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IBM Content Manager Storage Team
October 22, 2014

Product Implementation Training (PIT)

FileNet Content Manager 5.2.1

Content Migration Policy

Introduction

- Course Overview
  - This course will describe the Content Migration Policy feature, how to create one and what you can do with it
- Target Audience
  - IBM FileNet Content Platform Engine system administrators and support personnel
- Suggested Prerequisites
  - Familiarity with the IBM FileNet Content Platform Engine administration environment
  - Familiarity with the IBM FileNet Content Platform Engine Sweep subsystem
- Version Release Date October, 2014

Course Objectives

- After this course you will be able to:
  - Describe what a Content Migration Policy is and some typical use cases
  - Identify a few if the important properties of a Content Migration Policy object and what they are used for
  - Describe how you might use multiple Content Migration Policies to implement a hierarchical storage plan
  - Use ACCE to create a Content Migration Policy

Course Roadmap

- ➔ Feature Overview
- Content Migration Policy Properties
- Using Content Migration Policies to implement a simple HSM storage plan
- Using ACCE to create a Content Migration Policy
- Course Summary

Feature Overview

- What is a Content Migration Policy?
  - Content Migration Policies are a new content management feature that allows a content administrator to configure an object store to have content automatically moved from one storage area to another based on age, most recent access or other business criteria
  - Feature is based on the Sweep Framework and is manifested in the API by the introduction of a new Content Migration Policy object that is a subclass of Sweep Policy
- Some typical use cases for Content Migration Policies
  - To implement a simple hierarchical storage scheme in which the Content Engine server will automatically move content between high-cost and low-cost storage media based on age or frequency of access
  - To automatically move content onto a fixed storage device for regulatory purposes based on business events
  - To incrementally move content federated content from a third party repository into a native P8 storage area

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Content Migration Policy Non-inherited properties

Name	Description
Storage Policy	Object property that refers the Storage Policy object that will select the destination Storage Area for migrated content
End Replication After Move	Boolean property that, when set, causes to end the federation relationship with replicas stored in an Images Services repository. This property only applies to documents federated from Image Services and is ignored otherwise

Important properties inherited from the parent class

Name	Description
Display Name	A string property that uniquely identifies this Policy
Sweep Target	An object property that determines the set of objects for which content may be moved. Points to a Class Definition object
Filter Expression	A relational expression that determines if the content for a specific object from among the set of candidate objects specified by the Sweep Target will be moved
Is Enabled	A Boolean property that indicates whether or not this Sweep Policy is currently enabled
Include Subclasses	A Boolean property that determines whether or not objects that are instances of a sub-class of the Sweep Target will also be considered candidate objects

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Using Content Migration Policies for HSM:

- This example illustrates how to use Content Migration Policies to implement a simple HSM scheme for a three tiered storage plan involving Database Storage, NAS Storage and Fixed Storage
- Storage plan requirements
  - All content for Invoices and Complaints must be stored in the database initially
  - After 30 days, Invoice content must be moved to NAS Storage
  - After 30 days, Complaint content must be moved to Fixed Storage
  - All NAS content must be moved to Fixed Storage after one year

Storage Plan Implementation

- Required Objects:
  - Three Content Migration Policies
  - Two new Document classes: Invoice and Complaint
  - One Fixed Storage Device of the desired type
  - One Fixed Storage Area pointing to the Fixed Storage Device
  - One Fixed Storage Policy that selects the Fixed Storage Area
  - One or more File Storage Areas pointing to NAS storage
  - One File Storage Policy that selects one of the NAS Storage Areas
  - Default Database Storage Area and Policy (created by default)

Storage Plan Implementation

- Requirement #1:
  - All content for Invoices and Complaints must be stored in the database initially
- Implementation:
  - Set the Default Storage Policy on the Invoice and Complaint classes to the Default Database Storage Policy

Storage Plan Implementation

- Requirement #2:
  - Invoices must be moved to NAS storage after 30 days
- Implementation:
  - Create a Content Migration Policy that moves Invoice content from the Default Database Storage Area to NAS storage after 30 days
    - Set the Sweep Target property to point to the Invoice class definition
    - Set the Storage Policy property to point to the NAS Storage Policy
    - Set the Filter Condition Property to:

      DateCreated < NOW() - TimeSpan(30, 'days')
      AND StorageArea = {9D5E78BC-AE54-4D1E-844F-903F3175821B}

      - This filter selects Invoices that were created at least 30 days ago that have content stored in the Database Storage Area

Storage Plan Implementation

- Requirement #3:
  - Complaints must be moved to Fixed storage after 30 days
- Implementation:
  - Create a 2nd Content Migration Policy that moves Complaint content from the Default Database Storage Area to Fixed storage after 30 days
    - Set the Sweep Target property to point to the Complaint class definition
    - Set the Storage Policy property to point to the Fixed Storage Policy
    - Set the Filter Condition Property to:

      DateCreated < NOW() - TimeSpan(30, 'days')
      AND StorageArea = {9D5E78BC-AE54-4D1E-844F-903F3175821B}

      - This filter selects Complaints that were created at least 30 days ago that have content stored in the Database Storage Area

Storage Plan Implementation

- Requirement #4:
  - All NAS content must be moved to Fixed Storage after one year
- Implementation:
  - Create a 3rd Content Migration Policy that moves all Document content from NAS Storage Areas to Fixed storage after 1 Year
    - Set the Sweep Target property to point to the Document class definition
    - Set the Include Subclasses property to 'True'
    - Set the Storage Policy property to point to the Fixed Storage Policy
    - Set the Filter Condition Property to:

```
DateCreated < NOW() - TimeSpan(1, 'year')
AND (
        StorageArea = {59D2A07F-4117-C3A7-8768-4919CDA00000}
        OR
        StorageArea= {B276B984-A64E-C1EB-8613-4919CE400000}
)
AND (
        ClassDescription={392D70B9-C456-C9ED-849E-4919D2700000}
        OR
        ClassDescription={7F700DCE-8CDD-C8E2-8642-490FC0600000}
)
```

      - This filter selects all Complaints and Invoices that are at least one year old and that have content stored in one of NAS Storage Areas

