

## Backup Exec for NT 8.6

### MEDIA SET POLICY

Term	Definition
Append period	Starts when data is first written to a tape. At the end of the Append Period, no more data can be added to the tape. Ensures that only data within a certain time window is on a tape.
Overwrite Period	Starts when data is last written to a tape. At the end of the Overwrite Period, a tape can be safely reused (erased).
How Long Before a Tape Can Be Reused?	The amount of time that a tape is protected varies, with a lower and upper bound. In other words, the protection period "floats". Lower bound = Overwrite Period. Upper bound = Overwrite + Append Periods.

### AUTOMATING BACKUPS

Action	Steps
Separate your data into different TYPES	Create one or more SELECTION LISTS for each TYPE. In Backup Selections tab, mark items for selection list. Menu Bar -> Select -> Save Selections Selection lists can be edited from the Select menu as well.
What POLICIES do you want applied to each TYPE?	Create a MEDIA SET for each POLICY Menu Bar -> Tools -> New Media Set All media sets can be viewed and edited from the Media tab.
What kinds of BACKUP JOB need to be used for each TYPE?	Create a JOB DEFINITION for each JOB (full, delta) Menu Bar -> Jobs -> New Backup Job Define the target DEVICE POOL, MEDIA SET, and SELECTION LIST. All Job Definitions can be viewed and edited from the Job Definitions tab.
When do the different types of JOB need to be SCHEDULED?	Create one or more schedules for each JOB DEFINITION. Menu Bar -> Jobs -> New Schedule All schedules can be viewed and edited in the Job Monitor tab.

### MONITORING JOBS

Operation	Steps
Monitoring Jobs	If the Job Monitor tab is blue, there is an active job. If the Alerts tab is Red, there is a pending alert. To determine where a job failed, search the job log text for a line of carets ("~~~~~"). Notepad works very well for this.

### RECOVERY

Operation	Steps
Recovery	Last Full backup, then either (all incrementals) or (last differential) backup.

### TAPE SELECTION ALGORITHM

Term	Definition
Append Jobs	Tapes that are already a member of the target MEDIA SET (as stated in the JOB DEFINITION) are searched. The tape with the least Append Period remaining is selected for the job. If no appendable tapes are available, the job either terminates or switches to an Overwrite Job, depending on the JOB DEFINITION.
Overwrite Jobs	<ol style="list-style-type: none"> <li>All media in the targeted device pool are evaluated.</li> <li>The job will select either scratch (blank) media or old tapes (those whose Overwrite Period have expired) in the target MEDIA SET.</li> <li>The other group (old tapes or blank tapes) is searched.</li> <li>If the Overwrite Protection Level is set to FULL, and no tapes were found in steps 2 and 3, a Media Request Alert is generated, and the rest of the algorithm is ignored.</li> <li>Tapes Imported from another backup server installation are searched. If one is found, a prompt (if enabled) is generated, and the imported tape is overwritten.</li> <li>If the Overwrite Protection Level is set to PARTIAL, and no tape has been found to this point, a Media Request Alert is generated, and the rest of the algorithm is ignored.</li> <li>If the Overwrite Protection Level is set to NONE, the tape with the oldest data on it is overwritten, regardless of MEDIA SET.</li> </ol>
Notes	<ul style="list-style-type: none"> <li>When a tape is overwritten, it is assigned to the target MEDIA SET as stated in the JOB DEFINITION.</li> <li>If more than one tape is required for a job, the algorithm is repeated for each tape.</li> <li>If multiple tapes are equally appropriate for a job, the tape in the lowest numbered slot is used.</li> <li>The search order (steps 2 and 3) and the Overwrite Protection Level can be changed by selecting Tools-&gt;Options-&gt;Media Overwrite.</li> </ul>

### COMMAND LINE UTILITIES

Term	Definition
BEDIAG <system name>	Collects diagnostic information about specified system, or local system if not specified. Can also get Windows event logs and application information. Creates text file BEDIAG.FAX.
BEMCMD	Performs various Backup Exec functions (defining and running jobs; device, media, and monitoring operations). For further information, see Chapter 14 in the Administrator's Guide.
BESTART and BESTOP	Starts and stops the Backup Exec services in the proper order. Useful for troubleshooting.