Step 1 of 3: Define basics

StorageGRID

NetApp
March 01, 2022

This PDF was generated from https://docs.netapp.com/us-en/storagegrid-116/ilm/using-advanced-filters-in-ilm-rules.html on March 01, 2022. Always check docs.netapp.com for the latest.

Table of Contents

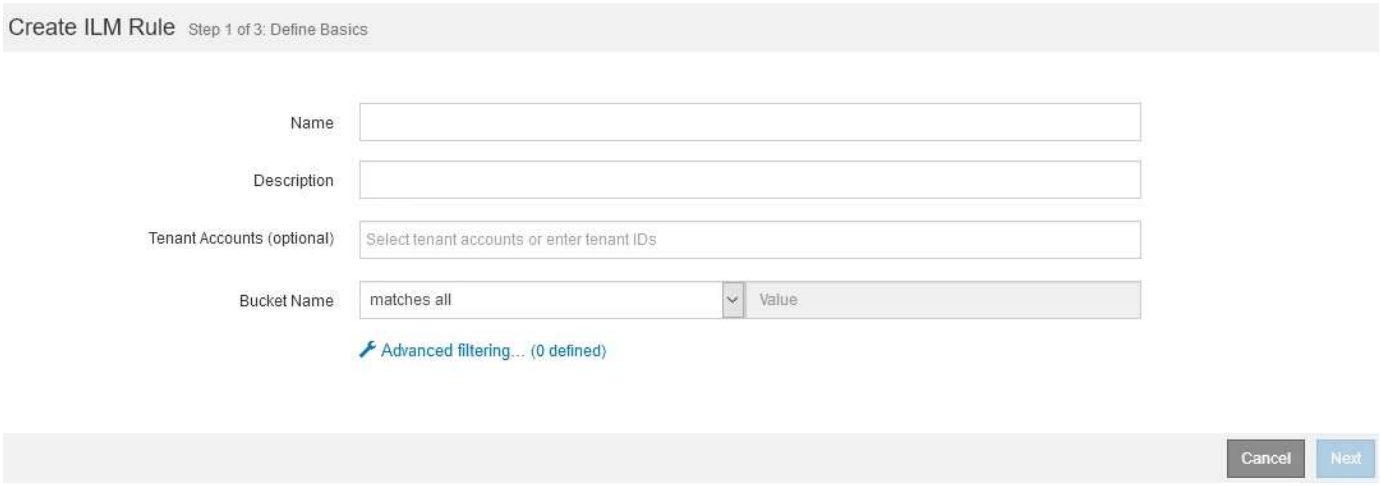
Step 1 of 3: Define basics 1
Use advanced filters in ILM rules 2

Step 1 of 3: Define basics

Step 1 (Define Basics) of the Create ILM Rule wizard allows you to define the rule's basic and advanced filters.

About this task

When evaluating an object against an ILM rule, StorageGRID compares the object metadata to the rule's filters. If the object metadata matches all filters, StorageGRID uses the rule to place the object. You can design a rule to apply to all objects, or you can specify basic filters, such as one or more tenant accounts or bucket names, or advanced filters, such as the object's size or user metadata.



Steps

1. Enter a unique name for the rule in the **Name** field.

   You must enter between 1 and 64 characters.

2. Optionally, enter a short description for the rule in the **Description** field.

   You should describe the rule's purpose or function so you can recognize the rule later.

3. Optionally, select one or more S3 or Swift tenant accounts to which this rule applies. If this rule applies to all tenants, leave this field blank.

   If you do not have either the Root access permission or the Tenant accounts permission, you cannot select tenants from the list. Instead, enter the tenant ID or enter multiple IDs as a comma-delimited string.

4. Optionally, specify the S3 buckets or Swift containers to which this rule applies.

   If **matches all** is selected (default), the rule applies to all S3 buckets or Swift containers.

5. Optionally, select **Advanced filtering** to specify additional filters.

   If you do not configure advanced filtering, the rule applies to all objects that match the basic filters.

If this rule will create erasure-coded copies, add the **Object Size (MB)** advanced filter and set it to **greater than 1**. The size filter ensures that objects that are 1 MB or smaller will not be erasure coded.

