

VSI OpenVMS

VSI OMNI API Software Installation Guide

Operating System and Version: VSI OpenVMS IA-64 Version 8.4-1H1 or higher
VSI OpenVMS Alpha Version 8.4-2L1 or higher

Software Version: VSI OMNI API Version 4.1

VSI OMNI API Software Installation Guide



VMS Software

Copyright © 2024 VMS Software, Inc. (VSI), Boston, Massachusetts, USA

Legal Notice

Confidential computer software. Valid license from VSI required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

The information contained herein is subject to change without notice. The only warranties for VSI products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. VSI shall not be liable for technical or editorial errors or omissions contained herein.

HPE, HPE Integrity, HPE Alpha, and HPE Proliant are trademarks or registered trademarks of Hewlett Packard Enterprise.

Intel, Itanium and IA64 are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Java, the coffee cup logo, and all Java based marks are trademarks or registered trademarks of Oracle Corporation in the United States or other countries.

Kerberos is a trademark of the Massachusetts Institute of Technology.

Microsoft, Windows, Windows-NT and Microsoft XP are U.S. registered trademarks of Microsoft Corporation. Microsoft Vista is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

Motif is a registered trademark of The Open Group.

UNIX is a registered trademark of The Open Group.

Table of Contents

Preface	v
1. About VSI	v
2. Intended Audience	v
3. Document Structure	v
4. Associated Documents	v
5. OpenVMS Documentation	v
6. VSI Encourages Your Comments	vi
7. Conventions	vi
Chapter 1. Introduction to VSI OMNI API	1
1.1. Product Description	1
1.2. Checking the Contents of the Kit	1
Chapter 2. Preparing for Installation	3
2.1. Backing Up Your System Disk	3
2.2. Hardware Requirements	3
2.3. Prerequisite Software	3
2.4. Preinstallation Requirement	4
2.5. Preliminary VMS Class Considerations	4
2.6. Checking the VMS Version	4
2.7. Obtaining Required Privileges	4
2.8. Disk Space Requirements	4
2.9. Setting Required System Parameters	5
2.9.1. Displaying System Parameters	5
2.9.2. Changing System Parameter Values with AUTOGEN	5
2.10. Setting Required Account Process Quotas	6
2.11. Running the License Registration	7
2.12. Displaying and Printing Release Notes	7
Chapter 3. Installing VSI OMNI API	9
3.1. VSI OMNI API Installation Procedure	9
Chapter 4. Postinstallation Considerations	15
4.1. Starting VSI OMNI API	15
4.2. Running the Installation Verification Procedure	15
4.3. Resolving IVP Failures	16
4.4. User Account Quotas and Privileges	17
4.5. Stopping VSI OMNI API	17
4.6. VSI OMNI API Example Programs	18
4.7. The VSI OMNI API Database and Rdb	18
4.8. Determining and Reporting Problems	18
Appendix A. VSI OMNI API Files Added or Modified on the System	19
A.1. Files Added	19
A.2. Files Modified	21
Appendix B. Installation Example	23
B.1. Installation Session	23
Appendix C. Products on Your System	27

Preface

The *VSI OMNI API for OpenVMS Installation Guide* describes how to install VSI OMNI API.

1. About VSI

VMS Software, Inc. (VSI) is an independent software company licensed by Hewlett Packard Enterprise to develop and support the OpenVMS operating system.

2. Intended Audience

This document is for system and network managers.

3. Document Structure

The *VSI OMNI API for OpenVMS Installation Guide* is structured as follows:

Chapter 1 contains introductory information about VSI OMNI API software and online documentation.

Chapter 2 describes the preparations and requirements necessary for installing VSI OMNI API.

Chapter 3 describes how to install VSI OMNI API.

Chapter 4 describes postinstallation considerations.

Appendix A contains a list of files added to or modified on your system after installing VSI OMNI API.

Appendix B provides a sample installation of VSI OMNI API.

Appendix C provides information about how to check if VAX Rdb/VMS, VAX DEC/MAP, and VSI OMNI API are running on your system.

4. Associated Documents

This document is part of the following online documentation set:

VSI OMNI Application Programmer's Guide

VSI OMNI API Guide to Using OmniView

VSI OMNI API for OpenVMS Installation Guide

VSI OMNI Network Manager's Guide

5. OpenVMS Documentation

The full VSI OpenVMS documentation set can be found on the VMS Software Documentation webpage at <https://docs.vmssoftware.com>.

6. VSI Encourages Your Comments

You may send comments or suggestions regarding this manual or any VSI document by sending electronic mail to the following Internet address: <docinfo@vmssoftware.com>. Users who have VSI OpenVMS support contracts through VSI can contact <support@vmssoftware.com> for help with this product.

7. Conventions

The conventions found in the following table are used in this document.

Convention	Meaning
Return	Press the Return key.
UPPERCASE TYPE	All uppercase letters in a command line indicate keywords that must be entered. You can enter them in either uppercase or lowercase. You can use the first three characters to abbreviate command keywords, or you can use the minimum unique abbreviation.
<i>lowercase ital-ics</i>	Lowercase italics in command syntax or examples indicate variables for which either you or the system supplies a value.
[]	In examples showing VMS directory specifications, square brackets are a necessary part of the specification, [<i>directory-name</i>]. In a procedure, square brackets in an inquiry enclose the default response for the inquiry.
key	Press the specified key.
CTRL / <i>x</i>	While holding down the Ctrl key, press the key specified by <i>x</i> .
⋮	Vertical ellipses (dots) in examples represent data that has been omitted.

