

VeriMove™

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Installation Guide for Linux, Unix, Windows, and z/OS

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Installing VeriMove and USPS Data

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System Requirements

Loading the Windows version of VeriMove allows you to use the Windows GUI to create job definitions that you can then transfer to your execution platform. The z/OS platform requires the Windows version of VeriMove to install the USPS NCOA^{Link} data. You can use the VeriMove explode.bat file to explode the USPS compressed databases onto a Windows machine and then transfer that data to your z/OS platform.

Windows Requirements

The Windows system requirements are:

- A supported version of Windows. For a list of supported versions of Windows, see the “Supported Platforms” document available at <http://www.g1.com/support>.
- 1 GHz processor (2 GHz processor or faster recommended for better performance)
- To determine the required disk capacity, multiply the size of the largest file to be processed by at least 2, 3, or 4. Add 30 GB to that total. Each file to be processed must be contained in one logical partition. 10,000 RPM or faster drives are recommended for better performance. Note that the amount of hard disk space required also depends on the type of output required. For example, if you include the input data in the output file, more space is required than if you do not. You will need approximately 20 GB for USPS data. 40 GB (20 GB for production data plus 20 GB for decompressing USPS data updates) is recommended.
- In addition to the above requirements, you may need:
 - Addressing databases (zip4us.dir and city.dir) — Approximately 1.1 GB of space
 - Early Warning System (EWS) file — 300 KB of space
 - Enhanced Line of Travel (LOT) Option database — 600 MB of space
 - Delivery Point Validation (DPV) Option database — 635 MB of additional space
 - LACS^{Link} Option database — 375 MB of space
 - Suite^{Link} Option database — 250 MB of space
- 2 GB RAM
- DVD drive
- Internet Access — The USPS supplies a Daily Delete file via the internet. The Daily Delete file contains corrections to the currently distributed databases. The USPS requires all NCOA^{Link} licensees to use the Daily Delete file.
- License for NCOA^{Link}
- User account with administrator rights



If you are using VeriMove Access and are not currently using Microsoft .Net framework 3.5 or newer, please visit the Microsoft web site to download and install or upgrade to Microsoft .NET framework 3.5 full version or newer.

Downloading VeriMove from the Website

Pitney Bowes Software delivers Internet software in a compressed format as a .zip file. Follow the steps below to download and extract your VeriMove software.

1. Access the Technical Support website at <http://www.g1.com/support> and log in accordingly.
2. Click **My Products**.
3. Click **VeriMove**.
4. Click **View Available Downloads**.
5. Click the file you want to download.
6. To begin installation, double-click on the setup.exe file located in the temporary folder to which you extracted the installation software.

To install the downloaded software, follow the steps for your environment.

Installing VeriMove on Windows

To install VeriMove on Windows, follow these steps.

1. Insert the CD/DVD into your CD/DVD drive (only available from the Pitney Bowes Software eStore for an additional fee) or extract the setup files from the file you downloaded from the Technical Support website.
2. Launch setup.exe.
3. Follow the prompts to complete the installation process.

For information about getting started with VeriMove, refer to your *VeriMove User's Guide*.

Installing VeriMove on Unix

To install VeriMove on Unix, follow these steps.

i Your system must allow CDs created under the ISO 9660 format to be mounted as a file system. You may experience file loading difficulties when using CDs mounted with the Rockridge extension. We recommend using the standard ISO 9660 format without extensions.

1. Place the VeriMove CD/DVD (only available from the Pitney Bowes Software eStore for an additional fee) into your CD/DVD drive or extract the setup files from the file you downloaded from the Technical Support website.
2. If your system does not auto-mount CD/DVDs, follow these steps:
 - a. Issue the appropriate command to indicate that the CD/DVD device is a file system, where **xxx** is the CD/DVD device name.

```
mount /dev/xxx
```
 - b. Enter the **/etc/filesystem** command to update your system so that it recognizes this file system, if necessary. Specify the correct device name for the CD/DVD device on your system.
3. Change the directory to the root directory of the CD/DVD (or to where your specific mount point is located).

```
cd <mountpoint>
```

i The item `<mountpoint>` is the name of the mounting point for the system CD/DVD as a file system. Change this to the correct device name for the CD/DVD device on your system. You must have read permission on the CD/DVD device. On some systems, this permission may be limited to root users. Also, on some systems, the file names on the CD/DVD may be changed to all uppercase letters. List the directory on your CD/DVD directory (**ls <mountpoint>**) to see the names of the files.

