z/OS 3.1 IBM Education Assistant

Solution Name: z/OSMF CFRM policy editor enhancements and CF Sizing integration

Solution Element(s): z/OSMF Sysplex Management

July 2023

Agenda

- Trademarks
- Objectives
- Overview
- Usage & Invocation
- Interactions & Dependencies
- Upgrade & Coexistence Considerations
- Installation & Configuration
- Summary
- Appendix

Trademarks

- See url http://www.ibm.com/legal/copytrade.shtml for a list of trademarks.
- Additional Trademarks:
  - None

Objectives

Explain how Sysplex CFRM policy editor enhancements and CF Sizing integration solution can help users to manage their Sysplex.

Overview

- Who (Audience)
  - z/OS system administrator
- What (Solution)
  - System administrator can use CFRM policy editor to import/export CFRM policy data.
  - System administrator can use CFRM policy editor to copy multiple structures together.
  - System administrator can use CFRM policy editor to compare policy data so that they can quickly figure out what are the changes between two policies or be made since the policy is opened.
  - System administrator can use CFRM policy editor to export policy data into CSV format files so that they can do offline review or any other operations that CSV format fits.
  - System administrator can use z/OSMF CF Sizing to calculate CF structure sizes and directly apply changes to their CFRM policies so that they can have higher efficiency and less error-prone for CF sizing plan.
- Wow (Benefit / Value, Need Addressed)
  - These enhancements can help system administrator to edit administrative CFRM policies with higher efficiency and less error-prone.
  - The CF Sizing support will replace the current CF Sizer Web Application and addresses the major issues with that tool.

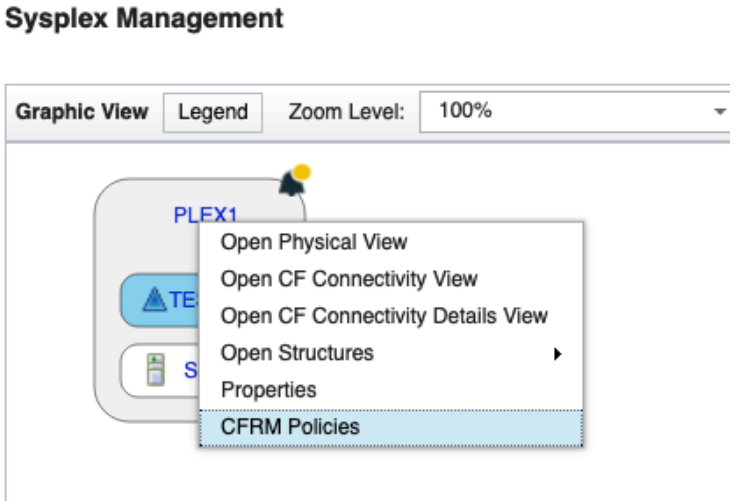
Usage & Invocation

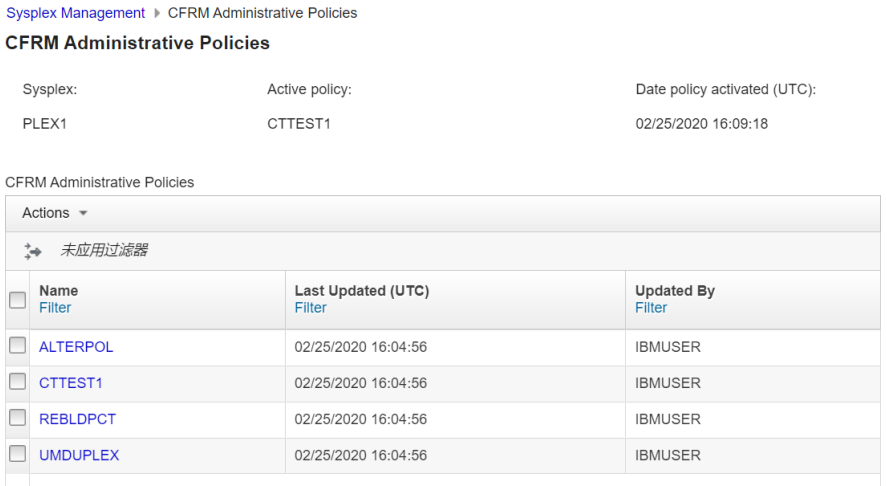
With this solution:

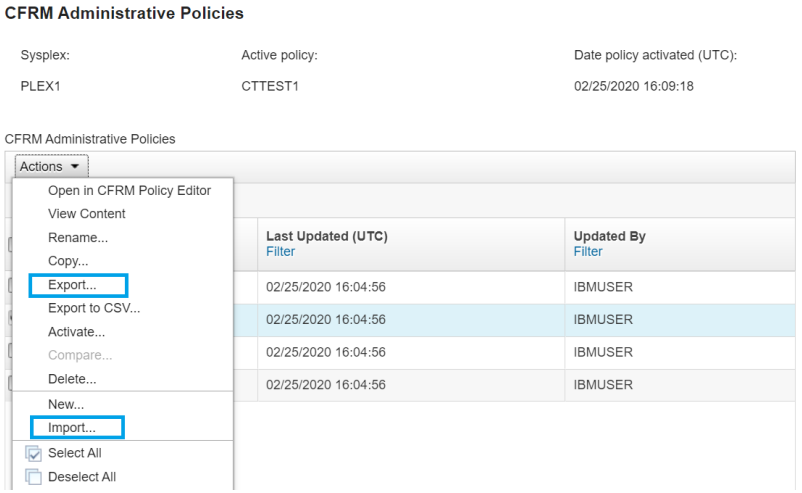
- CFRM administrative policies can be imported into CFRM policy editor, no matter they are in a data set or Unix file or in SYSIN DD* statement JCL. The policy information, CF information and structure information can be viewed and updated much more easily than traditional JCL utility.
- CFRM administrative policies in the z/OSMF Sysplex Management CFRM policy table can be exported to a data set or Unix file.
- In z/OSMF Sysplex Management CFRM policy editor, users can copy multiple CF structures which maybe in one group. They don’t have to copy CF structures in one group one by one.

CFRM Policy Editor supports import/export policies

Right click the Sysplex name and select "CFRM Policies" option. Display the Sysplex CFRM administrative policy information in the table, including policy Name, Last updated time and who updated it last time. In the CFRM Administrative policies table, you can see Import action and Export action menu.