> Erasure coding is best suited for objects greater than 1 MB. Do not use erasure coding for objects smaller than 200 KB to avoid the overhead of managing very small erasure-coded fragments.

6. Select **Next**.

   Step 2 (Define Placements) appears.

Related information

- What an ILM rule is
- Use advanced filters in ILM rules
- Step 2 of 3: Define placements

Use advanced filters in ILM rules

Advanced filtering allows you to create ILM rules that apply only to specific objects based on their metadata. When you set up advanced filtering for a rule, you select the type of metadata you want to match, select an operator, and specify a metadata value. When objects are evaluated, the ILM rule is applied only to those objects that have metadata matching the advanced filter.

The table shows the types of metadata you can specify in advanced filters, the operators you can use for each type of metadata, and the metadata values expected.

Metadata type	Supported operators	Metadata value
Ingest Time (microseconds)	• equals • does not equal • less than • less than or equals • greater than • greater than or equals	Time and date the object was ingested. **Note:** To avoid resource issues when activating an new ILM policy, you can use the Ingest Time advanced filter in any rule that might change the location of large numbers of existing objects. Set Ingest Time to be greater than or equal to the approximate time when the new policy will go into effect to ensure that existing objects are not moved unnecessarily.

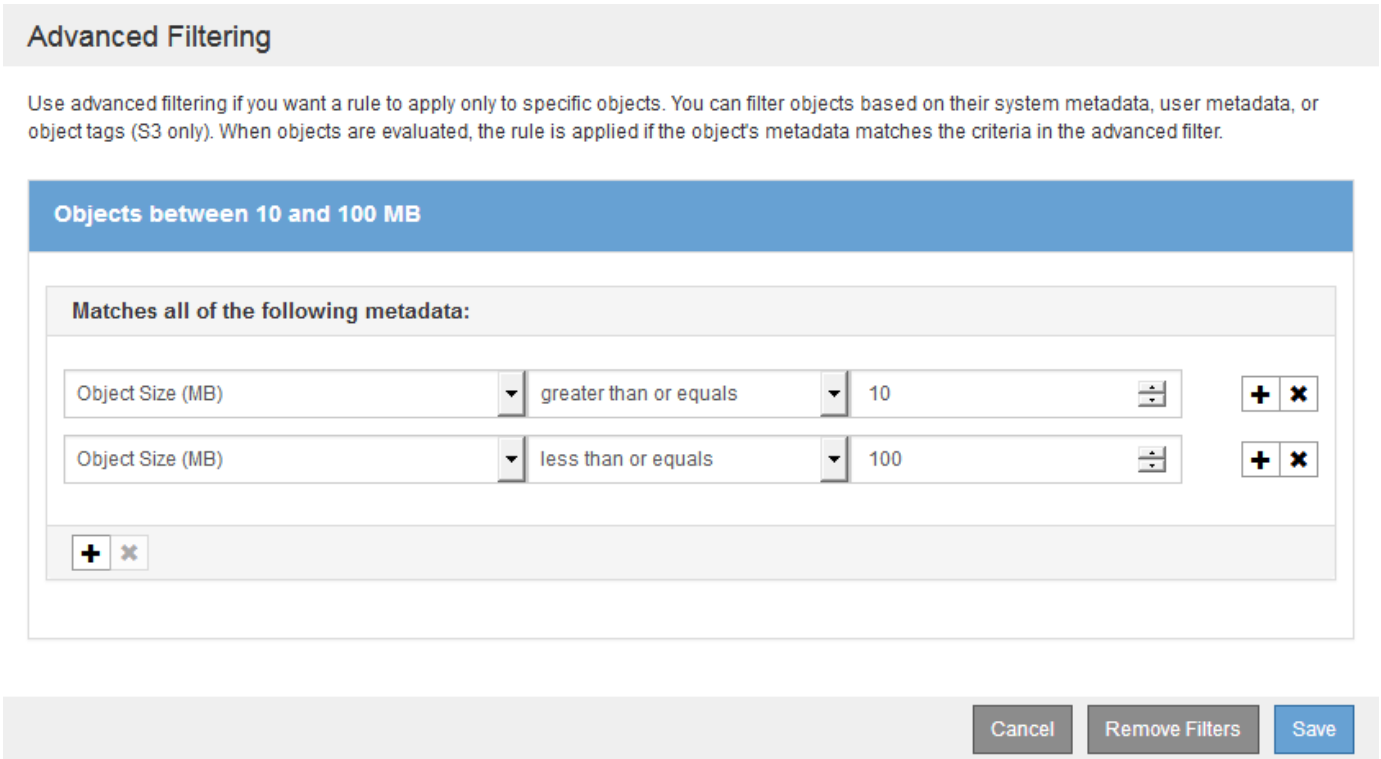
Metadata type	Supported operators	Metadata value
Key	• equals • does not equal • contains • does not contain • starts with • does not start with • ends with • does not end with	All or part of a unique S3 or Swift object key. For example, you might want to match objects that end with `.txt` or start with `test-object/`.
Last Access Time (microseconds)	• equals • does not equal • less than • less than or equals • greater than • greater than or equals • exists • does not exist	Time and date the object was last retrieved (read or viewed). **Note:** If you plan to use last access time as an advanced filter, Last Access Time updates must be enabled for the S3 bucket or Swift container. Use Last Access Time in ILM rules
Location Constraint (S3 only)	• equals • does not equal	The region where an S3 bucket was created. Use **ILM** > **Regions** to define the regions that are shown. **Note:** A value of us-east-1 will match objects in buckets created in the us-east-1 region as well as objects in buckets that have no region specified. Configure regions (optional and S3 only)
Object Size (MB)	• equals • not equals • less than • less than or equals • greater than • greater than or equals	The object's size in MB. Erasure coding is best suited for objects greater than 1 MB. Do not use erasure coding for objects smaller than 200 KB to avoid the overhead of managing very small erasure-coded fragments. **Note:** To filter on object sizes smaller than 1 MB, type in a decimal value. Your browser type and locale settings control whether you need to use a period or a comma as the decimal separator.

