4.5.2 BatchMagic

The BatchMagic tool provides a comprehensive view of the current tape environment and predictive modeling of workloads and technologies. The general methodology behind this tool involves analyzing SMF type 14, 15, 21, and 30 records, and data that is extracted from the TMS. The TMS data is required only if you want to make a precise forecast of the cartridges to be ordered based on the current cartridge usage that is stored in the TMS catalog.

When you run BatchMagic, the tool extracts data, groups data into workloads, and then targets workloads to individual or multiple IBM tape technologies. BatchMagic examines the TMS catalogs and estimates cartridges that are required with new technology. It also models the operation of a TS7700 and 3592 drives (for TS7700T) and estimates the required resources.

The reports from BatchMagic give you a clear understanding of your current tape activities. They make projections for a TS7700 solution together with its major components, such as 3592 drives, which cover your overall sustained and peak throughput requirements.

Note: BatchMagic is specifically for IBM internal and IBM Business Partner use.

4.5.3 Workload considerations

The TS7700 appears as a group of 3490E subsystems, ranging 16 - 31 Virtual Control Units (depending on installed instances of FC 5275), with a maximum of 496 virtual devices attached per cluster. Any data that can be on a 3480, 3490, 3590, or 3592, previous generations of VTS systems, or cartridges from other vendors, can be on the TS7700. However, processing characteristics of workloads differ, so some data is more suited for the TS7700 than other data.

This section highlights the following important considerations when you are deciding what workload to place in the TS7700:

- Throughput

  The TS7700 has a finite bandwidth capability, as does any other device that is attached to a host system. With 8 Gb and 16 Gb FICON channels and large disk cache repositories that operate at disk speeds, most workloads are ideal for targeting a TS7700.

- Drive concurrency

  Each TS7700 appears to the host operating system as up to the maximum of 496 3490E logical drives. If periods occur during the day when your tape processing jobs are limited by drive availability, the TS7700 might help considerably in the area of processing.

  The TS7700D enables access to multiple logical volumes directly from cache, at disk speed.

  The design of the TS7700T enables access to multiple logical volumes on the same stacked physical volume because access to the logical volumes is solely through the TS7700T TVC. If access is needed to more than one logical volume on a physical volume, this access is provided without requiring any user involvement, unlike some alternatives, such as stacking by using JCL.