Chapter 1. Introduction to VSI OMNI API

This chapter provides information about VSI OMNI API, the contents of the VSI OMNI API kit, and VMSINSTALL.

1.1. Product Description

VSI OMNI API is Digital's OSI-based software product that implements the ISO 9506 specification. VSI OMNI API provides Manufacturing Messages Specification (MMS) services for a VMS application program. MMS supports applications involved in the control and monitoring of manufacturing devices in a distributed processing environment. VSI OMNI API provides communication support over an IEEE 802.3 or IEEE 802.4 physical layer.

For a complete product description of VSI OMNI API, see the *VSI OMNI API Software Product Description (SPD)* (SPD) included in this kit.

1.2. Checking the Contents of the Kit

Check your distribution kit to ensure it contains everything listed on the Bill of Materials (BOM).

VSI OMNI API software is available on CompacTape (TK50) and Magtape. This tape contains VSI OMNI API software and online documentation.

The kit includes a Digital Product Authorization Key (PAK) for the VSI OMNI API software. You use the PAK to supply information to the VMSLICENSE procedure as described in

Chapter 2. Preparing for Installation

This chapter explains the preparations you need to make before you begin installing VSI OMNI API.

Also, this chapter explains how to access the VSI OMNI API release notes and provides information about backing up your system disk.

The following sections provide details about the preparatory steps you take when installing VSI OMNI API.

2.1. Backing Up Your System Disk

At the beginning of the installation, VMSINSTAL asks if you have backed up your system disk. Digital recommends that you do a system disk backup before installing any software.

Use the backup procedures that are established at your site. For details in performing a system disk backup, see the *VMS System Management Subkit*.

2.2. Hardware Requirements

The appropriate IEEE 802.3 or IEEE 802.4 communication controller must be installed on your VAX computer before installing VSI OMNI API, and your VAX computer must meet the hardware requirements specified in the VSI OMNI API Software Product Description/System Support Addendum (SPD/SSA).

2.3. Prerequisite Software

Prerequisite software and software versions may change. For the most accurate prerequisite information, please consult the current VSI OMNI API System Support Addendum (SSA 32.32.xx) which is part of the VSI OMNI API Software Product Description (SPD 32.32.xx).

Before you install VSI OMNI API, you must install the following software:

- VMS V5.3 or V5.4
- VAX Rdb/VMS (Run-time option) V4.0
- VAX DEC/MAP V3.0

Note

In addition to having all prerequisite software installed before installing VSI OMNI API, you must also have VAX Rdb/VMS running before VSI OMNI API installation; and if you plan to run the VSI OMNI API IVP as part of the VSI OMNI API installation (which is recommended), you must also have VAX DEC/MAP running before installing VSI OMNI API.

2.4. Preinstallation Requirement

Before you install and use VSI OMNI API, you must *configure* and *tart* DECnet. The DECnet services that VMS provides are sufficient to accomplish this task - a DECnet license is not a prerequisite for VSI OMNI API.

You will need to run **NETCONFIG.COM** and **STARTNET.COM**. For further information, see the *VMS System Management Subkit*.

2.5. Preliminary VMS Class Considerations

The following VMS classes are required for full functionality of this VMS layered product:

- VMS Required saveset
- Network
- Programming support
- System Programming support
- Utilities

2.6. Checking the VMS Version

To check the VMS version of your system, use the following command:

```
$ write sys$output f$getsysi("version")  
Return
```

2.7. Obtaining Required Privileges

Before you can install VSI OMNI API, you must have the following: On the SYSTEM account, you should have SETPRV privileges, or CMKRNL, WORLD, and SYSPRV privileges. You can verify that you have those privileges by issuing the following command:

```
$ show process/privileges  
Return
```

2.8. Disk Space Requirements

Table 2.1 indicates the amount of free disk space you need before you install VSI OMNI API and the amount of free disk space you need for permanent use by VSI OMNI API.

Table 2.1. Installation Options and Disk Space

Installation Type	Blocks To Install	Blocks for Permanent Use
Software only	32,000	31,000
Software and documentation	43,000	41,600
Documentation only	11,000	10,600

To verify how much disk space you have, issue the following command:

```
$ show device sys$sysdevice  
Return
```

2.9. Setting Required System Parameters

System parameters must be set to the values in Table 2.2 to accommodate the space requirements for VSI OMNI API data structures:

Table 2.2. System Parameters

Parameter	Minimum Value
FREE_GBLPAGES	200
FREE_GBLSECTS	10

2.9.1. Displaying System Parameters

To check the system parameters, use the commands described in the following sections

Displaying Free Global Pages

To determine the current number of free global pages:

```
$ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLPAGES")  
Return
```

VMS displays the current value associated with the FREE_GBLPAGES parameter.

Displaying Free Global Sections

To determine the current number of free global sections:

```
$ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLSECTS")  
Return
```

VMS displays the current value associated with the FREE_GBLSECTS parameter.

For additional information about these parameters, or for help when checking values, see the *VMS System Management Subkit*.

If you need to change one or more system parameters, proceed to Section 2.9.2.

If you do not need to change system parameters, proceed to Section 2.10.

2.9.2. Changing System Parameter Values with AUTOGEN

Use the AUTOGEN command procedure to change system parameters. AUTOGEN automatically adjusts values for parameters associated with the values you reset manually. To change system parameters with AUTOGEN, edit the SYS\$SYSTEM:MODPARAMS.DAT file.

Use an editor to access the file. To change a parameter value already listed in this file, delete the current value associated with that parameter and enter the new value.