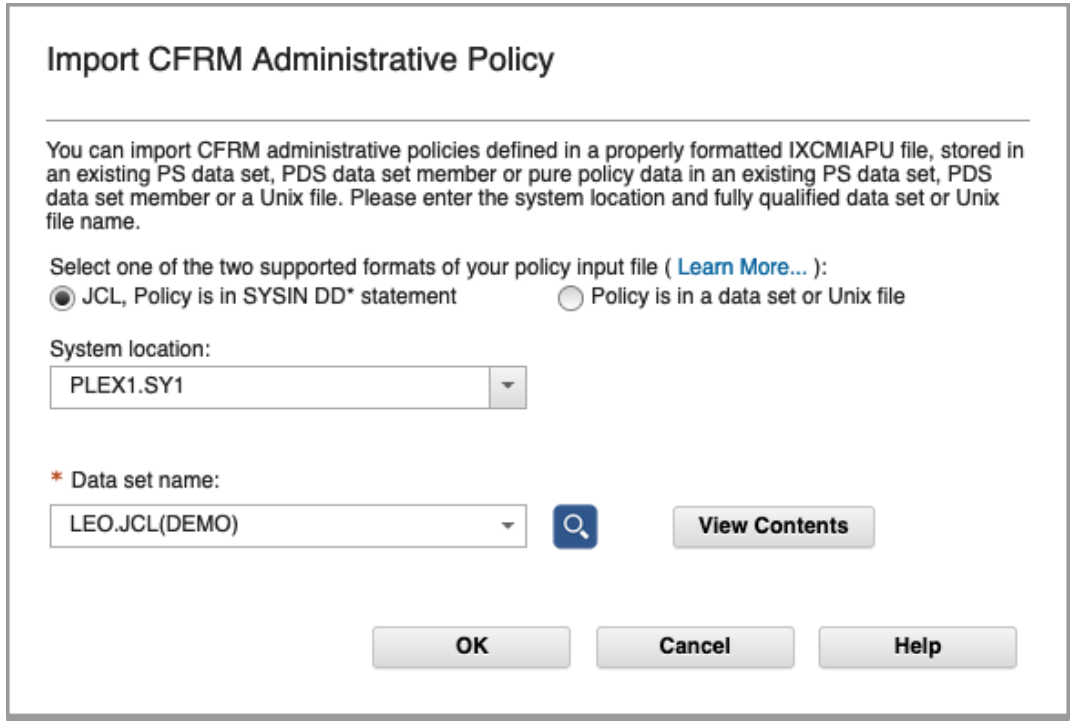


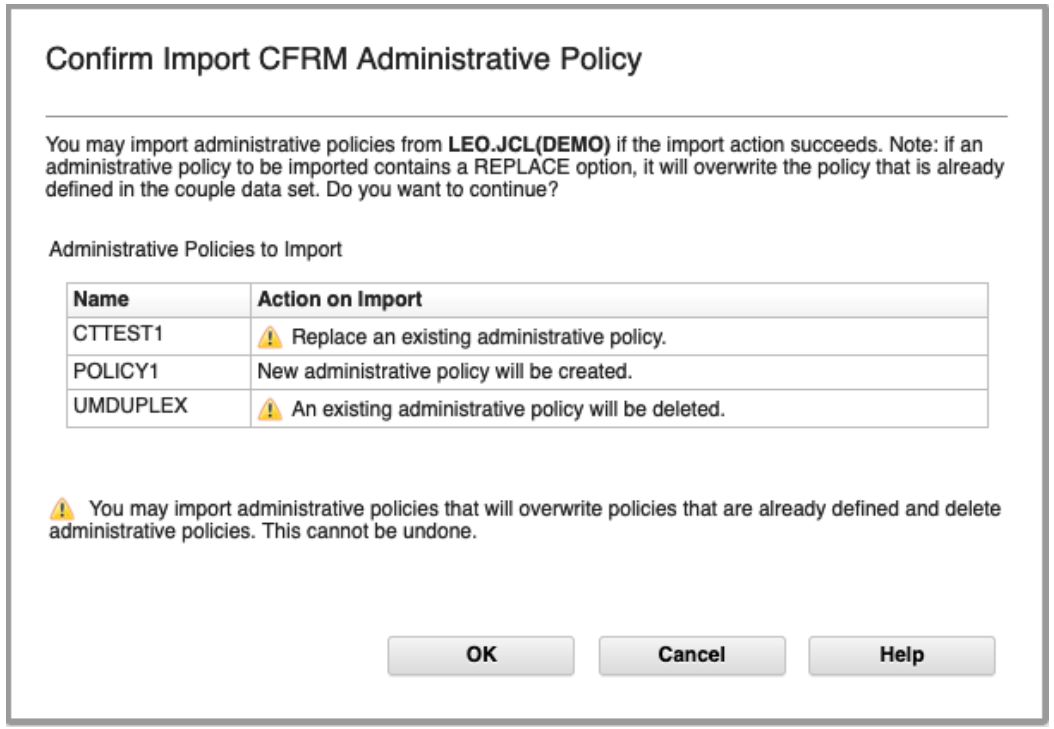


CFRM Policy Editor supports import/export policies

Below is the UI panel for Import action. In the panel, users can select the system where the data set or Unix file located. Then input the fully qualified name of data set or Unix file where CFRM administrative policies are included. You can view the contents of the data set or Unix file.

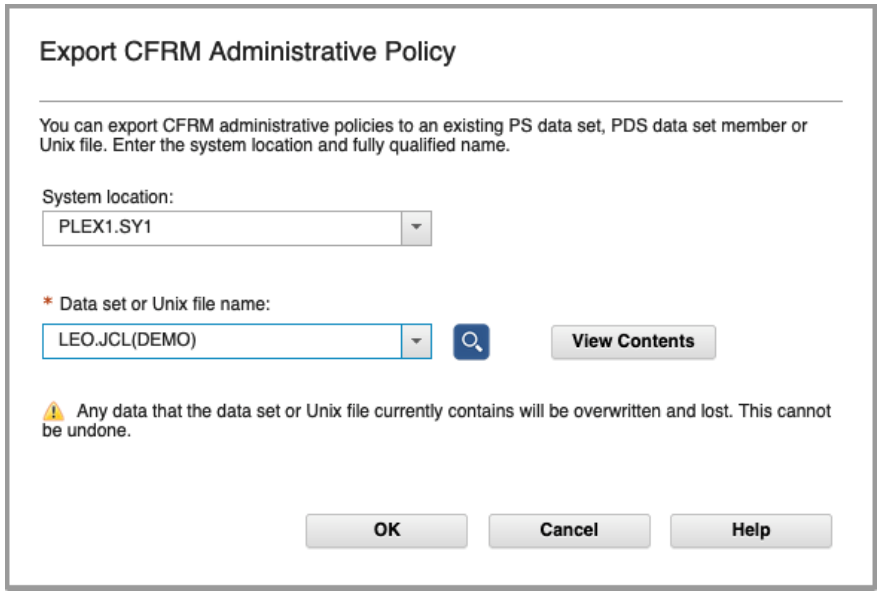
Before the administrative policies are to be imported, the Confirm dialog will be popped up as following so that users can know what actions may happen in the CFRM administrative policy table.

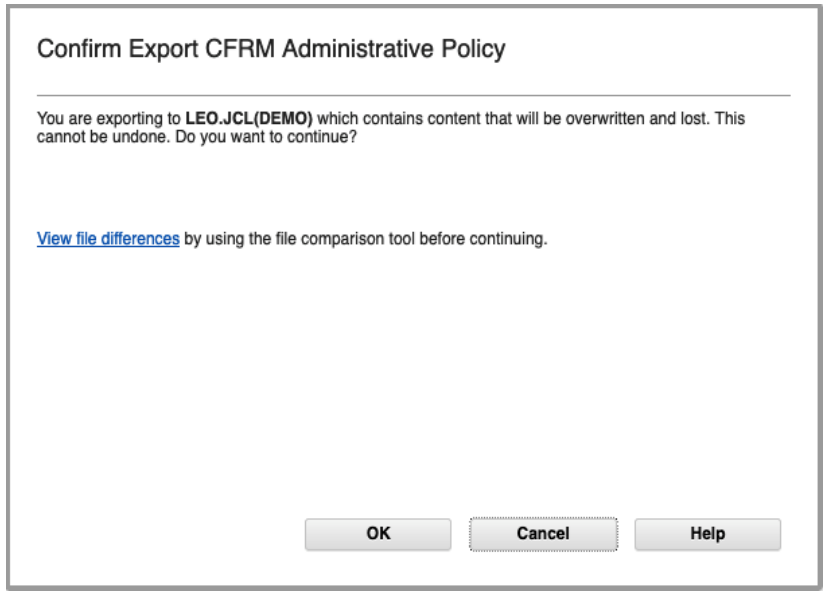


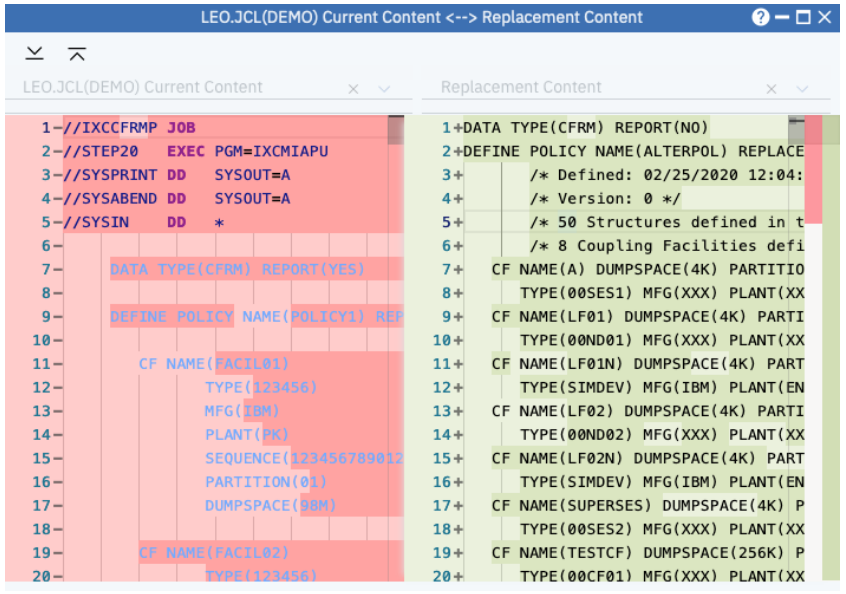


CFRM Policy Editor supports import/export policies

Below is the UI panel for Export action. In the panel, users can select the system where the data set or Unix file located. Then input the fully qualified name of data set or Unix file where the selected CFRM administrative policies in the policy table will be exported. Before the administrative policies are to be exported, the Confirm dialog will be popped up as following so that users can know what data that the data set or Unix file currently contains will be overwritten and lost if the export action succeeds. They can open the comparison tool by clicking the “View file difference” link.

