Kodak Graphic Communications Canada Company
3700 Gilmore Way
Burnaby, B.C., Canada
V5G 4M1
Tel: 1.604.451.2700
Fax: 1.604.437.9891

Request support: http://graphics.kodak.com
ecentral.creo.com

Internal: 719-00194A-EN REV B
Release date: 16 January 2006

Technical bulletin

Installing and Configuring VERITAS Backup Exec 9.1 for Prinergy

This document is provided as a courtesy to our customers. There is no partnership, joint venture, agency relationship, or any other business relationship between Kodak and VERITAS with regard to Backup Exec™ software. The customer is solely responsible for acquiring, installing, configuring, troubleshooting, and operating the Backup Exec software in accordance with the instructions provided with the software.

This document describes how to install and configure VERITAS Backup Exec 9.1 software in a Prinergy® workflow system. Backup Exec 9.1 has been qualified to back up job data in Prinergy 2.2.1.5 or later, and to work in parallel with Prinergy Online Backup to provide a complete backup solution.

A problem with Backup Exec and Microsoft® Removable Storage Manager (RSM) had been identified (VERITAS Case ID 280-101-258). Until this problem is resolved, qualification of Backup Exec is limited to the Backup Exec server (media server) installed on a separate Windows® 2000 server. Backup Exec should not be installed on any of the Prinergy servers.

Requirements

Ensure that you have the following before you begin:

- VERITAS Backup Exec (for Windows Servers) version 9.1 or later. You can buy VERITAS Backup Exec from VERITAS distributors or download it from the VERITAS Web site (VIP licensing or trial versions). Ensure you purchase the right options for your system—for example, multi-drive tape library support, and so on. The Backup media server should not be installed on any of the Prinergy servers.
- A tape device or sufficient disk space (for disk storage backup) as backup media
- Prinergy version 2.2.1.5 or later
- Minimum of 550 MB of free disk space for Backup Exec installation

Installing Backup Exec 9.1

You use the easy to follow wizard to install Backup Exec 9.1. The wizard starts automatically when you insert the installation CD.

Note: This is a high-level procedure. For more detail, refer to the *Backup Exec Administrator's Guide*.

1. Insert the Backup Exec 9.1 installation CD into the CD-ROM drive. The installation wizard appears.
2. Accept the license agreement.
3. Select the **Local Install** and **Install Backup Exec software and options** check boxes.
4. Enter the serial number.
5. Select the features to be installed.
6. Enter the account that Backup Exec will use. If you are working in a domain environment, this account must have administrator rights on the domain.
7. In the VERITAS Tape Device Drivers dialog box, select the appropriate action:
   - If all tape devices will be used exclusively by Backup Exec, select **Use Veritas device drivers for all tape devices**.
   - If all tape devices will be shared with other software through RSM, select **Do not use Veritas device drivers**. A problem with Backup Exec and RSM has been identified—you can still use RSM, but you must assign slot ranges to Backup Exec. See the *Backup Exec Administrator's Guide*.
   - If some tape devices are not supported by Microsoft or OEM drivers and you would like to use these devices exclusively for Backup Exec, select **Use Veritas device drivers for tape devices that do not already have drivers loaded**.
8. Click **Install**.
9. After the installation has finished, restart the server.
10. Follow the First Time Startup Wizard.
11. If a tape device is to be shared with other software, verify that the tape device is enabled in RSM. To allow RSM to use the tape device:
    a. Open VERITAS Backup Exec.
    b. Select the **Devices** tab.
    c. Right-click the tape device, and then select **Properties**.
    d. On the **Configuration** tab, select **Enable Removable Storage**.
12. After installation and initial configuration of Backup Exec, install the remote agent to the other Windows 2000 servers. This can be done by either remotely installing from the media server (where Backup Exec is installed) or by installing from the Backup Exec installation CD.

Which Data to Backup

For protection against RAID problems, use Backup Exec to back up the job data on every Prinergy shared volume.