4. Run the install script:

```
./install
```
5. Follow the instructions provided in the installation script. The installation script is a conversational package that will query both you and your system for information. VeriMove may require that the JobStats.dat file be in a new format prior to VeriMove processing. If you are installing the latest version of VeriMove over an older version, the install process will attempt to update your JobStats.dat file located in the stats directory of the installed VeriMove product area. If this version needs to upgrade the jobstats file, the install process converts the JobStats.dat file into the new format for you.

If this is a new install or you are installing into a new VeriMove directory, no conversion message displays and the product is now ready to use after the configuration file has been verified to meet your needs as described in the next step.


Converting old statistics file to new format.

statconv - VeriMove Statistics File Conversion Utility
Copyright (C) 2009, Pitney Bowes Software, Inc.

100% complete.
Statistics conversion completed successfully.

VeriMove install complete.

6. Edit your configuration file.

 The configuration file includes preset values tested for optimum performance across platforms. Changing the preset values may adversely affect your system performance. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing any preset default values.

- a. If you are a new VeriMove user, the installation program installs the config.ini configuration file as part of the normal installation process. For more information on populating your initial config.ini configuration file, see ["Configuring Your VeriMove Installation" on page 18](#).
- b. If you are an existing VeriMove user, the installation program installs the config.ini.distribute configuration file into the installation directory leaving your original config.ini configuration file intact.

To ensure optimum system performance, copy these preset default values from config.ini.distribute to your existing config.ini configuration file.

```
NCOA Use High Memory=0
Interval Input=6
Interval NCOA=2
Interval Output=8
Queue Size Input=3000
Queue Size Job Input=3000
Queue Size NCOA=4000
Queue Size Output=3000
```

For more information, see ["Configuring Your VeriMove Installation" on page 18](#).

Installing VeriMove on Linux

To install VeriMove on Linux, follow these steps.

i Your system must allow CDs created under the ISO 9660 format to be mounted as a file system. You may experience file loading difficulties when using CDs mounted with the Rockridge extension. We recommend using the standard ISO 9660 format without extensions.

1. Place the VeriMove CD/DVD into your CD/DVD drive or extract the setup files from the downloaded file.
2. If your system does not auto-mount CD/DVDs, follow these steps:
 - a. Issue the appropriate command to indicate that the CD/DVD device is a file system, where **xxx** is the CD/DVD device name.
`mount /dev/xxx`
 - b. If necessary, enter the `/etc/filesystem` command to update your system to recognize this file system. Specify the correct device name for the CD/DVD device on your system.
3. Change to the root directory of the CD/DVD (or to your specific mount point location).
`cd <mountpoint>`

i The item `<mountpoint>` is the name of the mounting point for the system CD/DVD as a file system. Change this to the correct device name for the CD/DVD device on your system. You must have read permission on the CD/DVD device. On some systems, this permission may be limited to root users. Also, on some systems, the file names on the CD/DVD may be changed to all uppercase letters. List the directory on your CD/DVD directory (`ls <mountpoint>`) to see the names of the files.

4. Run the install script:
`./install`
5. Follow the instructions provided in the installation script. The installation script is a conversational package that will query both you and your system for information.
6. VeriMove may require that the JobStats.dat file be in a new format prior to VeriMove processing. If you are installing the latest version of VeriMove over an older version, the install process will attempt to update your JobStats.dat file located in the stats directory of the installed VeriMove product area. If this version needs to upgrade the jobstats file, the install process converts the JobStats.dat file into the new format for you.

Converting old statistics file to new format.


```
statconv - VeriMove Statistics File Conversion Utility
Copyright (C) 2009, Pitney Bowes Software Inc.
```

```
100% complete.
Statistics conversion completed successfully.
```

```
VeriMove install complete.
```

If you are installing over a VeriMove version older than 3.3.1 or if the file is corrupt, the file update will fail. Call Technical Support for assistance prior to using the new VeriMove installed version. If this is a new install or you are installing into a new VeriMove directory, no conversion message displays and the product is now ready to use after the configuration file has been verified to meet your needs as described in the next step.

