**Freeware Open
Source Software
for OpenVMS**

VTfm

**The Norton Commander Style
Video Terminals file manager**

Release:	**2.3-A**
Operating system:	**HP OpenVMS**
Architectures:	**VAX, Alpha, Itanium (IA64)**

1. Introduction

Hi and congratulations with usage of VTfm – the Norton Commander Style Video Terminals file manager! It was developed by me *especially for DEC VT-series terminals and OpenVMS operating system for DEC VAX, Alpha and Intel Itanium (IA64) architectures*. Also you can use VTfm with *terminal emulators*, which can emulate DEC VT-series terminals (PowerTerm, for example).

VTfm is *a freeware open source* program, which developed on DEC C V6.0 language and uses the following OpenVMS facilities:

- **LIB** *(RTL Library),*
- **RMS** *(Record Management Services),*
- **SMG** *(RTL Screen Management),*
- **STR** *(RTL String Manipulation),*
- **SYS** *(System Services),*
- **TPU** *(Text Processing Utility).*

1.1 Current features

- ✓ *Working **technique is similar to well known Norton Commander program**, i.e. navigate through disk directory content with use of **<Up/Down>** arrow or **<Next/Prev>** keys and enter into subdirectory and back with use of **<Return> (<Enter>)** key.*
- ✓ ***Select and UnSelect** files by wildcard mask with use of **<Sel/Rem>** keys or manually with use of **<Ins>** key.*
- ✓ ***Files filtering** in directory panels by wildcard mask with use of **<Find>** key.*
- ✓ ***One touch View and Edit** file content with use of **integrated TPU editor**.*
- ✓ ***Copy, Rename, Move and Delete disk directory trees**.*
- ✓ *Works with **OpenVMS Extended File Specifications on ODS-5** volumes.*
- ✓ *Supports DEC **VT-terminal modes with more than 24×80 rows/columns**.*
- ✓ ***Direct going to any disk directory** in the OpenVMS cluster.*
- ✓ *Supports **logicals** when GotoDirectory, Copy, Rename and Move files (SYS$LOGIN, SYS$MANAGER, SYS$SYSTEM, SYS$COMMON, SYS$SCRATCH, SYS$DISK etc.).*
- ✓ ***Rotating directory panels** from the default **LEFT/RIGHT to UP/DOWN orientation** and back for view long file specifications.*
- ✓ *Switching view of **file size from blocks to bytes** and back.*
- ✓ ***Command line is up to 4K characters** (with OpenVMS V8.0 and later).*
- ✓ ***Environment file** for storing environment information when exit VTfm.*

1.2 Current restrictions

- ▪ *supports **only LOCAL or CLUSTERWIDE disk** devices when GotoDirectory, Copy, Rename, Move or Delete (if need to use **NODE** specification use VTfm command line);*
- ▪ *does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in directory specification when GotoDirectory, Copy, Rename or Move;*
- ▪ *does not open any archive files (use correspondent utility in VTfm command line).*

2. Installation

The VTfm installation process is very simple and includes the following two steps:

- *Unzip* VTFM.ZIP kit in some directory and then use the following DCL commands

    $ SET DEFAULT [.VTFM]
    $ @VTFM.COM

    The result of this operation is VTfm executable VTFM.VAX_EXE for VAX, VTFM.ALPHA_EXE for ALPHA or VTFM.IA64_EXE for ITANIUM (IA64).

- *Define* DCL symbol for VTfm executable. For example, for Alpha architecture define

    $ VTFM :== $DEV:[DIR]VTFM.ALPHA_EXE

    where DEV and DIR are device and directory where you built VTfm executable.

Now you can invoke VTfm with the command:

    $ VTFM

Notes

1. If result of command "$ @VTFM.COM" is not successful (for example, if you have older DEC C compiler) try to edit VTFM.COM file and modify line

    "$ cc/nodebug/…"
        to
    "$ cc/standard=vaxc/nodebug/…"

2. If you receive a message about *exceeded quota* when execute "$ @VTFM.COM" or invoke VTfm then *increase Pgflquo* quota for your account.

2.1 Terminal settings

VTfm uses terminal characteristics, which was set *before* VTfm invocation. So, you must use default 80×24 width/page (columns/rows) or set numbers of terminal columns you wish for VTfm with, for example, the following DCL command

    $ SET TERMINAL/INQUIRE/WIDTH=132

2.2 TPU settings

VTfm includes an integrated TPU facility, which also uses settings that was set for it *before* VTfm invocation. For example, if you wish EDT-style keypad functionality for VTfm integrated TPU you can define logical name EVE$KEYPAD with the following DCL command
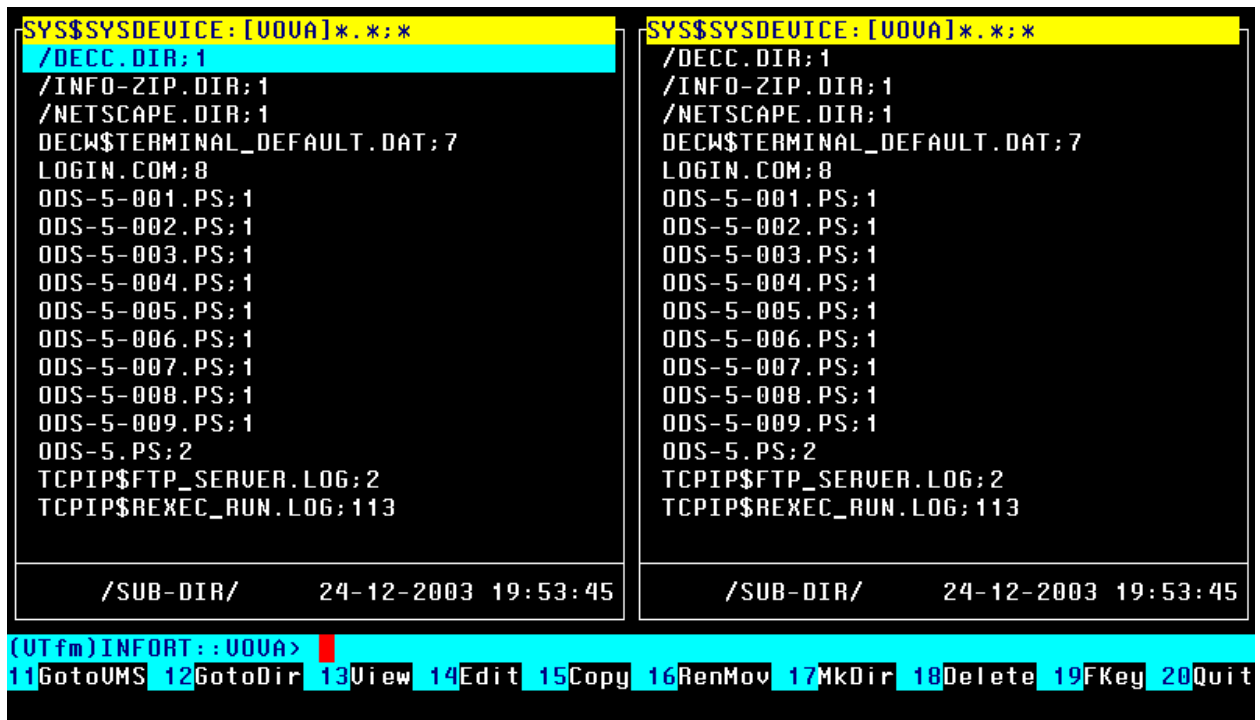
    $ DEFINE/NOLOG EVE$KEYPAD EDT

3. VTfm usage

After invoke VTfm you will see the following splash screen

When you press a some key, VTfm reads your **SYS$LOGIN** (home) directory or directories from your **environment file** (if it exists, see *3.19*) and shows the following screen

As you see, this screen consists of two *directory panels*: left and right.

When you work with VTfm, the top highlighted (*yellow* in our example) line of each panel shows the current default directory and the current files *filter wildcard mask* for this panel. This line called *a panel header* or *directory line*.

Lower the panel header you can see a directory *files list* where current file is highlighted with the *file bar* (*cyan* in our example). At top of files list VTfm shows files with DIR extension which also marked with the first slash "/" symbol.

Lower the directory files list there is *a statistics line*, where you can see brief information about current file of directory panel. If current file is a directory then VTfm shows it type: /SUB-DIR/, /UP-DIR/ or /ROOT-DIR/. If current file is *not* a directory then VTfm shows it size in blocks (the default) or bytes. In both cases VTfm also shows the current file creation date and time.

The next line of VTfm screen is *a command line*, which contains a *cursor* (*red* block in our example) and starts with *a prompt*, which consists of:

- **(VTfm)** - VTfm *mark*,
- **INFORT::** - OpenVMS *node name*,
- **VOVA** - OpenVMS *user name*.

Command line can contain up to 255 characters for OpenVMS of versions prior 8.0 and up to 4K characters for OpenVMS of version 8.0 and later.

The bottom line of the screen is *a menu line*, which contains VTfm *operation keys* description:

- 11 **GotoVMS** - **<F11>** *enter to DCL environment*,
- 12 **GotoDir** - **<F12>** *direct going to some disk directory*,
- 13 **View** - **<F13>** *view the content of current file*,
- 14 **Edit** - **<F14>** *edit the existent or create new text file*,
- 15 **Copy** - **<Help>** *copy a current or selected files*,
- 16 **RenMov** - **<Do>** *rename/move a current or selected files*,
- 17 **MkDir** - **<F17>** *make a directory*,
- 18 **Delete** - **<F18>** *delete a current or selected files*,
- 19 **FKey** - **<F19>** *quick help (brief description of other function keys)*,
- 20 **Quit** - **<F20>** *quit VTfm*.

The following sections of this guide discuss the actions of these operation keys.

3.1 Navigation through directory panels

For navigation through directory panels VTfm uses the technique, which is similar to well known Norton Commander program, i.e. to navigate through disk directory content you can use *Down/Up* arrow keys (for move to the next or previous file) or *Next/Prev* keys (for move to the next or previous panel page).

For move to BOTTOM/TOP of panel press *<PF1>+<Next>* or *<PF1>+<Prev>* keys.

For switch to another panel simply press *<Tab>* key.

If you wish to *enter into subdirectory* then move to the directory file (DECC.DIR;1 on the previous screen) and press *<Return>* (*<Enter>*) key. The following screen is a result of such action

```
SYS$SYSDEVICE:[VOVA.DECC]*.*;*          SYS$SYSDEVICE:[VOVA]*.*;*
 ..                                      /DECC.DIR;1
 /FREEWARE-CD.DIR;1                      /INFO-ZIP.DIR;1
 /NETSCAPE.DIR;1                         /NETSCAPE.DIR;1
 /VTFM.DIR;1                             DECW$TERMINAL_DEFAULT.DAT;7
 DECW$TERMINAL_DEFAULT.DAT;10            LOGIN.COM;8
 LOGIN.COM;10                            ODS-5-001.PS;1
 TCPIP$FTP_SERVER.LOG;13                 ODS-5-002.PS;1
 TCPIP$FTP_SERVER.LOG;12                 ODS-5-003.PS;1
 TCPIP$FTP_SERVER.LOG;11                 ODS-5-004.PS;1
 TCPIP$REXEC_RUN.LOG;45                  ODS-5-005.PS;1
 VVE$PROFILE.VVE$DAT;1                   ODS-5-006.PS;1
                                         ODS-5-007.PS;1
                                         ODS-5-008.PS;1
                                         ODS-5-009.PS;1
                                         ODS-5.PS;2
                                         TCPIP$FTP_SERVER.LOG;2
                                         TCPIP$REXEC_RUN.LOG;113

       /UP-DIR/     24-12-2003 19:53:45         /SUB-DIR/     24-12-2003 19:53:45

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

For *return to the up-directory* move to the top line of panel with two initial periods ".." and also press *<Return>* (*<Enter>*) key

```
SYS$SYSDEVICE:[VOVA]*.*;*                SYS$SYSDEVICE:[VOVA]*.*;*
 /DECC.DIR;1                             /DECC.DIR;1
 /INFO-ZIP.DIR;1                         /INFO-ZIP.DIR;1
 /NETSCAPE.DIR;1                         /NETSCAPE.DIR;1
 DECW$TERMINAL_DEFAULT.DAT;7             DECW$TERMINAL_DEFAULT.DAT;7
 LOGIN.COM;8                             LOGIN.COM;8
 ODS-5-001.PS;1                          ODS-5-001.PS;1
 ODS-5-002.PS;1                          ODS-5-002.PS;1
 ODS-5-003.PS;1                          ODS-5-003.PS;1
 ODS-5-004.PS;1                          ODS-5-004.PS;1
 ODS-5-005.PS;1                          ODS-5-005.PS;1
 ODS-5-006.PS;1                          ODS-5-006.PS;1
 ODS-5-007.PS;1                          ODS-5-007.PS;1
 ODS-5-008.PS;1                          ODS-5-008.PS;1
 ODS-5-009.PS;1                          ODS-5-009.PS;1
 ODS-5.PS;2                              ODS-5.PS;2
 TCPIP$FTP_SERVER.LOG;2                  TCPIP$FTP_SERVER.LOG;2
 TCPIP$REXEC_RUN.LOG;113                 TCPIP$REXEC_RUN.LOG;113

       /SUB-DIR/     24-12-2003 19:53:45         /SUB-DIR/     24-12-2003 19:53:45

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Note that after return to up-directory the file bar *highlights* its file DECC.DIR;1.

