



Freeware für OpenVMS


3D07

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Übersicht



- Freeware CDs
- Inhalt
- Ausgewählte Tools
 - ZIP
 - DISKBLOCK
 - DIX
 - Hein's RMS Tools
 - DFU

3D07 OpenVMS Freeware

2

Freeware CDs



- V1.0 Mai 1995 (OpenVMS V6.2)
- Aktuell: Freeware V6.0 (Oktober 2003 V7.3-2)
- Tools von
 - Benutzern
 - VMS Entwicklern
 - Siehe
[FREWARE]FREWARE_CONTRIBUTORS.TXT

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3

Freeware im Internet



- Über die OpenVMS Homepage
<http://h71000.www7.hp.com/openvms/freeware/>
- FTP Zugriff (V4, V5, V6)
h71000.www7.hp.com

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4

Inhalt Freeware V6.0



- Freeware V6.0 besteht aus 2 CDs
- Datei [000000]00FREEWARE_ABSTRACT.TXT
- Menuegeführter Zugriff:
 - \$ @CD: [FREEWARE] FREEWARE.COM
- Lizenzinformation
[FREEWARE]GNU_GENERAL_PUBLIC_LICENSE.TXT
bzw. Lizenzdatei im Directory

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5

\$ @CD1:[FREEWARE]FREEWARE



OpenVMS Freeware CD-ROM V6.0

<http://www.hp.com/go/openvms/>

General


- FREWARE
- GRAPHICS
- LANGUAGES
- SOFTWARE
- STORAGE_MGMT
- SYSTEM_MGMT
- UTILITIES
- WEB_TOOLS

General

- Freeware Read Me
- Search
- Show All Packages
- Freeware Submission Process
- Freeware Contributors
- Copyright Notice
- Help
- Exit

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6

\$ @CD1:[FREEWARE]FREEWARE


Open

http:

Gener

FREEW

GRAPH

LANGU

SOFTW

STORA

SYSTE

UTILIT

WEB_T

Use AR

UTILITIES

BARCODE - Barcode Software for OpenVMS

CDACVTLIB022 - CDA DDIF file (document) format converters

CDRECORD - CD-R Recording Software

CDRTOOLS - CD-R/RW Recording Tools for OpenVMS

CGI_SCRIPTS - WASD CGI scripts ported to other server environmen

CREMBX - create mailbox from DCL

CURL - command-line URL-based file transfer tool

DCC - Disciplined C Checker

DCL_CHECK - Charlie Hammond's unsupported DCL checker

DCL_DIET - Charlie Hammond's unsupported DCL dieter

DECTERM - xterm key remapping (for use on UNIX Systems)

DIA_ANA_FILES - SDL for Compiler ANA and DIA Files

DISKBLOCK - Editor and performance tests for ODS2 ODS5 and For

DIR - A program to read/modify records in any RMS (seq/r

DSRPLUS - DIGITAL Standard Runoff Plus

DVDARCHREST - Multi-Volume CD and DVD Archives and Restores

DVDRTOLS - DVD-R/RW Recording Tools for OpenVMS

EMACS - The Emacs 21.2 Text Editor

FIND - SEARCH with Replacement Capabilities


FIXUP_IMAGE - Fix an image's shareable image information

FSHELP - A full screen help utility with lots of extra's

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7

Inhalt V6.0 CD 1




[000TOOLS]	Various Useful Tools
[BARCODE]	Barcode Software for OpenVMS
[BLISS.MEM]	BLISS for C Programmers
[BLISS]	BLISS Implementation Language
[CDACVTLIB022]	CDA DDIF file (document) format converters
[CDRECORD]	CD-R Recording Software
[CDRTOOLS]	CD-R/RW Recording Tools for OpenVMS
[CGI_SCRIPTS]	WASD CGI scripts ported to other server environments
[creMBX]	create mailbox from DCL
[cURL]	command-line URL-based file transfer tool
[DCC]	Disciplined C Checker
[DCLHolidays]	Calculation of holidays
[DCL_CHECK]	Charlie Hammond's unsupported DCL checker
[DCL_DIET]	Charlie Hammond's unsupported DCL dieter
[DECxterm]	xterm key remapping (for use on UNIX Systems)
[DFU]	High Performance disk/file utility.