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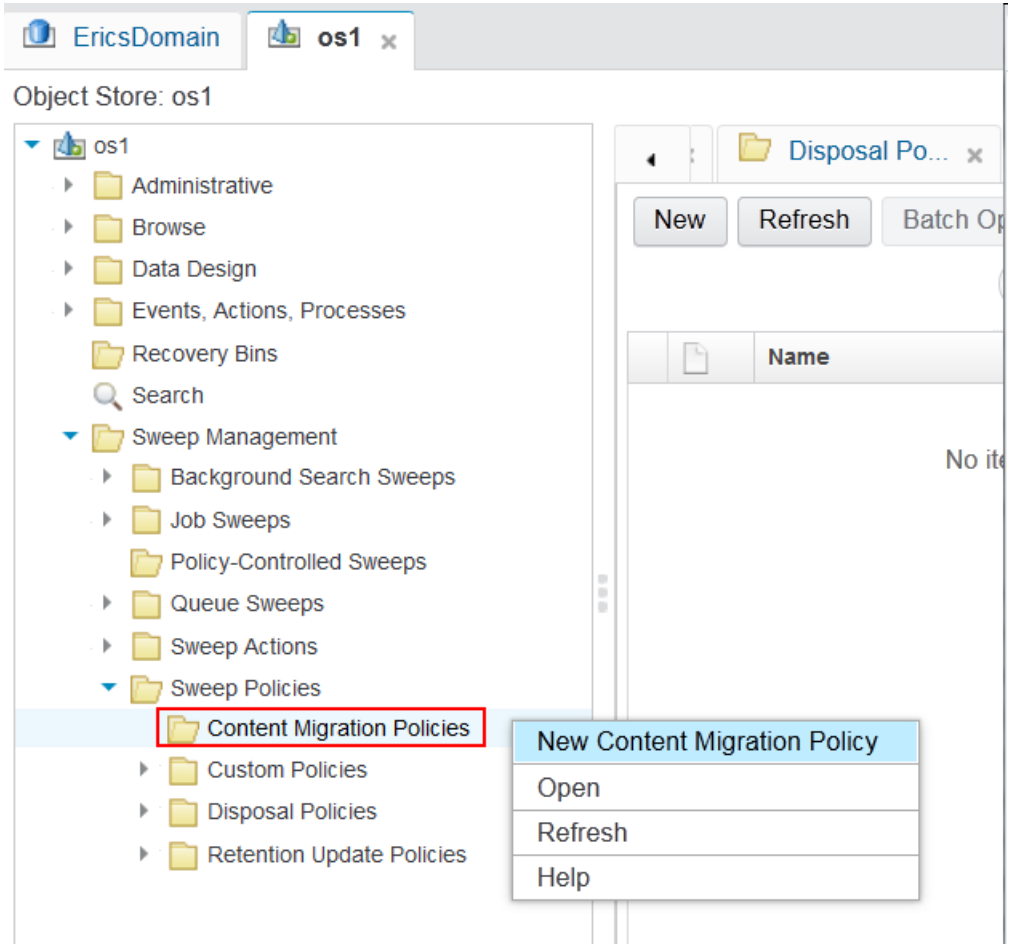
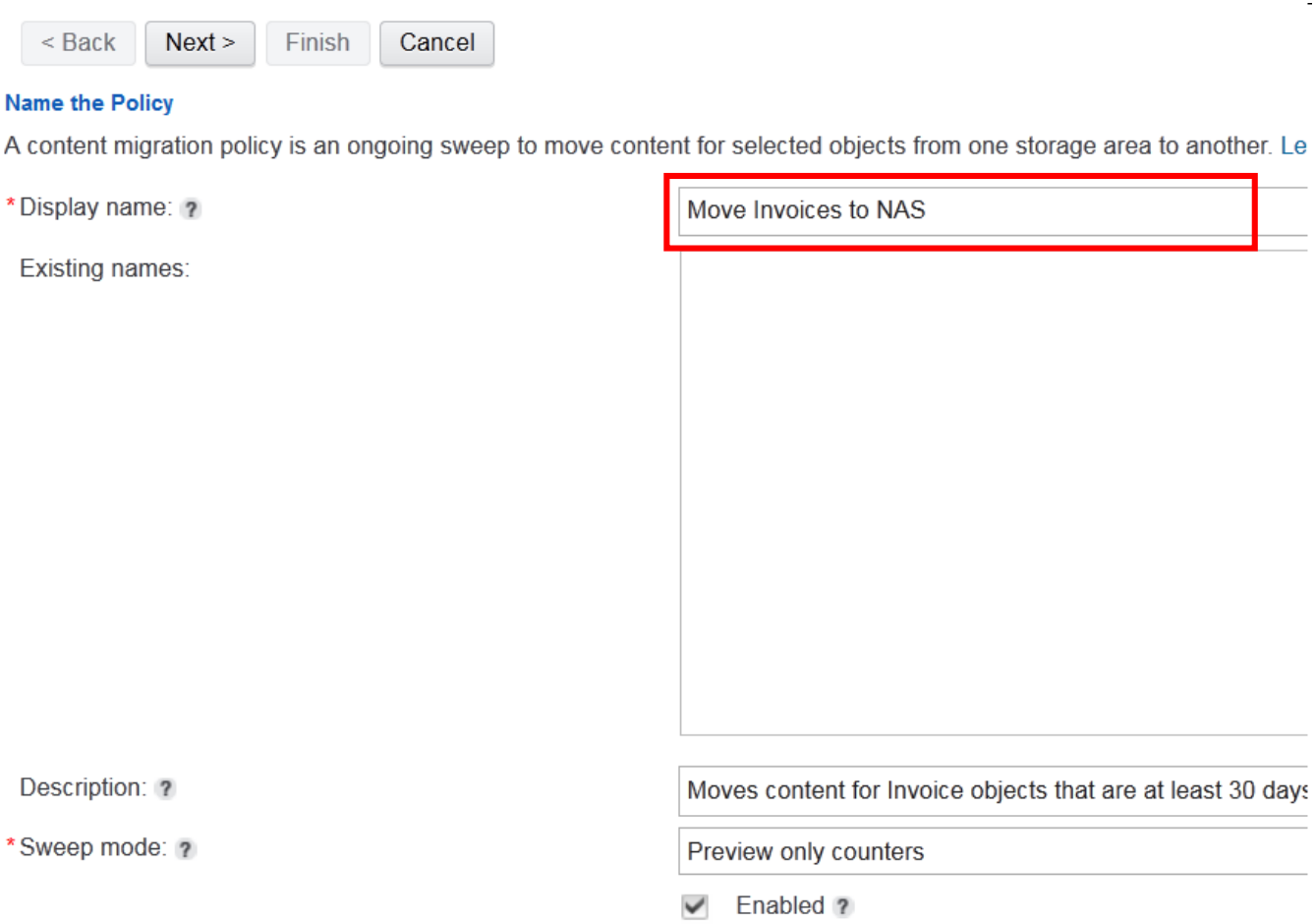
Using ACCE to create an Content Migration Policy



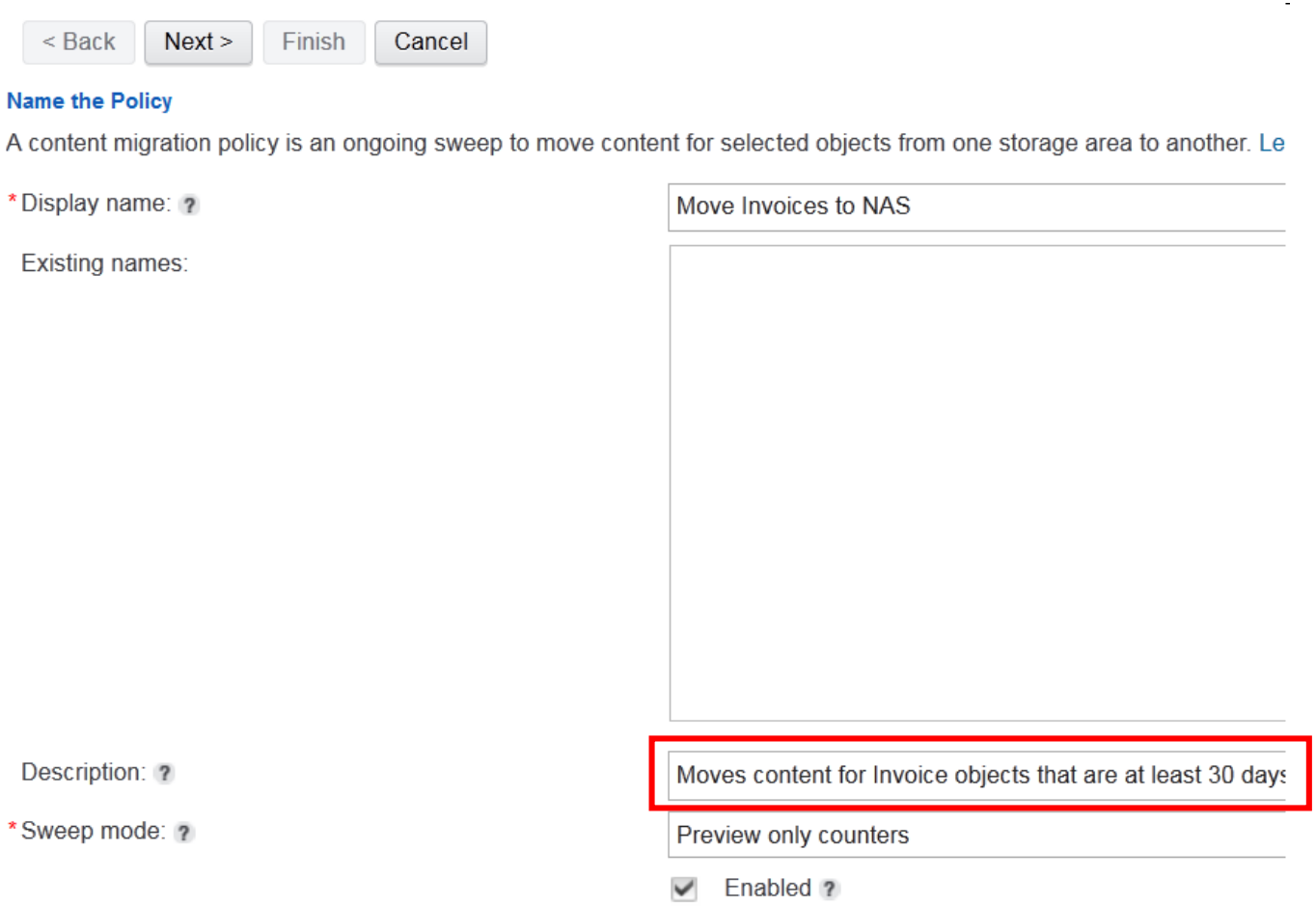
1. Log into ACCE as object store admin
2. Navigate to the Object Store tab for your OS
3. Open ‘Sweep Management’ folder
4. Open ‘Sweep Policies’ folder
5. Right click on ‘Content Migration Policies’ folder
6. Select ‘New Content Migration Policy’ to invoke the creation wizard

