



# **Clone custom plug-in resource backups**

## **SnapCenter Software 4.7**

NetApp  
December 14, 2022

This PDF was generated from [https://docs.netapp.com/us-en/snapcenter/protect-scc/task\\_clone\\_custom\\_plug\\_in\\_resource\\_backups.html](https://docs.netapp.com/us-en/snapcenter/protect-scc/task_clone_custom_plug_in_resource_backups.html) on December 14, 2022. Always check docs.netapp.com for the latest.

# Table of Contents

- Clone custom plug-in resource backups ..... 1
  - Clone custom plug-in resource backups ..... 1
  - Clone from a backup ..... 1
  - Clone backups using PowerShell cmdlets ..... 3
  - Monitor custom plug-in resource clone operations ..... 7

# Clone custom plug-in resource backups

## Clone custom plug-in resource backups

The clone workflow includes performing the clone operation and monitoring the operation.

### About this task

You might clone resource backups for the following reasons:

- To test functionality that has to be implemented using the current resource structure and content during application development cycles
- For data extraction and manipulation tools when populating data warehouses
- To recover data that was mistakenly deleted or changed

The following workflow shows the sequence in which you must perform the clone operation:



You can also use PowerShell cmdlets manually or in scripts to perform backup, restore, and clone operations. For detailed information about PowerShell cmdlets, use the SnapCenter cmdlet help or see the [SnapCenter Software Cmdlet Reference Guide](#).

## Clone from a backup

You can use SnapCenter to clone a backup. You can clone from primary or secondary backup. The capabilities of the clone operations depends upon the plug-in that you use.

### What you will need

- You must have backed up the resources or resource group.
- The default clone operation only clones storage objects. Clone operations at the application level can only be performed if the custom plug-in provides that capability.
- You should ensure that the aggregates hosting the volumes should be in the assigned aggregates list of the storage virtual machine (SVM).

### Steps

1. In the left navigation pane, click **Resources**, and then select the appropriate plug-in from the list.

2. In the Resources page, filter resources from the **View** drop-down list based on resource type.

The resources are displayed along with information such as type, host or cluster name, associated resource groups and policies, and status.

3. Select the resource or resource group.

You must select a resource if you select a resource group.

The resource or resource group topology page is displayed.

4. From the Manage Copies view, select **Backups** either from the primary or secondary (mirrored or vaulted) storage systems.

5. Select the data backup from the table, and then click .

6. In the Locations page, perform the following:

For this field...	Do this...
Clone server	By default, the source host is populated.  If you want to specify a different host, select the host on which the clone should be mounted and the plug-in is installed.
Clone suffix	This is mandatory when the clone destination is the same as the source.  Enter a suffix that will be appended to the newly cloned resource name. The suffix ensures that the cloned resource is unique on the host.  For example, rs1_clone. If you are cloning to the same host as the original resource, you must provide a suffix to differentiate the cloned resource from the original resource; otherwise, the operation fails.

If the resource selected is a LUN and if you are cloning from a secondary backup, then the destination volumes are listed. Single source can have multiple destination volumes.

7. In the Settings page, perform the following:

For this field...	Do this...
Initiator name	Enter the host initiator name, which is either a IQDN or WWPN.
Igroup protocol	Select Igroup protocol.



Settings page is displayed only if the storage type is LUN.

8. In the Scripts page, enter the commands for pre clone or post clone that should be run before or after the clone operation, respectively. Enter the mount command to mount a file system to a host.

For example:

- Pre clone command: delete existing databases with the same name
- Post clone command: verify a database or start a database.

Mount command for a volume or qtree on a Linux machine:

```
mount<VSERVER_NAME>:%<VOLUME_NAME_Clone /mnt>
```

9. In the Notification page, from the **Email preference** drop-down list, select the scenarios in which you want to send the emails.

You must also specify the sender and receiver email addresses, and the subject of the email.

10. Review the summary and click **Finish**.
11. Monitor the operation progress by clicking **Monitor > Jobs**.

## Clone backups using PowerShell cmdlets

The clone workflow includes planning, performing the clone operation, and monitoring the operation.

### What you will need

You must have prepared the PowerShell environment to execute the PowerShell cmdlets.

For information about PowerShell cmdlets, use the SnapCenter cmdlet help or see the [SnapCenter Software Cmdlet Reference Guide](#).

### Steps

1. Initiate a connection session with the SnapCenter Server for a specified user by using the Open-SmConnection cmdlet.

```
Open-SmConnection -SMSbaseurl https:\\snapctr.demo.netapp.com:8146/
```

2. List the backups that can be cloned using the Get-SmBackup or Get-SmResourceGroup cmdlet.

This example displays information about all available backups:

```
C:\PS>PS C:\> Get-SmBackup
```

BackupId	BackupName	BackupTime
BackupType		
-----	-----	-----
-----		
1	Payroll Dataset_vise-f6_08... 8/4/2015	11:02:32 AM
Full Backup		
2	Payroll Dataset_vise-f6_08... 8/4/2015	11:23:17 AM

