Active Data Recovery Software

Active@ NTFS Reader for DOS

User Guide

Version 1.0

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1   PRODUCT OVERVIEW

Active@ NTFS Reader is a compact and powerful DOS utility that can read NTFS volumes from a DOS environment and copy files and folders to drives having a FAT file system.

2 SYSTEM REQUIREMENTS

Minimum system requirements for Active@ NTFS Reader:

- AT compatible CPU with 286 or newer processor
- 640Kb of RAM
- 1.44 Mb floppy diskette drive
- EGA 640x480 or better screen resolution
- Bootable Floppy disk containing MS-DOS 6.0+, or startup disk for Windows 95/98/ME/XP
- IDE/ATA/SCSI hard drive attached to the system to be recovered

3 PRODUCT FEATURES

The list below displays the features of Active@ NTFS Reader for DOS:

- Utility can be saved to and run from a bootable 3.5" floppy
- Displays complete physical and logical drive information
- Supports IDE / ATA / SCSI hard drives
- Supports large sized hard drives (more than 8GB)
- Reads NTFS, NTFS5 file systems
- Writes to FAT12, FAT16, FAT32 file systems
- Supports compressed and fragmented files on NTFS
- Supports partitions created in MS-DOS, Windows 95/98/ME/NT/2000/XP
- Displays non-english (local language fonts) and long file names
- Ability to preview files and folders before copying
- Supports search by file name or partial file name
- Disk Viewer displays content of the file in Hex/Text mode

4 OPERATING PROCEDURES

4.1 Bootable Floppy Disk (Startup Disk) Preparation

Ideally, create a bootable floppy disk before you encounter any problems with an NTFS drive. Once you have a bootable floppy, copy or download the utility to the floppy disk.

If you do not have a bootable floppy disk, you can make one from MS-DOS, Windows 95/98/ME/XP following these steps:

MS DOS Prompt

- Boot the system in MS-DOS or Command Prompt mode.
- Insert a blank floppy and type the format command in the following syntax:

    FORMAT A: /S

- Follow instructions on the screen to complete the process.

WINDOWS 95/98/ME

- Open the Windows "Control Panel".
- Click "Add/Remove Programs".
- Click the "Startup Disk" tab.
- Click "Startup Disk" and follow screen instructions to complete the process.

WINDOWS XP

- Boot the system in Windows XP.
- Insert a blank floppy in the floppy drive.
- Open Windows Explorer and right-click "A:" drive.
- Click "Format".
- Enable the "Create an MS-DOS startup disk" option.
- Click "Start" to complete the process.

4.2 Program Start and Information Display

After encountering a problem with an NTFS drive, retrieve your bootable floppy and boot start the machine from that floppy. Start in DOS mode, or in Command Prompt mode in Windows 95/98.

Follow the steps below:

- Start Active@ NTFS Reader for DOS in drive A: by typing:

  A:\>READNTFS.EXE
- The NTFS Reader program screen appears.
- On the left side of the window you will see the list of detected Hard Disk Drives (HDD).
- HDD Partitions and Logical Drives are displayed in a tree format.
- Deleted partitions and HDD space not occupied by partitions will be displayed as "Unallocated space".
- Select drives or folders by using keyboard arrow keys to move the cursor over listed HDD and logical drives. When the cursor is on a particular drive or folder, that drive or folder is considered to be selected. The selected drive or folder information is displayed in the right pane.

4.3. Scan and Search for Files and Folders

Scan drives and folders to locate deleted files. If you know the exact location of the deleted file or folder, you can select that location right away. Use the methods below to scan for deleted files or folders:

- Select a drive or a folder and press the [Enter] key.

Repeat scanning until you reach the folder where the deleted file or folder is located

Deleted files are marked with a solid mark on the left side. NTFS Reader will locate deleted files and folders and does not allow you to preview or copy deleted files.

Search drives and folders if you do not know the exact location of deleted files. Use the search methods below:

- Select a drive containing files and press [Ctrl+F] on the keyboard. Searching will begin.
- If you know the exact filename or part of the filename, enter this data in the "Search Dialogue type" and press the [Enter] key. Searching will begin.
- You can stop the search process at any time by pressing the [Esc] key.
- If files matching the search pattern are found, the file information is displayed.
- If displayed file information does not list deleted files that you are looking for, press the [Ctrl+F] keys to continue searching.
- If displayed file information lists deleted files that you are looking for, press the [Enter] key to stop searching and go directly to the folder where the file was located or press the [Esc] key to cancel further search.

The asterisk symbol (*) is used as a wild card character. Used during the search process, asterisk is replaced by any allowed possible characters available on the system for search purposes.