3.2 FKey <F19> (quick help)

For further discussion we need description of additional function keys, which can be seen after pressing of *<F19>* key

```
SYS$SYSDEVICE:[VOVA]*.*;*            SYS$SYSDEVICE:[VOVA]*.*;*
  /INFO-ZIP.DIR;1                      /DECC.DIR;1
  /NE ┌──────────────────── FUNCTION KEYS ─────────────────────┐
  DEC │ PANELS:                      OTHER:                     │
  LOG │   Switch panels    <Tab>     Next dir page      <NextScr>│
  ODS │   Rotate panels    ^W        Bottom of dir   <PF1>+<NextScr>│
  ODS │ CURSOR MOVEMENT:              Previous dir page   <PrevScr>│
  ODS │   Chars          arr L/R     Top of dir      <PF1>+<PrevScr>│
  ODS │   Lines          arr U/D     Find file(s) by name   <Find>│
  ODS │   Beg of line      ^H        Select file(s) by name <Select>│
  ODS │   End of line      ^E        Unselect file(s) by name <Remove>│
  ODS │ DELETE:                      Select/Unselect curr file <InsHere>│
  ODS │   Char        <BackSpace>    File(s) size in blocks/bytes   ^B│
  ODS │   Line           <PF4>       Insert curr file name into command ^F│
  ODS │   Beg of line     ^U         Insert curr dir name into command  ^D│
  TCP │                              Extract previous command       ^U│
  TCP │ EXECUTE:        <Return>     Extract next command           ^N│
  THI │ ESCAPE:          <KP0>       Refresh screen                 ^R│
  TPU └ Press any key...                                        G_EX┘

       1 block       6-01-2005 20:40:41      /SUB-DIR/    24-12-2003 19:53:45

(VTfm)INFORT::VOVA>  █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

3.3 Rotation of directory panels

Press some key to delete the "FUNCTION KEYS" window. On the next screen you see that current left panel file has a long specification

```
SYS$SYSDEVICE:[VOVA]*.*;*            SYS$SYSDEVICE:[VOVA]*.*;*
  /INFO-ZIP.DIR;1                      /DECC.DIR;1
  /NETSCAPE.DIR;1                      /INFO-ZIP.DIR;1
  DECW$TERMINAL_DEFAULT.DAT;7          /NETSCAPE.DIR;1
  LOGIN.COM;8                          DECW$TERMINAL_DEFAULT.DAT;7
  ODS-5-001.PS;1                       LOGIN.COM;8
  ODS-5-002.PS;1                       ODS-5-001.PS;1
  ODS-5-003.PS;1                       ODS-5-002.PS;1
  ODS-5-004.PS;1                       ODS-5-003.PS;1
  ODS-5-005.PS;1                       ODS-5-004.PS;1
  ODS-5-006.PS;1                       ODS-5-005.PS;1
  ODS-5-007.PS;1                       ODS-5-006.PS;1
  ODS-5-008.PS;1                       ODS-5-007.PS;1
  ODS-5-009.PS;1                       ODS-5-008.PS;1
  ODS-5.PS;2                           ODS-5-009.PS;1
  TCPIP$FTP_SERVER.LOG;2               ODS-5.PS;2
  TCPIP$REXEC_RUN.LOG;113              TCPIP$FTP_SERVER.LOG;2
  THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX  TCPIP$REXEC_RUN.LOG;113
  TPU$WORK.TPU$WORK;1                  THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX

       1 block       6-01-2005 20:40:41      /SUB-DIR/    24-12-2003 19:53:45

(VTfm)INFORT::VOVA>  █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Now press *^W* key and look on the screen

```
┌SYS$SYSDEVICE:[VOVA]*.*;*──────────────────────────────────────────────────┐
│ ODS-5-007.PS;1                                                            │
│ ODS-5-008.PS;1                                                            │
│ ODS-5-009.PS;1                                                            │
│ ODS-5.PS;2                                                                │
│ TCPIP$FTP_SERVER.LOG;2                                                    │
│ TCPIP$REXEC_RUN.LOG;113                                                   │
│ THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EXTENSION;1                            │
├──────────────────────────────────────────────────────────────────────────┤
│              1 block                              6-01-2005 20:40:41      │
├SYS$SYSDEVICE:[VOVA]*.*;*──────────────────────────────────────────────────┤
│ /DECC.DIR;1                                                               │
│ /INFO-ZIP.DIR;1                                                           │
│ /NETSCAPE.DIR;1                                                           │
│ DECW$TERMINAL_DEFAULT.DAT;7                                               │
│ LOGIN.COM;8                                                               │
│ ODS-5-001.PS;1                                                            │
│ ODS-5-002.PS;1                                                            │
├──────────────────────────────────────────────────────────────────────────┤
│              /SUB-DIR/                            24-12-2003 19:53:45     │
├──────────────────────────────────────────────────────────────────────────┤
│(VTfm)INFORT::VOVA>  █                                                     │
│11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit│
└──────────────────────────────────────────────────────────────────────────┘
```

Yes, the LEFT panel is now a TOP one and RIGHT is a BOTTOM! Press *^W* key once more

```
┌SYS$SYSDEVICE:[VOVA]*.*;*──────┐ ┌SYS$SYSDEVICE:[VOVA]*.*;*──────┐
│ /INFO-ZIP.DIR;1              │ │ /DECC.DIR;1                  │
│ /NETSCAPE.DIR;1             │ │ /INFO-ZIP.DIR;1             │
│ DECW$TERMINAL_DEFAULT.DAT;7 │ │ /NETSCAPE.DIR;1            │
│ LOGIN.COM;8                 │ │ DECW$TERMINAL_DEFAULT.DAT;7 │
│ ODS-5-001.PS;1             │ │ LOGIN.COM;8                │
│ ODS-5-002.PS;1             │ │ ODS-5-001.PS;1            │
│ ODS-5-003.PS;1             │ │ ODS-5-002.PS;1            │
│ ODS-5-004.PS;1             │ │ ODS-5-003.PS;1            │
│ ODS-5-005.PS;1             │ │ ODS-5-004.PS;1            │
│ ODS-5-006.PS;1             │ │ ODS-5-005.PS;1            │
│ ODS-5-007.PS;1             │ │ ODS-5-006.PS;1            │
│ ODS-5-008.PS;1             │ │ ODS-5-007.PS;1            │
│ ODS-5-009.PS;1             │ │ ODS-5-008.PS;1            │
│ ODS-5.PS;2                 │ │ ODS-5-009.PS;1            │
│ TCPIP$FTP_SERVER.LOG;2     │ │ ODS-5.PS;2                │
│ TCPIP$REXEC_RUN.LOG;113    │ │ TCPIP$FTP_SERVER.LOG;2    │
│ THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX│ │ TCPIP$REXEC_RUN.LOG;113 │
│ TPU$WORK.TPU$WORK;1        │ │ THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX│
├──────────────────────────────┤ ├──────────────────────────────┤
│    1 block    6-01-2005 20:40:41│ │   /SUB-DIR/   24-12-2003 19:53:45│
└──────────────────────────────┘ └──────────────────────────────┘
│(VTfm)INFORT::VOVA>  █                                                     │
│11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit│
```

3.4 View file size

Now move to the file ODS-5-009.PS;1 and look on the *statistics line* in which you see that size of this file is 1030 *blocks* (this is a default view)

```
SYS$SYSDEVICE:[VOVA]*.*;*                SYS$SYSDEVICE:[VOVA]*.*;*
 /DECC.DIR;1                              /DECC.DIR;1
 /INFO-ZIP.DIR;1                          /INFO-ZIP.DIR;1
 /NETSCAPE.DIR;1                          /NETSCAPE.DIR;1
 DECW$TERMINAL_DEFAULT.DAT;7              DECW$TERMINAL_DEFAULT.DAT;7
 LOGIN.COM;8                              LOGIN.COM;8
 ODS-5-001.PS;1                           ODS-5-001.PS;1
 ODS-5-002.PS;1                           ODS-5-002.PS;1
 ODS-5-003.PS;1                           ODS-5-003.PS;1
 ODS-5-004.PS;1                           ODS-5-004.PS;1
 ODS-5-005.PS;1                           ODS-5-005.PS;1
 ODS-5-006.PS;1                           ODS-5-006.PS;1
 ODS-5-007.PS;1                           ODS-5-007.PS;1
 ODS-5-008.PS;1                           ODS-5-008.PS;1
 ODS-5-009.PS;1                           ODS-5-009.PS;1
 ODS-5.PS;2                               ODS-5.PS;2
 TCPIP$FTP_SERVER.LOG;2                   TCPIP$FTP_SERVER.LOG;2
 TCPIP$REXEC_RUN.LOG;113                  TCPIP$REXEC_RUN.LOG;113
 THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX    THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX

    1030 blocks     11-10-2004 22:18:40       /SUB-DIR/      24-12-2003 19:53:45

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

If you wish to know the file size in *bytes* than press *^B* key

```
SYS$SYSDEVICE:[VOVA]*.*;*                SYS$SYSDEVICE:[VOVA]*.*;*
 /DECC.DIR;1                              /DECC.DIR;1
 /INFO-ZIP.DIR;1                          /INFO-ZIP.DIR;1
 /NETSCAPE.DIR;1                          /NETSCAPE.DIR;1
 DECW$TERMINAL_DEFAULT.DAT;7              DECW$TERMINAL_DEFAULT.DAT;7
 LOGIN.COM;8                              LOGIN.COM;8
 ODS-5-001.PS;1                           ODS-5-001.PS;1
 ODS-5-002.PS;1                           ODS-5-002.PS;1
 ODS-5-003.PS;1                           ODS-5-003.PS;1
 ODS-5-004.PS;1                           ODS-5-004.PS;1
 ODS-5-005.PS;1                           ODS-5-005.PS;1
 ODS-5-006.PS;1                           ODS-5-006.PS;1
 ODS-5-007.PS;1                           ODS-5-007.PS;1
 ODS-5-008.PS;1                           ODS-5-008.PS;1
 ODS-5-009.PS;1                           ODS-5-009.PS;1
 ODS-5.PS;2                               ODS-5.PS;2
 TCPIP$FTP_SERVER.LOG;2                   TCPIP$FTP_SERVER.LOG;2
 TCPIP$REXEC_RUN.LOG;113                  TCPIP$REXEC_RUN.LOG;113
 THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX    THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX

    527200 bytes    11-10-2004 22:18:40       /SUB-DIR/      24-12-2003 19:53:45

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Now you see that file ODS-5-009.PS;1 has 527200 *bytes*. Press *^B* key again to view file size in blocks.

3.5 GotoVMS <F11> (enter to DCL environment)

Sometimes you need *to enter to OpenVMS DCL environment without leaving VTfm* program. For this press *<F11>* key and VTfm creates a *subprocess* in which you can do your work. To return to VTfm simply LOgout from this subprocess.

```
GotoVMS (to return to VTfm simply LOgout)...
(VTfm)INFORT::VOVA> sh dev d

Device                  Device              Error    Volume          Free   Trans Mnt
 Name                   Status              Count     Label         Blocks  Count Cnt
INFORT$DUA0:            Mounted                 0   OVMSVAXSYS      1337895    279   1
INFORT$DUA1:            Online                  0
INFORT$DUA2:            Mounted wrtlck          0   VAXDOCDEC991     259314      1   1
INFORT$DUA3:            Mounted wrtlck          0   VAXDOCDEC992     180729      1   1
INFORT$DUB0:            Online                  0
INFORT$DUB1:            Online                  0
INFORT$DUB2:            Online                  0
INFORT$DUB3:            Online                  0
(VTfm)INFORT::VOVA> lo
  Process VOVA_1 logged out at  6-JAN-2005 21:53:30.71

Press any key... █
```

Note

If you receive a message about *exceeded quota* then *increase Pgflquo* quota for your account.

