

DFSee 8.xx overview, demo - Q&A

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DFSee functionality overview

What is new in version 8.xx

Demos, Questions and Answers

FSYS - *software* **DFSee**

Presentation contents

- Who am I
- DFSee 8.xx functional overview
- Version history, new in version 8.xx
- Demo of several DFSee functions
 - DFSDISK procedure
 - Binary editor
 - File recovery (undelete)
 - Imaging
 - Whatever you like (and is doable :-)

Who am I ?

Jan van Wijk

- Software Engineer, C, Rexx, Assembly, PHP
- Founded FSYS Software in 2001, developing and supporting DFSee from version 4 to 8.xx
- First OS/2 experience in 1987, developing parts of OS/2 1.0 EE (Query Manager, later DB2)
- Used to be a systems-integration architect at a large bank, 500 servers and 7500 workstations
- Home page: <http://www.dfsee.com>

What is DFSee, functional view

- DFSee is an OS neutral utility like FDISK, LVM, PQ-Partition Magic, PQ-Drive-Image Norton-Ghost, Undelete and more ...
- Main areas of functionality:
 - Backup and restore of partitioning information
 - Search missing partitions and recreate them
 - FDISK/LVM create and maintain partitions
 - Imaging, disk-areas to/from (compressed) files
 - Cloning, disk-areas to/from other disk-areas
 - FS-specific: Check, Display, Undelete and Fix
 - Disk data analysis and update (binary edit)

Managing partition info

- Backup/Restore commands Psave/Prestore and the corresponding items in the FDISK menu
- BSFIND command to search lost partitions
- Integrated in DFSDISK procedure, preparing you for a partition recovery when needed.
(Can be done 'post-disaster' as well :-)
- Recovery script usually made (and tested!) based on the DFSDISK result files

Create and maintain partitions

- Use the CR/DELETE commands or menu items to manage the partition tables
- Use the LVM command/menu to create and update the OS/2 or eCS LVM information
- Use the Partition Table Editor (PTE) to directly manipulate table entries
- Use the various SETxx and FIXxx commands to change partition properties and fix errors

Imaging to/from files

- Imaging is a process where DFSee objects like disks or partitions are copied into a regular (often compressed) image-FILE
- The images can be restored to the same or a different object at a later time
- Common usage for imaging is backup and restore, and data transfer between systems (using a network or removable media)

Cloning between objects

- Cloning is a process where sectors from any DFSee object like disks and partitions are directly copied to another DFSee object
 - Disk-to-disk clone, as backup or recovery clone includes all partitioning and LVM info
 - Partition-to-partition clone, mainly for backup
- Special handling possible for bad sector areas
- Like imaging, can use 'smart' technology to skip any unused (freespace) areas in the object

File recovery and undelete

- File recovery is the copying of file-data as a new file on another filesystem, retaining as much of the name, path and file properties as possible
- When targeting files that have been DELETED it is usually called 'UNDELETE'
- For 'normal' files it is often used to recover files from damaged or inaccessible filesystems
- Uses a SEARCH, DISPLAY, RECOVER scenario

DFSee versions and user interface

- DFSee is available in an OS/2 (eCS), DOS Windows-NT/W2K/XP and a Linux version.
- It is a non-graphical text based program, can run from bootdiskette or bootable CD
- Most functions can be run from a MENU interface with additional dialogs
- Much more through a command-line
- Output can go to the screen AND a logfile
- Command scripting capability (recovery)

Major versions

- 1.xx 1994 HPFS browsing/fixing OS/2 16/32-bit
- 2.xx 1997 NTFS, FAT, FDISK, DOS-version
Basic imaging, undelete, setboot
- 3.xx 1999 Windowed UI, BSFIND, NT-version
Ptable save/restore, DFSDISK analysis
- 4.xx 2001 Cloning, Scripting, freespace-wipe
- 5.xx 2002 Menu-system, dialogs, FS-resize, 32-bit DOS
- 6.xx 2003 Linux version, Smart imaging, DFSCHECK
- 7.xx 2005 Win/OS2 installer, Mouse, more dialogs

What is new in DFSee 8.xx

- JFS filesystem support
 - Sector/cluster editor (binary)
 - Direct binary file editing
 - Much better progress reporting
 - FAT12/16/32 formatting capability
 - Better removable-disk support on OS/2
 - Smart imaging/cloning a whole disk
 - Reset bad-sector administration
 - Many small functional enhancements
 - Many bug-fixes
- See DFSHIST.TXT and history web-page

JFS filesystem support

- Display bootsector and superblock information
- Display allocation information, allowing SMART imaging/cloning/wiping as well
- Sector Lookup Table (SLT) and CHECK
- File recovery and undelete including full path and filename (if FS is more or less intact :-)
- Permanently add redundant filename info to the Inodes to aid in later undelete/recovery

Interactive binary editing

- Large window with HEX and ASCII sections
- Variable of lines and columns, user selectable
- Integrated SEARCH facility, highlighted result
- Variable item size, sectors, clusters ...
(in any DFSee object, disk, partition etc)
- Editing of files of any size, with single byte size granularity, including insert and delete at the EOF position (use menu or DFSEEDIT script)

What might be in version 9 ?

- EXT2/EXT3 filesystem support
- Reiser filesystem support
 - Smart image/clone, file recovery/undelete
 - Check, display and fix commands
- Geometry-sniffing, mainly for Linux
- Lots of fixes and enhancements :-)
- Perhaps (graphical) spin-offs with reduced functionality that are much easier to use
 - All functionality mentioned above is tentative, and may change with or without prior notice :-)

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Questions ?

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DFSee 8.xx DEMO topics

- Sector editor, sizing, undo, fill, search
- Binary file edit
- Create, format and use FAT32 partition
- JFS filefind, with SLT
- JFS recovery names
- Smart imaging (JFS)
- DFSDISK dialog
- Virtual disks, DFS -d-, add/remove media
- Recovery example, load .Pdx files
- Run a recovery script