

VMS WordPerfect Installation Guide

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1.0 INTRODUCTION

Hello, VMS brethren and sistren! The VMS Liberation Front (VLF) are back in business again. This time we have prepared a very special present for you. Et voila! But what do we see? Some of you have begun to frown, others do sport unkind lopsided grimaces, and the most emotional of you have been striking their fists on the table, so strongly, that even a VT220s tube filament starts trembling. And the cat reposing peacefully on top of the cabinet, where all the VMS manuals are squirreled away, awakens with a start and stares at his master in a manner most unapproving. What can be so special about a plain, boring, text editor, you, probably, are thinking? Stop speculating, dear VMS hacker. It is neither plain nor boring. It was the most popular and functional text editor on the planet at one time. It was originally created for the Data General Nova minicomputer series and was then later ported to a vast panoply of other computing platforms. Yes, we are talking about WordPerfect.

So what is special about this editor? Let us review some of its salient features:

- o Thesaurus
- o Spellchecker
- o Multiple fonts
- o Wide range of printer models support
- o Tables
- o Powerful macro language
- o Mathematical formulas
- o Bitmap and Vector Graphics
- o Multiple columns
- o WYSIWYG

The basic functions of WordPerfect require a VT100 compatible text terminal. If the terminal is also VT220 compatible and also supports soft fonts loading - then WordPerfect renders text according to the selected style. For example, italic styled text on the terminal looks exactly like that - as italic. Moreover, if WordPerfect is running in the DECWindows environment or on a text terminal that has graphics support - then the formula editor allows you to preview formulas graphically. And the printing preview mode allows you to see your document exactly as it would be printed.

2.0 RELEASE CONTENT

The DOS and VMS WordPerfect editions substantially overlap in functionality and the concomitant keyboard shortcut assignments. Consequently, we have included additional WordPerfect for DOS documentation for your perusal.

- o WordPerfect 5.1 for DOS Macros and Templates book.
 - * Docs\PC\
Bantam_Pubs_1990-WordPerfect_5.1_Macros_and_Templates.chm
 - * Docs\PC\
Bantam_Pubs_1990-WordPerfect_5.1_Macros_and_Templates-disk1.zip
 - * Docs\PC\
Bantam_Pubs_1990-WordPerfect_5.1_Macros_and_Templates-disk2.zip

- o Introduction to WordPerfect 5.1 for DOS teaching course
 - * Docs\PC\CCC-Introduction_to_WordPerfect_5.1.pdf
- o Easily into WordPerfect 5 book
 - * Docs\PC\Macmillan_1990-Easily_into_WordPerfect_5.pdf
- o Official tutorial for WordPerfect 5.1 for DOS common tasks
 - * Docs\PC\WPC_1989-WordPerfect_5.1_Workbook_for_IBM_PC.pdf
- o Beginners tutorial for WordPerfect 5.1 for VMS
 - * Docs\VMS\STScI_1996-WordPerfect_5.1_VMS_Tutorial.pdf
- o WordPerfect 5.0 for VAX/VMS Systems System Manager's Guide
 - * Docs\VMS\WPC_1990-WordPerfect_5.0_System_Managers_Guide.pdf
- o SSI company and WordPerfect history book
 - * Docs\Prima_Pubs_1994-Almost_Perfect.pdf
- o WordPerfect 5.3 for VMS advertising
 - * Docs\SPD\wp53.pdf
- o WordPerfect 5.3 for VMS distributions
 - * Install\WPC053ENGLISHVAX.ZIP
 - * Install\WPC053ENGLISHAXP.ZIP
- o Licenses
 - * Install\WPC053_LIC_25-SEP-2014.ZIP

- o Installation guide
 - * AAAREADME.TXT
 - * AAAREADME.PDF (A4, Printer friendly)

3.0 INSTALLATION

Due to the help of one kind man (thank you, @L8K\$!), this release includes a scanned copy of the "WordPerfect 5.0 for VAX/VMS Systems System Manager's Guide". This document has a lot of useful information and includes a chapter devoted to the installation process. Unfortunately, this guide is partially obsolete, so use it with care. For example, the licensing scheme as described in that guide has nothing in common with the licensing scheme for WordPerfect 5.3.