3.6 GotoDir <F12> (direct going to some disk directory)

Sometimes it is quicker to go to some directory without navigation through directory tree with pressing of *<Return>* (*<Enter>*) key. It is also useful because in OpenVMS operating system access to root disk directory may be denied for nonprivilege user. This possibility is also the only way to go to directory on another disk and use various OpenVMS logicals. So, press *<F12>* key

```
SYS$SYSDEVICE:[VOVA]*.*;*                   SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 /DECC.DIR;1                                 ..
 /INFO-ZIP.DIR;1                             UNZIP.EXE;1
 /NETSCAPE.DIR;1                             ZIP.EXE;1
 DECW$TERMINAL_DEFAULT.DAT;7                 ZIPCLOAK.EXE;1
 LOGIN.COM;8                                 ZIPNOTE.EXE;1
 ODS-5-001.PS;1                              ZIPSPLIT.EXE;1
 ODS-5-002.PS;1                              ZIP_CLI.EXE;1
                        ─ GO TO DIRECTORY ─

    SYS$SYSDEVICE:[VOVA]


 ODS-5-008.PS;1
 ODS-5-009.PS;1
 ODS-5.PS;2
 TCPIP$FTP_SERVER.LOG;2
 TCPIP$REXEC_RUN.LOG;113
 THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX

    1030 blocks    11-10-2004 22:18:40      /UP-DIR/    10-08-2004 02:53:39

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

In the "GO TO DIRECTORY" window you can input and edit directory specification by ordinary way as in the OpenVMS command line (for cancel GotoDir operation press VTfm *escape <KP0> key*)

```
SYS$SYSDEVICE:[VOVA]*.*;*                   SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 /DECC.DIR;1                                 ..
 /INFO-ZIP.DIR;1                             UNZIP.EXE;1
 /NETSCAPE.DIR;1                             ZIP.EXE;1
 DECW$TERMINAL_DEFAULT.DAT;7                 ZIPCLOAK.EXE;1
 LOGIN.COM;8                                 ZIPNOTE.EXE;1
 ODS-5-001.PS;1                              ZIPSPLIT.EXE;1
 ODS-5-002.PS;1                              ZIP_CLI.EXE;1
┌─────────────────────────── GO TO DIRECTORY ───────────────────────────┐
│                                                                        │
│   dub0:[vova]█                                                         │
│                                                                        │
└────────────────────────────────────────────────────────────────────────┘
 ODS-5-008.PS;1
 ODS-5-009.PS;1
 ODS-5.PS;2
 TCPIP$FTP_SERVER.LOG;2
 TCPIP$REXEC_RUN.LOG;113
 THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX
    1030 blocks     11-10-2004 22:18:40       /UP-DIR/      10-08-2004 02:53:39
(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Now press *<Return>* (*<Enter>*) key to execute your command

```
DUB0:[VOVA]*.*;*                            SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 No files found                              ..
                                             UNZIP.EXE;1
                                             ZIP.EXE;1
                                             ZIPCLOAK.EXE;1
                                             ZIPNOTE.EXE;1
                                             ZIPSPLIT.EXE;1
                                             ZIP_CLI.EXE;1




    /ROOT-DIR/                               /UP-DIR/      10-08-2004 02:53:39
(VTfm)INFORT::VOVA> █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Press <*F12*> key once more and input name of SYS$MANAGER directory

```
┌DUB0:[VOVA]*.*;*─────────────────────┐ ┌SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*──┐
│ No files found                      │ │ ..                                  │
│                                     │ │ UNZIP.EXE;1                         │
│                                     │ │ ZIP.EXE;1                           │
│                                     │ │ ZIPCLOAK.EXE;1                      │
│                                     │ │ ZIPNOTE.EXE;1                       │
│                                     │ │ ZIPSPLIT.EXE;1                      │
│                                     │ │ ZIP_CLI.EXE;1                       │
│               ──── GO TO DIRECTORY ────                                      │
│  ┌─────────────────────────────────────────────────────────────────────┐   │
│  │                                                                       │   │
│  │ sys$manager█                                                          │   │
│  │                                                                       │   │
│  └─────────────────────────────────────────────────────────────────────┘   │
│                                     │ │                                     │
│                                     │ │                                     │
│                                     │ │                                     │
│          /ROOT-DIR/                 │ │     /UP-DIR/      10-08-2004 02:53:39│
└─────────────────────────────────────┘ └─────────────────────────────────────┘
(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Press <*Return*> (<*Enter*>) key for go to SYS$MANAGER

```
┌SYS$SYSROOT:[SYSMGR]*.*;*────────────┐ ┌SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*──┐
│ /NETSCAPE.DIR;1                     │ │ ..                                  │
│ ACCOUNTNG.DAT;1                     │ │ UNZIP.EXE;1                         │
│ CLUE$HISTORY.DATA;1                 │ │ ZIP.EXE;1                           │
│ CLUE$LAST_INFORT.LIS;1              │ │ ZIPCLOAK.EXE;1                      │
│ DCE_OUT0000011B.TMP;1               │ │ ZIPNOTE.EXE;1                       │
│ DCE_OUT0000011C.TMP;1               │ │ ZIPSPLIT.EXE;1                      │
│ DECNET_REGISTER_IMPORT_FILE_INFORT.TX│ │ ZIP_CLI.EXE;1                      │
│ DECW$TERMINAL_DEFAULT.DAT;18        │ │                                     │
│ DNS$ADVER_ERROR.LOG;244             │ │                                     │
│ DNS$ADVER_ERROR.LOG;243             │ │                                     │
│ DNS$ADVER_ERROR.LOG;242             │ │                                     │
│ DTSS$ERROR.LOG;106                  │ │                                     │
│ DTSS$ERROR.LOG;105                  │ │                                     │
│ DTSS$ERROR.LOG;104                  │ │                                     │
│ DTSS$ERROR.LOG;103                  │ │                                     │
│ DTSS$ERROR.LOG;102                  │ │                                     │
│ DTSS$ERROR.LOG;101                  │ │                                     │
│ DTSS$ERROR.LOG;100                  │ │                                     │
│      /SUB-DIR/     25-12-2003 23:59:53│ │     /UP-DIR/      10-08-2004 02:53:39│
└─────────────────────────────────────┘ └─────────────────────────────────────┘
(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Press *<F12>* key and input directory specification SYS$COMMON:[000000]

```
SYS$SYSROOT:[SYSMGR]*.*;*          SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 /NETSCAPE.DIR;1                    ..
 ACCOUNTNG.DAT;1                    UNZIP.EXE;1
 CLUE$HISTORY.DATA;1                ZIP.EXE;1
 CLUE$LAST_INFORT.LIS;1             ZIPCLOAK.EXE;1
 DCE_OUT0000011B.TMP;1              ZIPNOTE.EXE;1
 DCE_OUT0000011C.TMP;1              ZIPSPLIT.EXE;1
 DECNET_REGISTER_IMPORT_FILE_INFORT.TX   ZIP_CLI.EXE;1
┌───────────────────────── GO TO DIRECTORY ─────────────────────────┐
│                                                                    │
│  sys$common:[000000]                                               │
│                                                                    │
└────────────────────────────────────────────────────────────────────┘
 DTSS$ERROR.LOG;105
 DTSS$ERROR.LOG;104
 DTSS$ERROR.LOG;103
 DTSS$ERROR.LOG;102
 DTSS$ERROR.LOG;101
 DTSS$ERROR.LOG;100

      /SUB-DIR/    25-12-2003 23:59:53        /UP-DIR/    10-08-2004 02:53:39

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

When you press *<Return>* (*<Enter>*) key you go to SYS$COMMON:[000000] directory

```
SYS$COMMON:[000000]*.*;*           SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 /CDA$LIBRARY.DIR;1                 ..
 /DCELOCAL.DIR;1                    UNZIP.EXE;1
 /DECC$LIB.DIR;1                    ZIP.EXE;1
 /DECW$BOOK.DIR;1                   ZIPCLOAK.EXE;1
 /DECW$DEFAULTS.DIR;1               ZIPNOTE.EXE;1
 /DECW$INCLUDE.DIR;1                ZIPSPLIT.EXE;1
 /HYPERHELP.DIR;1                   ZIP_CLI.EXE;1
 /MOM$SYSTEM.DIR;1
 /SYS$I18N.DIR;1
 /SYS$KEYMAP.DIR;1
 /SYS$LDR.DIR;1
 /SYS$STARTUP.DIR;1
 /SYS$ZONEINFO.DIR;1
 /SYSCBI.DIR;1
 /SYSERR.DIR;1
 /SYSEXE.DIR;1
 /SYSFONT.DIR;1
 /SYSHLP.DIR;1

      /SUB-DIR/    19-10-2004 16:18:51        /UP-DIR/    10-08-2004 02:53:39

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Now press *<F12>* key and enter name of SYS$LOGIN directory

```
SYS$COMMON:[000000]*.*;*              SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 /CDA$LIBRARY.DIR;1                    ..
 /DCELOCAL.DIR;1                       UNZIP.EXE;1
 /DECC$LIB.DIR;1                       ZIP.EXE;1
 /DECW$BOOK.DIR;1                      ZIPCLOAK.EXE;1
 /DECW$DEFAULTS.DIR;1                  ZIPNOTE.EXE;1
 /DECW$INCLUDE.DIR;1                   ZIPSPLIT.EXE;1
 /HYPERHELP.DIR;1                      ZIP_CLI.EXE;1
 ┌───────────────────── GO TO DIRECTORY ─────────────────────┐
 │                                                           │
 │   sys$login█                                              │
 │                                                           │
 └───────────────────────────────────────────────────────────┘
 /SYS$ZONEINFO.DIR;1
 /SYSCBI.DIR;1
 /SYSERR.DIR;1
 /SYSEXE.DIR;1
 /SYSFONT.DIR;1
 /SYSHLP.DIR;1
      /SUB-DIR/      19-10-2004 16:18:51      /UP-DIR/      10-08-2004 02:53:39
(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Go to SYS$LOGIN by pressing *<Return>* (*<Enter>*) key

```
SYS$SYSDEVICE:[VOVA]*.*;*              SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 /DECC.DIR;1                           ..
 /INFO-ZIP.DIR;1                       UNZIP.EXE;1
 /NETSCAPE.DIR;1                       ZIP.EXE;1
 DECW$TERMINAL_DEFAULT.DAT;7           ZIPCLOAK.EXE;1
 LOGIN.COM;8                           ZIPNOTE.EXE;1
 ODS-5-001.PS;1                        ZIPSPLIT.EXE;1
 ODS-5-002.PS;1                        ZIP_CLI.EXE;1
 ODS-5-003.PS;1
 ODS-5-004.PS;1
 ODS-5-005.PS;1
 ODS-5-006.PS;1
 ODS-5-007.PS;1
 ODS-5-008.PS;1
 ODS-5-009.PS;1
 ODS-5.PS;2
 TCPIP$FTP_SERVER.LOG;2
 TCPIP$REXEC_RUN.LOG;113
 THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX
      /SUB-DIR/      24-12-2003 19:53:45      /UP-DIR/      10-08-2004 02:53:39
(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

3.7 View <F13> (view the content of current file)

Move to the file DECW$TERMINAL_DEFAULT.DAT;7

```
SYS$SYSDEVICE:[VOVA]*.*;*            SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 /DECC.DIR;1                          ..
 /INFO-ZIP.DIR;1                      UNZIP.EXE;1
 /NETSCAPE.DIR;1                      ZIP.EXE;1
 DECW$TERMINAL_DEFAULT.DAT;7          ZIPCLOAK.EXE;1
 LOGIN.COM;8                          ZIPNOTE.EXE;1
 ODS-5-001.PS;1                       ZIPSPLIT.EXE;1
 ODS-5-002.PS;1                       ZIP_CLI.EXE;1
 ODS-5-003.PS;1
 ODS-5-004.PS;1
 ODS-5-005.PS;1
 ODS-5-006.PS;1
 ODS-5-007.PS;1
 ODS-5-008.PS;1
 ODS-5-009.PS;1
 ODS-5.PS;2
 TCPIP$FTP_SERVER.LOG;2
 TCPIP$REXEC_RUN.LOG;113
 THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX

      3 blocks      20-11-2004 20:52:40    /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

