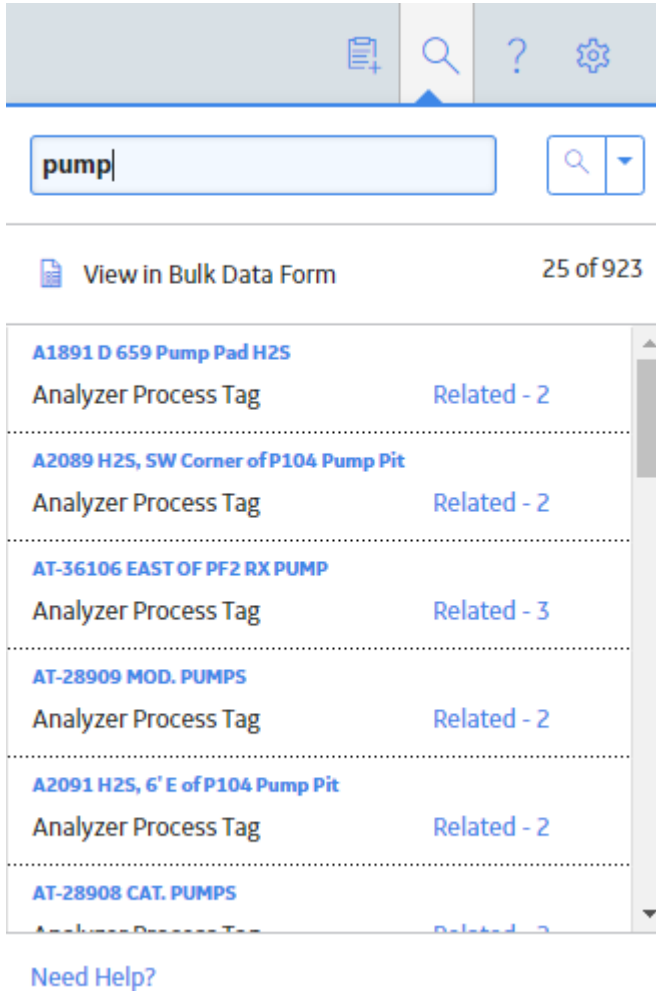
- Records: Includes records containing that search term in the record ID, family ID, family caption, or family key.

- Applications: Includes applications containing the search term in their name.
- Catalog items: Includes Catalog items containing the search term in the item name, caption, or Catalog path.

Note: When you search for Records, Applications, and Catalog Items, you will be able to view global data, as well as data for each of the sites to which you are assigned.

Tip: For records, a Related - <n> link appears next to the result, where <n> is the number of records related to the record shown in the search results. You can select the link to view a list of these records.

3. Select  .



A check box appears before each record in the list.

4. Beside each record that you want to view in bulk, select the check box, and then select **Open**.

Note: The **Open** button is enabled only when you select records of similar type.

The **Bulk Data Form** page appears, displaying the details of all the records.

Note: The Site Reference for each record is also displayed in the Bulk Data Form in the first column. The Site selector component for each record is enabled for multi-site user. A multi-site user can change the site to any of the sites to which the user has permission, or choose to make the record a

Global Record by selecting Global, so that all GE Digital APM users can access it regardless of the site assignment.

Datasheet ID: Centrifugal Pump

	<input type="checkbox"/>	Site	Asset ID - Value(s)	Asset Description - ...	Asset Type - Value(s)	Asset Manufacturer ...	Asse
✓	<input checked="" type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 02	QA Test Pump	Cent-Pump	ACME, Inc.	10
✓	<input type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 01	QA Test Pump	Cent-Pump	ACME, Inc.	10
✓	<input type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 03	QA Test Pump	Cent-Pump	ACME, Inc.	10
✓	<input type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 05	---	Cent-Pump	ACME, Inc.	10
✓	<input type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 06	---	Cent-Pump	ACME, Inc.	10
✓	<input type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 04	---	Cent-Pump	ACME, Inc.	10
✓	<input type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 10	---	Cent-Pump	ACME, Inc.	10
✓	<input type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 11	---	Cent-Pump	ACME, Inc.	10
✓	<input type="checkbox"/>	Site: Roanoke, VA	Pump-G-2	---	Centrifugal Pump	INGERSOL-D	16
✓	<input type="checkbox"/>	Site: Roanoke, VA	Pump-G-1	---	Centrifugal Pump	INGERSOL-D	2-:
✓	<input type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 09	---	Cent-Pump	ACME, Inc.	10
✓	<input type="checkbox"/>	Site: Roanoke, VA	AQA Test Pump 08	---	Cent-Pump	ACME, Inc.	10
...	<input type="checkbox"/>	Site: Roanoke, VA	---	---	---	---	---

Chapter 2

Advanced Search

Topics:

- [Overview of the Advanced Search Module](#)
- [Access the Advanced Search Page](#)
- [Create an Advanced Search](#)
- [Access an Advanced Search](#)