7. Edit your configuration file.

 The configuration file includes preset values tested for optimum performance across platforms. Changing the preset values may adversely affect your system performance. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing any preset default values.

- a. If you are a new VeriMove user, the installation program installs the config.ini configuration file as part of the normal installation process. For more information on populating your initial config.ini configuration file, see "[Configuring Your VeriMove Installation](#)" on page 18.
- b. If you are an existing VeriMove user, the installation program installs the config.ini.distribute configuration file into the installation directory leaving your original config.ini configuration file intact.

To ensure optimum system performance, copy these preset default values from config.ini.distribute to your existing config.ini configuration file.

```
NCOA Use High Memory=0
Interval Input=6
Interval NCOA=2
Interval Output=8
Queue Size Input=3000
Queue Size Job Input=3000
Queue Size NCOA=4000
Queue Size Output=3000
```

For more information, see "[Configuring Your VeriMove Installation](#)" on page 18.

Installing VeriMove on z/OS

Follow the steps below to install your VeriMove software.


Installing from Media

1. Install the Windows version of VeriMove. For instructions, see ["Installing VeriMove on Windows" on page 7](#). You must install VeriMove on a Windows computer before installing VeriMove on z/OS.
2. Create a job stream (IEBCOPY) similar to the one below to unload the installation library. Edit as needed for your site requirements and replace the variables that appear in lowercase as described in ["Modifying JCL Variables for the Installation JCL," on page 12](#). Add your site-defined job card.

```
//j obcard
//*
//* UNLOAD <PRODUCT NAME> JCL LI BRARY.
//*
//LOAD      EXEC PGM=I EBCOPY
//SYSPRI NT DD  SYSOUT=*
//I NDD      DD  DSN=I NSTALI B, DI SP=OLD,
//          UNI T=devt, VOL=SER=tvol ser, LABEL=(2, NL),
//          DCB=BLKSI ZE=27920
//OUTDD     DD  DSN=yourhl q. VERI MOVE. I NSTALI B, DI SP=(, CATLG),
//          DCB=(LRECL=80, BLKSI ZE=27920, RECFM=FB, DSORG=PO),
//          SPACE=(CYL, (5, 1, 20)), UNI T=SYSDA
//SYSUT3    DD  UNI T=DI SK, SPACE=(TRK, (10))
//SYSUT4    DD  UNI T=DI SK, SPACE=(TRK, (10))
//SYSIN     DD  *
            COPY OUTDD=OUTDD
            I NDD=I NDD
/*
//
```


Modifying JCL Variables for the Installation JCL

| Variable | Description |
|----------|---|
| devt | The UNIT=name for the input device. |
| tvolser | Volume serial number of the installation/software tape. |
| yourhlq | High-level qualifier of the installation files. |

 Please review the information contained in the \$\$\$READIN member in the installation library for the latest information.

3. Submit the job to unload the installation library.

4. After you unload the installation library, you are ready to customize the JCL variables and submit the job to install the software. The installation JCL is a multi-step process that:
 - Deletes previously defined datasets
 - Unloads the object library
 - Unloads the load library
 - Unloads the messages file
 - Unloads the configuration file
 - Unloads the sample JobDefs library
 - Unloads the sample manifest library
 - Unloads the sample IVP data file
 - Unload the installation verification


 Make a backup copy of the original installation library before you make any modifications. Alternately, save the edited members under another name and cancel your edits to the unloaded member.

5. Modify variables in the UNLOAD JCL according to the instructions in that member.

After making a backup copy, edit the installation JCL skeleton by replacing the lowercase variables to suit your standards. The variable names that you replace are unique. You can set your text editor, such as ISPF, to do a “change all” function. Add your site-defined jobcard. Comments within the JCL describe this process.

This job deletes the files and libraries that you specify prior to unloading the tape. Ensure that no other files or libraries are using these names. Also, set your text editor to uppercase using the “caps on” command.
6. Submit the job and check the return codes.