And press *<F13>* key to invoke the *TPU* editor

```
DECW$TERMINAL.main.terminal.displayHeightInc:    14
DECW$TERMINAL.main.terminal.bitPlanes:   4
DECW$TERMINAL.main.terminal.background: #000000000000
DECW$TERMINAL.main.terminal.screenMode: off
DECW$TERMINAL.main.terminal.littleFontOtherName:        -dec-terminal-*-*-*--14◊
DECW$TERMINAL.main.terminal.fontUsed:    -dec-terminal-medium-r-narrow--14-100-1◊
DECW$TERMINAL.main.terminal.fontSetSelection:    1
DECW$TERMINAL.main.terminal.rows:        48
DECW$TERMINAL.main.terminal.autoWrapEnable:      on
DECW$TERMINAL.main.terminal.condensedFont:       on
DECW$TERMINAL.main.terminal.columns:     132
DECW$TERMINAL.main.terminal.foreground: #ffffffffffff
DECW$TERMINAL.main.terminal.borderColor:         #ffffffffffff
DECW$TERMINAL.main.terminal.displayWidth:        819
DECW$TERMINAL.main.terminal.wmHintsBaseHeight:   32
DECW$TERMINAL.main.terminal.gsFontOtherName:     -dec-terminal-*-*-*-gs-14-*-*-*◊
DECW$TERMINAL.main.terminal.bigFontOtherName:    -bitstream-terminal-*-*-*--18-*◊
DECW$TERMINAL.main.terminal.displayHeight:       680
DECW$TERMINAL.main.terminal.defaultTitle:        Vova
DECW$TERMINAL.main.terminal.displayWidthInc:     6
DECW$TERMINAL.main.terminal.defaultIconName:     Vova
 Buffer: DECW$TERMINAL_DEFAULT.DAT          | Read-only | Unmodifiable | Forward

Editing session is not being journaled
```

Exit from TPU editor

```
DECW$TERMINAL.main.terminal.screenMode: off
DECW$TERMINAL.main.terminal.littleFontOtherName:          -dec-terminal-*-*-*--14♦
DECW$TERMINAL.main.terminal.fontUsed:     -dec-terminal-medium-r-narrow--14-100-1♦
DECW$TERMINAL.main.terminal.fontSetSelection:   1
DECW$TERMINAL.main.terminal.rows:          48
DECW$TERMINAL.main.terminal.autoWrapEnable:       on
DECW$TERMINAL.main.terminal.condensedFont:        on
DECW$TERMINAL.main.terminal.columns:    132
DECW$TERMINAL.main.terminal.foreground: #ffffffffffff
DECW$TERMINAL.main.terminal.borderColor:          #ffffffffffff
DECW$TERMINAL.main.terminal.displayWidth:         819
DECW$TERMINAL.main.terminal.wmHintsBaseHeight:    32
DECW$TERMINAL.main.terminal.gsFontOtherName:      -dec-terminal-*-*-*-gs-14-*-*-*♦
DECW$TERMINAL.main.terminal.bigFontOtherName:     -bitstream-terminal-*-*-*--18-*♦
DECW$TERMINAL.main.terminal.displayHeight:        680
DECW$TERMINAL.main.terminal.defaultTitle:         Vova
DECW$TERMINAL.main.terminal.displayWidthInc:      6
DECW$TERMINAL.main.terminal.defaultIconName:      Vova
 Buffer: DECW$TERMINAL_DEFAULT.DAT              | Read-only | Unmodifiable | Forward

Editing session is not being journaled


Press any key... █
```

And press some key to return to VTfm panels screen

```
SYS$SYSDEVICE:[VOVA]*.*;*                   SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 /DECC.DIR;1                                 ..
 /INFO-ZIP.DIR;1                             UNZIP.EXE;1
 /NETSCAPE.DIR;1                             ZIP.EXE;1
 DECW$TERMINAL_DEFAULT.DAT;7                 ZIPCLOAK.EXE;1
 LOGIN.COM;8                                 ZIPNOTE.EXE;1
 ODS-5-001.PS;1                              ZIPSPLIT.EXE;1
 ODS-5-002.PS;1                              ZIP_CLI.EXE;1
 ODS-5-003.PS;1
 ODS-5-004.PS;1
 ODS-5-005.PS;1
 ODS-5-006.PS;1
 ODS-5-007.PS;1
 ODS-5-008.PS;1
 ODS-5-009.PS;1
 ODS-5.PS;2
 TCPIP$FTP_SERVER.LOG;2
 TCPIP$REXEC_RUN.LOG;113
 THIS_FILE_HAS_A_LONG_NAME.AND_LONG_EX

    3 blocks     20-11-2004 20:52:40          /UP-DIR/      10-08-2004 02:53:39


(VTfm)INFORT::VOVA> █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

3.8 Edit <F14> (edit the existent or create new text file)

Move to the file DECC.DIR;1 of DECC directory and enter into the subdirectory SYS$SYSDEVICE:[VOVA.DECC.VTFM.A] by pressing *<Return>* (*<Enter>*) key

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM.A]*.*;*   SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 ..                                      ..
 FSPEC_PT.ALPHA_MAR;1                     UNZIP.EXE;1
 FSPEC_PT.IA64_MAR;1                      ZIP.EXE;1
 FSPEC_PT.VAX_MAR;1                       ZIPCLOAK.EXE;1
 UTFM.C;515                               ZIPNOTE.EXE;1
 UTFM.C;514                               ZIPSPLIT.EXE;1
 UTFM.C;513                               ZIP_CLI.EXE;1
 UTFM.C;512
 UTFM.C;511
 UTFM.C;510
 UTFM.C;509
 UTFM.C;508
 UTFM.C;507
 UTFM.C;506
 UTFM.C;505



      /UP-DIR/      1-01-2005 08:19:34         /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

After that move to the file VTFM.C;512

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM.A]*.*;*   SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 ..                                      ..
 FSPEC_PT.ALPHA_MAR;1                     UNZIP.EXE;1
 FSPEC_PT.IA64_MAR;1                      ZIP.EXE;1
 FSPEC_PT.VAX_MAR;1                       ZIPCLOAK.EXE;1
 UTFM.C;515                               ZIPNOTE.EXE;1
 UTFM.C;514                               ZIPSPLIT.EXE;1
 UTFM.C;513                               ZIP_CLI.EXE;1
 UTFM.C;512
 UTFM.C;511
 UTFM.C;510
 UTFM.C;509
 UTFM.C;508
 UTFM.C;507
 UTFM.C;506
 UTFM.C;505



      256 blocks     1-01-2005 08:19:34         /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

When you press *<F14>* key then "EDIT" window appears (for cancel Edit operation press VTfm *escape <KP0> key*)

```
┌SYS$SYSDEVICE:[VOVA.DECC.UTFM.A]*.*;*─┐  ┌SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*─┐
 ..                                          ..
 FSPEC_PT.ALPHA_MAR;1                        UNZIP.EXE;1
 FSPEC_PT.IA64_MAR;1                         ZIP.EXE;1
 FSPEC_PT.VAX_MAR;1                          ZIPCLOAK.EXE;1
 VTFM.C;515                                  ZIPNOTE.EXE;1
 VTFM.C;514                                  ZIPSPLIT.EXE;1
 VTFM.C;513                                  ZIP_CLI.EXE;1
            ┌──────────────────── EDIT ────────────────────┐
            │                                              │
            │ █TFM.C;512                                   │
            │                                              │
            └──────────────────────────────────────────────┘
 VTFM.C;507
 VTFM.C;506
 VTFM.C;505



       256 blocks      1-01-2005 08:19:34      /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

If you press *<Return>* (*<Enter>*) key now then *TPU* editor starts to edit file VTFM.C;512

```
█*
**        Copyright (c) 1991-2004 VTfm.   All rights reserved.
**
**                    Norton Commander Style
**                 Video Terminals File Manager
**                        VMS-version
**
**        Author: Vladimir K. Vershinin, Moscow, Russia
**        E-mail: vershinin-vk@tochka.ru
**
**        History:
**
**        1991, July - First release 1.0 with name NCvtf.
**
**                - developed on VAXC v3.0;
**                - supports VT-terminal modes with only
**                  24x80 rows/columns;
**                - uses EDT$EDIT routine for view and edit;
**                - works only on VAXVMS.
**          .
**          .
 Buffer: VTFM.C                              | Write | Insert | Forward

EDT keypad defined (for more information, see help on EDT DIFFERENCES).
```

19

After exit from TPU with creation of a new version of VTFM.C you will see

```
static   struct   tag_dir_cont cur_dir_cont[2][MAX_DIR_FQUA];

static   struct   tag_dir_cont old_dir_cont[2][MAX_DIR_FQUA];

static   struct   tag_dir_cont ord_dir_file[MAX_DIR_FQUA];

static   struct   fscndef fspec_ival[8]=  {{0,FSCN$_NODE,0},
                                           {0,FSCN$_DEVICE,0},
                                           {0,FSCN$_ROOT,0},
                                           {0,FSCN$_DIRECTORY,0},
                                           {0,FSCN$_NAME,0},
                                           {0,FSCN$_TYPE,0},
                                           {0,FSCN$_VERSION,0},
                                           {0,0,0}};

struct   fspec_item_name
         {
                 char     name[512];
```
Buffer: UTFM.C | Write | Insert | Forward

```
6101 lines written to file SYS$SYSDEVICE:[VOVA.DECC.UTFM.A]UTFM.C;516


Press any key... █
```

Press some key and return to VTfm panels screen

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM.A]*.*;*     SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
  ..                                        ..
  FSPEC_PT.ALPHA_MAR;1                      UNZIP.EXE;1
  FSPEC_PT.IA64_MAR;1                       ZIP.EXE;1
  FSPEC_PT.VAX_MAR;1                        ZIPCLOAK.EXE;1
  UTFM.C;516                                ZIPNOTE.EXE;1
  UTFM.C;515                                ZIPSPLIT.EXE;1
  UTFM.C;514                                ZIP_CLI.EXE;1
  UTFM.C;513
  UTFM.C;512
  UTFM.C;511
  UTFM.C;510
  UTFM.C;509
  UTFM.C;508
  UTFM.C;507
  UTFM.C;506
  UTFM.C;505



     256 blocks     7-01-2005 00:54:38       /UP-DIR/     10-08-2004 02:53:39

(VTfm)INFORT::VOVA> █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```
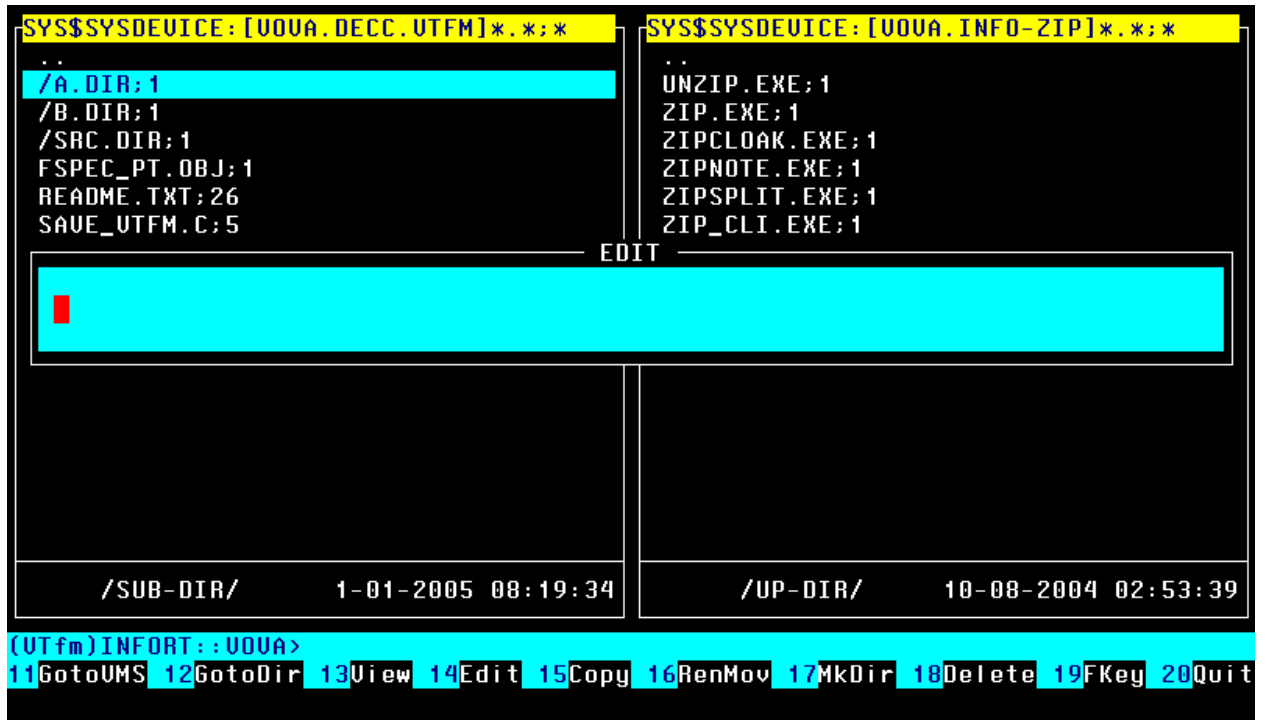
As you see VTfm file bar *highlights the new version* of the file VTFM.C i.e. VTFM.C;516.