Using ACCE to create an Content Migration Policy



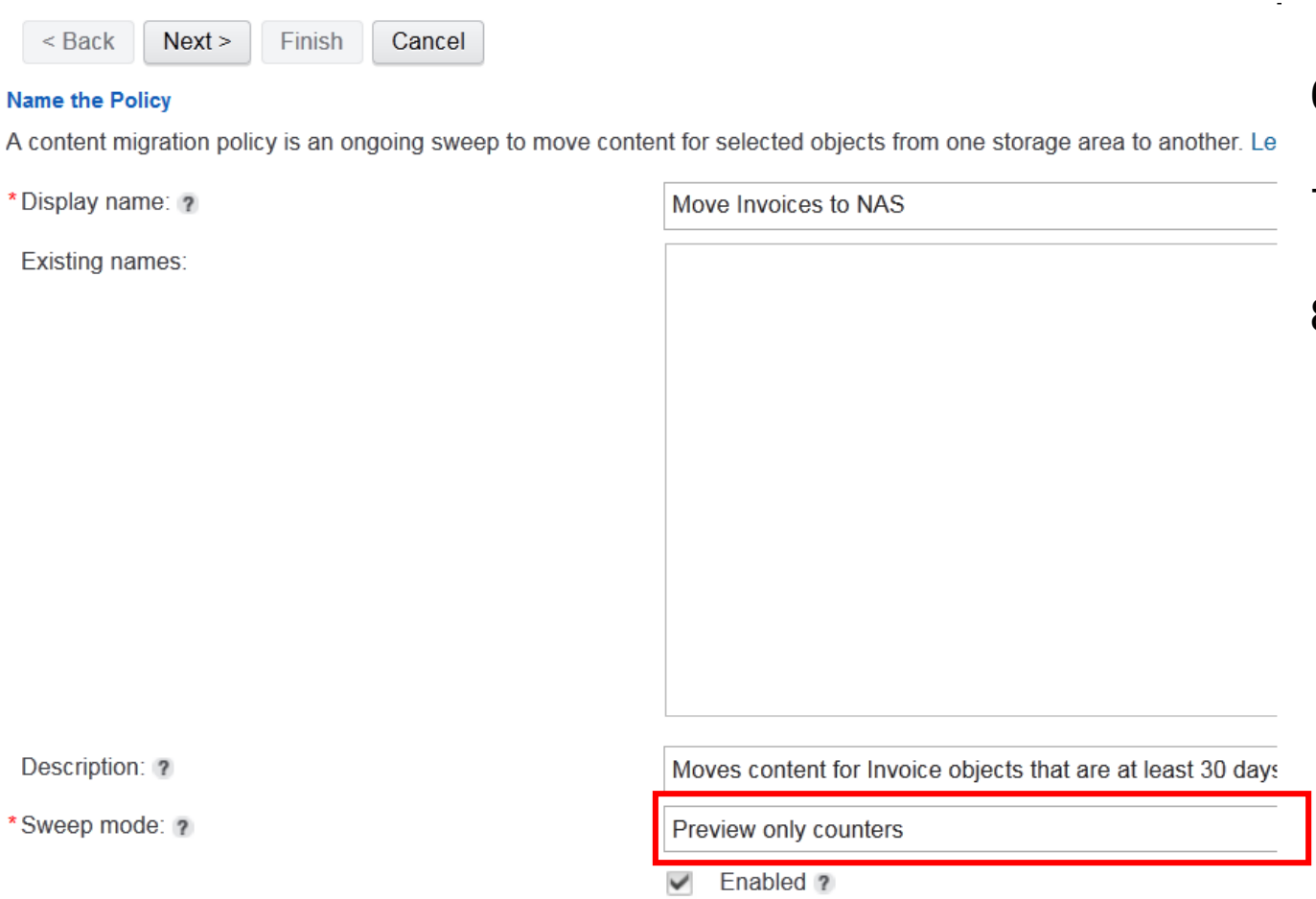
6. Enter a unique name

Using ACCE to create an Content Migration Policy



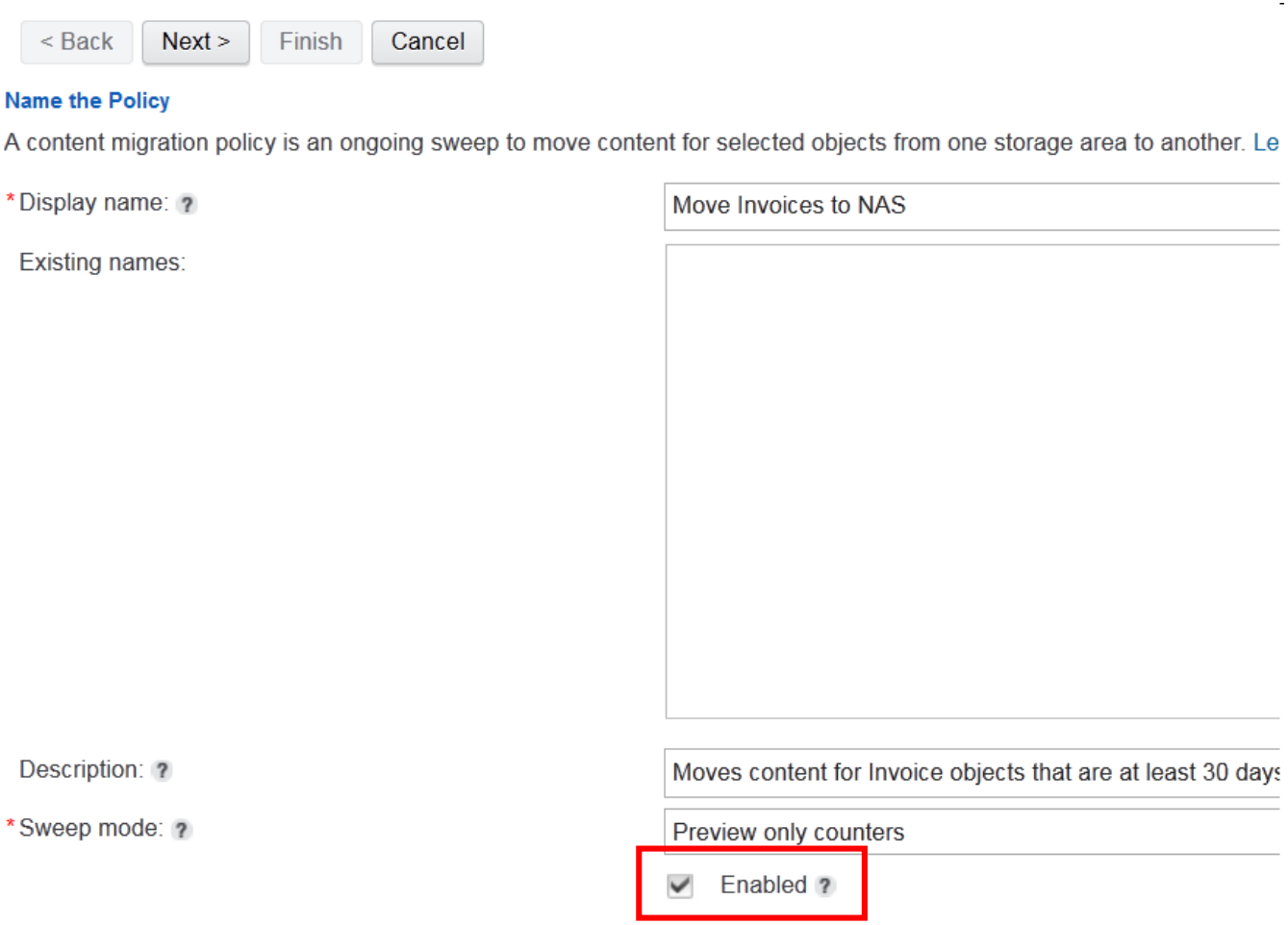
6. Enter a unique name
7. Enter a description

