USER'S

MANUAL

TapesAuxiliary – Application for magnetic tapes duplication and diagnostic

IIT, CS 445 – Oleksandr Shashkov

December 10, 2008

Revisions:

Release No.	Date	Revision Description
Rev. 1	12/10/2008	Initial release

1. Introduction

TapeAuxiliary is a stand along utility type application designed for quick diagnostic and duplication of the magnetic tapes. It provides capabilities for tape media and tape drive manipulation and diagnostic procedures as well as duplication functionality. The application usage of this application should extend existing data recovery capabilities for EDD department.

2. Prerequisites

Computer system intended to run the application on must meet the following hardware and software requirements:

1. MS Windows XP or Windows Server 2003 operating system
2. Microsoft .NET Framework Version 2.0 or higher
3. SCSI adapter
4. SCSI tape drive for single tape operation or multiply drives for duplication

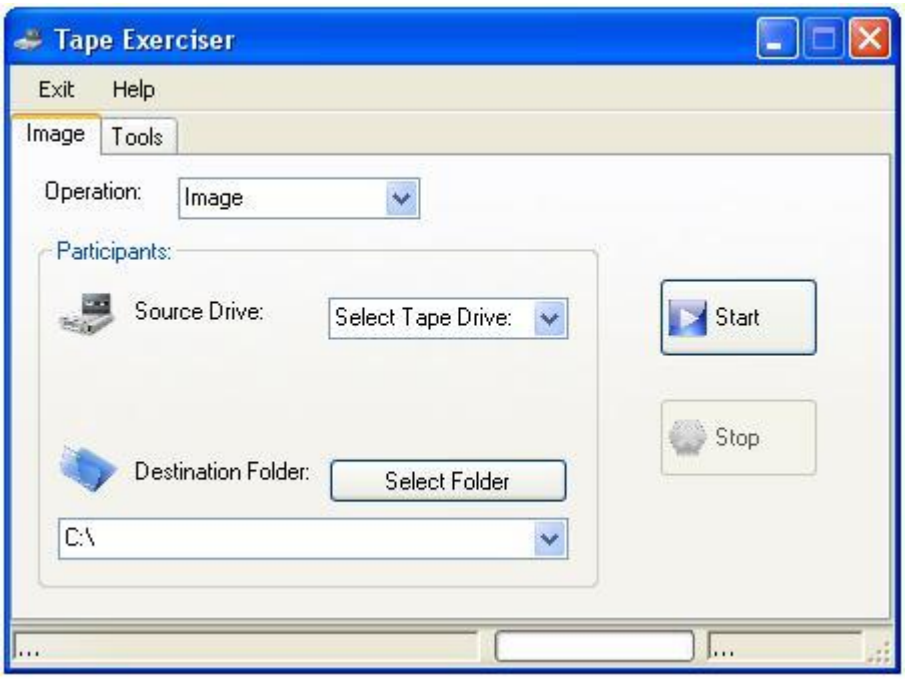
3. Installation

Application designed as a stand along utility and does not require special installation procedures. Executable file may be placed anywhere in the local file system on the host.

4. Operation

Once application lunched, user will see main window with simple GUI. The main window contains menu, status panel and 2 tab pages with their own control items. Menu item “Exit” forces application to close. Menu item “Help” -> ”About” will bring up dialog box with version information.

Main window:

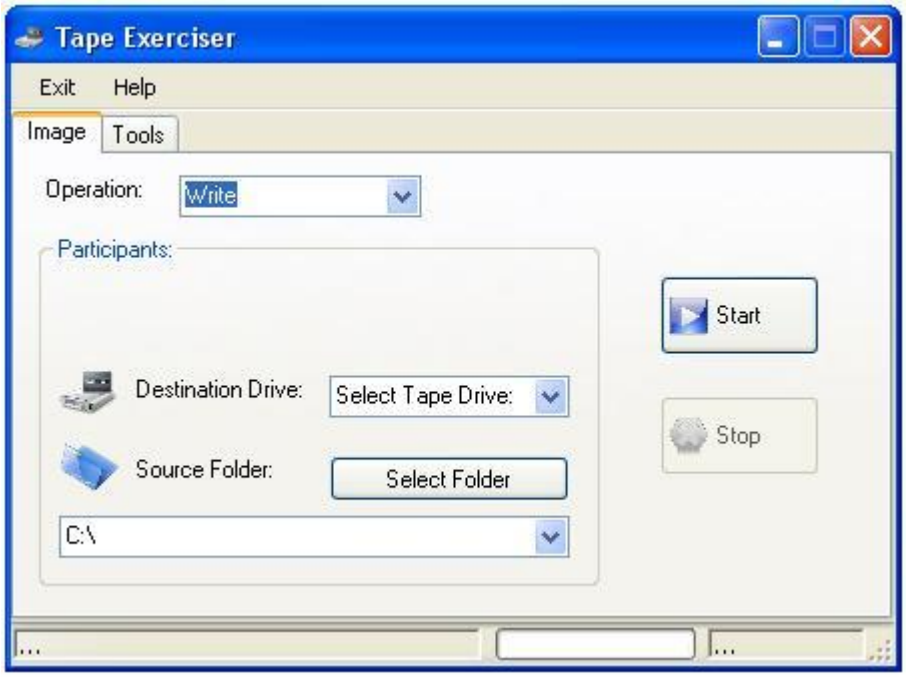


About box:

The first tab page “Image” represents functionality for Imaging and duplicating tape media. Drop down box “Operation” allows user to select desired procedure. The set of control items on this tab page changes dynamically according to selected operation (see pictures below).

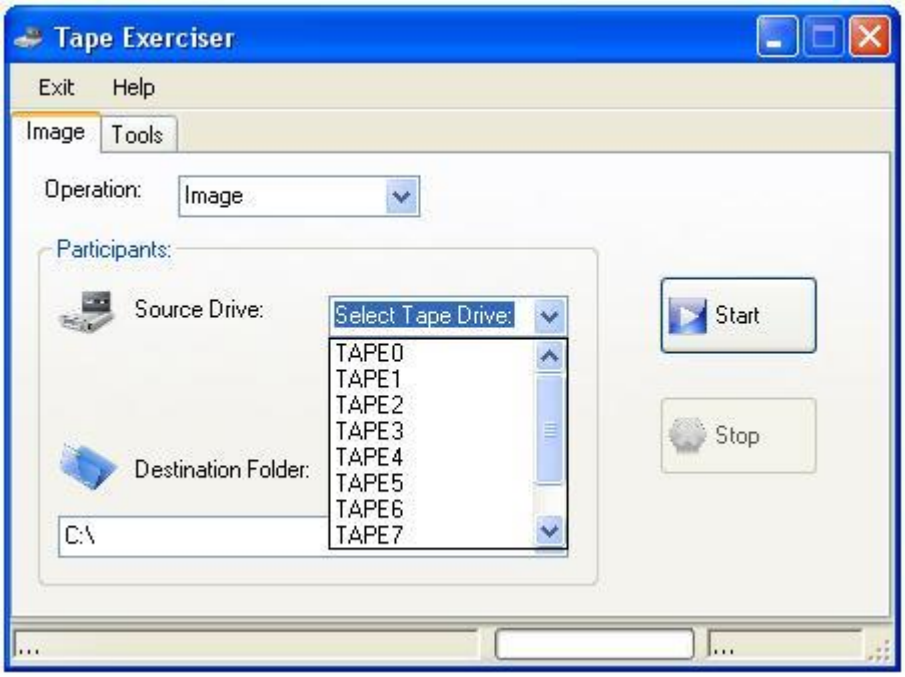
Image operation controls - allows user to save tape contents to the local file system:

Write operation controls – intended for creating tape duplicate from existing image:

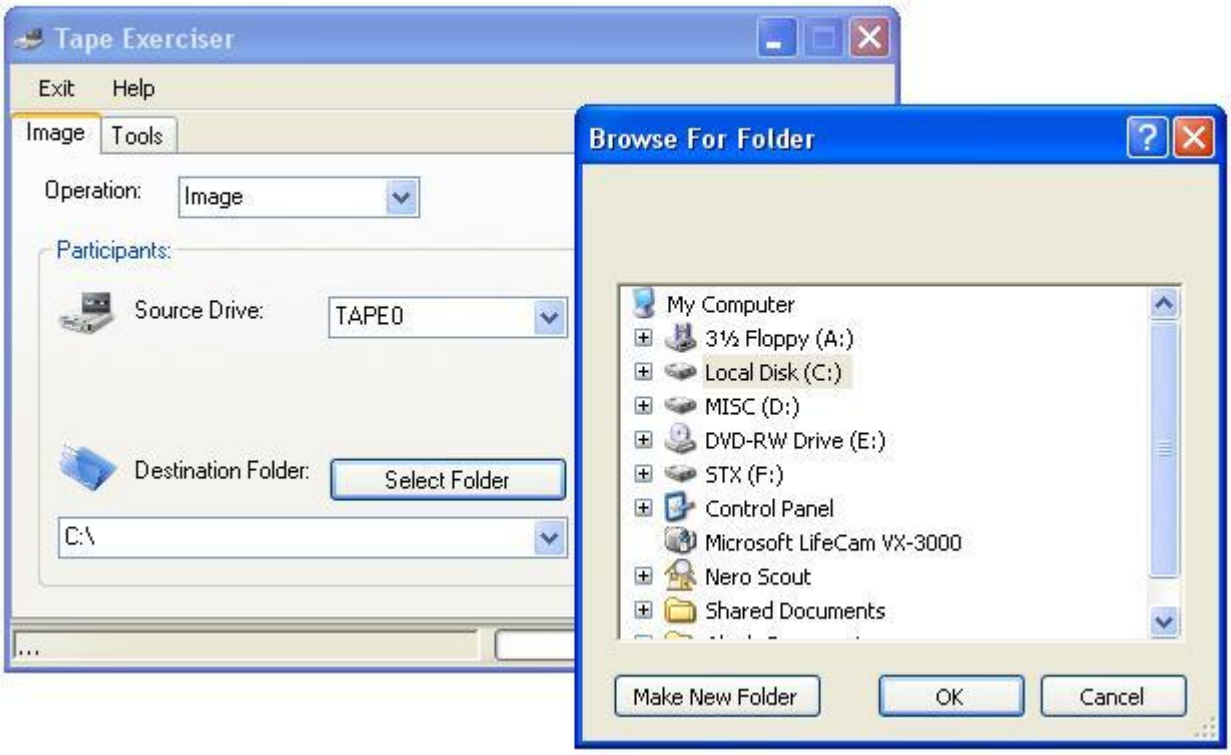


Duplicate operation controls – used for direct “tape-to-tape” duplication:

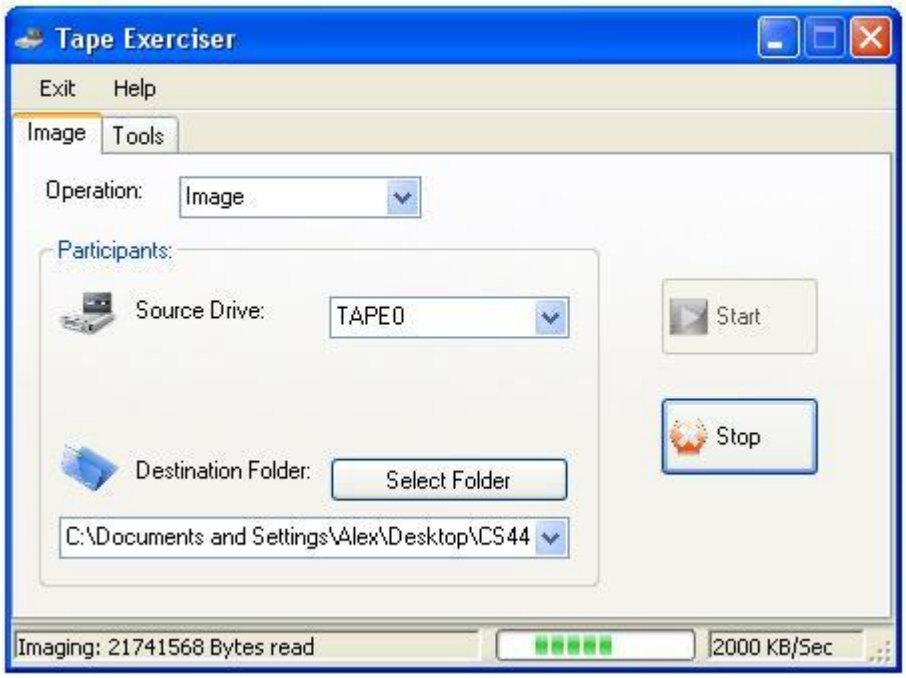
For any type of operation user must select appropriate tape device:



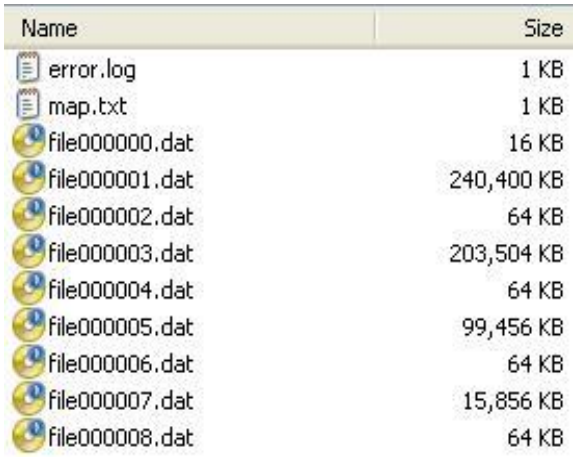
In “Image” case user also required to provide path to the targeting folder:



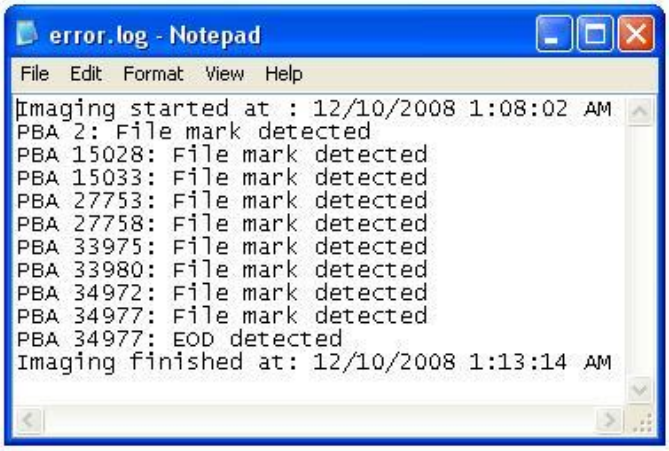
Below is a screenshot for running Imaging operation. Current status is updated through the status panel at the bottom. User may cancel currently running operation at any time by clicking “Stop” button:

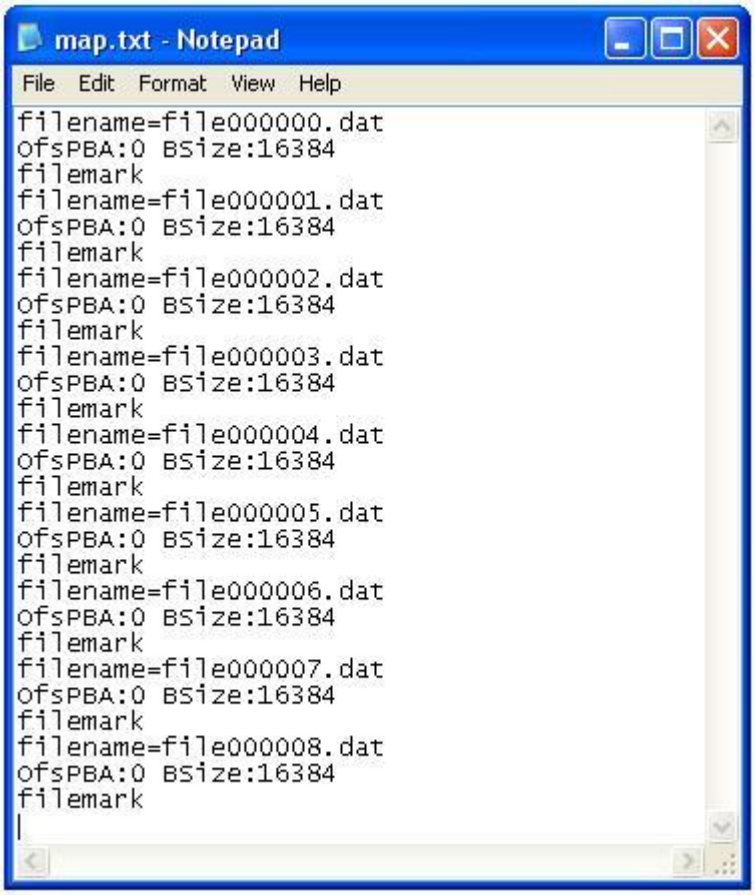


Following 3 pictures represent Imaging operation results. File error.log may help to identify a problem if process was terminated or tape is corrupted. File map.txt represents tape layout. In addition, targeting folder will contain a set of obtained tape files.