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8

Inhalt V6.0 CD 1...		
[DIA_ANA_FILES]	SDL for Compiler ANA and DIA Files	
[DISKBLOCK]	Editor and performance tests for ODS2 ODS5 and Foreign	
[DIX]	A program to read/modify records in any RMS (seq/relat	
[DQDRIVER]	ATA/ATAPI (IDE) Disk Driver for OpenVMS Alpha	
[DSRplus]	DIGITAL Standard Runoff Plus	
[DVDARCHREST]	Multi-Volume CD and DVD Archives and Restores	
[DVDRTTOOLS]	DVD-R/RW Recording Tools for OpenVMS	
[DWREMTerm]	Start X-Window displays on remote machines	
[Emacs]	The Emacs 21.2 Text Editor	
[FIND]	SEARCH with Replacement Capabilities	
[FIXUP_IMAGE]	Fix an image's shareable image information	
[FREEWARE]	The Master OpenVMS Freeware README File	
[FSHELP]	A full screen help utility with lots of extra's	
[GD]	Library to create graphs from programs	
[GHOSTSCRIPT]	Postscript and PDF interpreter for OpenVMS	
[GNM]	Common-sources tool for messages and documentation	

3D07 OpenVMS Freeware 9

Inhalt V6.0 CD 1...		
[GZIP]	GNU Zip - compress and decompress files	
[HTDIG]	WWW indexing and searching system	
[HTTPD_WASD]	VMS HTTP Server and CGI applications	
[IDEZR]	Remote Virtual Disk	
[IMAGEMAGICK]	Package for display/manipulation of images	
[INDENT]	Indent C Source Code	
[INFO-ZIP]	Zip V2.3 and UnZip V5.5 for OpenVMS	
[JEDIT]	XML Modes for Macro32 and Bliss	
[JPEG]	Library supporting the JPEG format	
[JUMP]	JUMP 4.2 Login as a different user without a password	
[KP_CLUSTERTOOLS]	VMS & Cluster system management tools	
[KP_LOCKTOOLS]	Tools for monitoring and controlling the VMS Lock Mana	
[LD731]	OpenVMS VAX and Alpha Virtual Disk Driver	
[LIBBZ2]	Data Compression Library	
[LYNX]	Text Web Browser	
[INTOUCH]	High-performance 4GL for OpenVMS VAX/AXP systems	
[VMSEAO]	The OpenVMS Frequently Asked Questions (FAQ)	

3D07 OpenVMS Freeware 10

Inhalt V6.0 CD 2



[000TOOLS]	Various Useful Tools
[DECWRITE_RTF]	Read and write RTF with DECwrite
[FREEWARE]	The Master OpenVMS Freeware README File
[MIME_NETSCAPE]	Translate MAIL Extractions into MIME
[MOZPLUGGER]	plugin handler for Mozilla on VMS
[MPG123]	Plays MP3 files from local files or URLs
[MXRN]	DECwindows Motif News Reader
[MySQL]	MySQL Database
[MySQL_4_1_1]	MySQL 4.1.1 for OpenVMS
[NCS_convert]	charset conversion using NCS + conversion library
[NETPERF]	Network Performance Benchmark
[NOTES]	Notes Conferencing Software
[NOTIFY]	Notifies you when an already-submitted batch job is do
[NPCDCL]	DCL routines for clock calendar VT keyboards etc.
[OMI]	A feature rich menu development tool
[Perl]	Powerful scripting language

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11

Inhalt V6.0 CD 2...




[PMFD]	Poor Man's File Defragger (IO\$_MOVE on one file)
[PSPLOT]	Fortran library for creating PostScript files
[Python]	Python V2.3 Programming Language
[REGEDIT]	A program to look at or modify the registry database
[RMS_LOCKS]	Shows all and/or blocked locks for RMS files and recor
[SD]	Another SD SET DEFAULT tool: rich-featured powerful an
[SDL]	Data Structure/Interface Definition Language
[SDLXSD]	XSD generator for SDL VAX/Alpha.
[SHUTDOWN]	Hobbyist cluster shutdown for non-priviledged users
[SIMH302-VMS]	simh with ethernet support for OpenVMS
[Smiley]	Print and explain smileys :-)
[Syltrem]	Determine Global Pages and Sections Requirements
[TBO]	Tool to drift system time
[TCPDUMP-3_7_2]	TCPDUMP and PCAP for OpenVMS
[TELL]	Executes DCL Commands on Remote Nodes via DECnet
[TIDY]	Tidy Fortran Source Code

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12


Inhalt V6.0 CD 2...