The following are automatically backed up daily by Prinergy Online Backup and do not need to be backed up using Backup Exec:

- The system drive of each Prinergy server and render station
- The Windows 2000 system state of each server
- Oracle® backup files (see the *Backing Up the Oracle Database Backup Files* section)
- The folder that contains the major update uninstall files (generally **E:\PrinergyUpdates**)

Which Data to Exclude From the Backup

Do not back up the Oracle database files listed below. These files are already backed up as part of the Oracle database backup. In addition, Oracle database encounters problems if the backup is configured to lock files. For information about backing up Oracle backup files, see *Backing Up the Oracle Database Backup Files*.

- **<datadrive:>\Orant\Oracle\ControlFile*.***
- **<datadrive:>\Orant\Oracle\OnLineLogFiles*.***
- **<datadrive:>\Orant\Oracle\Data*.***
- **<datadrive:>\Orant\Oracle\SortSpace*.***
- **E:\Orant\Oracle\MirroredControlFile*.***
- **E:\Orant\Oracle\MirroredOnLineLogFiles*.***

Backing Up the Oracle Database Backup Files

The Prinergy Online Backup automatically backs up the Oracle database backup files daily. No additional steps are required if you are using Prinergy Online Backup.

If you are not using Prinergy Online Backup, make sure you perform a daily backup of the Prinergy Oracle database backup files. The files are in **E:\OracleBackup** by default. The location of the backup files can be verified using Oracle Backup Manager. For details, see the *Prinergy System Administration Guide*.

You can perform a daily backup using the Oracle Backup Manager post backup batch file.

The Oracle Backup Manager runs the batch file **D:\Ora816\Creo\Util\SuccessfulBackup.cmd** after a successful Oracle database backup. You can insert a Backup Exec command line into this batch file to start a backup job that targets the Oracle backup files. For information on the Backup Exec command line applet, see the *Backup Exec Administrator's Guide*. Example of how to set up a daily backup:

1. Using Oracle Backup Manager, note the ZIP_FILES_DESTINATION path (usually, **E:\OracleBackup**).
2. Create a backup job in Backup Exec called **OracleDailyBackup**. In **Source Selections**, select the ZIP_FILES_DESTINATION folder (usually, **E:\OracleBackup**). Make sure the box beside the folder is selected.
3. Submit the job on hold.
4. Add the following line to the **SuccessfulBackup.cmd** file:

   ```
   "D:\Program Files\VERITAS\Backup Exec\NT\BemCmd.exe" -o1 –cBEServer
   –jOracleDailyBackup
   ```

   Note: If Backup Exec is installed in a location different than `"D:\Program Files\VERITAS\Backup Exec\NT\BemCmd.exe"`, change the path to **BemCmd.exe** in the above line. Use the `BemCmd –c` switch to specify the Backup Exec media server. (See the *Backup Exec Administrator's Guide.*)
5. Back up the database using Oracle Backup Manager (See the *Prinergy System Administration Guide*) and verify that the Backup Exec job OracleDailyBackup runs successfully.

Effect on Prinergy Throughput

No slowdown was detected with a standalone media server, the agent running on the Prinergy primary server, and the backup target's data drive located on the Prinergy primary server.

Known Issues

- A Backup Exec backup job may get queued indefinitely if RSM is enabled and you are using a library containing media allocated to other software—for example, a Prinergy Archive tape. This happens when Backup Exec tries to mount a media allocated to a different application. This problem has been reported to VERITAS.
- If a file is being backed up and file locking is used, a Prinergy task may fail if that particular file is needed. When configuring a job for backing up the Prinergy system, in the DataBackup Properties dialog box, in the **Open file backup when Advanced Open File Option is not used** area, select **Without a Lock**. See Figure 1.