The steps one should perform to establish a perfectly working instance of WordPerfect on your VMS node are:

- o Unpack the distribution archive
- o Validate WordPerfect VMS system requirements
- o Install the modules in the correct sequence
- o Configure the WordPerfect startup script to be executed upon system startup
- o Execute the WordPerfect startup script
- o Install the WordPerfect license

3.1 WordPerfect Distribution Unpacking

The release includes following WordPerfect distributions:

- o WPC053ENGLISHVAX.ZIP - for VAX platform
- o WPC053ENGLISHAXP.ZIP - for AXP platform

You need to select the relevant distribution file required for the target VMS CPU platform and then unpack it. The unpacking must be executed on VMS, using an unpacking utility installed there, because the archives include VMS specific file system information.

VAX distribution unpacking example:

```

.....
$ unzip WPC053ENGLISHVAX.ZIP -d [.VAX]
Archive:  INST:[WP053]WPC053ENGLISHVAX.ZIP;1
  inflating: INST:[WP053.VAX]CVT000.A
  inflating: INST:[WP053.VAX]CVT000.B
  inflating: INST:[WP053.VAX]CVT000.C
  inflating: INST:[WP053.VAX]CVT000.D
  inflating: INST:[WP053.VAX]CVT000.LNG
  inflating: INST:[WP053.VAX]CVT000.SYS
  inflating: INST:[WP053.VAX]ENV000.A
  inflating: INST:[WP053.VAX]ENV000.B
  inflating: INST:[WP053.VAX]ENV000.C
  inflating: INST:[WP053.VAX]ENV000.D
  inflating: INST:[WP053.VAX]ENV000.LNG
  inflating: INST:[WP053.VAX]ENV000.SYS
  inflating: INST:[WP053.VAX]LF_DM010.A
  inflating: INST:[WP053.VAX]LF_DM010.B
  inflating: INST:[WP053.VAX]LF_DM010.C
  inflating: INST:[WP053.VAX]LF_DM010.D
  inflating: INST:[WP053.VAX]LF_DM010.LNG
  inflating: INST:[WP053.VAX]LF_DM010.SYS
  inflating: INST:[WP053.VAX]PTR051.A
  inflating: INST:[WP053.VAX]PTR051.B
  inflating: INST:[WP053.VAX]PTR051.C
  inflating: INST:[WP053.VAX]PTR051.D
  inflating: INST:[WP053.VAX]PTR051.LNG
  inflating: INST:[WP053.VAX]PTR051.SYS
  inflating: INST:[WP053.VAX]WPC053.A
  inflating: INST:[WP053.VAX]WPC053.B
  inflating: INST:[WP053.VAX]WPC053.C
  inflating: INST:[WP053.VAX]WPC053.D
  inflating: INST:[WP053.VAX]WPC053.LNG
  inflating: INST:[WP053.VAX]WPC053.SYS
.....

```

3.2 Validating The WordPerfect System Requirements

WordPerfect system requirements

Parameter	VAX AXP	
-----	-----	-----
Disk space, blocks	60000	100000
Global Pages	24000	47000
Global Sections	310	91

Additionally, WordPerfect requires that the system queue manager be available.

All following examples are for VAX platform. Steps to be performed for AXP platform are exactly the same.

3.2.1 Disk Space -

```
.....
$ SHOW DEV SYS$DISK

Device          Device      Error   Volume      Free      Trans      Mnt
Name            Status      Count   Label        Blocks    Count      Cnt
KREMVX$DUA0:    Mounted     0  OVMSVAXSYS  1538064    164        1
.....
```

We are interested in the FreeBlocks column value. If the specified value is lower than that required - then you should enlarge the system volume space or install WordPerfect onto another disk volume that has enough free space. The last variant adds additional complexity to the installation process, and so it is omitted from this guide.

3.2.2 Global Pages -

```
.....
$ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLPAGES")
136
.....
```

As you can see, in this example, we have 136 free global pages at our disposal. But according to the WordPerfect system requirements, the minimal required value is 24000. Thus we have no choice but to change that system parameter. Let us calculate the new free global pages value. At first, we should determine the total global pages count:

```
.....
$ WRITE SYS$OUTPUT F$GETSYI("GBLPAGES")
14900
.....
```

Then we then add this value to the required global pages count, subtract the free global page count and then, to leave some free resources available for the future, multiply the result by 1.5. To make result look more aesthetic, let's round it:

New GBLPAGES value = (14900 + 24000 - 136) * 1.5 ~ 60000

Finally we should set the MIN_GBLPAGES system parameter to the calculated value. To do that, open SYS\$SYSTEM:MODPARAMS.DAT in your preferred text editor and then add a new line (or edit it, if it is already present) so that:

```
MIN_GBLPAGES=60000
```

Save changes and then exit from the text editor.