To modify incremental parameters, such as GBLPAGES and GBLSECTIONS, use ADD_. The following example increases the global page setting by 380:

```
ADD_GBLPAGES = 380
```

After you have made all your changes, exit from the editor and run the AUTOGEN procedure to recalculate your system parameters. Enter the following command at the DCL prompt:

```
$ @SYS$UPDATE:AUTOGEN GETDATA REBOOT NOFEEDBACK
```

When you specify REBOOT, AUTOGEN performs an automatic system shutdown and then reboots the system when it has finished. Any users logged on to the system are immediately disconnected during the shutdown. The automatic reboot puts the new parameter values into effect.

The AUTOGEN Utility automatically adjusts some of the SYSGEN parameters based on the consumption of resources during the last reboot. To take advantage of this feature, do *not* use the NOFEEDBACK parameter (P3) in the AUTOGEN command line.

For more information about how to use AUTOGEN, see the *VMS System Management Subkit*.

2.10. Setting Required Account Process Quotas

Before you install VSI OMNI API, you must ensure that the account from which you install (typically the SYSTEM account) and the VAX OSI Transport Service (VOTS) account have the account quotas shown in Table 2.3.

Table 2.3. Account Quotas

Attribute	Minimum Value
ASTlm	24
BIOlm	18
BYTlm	20480
DIOlm	18
ENQlm	2000
FILlm	50
Pgflquota	20000
Prclm	1+
WSdefault	256
WSextent	3072
WSquota	768

To display process quotas, use the AUTHORIZE utility:

```
$ SET DEFAULT SYS$SYSTEM
```

```
Return
```

```
$ RUN AUTHORIZE
```

```
Return
```

```
UAF> SHOW SYSTEM
```

```
Return
```

If no changes are necessary, enter the EXIT command to leave the AUTHORIZE utility.

To modify system account quotas (for example, ENQLM):

```
UAF> MODIFY SYSTEM/ENQLM=2000  
Return
```

You will get a message confirming the change. Then enter the EXIT command to leave the utility. You must log out and then log in again to reset the system account quotas.

The AUTHORIZE utility is described in the *VMS System Manager's Manual* of the VMS Base Documentation Set.

2.11. Running the License Registration

You must register the VSI OMNI API license through the VMS License Management Facility (LMF) in accordance with the license agreement signed for your site. The license registration information you need is contained in the Product Authorization Key (PAK) that is shipped with VSI OMNI API. The PAK is a paper certificate that contains information about your license to run a particular piece of software.

During the installation, VMSINSTAL asks if you have registered your VSI OMNI API license and loaded the appropriate authorization key. You must register and load your VSI OMNI API license *before* you start the installation in order to run the Installation Verification Procedure (IVP) and use the software.

To register a license under VMS, first log into the system manager's account, SYSTEM. You can then register it in one of two ways:

- Invoke the SYS\$UPDATE:VMSLICENSE.COM procedure. When it prompts you for information, respond with data from your Product Authorization Key (PAK).
- At the DCL prompt, issue the LICENSE REGISTER command with the needed qualifiers, which are listed in the PAK.

If you use VSI OMNI API on more than one node of a VAXcluster system, you must perform a license load on the other nodes after you complete this installation.

For complete information about how to use the license utility, see the *VSI OpenVMS License Management Utility Guide* in the VMS Base Documentation Set.

2.12. Displaying and Printing Release Notes

VSI OMNI API provides online release notes, which can be displayed or printed. It is recommended that you read the release notes before installation.

To display or print release notes, you must invoke VMSINSTAL with option N. Option N allows you to exit the installation procedure after reading the release notes. For more information, see Chapter 3.

VMSINSTAL automatically places the release notes with the file name OMNI011.RELEASE_NOTES in SYS\$HELP.

Chapter 3. Installing VSI OMNI API

This chapter describes how to install VSI OMNI API on your VAX computer.

The procedure described in this chapter indicates the installation of the VSI OMNI API software and the entire online documentation set.

If you use a VAXstation 3600 and the TK50 medium, you can install VSI OMNI API in approximately 20 minutes - during which time the software is installed and the online documentation is transferred.

Other hardware and medium configurations can effect the installation time.

3.1. VSI OMNI API Installation Procedure

This section contains excerpts from the installation dialog, along with explanatory text.

Digital may enhance future releases of VMSINSTAL and add additional prompts. While the additional prompts may not be documented in this guide, the installation should proceed normally.

Note

Once started, the installation procedure can be aborted at any time by pressing **Ctrl/y**. Also, you can enter a question mark (?) at anytime for additional information.

1. If you are not logged in, log in to the system manager's account or equivalent:

```
Welcome to VAX/VMS V5.4-2
Username: SYSTEM
Return
Password:
```

```
                Welcome to VAX/VMS version V5.4-2 on node SAFRON
                Last interactive login on Thursday, 28-MAR-2017 14:58
                Last non-interactive login on Thursday, 28-MAR-2017 15:36
```

2. Invoke VMSINSTAL:

```
$ @SYS$UPDATE:VMSINSTAL OMNI011 ddcu: OPTIONS N
Return
```

where: *ddcu*: is the device name, *dd* is the device code, *c* is the controller letter, and *u* is the unit number

OPTIONS N allows you to display or print the release notes and to exit the installation procedure after reading the release notes.