Using ACCE to create an Content Migration Policy



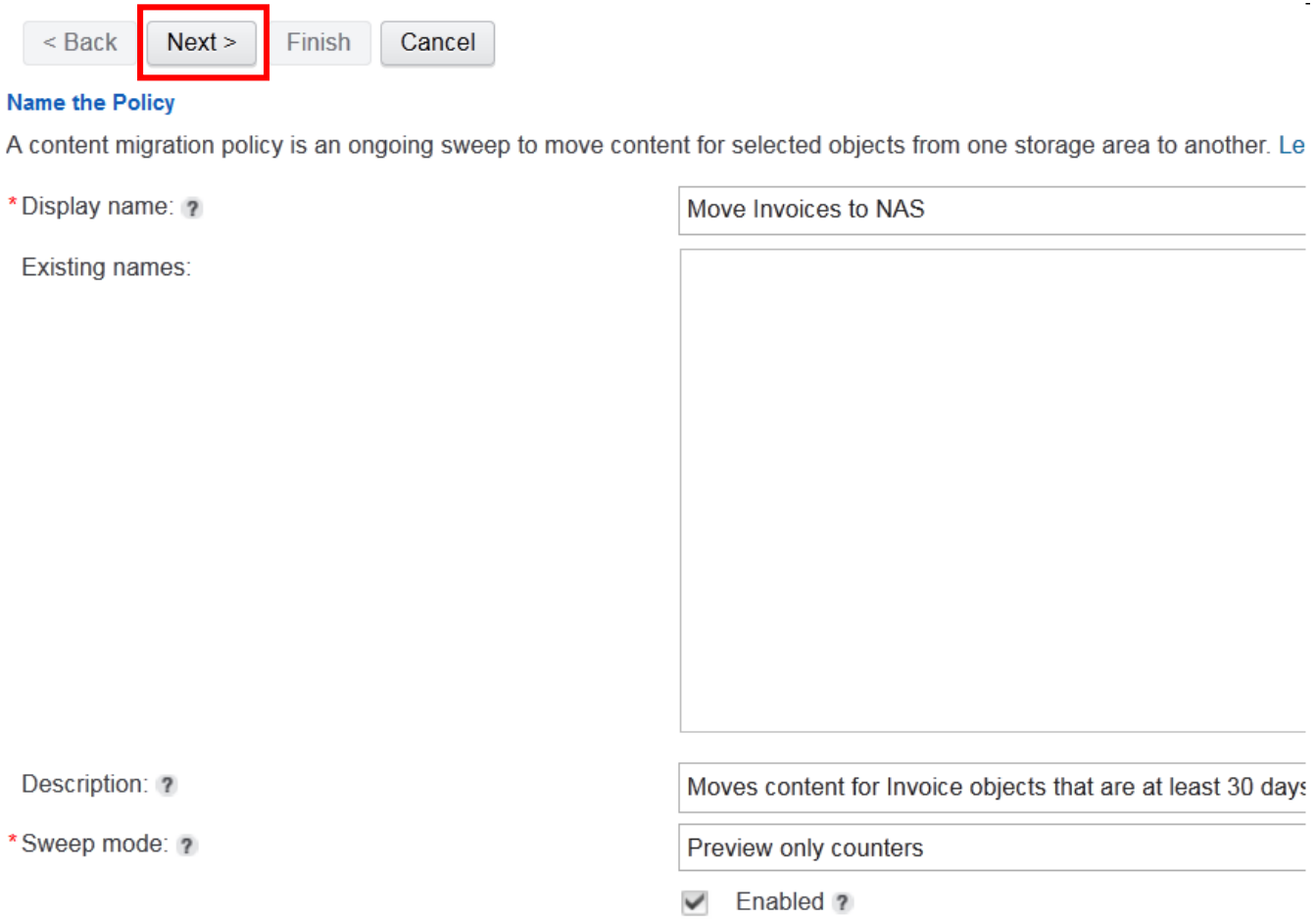
6. Enter a unique name
7. Enter a description
8. Select the mode

Using ACCE to create an Content Migration Policy



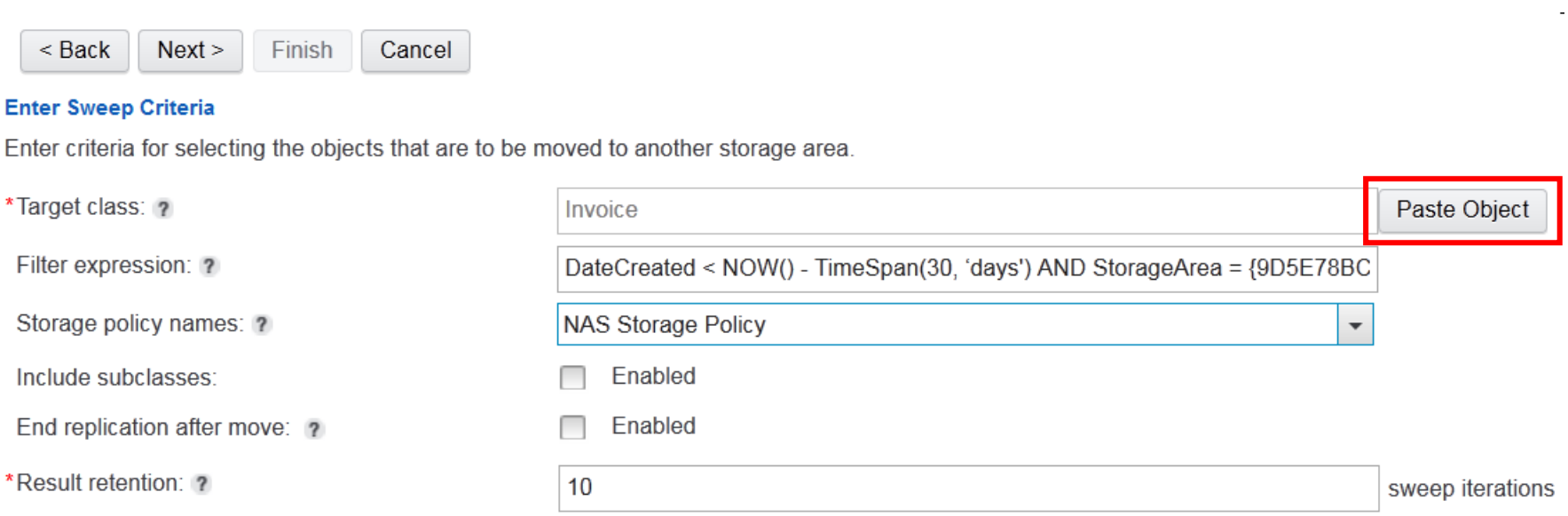
6. Enter a unique name
7. Enter a description
8. Select the mode
9. Select whether or not to enable or disable (default)

Using ACCE to create an Content Migration Policy



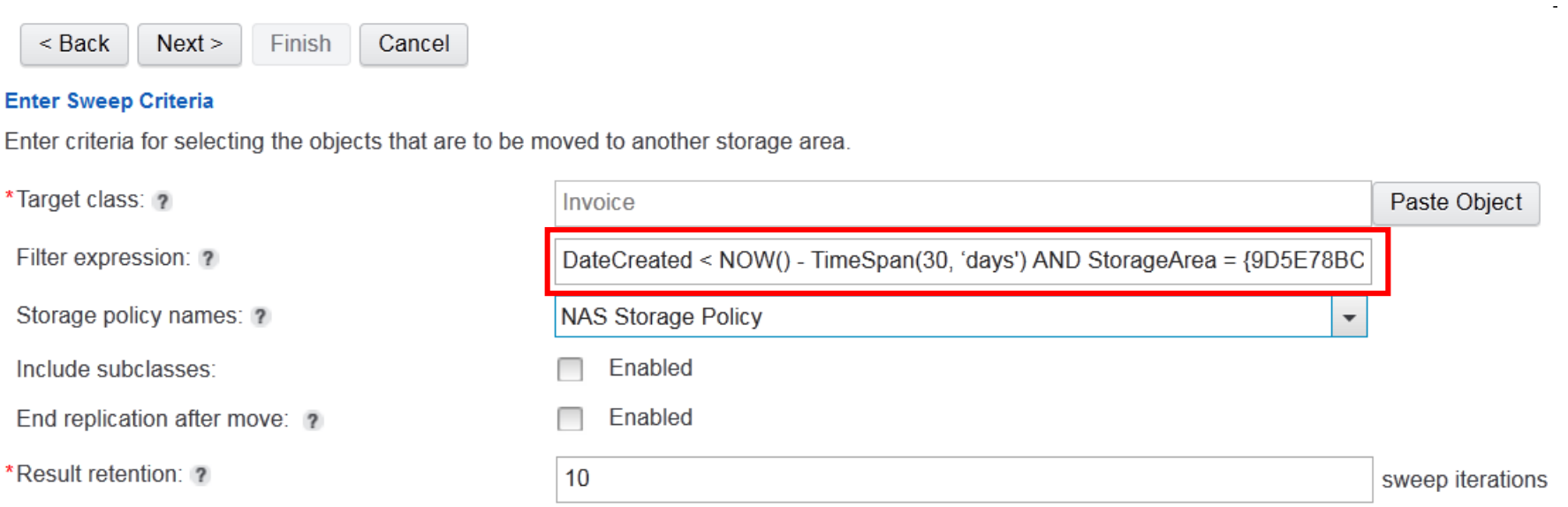
6. Enter a unique name
7. Enter a description
8. Select the mode
9. Select whether or not to enable or disable (default)
10. Click Next

Using ACCE to create an Content Migration Policy



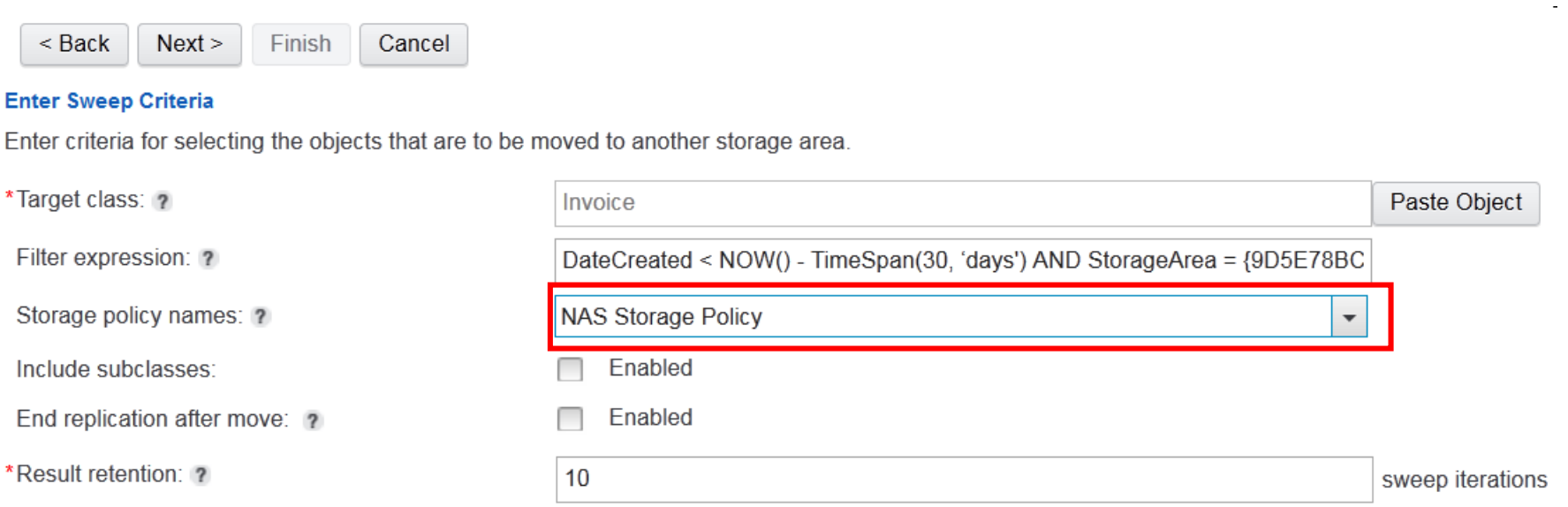
11. Obtain object reference to the class you want to sweep and paste it into the Target class field