3.2.3 Global Sections -

The steps that you need to perform are the same as described earlier, only the parameter names are different.

```
.....
$ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLSECTS")
78
.....
```

Again, in our example, we are short on the free global sections count. To find out the total available global sections count:

```
.....
$ WRITE SYS$OUTPUT F$GETSYI("GBLSECTIONS")
300
.....
```

Add the required value to the global sections count, subtract the available global sections count, multiply for 1.5, to establish a contingencies buffer, and then round:

```
New GBLSECTIONS value = (300 + 310 - 78) * 1.5 ~~ 800
```

Now set the MIN_GBLSECTIONS system parameter to the calculated value. To do that, open SYS\$SYSTEM:MODPARAMS.DAT in your preferred text editor and then add a new line (or edit it, if it is already present) so that:

```
MIN_GBLSECTIONS=800
```

Save the changes and exit from the text editor.

3.2.4 Queue Manager -

```
.....
$ SHOW QUEUE
%JBC-E-JOBQUEDIS, system job queue manager is not running
.....
```

If the system is showing the available queue list instead of generating an error message - then skip to the next section.

The error status signals that the VMS system queue manager is not available. Let's try to start it:

```
.....
$ START /QUEUE /MANAGER
%JBC-E-QMANNOTSTARTED, queue manager could not be started
.....
```

If you are getting no error this time - then try to list the available queues (SHOW QUEUE). Create the SYS\$BATCH queue, if it is absent in that listing (a command line example is below), and then skip to the next section.

On the contrary, if the error is present - then we must initialize the queue manager's file structures and then start the queue manager:

```
.....
$ START /QUEUE /MANAGER /NEW
.....
```

After that, create the SYS\$BATCH batch job queue:

```
.....
$ INIT /QUEUE /BATCH /START SYS$BATCH
.....
```

The only remaining action to complete with the queue manager is to uncomment the SYS\$BATCH queue startup in the system startup DCL (Digital Command Language) script SYS\$MANAGER:SYSTARTUP_VMS.COM (START /QUEUE SYS\$BATCH line).

3.2.5 Applying The System Parameters Changes -

If you had to modify the SYS\$SYSTEM:MODPARAMS.DAT file in either the 3.2.2 or the 3.2.3 sections - then you must apply the performed changes and then reboot the system. To do that:

```
.....
$ @SYS$UPDATE:AUTOGEN GETDATA GENPARAMS
%AUTOGEN-I-BEGIN, GETDATA phase is beginning.
%AUTOGEN-I-NEWFILE, A new version of SYS$SYSTEM:PARAMS.DAT has been created.
    You may wish to purge this file.
%AUTOGEN-I-END, GETDATA phase has successfully completed.
%AUTOGEN-I-BEGIN, GENPARAMS phase is beginning.
%AUTOGEN-I-NEWFILE, A new version of SYS$MANAGER:VMSIMAGES.DAT has been
created.
    You may wish to purge this file.
```

```
*****
%AUTOGEN-W-REPORT, Warnings were detected by AUTOGEN. Please review the
    information given in the file SYS$SYSTEM:AGEN$PARAMS.REPORT
*****
```

```
%AUTOGEN-I-REPORT, AUTOGEN has produced some informational messages which
    have been stored in the file SYS$SYSTEM:AGEN$PARAMS.REPORT. You may
    wish to review the information in that file.
```

```
%AUTOGEN-I-NEWFILE, A new version of SYS$SYSTEM:SETPARAMS.DAT has been created.
    You may wish to purge this file.
%AUTOGEN-I-END, GENPARAMS phase has successfully completed.
```

```
$ @SYS$UPDATE:AUTOGEN SETPARAMS REBOOT
%AUTOGEN-I-BEGIN, SETPARAMS phase is beginning.
%AUTOGEN-I-END, SETPARAMS phase has successfully completed.
%AUTOGEN-I-BEGIN, REBOOT phase is beginning.
```

The system is shutting down to allow the system to boot with the generated site-specific parameters and installed images.

The system will automatically reboot after the shutdown and the upgrade will be complete.

.....

After the system reboot is complete, to make sure you that did not make any errors, check the VMS system parameters again against WordPerfect system requirements.