You can also edit the "EDIT" window line to create a new text file

After exit from TPU editor with creation of file VTfm file bar also *highlights the new* file NOTES.TXT;1
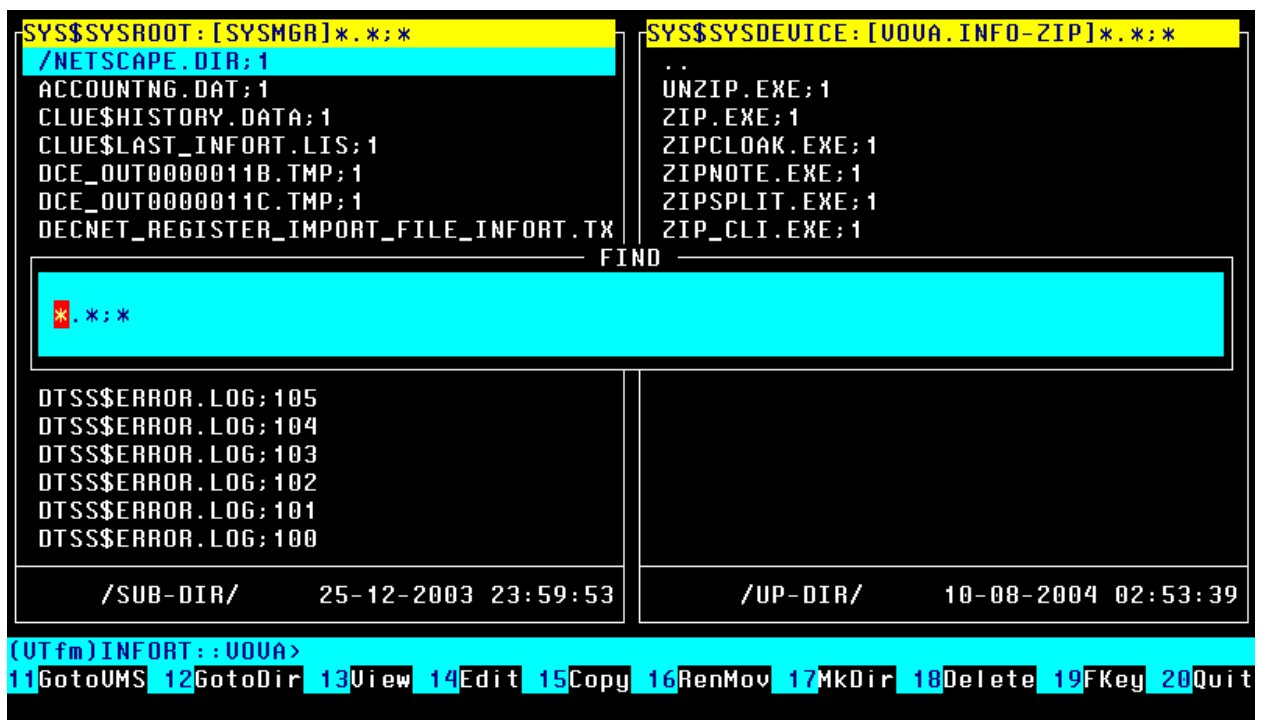
If you press *<F14>* key when the current file is a directory then "EDIT" window line will be empty and you can input some file specification

```
┌SYS$SYSDEVICE:[VOVA.DECC.VTFM]*.*;*──┐ ┌SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*──┐
│ ..                                  │ │ ..                                 │
│/A.DIR;1                             │ │ UNZIP.EXE;1                         │
│/B.DIR;1                             │ │ ZIP.EXE;1                          │
│/SRC.DIR;1                           │ │ ZIPCLOAK.EXE;1                     │
│ FSPEC_PT.OBJ;1                      │ │ ZIPNOTE.EXE;1                      │
│ README.TXT;26                       │ │ ZIPSPLIT.EXE;1                     │
│ SAVE_VTFM.C;5                       │ │ ZIP_CLI.EXE;1                      │
│────────────────────── EDIT ──────────────────────────────────────────────│
│ ┌──────────────────────────────────────────────────────────────────────┐ │
│ │█                                                                       │ │
│ │                                                                        │ │
│ └──────────────────────────────────────────────────────────────────────┘ │
│                                     │ │                                    │
│                                     │ │                                    │
│                                     │ │                                    │
│    /SUB-DIR/      1-01-2005 08:19:34│ │   /UP-DIR/      10-08-2004 02:53:39 │
└─────────────────────────────────────┘ └────────────────────────────────────┘
(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

3.9 Find <Find> (filtering files in panels)

You can filter files in panel by *wildcard mask*. For that press *<Find>* key and you will see "FIND" window with *current* panel filtering wildcard mask

```
┌SYS$SYSROOT:[SYSMGR]*.*;*────────────┐ ┌SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*──┐
│/NETSCAPE.DIR;1                       │ │ ..                                 │
│ ACCOUNTNG.DAT;1                      │ │ UNZIP.EXE;1                        │
│ CLUE$HISTORY.DATA;1                  │ │ ZIP.EXE;1                          │
│ CLUE$LAST_INFORT.LIS;1               │ │ ZIPCLOAK.EXE;1                     │
│ DCE_OUT0000011B.TMP;1                │ │ ZIPNOTE.EXE;1                      │
│ DCE_OUT0000011C.TMP;1                │ │ ZIPSPLIT.EXE;1                     │
│ DECNET_REGISTER_IMPORT_FILE_INFORT.TX│ │ ZIP_CLI.EXE;1                      │
│────────────────────── FIND ──────────────────────────────────────────────│
│ ┌──────────────────────────────────────────────────────────────────────┐ │
│ │█.*;*                                                                   │ │
│ │                                                                        │ │
│ └──────────────────────────────────────────────────────────────────────┘ │
│ DTSS$ERROR.LOG;105                   │ │                                    │
│ DTSS$ERROR.LOG;104                   │ │                                    │
│ DTSS$ERROR.LOG;103                   │ │                                    │
│ DTSS$ERROR.LOG;102                   │ │                                    │
│ DTSS$ERROR.LOG;101                   │ │                                    │
│ DTSS$ERROR.LOG;100                   │ │                                    │
│    /SUB-DIR/     25-12-2003 23:59:53 │ │   /UP-DIR/      10-08-2004 02:53:39 │
└─────────────────────────────────────┘ └────────────────────────────────────┘
(VTfm)INFORT::VOVA>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Edit "FIND" window line as you wish. For example, input such wildcard mask (for cancel Find operation press VTfm *escape <KP0> key*)

```
SYS$SYSROOT:[SYSMGR]*.*;*                SYS$SYSDEVICE:[UOUA.INFO-ZIP]*.*;*
   /NETSCAPE.DIR;1                          ..
   ACCOUNTNG.DAT;1                          UNZIP.EXE;1
   CLUE$HISTORY.DATA;1                      ZIP.EXE;1
   CLUE$LAST_INFORT.LIS;1                   ZIPCLOAK.EXE;1
   DCE_OUT0000011B.TMP;1                    ZIPNOTE.EXE;1
   DCE_OUT0000011C.TMP;1                    ZIPSPLIT.EXE;1
   DECNET_REGISTER_IMPORT_FILE_INFORT.TX    ZIP_CLI.EXE;1
 ─────────────────────────── FIND ───────────────────────────

     amd*.*;*

   DTSS$ERROR.LOG;105
   DTSS$ERROR.LOG;104
   DTSS$ERROR.LOG;103
   DTSS$ERROR.LOG;102
   DTSS$ERROR.LOG;101
   DTSS$ERROR.LOG;100

       /SUB-DIR/      25-12-2003 23:59:53        /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::UOUA>
 11GotoUMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

After pressing *<Return>* (*<Enter>*) key you will see the new panel content

```
SYS$SYSROOT:[SYSMGR]amd*.*;*             SYS$SYSDEVICE:[UOUA.INFO-ZIP]*.*;*
   AMDS$DRIVER_ACCESS.DAT;3                 ..
   AMDS$DRIVER_ACCESS.DAT;2                 UNZIP.EXE;1
   AMDS$DRIVER_ACCESS.TEMPLATE;3            ZIP.EXE;1
   AMDS$DRIVER_ACCESS.TEMPLATE;2            ZIPCLOAK.EXE;1
   AMDS$LOGICALS.COM;3                      ZIPNOTE.EXE;1
   AMDS$LOGICALS.COM;2                      ZIPSPLIT.EXE;1
   AMDS$LOGICALS.TEMPLATE;3                 ZIP_CLI.EXE;1
   AMDS$LOGICALS.TEMPLATE;2
   AMDS$SYSTARTUP.TEMPLATE;1

       9 blocks       16-12-1998 13:48:03        /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::UOUA>
 11GotoUMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Note that *panel header* shows the new wildcard mask.

3.10 Select <Ins>, <Sel> (selecting files in panels)

You can select files in panel for further operations (for example, Copy, Rename, Move or Delete). There are *manual* selection and selection by *wildcard mask*. For *manual* selection of current file simply press <*Ins*> key. The result of that is appearing of asterisk "*" symbol in the first position of the current file line

```
SYS$SYSROOT:[SYSMGR]amd*.*;*          SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 AMDS$DRIVER_ACCESS.DAT;3               ..
*AMDS$DRIVER_ACCESS.DAT;2              UNZIP.EXE;1
 AMDS$DRIVER_ACCESS.TEMPLATE;3        ZIP.EXE;1
*AMDS$DRIVER_ACCESS.TEMPLATE;2        ZIPCLOAK.EXE;1
 AMDS$LOGICALS.COM;3                   ZIPNOTE.EXE;1
*AMDS$LOGICALS.COM;2                   ZIPSPLIT.EXE;1
 AMDS$LOGICALS.TEMPLATE;3             ZIP_CLI.EXE;1
*AMDS$LOGICALS.TEMPLATE;2
 AMDS$SYSTARTUP.TEMPLATE;1




                 4 files selected          /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

For wildcard mask selection press <*Sel*> key and you will see "SELECT" window with *current* panel selection wildcard mask

```
SYS$SYSROOT:[SYSMGR]amd*.*;*          SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
 AMDS$DRIVER_ACCESS.DAT;3               ..
*AMDS$DRIVER_ACCESS.DAT;2              UNZIP.EXE;1
 AMDS$DRIVER_ACCESS.TEMPLATE;3        ZIP.EXE;1
*AMDS$DRIVER_ACCESS.TEMPLATE;2        ZIPCLOAK.EXE;1
 AMDS$LOGICALS.COM;3                   ZIPNOTE.EXE;1
*AMDS$LOGICALS.COM;2                   ZIPSPLIT.EXE;1
 AMDS$LOGICALS.TEMPLATE;3             ZIP_CLI.EXE;1
                        ─── SELECT ───
   *.*;*




                 4 files selected          /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Edit "SELECT" window line as you wish. For example, input such wildcard mask (for cancel Select operation press VTfm *escape <KP0> key*)

```
SYS$SYSROOT:[SYSMGR]amd*.*;*          SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
  AMDS$DRIVER_ACCESS.DAT;3             ..
*AMDS$DRIVER_ACCESS.DAT;2             UNZIP.EXE;1
  AMDS$DRIVER_ACCESS.TEMPLATE;3       ZIP.EXE;1
*AMDS$DRIVER_ACCESS.TEMPLATE;2       ZIPCLOAK.EXE;1
  AMDS$LOGICALS.COM;3                 ZIPNOTE.EXE;1
*AMDS$LOGICALS.COM;2                 ZIPSPLIT.EXE;1
  AMDS$LOGICALS.TEMPLATE;3            ZIP_CLI.EXE;1
                        ── SELECT ──

    *.*L*;*



                 4 files selected         /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

After pressing *<Return>* (*<Enter>*) key you will see the following screen