The question mark (?) symbol is used for single wild card character and is replaced by any allowed possible character available on the system for search purpose.

Use a search pattern to find deleted files and folders similar to the pattern that is used when performing a search in DOS or Windows.

The table below shoes examples of partial name search expressions:

Table 4-1 Partial Name Search Expressions

Variables	Description
*	All files
*.txt	All files with the extension "TXT"
my*.*	All files that start with the characters "my"
myfile.txt	Search explicitely for the file "myfile.txt"

4.4. Previewing Files

Once deleted files have been found, preview the file contents using Dist Viewer.

Follow the steps below:

- Boot in DOS mode and run Active@ NTFS Reader for DOS.
- Scan or search for files or folders (see section 4.3).
- Select a found file or folder.
- Press the [Enter] key to preview the file in Disk Viewer.

Once Disk Viewer has started, you can switch between Text and Hex views by pressing the [TAB] key.

4.5. Copying Files and Folders

Copy files or folders from NTFS to FAT partiton in order to recovery them.

Follow the steps below:

- Boot in DOS mode and run Active@ NTFS Reader for DOS.
- Scan or search for files or folders (see section 4.3).
- Select a found file or folder.
- (Optionally) preview the file using Disk Viewer (see section4.4)
- Press the [Ctrl + C] keys together to execute the copy command

Note: The number and drive letters in this dialog box may not match with what was displayed in the previous window. This happens because the write operation is performed in DOS real mode and only the FAT drives are visible to the operating system as the output location.

- Use the [Tab] key to move between controls, and press the [Enter] key to change the drive or folder.
- Define the output name and location and press the [Enter] key to start the copying process.
- You can stop the copying process at any time by pressing [Esc].
- If you copy a folder, all files and sub-folders located in the folder tree will be copied to the new location recursively.

4.6. Using Disk Viewer

Disk Viewer allows viewing the contents of a file and accesses any sector composing the file being viewed.

- Run Active@ NTFS Reader for DOS.
- Select the object file to view its sectors.
- Press the [Enter] key to open Disk Viewer.

In the Disk Viewer screen, the Title displays the name of the object to be viewed and the current sector number will be shown below. The rest of the area displays sector contents in Hex view on the left side and Text View on the right side.

- Use arrows, [Home] and [End] keys to scroll the view.
- Use [Page Down] and [Page Up] keys to go to the next or previous sector.
- Press [Ctrl + G] together to go a particular sector.
- Press [Tab] to switch from Hex-and-Text view to Text-Only and back.

4.7. Localized File Names Display

Localized file names are stored on the drive in Unicode format. The Operating System (Windows 95/98/ME/NT/2000/XP) creates filenames based on regional settings. Windows has set of language-specific fonts to handle and display filenames properly.

MS DOS might have local fonts supported but it cannot display filenames in Unicode.

Active@ NTFS Reader can display localized filenames in DOS only if a proper font definition file for the local settings is available.

To prepare this file with font definitions follow these steps:

- From the NTFS Web site, download UNICODE.EXE and save it to the same place where READNTFS.EXE is located.
- Boot the system in Windows 95/98/ME/NT/2000/XP with the correct locale settings and run UNICODE.EXE.
- A file named UNICODE.DAT (65,536 bytes) should be created in the same folder as UNICODE.EXE.
- Reboot the system in DOS mode and run Active@ NTFS Reader for DOS.
- Scan your drive and switch to "Long file names" mode by pressing the [Tab] key

If this process is completed successfully, you should be able to read localized file names.

Note: To be able to see localized filenames you must have support for the local fonts when booted in DOS mode. In other words, display driver for the proper code page must be loaded.

4.8. Long File Names Display

Since the launch of Windows 95, PC filenames have not been limited to the original 8.3 pattern and can have a length of up to 255 characters.

Standard View mode displays all files and folders the same way as DOS does, i.e. in 8.3 format. However sometimes it is not convenient to see only first few symbols of files with longer names.

To display long filenames (up to 36 symbols) follow these steps:

- Boot in DOS mode and run Active@ NTFS Reader.
- Scan the particular drive by pressing the [Enter] key.
- Press the [Tab] key to switch to long filenames view.

4.9. Command Line Parameters

Active@ NTFS Reader for DOS supports a set of command line parameters.

To view them and their definitions, type:

A:\>READNTFS.EXE -?

Below is a list of command line parameters available:

Table 4-2 Parameters for Command Line

Parameter	Description
-lba	Force LBA mode for access to all detected hard drives
-lba=N	Force LBA mode for access to an indicated hard drive where N=[80h,81h,82h,83h]]