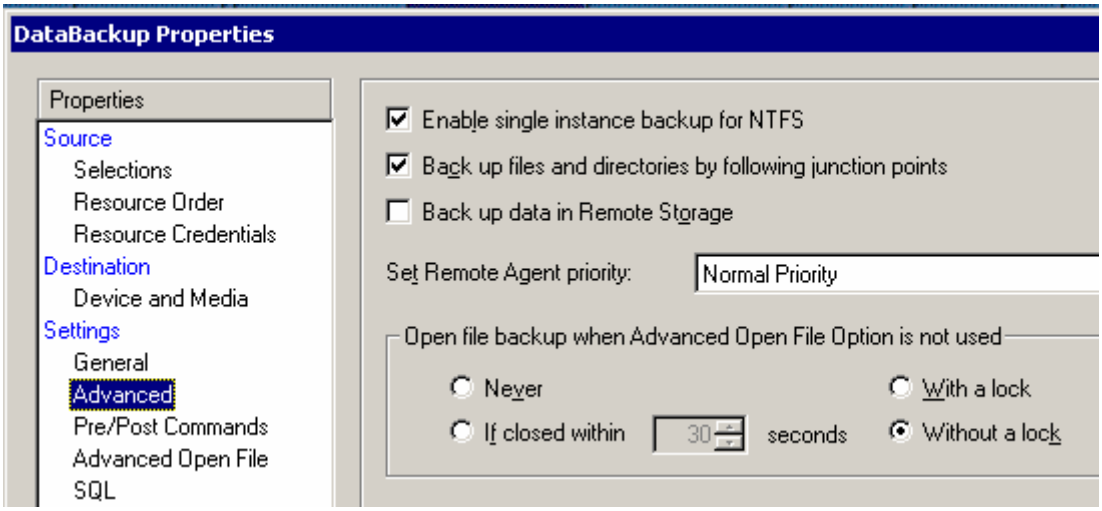


Figure 1: Open file backup configuration

- Prinergy and Oracle errors were encountered when Oracle files were backed up using file locking. The Oracle folders and files should not be backed up using Backup Exec. The Oracle backup is automatically performed nightly using Oracle Backup Manager. See the *Backing Up the Oracle Database Backup Files* section to configure backup of the Oracle backup files.
- Open File Manager™ agents (St. Bernard Software) in the past caused blue screen errors in Prinergy 1.1. Tests were conducted using the BE9.0 Open File Manager, and although no blue screen error was experienced, most of the time the backup job failed due to a timeout waiting for the quiet time on the busy data volume. Even though the Open File Manager agent was not used, disaster recovery of a Prinergy system was successfully carried out in the tests. We do not recommend using the open file option when backing up Prinergy systems.
- After Backup Exec is installed, tape libraries are disabled in RSM. If the libraries need to be shared with other software (such as NT Backup), re-enable the tape libraries through the Backup Exec Admin Console. Note that a problem with Backup Exec working with RSM had been identified.
- When UNIX® data restore throughput was tested using the UNIX Agent, it was only between 9 MB/minute and 18 MB/minute. Restore using Samba is about as fast as restoring to a Windows volume. However, there might be issues with alternate streams (such as Mac resource forks) not being restored. You should test your backup and restore procedures prior to relying on the recovery scenario you choose.

About Kodak Graphic Communications Group (GCG)

The leading provider of graphic communications solutions worldwide, Kodak's Graphic Communications Group (GCG) offers image capture systems; professional color, copydot, and high-speed document scanning systems; inkjet printing and proofing systems; workflow and color management software; thermal imaging devices for film, plates, and proofs; high-quality proofing media, printing plates, and recording film; on-demand color and black-and-white printing systems; data storage products; and professional services. Creo joined the GCG in June 2005, when it became a wholly owned subsidiary of Kodak. With corporate headquarters located in Rochester, N.Y., Kodak (NYSE: EK) had sales of $13.5 billion in 2004 and is committed to a digitally oriented growth strategy.

© 2006 Kodak. The Creo product names mentioned in this document are trademarks or service marks of Creo Inc., a subsidiary of Kodak, and may be registered in certain jurisdictions. Other company and brand, product, and service names are for identification purposes only and may be trademarks or registered trademarks of their respective holders. Data subject to change without notice.