3.3 WordPerfect Installation

The installation process should be performed under the SYSTEM account. The WordPerfect distribution contents are:

Module	Description
-----	-----
CVT000	Conversion Module
ENV000	Environment Module
LF_DM010	List Files Module
PTR051	PTR51 Print Module
WPC053	WordPerfect 5.3 Module

Our goal is to install all these modules in exactly the specified sequence. Whilst the modules can be installed separately, the installer expects that the installation will have been performed in a single installation session:

```
.....
$ @SYS$UPDATE:VMSINSTAL CVT000,ENV000,LF_DM010,PTR051,WPC053
.....
```

The installer will ask for the module's target directory and then start installation. Follow the installer instructions.

3.4 WordPerfect Startup Script

One of the files that the WordPerfect installation process creates is the WordPerfect startup script WPCORP\$STARTUP.COM. It initializes the WordPerfect environment, when run. Neither WordPerfect nor any of its utilities can be used until its environment is initialized.

To make the installed WordPerfect usable after the system startup we should invoke the WordPerfect startup script in the system startup DCL script. Open SYS\$MANAGER:SYSTARTUP_VMS.COM with your preferred text editor and then add the following line towards the end of file before the final "\$ EXIT" line:

```
$ @SYS$STARTUP:WPCORP$STARTUP.COM
```

In a well structured SYSTARTUP DCL script, there will be a well defined section, towards the end, where all the specific layered products and third party applications are initialized and started.

Save the changes and then exit from the text editor.

And finally, let's execute the WordPerfect startup file:

```
.....
$ @SYS$STARTUP:WPCORP$STARTUP.COM
%WPCORP-I-TITLE,          WPCORP$STARTUP V1.0   28-JUN-1991
Specific
%ENV000-I-PRDOVERRIDE, overriding command line parameters
%ENV000-S-LOGICALSINS, logicals defined for Environment
%ENV000-S-IMAGESINS, images installed for Environment
%DMG010-I-PRDOVERRIDE, overriding command line parameters
%DMG010-S-LOGICALSINS, logicals defined for List Files Module
%DMG010-S-IMAGESINS, images installed for List Files Module
%PTR051-I-PRDOVERRIDE, overriding command line parameters
%PTR051-S-LOGICALSINS, logicals defined for the PTR51 Print Module
%PTR051-S-IMAGESINS, images installed for the PTR51 Print Module
%WPC053-I-PRDOVERRIDE, overriding command line parameters
%WPC053-S-LOGICALSINS, logicals defined for WordPerfect 5.3
%WPC053-S-IMAGESINS, images installed for WordPerfect 5.3
Common
Conversion
%CVT000-I-PRDOVERRIDE, overriding command line parameters
%CVT000-S-LOGICALSINS, logicals defined for Conversion Module
%CVT000-S-IMAGESINS, images installed for Conversion Module
WP Background Queue Initializing/Starting
%WPCB-I-BGQSTARTUP, initializing/starting Background Queues
$      defineee/characteristic wpcorp$document 127
%WPCB-I-QUEINIT, WPCB$PTR_MAIN_01 queue initialized and started
%WPCB-I-QUEINIT, WPCB$PTR_MAIN_02 queue initialized and started
%WPCB-I-QUEINIT, WPCB$PTR_MAIN_03 queue initialized and started
%WPCB-I-QUEINIT, WPCB$MAIN_GENERIC generic queue initialized and started
.....
```

If you there were no errors - then it is time to install the WordPerfect license.

3.5 License Installation

The WordPerfect licensing sub-system is unique and it has no structural similarity to the VMS License Management Facility (LMF). The DCL script intended to perform the WordPerfect licensing tasks is `WPCORP$ENVDIR:WPCORP_ENV_LICENSE.COM`

A WordPerfect license consist of parameters, a checksum, and an authorization key. With the help of the `WPCORP_ENV_LICENSE.COM` script, users enter the license parameters and the checksum. The licensing script calculates a checksum based on the user entered license parameters and compares it against the user entered checksum. The license is considered valid only if both checksums, calculated and entered, happens to be equal. After that, the license is authorized to be used on the specific node with the supplied authorization key.

One of the license parameters is the license expiration date. Probably, the most curious of you are already looking into license file and are intrigued by its value. The WordPerfect licenses will expire upon the 25th of September 3014. The point is that the expiration date is a mandatory license parameter. Thus, after a series of intense discussions, the VLF team decided that a 1000 year license lifetime will not restrict the activities of most of the current VMS hackers; and in all likelihood there will still be a VMS system running, somewhere, that maintains a millennial uptime.