Overview of the Advanced Search Module

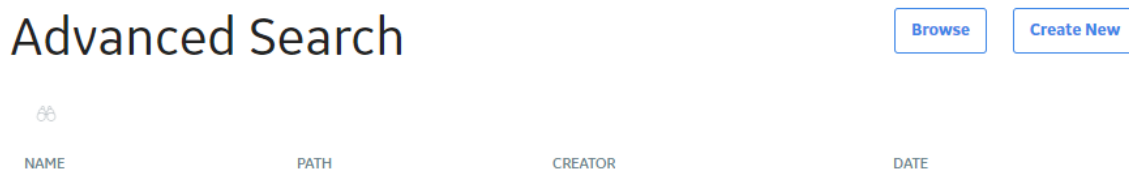
Advanced Search allows you to search for records within a selected family, as well as refine search results based on family relationship and field conditions. An advanced search can be saved for future use.

Access the Advanced Search Page

Procedure

On the left navigation bar, select **Tools**, and then select **Advanced Search**.

The **Advanced Search** page appears. If you have created or accessed any advanced searches, the 25 most recently created or accessed advanced searches will appear in the list.



Create an Advanced Search

Procedure

1. Access the [Advanced Search](#) page.
2. On the upper-right corner of the page, select **Create New**.

The page for a new advanced search appears.

New Search 📄 📄
Created just now by bl

Family Linked To Through


▼ Conditions 0 Conditions Defined | Match All Conditions

Family	Field	Condition	Value	Add
<input type="text"/>	<input type="text"/>	equals	<input type="text"/>	<input type="button" value="Add"/>

3. In the **Family** box, select the family whose records you want to search.
4. Optionally, in the **Linked To** box, select a family that is related to the family that you selected in the **Family** box. If you do so, the search will return only the records that both belong to the family in the **Family** box and are linked to another record belonging to a family in the **Linked To** box.
 - a) If you selected a family in the **Linked To** box, then, in the **Through** box, select the type of relationship that should exist between the family selected in the **Family** box and the family selected in the **Linked To** box. When you run the search, the results will contain only records that are linked via the specified relationship. If only one type of relationship exists between the selected families, the **Through** box will be populated automatically with that relationship.
5. Optionally, define field conditions. Note that defining field conditions limits advanced search results to only records whose field values match the specified criteria. For example, if the Status field in a family's records contains either the value Active or Inactive, you could define a field condition such that the search would only return records whose statuses are Active. To define field conditions:
 - a) Select **Conditions**.
The **Conditions** section appears.
 - b) In the **Conditions** section, in the **Family** box, select the family to whose field you want to apply a condition.
 - c) In the **Field** box, select the field to which you want to apply a condition.
 - d) In the **Condition** box, select the condition that you want to apply to the field that you selected in step c.
 - e) As needed, in the **Value** box, select the value to associate with the condition that you selected in step d.
 - f) Select **Add**.
The condition is added to the advanced search criteria, and appears as a box in the **Conditions** section. Conditions applied to the primary family (i.e., the family selected in step 3) appear as green-bordered boxes. Conditions applied to the linked-to family (i.e., the family selected in step 4) appear as orange-bordered boxes.
 - g) As needed, repeat steps b through f to create additional conditions.
 - h) If you would like the search results to include records that match any one of the specified conditions, clear the **Match All Conditions** check box. If you want the search results to include only the records that match all of the specified conditions, the **Match All Conditions** check box should remain selected.
6. Select **Search**.

The search is performed, and the results appear below the **Conditions** section.

Tip: If you want to view multiple records simultaneously via the Bulk Data Form, then, in the row for each record that you want to view, select the check box, and then select **View In Bulk**.

7. Optionally, to save the advanced search, on the upper-right corner of the page, select . Then, navigate to the location where you want to save the advanced search, then enter values as needed in the available fields, and then select **Save**.
The advanced search is saved, and will appear in the list on the **Advanced Search** page.

Access an Advanced Search

Before You Begin

- [Create an advanced search](#), and save the search.


Procedure

1. [Access the Advanced Search page](#).
2. In the row for the advanced search that you want to access, in the **Path** cell, select the link.

-or-

On the upper-right corner of the page, select **Browse**. Then, on the window that appears, navigate to and select the advanced search that you want to access, and then select **Open**.

The page for the selected advanced search appears.

Tip: If you would like to modify the advanced search, modify the search parameters as needed, and then select  to save your changes.

Chapter 3

Search Configuration

Topics:

- [Search Configuration](#)
- [Access the Search Configuration Page](#)
- [Configure Search](#)
- [Build the Search Index](#)

Search Configuration

You can use the search configuration options to change the way that records are returned by the global search. For example, you can specify the information that is shown in search results or whether or not a certain family or field should be included in the search results at all.

Excluding Families from Search

When you exclude a family from search, records in that family are not returned by the global search tool. In addition, records in any excluded families will not be returned in any **Search** window used in GE Digital APM. Therefore, you will not be able to select the records in workflows that use the **Search** window to select records. For example, in Policy Designer, you could not assign one of these records to a policy instance.