Metadata type	Supported operators	Metadata value
User Metadata	• contains • ends with • equals • exists • does not contain • does not end with • does not equal • does not exist • does not start with • starts with	Key-value pair, where **User Metadata Name** is the key and **User Metadata Value** is the value. For example, to filter on objects that have user metadata of `color=blue`, specify `color` for **User Metadata Name**, `equals` for the operator, and `blue` for **User Metadata Value**. **Note:** User-metadata names are not case sensitive; user-metadata values are case sensitive.
Object Tag (S3 only)	• contains • ends with • equals • exists • does not contain • does not end with • does not equal • does not exist • does not start with • starts with	Key-value pair, where **Object Tag Name** is the key and **Object Tag Value** is the value. For example, to filter on objects that have an object tag of `Image=True`, specify `Image` for **Object Tag Name**, `equals` for the operator, and `True` for **Object Tag Value**. **Note:** Object tag names and object tag values are case sensitive. You must enter these items exactly as they were defined for the object.

Specifying multiple metadata types and values

When you define advanced filtering, you can specify multiple types of metadata and multiple metadata values. For example, if you want a rule to match objects between 10 MB and 100 MB in size, you would select the **Object Size** metadata type and specify two metadata values.

- The first metadata value specifies objects greater than or equal to 10 MB.
- The second metadata value specifies objects less than or equal to 100 MB.



Using multiple entries allows you to have precise control over which objects are matched. In the following example, the rule applies to objects that have a Brand A or Brand B as the value of the camera_type user metadata. However, the rule only applies to those Brand B objects that are smaller than 10 MB.

Advanced Filtering

Use advanced filtering if you want a rule to apply only to specific objects. You can filter objects based on their system metadata, user metadata, or object tags (S3 only). When objects are evaluated, the rule is applied if the object's metadata matches the criteria in the advanced filter.

Multiple filters

Matches all of the following metadata:

User Metadata	camera_type	equals	Brand A	+ ✖

+ ✖

Or matches all of the following metadata:

User Metadata	camera_type	equals	Brand B	+ ✖
Object Size (MB)		less than or equals	10	+ ✖

+ ✖

Cancel | Remove Filters | Save

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