Using ACCE to create an Content Migration Policy



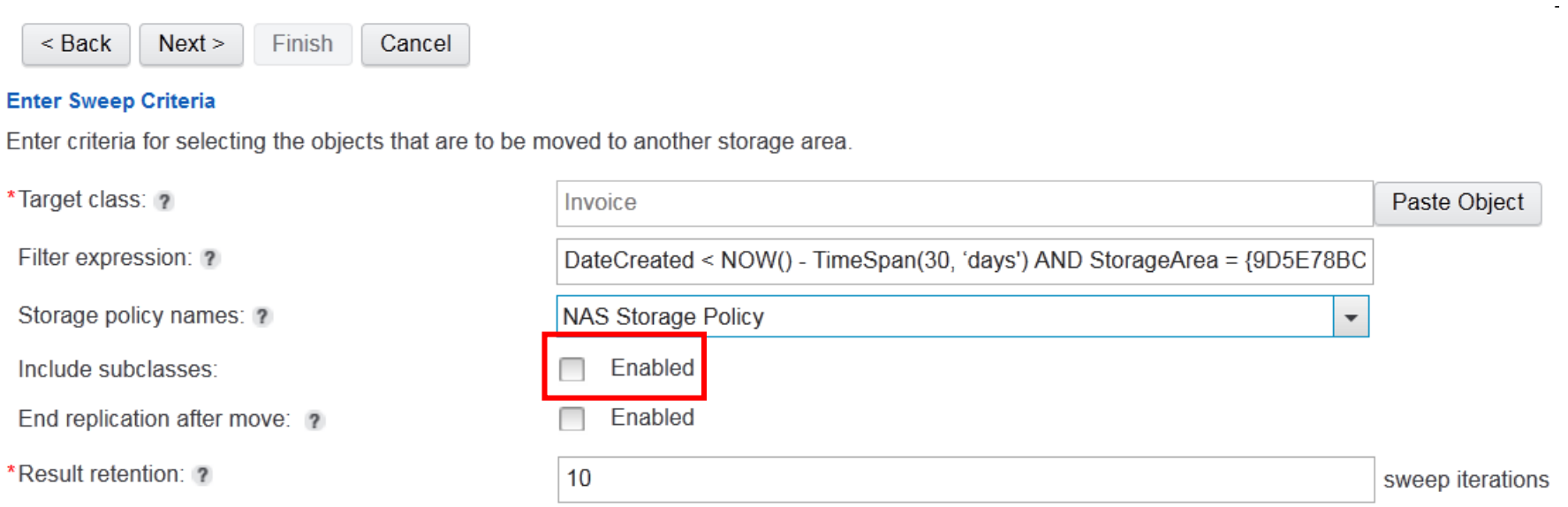
11. Obtain object reference to the class you want to sweep and paste it into the Target class field
12. Enter your filter expression

Using ACCE to create an Content Migration Policy



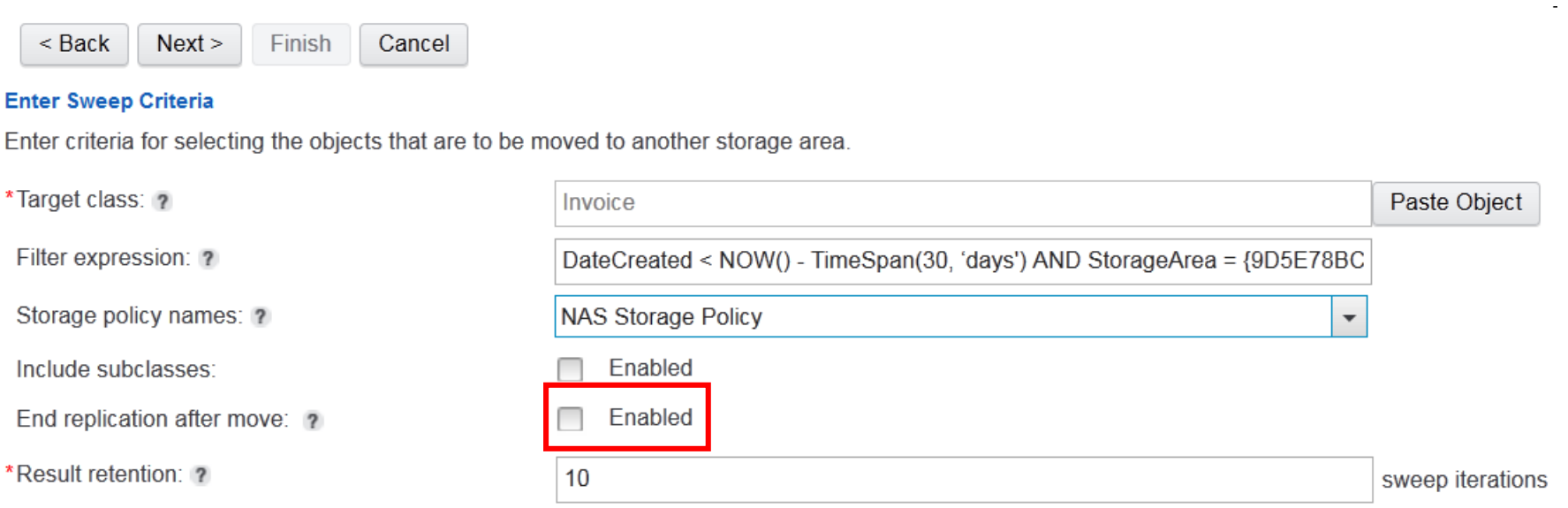
11. Obtain object reference to the class you want to sweep and paste it into the Target class field
12. Enter your filter expression
13. Select the destination Storage Policy from the drop down menu

Using ACCE to create an Content Migration Policy



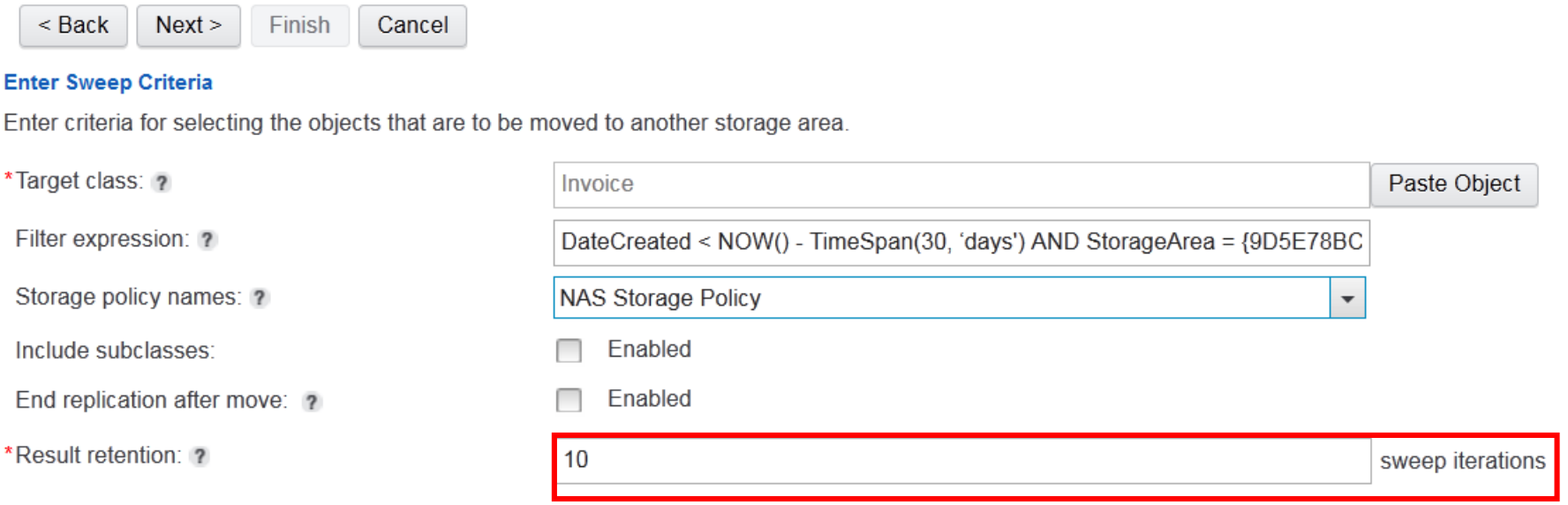
11. Obtain object reference to the class you want to sweep and paste it into the Target class field
12. Enter your filter expression
13. Select the destination Storage Policy from the drop down menu
14. Click 'Enabled' to include objects that are instances of subclasses of the Target class

