



# FASTechnologies, Corp.

*your drill & rout technology experts*

## CassetteMaster™

*Custom-built cassette management, optimized for your work on your machines...*

### CassetteMaster Excellon TMS cassette designer



maximizes cassette  
efficiency, and  
“hands-off” time

reads drill data files

Mode 1 does long-run  
Jobs with no over-loading

Mode 2 does short-run  
Jobs with no over-use

The FASTechnologies CassetteMaster program offers a simple, reliable tool for creating optimized Excellon TMS cassette maps. Drawing heavily from FASTechnologies' extensive drilling CAM technology, CassetteMaster extracts the needed hit counts directly from your CNC drill programs, eliminating hit-count induced errors in the cassette maps. It produces cassette maps and loading diagrams, which maximize cassette “hands-off” time, while minimizing costly cassette over-loading.

CassetteMaster is actually two products in one. CassetteMaster/Mode 1 supports the Mode 1 cassetting style for long runs of an individual part number. The Mode 1 version optimizes not only the cassette maps, but also the actual number of required tools as well: When an odd number of table loads would not fully exhaust the last set of cassettes, the CassetteMaster load diagrams reflect this, preventing wasted tools.

CassetteMaster/Mode 2 creates optimized cassettes for use with a selected group of different part numbers, letting your operators load their drill cassettes only once for the entire group of jobs. This maximizes short-run drilling productivity while reducing wasted tools to a minimum. Even jobs with varying maximum hit counts are handled intelligently, to avoid accidental over-using dull tools.

Smart drilling and routing from FASTechnologies

# CassetteMaster

## program specifications

### general

CassetteMaster supports both mode 1 and mode 2 cassettes. The Mode 1 creates Excellon TMS cassette maps for the tool-number addressing mode, useful for drilling large quantities of a single part number. The Mode 2 creates Excellon TMS cassette maps for the tool-diameter addressing mode, useful for drilling smaller quantities of several different part numbers from one cassette map.

### Cassette styles

CassetteMaster extracts the needed part program hit counts and maximum hit values directly from the CNC drill programs and diameter pages actually used to drill the production jobs. The program allocates cassette space for the needed tool sizes in the pattern, which will result in the maximum utilization of the available cassette space.

### data formats

CassetteMaster supports drilling machines using Excellon 120-tool TMS drill cassettes. The cassette map files generated by CassetteMaster conform to the format specified in the Excellon CNC-7 User Reference Manual, and they are generally compatible with all Excellon software revisions. Support for other cassette types may be available in the future, or upon request: Contact FASTechnologies for details.

Drill hit counts are extracted from actual production drill programs. These programs must be coded in Excellon Format-2, although there is some format flexibility available via a user-defined editing script in the FASTechnologies "Swapper" language. Where diameter pages are used, these must conform to Excellon Format-2. Note that the hit counts accorded to high-level drilling commands such as the "G84" nibbled circle, "G85" nibbled slot, and "M97" "M98" drilled text commands are consistent with the actual hit counts produced on the current revision of the Excellon CNC-6 operating software.

### conflict resolution

A special case occurs in the Mode 2 product when jobs having different maximum hit counts for tools of one diameter are encountered. In this case, CassetteMaster forces the job(s) with the higher maximum hit counts to be listed prior to those with the lower maximum hit counts. The purpose of this is to prevent a tool dulled but not exhausted in a small number of hits (in a tough material) from being overused in a subsequent job. CassetteMaster will refuse to accept different jobs whose conflicting maximum hit counts cannot be consistently resolved in this fashion.

### printed output

CassetteMaster offers printed output of the cassette maps. These printed outputs delineate the needed tool diameters and quantities, as well as depicting a matrix showing the appropriate locations for the tools in the cassette. The matrix may be printed in either a "points up" or a "points down" orientation, based on a user menu selection. In the case of the multi-job Mode 2 version, a listing of the appropriate sequence in which to drill the jobs is also provided.

### system requirements

A PC compatible computer running Microsoft Windows '95, 98, XP, NT 4 or Windows 2000 with one megabyte of available hard disk space. A network connection to the drill file storage directory is recommended.



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