There is a high probability that the licenses from this Team VLF release are the only valid WordPerfect 5.3 licenses remaining on our planet. Because all the old licenses are expired and new licenses are not being sold anymore. It is important to preserve 'WordPerfect for VMS' mind-share, as a living, practiced, competency.

The license data can be entered in either an automatic or in a manual mode. Both modes are described below.

3.5.1 Automatic Mode -

To enter the license data in the automatic mode, you will need to execute the DCL script appropriate for your CPU platform.

- o `WPC053_VAX_00500003_25-SEP-2014.COM` - for the VAX platform
- o `WPC053_AXP_00500004_25-SEP-2014.COM` - for the AXP platform

The script performs all the required actions for license registration. For technical reasons, authorization key should be entered manually. The

authorization key value is shown inside of the VLF banner. Should the automatic authorization script ask for it - then enter it.

Example for VAX platform:

```

.....
$ @WPC053_VAX_00500003_25-SEP-2014.COM
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!
!               WordPerfect 5.3 VAX license               !
!
!           Authorization key: PNVS-BBJX-Z7GG             !
!
! Delivered to you by VMS Liberation Front <vlf@hush.com> !
!
! We are looking for OpenVMS commercial software suppliers !
! and testers                                              !
!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

```

License A-00500003 authorization key: PNVS-BBJX-Z7GG

3.5.2 Manual Mode -

For those of you that are not afraid of technical difficulties this section is intended.

At first you need to find out the license parameter values, checksum, and the authorization key. To do this type out the appropriate licensing script. If the DCL script content is looking like inscrutable hieroglyphics to you - then we are recommend that you to return back to the 3.5.1 section.

To manually enter the license data run the WPCORP\$ENVDIR:WPCORP_ENV_LICENSE.COM script. By selecting the appropriate menu items, enter the license parameters, checksum and perform the license authorization.

An example for the VAX platform:

```

.....
$ @WPCORP$ENVDIR:WPCORP_ENV_LICENSE

```

WPCorp Products License Management Utility, on KREMVX

- 1 - Identify node/cluster license database
- 2 - Record license data

3 - Show, Authorize or Deauthorize license(s)

4 - Delete a license

5 - Permanently disallow a license ID

Enter selection: 2

ID of license: [record defaults] A-00500003

If A-00500003 already exists, it must be reauthorized after recording.
Proceed to record A-00500003? (Yes, No) Y

Record data for license A-00500003.

```
-----  
License ID:           A-00500003  
(?)Checksum:          <not specified>  
(?)Issue Date:        17-NOV-1858  
(?)License Status:    Unregistered (temporary, register immediately)  
(?)Termination Date:  0 days after license acceptance  
(?)Superseded Licenses: Any prior version or predecessor  
(?)Distribution ID:    <not specified>  
(?)Organization Name:   
(?)Product:           <not specified> (<not specified>)  
(?)Maximum Image Date: 17-NOV-1858  
(?)License Type:       <not specified>
```

(?) = checksum detects that item may not be correct.

External file: R Read data; W Write data;
Enter data: 1 Checksum; 2 Issue & Term. Dates; 3 Superseded Lic.; 4 Dist. ID;
5 Org. Name; 6 Product & Max. Image; 7 Multi-user Sessions; 8 All: 0
.....

By sequentially selecting menu items 1, 2, 4-7 enter the following data:

```
1  AAZF-TFSC-HVHT  
  
2  25-SEP-2014  
   1  
   25-SEP-3014  
  
4  VLF-HOBBYIST-0002-000001  
  
5  VMS Liberation Front  
  
6  WPC053  
   1-NOV-2000  
  
7  3
```

Finally you should get the following typed report to your terminal screen:

.....
Record data for license A-00500003.

License ID: A-00500003
Checksum: AAZF-TFSC-HVHT
Issue Date: 25-SEP-2014
License Status: Registered
Termination Date: 25-SEP-3014
Superseded Licenses: Any prior version or predecessor
Distribution ID: VLF-HOBBYIST-0002-000001
Organization Name: VMS Liberation Front
Product: WPC053 (WordPerfect 5.3)
Maximum Image Date: 1-NOV-2000
License Type: Multi-User
Multi-User Sessions: 3

(?) = checksum detects that item may not be correct.

External file: R Read data; W Write data;

Enter data: 1 Checksum; 2 Issue & Term. Dates; 3 Superseded Lic.; 4 Dist. ID;
5 Org. Name; 6 Product & Max. Image; 7 Multi-user Sessions; 8 All: 0
.....