Using ACCE to create an Content Migration Policy



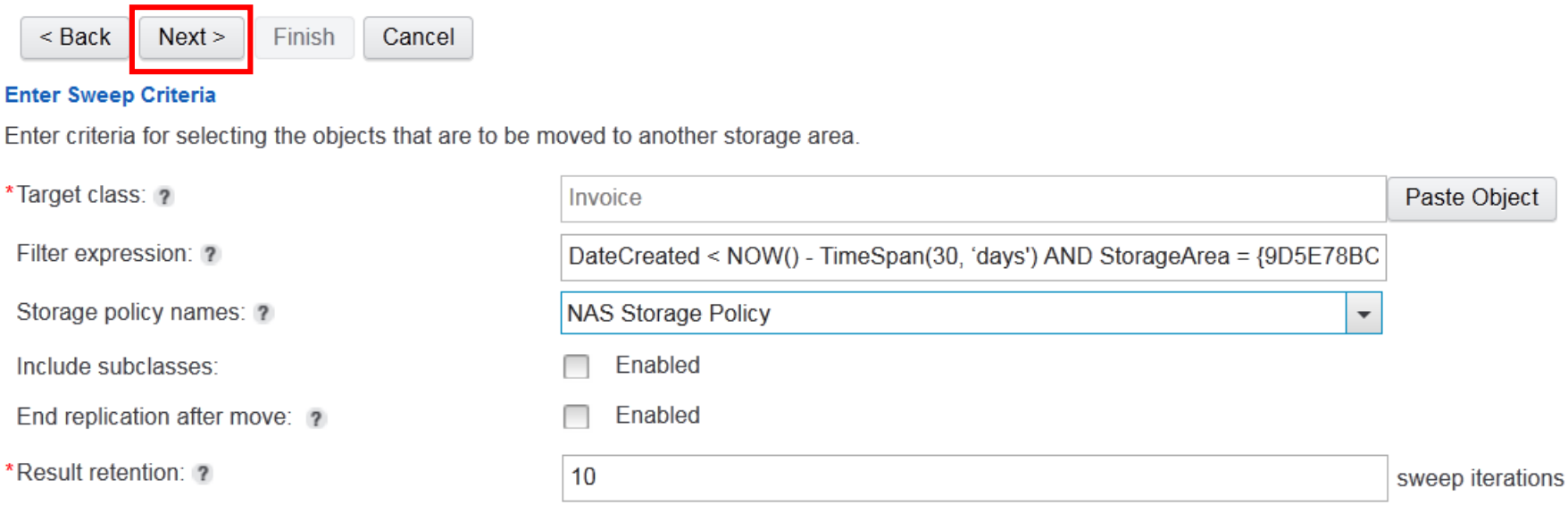
11. Obtain object reference to the class you want to sweep and paste it into the Target class field
12. Enter your filter expression
13. Select the destination Storage Policy from the drop down menu
14. Click 'Enabled' to include objects that are instances of subclasses of the Target class
15. Click 'End replication after move if you are using CFS-IS and moving federated documents

Using ACCE to create an Content Migration Policy



11. Obtain object reference to the class you want to sweep and paste it into the Target class field
12. Enter your filter expression
13. Select the destination Storage Policy from the drop down menu
14. Click 'Enabled' to include objects that are instances of subclasses of the Target class
15. Select the number of sweep iterations to retain sweep results

Using ACCE to create an Content Migration Policy



11. Obtain object reference to the class you want to sweep and paste it into the Target class field
12. Enter your filter expression
13. Select the destination Storage Policy from the drop down menu
14. Click 'Enabled' to include objects that are instances of subclasses of the Target class
15. Select the number of sweep iterations to retain sweep results
16. Click 'Next'

Using ACCE to create an Content Migration Policy

17. Enter Effective start date and end date (optional)

Using ACCE to create an Content Migration Policy

17. Enter Effective start date and end date (optional)
18. Click ‘Next’

Using ACCE to create an Content Migration Policy

< Back | Next > | Finish | Cancel

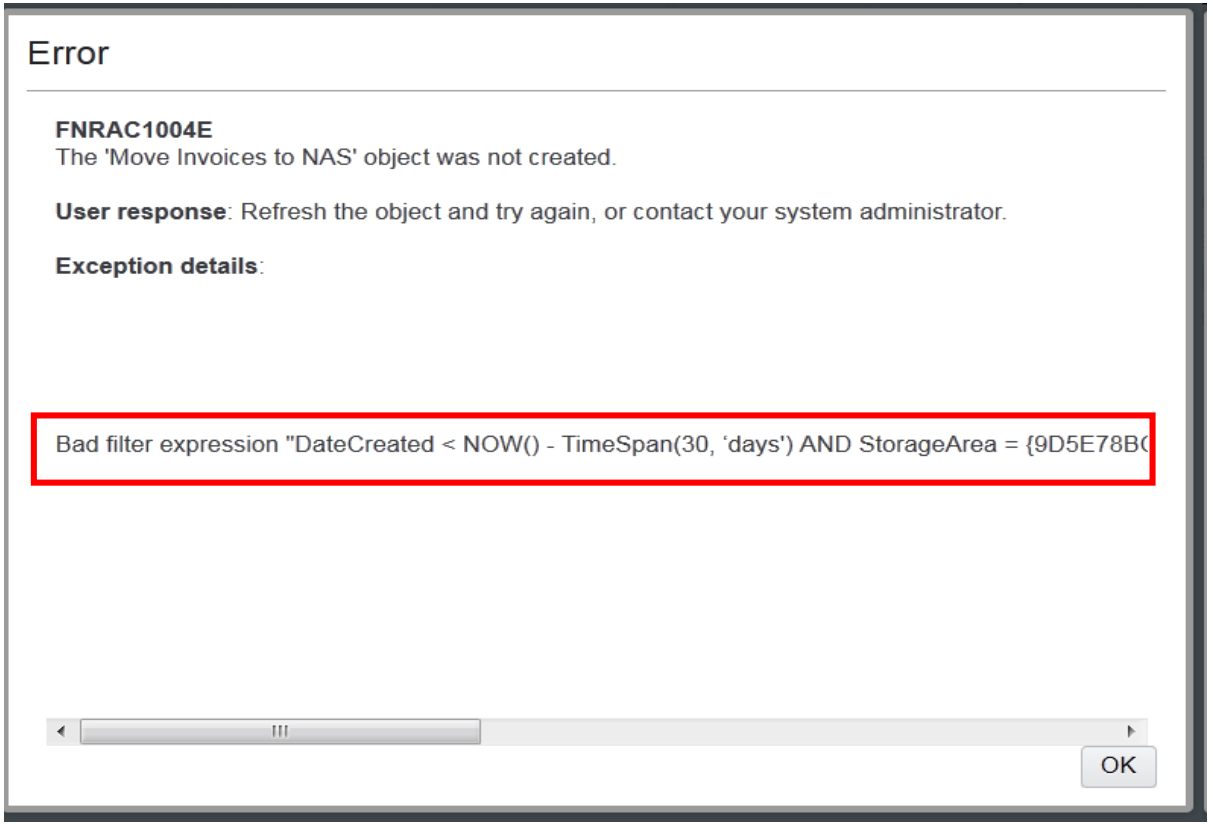
Summary

Name	Value
Display name	Move Invoices to NAS
Description	Moves content for Invoice objects that are at least 30 days old from Database Storage to NAS storage
Sweep mode	Preview only counters
Enabled	True
Target class	Invoice
Filter expression	DateCreated < NOW() - TimeSpan(30, 'days') AND StorageArea = {9D5E78BC-AE54-4D1E-844F-903F3175821B}
Storage policy names	NAS Storage Policy
Include subclasses	False
End replication after move	False
Result retention	10