In the baseline GE Digital APM database, the following families are excluded from search by default:

- Family Policy
- Health Indicator Value
- OPC Reading
- Reading
- Reading In Error
- Security Group

About The Search Index

The search index is used to return the results of the Global search in GE Digital APM. The search index is updated automatically, and, for performance reasons, is designed to update incrementally.

When only a few records are added to the database, those records appear in the Global search results almost immediately. However, when large data loads are performed or records updated in bulk (e.g., during an initial implementation), it takes a longer amount of time for the records to be indexed, and therefore for them to appear in the Global search results.

Important: You should not rebuild the search index solely because newly added records do not appear in the Global search results after completing a large data load or bulk record import.

The search index typically only needs be rebuilt manually after a database upgrade. However, in some cases the search index may become out of sync with the data in your database. For example, if you add records to the database directly rather than via Record Manager in the GE Digital APM application, the search index will not include those changes and you must rebuild the search index manually. If occurrences such as this happen regularly in your company's implementation of GE Digital APM, you may want to schedule the search index to be built on a regular basis.

Access the Search Configuration Page

Procedure

1. Access the **Operations Manager** page, and then select **Search Configuration**.

The **Search Configuration** page appears.

2. In the left pane, select the family for which you want to configure search results.

The workspace for the selected family appears, displaying the family search settings.

The screenshot displays the Search Configuration interface. On the left is a navigation menu with options: Family, Checkpoint (selected), Lubrication Requirement, and Measurement Location. The main content area is titled 'Family Search Settings' and includes buttons for 'Status', 'Build Index', 'Schedule', and 'Settings'. Below these are 'Save' and 'Cancel' buttons. An 'Increase Rank' input field contains the value '0'. An 'Exclude' checkbox is currently unchecked. The 'Field Search Settings' section is a table with columns for 'Field', 'Display Field?', 'Index?', and 'Partial Search Pattern'.

Field	Display Field?	Index?	Partial Search Pattern
Defaults	<input checked="" type="radio"/>		
Asset Description	<input type="radio"/>	<input type="checkbox"/>	<input type="text"/>
ATG	<input type="radio"/>	<input type="checkbox"/>	<input type="text"/>
Bluetooth Measurement Type	<input type="radio"/>	<input type="checkbox"/>	<input type="text"/>
Checkpoint ID	<input type="radio"/>	<input type="checkbox"/>	<input type="text"/>
Checkpoint Locked	<input type="radio"/>	<input type="checkbox"/>	<input type="text"/>
Checkpoint Type	<input type="radio"/>	<input type="checkbox"/>	<input type="text"/>

Configure Search

Procedure

1. [Access the Search Configuration page](#) selecting the family for which you want to configure search results.
2. As necessary, modify the following options for the family:
 - **Increase Rank:** You can enter a numeric value to specify the location of the family within search results. The higher the number, the higher the priority. The lowest number that you can enter is 0.
 - **Exclude:** Indicates whether or not the family is indexed, and therefore searchable.

Important: Before you modify this option, you should ensure that you understand [how this setting may affect other areas of the application](#).
3. As necessary, in the **Field Search Settings** section, modify the following options for each field within a family:
 - **Display Field?:** Indicates the field whose text will be displayed in the search results. The ENTITY_ID field is the default for all fields.
 - **Index?:** Indicates whether or not the field is indexed, and therefore searchable.
 - **Partial Search Pattern:** This field allows you to use regular expressions to configure more streamlined searches. For examples and instructions on how to properly use this field, refer to [Use Partial Search Patterns](#).
4. Select **Save**.

Your changes are reflected in search results throughout GE Digital APM.

Build the Search Index

Procedure

1. Access the [Search Configuration](#) page.
2. To build the search index, perform the following steps:
 - a) Select **Build Index**.
The **Rebuild** window appears.
 - b) Select **OK**.
The search index will be built, and all expected results will be included in the global search. To verify whether the operation has completed successfully, you can view the generated `Meridium.Service.Search_<Date>.txt` log file at `<installdir>\ProgramData\Meridium\Logs\`.
Tip: To access the ProgramData folder, you must show the hidden folders on your system.
3. To schedule the search index to be built at a future time or on a recurring schedule, perform the following steps:
 - a) Select **Schedule**.
The **Edit Schedule** window appears.
 - b) Select either the **One time** or **Recurrence** check box.
 - c) In the **Start** box, specify the date and time at which you want the search index to be built.
 - d) If you selected **Recurrence**, in the **Every** section, specify the frequency at which you want the search index to be built.
 - e) If you selected **Recurrence**, in the **End** section, specify when you want the scheduled recurrences to end.
 - f) Select **OK**.
The search index will be built according to the schedule, and the expected results will be included in the global search. You can view the status of the scheduled job by accessing **Admin > Operations Manager > Schedule Logs**.