3. The VSI OMNI API installation procedure begins. The following VMSINSTAL prompts are displayed:

```
VAX/VMS Software Product Installation Procedure V5.4.2
It is 28-March-2017 at 15:38.
Enter a question mark (?) at any time for help.
* Are you satisfied with the backup of your system disk [YES]? Y
The following products will be processed:
```

```
OMNI V4.1
      Beginning installation of OMNI V4.1 at 15:38
%VMSINSTAL-I-RESTORE, Restoring product save set A . . .
      Release notes included with this kit are always copied to
SYS$HELP.
      Additional Release Notes Options:
          1. Display release notes
          2. Print release notes
          3. Both 1 and 2
          4. None of the above
* Select option [2]: 4
```

4. If you select option 4, as the example shows, the release notes are moved to the directory SYS\$HELP with the filename OMNI011.RELEASE_NOTES.

5. Next, VMSINSTAL displays the following message:

```
* Do you want to continue the installation [NO]? Y
```

6. You can exit the installation at this point if you want to read the release notes outside of the context of VMSINSTAL.

7. If you decide to continue the installation, the following messages are displayed:

```
%VMSINSTAL-I-REMOVED , The product's release notes have been
moved to SYS$HELP.
© VMS Software, Inc. 2018, 2017. All Rights Reserved.
Installation procedure for: VSI OMNI API V4.1
All of the VSI OMNI API documentation is now provided in an
electronic online fashion. That is, all documents are provided in
both ASCII text and Postscript file formats as part of this software
kit. Once moved to disk you may read them using any of the following
methods:
ASCII text formatted files - Using the editor of your choice.
----- - Using the DCL command TYPE/PAGE.
                        - Print the file(s).
POSTSCRIPT formatted files - Display on a workstation with VIEW command
----- - Print the file(s).
* Press RETURN to continue:
Accessing the VSI OMNI API Installation Guide
-----
You now have the following options for accessing this product's
installation guide. Note: The installation guide will always be
copied to SYS$HELP as OMNI$INSTALLATION_GUIDE.TXT filename.
1. Displayed on your screen now.
2. Print the installation guide.
3. Both 1 and 2.
4. None of the above.
* Select option [1]: 4
```

8. If you select option 4 (as indicated above), the installation guide is copied to SYS\$HELP with the name OMNI\$INSTALLATION_GUIDE.TXT. Note that you can also select display or print options.

You are now being given an opportunity to exit this installation procedure. An ASCII text format of the installation guide will be copied to SYS\$HELP even if you choose not to continue the installation at this point.

```
* Do you wish to continue this installation [N]? Y
```


9. Next, you can exit the installation procedure. You may want to exit to read the online copy of this guide.

The VSI OMNI API online documentation set consists of the following books:

Title	Filename
<i>VSI OMNI API for OpenVMS Installation Guide</i>	OMNI\$INSTALLATION_GUIDE
<i>VSI OMNI Application Programmer's Guide</i>	OMNI\$APPL_PROG_GUIDE
<i>VSI OMNI API Guide to Using OmniView</i>	OMNI\$GUIDE_TO_OMNIVIEW
<i>VSI OMNI Network Manager's Guide</i>	OMNI\$NETWORK_MNGR_GUIDE

You will now be given the option of having all of these online books copied to the destination of your choice. The amount of free disk space needed to transfer these files is approximately 11,000 blocks.

Note

NOTE: Both ASCII text and POSTSCRIPT versions of each book are provided, the filename extensions are .TXT for ASCII text and .PS for POSTSCRIPT.

* Would you like the online documentation copied to disk [Y]? **Y**

10. You can now move all of the online documents to disk. If you do not want to transfer the online documentation now, answer NO. The installation then continues.
11. If you answered Yes, the installation prompts you for the name of the directory where you want the online documentation stored. The default destination directory is SYS\$HELP. If you provide an alternate destination, it should be in the form of device:[directory] or an equivalent logical name.

* Enter the destination [SYS\$HELP]: SYS\$HELP

12. Next, the installation displays the following information:

Now checking available disk space...

* Do you wish to continue with this installation [N]? **Y**

Product: VSI OMNI API

Producer: DEC

Version: 1.1

Release Date: 4-APR-2017

13. Next, the installation displays the following authorization key prompt:

* Does this product have an authorization key registered and loaded? **Y**

VSI OMNI API can be installed but will not run unless its Product Authorization Key (PAK) is registered. Therefore, to answer Yes to the authorization key prompt, you must have registered and loaded the VSI OMNI API PAK.

If you have not registered the VSI OMNI API PAK, answer No to this question. The installation procedure continues even if you answer No, but you will not be allowed to run the Installation Verification Procedure (IVP) as part of the installation. To run the IVP in this case, register and load the VSI OMNI API PAK after the installation completes and then follow the IVP instructions found in Chapter 4

14. Next, VMSINSTAL displays the following prompt:

```
* Will you use DEC/MAP for device communications[Y]? Y
```

You should answer Yes to the device communications prompt, if you are using VSI OMNI API with VAX DEC /MAP.

15. Next, VMSINSTAL displays messages that indicate the system environment is being checked for prerequisite software, correct system parameters, and available disk space.

```
The messages displayed are as follows:
Now performing software prerequisite check . . .
Now checking system parameters . . .
Now checking for available disk space for software installation . . .
```

If VMSINSTAL finds an error within your system environment, an appropriate error message will be displayed on the screen.

16. Next, VMSINSTAL checks for process quota values and displays the following message:

```
Now checking process quota values . . .
```

17. Next, VMSINSTAL displays the following message that asks if you want files that are replaced by this installation purged:

```
* Do you want to purge files replaced by this installation [YES]? Y
```

If this is a first-time installation of VSI OMNI API, there will be no files to purge and you can answer No to the following question. If you answer Yes to the prompt, VMSINSTAL purges any files replaced by this installation.