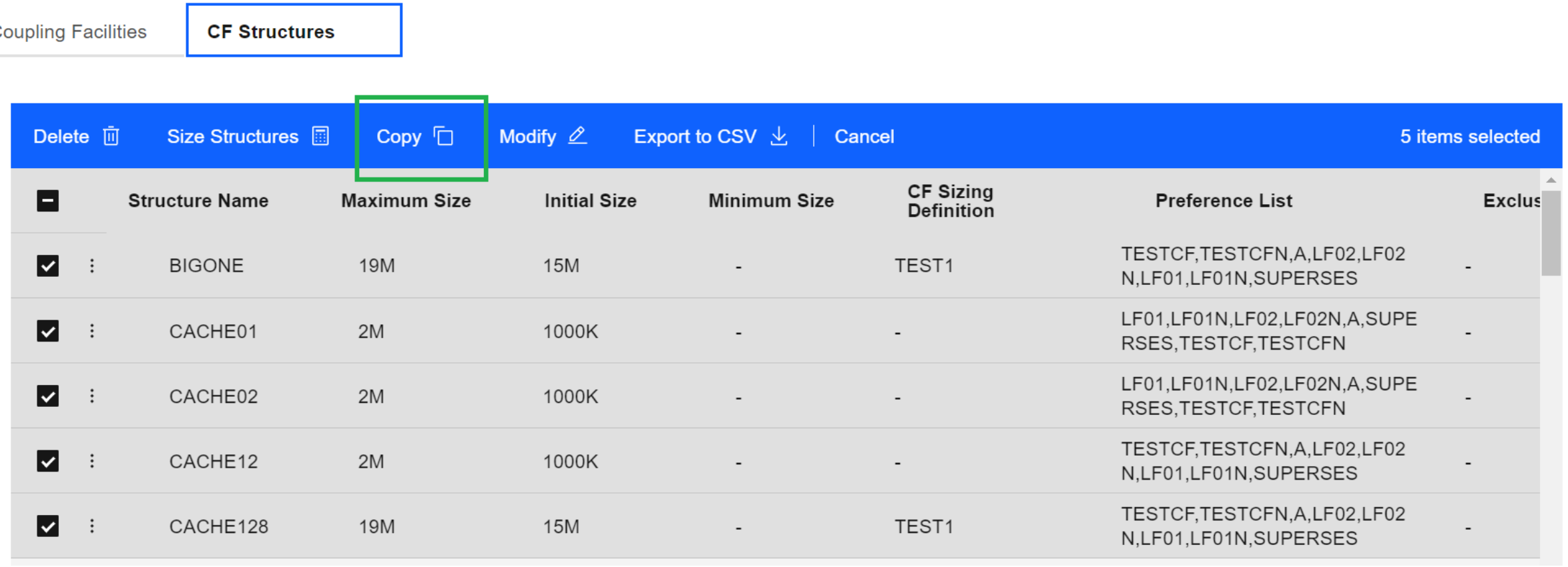






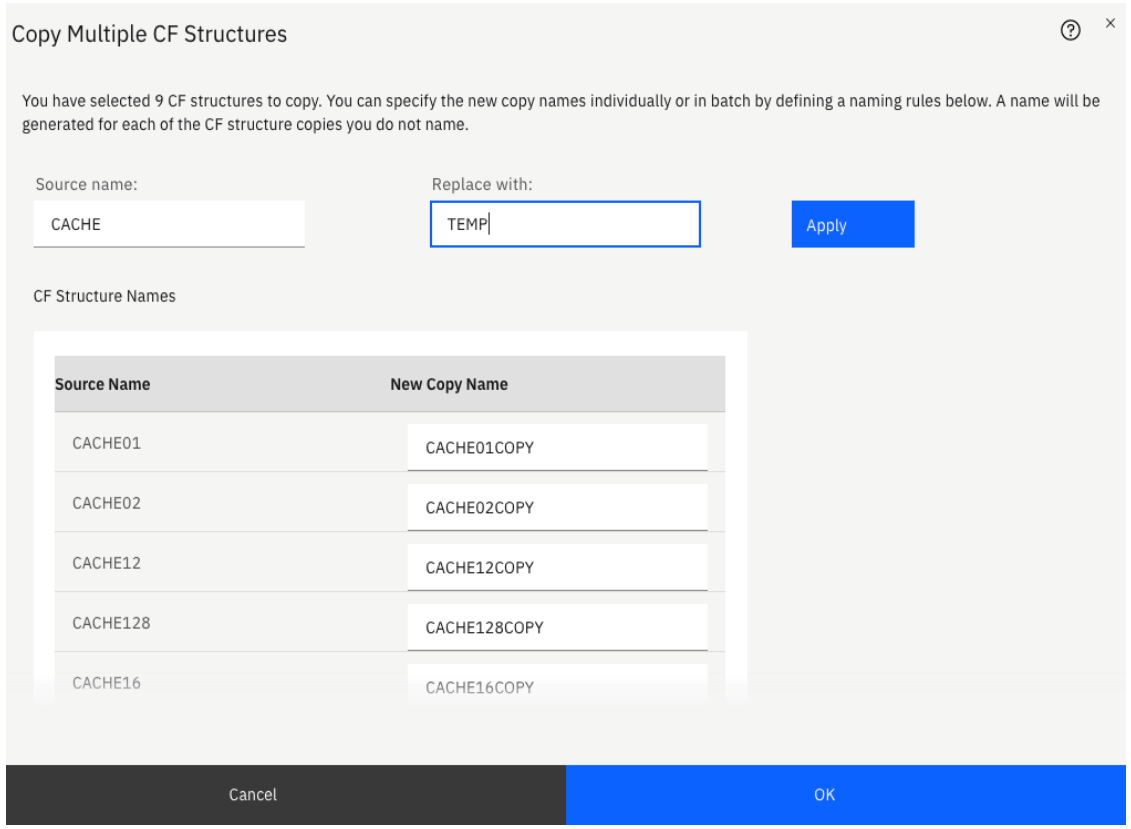
CFRM Policy Editor supports copy multiple structures

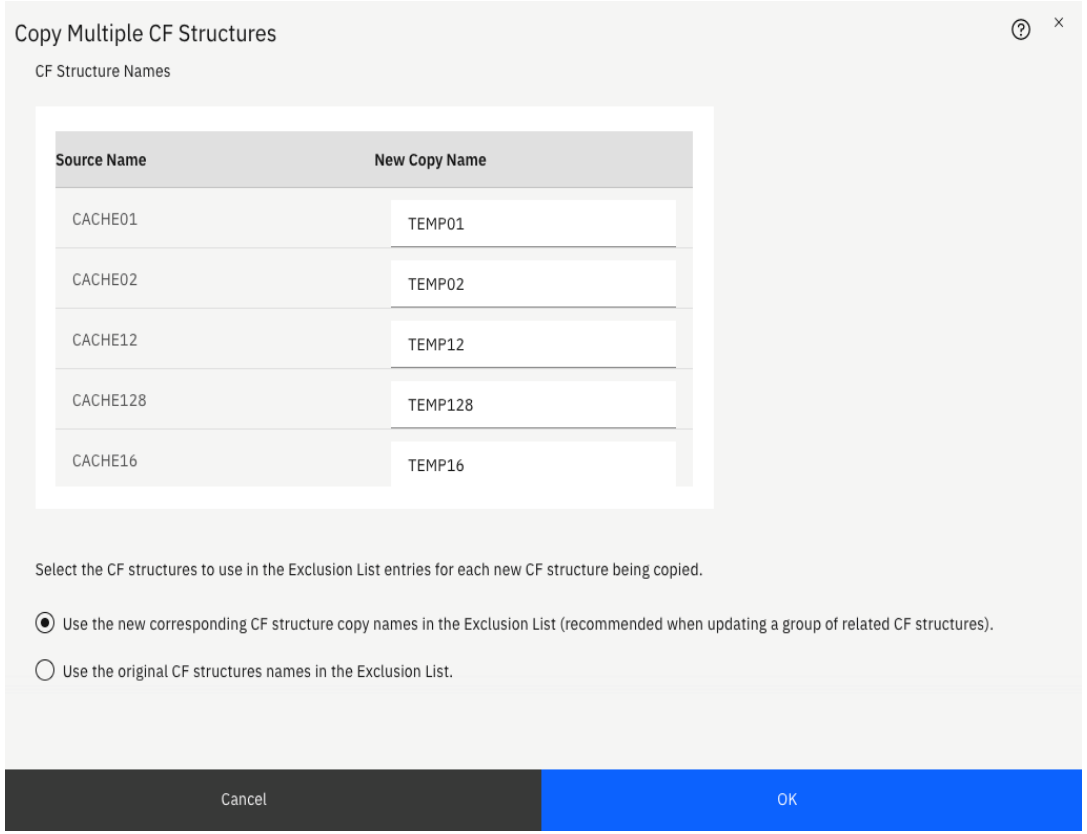
In the CF structure table, users can select multiple CF structures to do bulk copy action by clicking the Copy button.



CFRM Policy Editor supports copy multiple structures

In the Copy Multiple CF Structures panel, users can bulk modify structure names by defining a string replace naming rule for the group or assign names to copies individually. In the bottom, users can select the option to decide whether to update the exclusion list for each new copy. By default, this option is selected; it is recommended when you update a group of related CF structures.