```
SYS$SYSROOT:[SYSMGR]amd*.*;*          SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
  AMDS$DRIVER_ACCESS.DAT;3             ..
*AMDS$DRIVER_ACCESS.DAT;2             UNZIP.EXE;1
*AMDS$DRIVER_ACCESS.TEMPLATE;3       ZIP.EXE;1
*AMDS$DRIVER_ACCESS.TEMPLATE;2       ZIPCLOAK.EXE;1
  AMDS$LOGICALS.COM;3                 ZIPNOTE.EXE;1
*AMDS$LOGICALS.COM;2                 ZIPSPLIT.EXE;1
*AMDS$LOGICALS.TEMPLATE;3            ZIP_CLI.EXE;1
*AMDS$LOGICALS.TEMPLATE;2
*AMDS$SYSTARTUP.TEMPLATE;1



                 7 files selected         /UP-DIR/      10-08-2004 02:53:39

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

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3.11 UnSelect <Ins>, <Rem> (unselecting files in panels)

The UnSelect operation is similar to Select one. Also there are *manual* unselection and unselection by *wildcard mask*. For *manual* unselection of the current *previously selected* file simply press *<Ins>* key. The result of that is *disappearing* of asterisk "*" symbol in the first position of the current file line

```
SYS$SYSROOT:[SYSMGR]amd*.*;*       SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
  AMDS$DRIVER_ACCESS.DAT;3           ..
 *AMDS$DRIVER_ACCESS.DAT;2           UNZIP.EXE;1
  AMDS$DRIVER_ACCESS.TEMPLATE;3      ZIP.EXE;1
 *AMDS$DRIVER_ACCESS.TEMPLATE;2      ZIPCLOAK.EXE;1
  AMDS$LOGICALS.COM;3                ZIPNOTE.EXE;1
 *AMDS$LOGICALS.COM;2                ZIPSPLIT.EXE;1
  AMDS$LOGICALS.TEMPLATE;3           ZIP_CLI.EXE;1
 *AMDS$LOGICALS.TEMPLATE;2
 *AMDS$SYSTARTUP.TEMPLATE;1



                  5 files selected       /UP-DIR/        10-08-2004 02:53:39

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

For wildcard mask unselection press *<Rem>* key and you will see "UNSELECT" window with *current* panel selection wildcard mask

```
SYS$SYSROOT:[SYSMGR]amd*.*;*       SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*
  AMDS$DRIVER_ACCESS.DAT;3           ..
 *AMDS$DRIVER_ACCESS.DAT;2           UNZIP.EXE;1
  AMDS$DRIVER_ACCESS.TEMPLATE;3      ZIP.EXE;1
 *AMDS$DRIVER_ACCESS.TEMPLATE;2      ZIPCLOAK.EXE;1
  AMDS$LOGICALS.COM;3                ZIPNOTE.EXE;1
 *AMDS$LOGICALS.COM;2                ZIPSPLIT.EXE;1
  AMDS$LOGICALS.TEMPLATE;3           ZIP_CLI.EXE;1
                            ─ UNSELECT ─
  *.*L*;*



                  5 files selected       /UP-DIR/        10-08-2004 02:53:39

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Edit "UNSELECT" window line as you wish. For example, input such wildcard mask (for cancel UnSelect operation press VTfm *escape <KP0> key*)

```
┌SYS$SYSROOT:[SYSMGR]amd*.*;*────────────┐┌SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*──────┐
  AMDS$DRIVER_ACCESS.DAT;3                  ..
 *AMDS$DRIVER_ACCESS.DAT;2                  UNZIP.EXE;1
  AMDS$DRIVER_ACCESS.TEMPLATE;3             ZIP.EXE;1
 *AMDS$DRIVER_ACCESS.TEMPLATE;2             ZIPCLOAK.EXE;1
  AMDS$LOGICALS.COM;3                       ZIPNOTE.EXE;1
 *AMDS$LOGICALS.COM;2                       ZIPSPLIT.EXE;1
  AMDS$LOGICALS.TEMPLATE;3                  ZIP_CLI.EXE;1
 ┌────────────────────────────── UNSELECT ──────────────────────────────┐

   *.*;2█

 └──────────────────────────────────────────────────────────────────────┘




            5 files selected              /UP-DIR/        10-08-2004 02:53:39
(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

After pressing *<Return>* (*<Enter>*) key you will see the following screen

```
┌SYS$SYSROOT:[SYSMGR]amd*.*;*────────────┐┌SYS$SYSDEVICE:[VOVA.INFO-ZIP]*.*;*──────┐
  AMDS$DRIVER_ACCESS.DAT;3                  ..
  AMDS$DRIVER_ACCESS.DAT;2                  UNZIP.EXE;1
  AMDS$DRIVER_ACCESS.TEMPLATE;3             ZIP.EXE;1
  AMDS$DRIVER_ACCESS.TEMPLATE;2             ZIPCLOAK.EXE;1
  AMDS$LOGICALS.COM;3                       ZIPNOTE.EXE;1
  AMDS$LOGICALS.COM;2                       ZIPSPLIT.EXE;1
  AMDS$LOGICALS.TEMPLATE;3                  ZIP_CLI.EXE;1
  AMDS$LOGICALS.TEMPLATE;2
 *AMDS$SYSTARTUP.TEMPLATE;1






            1 file selected                /UP-DIR/        10-08-2004 02:53:39
(VTfm)INFORT::DECC> █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

3.12 Copy <Help> (copy a current or selected files)

With the Copy operation you can copy directories with their contents (*directory trees*), individual files or both. If there are *selected* directories or files then VTfm copies these, but if there are *no selected* directories or files then VTfm copies *current* one. On the next screen there are one selected directory and one individual file

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM]*.*;*        DUB0:[VOVA]*.*;*
 ..                                         No files found
*/A.DIR;1
 /B.DIR;1
 /SRC.DIR;1
 FSPEC_PT.OBJ;1
 README.TXT;26
 SAVE_VTFM.C;5
*SP2.EXE;3
 VTED.TPU;1
 VTFM.COM;15
 VTFM.VAX_EXE;285




     95 blocks     22-12-2004 15:58:08              /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

When you press *<Help>* key you will see the following "COPY" window (for cancel Copy operation press VTfm *escape <KP0> key*)

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM]*.*;*        DUB0:[VOVA]*.*;*
 ..                                         No files found
*/A.DIR;1
 /B.DIR;1
 /SRC.DIR;1
 FSPEC_PT.OBJ;1
 README.TXT;26
 SAVE_VTFM.C;5
            ┌──────── COPY 2 SELECTED FILES TO ────────┐
            │                                          │
            │ DUB0:[VOVA]*.*;*                         │
            │                                          │
            └──────────────────────────────────────────┘




     95 blocks     22-12-2004 15:58:08              /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

By default VTfm assumes that copy operation will be to the directory in the opposite panel. But you can edit "COPY" window line as you wish. For example, you can input

```
SYS$SYSDEVICE:[VOVA.DECC.VTFM]*.*;*    DUB0:[VOVA]*.*;*
                                        No files found
 ..
*/A.DIR;1
 /B.DIR;1
 /SRC.DIR;1
 FSPEC_PT.OBJ;1
 README.TXT;26
 SAVE_VTFM.C;5
                ─ COPY 2 SELECTED FILES TO ─
   sys$manager:*.*;*



      95 blocks     22-12-2004 15:58:08              /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

But return to the previous screen

```
SYS$SYSDEVICE:[VOVA.DECC.VTFM]*.*;*    DUB0:[VOVA]*.*;*
                                        No files found
 ..
*/A.DIR;1
 /B.DIR;1
 /SRC.DIR;1
 FSPEC_PT.OBJ;1
 README.TXT;26
 SAVE_VTFM.C;5
                ─ COPY 2 SELECTED FILES TO ─
   DUB0:[VOVA]*.*;*



      95 blocks     22-12-2004 15:58:08              /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

To execute the Copy operation press *<Return>* (*<Enter>*) key. VTfm shows the "COPYING…" window with specifications of copying files and copy progress bar

As a result of Copy operation you see such screen

3.13 RenMov <Do> (rename/move a current or selected files)

The RenMov operation is similar to Copy one. The only difference is that *source files will be deleted*. Move to directory file B.DIR;1, enter into subdirectory B by pressing *<Return>* (*<Enter>*) key and switch to right panel by pressing <Tab> key. Then select all files in the panel

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM.B]*.*;*      DUB0:[VOVA]*.*;*
  ..No files found                         */A.DIR;1
                                           *SP2.EXE;3














     /UP-DIR/          1-01-2005 08:44:17     532750 blocks     7-01-2005 17:55:42

(UTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

To RenMov selected files to the left panel press *<Do>* key. Now you see the "RENAME OR MOVE" window (for cancel RenMov operation press VTfm *escape <KP0> key*)

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM.B]*.*;*      DUB0:[VOVA]*.*;*
  ..No files found                         */A.DIR;1
                                           *SP2.EXE;3





           ──── RENAME OR MOVE 2 SELECTED FILES TO ────

     SYS$SYSDEVICE:[VOVA.DECC.UTFM.B]*.*;*






     /UP-DIR/          1-01-2005 08:44:17     532750 blocks     7-01-2005 17:55:42

(UTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

To execute the RenMov operation press *<Return>* (*<Enter>*) key. VTfm shows the "RENAMING OR MOVING…" window with specifications of renaming/moving files

Note

If source and destination *physical* disk drives are *different* then VTfm rename/move files via copying them. This is true for our example.

As a result of RenMov operation you see such screen

3.14 Delete <F18> (delete a current or selected files)

With the Delete operation you can delete directories with their contents (*directory trees*), individual files or both. If there are *selected* directories or files then VTfm deletes these, but if there are *no selected* directories or files then VTfm deletes *current* one. Switch to left panel by pressing <Tab> key and select all files in the panel

```
SYS$SYSDEVICE:[VOVA.DECC.VTFM.B]*.*;*    DUB0:[VOVA]*.*;*
                                         No files found
   ..
 */A.DIR;1
 *SP2.EXE;3

     532750 blocks    7-01-2005 18:35:00         /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

To delete selected files press *<F18>* key. You will see the "DELETE" window in which you can select "Okey" item by pressing *Left/Right* arrow, *Up/Down* arrow, *<Tab>* or *<Backspace>* keys (for cancel Delete operation press VTfm *escape <KP0> key*)

```
SYS$SYSDEVICE:[VOVA.DECC.VTFM.B]*.*;*    DUB0:[VOVA]*.*;*
                                         No files found
   ..
 */A.DIR;1
 *SP2.EXE;3

                     ── DELETE ──

              2 selected files will be DELETED

                    Cancel   Okay


     532750 blocks    7-01-2005 18:35:00         /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Now press *<Return>* (*<Enter>*) key. VTfm shows "DELETING…" window with specifications of deleting files

```
SYS$SYSDEVICE:[VOVA.DECC.VTFM.B]*.*;*   DUB0:[VOVA]*.*;*
 ..                                      No files found
*/A.DIR;1
*SP2.EXE;3



                        ─── DELETING... ───
 [.A]
   VTFM.C;509




      532750 blocks     7-01-2005 20:31:33          /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

When all files deleted you will see such screen

```
SYS$SYSDEVICE:[VOVA.DECC.VTFM.B]*.*;*   DUB0:[VOVA]*.*;*
 ..No files found                        No files found










      /UP-DIR/          1-01-2005 08:44:17          /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