18. Next, VMSINSTAL asks if you want to run the IVP as part of the VSI OMNI API installation procedure:

```
* Do you want to run the IVP after the installation [YES]? Y
```

If you choose not to run the IVP as part of the installation, you should invoke it independently after the installation has been completed. See Chapter 4 for details about the IVP and how to run the IVP independently.

19. At this point in the installation procedure, you must decide whether to continue the installation or abort it. Respond to the following question appropriately: This is your last chance to exit this installation procedure. After this point, the installation will go into an unattended mode of operation.

```
* Do you wish to continue with this installation [Y]? Y
If you answer NO, the installation will be aborted; if you
answer Yes, the following message is displayed:
```

```
*****
This installation will now continue in an unattended mode
of operation, which will not require any user interaction.
Estimated time to completion from this point is 20 minutes.
This estimate is based on a configuration consisting of a
VAXstation 3600 and installation from TK50 medium.
The current time is: 15:40.17
```

```
*****
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
```

```
Now building the database...
Now configuring VSI OMNI API for use with DEC/MAP as the network
provider....
%VMSINSTAL-I-SYSDIR, This product creates system directory
[SYSHLP.EXAMPLES.VSI OMNI API].
%VMSINSTAL-I-RESTORE, Restoring product save set C ...
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target
directories...
© VMS Software, Inc. 2018,2017. All Rights Reserved.
Startup procedure for: VSI OMNI API V4.1
Now checking process privileges...
Now checking for VSI OMNI API license...
Now checking that prerequisite software has been started...

MDS Application Name OMNI$IVP_SENDER
At 28-MAR-2017 15:51:28.66
Successfully registered in local directory
MDS Application Name OMNI$IVP_REC
At 28-MAR-2017 15:51:32.73
Successfully registered in local directory
Address OMNI$IVP_R_P.OMNI$IVP_R_S.OMNI$IVP_R_T.
At 28-MAR-2017 15:51:36.83
Successfully registered
SYNTAX TRANSFORMATION MMS-PCI
At 28-MAR-2017 15:51:40.06
Successfully registered
Now installing the VSI OMNI API sharable images...
Now creating the OMNI$CP process...
%RUN-S-PROC_ID, identification of created process is 20200184
%OMNI-S-STARTUP, VSI OMNI API startup successfully completed
+-----+
|
| The VSI OMNI API IVP will now be invoked.... |
|
+-----+
© VMS Software, Inc. 2018,2017. All Rights Reserved.
Installation Verification Procedure for: VSI OMNI API V4.1
Now checking process quota values...
Now creating IVP VMD's...
Now running the VSI OMNI API IVP sender application...
The VSI OMNI API IVP sender application has run successfully.
%OMNI-S-IVP, the VSI OMNI API IVP has successfully completed
    Installation of OMNI V4.1 completed at 15:52
    VMSINSTAL procedure done at 15:52
$
$ LO
    SYSTEM logged out at 28-MAR-2017 15:53:55.66
```

20. The VSI OMNI API installation is now complete.

Note

For postinstallation information, please see Chapter 4.

Chapter 4. Postinstallation Considerations

This chapter explains how to start, verify, and stop VSI OMNI API. Also, the chapter provides information on other postinstallation considerations.

4.1. Starting VSI OMNI API

You must have the following privileges enabled before you invoke the VSI OMNI API startup command procedure:

- DETACH
- PRMMBX
- SYSNAM
- CMKRNL
- SYSGBL
- PRMGBL
- WORLD
- GROUP

You can start VSI OMNI API by typing the following command:

```
$ @SYS$STARTUP:OMNI$STARTUP  
Return
```

Also, you can enter the above startup command in your system startup so that VSI OMNI API will start automatically each time the system is booted. For details about system startup, see the *VMS System Management Subkit*.

Note

Remember that the VAX DEC/MAP startup command procedure (SYS\$STARTUP:MAP\$STARTUP.COM) and the VAX Rdb/VMS (Run-time option) startup command procedure (SYS\$STARTUP:RMONSTART.COM) must be running before you invoke the VSI OMNI API startup command procedure (SYS\$STARTUP:OMNI\$STARTUP.COM).

4.2. Running the Installation Verification Procedure

If you did not run the IVP as part of the VSI OMNI API installation, you should run it independently after you have installed the product and started it.

You must have the following privileges enabled before you invoke the VSI OMNI API IVP:

- NETMBX
- PRMMBX
- SYSLCK
- WORLD
- GROUP

To run the IVP, enter:

```
$ @SYS$TEST:OMNI$IVP.COM  
Return
```

Note

Before you run the IVP, VSI OMNI API should be started. See Section 4.1.

The VSI OMNI API IVP verifies that the VSI OMNI API software system is correctly installed. As the IVP progresses, information messages are displayed. If the IVP fails, a message is displayed indicating the reason for the failure. You should correct the problem and reexecute the IVP. When the VSI OMNI API IVP executes successfully, the VSI OMNI API software system is ready for use.

4.3. Resolving IVP Failures

The VSI OMNI API IVP can fail for various reasons. Table 4.1 indicates possible causes for IVP failure and ways to resolve the IVP problem.