This example displays information about a specified resource group:

```
PS C:\> Get-SmResourceGroup
```

```
Description :
CreationTime : 10/10/2016 4:45:53 PM
ModificationTime : 10/10/2016 4:45:53 PM
EnableEmail : False
EmailSMTPServer :
EmailFrom :
EmailTo :
EmailSubject :
EnableSysLog : False
ProtectionGroupType : Backup
EnableAsupOnFailure : False
Policies : {}
HostResourceMapping : {}
Configuration : SMCoreContracts.SmCloneConfiguration
LastBackupStatus : Completed
VerificationServer :
EmailBody :
EmailNotificationPreference : Never
VerificationServerInfo :
SchedulerSQLInstance :
CustomText :
CustomSnapshotFormat :
SearchResources : False
ByPassCredential : False
IsCustomSnapshot :
MaintenanceStatus : Production
PluginProtectionGroupTypes : {SMSQL}
Tag :
IsInternal : False
EnableEmailAttachment : False
VerificationSettings : {}
```

```

Name                : NFS_DB
Type                : Group
Id                 : 2
Host               :
UserName           :
Passphrase         :
Deleted            : False
Auth               : SMCoreContracts.SmAuth
IsClone            : False
CloneLevel         : 0
Hosts              :
StorageName        :
ResourceGroupNames :
PolicyNames        :

Description         :
CreationTime        : 10/10/2016 4:51:36 PM
ModificationTime    : 10/10/2016 5:27:57 PM
EnableEmail         : False
EmailSMTPServer     :
EmailFrom           :
EmailTo            :
EmailSubject        :
EnableSysLog        : False
ProtectionGroupType : Backup
EnableAsupOnFailure : False
Policies            : {}
HostResourceMapping : {}
Configuration       : SMCoreContracts.SmCloneConfiguration
LastBackupStatus    : Failed
VerificationServer   :
EmailBody           :
EmailNotificationPreference : Never
VerificationServerInfo :
SchedulerSQLInstance :
CustomText          :
CustomSnapshotFormat :
SearchResources     : False
ByPassRunAs         : False
IsCustomSnapshot    :
MaintenanceStatus   : Production
PluginProtectionGroupTypes : {SMSQL}
Tag                 :
IsInternal          : False
EnableEmailAttachment : False
VerificationSettings : {}

```

```

Name           : Test
Type           : Group
Id             : 3
Host           :
UserName       :
Passphrase     :
Deleted        : False
Auth           : SMCoreContracts.SmAuth
IsClone        : False
CloneLevel     : 0
Hosts          :
StorageName    :
ResourceGroupNames :
PolicyNames    :

```

3. Initiate a clone operation from a clone resource group or an existing backup using the New-SmClone cmdlet.

This example creates a clone from a specified backup with all logs:

```

New-SmClone -BackupName Verify_delete_clone_on_qtree_windows_scc54_10-
04-2016_19.05.48.0886 -Resources
@{"Host"="scc54.sscore.test.com";"Uid"="QTREE1"} -
CloneToInstance scc54.sscore.test.com -Suffix '_QtTreeCloneWin9'
-AutoAssignMountPoint -AppPluginCode 'DummyPlugin' -initiatorname
'iqn.1991-
05.com.microsoft:scc54.sscore.test.com' -igroupprotocol 'mixed'

```

4. View the status of the clone job by using the Get-SmCloneReport cmdlet.

This example displays a clone report for the specified job ID:



```
PS C:\> Get-SmCloneReport -JobId 186
```







```
SmCloneId           : 1
SmJobId             : 186
StartDateTime       : 8/3/2015 2:43:02 PM
EndDateTime         : 8/3/2015 2:44:08 PM
Duration            : 00:01:06.6760000
Status              : Completed
ProtectionGroupName : Draper
SmProtectionGroupId : 4
PolicyName          : OnDemand_Clone
SmPolicyId          : 4
BackupPolicyName    : OnDemand_Full_Log
SmBackupPolicyId    : 1
CloneHostName       : SCSPR0054212005.mycompany.com
CloneHostId         : 4
CloneName           : Draper__clone__08-03-2015_14.43.53
SourceResources     : {Don, Betty, Bobby, Sally}
ClonedResources     : {Don_DRAPER, Betty_DRAPER, Bobby_DRAPER,
Sally_DRAPER}
SmJobError          :
```

## Monitor custom plug-in resource clone operations

You can monitor the progress of SnapCenter clone operations by using the Jobs page. You might want to check the progress of an operation to determine when it is complete or if there is an issue.

### About this task

The following icons appear on the Jobs page, and indicate the state of the operation:

-  In progress
-  Completed successfully
-  Failed
-  Completed with warnings or could not start due to warnings
-  Queued
-  Canceled

### Steps

1. In the left navigation pane, click **Monitor**.
2. In the Monitor page, click **Jobs**.
3. In the Jobs page, perform the following steps:

- a. Click  to filter the list so that only clone operations are listed.
  - b. Specify the start and end dates.
  - c. From the **Type** drop-down list, select **Clone**.
  - d. From the **Status** drop-down list, select the clone status.
  - e. Click **Apply** to view the operations that are completed successfully.
4. Select the clone job, and then click **Details** to view the job details.
  5. In the Job Details page, click **View logs**.

## Copyright information

Copyright © 2022 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

## Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.