[TO]	SET DEFAULT program - saves typing
[TSM]	Terminal Server Manager
[INTOUCH]	High-performance 4GL for OpenVMS VAX/AXP systems
[VILE]	VI-LIKE-EMACS text editor
[VIM]	(Vi IMproved) Vi compatible text editor.
[VMSFAQ]	The OpenVMS Frequently Asked Questions (FAQ)
[VMSTAR]	Tape Archiving Package for OpenVMS
[WINFX]	Windows File Exchange Utility
[WIZARD]	OpenVMS Info from Ask The Wizard
[WOLF3D]	Wolfenstein 3D for OpenVMS
[X10_MONITOR]	Monitor and Control X-10 and Serial Interface Devices
[Xpdf202]	Display/process Adobe PDF files
[XPDF202PL1]	X-Windows based viewer for PDF files
[XStar]	N-body gravity simulation
[Ydecoder]	Yenc decoder for VMS
[ZLIB]	Compression and Decompression Library

3D07 OpenVMS Freeware
13

ZIP



- Zwei verschiedene Tools verfügbar
 - GZIP GNU's ZIP
 - INFO-ZIP Info-ZIP's portabler ZIP V2.3
 und UNZIP V5.5
- Da fast alle Freewaretools als ZIP-Files abgelegt sind, benötigt man ein ausführbares Programm:
 - Für Alpha: CD:[000TOOLS.ALPHA_IMAGES]
 - Für VAX: CD:[000TOOLS.VAX_IMAGES]
 - Für I64: CD:[000TOOLS.IA-64_IMAGES]
- Definition z.B.:


```
$ UNZIP ::= $CD: [000TOOLS.ALPHA_IMAGES] UNZIP
```

3D07 OpenVMS Freeware
14

ZIP...



\$ UNZIP -?

UnZip 5.50 of 17 February 2002, by Info-ZIP. For more details see: unzip -v.

Usage: unzip [-Z] [-opts[modifiers]] file[.zip] [list] [-x xlist] [-d exdir]

Default action is to extract files in list, except those in xlist, to exdir;
file[.zip] may be a wildcard. "-Z" => ZipInfo mode (`unzip "-Z" for usage).

-p extract files to pipe, no messages	-l list files (short format)
-f freshen existing files, create none	-t test compressed archive data
-u update files, create if necessary	-z display archive comment
-x exclude files that follow (in xlist)	-d extract files into exdir

3D07 OpenVMS Freeware

15

ZIP...



modifiers:	-q quiet mode (-qq => quieter)
-n never overwrite existing files	-a auto-convert any text files
-o overwrite files WITHOUT prompting	-aa treat ALL files as text
-j junk paths (do not make directories)	-v be verbose/print version info
"-C" match filenames case-insensitively	"-L" make (some) names lowercase
"-X" restore owner/protection info	"-V" retain VMS version numbers
	"-M" pipe through "more" pager

Examples (see unzip.txt for more info):


unzip data1 -x joe => extract all files except joe from zipfile data1.zip

unzip "-V" foo "Bar" => must quote uppercase options and filenames in VMS

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16

DISKBLOCK




DISKBLOCK features

- work with the blocks on a volume at the logical level
- no file system synchronization!!!
- read/modify/update disk blocks
- ODS2 and ODS5 aware
- also works on foreign mounted disks
- features for basic performance tests included
- available at

<http://h71000.www7.hp.com/freeware/freeware60/diskblock058/>

3D07 OpenVMS Freeware 17

DISKBLOCK



```
$> mc diskblock

                                DISKBLOCK T5.8
Copyright (c) Hewlett Packard 2002.  All rights Reserved.


This software can and WILL corrupt disks if it is mis-used,
use it with care and back everything up before you start.

                                Type HELP for instructions

DISKBLOCK> select $1$dkb200
DISKBLOCK> read 123456
%DSKB-I-BLKREAD, Block 123456 (%X0001E240) of _$1$DKB200
  successfully read
DISKBLOCK> dump
```