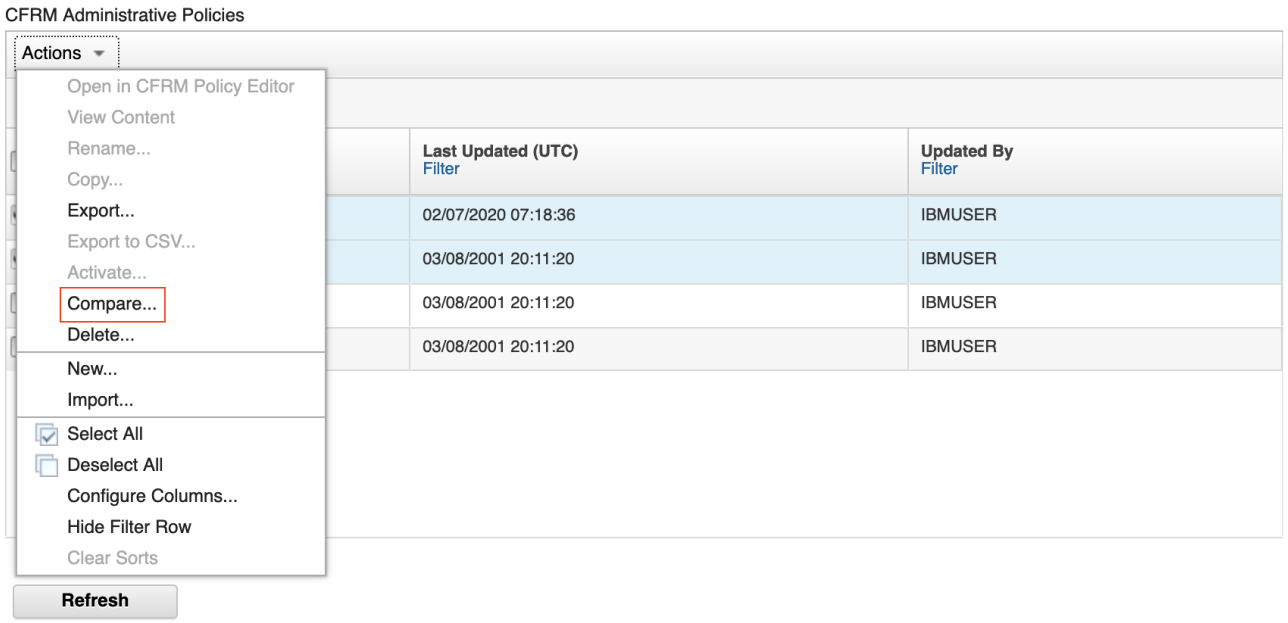
Usage & Invocation

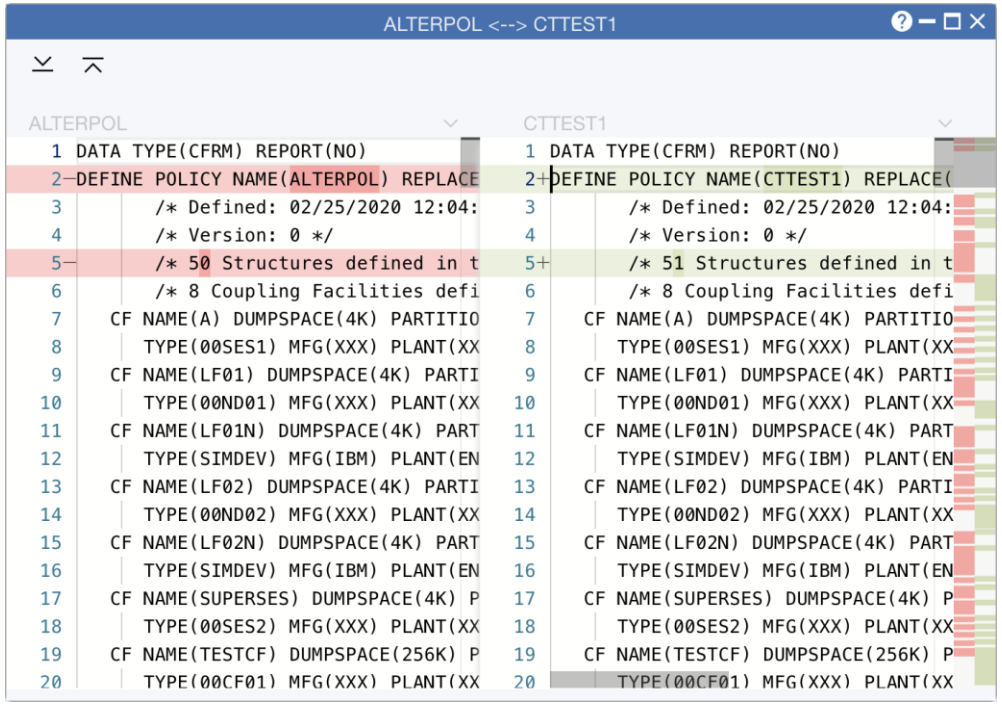
With this solution:

- Sysplex CFRM policy editor allows user to select two polices and compare their differences.
- Sysplex CFRM policy editor allows user to compare what policy data had been changed after he edited one policy.
- Sysplex CFRM policy editor allows user to select one policy and export the policy data into two CSV files –one is for CFs and another is for structures.
- Sysplex CFRM policy editor allows user to select some of CFs and export those CFs data into one CSV files.
- Sysplex CFRM policy editor allows user to select some of structures and export those structures data into one CSV file.

CFRM Policy Editor supports compare two policies

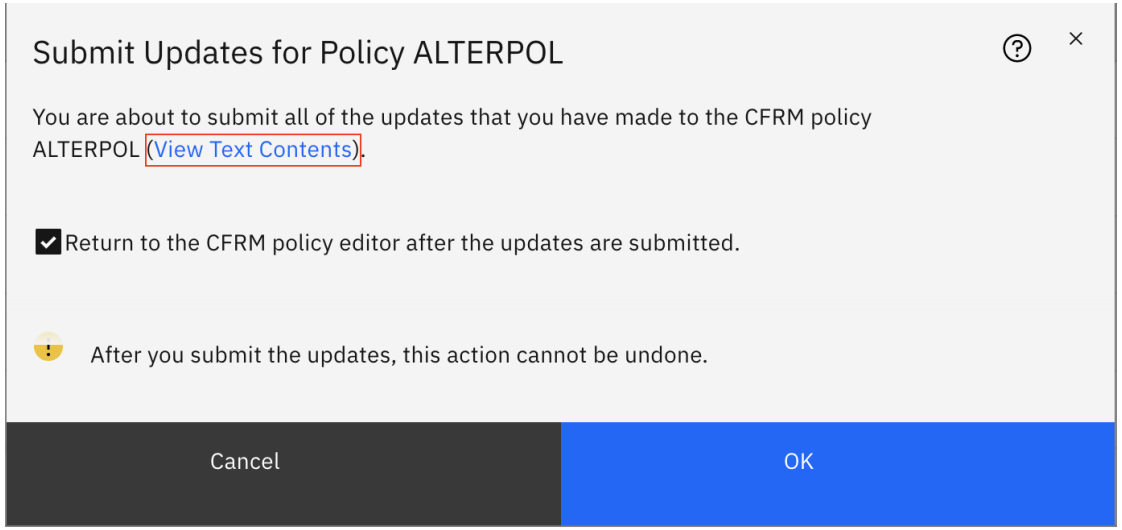
Comparison action is only enabled when exactly two policies are selected. After clicking the button "Compare", comparison tool opens in an Angular based panel. The content of the panel is separated into two parts which correspond to the two policies selected by user.

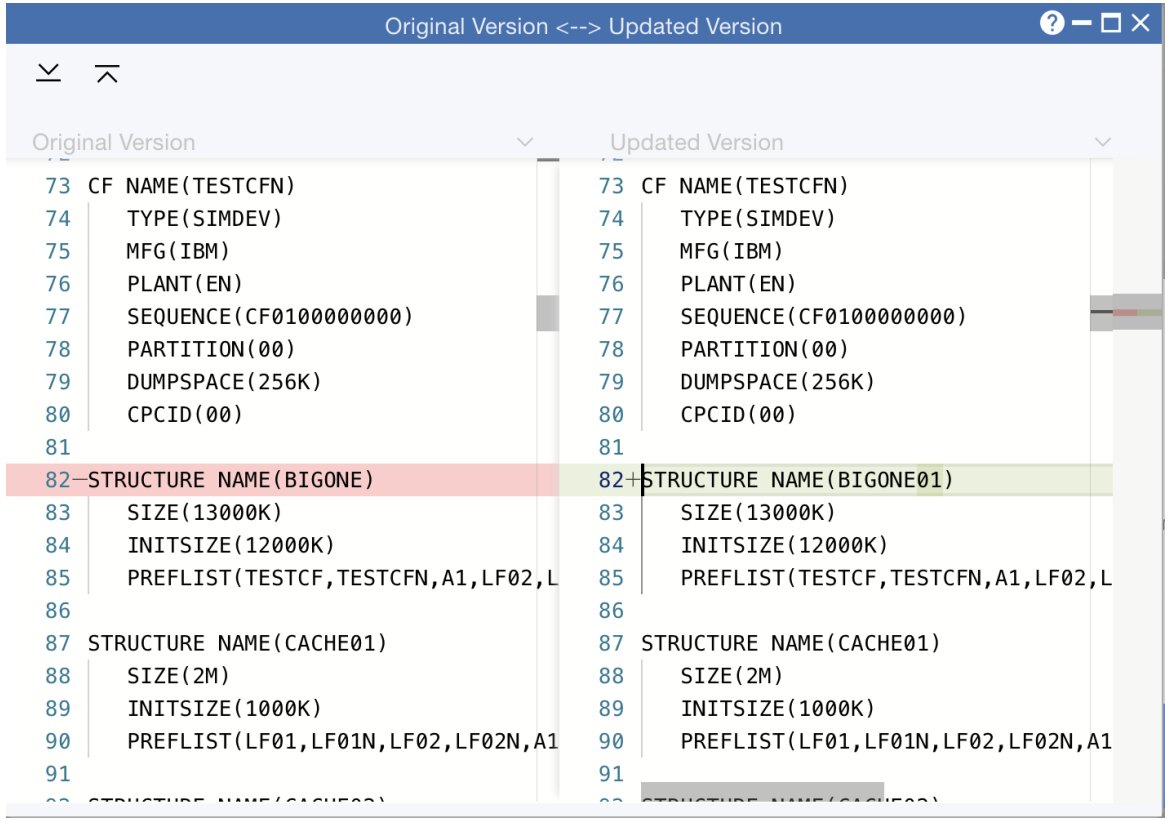




CFRM Policy Editor supports compare two policies

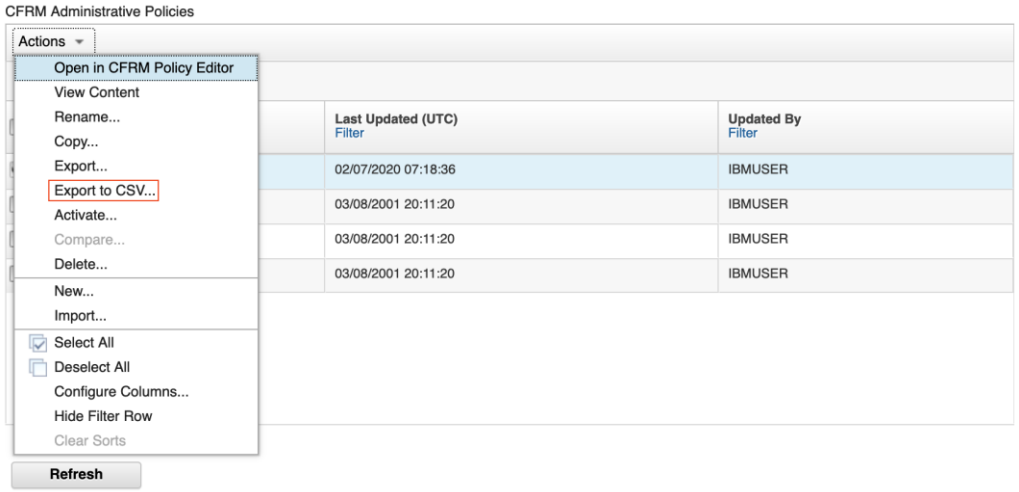
Comparison action is also enabled before submitting updates for policy in policy editor. After updating one policy, users could click the link "View Text Contents" to open comparison panel. The content of the panel is separated into two parts which correspond to the original version and the updated version of policy.





