



# Retrospect

## Best Practices: Protecting Parallels VMs with Retrospect

<b>Description:</b>	This document outlines best practices for protecting Macs that are using Parallels VMs
<b>Retrospect Edition(s):</b>	Retrospect Multi Server, Mac 10 (Part #: APPNEWMSV100EC) Retrospect Single Server, Mac 10 (Part #: APPNEWSSV100EC) Retrospect Desktop, Mac 10 (Part #: APPNEWDSK100EC)
<b>Retrospect Add-On(s):</b>	Retrospect Open File Backup for Windows Clients, Mac 10 (Part #: OPTNEWOFB100EC)
<b>Use Case:</b>	Any business needing to effectively back up and restore Macs including Parallels VMs

### Introduction

Macs are increasingly common in business environments. Parallels Desktop provides a seamless solution to run both Windows and Mac OS X applications side-by-side. It also enables remote access from iPad, iPhone and iPod Touch.

To suit different user needs, this document discusses two methods of using Retrospect to easily and efficiently protect Parallels VMs along with the Mac hosts and any Windows computers.

### Configurations

Parallels VM can reside in either Parallels virtual machine (.pvm) file or in Boot Camp partition. A VM using the pvm file has more functionalities, and is also easier and faster to back up and restore.

## Protection Method 1: Fast incremental VM image-level backup and simple disaster recovery

### Shutting down VM before backup

Parallels' knowledgebase article recommends shutting down the VM before backup starts. That ensures VM's file changes are flushed to the virtual disk. Once shut down, the VM's Parallels pvm file can be backed up by Retrospect just like any file.

If users prefer not to shutdown the VM, please refer to Method 2 in this document.

### VM Snapshots

If a Parallels VM has snapshots created, VM content changes are saved in the most recent VM snapshot. Whenever possible Parallels avoids modifying prior snapshots and the base VM image. This enables subsequent backups by Retrospect to be very fast and small, because only new and modified snapshots need to be backed up. You can manually create snapshot as needed, or use the "Optimize for Time Machine" option to have Parallels automatically create VM snapshot on a particular schedule. Although that option refers to Time Machine, it also works well with Retrospect.

### Disaster Recovery of VM

Parallels pvm file can be easily restored by Retrospect like any file. That makes disaster recovery of just the Parallels VM or the entire Mac host very simple.

## Protection Method 2: File-level backup and restore without shutting down VM

Backup and restore using this method takes longer than Method 1. However, this method can be used while the VM is running. In addition, this method provides granular control over what files within the VM are backed up and restored.

### Back up and restore running VM

A running VM can be backed up in the same way as physical machine by installing the Retrospect Client in the VM. When selected for backup or restore, Retrospect Client works with the Retrospect server to complete the operation. Through the Client, Retrospect has visibility into individual files inside the VM, and enables all the file-level features, such as selectors and preview, as well as matching (very efficient file-level deduplication) across multiple Mac and Windows backup sources within a Retrospect backup set.

### Open File Backup of Windows VM

Many system and application files are opened while Windows is running. Retrospect provides an add-on to enable the Retrospect Client running on Windows (in the VM) to back up open files.

### Backup Steps

1. In the running VM, install Retrospect Client.
2. On the Retrospect server, add that Client as a backup source.
3. Shutdown the VM once and backup its pvm file using Retrospect. This enables simple disaster recovery of the VM.
4. Starts up the VM, and use Retrospect server to backup selected files in the VM via the Client on demand or on schedule.

If you would like more information on Retrospect, please contact us at [sales@retrospect.com](mailto:sales@retrospect.com).