



# Creating Snapshot copies of unrelated entities

## Snapdrive for Unix

Ivana Devine  
January 25, 2021

# Table of Contents

Creating Snapshot copies of unrelated entities ..... 1

# Creating Snapshot copies of unrelated entities

SnapDrive for UNIX creates Snapshot copies of unrelated entities by maintaining individual crash-consistent Snapshot copies.

Unless you specify otherwise, SnapDrive for UNIX assumes that all entities that you specify on a particular `snapdrive snap create` command line are related; in other words the validity of updates to one entity can depend on updates to the other entities specified. When storage entities have dependent writes in this way, SnapDrive for UNIX takes steps to create a Snapshot copy that is crash consistent for all storage entities as a group.

The following example shows how SnapDrive for UNIX creates a Snapshot copy of storage entities that may have dependent writes. In the following example, the `snapdrive snap create` command specifies a file system on a LUN and also a disk group. The disk group consists of LUNs residing on a single storage system (see [Creating a Snapshot copy](#)). The file system on a LUN resides on a different storage system and storage system volume. As a group, the file system and the disk group span multiple storage system volumes; individually they do not.

The following command specifies a Snapshot copy that contains both the file system `/mnt/fs1` and the disk group `dg1`: `snapdrive snap create -fs /mnt/fs1 -dg dg1 -snapname fs1_dg1`

Because these storage entities can have dependent writes, SnapDrive for UNIX attempts to create a crash-consistent Snapshot copy, and treats the file system `/mnt/fs1` and the disk group `dg1` as a group. This means SnapDrive for UNIX is required to freeze I/O operations to the storage system volumes before creating the Snapshot copy.

Creating crash-consistent Snapshot copies for multiple storage entities across volumes takes extra time, and is not always possible if SnapDrive for UNIX cannot freeze I/O operations. Because this is so, SnapDrive for UNIX allows you to create Snapshot copies of unrelated storage entities. Unrelated storage entities are entities that you can specify that have no dependent writes when the Snapshot copy is taken. Because the entities have no dependent writes, SnapDrive for UNIX does not take steps to make the entities consistent as a group. Instead, SnapDrive for UNIX creates a Snapshot copy in which each of the individual storage entities is crash-consistent.

The following command specifies a Snapshot copy of the file system on a LUN and the disk group described previously. Because the `-unrelated` option is specified, SnapDrive for UNIX creates a Snapshot copy in which the file system `/mnt/fs1` and the disk group `dg1` are crash-consistent as individual storage entities, but are not treated as a group. The following command does not require SnapDrive for UNIX to freeze I/O operations on the storage system volumes: `snapdrive snap create -fs /mnt/fs1 -dg dg1 -unrelated -snapname fs1_dg1`

## Related information

[Creating a Snapshot copy](#)

## Copyright Information

Copyright © 2021 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.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

## 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.