CFRM Policy Editor supports export policy data into CSV format files

Export to CSV action is enabled when only one policy are selected. After clicking Export to CSV … from policy table. Two CSV format files will be generated and downloaded into your workstation. One file is for CF and another is for structures.

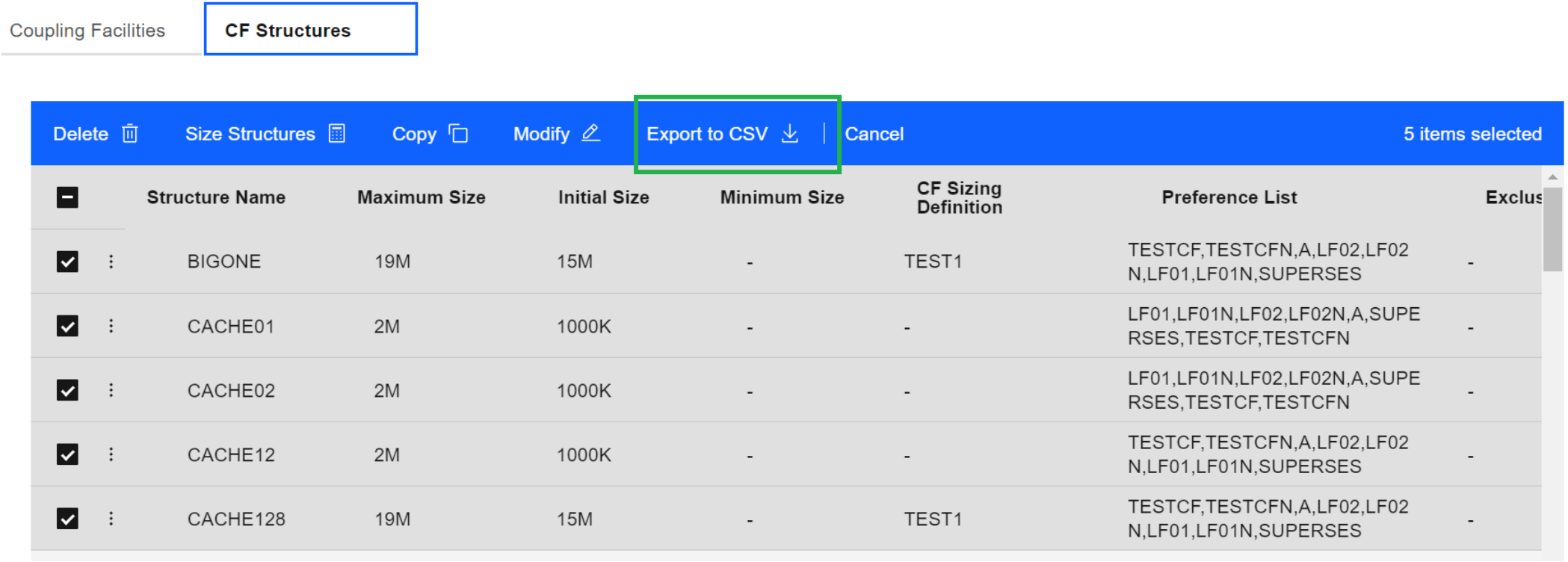


	A	B	C	D	E	F	G	H
1	CF Name	Machine Typ	Manufacture	Plant	Sequence Nu	Partition	Dump Space	Site
2	A01	00SES1	XXX	XX	XXXXXXXXXX	0	4K	-
3	LF01	00ND01	XXX	XX	XXXXXXXXXX	0	4K	-
4	LF01N	SIMDEV	IBM	EN	ND01000000	0	4K	-

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Structure Na	Maximum Siz	Maximum Siz	Initial Size	Initial Size in	Minimum Siz	Minimum Siz	Preference Li	Exclusion List	Duplexing Op	Allow Autom	Full Threshol	Encrypt
2	BIGONE01	13000K	13000	12000K	12000	-	0	TESTCF,TEST	-	-	-	-	-
3	CACHE01	2M	2048	1000K	1000	-	0	LF01,LF01N,L	-	-	-	-	-
4	CACHE02	2M	2048	1000K	1000	-	0	LF01,LF01N,L	-	-	-	-	-
5	CACHE12	2M	2048	1000K	1000	-	0	TESTCF,TEST	-	-	-	-	-

CFRM Policy Editor supports export policy data into CSV format files

Export to CSV action also can be enabled after selecting part of CFs/Structures in "Coupling Facilities"/"CF Structures" tab of policy editor table. Users could select which CFs and Structures will be exported to CSV format file.



Structure Name	Maximum Size	Initial Size	Minimum Size	CF Sizing Definition	Preference List	Exclus
BIGONE	19M	15M	-	TEST1	TESTCF,TESTCFN,A,LF02,LF02N,LF01,LF01N,SUPERSES	-
CACHE01	2M	1000K	-	-	LF01,LF01N,LF02,LF02N,A,SUPERSES,TESTCF,TESTCFN	-
CACHE02	2M	1000K	-	-	LF01,LF01N,LF02,LF02N,A,SUPERSES,TESTCF,TESTCFN	-
CACHE12	2M	1000K	-	-	TESTCF,TESTCFN,A,LF02,LF02N,LF01,LF01N,SUPERSES	-
CACHE128	19M	15M	-	TEST1	TESTCF,TESTCFN,A,LF02,LF02N,LF01,LF01N,SUPERSES	-

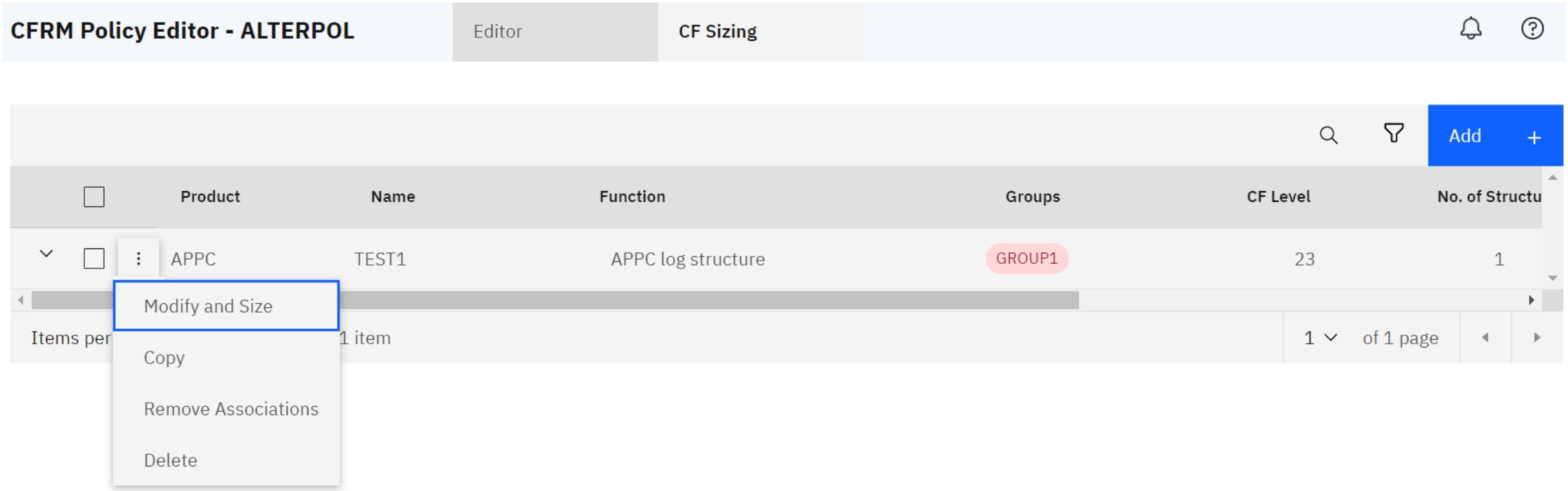
Usage & Invocation

With this solution, Sysplex administrator can use z/OSMF to calculate CF structure sizes and directly apply changes to their CFRM policies so that they can have higher efficiency and less error-prone for CF sizing plan.

- CF Sizing can minimize manual input/re-input of sizing data.
- CF Sizing can persistence of user sizing inputs.
- CF Sizing can map specified sizing inputs to specific structures.
- CF Sizing can size multiple structures in a single action.
- CF Sizing can calculate structure size using CF levels that users already have available.
- CF Sizing can be integrated into the CFRM Policy Editor so size value is tightly coupled to administrative policies.