3D07 OpenVMS Freeware 18

DISKBLOCK



```


DISKBLOCK> dump

00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0000
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0020
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0040
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0060
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0080
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00A0
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00C0
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00E0
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0100
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0120
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0140
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0160
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 0180
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 01A0
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 01C0
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 01E0

DISKBLOCK> deposit %x1A0 %xFF
DISKBLOCK> rewrite
    
```

3D07 OpenVMS Freeware
19

DISKBLOCK




```

DISKBLOCK> sel $1$dka0/override
%DSKB-I-DESEL, _$1$DKA0 has been deselected
DISKBLOCK> read/scb
%DSKB-I-BLKREAD, Block 4505607 (%X44C007) of $1$DKA0 successfully read
DISKBLOCK> dump/scb

                Storage Control Block
Structure Level:                2,1
Cluster Size:                   9
Volume Size:                    9011200 (%X00898000)
Blocking Factor:                1
Sectors per Track:              64 (%X00000040)
Tracks per Cylinder:           16 (%X00000010)
Number of Cylinders:            8800 (%X00002260)
Status:                         14 (%X0000000E)
    Map Pre-Allocated
    File Numbers Pre-Allocated
    Quota file is dirty
Status2:                        8 (%X00000000)
    Quota file is dirty
Write Count:                    2
    
```

3D07 OpenVMS Freeware
20

DISKBLOCK




```

Volume Lock Name:           AXPVMS
Mount Time                 8-APR-2004 08:44:50.74
Backup Revision Number:    8 (%X0008)
Generation Number:        17-NOV-1858 00:00:00.00
Virtual Unit:              <none>
Shadow Status:             0 (%X0000)
Shadow Member 0 Status:    0 (%X00)
Shadow Member 1 Status:    0 (%X00)
Shadow Member 2 Status:    0 (%X00)
Member IDs:                <none>
                           <none>
                           <none>
SCB LBN:                   0 (%X00000000)
Number of Devices:         0
Number of Full Members:    0
Master Index:              0
Number of Merge copy targets: 0
Number of Full Copy Targets: 0
Checksum: (Valid)         38344 (%X95C8)

```

3D07 OpenVMS Freeware
21

DISKBLOCK



```

DISKBLOCK> test/duration=20

About to start testing with the following parameters...
Device:                _$1$DKB200:
Test Duration:         20 Seconds
Read/Write Ratio:     100:0
Queue Length:         20 (Asynchronous I/Os)
I/O Size:              1
Start Block:          0
End Block:             8380079
Seeks:                 Random
Data Compare:         Disabled
Do you want to continue? <YES/NO>: yes

Total I/Os completed: 2933
Run time:              21 Seconds
I/Os per second:      139.7
mS per I/O:           7.2
Throughput:            69.8 KBytes per second

```

3D07 OpenVMS Freeware
22

DIX



DIX features

- lets you view/modify records in any RMS file
- 3 modes: full-screen/interactive/batch
- powerful interpretation of record structure based on definition files
- access modes: sequential, string search, keyed, by record number
- can follow inter-file dependencies
- bypasses RMS
- available at

<http://h71000.www7.hp.com/freeware/freeware60/dix/>

DIX



```
$> dix/inter sys$system:sysuaf.dat
```

```
%DIX-I-USINGFIL, Using file  
SYS$COMMON: [SYSEXE] SYSUAF.DAT;2/NOMOD
```

```
%DIX-I-USINGDES, Using description  
$1$DKA4: [USERS.] [LAUER.DIX] DIX_DES.TLB;1 (SYSUAF)
```

```
DIX>read/key=0/eq=LAUER
```

```
DIX>set screen_mode
```

DIX

File : SYSSCOMMON:[SYSEXE]SYSUAF.DAT;2 Var/Idx
 Recsize:644 Offset:360.0 Compres:No Mode:Interpreted
 Des file :\$!\$DKA4:[USERS.] [LAUER.DIX]DIX_DES.TLB;1(SYSUAF)