A Question Mark character before a license element signals data errors.
Carefully re-enter the license data until any such Question Mark characters
all disappear.

Exit current menu (0). The system signals you to commit the license au-
thorization (Y):

.....
Licenses may only be authorized if validated by checksum -- no (?)'s above.

Authorize license A-00500003? (Yes, No) Y
.....

Next, the system asks for the node name of the VMS system. Use the sug-
gested value.

.....
Node/cluster to authorize: [KREMVX]
.....

Enter the authorization key:

.....
Authorizing selected licenses. Enter the authorization keys.

License A-00500003 authorization key: PNVS-BBJX-Z7GG

Authorization complete.

Record another license? (Yes, No) N
.....

By answering 'N', we are then returned back to the main menu. Enter 0 to exit. To save, entered license, answer 'Y'.

4.0 STARTING WORDPERFECT

The terminal emulator software that you will be using should provide VT220 terminal emulation compatibility. In fact, VT100 compatibility is sufficient but some of the handy WordPerfect functionality will not be available. As far as we know, Micro Focus Attachmate Reflection is the best that your money can buy, however it is hungry for system resources. Celestial Software Absolute Telnet is lightweight and comfortable, but it does have some minor terminal emulation issues. One little known but nevertheless functional, with top quality terminal emulation, is the VTStar terminal emulator. It's free and it can be found on the VMS Freeware v7.0 distribution.

Additionally, the VLF team recommends that you obtain a true DEC compatible keyboard with the additional VT220 function keys. This can be one of the LK411, LK450, LK461, or other similar DEC keyboards with the PS/2 interface. Of course additional keys can be simulated by mapping key combinations to appropriate ESC (Escape) sequences on a plain Windows PC keyboard. But going that way you lose most of usability magic that the DEC hardware and software engineers had worked so hard to deliver to the end user. In fact this recommendation is generic to VMS text terminal activity and is not limited to the WordPerfect interaction. All mentioned terminal emulators provide complete support for these keyboards. The Absolute Telnet keyboard mapping needs to be configured, others support these keyboards out of the box.

If you decided to buy such a keyboard and your computer system lacks a PS/2 interface, then you are in some trouble. Most PS/2 to USB converters will not pass the scan codes for the additional DEC specific keys. The only working solution known to the VLF is the "Soarer's Converter". Detailed information is available at these URLs:

- o <http://www.wickensononline.co.uk/rc2012sc/2014/01/21/lk450-keyboard-ps2-usb-interface/>

- o <https://deskthority.net/workshop-f7/xt-at-ps2-terminal-to-usb-converter-with-nkro-t2510.html>

Finally, let's start WordPerfect for VMS. To do this, enter the WP or WP53 command at a DCL prompt. The VMS help sub-system provides complete WordPerfect command line parameters reference documentation (HELP WP).

If the WordPerfect startup logo or menus are garbled - check that the VMS terminal settings (SHOW TERMINAL) are in agreement with your terminal emulator settings. Unfortunately no terminal emulators are known to the VLF team that support the complete emulated terminal command set. Moreover, sometimes, even the most prominent terminal emulators incorrectly implements basic terminal features. Such as 8-bit control character support for VT220 compatible terminals. So at first try to disable soft fonts loading and 8-bit character support:

```
.....  
$ SET TERM /NOEIGHT /NOSOFT  
.....
```

If this didn't help - change your terminal emulator software to one of those of mentioned earlier.

Some useful keyboard shortcuts:

Ctrl+Z	Exit from editor
PF1 -> (Right arrow)	Activate menu
Help (F15)	Activate help subsystem

5.0 CONCLUSION

With frank and fearless candour, comrades, the VLF team confesses that we prefer EVE and DSR to all these new-fangled editors with bells and whistles. But even our hard-head, hard-hat, decommissioned nuclear missile silo bunkered brains, and hardened hearts, have become warm and soft after acquaintance with WordPerfect for VMS. It was, it is, and it remains, real state of art in design and implementation.

Besides WordPerfect, the Satellite Software International corporation did produce other VMS software:

- o WordPerfect Office
- o WordPerfect Integration for ALL-IN-1

- o PlanPerfect

If, by serendipitous happenstance, you have distributions of any these softwares in your archives, or you have distributions of other commercial VMS software, including, but not limited to, hardware virtualization software, or if you have any questions, or if you would like to discuss some matter - then please do not hesitate to contact us.

VMS Liberation Front
In VMS We Trust
VLF@HUSH.COM
25 Dec 2016