CFRM Policy Editor CF Sizing integration

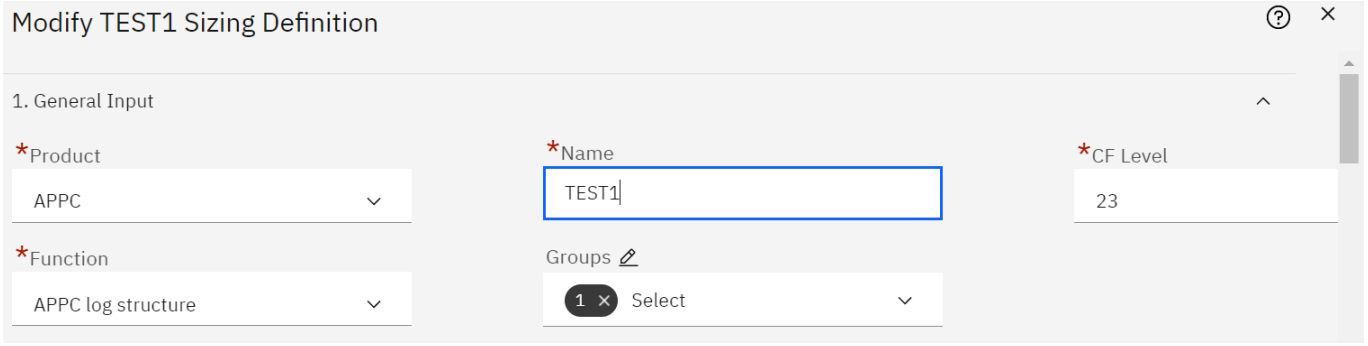
One new tab CF Sizing was added to handle CF Sizing Definitions. Users can Add, Copy, Modify, Size, Delete and Remove Associations against one Sizing Definition.



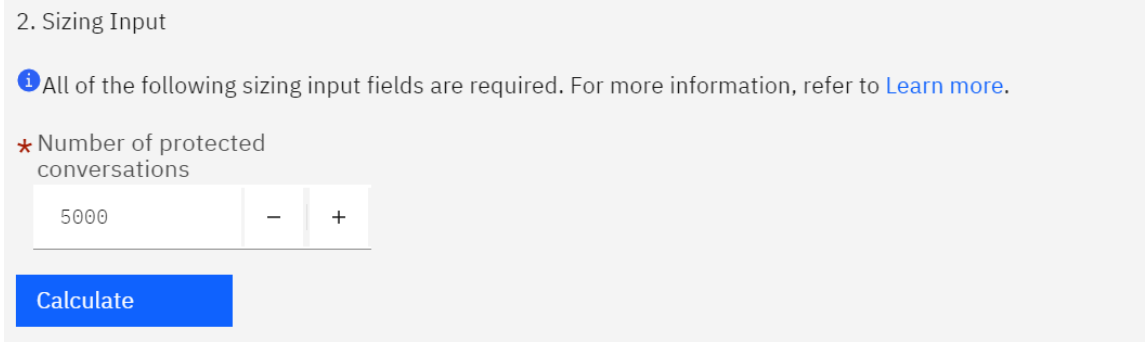
CFRM Policy Editor CF Sizing integration – Modify and Size one sizing definition

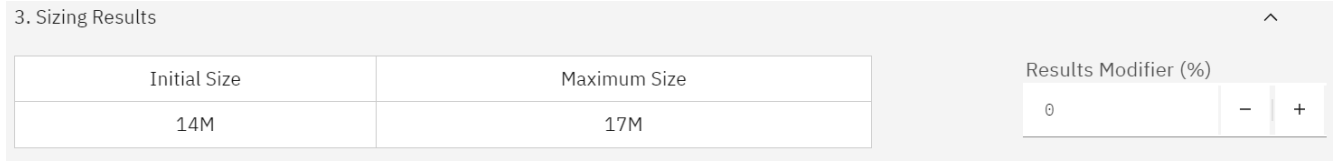
There are four steps to Modify and Size one sizing definition.

The first step is to input general data. Users need to select Product, Function, CF Level, Group and input Sizing Definition Name.



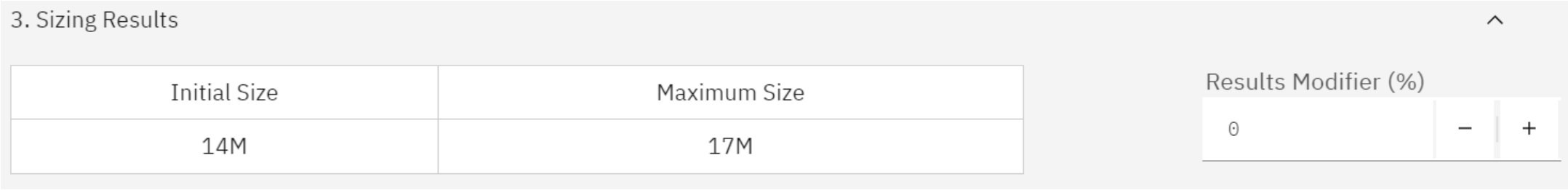
After Product and Function are selected, all the Sizing input fields for this Product/Function will be displayed. The second step is to fill with these input fields and Click Calculate button. The size calculation result will be returned.





CFRM Policy Editor CF Sizing integration – Modify and Size one sizing definition

The size calculation result can be increased by Results Modifier.

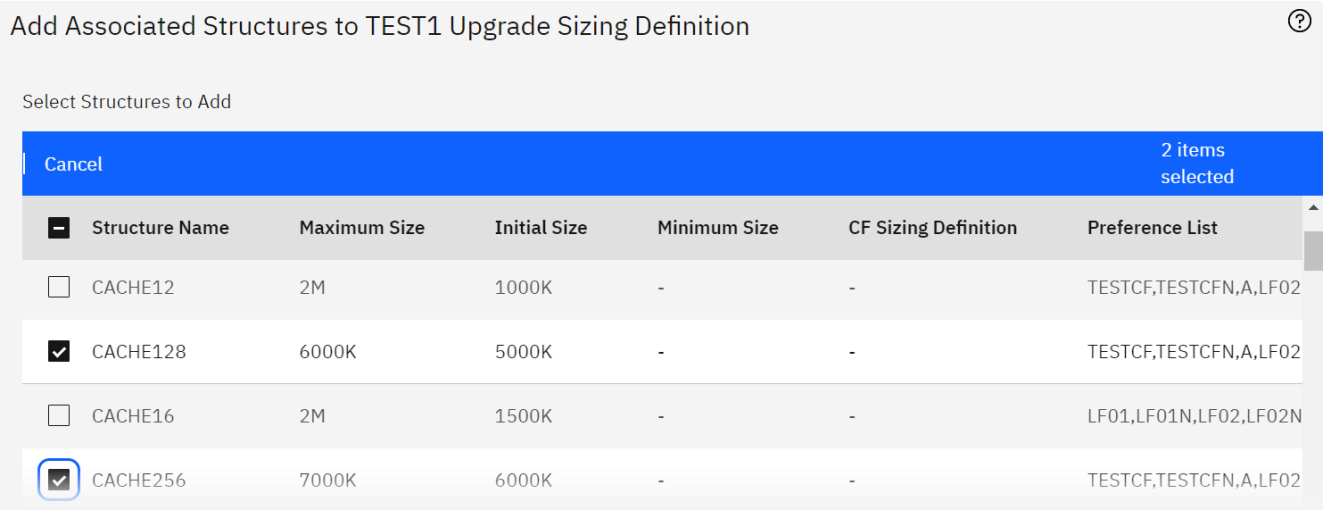


For example, input 10 into Results Modifier field which means increase 10% to calculated output sizes. The value in parentheses is the increased value.

CFRM Policy Editor CF Sizing integration – Modify and Size one sizing definition

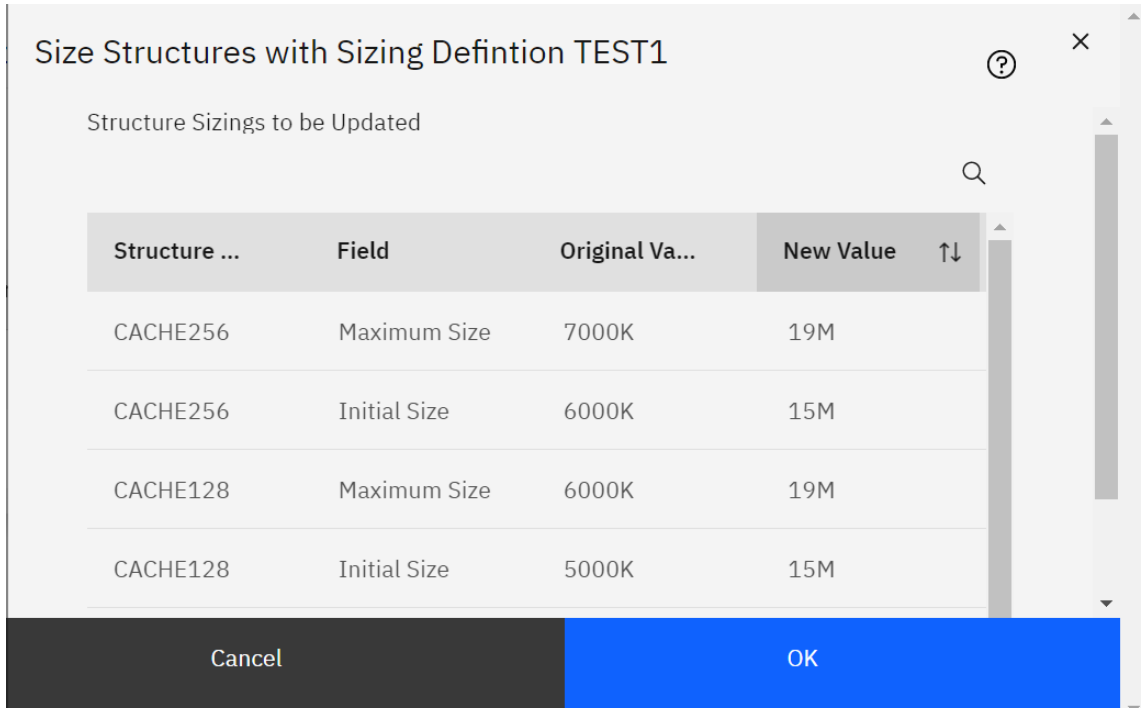
The last step is to apply the size value from sizing definition into some structures. Users could click Add button from Associated Structure table.