4.0	UAF\$T_USERNAME	LAUER
36.0	UAF\$W_MEM	0000
38.0	UAF\$W_GRP	0000
40.0	UAF\$L_SUB_ID	0
44.0	UAF\$Q_PARENT_ID(1)	0
48.0	UAF\$Q_PARENT_ID(2)	0
52.0	UAF\$T_ACCOUNT	SOFTWARE
84.0	UAF\$T_OWNER	Thilo Lauer, SW Qual.
116.0	UAF\$T_DEFDEV	USERS\$ROOT:
148.0	UAF\$T_DEFDIR	[LAUER]
212.0	UAF\$T_LGICMD	LOGIN
276.0	UAF\$T_DEFCLI	DCL
308.0	UAF\$T_CLITABLES	DCLTABLES
340.0	UAF\$Q_PWD(1)	
344.0	UAF\$Q_PWD(2)	
348.0	UAF\$Q_PWD2(1)	00000000
352.0	UAF\$Q_PWD2(2)	00000000
356.0	UAF\$W_LOGFAILS	0
358.0	UAF\$W_SALT	4337
360.0	UAF\$B_ENCRYPT	PURDY_S
361.0	UAF\$B_ENCRYPT2	PURDY_V

3D07 OpenVMS Freeware
25


DIX

```

    BYTE          UAF$B_RTYPE          ! UAF-record type
    BYTE          UAF$B_VERSION        ! UAF format version
    INTEGER*2     UAF$W_USRDATOFF      ! offset of counted string of user data
    CHARACTER*32  UAF$T_USERNAME
    INTEGER*2/OCTAL  UAF$W_MEM          ! member subfield
    INTEGER*2/OCTAL  UAF$W_GRP          ! group subfield
    INTEGER*4      UAF$L_SUB_ID        ! user sub-identifier
    INTEGER*4      UAF$Q_PARENT_ID(2)
    CHARACTER*(32) UAF$T_ACCOUNT
    STRING*31     UAF$T_OWNER
    STRING*31     UAF$T_DEFDEV
    STRING*63     UAF$T_DEFDIR
    STRING*63     UAF$T_LGICMD
    STRING*31     UAF$T_DEFCLI
    STRING*31     UAF$T_CLITABLES
    INTEGER*4/HEX  UAF$Q_PWD(2)
    INTEGER*4/HEX  UAF$Q_PWD2(2)
    INTEGER*2     UAF$W_LOGFAILS      ! count of login failures
    INTEGER*2     UAF$W_SALT          ! random password salt
    BYTE          UAF$B_ENCRYPT [0=AD-II,1=PURDY,2=PURDY_V,3=PURDY_S,127=DEFAULT]
    BYTE          UAF$B_ENCRYPT2 [0=AD-II,1=PURDY,2=PURDY_V,3=PURDY_S,127=DEFAULT]
    BYTE          UAF$B_PWD_LENGTH    ! minimum password length
    byte         %filler
    date*8        UAF$Q_EXPIRATION
    date*8        UAF$Q_PWD_LIFETIME
    date*8        UAF$Q_PWD_DATE
    date*8        UAF$Q_PWD2_DATE
    date*8        UAF$Q_LASTLOGIN_I
    ...
    
```

3D07 OpenVMS Freeware
26

RMS_TUNE_CHECK




RMS_TUNE_CHECK features

- easy-to-use tool to detect performance issues in indexed files
- absolutely no RMS knowledge needed
- developed to cover common, real-life application impacts
- bypasses RMS
- available at

http://h71000.www7.hp.com/freeware/freeware50/rms_tools/

3D07 OpenVMS Freeware 27

RMS_TUNE_CHECK




RMS_TUNE_CHECK analyses and detects


- **SIDR** (Excessive duplicate key chains in alternate key)
- **ROOT** (Reasonable root level based on size)
- **KEYS** (Too many keys! (pos0, pos0, pos0,...))
- **SKIP** (First sequential GET needs many IO)
- **RRVS** (Excessive RRV count in sample)
- **RECS** (Low number of records/bucket in sample)

←

If you see one (or more) of these keywords, just give us a call!
We WILL improve your performance!