Table 4.1. Resolving IVP Failures

Possible Cause	Resolution
VOTS account set to DISUSER in AUTHORIZE	Run the AUTHORIZE utility and modify the DISUSER flag.
VOTS account PASSWORD does not match in VAX DEC/MAP and AUTHORIZE	Run MAPCL and check the TRANSPORT password. Compare the password in AUTHORIZE and make corrections in AUTHORIZE.
VOTS account quotas not sufficient	Run the AUTHORIZE utility and compare the values with those found in the Account Quota table in this guide. Make needed corrections.
VAX Rdb was not running.	Check for the existence of the "RDMS_MONITOR" process. Start VAX Rdb, if the process is not found.
VAX DEC/MAP was not running.	Check for the existence of the "LESSACP" and "OSIF\$OSAKSERVER" processes. Start VAX DEC/MAP, if the processes are notfound.

Note

Additional information on why the IVP may have failed can be found in a log file in the VOTS account default directory named OMNI\$START_RCVR.LOG.

4.4. User Account Quotas and Privileges

Each VSI OMNI API user account should have the account quotas shown in Table 4.2:

Table 4.2. Account Quotas

Attribute	Minimum Value
ASTlm	24
BIOlm	18
BYTlm	20480
DIOlm	18
ENQlm	2000
FILlm	50
Pgflquo	20000
Prclm	1+
WSdef	256
WSextent	3072
WSquo	768

4.5. Stopping VSI OMNI API

You must have the following privileges enabled before you invoke the VSI OMNI API stop procedure:

- DETACH
- PRMMBX
- SYSNAM
- CMKRNL
- SYSGBL
- PRMGBL
- WORLD
- GROUP

To manually shut down VSI OMNI API, enter:

```
$ @SYS$MANAGER:OMNI$STOP.COM
Return
```

If you want VSI OMNI API to shut down automatically each time your system is brought down, include this in the SYS\$MANAGER:SYSHUTDWN.COM file (the site-specific shutdown file):

Note

Be sure that OMNI\$STOP.COM is executed before MAP\$STOP.COM and before the RMONSTOP.COM in the system site shutdown file, SYS\$MANAGER:SYSHUTDWN.COM.

4.6. VSI OMNI API Example Programs

As part of the VSI OMNI API installation, a directory is created that contains VSI OMNI API example programs; and as part of the VSI OMNI API startup command procedure, a system-wide logical name, OMNI\$EXAMPLES, is created.

It is recommended that you review these program examples before you design and implement applications that will interface with VSI OMNI API.

4.7. The VSI OMNI API Database and Rdb

VSI OMNI API utilizes a VAX Rdb/VMS database. It is recommended that you periodically backup this database.

The VSI OMNI API database files are:

- SYS\$LIBRARY:OMNI\$DATABASE.RDB
- SYS\$LIBRARY:OMNI\$DATABASE.SNP

See the *VAX Rdb/VMS RDO and RMU Reference Manual* for details on how to backup the Rdb database.

Also, if you upgrade your version of VAX Rdb/VMS, you must verify that your existing VSI OMNI API database is compatible with the VAX Rdb/VMS upgrade.

4.8. Determining and Reporting Problems

If an error occurs while you are using VSI OMNI API, you should submit a Software Performance Report (SPR).

When you submit an SPR, follow these steps:

- Describe as accurately as possible the state of the system and the circumstance in which the problem occurred.
- Illustrate the problem with specific examples.
- State the problem concisely.
- Report only one problem per SPR.
- This ensures a quick response.
- Notify your Software Services representative, who will submit your SPR.

Experience shows that many SPRs do not contain sufficient information to enable duplication or identification of the problem. Complete and concise information will help Digital resolve your software problems.

If you find an error in the VSI OMNI API documentation, you should fill out and submit the Reader's Comments form that is in the back of the manual in which the error was found. Specify the title of the manual and include the section and page number where a description of the error appears.

Appendix A. VSI OMNI API Files Added or Modified on the System

This appendix lists the VSI OMNI API files that are added or modified by the installation procedure.

A.1. Files Added

The following files have been added:

`SY$COMMON:[SY$STARTUP]OMNI$STARTUP.COM`

`SY$COMMON:[SY$EXEC]OMNI$CL.EXE`

`SY$COMMON:[SY$EXEC]OMNI$CP.EXE`

`SY$COMMON:[SY$EXEC]OMNI$ODF.EXE`

`SY$COMMON:[SY$EXEC]OMNI$VIEW.EXE`

`SY$COMMON:[SY$HELP]OMNI$APPL_PROG_GUIDE.PS`

`SY$COMMON:[SY$HELP]OMNI$APPL_PROG_GUIDE.TXT`

`SY$COMMON:[SY$HELP]OMNI$CL.HLB`

`SY$COMMON:[SY$HELP]OMNI$GUIDE_TO_OMNIVIEW.PS`

`SY$COMMON:[SY$HELP]OMNI$GUIDE_TO_OMNIVIEW.TXT`

`SY$COMMON:[SY$HELP]OMNI$INSTALLATION_GUIDE.PS`

`SY$COMMON:[SY$HELP]OMNI$INSTALLATION_GUIDE.TXT`

`SY$COMMON:[SY$HELP]OMNI$NETWORK_MNGR_GUIDE.PS`

`SY$COMMON:[SY$HELP]OMNI$NETWORK_MNGR_GUIDE.TXT`

`SY$COMMON:[SY$HELP]OMNI$ODF_HELP.HLB`

`SY$COMMON:[SY$HELP]OMNI$VIEW.HLB`

`SY$COMMON:[SY$HELP]OMNI011.RELEASE_NOTES`

`SY$COMMON:[SY$HELP.EXAMPLES]DECOMNI.DIR`

`SY$COMMON:[SY$HELP.EXAMPLES.DECOMNI]OMNI$FORTRAN_READ.FOR`

`SY$COMMON:[SY$HELP.EXAMPLES.DECOMNI]OMNI$FORTRAN_READ_RSP.FOR`

`SY$COMMON:[SY$HELP.EXAMPLES.DECOMNI]OMNI$LOAD_DEF_VAR.C`

`SY$COMMON:[SY$HELP.EXAMPLES.DECOMNI]OMNI$MMSI_GET_DOM_ATTR_EXAMPLE.C`

SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$MMSI_GET_PI_ATTR_EXAMPLE.C
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$MMSI_IDENTIFY_EXAMPLE.C
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$MMSI_STATUS_EXAMPLE.C
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$ODF-VAR.TXT
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$ODF_EXAMPLE.TXT
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$READ_DOM_ATTR_EXAMPLE.C
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$READ_EXAMPLE.C
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$RUN_TIME_PI_DOM.C
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$RUN_TIME_VAR.C
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$RUN_TIME_VMD.C
SYSSCOMMON:[SYSHLP.EXAMPLES.DECOMNI]OMNI\$WRITE_EXAMPLE.C
SYSSCOMMON:[SYSLIB]OMNI\$CODES.ADA
SYSSCOMMON:[SYSLIB]OMNI\$CODES.BAS
SYSSCOMMON:[SYSLIB]OMNI\$CODES.FOR
SYSSCOMMON:[SYSLIB]OMNI\$CODES.H
SYSSCOMMON:[SYSLIB]OMNI\$CODES.MAR
SYSSCOMMON:[SYSLIB]OMNI\$CODES.PAS
SYSSCOMMON:[SYSLIB]OMNI\$CODES.PLI
SYSSCOMMON:[SYSLIB]OMNI\$CODES.R32
SYSSCOMMON:[SYSLIB]OMNI\$DATABASE.RDB
SYSSCOMMON:[SYSLIB]OMNI\$DATABASE.SNP
SYSSCOMMON:[SYSLIB]OMNI\$DEFS.ADA
SYSSCOMMON:[SYSLIB]OMNI\$DEFS.BAS
SYSSCOMMON:[SYSLIB]OMNI\$DEFS.FOR
SYSSCOMMON:[SYSLIB]OMNI\$DEFS.H
SYSSCOMMON:[SYSLIB]OMNI\$DEFS.MAR
SYSSCOMMON:[SYSLIB]OMNI\$DEFS.PAS
SYSSCOMMON:[SYSLIB]OMNI\$DEFS.PLI
SYSSCOMMON:[SYSLIB]OMNI\$DEFS.R32

SYSS\$COMMON:[SYSLIB]OMNI\$MMSI_CODES.H
SYSS\$COMMON:[SYSLIB]OMNI\$MMSI_DEFS.H
SYSS\$COMMON:[SYSLIB]OMNI\$OBJECTS.OLB
SYSS\$COMMON:[SYSLIB]OMNI\$VAXCSHR.EXE
SYSS\$COMMON:[SYSLIB]OMNI\$VAXVMSSHR.EXE
SYSS\$COMMON:[SYSLIB]OMNI_VIEW.UID
SYSS\$COMMON:[SYSMGR]OMNI\$STOP.COM
SYSS\$COMMON:[SYSMMSG]OMNI\$CODES_MSG.EXE
SYSS\$COMMON:[SYSTEST]OMNI\$IVP.COM
SYSS\$COMMON:[SYSTEST]OMNI\$IVP_RCVR.EXE
SYSS\$COMMON:[SYSTEST]OMNI\$IVP_SNDR.EXE
SYSS\$COMMON:[SYSTEST]OMNI\$START_RCVR.COM
SYSS\$COMMON:[SYSS\$STARTUP]OMNI\$STARTUP.COM

A.2. Files Modified

No files have been modified.

Appendix B. Installation Example

This appendix contains a sample installation session.