By Add button, All structures in the policy will be listed, and users could select structures they want to size.



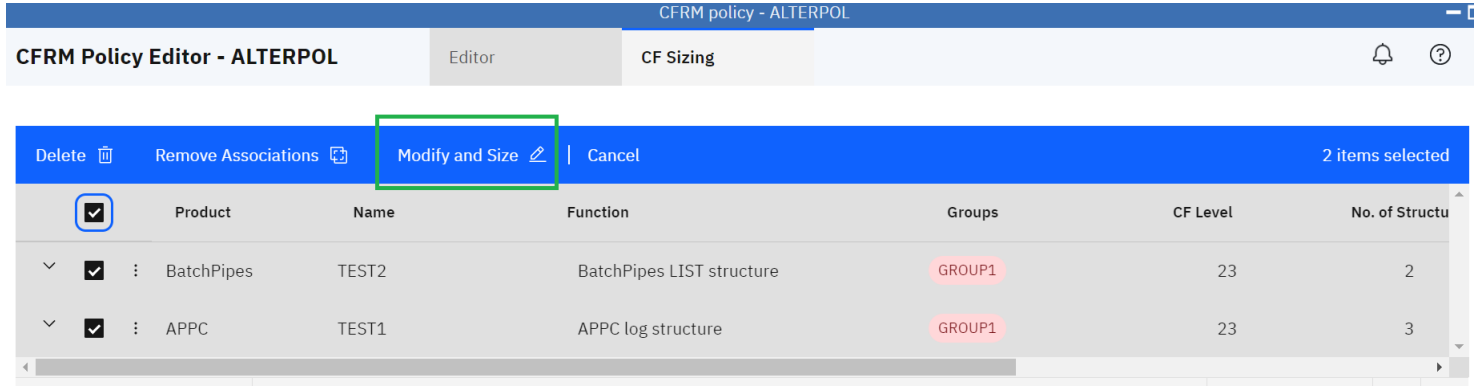
CFRM Policy Editor CF Sizing integration – Modify and Size one sizing definition

The size value in the sizing definition will be applied to the selected structures and one dialog will be displayed to show the original size value and new value. If users accept the new value, just click OK then the structure size will be updated.

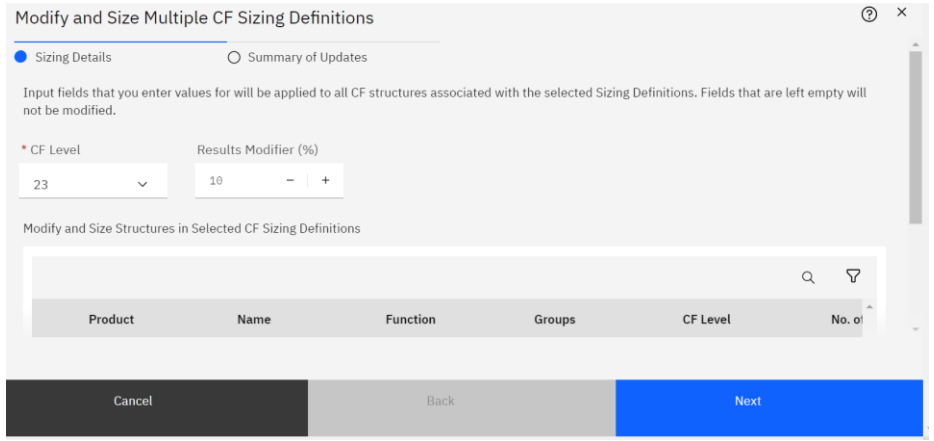


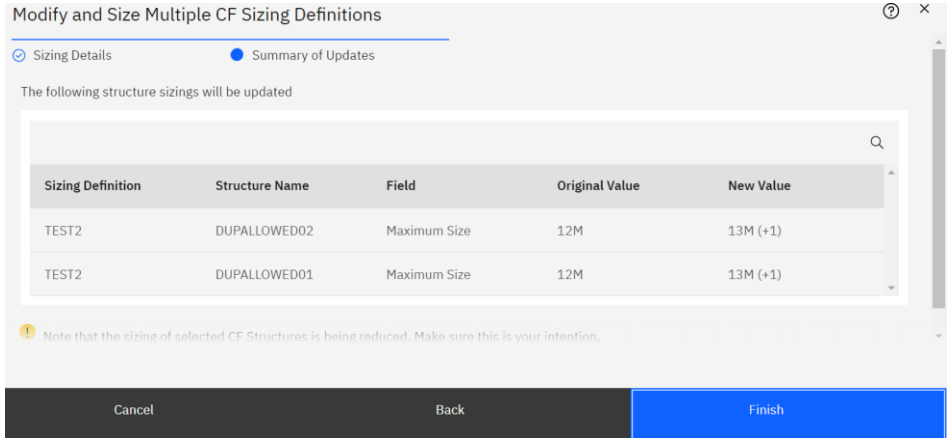
CFRM Policy Editor CF Sizing integration – Modify and Size multiple sizing definitions

Users could select multiple sizing definitions to modify and size structures. Two fields CF Level and Results Modifier are supported.



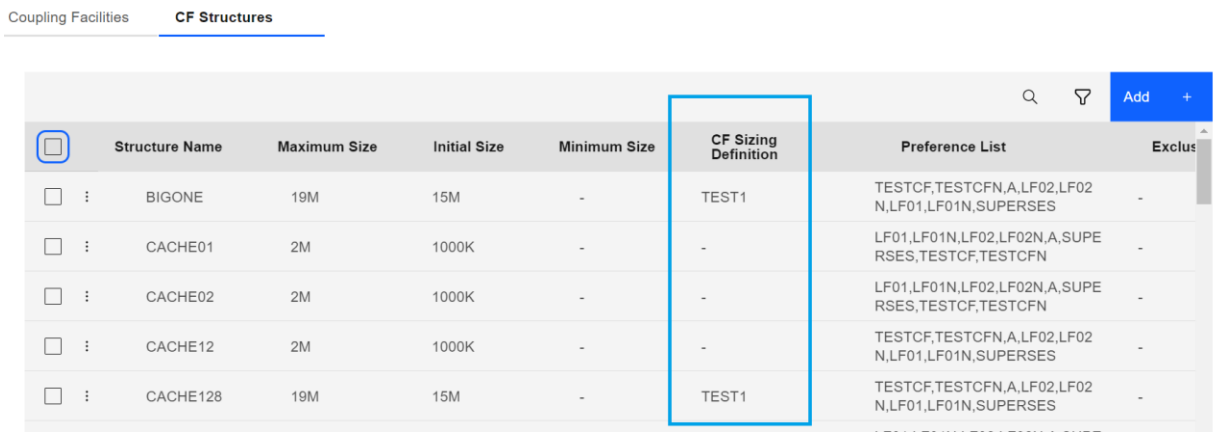
After CF level or modifier is changed, one new panel is displayed to show how much structure size was updated. If users accept the new value, just click OK then the structure size will be updated.