19. Review your choices
20. Click 'Next'

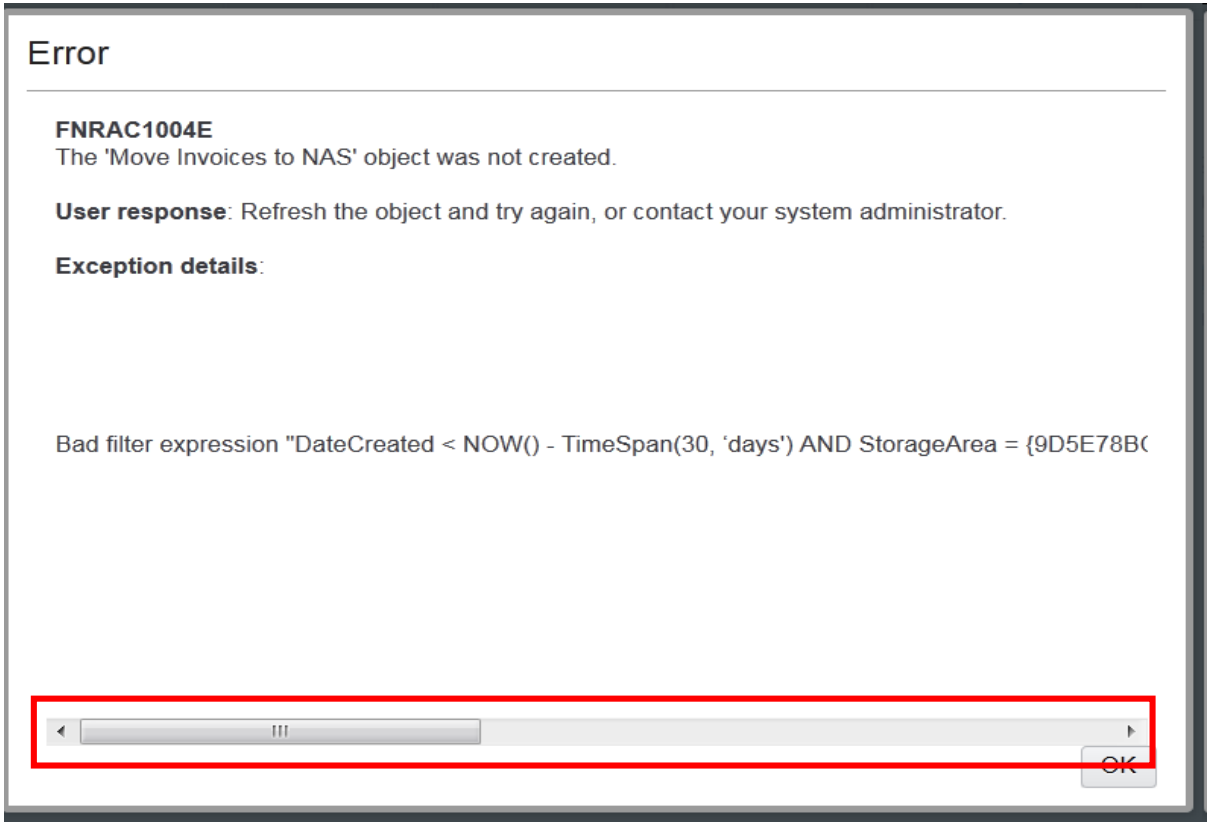
Using ACCE to create an Content Migration Policy

- If there is an error in your filter expression, you will be unable to save your Content Migration Policy and will get an error like this:



Using ACCE to create an Content Migration Policy

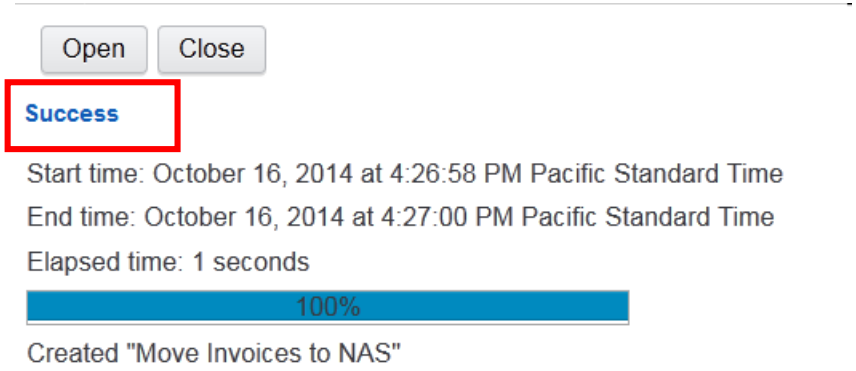
- If there is an error in your filter expression, you will be unable to save your Content Migration Policy and will get an error like this:



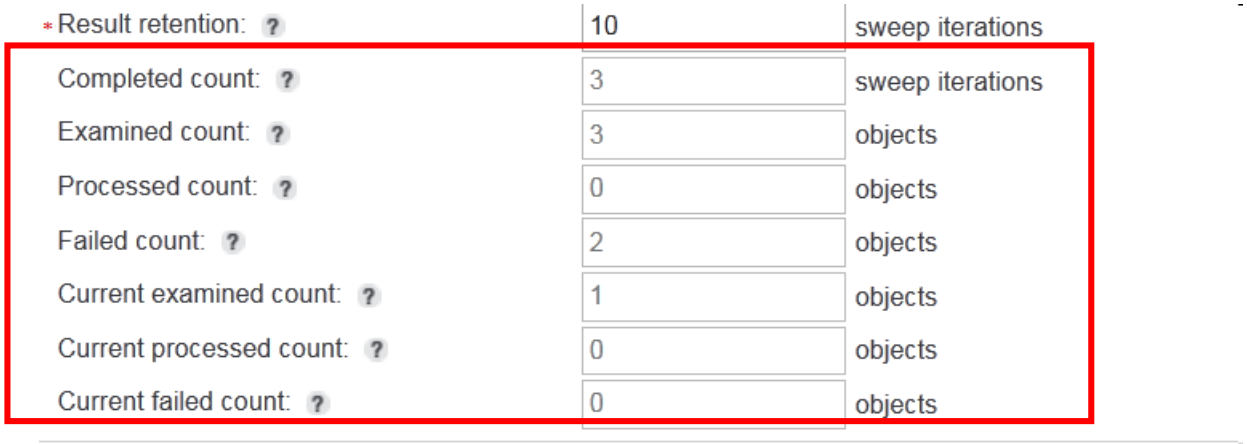
- Use the scroll part to move to the right to see the entire message
- Message typically includes the column number where the error is detected

Using ACCE to create an Content Migration Policy

- The following message will appear when you successfully create a Content Migration Policy:

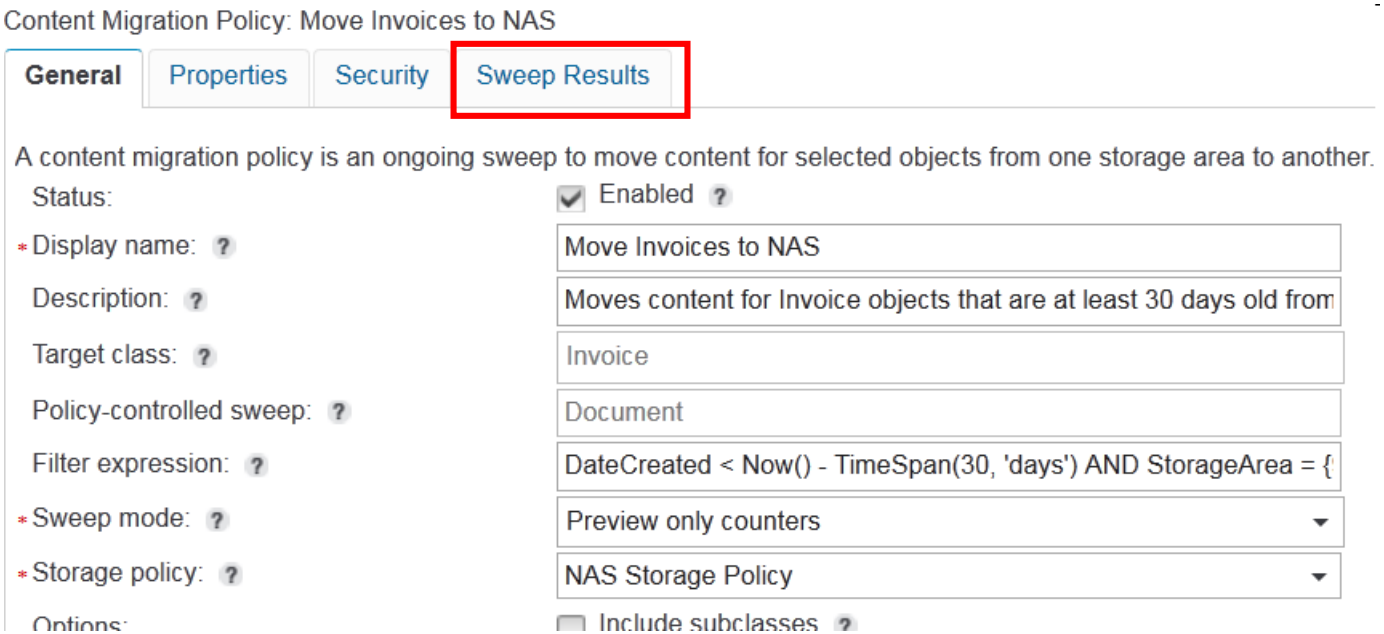


Using ACCE to create an Content Migration Policy



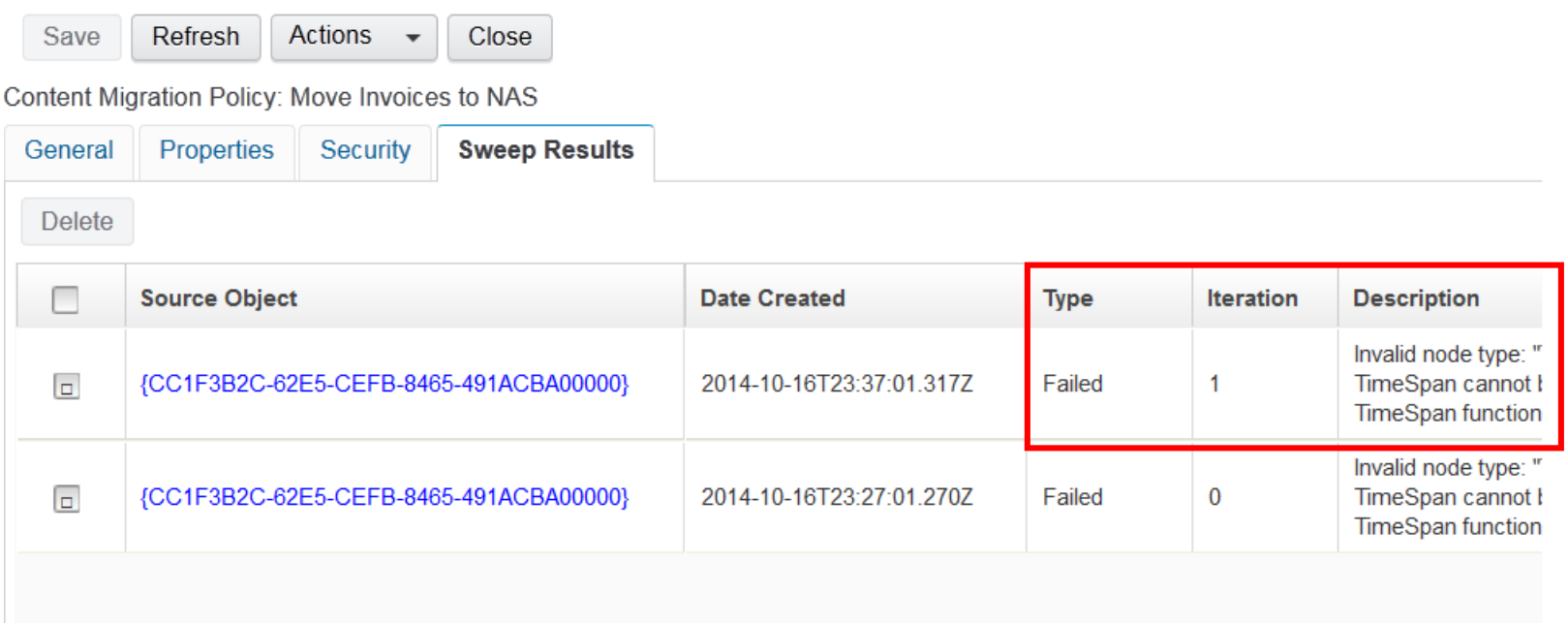
- If you have enabled your Content Migration Policy in preview mode you can open the policy, scroll down to the bottom of the General tab and verify that it is successfully processing objects and not generating failures

Using ACCE to create an Content Migration Policy



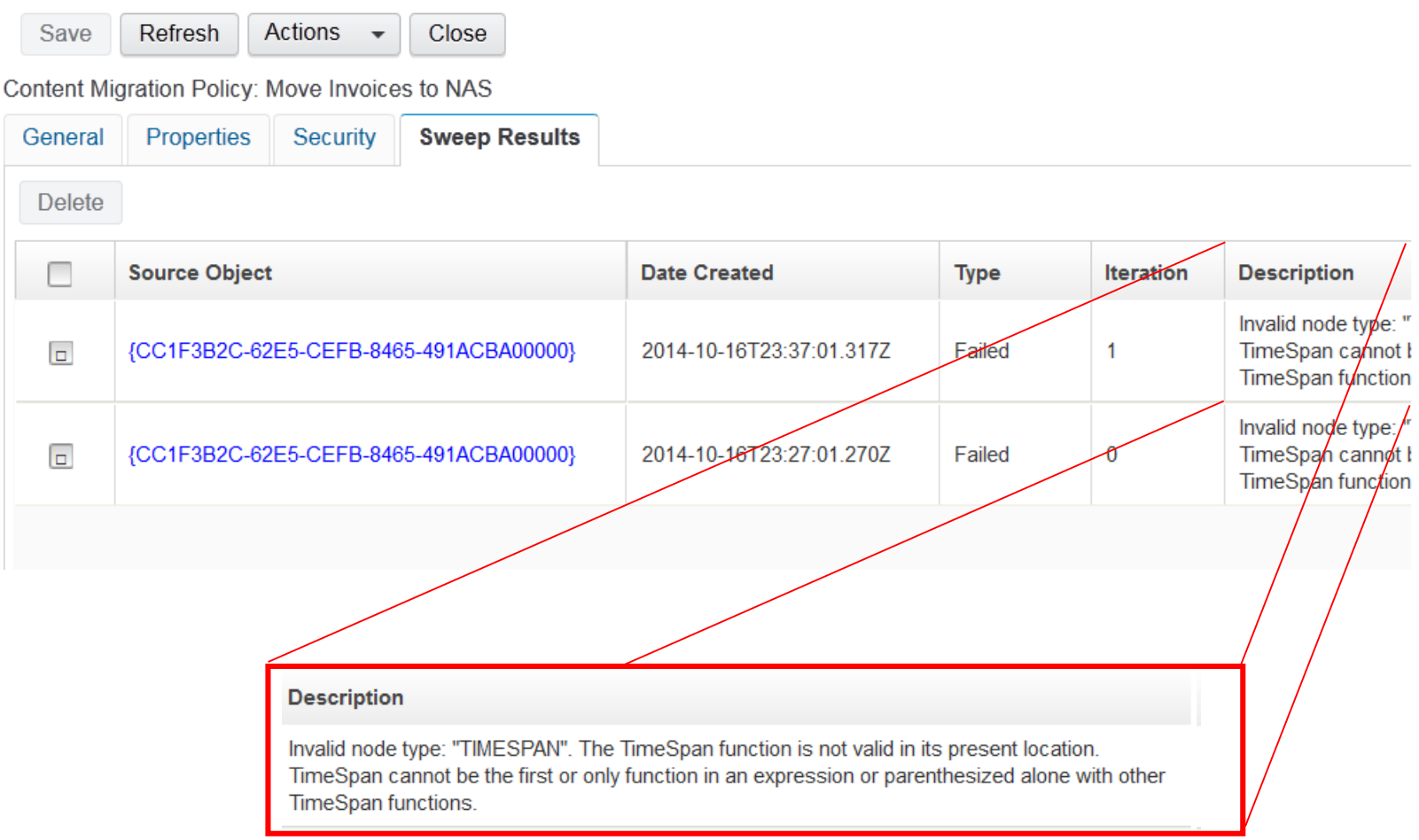
- If you have notice any errors you can navigate to the Sweep Results tab and examine them to determine the cause

Using ACCE to create an Content Migration Policy



- The Sweep Results tab provides a tabular display of Sweep Results and if there are failures, it will provide a description of the failure

Using ACCE to create an Content Migration Policy



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Course Summary

You have completed this course and can:

- Describe what a Content Migration Policy is and some typical use cases
- Identify a few if the important properties of a Content Migration Policy object and what they are used for
- Describe how you might use multiple Content Migration Policies to implement a hierarchical content storage plan
- Use ACCE to create a Content Migration Policy

Contacts

- Product Marketing Manager:
  - Robert Finn
- Product Manager:
  - Stephen Hussey
- Subject Matter Experts (SME)/Area of Expertise:
  - Grace Smith (Development Manager)
  - Eric Edeen (Software Developer)
  - Bob Kreuch (Software Developer)
  - Roger Bacalzo (Software Developer)
- Support:
  - Erik Fonkalsrud (L3 Manager)

Product Help / Documentation / Resources

- P8 5.2.1 Information Center (available October 31st)
  http://www.ibm.com/support/knowledgecenter/SSNW2F_5.2.1/
- Location of Content Migration Sweep documentation in TOC:
  - ➔ Administering
    - ➔ Administering Content Platform Engine
      - ➔ Changing Objects
        - ➔ Handling bulk processing with sweeps
          - ➔ Creating sweeps
            - ➔ Moving content
              - ➔ Creating a policy sweep

Product Help / Documentation / Resources

- Documentation for filter syntax:
  - ➔ Developing FileNet P8 applications
    - ➔ Content Engine Development
      - ➔ Content Engine Java and .NET Developer's Guide
        - ➔ Reference
          - ➔ SQL Syntax Reference
            - ➔ Relational Queries