B.1. Installation Session

```
Welcome to VAX/VMS V5.4-2
Username: SYSTEM
Password:

      Welcome to VAX/VMS version V5.4-2 on node SAFRON
      Last interactive login on Thursday, 28-MAR-2017 14:58
      Last non-interactive login on Thursday, 28-MAR-2017 15:36

$
$ @SYS$UPDATE:VMSINSTAL OMNI011 MUA0: OPTIONS N
      VAX/VMS Software Product Installation Procedure V5.4-2
It is 28-MAR-2017 at 15:38.
Enter a question mark (?) at any time for help.
* Are you satisfied with the backup of your system disk [YES]? Y
The following products will be processed:
  OMNI V4.1
      Beginning installation of OMNI V4.1 at 15:38
%VMSINSTAL-I-RESTORE, Restoring product save set A ...
      Release notes included with this kit are always copied to SYS$HELP.
      Additional Release Notes Options:
        1. Display release notes
        2. Print release notes
        3. Both 1 and 2
        4. None of the above
* Select option [2]: 4
* Do you want to continue the installation [NO]? Y
%VMSINSTAL-I-REMOVED, Product's release notes have been moved to SYS
$HELP.
© VMS Software, Inc. 1990,2017. All Rights Reserved.
Installation procedure for VSI OMNI API V4.1
  All of the VSI OMNI API documentation is now provided in an
electronic
  online fashion. That is, all documents are provided in both ASCII
text
  and Postscript file formats as part of this software kit. Once moved
  to disk you may read them using any of the following methods:
  ASCII text formatted files - Using the editor of your choice.
  ----- - Using the DCL command TYPE/PAGE.
                                - Print the file(s).
  POSTSCRIPT formatted files - Display on a workstation with VIEW
command
  ----- - Print the file(s).
* Press RETURN to continue:
  Accessing the VSI OMNI API Installation Guide
  -----
  You now have the following options for accessing this product's
  installation guide. Note: The installation guide will always be
  copied to SYS$HELP as OMNI$INSTALLATION_GUIDE.TXT filename.
  1. Displayed on your screen now.
  2. Print the installation guide.
  3. Both 1 and 2.
  4. None of the above.
```

```

* Select option [1]: 4
    Your are now being given an opportunity to exit this installation
    procedure. An ASCII text format of the installation guide will be
    copied to SYS$HELP even if you choose not to continue the instal-
    lation at this point.
* Do you wish to continue this installation [N]? Y
    The ASCII text format of the VSI OMNI API Installation Guide will
    be copied to the following:
    DIRECTORY: SYS$HELP
    FILENAME: OMNI$INSTALLATION_GUIDE.TXT
* Press RETURN to continue:
The VSI OMNI API online documentation set consists of the following
books:
    Title: Filename:
    VSI OMNI API Software Installation Guide OMNI$INSTALLATION_GUIDE
    VSI OMNI API Application Programmer's Guide OMNI$APPL_PROG_GUIDE
    VSI OMNI API Guide to Using OmniView OMNI$GUIDE_TO_OMNIVIEW
    VSI OMNI API Network Manager's Guide OMNI$NETWORK_MNGR_GUIDE
    You will now be given the option of having all of these online books
copied
    to the destination of your choice. The amout of free disk space needed
to
    transfer these files is approximately 11000 blocks.
NOTE: Both ASCII text and POSTSCRIPT versions of each book are provided,
the
    filename extensions are .TXT for ASCII text and .PS for
POSTSCRIPT.
* Would you like the online documentation copied to disk [Y]? Y
* Enter the destination [SYS$HELP]: SYS$HELP
Now checking available disk space...
* Do you wish to continue with this installation [N]? Y
    Product: VSI OMNI API
    Producer: DEC
    Version: 1.1
    Release Date: 4-APR-2017
* Does this product have an authorization key registered and loaded? Y
* Will you use DEC/MAP for device communications [Y]? Y
Now performing software prerequisite check...
Now checking system parameters...
Now checking available disk space for software installation...
Now checking process quota values...
* Do you want to purge files replaced by this installation [YES]? Y
* Do you want to run the IVP after the installation [YES]? Y
    This is your last chance to exit this installation procedure. After
    this point, the installation will go into an unattended mode of
    operation.
* Do you wish to continue with this installation [Y]? Y
*****
    This installation will now continue in an unattended mode
    of operation, which will not require any user interaction.
    Estimated time to completion from this point is 20 minutes.
    This estimate is based on a configuration consisting of a
    VAXstation 3600 and installation from TK50 medium.
    The current time is: 15:40.17
*****
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
Now building the database...

```

```

Now configuring VSI OMNI API for use with DEC/MAP as the network
provider....
%VMSINSTAL-I-SYSDIR, This product creates system directory
[SYSHLP.EXAMPLES.DECOMNI].
%VMSINSTAL-I-RESTORE, Restoring product save set C ...
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target
directories...
© VMS Software, Inc.. 1990,2017. All Rights Reserved.
Startup procedure for: VSI OMNI API V4.1
Now checking process privileges...
Now checking for VSI OMNI API license...
Now checking that prerequisite software has been started...
  MDS Application Name OMNI$IVP_SENDR
  At 28-MAR-2017 15:51:28.66
  Successfully registered in local directory
  MDS Application Name OMNI$IVP_REC
  At 28-MAR-2017 15:51:32.73
  Successfully registered in local directory
  Address OMNI$IVP_R_P.OMNI$IVP_R_S.OMNI$IVP_R_T.
  At 28-MAR-2017 15:51:36.83
  Successfully registered
  SYNTAX TRANSFORMATION MMS-PCI
  At 28-MAR-2017 15:51:40.06
  Successfully registered
Now installing the VSI OMNI API sharable images...
Now creating the OMNI$CP process...
%RUN-S-PROC_ID, identification of created process is 20200184
%OMNI-S-STARTUP, VSI OMNI API startup successfully completed
+-----+
|                                     |
| The VSI OMNI API IVP will now be invoked.... |
|                                     |
+-----+
© VMS Software, Inc. 1990,2017. All Rights Reserved.
Installation Verification Procedure for: VSI OMNI API V4.1
Now checking process quota values...
Now creating IVP VMD's...
Now running the VSI OMNI API IVP sender application...
The VSI OMNI API IVP sender application has run successfully.
%OMNI-S-IVP, the VSI OMNI API IVP has successfully completed
      Installation of OMNI V4.1 completed at 15:52
      VMSINSTAL procedure done at 15:52

$
$ LO
      SYSTEM logged out at 28-MAR-2017 15:53:55.66

```


Appendix C. Products on Your System

This appendix explains how you determine what products are running on your system.

To determine if VAX Rdb/VMS, VAX DEC/MAP, or VSI OMNI API are running on your system, you can check specific processes on your system.

Table C.1 lists the processes you should see for each layered product.

Table C.1. Products and Processes

Product	Process Name(s)
VAX Rdb/VMS	RDMS_MONITOR
VAX DEC/MAP	LES\$ACP OSIF\$OSAKSERVER
VSI OMNI API	OMNI\$CP