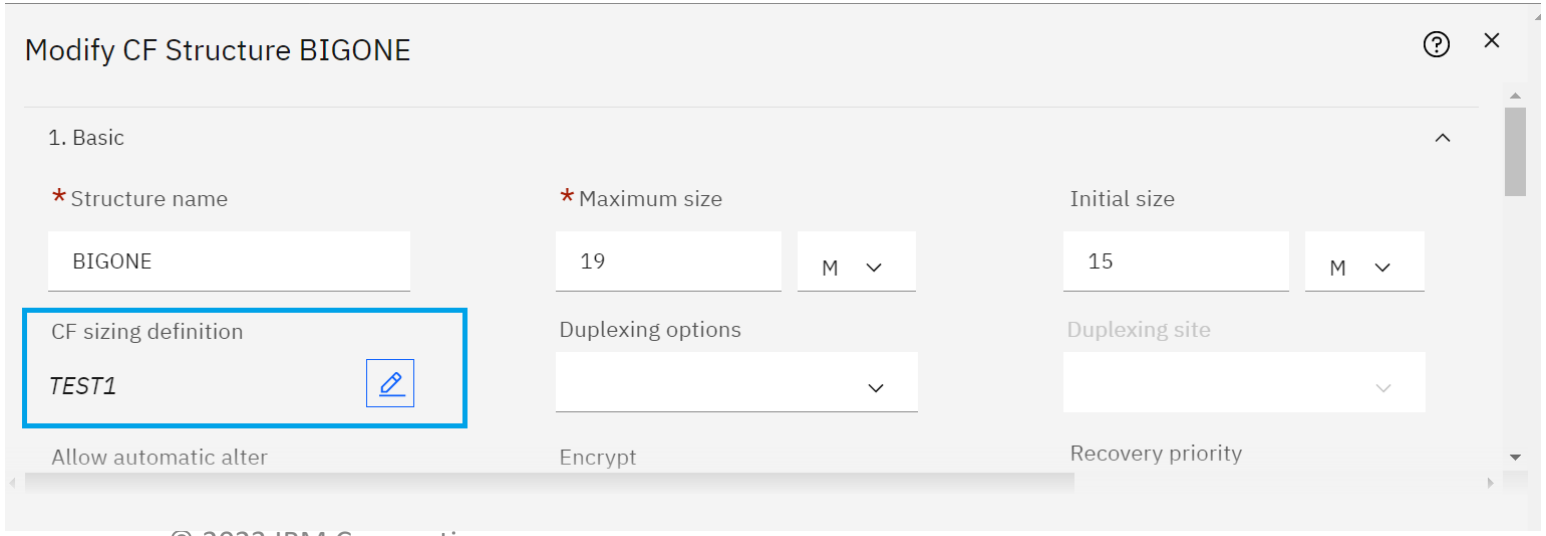




CFRM Policy Editor CF Sizing integration – CF Structure update

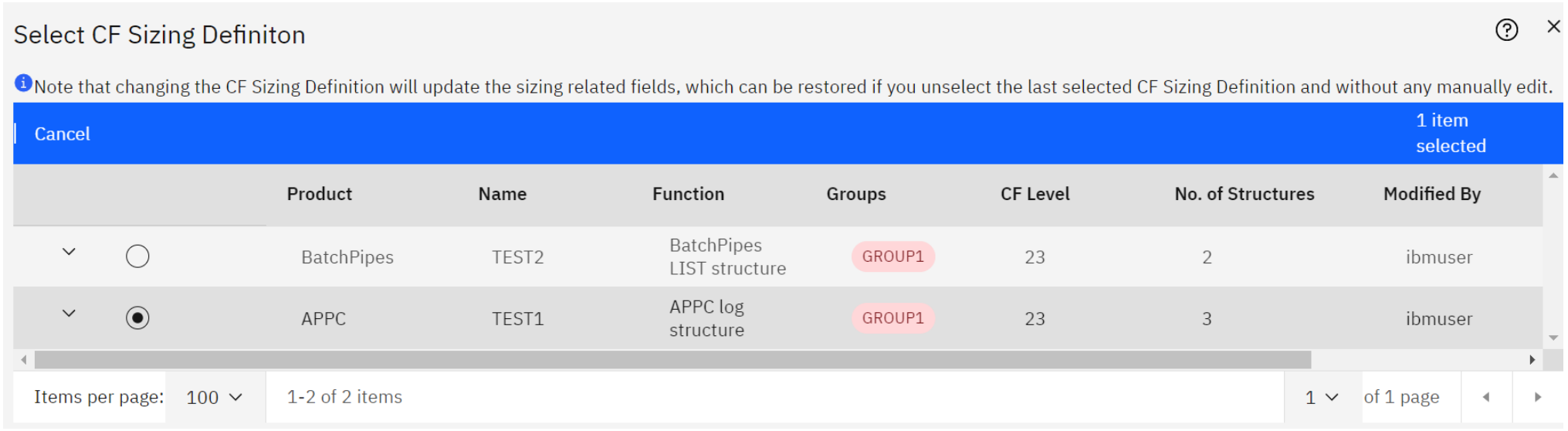
New CF Sizing Definition column/field is added to the existing CF Structures table, to show the association from a CF Structure to a sizing definition. This value can be modified as part of editing or defining a CF Structure.





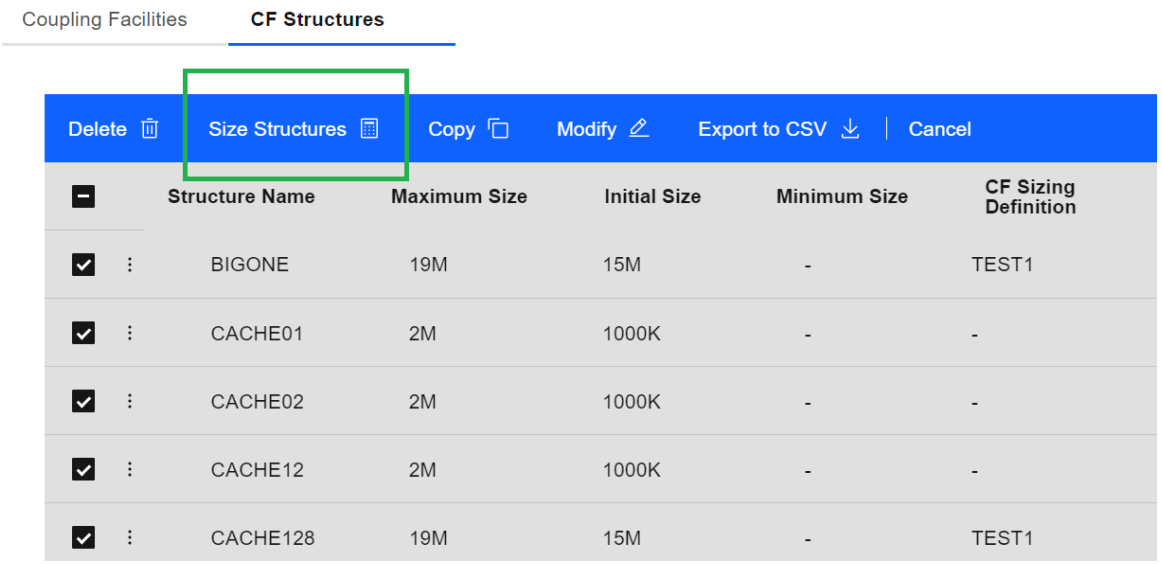
CFRM Policy Editor CF Sizing integration – CF Structure update

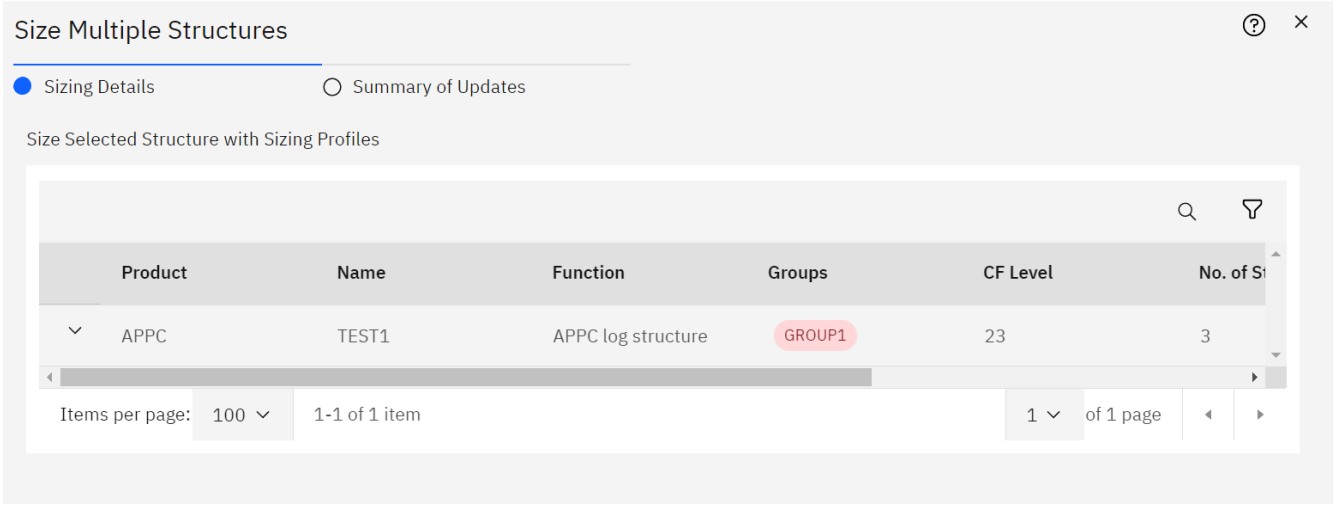
By clicking CF sizing definition icon, users could select one sizing definition to this structure. The structure size will be updated according to new selected sizing definition.



CFRM Policy Editor CF Sizing integration – size multiple structures

Users can size/re-size 2 or thousands of structures in a single action. Every structure being sized must be associated with a CF Sizing Definition





Interactions & Dependencies

- Software Dependencies
  - z/OS Sysplex
- Hardware Dependencies
  - None
- Exploiters
  - None

Upgrade & Coexistence Considerations

- To exploit this solution, all systems in the Plex must be at the new z/OS level:

  No
- List any toleration/coexistence APARs/PTFs.

  N/A
- List anything that doesn't work the same anymore

  N/A
- Upgrade involves only those actions required to make the new system behave as the old one did.

  N/A
- Coexistence applies to lower level systems which coexist (share resources) with latest z/OS systems.

  N/A

Installation & Configuration

- List anything that a client needs to be aware of during installation and include **examples** where appropriate - clients appreciate these:
  - Are any APARs or PTFs needed for enablement? No additional APARs are needed for V3.1.
  - What jobs need to be run? N/A
  - What hardware configuration is required? N/A
  - What PARMLIB statements or members are needed? N/A
  - Are any other system programmer procedures required? N/A
  - Are there any planning considerations? N/A
  - Are any special web deliverables needed? N/A
  - Does installation change any system defaults? N/A

Summary

- The following z/OS V3.1 z/OSMF CFRM policy editor enhancements and CF Sizing integration has been explained:
  - Sysplex CFRM Policy Editor supports Import/Export and Bulk copy.
  - Sysplex CFRM Policy Editor supports Comparison and Export to CSV files.
  - Users can calculate CF structure sizes and directly apply changes to their CFRM policies.

Appendix

- To reference how to configure z/OSMF Sysplex Management service, please refer to z/OSMF Configuration Guide