



# **Restore files from an alternate location**

## **SnapManager for SAP**

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# Restore files from an alternate location

SnapManager enables you to restore data files and control files from a location other than that of the Snapshot copies in the original volume.

The original location is the location of the file on the active file system at the time of the backup. The alternate location is the location from which a file will be restored.

You can restore from an alternate location to restore the data files from an intermediate file system to an active file system.

Recovery is automated by SnapManager. When recovering files from external locations, SnapManager uses the `recovery automatic from location` command.

SnapManager also uses Oracle Recovery Manager (RMAN) to recover files. The files to be recovered should be recognizable by Oracle. The file names should be in the default format. When recovering from flash recovery area, SnapManager provides the translated path to Oracle. Oracle though, does not recover from the flash recovery area because it cannot generate the correct file name. Ideally, flash recovery area is a destination that is intended to work with RMAN.

## Restore backups from an alternate location overview

To restore a database backup from an alternate location, use the following major steps, each of which is further described in this section.

- Do one of the following, depending on your database layout and what needs to be restored:
  - Restore the required data files from tape, SnapVault, SnapMirror, or any other media to any file system mounted on the database host.
  - Restore the required file system and mount it on the database host.
  - Connect to the required raw devices that exist in the local host.
- Create a restore specification Extensible Markup Language (XML) file that includes the mappings that SnapManager requires to restore from the alternate location to the original location. Save the file in a location that SnapManager can access.
- Use SnapManager to restore and recover the data using the restore specification XML file.

### Restoration of the data from files

Before you restore from an alternate location, you need to restore the necessary files from any storage media and restore the files from applications like SnapVault or SnapMirror to a file system mounted on the local host.

You can use the restore from an alternate location operation to copy the files from an alternate file system to an active file system.

You need to specify the alternate locations from which to restore the original files by creating a restore specification.

## Restoration of data from the file system

Before you restore data from an alternate location, you must restore the necessary file system and mount it on the local host.

You can invoke the restore operation from an alternate location to copy the files from alternate file systems to active file systems.

To perform this operation, you must specify the alternate mount points from which to restore the original mount points and the original Snapshot copy names by creating a restore specification file.



The Snapshot copy name is a necessary component because the same file system might be snapped multiple times in a single backup operation (for example, once for the data files and once for the log file).

## Create restore specifications

The restore specification file is an XML file that contains the original and alternate locations from which the file can be restored. SnapManager uses this specification file to restore files from the specified location.

### About this task

You can create the restore specification file by using any text editor. You must use a .xml extension for the file.

#### Steps

1. Open a text file.
2. Enter the following:

```
<restore-specification xmlns="http://www.netapp.com">
```

3. Enter any file mapping information using the format shown in the following example:

```
<file-mapping>  
  <original-location>E:\disks\sysaux.dbf</original-location>  
  <alternate-location>E:\disks\sysaux.dbf</alternate-location>  
</file-mapping>
```

File mapping specifies where a file is restored from. The original location is the location of the file on the active file system at the time of backup. The alternate location is the location from where the file is restored.

4. Enter any mounted file system mapping information using the format shown in the example:

```
<mountpoint-mapping>
  <original-location>E:\disks\sysaux.dbf</original-location>
  <snapname>snapname</snapname>
  <alternate-location>E:\disks\sysaux.dbf</alternate-location>
</mountpoint-mapping>
```

Mountpoint refers to directory path `C:\myfs`. The mountpoint mapping specifies the mountpoint from which the files are restored. The original location is the location of the mountpoint in the active file system at the time of backup. The alternate location is the mountpoint from which the files in the original location are restored. The `snapname` is the name of the Snapshot copy in which the original files were backed up.



The Snapshot copy name is a necessary component because the same file system can be used multiple times in a single backup operation (for example, once for the data files and once for the logs).

5. Enter the following:

```
</restore-specification>
```

6. Save the file as a `.xml` file and close the specification.

## Restore backups from an alternate location

You can restore from an alternate location to restore the data files from an intermediate file system to an active file system.

### What you'll need

- Create a restore specification XML file and specify the type of restore method you want to use.

### About this task

You can use the `smsap backup restore` command and specify the restore specification XML file you created to restore the backup from an alternate location.

#### Step

1. Enter the following command:

```
smsap backup restore -profile profile -label label -complete-alllogs  
-restorespec restorespec
```

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