3.15 MkDir <F17> (make a subdirectory)

For make (create) a new *subdirectory* simply press *<F17>* key. VTfm shows the "MAKE A DIRECTORY" window

```
SYS$SYSDEVICE:[VOVA.DECC.VTFM.B]*.*;*    DUB0:[VOVA]*.*;*
  ..No files found                        No files found



                    ─── MAKE A DIRECTORY ───
 ┌──────────────────────────────────────────────────────────┐
 │ █                                                          │
 │                                                            │
 └──────────────────────────────────────────────────────────┘



        /UP-DIR/      1-01-2005 08:44:17          /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```
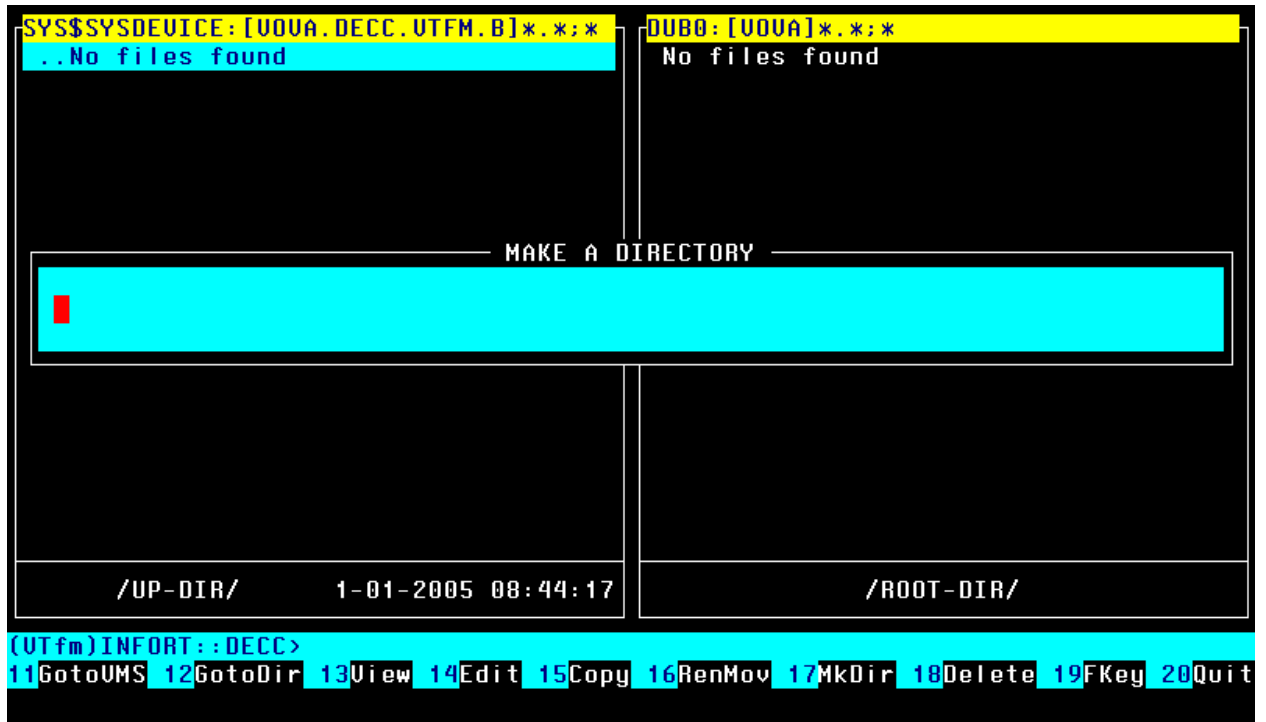
Input *name* of the new subdirectory (for cancel MkDir operation press VTfm *escape <KP0> key*)

```
SYS$SYSDEVICE:[VOVA.DECC.VTFM.B]*.*;*    DUB0:[VOVA]*.*;*
  ..No files found                        No files found



                    ─── MAKE A DIRECTORY ───
 ┌──────────────────────────────────────────────────────────┐
 │ NEW_DIR█                                                   │
 │                                                            │
 └──────────────────────────────────────────────────────────┘



        /UP-DIR/      1-01-2005 08:44:17          /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```
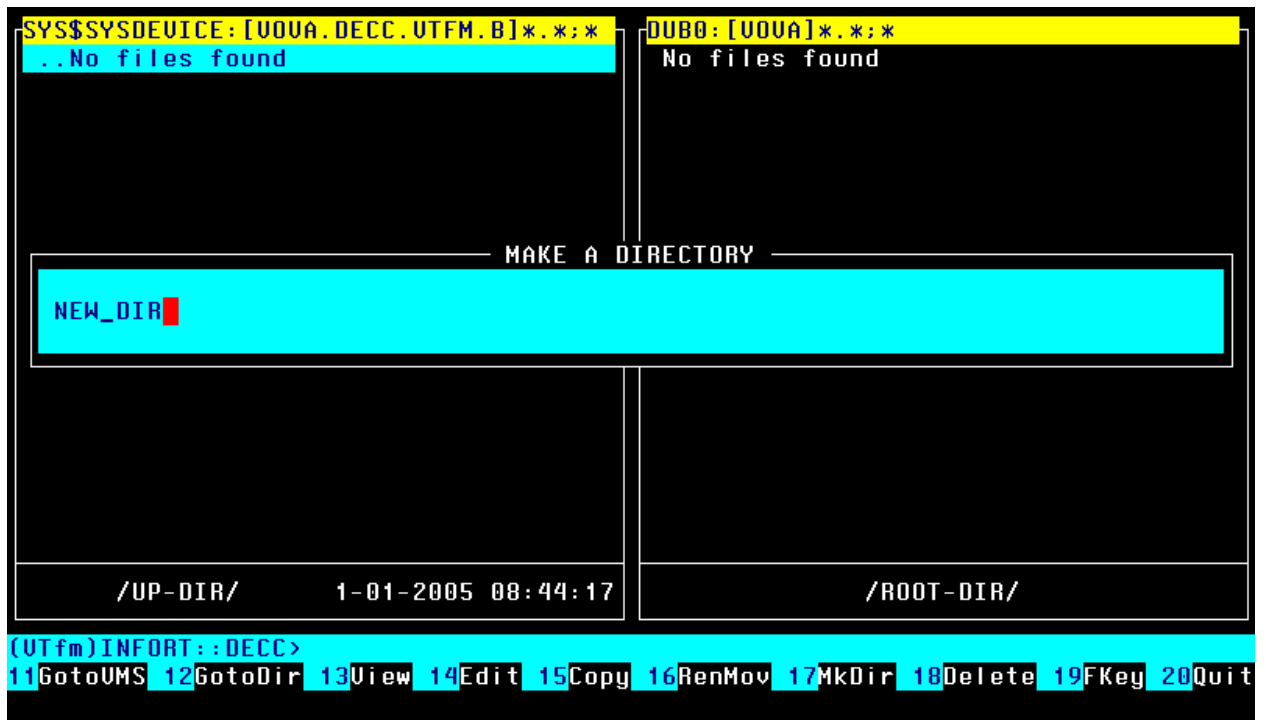
To make a subdirectory NEW_DIR press *<Return>* (*<Enter>*) key and you will see such screen (note that VTfm file bar *highlights the new subdirectory* file NEW_DIR.DIR;1)

```
┌SYS$SYSDEVICE:[VOVA.DECC.VTFM.B]*.*;*┐ ┌DUB0:[VOVA]*.*;*──────────────────┐
│ ..                                  │ │ No files found                   │
│ /NEW_DIR.DIR;1                       │ │                                  │
│                                     │ │                                  │
│                                     │ │                                  │
│                                     │ │                                  │
│                                     │ │                                  │
│                                     │ │                                  │
│                                     │ │                                  │
│                                     │ │                                  │
│                                     │ │                                  │
│                                     │ │                                  │
│     /SUB-DIR/      7-01-2005 20:48:10│ │           /ROOT-DIR/            │
└─────────────────────────────────────┘ └──────────────────────────────────┘
(VTfm)INFORT::DECC> █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

3.16 Quit <F20> (quit VTfm)

For quit VTfm press *<F20>* key. You will see the "QUIT" window

```
┌SYS$SYSDEVICE:[VOVA.DECC.VTFM.B]*.*;*┐ ┌DUB0:[VOVA]*.*;*──────────────────┐
│ ..                                  │ │ No files found                   │
│ /NEW_DIR.DIR;1                       │ │                                  │
│                                     │ │                                  │
│                                     │ │                                  │
│              ┌─────── QUIT ───────┐ │ │                                  │
│              │ Do you really want to quit the VTfm session? │ │          │
│              │         Yes   No    │ │ │                                  │
│              └─────────────────────┘ │ │                                  │
│                                     │ │                                  │
│     /SUB-DIR/      7-01-2005 20:48:10│ │           /ROOT-DIR/            │
└─────────────────────────────────────┘ └──────────────────────────────────┘
(VTfm)INFORT::DECC> █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Select item you wish (i.e. "Yes" or "No") by pressing *Left/Right* arrow, *Up/Down* arrow, *<Tab>* or *<Backspace>* keys and press *<Return>* (*<Enter>*) key (for cancel Quit operation press VTfm *escape <KP0> key*).

3.17 Execute COM and EXE files

As in the Norton Commander you can execute COM or EXE file by moving to it

```
SYS$SYSDEVICE:[VOVA.DECC.VTFM]*.*;*        DUB0:[VOVA]*.*;*
  ..                                        No files found
 /A.DIR;1
 /B.DIR;1
 /SRC.DIR;1
 FSPEC_PT.OBJ;1
 README.TXT;26
 SAVE_VTFM.C;5
 SP2.EXE;3
 VTED.TPU;1
 VTFM.COM;15
 VTFM.VAX_EXE;285




      1 block      22-12-2004 15:58:08              /ROOT-DIR/
(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Now simply press *<Return>* (*<Enter>*) key. VTfm creates a subprocess in which COM file will be executed (**this technique is also true for every *.*COM;* or *.*EXE;* file**)

```
(VTfm)INFORT::DECC> @SYS$SYSDEVICE:[VOVA.DECC.VTFM]VTFM.COM;15...
Exceeded page file quota

Press any key... █
```

Note

If you receive a message about *exceeded quota* then *increase Pgflquo* quota for your account.

3.18 Working with command line

You can use VTfm command line as ordinary OpenVMS one. For example, input the following OpenVMS "PURGE" command

For execute this command press *<Return>* (*<Enter>*) key. VTfm creates a subprocess in which this command will be executed

Note

If you receive a message about *exceeded quota* then *increase Pgflquo* quota for your account.

After pressing some key you will see such screen

Now press *<Return>* (*<Enter>*) key for return into up-subdirectory A and move to the file SP2.EXE;3

Input the following OpenVMS "DIR" command

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM]*.*;*      DUB0:[VOVA]*.*;*
  ..                                       No files found
  /A.DIR;1
  /B.DIR;1
  /SRC.DIR;1
  FSPEC_PT.OBJ;1
  FSPEC_PT.VAX_OBJ;1
  README.TXT;26
  SAVE_UTFM.C;5
  SP2.EXE;3
  VTED.TPU;1
  VTFM.COM;15
  VTFM.VAX_EXE;285




     532750 blocks    7-11-2004 00:27:36           /ROOT-DIR/
(VTfm)INFORT::DECC> dir/fu █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

If you press *^D* (Directory) key now then VTfm *insert to the current position* of the command line the *directory specification of current panel*

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM]*.*;*      DUB0:[VOVA]*.*;*
  ..                                       No files found
  /A.DIR;1
  /B.DIR;1
  /SRC.DIR;1
  FSPEC_PT.OBJ;1
  FSPEC_PT.VAX_OBJ;1
  README.TXT;26
  SAVE_UTFM.C;5
  SP2.EXE;3
  VTED.TPU;1
  VTFM.COM;15
  VTFM.VAX_EXE;285




     532750 blocks    7-11-2004 00:27:36           /ROOT-DIR/
(VTfm)INFORT::DECC> dir/fu SYS$SYSDEVICE:[VOVA.DECC.UTFM]█
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

Moreover, by pressing *^F* (File) key you can *insert to the current position* of the command line the *file specification of current file* (with trailing space " " symbol)

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM]*.*;*      DUB0:[VOVA]*.*;*
                                          No files found
 ..
 /A.DIR;1
 /B.DIR;1
 /SRC.DIR;1
 FSPEC_PT.OBJ;1
 FSPEC_PT.VAX_OBJ;1
 README.TXT;26
 SAVE_VTFM.C;5
 SP2.EXE;3
 VTED.TPU;1
 VTFM.COM;15
 VTFM.VAX_EXE;285




    532750 blocks    7-11-2004 00:27:36              /ROOT-DIR/
(VTfm)INFORT::DECC> dir/fu SYS$SYSDEVICE:[VOVA.DECC.UTFM]SP2.EXE;3 █
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

For execute this command press *<Return>* (*<Enter>*) key. VTfm creates a subprocess in which this command will be executed

```
SP2.EXE;3                    File ID:  (5590,13,0)
Size:         532750/532755    Owner:    [VERSH,VOVA]
Created:     7-NOV-2004 00:27:36.95
Revised:     3-JAN-2005 23:42:33.65 (2)
Expires:     <None specified>
Backup:      <No backup recorded>
Effective:   <None specified>
Recording:   <None specified>
File organization:   Sequential
Shelved state:       Online
Caching attribute:   Writethrough
File attributes:     Allocation: 532755, Extend: 0, Global buffer count: 0
                     No version limit
Record format:       Fixed length 512 byte records
Record attributes:   None
RMS attributes:      None
Journaling enabled:  None
File protection:     System:RWED, Owner:RWED, Group:RE, World:
Access Cntrl List:   None
Client attributes:   None

Total of 1 file, 532750/532755 blocks.