3D07 OpenVMS Freeware 28



RMS_TUNE_CHECK

```

$> RMS_TUNE_CHECK -t -k=1 sys$system:sysuaf.dat
- RRVs: 23 moved records in 116 records sampled. 19.0%. Convert! Smaller fill?
- RECS: Only 116 records in 34 buckets sampled. 3.4 rec/bkt. Inefficient?


Key 1

Found 118 sidr records in 2 buckets
There were 116 user data record pointers.
There were 102 deleted, 0 RU_delete and 0 RU_update pointers.

Top Ten Table of Sidrs with more than 1 duplicate

Duplicate count, Buckets, Key value
-----
    50          1    00800080
    22          1    001E000E
     6          1    001E0019
     5          1    00010004
     5          1    0FFF0491
     5          1    3FFE0001
     3          1    001E0011
     3          1    001F000A
     3          1    00FE00FB
     2          1    00000000
  
```


3D07 OpenVMS Freeware 29



OpenVMS Freeware DFU

- Hilft bei Problemen mit Disk/Directory/File
- Sehr Performant
- Enthält Funktionalität welche nicht in DCL verfügbar sind
- Unterstützt ODS2 / ODS5 (V3.0 für >=V7.3-1)
- Alle Arten von Disks / Volumesets / Shadowsets / Stripesets / RAIDxx etc...

3D07 OpenVMS Freeware 30




OpenVMS Freeware DFU

- Wo ist das Tool zu finden ?
- Auf der Freeware CD V6
- Im Internet auf
www.openvms.compaq.com/freeware
- Installation:

```
$ product install dfu
```
- Aufruf

```
$ mc dfu
```


3D07 OpenVMS Freeware 31



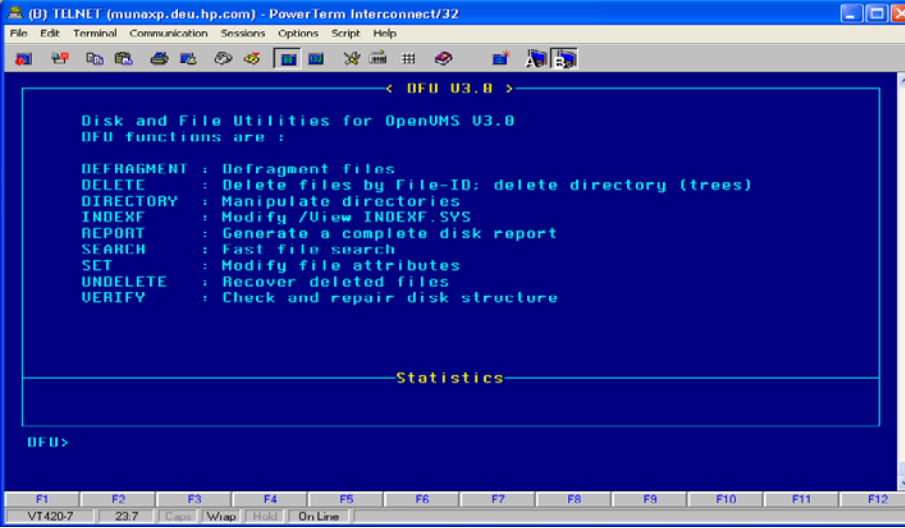
OpenVMS Freeware DFU

- Privilegien
BYPASS !
- Quota
Ausreichend ! (siehe Dokumentation)
- Anzeige verwendet VMS SMG


3D07 OpenVMS Freeware 32



OpenVMS Freeware DFU



3D07 OpenVMS Freeware 33



OpenVMS Freeware DFU

- DFU> SEARCH disk/SIZE=MINIMUM=1000
files > 1000 blocks
- DFU> SEARCH disk/IDENT=SYSTEM
files owned by SYSTEM
- DFU> SEARCH disk/FRAGMENT=MINIMUM=10
files with at least 10 fragments
- DFU> SEARCH disk/CHAR=MARKED
all files marked for delete
- DFU> SEARCH dsk/CREATED=SINCE=YESTER
all files created since YESTERDAY

3D07 OpenVMS Freeware 34

Questions?