Name	Size
error.log	1 KB
map.txt	1 KB
file000000.dat	16 KB
file000001.dat	240,400 KB
file000002.dat	64 KB
file000003.dat	203,504 KB
file000004.dat	64 KB
file000005.dat	99,456 KB
file000006.dat	64 KB
file000007.dat	15,856 KB
file000008.dat	64 KB

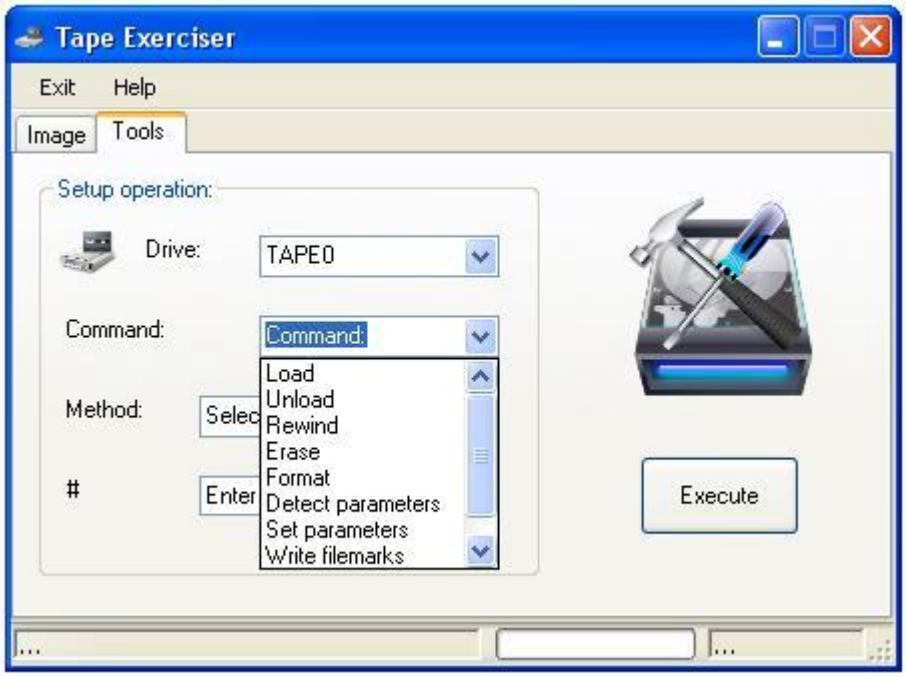




The second tap page “Tools” represents functionality for manipulating with the tape media and drive. User must select tape drive and appropriate command to execute. Some operations require to select additional parameters so the set of control items are updated accordingly. Once all the selection is made, user may execute operation by pressing button on the right.

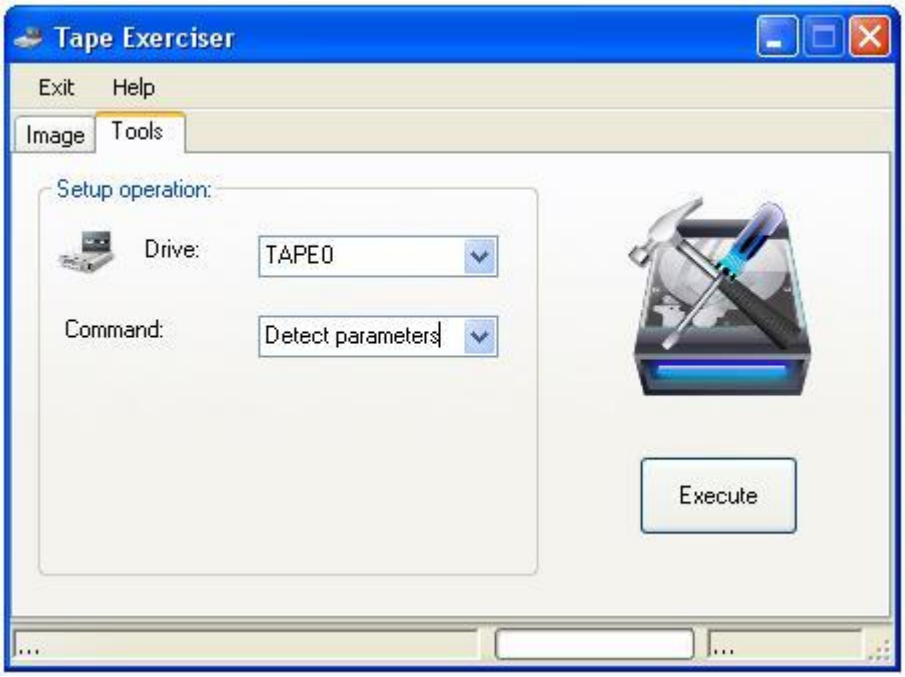
Initial view:

Select command:

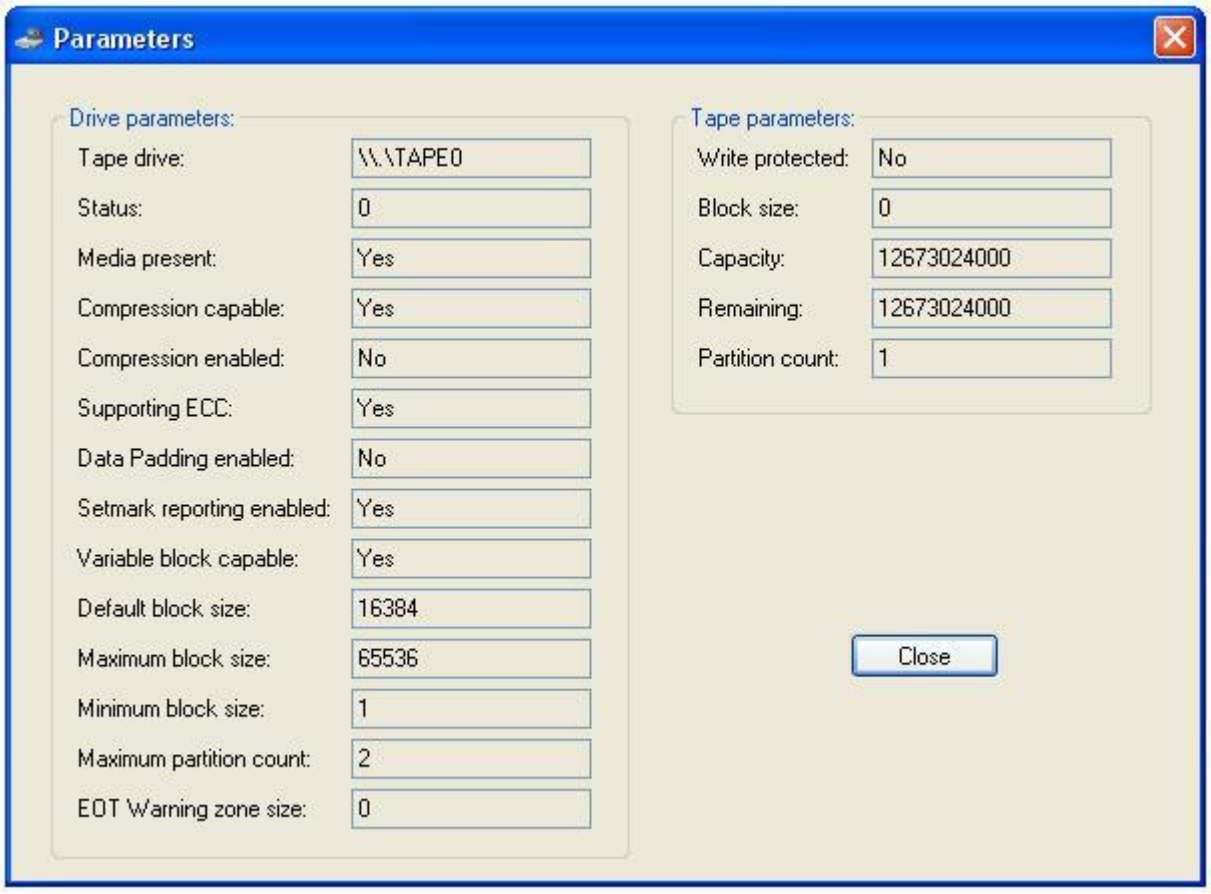


Define method and input additional parameters if required:

The “Detect parameters” dialog activates another dialog box representing information related to the selected tape device:



Detected tape drive and media parameters:



5. Conclusion

This utility type application exercises designed and implemented Tape Engine classes (TapeWinAPI, Image and Map) which are intended for further reuse in future backup restoration, migration and electronic data discovery projects.