Press any key... █
```

Note

If you receive a message about *exceeded quota* then *increase Pgflquo* quota for your account.

After pressing some key you return to VTfm panels screen with empty command line

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM]*.*;*        DUB0:[VOVA]*.*;*
 ..                                         No files found
 /A.DIR;1
 /B.DIR;1
 /SRC.DIR;1
 FSPEC_PT.OBJ;1
 FSPEC_PT.VAX_OBJ;1
 README.TXT;26
 SAVE_VTFM.C;5
 SP2.EXE;3
 VTED.TPU;1
 VTFM.COM;15
 VTFM.VAX_EXE;285




     532750 blocks    7-11-2004 00:27:36              /ROOT-DIR/

(VTfm)INFORT::DECC>
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

If you want to go to the previous "PURGE" command then twice press *^V* (preVious command) key. You will see

```
SYS$SYSDEVICE:[VOVA.DECC.UTFM]*.*;*        DUB0:[VOVA]*.*;*
 ..                                         No files found
 /A.DIR;1
 /B.DIR;1
 /SRC.DIR;1
 FSPEC_PT.OBJ;1
 FSPEC_PT.VAX_OBJ;1
 README.TXT;26
 SAVE_VTFM.C;5
 SP2.EXE;3
 VTED.TPU;1
 VTFM.COM;15
 VTFM.VAX_EXE;285




     532750 blocks    7-11-2004 00:27:36              /ROOT-DIR/

(VTfm)INFORT::DECC> pu/ke:3
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

But if you press *^N* (Next command) key now then you go to "DIR" command

```
┌SYS$SYSDEVICE:[VOVA.DECC.UTFM]*.*;*──────┐┌DUB0:[VOVA]*.*;*────────────────────────┐
│ ..                                      ││ No files found                         │
│ /A.DIR;1                                ││                                        │
│ /B.DIR;1                                ││                                        │
│ /SRC.DIR;1                              ││                                        │
│ FSPEC_PT.OBJ;1                          ││                                        │
│ FSPEC_PT.VAX_OBJ;1                      ││                                        │
│ README.TXT;26                           ││                                        │
│ SAVE_UTFM.C;5                           ││                                        │
│ SP2.EXE;3                               ││                                        │
│ VTED.TPU;1                              ││                                        │
│ UTFM.COM;15                             ││                                        │
│ UTFM.VAX_EXE;285                        ││                                        │
│                                         ││                                        │
│                                         ││                                        │
│                                         ││                                        │
│                                         ││                                        │
│                                         ││                                        │
│                                         ││                                        │
│                                         ││                                        │
│                                         ││                                        │
│     532750 blocks     7-11-2004 00:27:36││              /ROOT-DIR/                │
└─────────────────────────────────────────┘└─────────────────────────────────────────┘
(VTfm)INFORT::DECC> dir/fu SYS$SYSDEVICE:[VOVA.DECC.UTFM]SP2.EXE;3
11GotoVMS 12GotoDir 13View 14Edit 15Copy 16RenMov 17MkDir 18Delete 19FKey 20Quit
```

3.19 Environment file

When exit VTfm creates environment file **SYS$LOGIN:ENVIRONMENT.DAT** for storing the following information:

- ✓ directory panels orientation (left/right or top/bottom);
- ✓ current directory panel (left/right/top/bottom);
- ✓ file size measure (blocks or bytes);
- ✓ disk device and directory specification (for each panel);
- ✓ filtering wildcard mask (for each panel);
- ✓ selection wildcard mask (for each panel);
- ✓ current file bar position (for each panel).

So, when you run VTfm again your last working environment will be restored! **Don't edit file SYS$LOGIN:ENVIRONMENT.DAT**! But if any problems with this file simply delete it.

4. VTfm customizing

4.1 Edit some parameters in source code

You can modify the values of the following constants in VTfm source code

- MAX_COMM_QUA - *maximum number of command lines (def is 64),*
- MAX_COMM_LEN - *maximum length of command line (def is 4096),*
- MAX_DIR_FQUA - *maximum number of files in directory panel (def is 8192),*
- REC_BUFF_SIZE - *I/O buffer size for file coping (def is 127 blocks)*

To do this edit file VTFM.C and modify values in the following lines

- #define MAX_COMM_QUA   64
- #define MAX_COMM_LEN   4096
- #define MAX_DIR_FQUA   8192
- #define REC_BUFF_SIZE   127

4.2 F1-F10 keys instead of F11-F20

The default VTfm operation keys for DEC VT-series terminals are F11-F20. But it is possible to use F1-F10 keys *on some keyboards* if run VTfm with "F1" argument:

$ VTFM F1

For example, if you use PowerTerm terminal emulator then *uncheck* "Use Emulator Alt Keys" in the PowerTerm "Terminal Setup" window
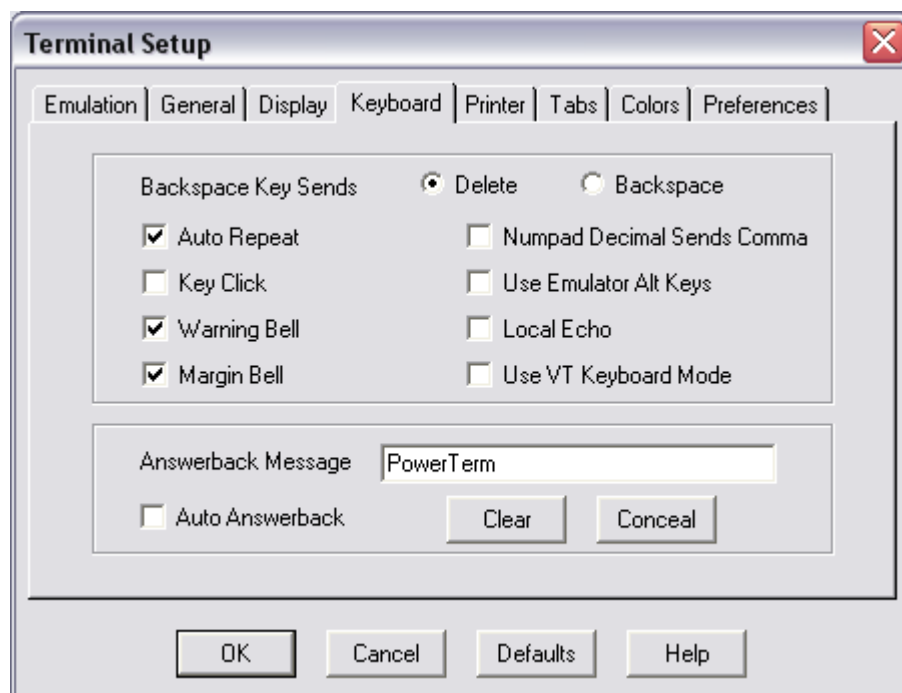
Remember that this VTfm feature is not guaranteed for hardware keyboards.

5. Development History

1991, July - First release 1.0 with name NCvtf.

- ❑ developed on VAX C 3.0;
- ❑ supports VT-terminal modes with only 24x80 rows/columns;
- ❑ uses EDT$EDIT routine for view and edit;
- ❑ works only on VAXVMS.

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2004, August - Release 2.0-0 with name VTfm.

- ❑ developed on DEC C v6.0;
- ❑ redesigned and reduced source code;
- ❑ supports VT-terminal modes with more then 24x80 rows/columns;
- ❑ uses TPU$TPU routine for view and edit;
- ❑ works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- ❑ does not accept node specification in GotoDir, Edit, Copy and RenMov operations (use VTfm command line instead in this cases);
- ❑ does not translate disk device logicals in RenMov operation, so if, for example, logicals XXX: and YYY: point to the SAME physical disk device VTfm RenMov files via copy;
- ❑ does not Copy directory files with their content (make destination directory first and then Copy source directory content);
- ❑ does not RenMov directory files with their content to ANOTHER logical or physical disk device (make destination directory first and then RenMov source directory content);
- ❑ does not open any archive files (use correspondent utility in VTfm command line).

2004, October - Release 2.2-6

- ❑ Copy, RenMov and Delete DIRECTORY TREES;
- ❑ supports LOGICALs when GotoDir, Copy or RenMov (SYS$LOGIN, SYS$MANAGER, SYS$COMMON, SYS$COMMON:[SYSMGR] etc.);
- ❑ recognizes the same disk device with DIFFERENT logical names when RenMov, so if, for example, logicals XXX: and YYY: point to the SAME physical disk VTfm RenMov files WITHOUT copy;
- ❑ works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- ❑ supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- ❑ does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- ❑ does not support EXTENDED FILE SPECIFICATIONS on ODS-5 volumes;
- ❑ does not open any archive files (use correspondent utility in VTfm command line).

2004, October - Release 2.2-8

- ❑ some changes and additions of function keys when input and edit lines (see also 19FKey description):
  - ✓ ^P - extract **P**revious command line (instead of ^E),
  - ✓ ^H - cursor to beg of line,
  - ✓ ^E - cursor to end of line,
  - ✓ ^U - delete chars from beg of line to current position;
- ❑ some minor bug fixes;
- ❑ works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- ❑ supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- ❑ does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- ❑ does not support EXTENDED FILE SPECIFICATIONS on ODS-5 volumes;
- ❑ does not open any archive files (use correspondent utility in VTfm command line).

2004, November - Release 2.2-9

- ❑ speed up Copy operation more than 3 times (127 blocks size of I/O buffer);
- ❑ change ^P function key (extract **P**revious command line) to ^V (extract pre**V**ious command line) for use VTfm on Console terminal;
- ❑ works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- ❑ supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- ❑ does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- ❑ does not support EXTENDED FILE SPECIFICATIONS on ODS-5 volumes;
- ❑ does not open any archive files (use correspondent utility in VTfm command line).

2004, November - Release 2.2-A

- supports possibility of using F1-F10 keys on some keyboards instead of default F11-F20 keys (use "f1" argument when run VTfm);
- some bug fixes;
- works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- does not support EXTENDED FILE SPECIFICATIONS on ODS-5 volumes;
- does not open any archive files (use correspondent utility in VTfm command line).

2005, January - Release 2.3-2

- first release with support of EXTENDED FILE SPECIFICATIONS on ODS-5 volumes;
- command line is up to 4K chars;
- some bug fixes;
- works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- does not open any archive files (use correspondent utility in VTfm command line).

2005, March - Release 2.3-4

- fix bug concerning incorrect display of file size in bytes when it more than 4GB;
- some bug fixes concerning long file names;
- works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- does not open any archive files (use correspondent utility in VTfm command line).

2005, March - Release 2.3-7

- improved overall performance;
- dynamic memory allocation for directory panels and command strings;
- more accurate code concerning the circumflex symbol (^) in file and directory specifications (in particular concerning the Unicode chars);
- works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- does not open any archive files (use correspondent utility in VTfm command line).

2005, March - Release 2.3-8

- environment file SYS$LOGIN:VTFM$ENVIRONMENT.DAT added for storing the following information when exit VTfm:
    - ✓ directory panels orientation (left/right or top/bottom);
    - ✓ current directory panel (left/right/top/bottom);
    - ✓ file size measure (blocks or bytes);
    - ✓ disk device and directory specification (for each panel);
    - ✓ filtering wildcard mask (for each panel);
    - ✓ selection wildcard mask (for each panel);
    - ✓ current file bar position (for each panel);
- some minor bug fixes;
- works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- does not open any archive files (use correspondent utility in VTfm command line).

2005, April - Release 2.3-9

- ❑ some more enhancements concerning Find, Select and UnSelect functions:
  - ✓ possibility of using zero or nigative version numbers in wildcard masks (such as *.*;0 or *.*;-2 e.t.c.);
  - ✓ VTfm shows now the number of selected files in file statistics line;
  - ✓ VTfm switch OFF the Select (Sel) key when ALL files in diectory panel are selected;
  - ✓ VTfm switch OFF the Unselect (Rem) key when there are NO selected files in directory panel;
- ❑ some minor bug fixes;
- ❑ works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- ❑ supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- ❑ does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- ❑ does not open any archive files (use correspondent utility in VTfm command line).

2005, April - Release 2.3-A

- ❑ fix some bug concerning modification of Select function in VTfm release 2.3-9;
- ❑ works on VAX, Alpha and IA64 with OpenVMS.

Currently known restrictions:

- ❑ supports only LOCAL or CLUSTERWIDE disk devices when GotoDir, Copy, RenMov or Delete (if need to use NODE specification use VTfm command line);
- ❑ does not support "*", "%", "?", "[.", ".]", "[-", ".-" and "..." in DIRECTORY specification when GotoDir, Copy or RenMov;
- ❑ does not open any archive files (use correspondent utility in VTfm command line).