Why Q/Restore?

The HP Nonstop RESTORE program serially reads every file on a backup tape or tape set until the requested file(s) have been recovered. This is the same regardless of the source of the restore request; DSM/TC, TMF or from a TACL prompt. This requires a read from the tape for every file that is stored on the tape until the restore has been satisfied.

Q/Restore removes this overhead by positioning the tape to the exact location of the files to be retrieved. Our patented algorithms extract file location information from the DSM/TC, Q/Tos and TMF catalogs or from a backup listing file.

This translates to a significant time savings. The results in our lab are as follows:

Backup elapsed time: 4 hours 9 minutes
        Tapes used: 2
        Tape1 files: 4420
        Tape1 bytes: 3644978480
        Tape2 files: 6175
        Tape2 bytes: 3458110941

File restored from Tape2, file offset 6168
        Legacy restore elapse time: 50 minutes
        Q/Restore elapse time: 5 minutes

Granted, we don't have the largest capacity tape cartridges available, but tests run at other sites bear out the relative time savings regardless of the size of the tape. On average, Q/Restore recovers files in 10 to 15 percent of the time that the HP restore program does and the results can be extrapolated to get a reasonable estimate of the amount of time saved. (ex: a 4 hour restore is reduced to about a half an hour).

Since Q/Restore accesses file sets randomly, it is also valuable in retrieving widely scattered file sets stored on multiple volume backups. Q/Restore requests only the tape volumes needed and only reads the areas of the tapes that contain the requested file sets.

Q/Restore is transparent to users and is started by the TMF RECOVER FILES command and the MEDIACOM RECOVER DISKFILE command without any alteration of command syntax.

Because Q/Restore gets it's speed from avoiding unnecessary reads it won't assist in restoring full backups, but since those are rarely done Q/Restore will pay for itself in cutting down idle time caused by the need to perform ad hoc file retrieval.