The installation JCL copies from tape to disk the entire application software and IVP file. Check the output from the job to ensure that all steps completed with a zero return code.
7. Edit the configuration file yourhlq.VERIMOVE.SAMPCNFG.

 The configuration file includes preset values tested for optimum performance across platforms. Changing the preset values may adversely affect your system performance. Pitney Bowes Software recommends you consult with a Pitney Bowes Software Technical Support Representative or Professional Services Representative before changing any preset default values.

- a. If you are a new VeriMove user, the installation program installs the config.ini configuration file as part of the normal installation process. For more information on populating your initial config.ini configuration file, see ["Configuring Your VeriMove Installation" on page 18](#).

- b. If you are an existing VeriMove user, the installation program installs the config.ini.distribute file into the installation directory leaving your original configuration file intact. To ensure optimum system performance, copy these preset default values from config.ini.distribute to your existing configuration file.

```
NCOA Use High Memory=0
Interval Input=6
Interval NCOA=2
Interval Output=8
Queue Size Input=3000
Queue Size Job Input=3000
Queue Size NCOA=4000
Queue Size Output=3000
```

For more information, see "[Configuring Your VeriMove Installation](#)" on page 18.

8. Modify the UPLOAD JCL included in the yourhlq.VERIMOVE.INSTALIB library from the VeriMove installation media. See the comments in the JCL for instructions on how to make the necessary modifications. Use the VERIMOVE member from the sample manifest library.
9. On the Windows computer, open a command prompt.
10. Change to the location where you installed VeriMove. For example, C:\PB\VeriMove.
11. Execute UploadServer.exe using the following syntax:
UploadServer.exe [Port]
Where [Port] is the network port to use to transfer the data. This parameter is optional and defaults to 7388.
12. Execute the UPLOAD job on your z/OS system.
13. Load your new or updated database file(s). See "[Installing USPS Data](#)" on page 28.
14. To run a sample job, follow these steps:
 - a. Depending on your version of the uploaded USPS database, customize MU (for hash file database), MUF (for single flat file database), or MUFZ (for 26 flat file A-Z database).
 - b. Verify that you have defined 'yourhlq.VERIMOVE.SAMPCNFG' correctly.
If you are using MUF or MUF0, verify that you have set NCOA Use Flat Single=1.
If you are using MUFZ or MUFZO, verify that you have set NCOA Use Flat Single=0.
 - c. Do a global replace of the lowercase variables as described at the top of the file. To run the sample job, you will need to set the following variables as shown.

```
yourJob-' VERI MOVE. SAMPJOBDD(1 VPXCASS)'
yourInput-' VERI MOVE. SAMPDATA'
yourOutput1-' VERI MOVE. OUTPUT'
yourOutput2-' VERI MOVE. SI DEOUT'
yourSummary-' VERI MOVE. SUMRPT'
```
- d. Execute the JCL.

Installing from the Internet

These steps assume you have already downloaded the .zip file and unzipped it to extract the files. For instructions, see "[Downloading VeriMove from the Website](#)" on page 7. Pitney Bowes Software delivers Internet software files in compressed format. This file includes:

- **IDSINSTL JCL** — Used to upload and install your new software release.
- **Installation JCL** — The \$\$READIN member contains an index of all install library members.
- **Object file(s)** — Contains the software (*.OBJ files).
- **Input data file** — Used during the installation verification procedure.
- **Other files** — Files that may be pertinent to your release (*.DAT files).

i The IDSINSTL JCL member is a complete job that performs all functions required to upload specific product libraries and support files to the mainframe. The job is complete. If your site does not utilize FTP as the preferred file transfer protocol, then substitute the FTP step with the utility used at your site and the job will continue to be operational.

To install VeriMove from the Internet:

1. Install the Windows version of VeriMove. For instructions, see "[Installing VeriMove on Windows](#)" on page 7. You must install VeriMove on a Windows computer before installing it on z/OS.
2. FTP the file I DSI NSTL. JCL to an MVS system. Insert a job card at the beginning of the file. Perform "change all" on the lowercase names shown in the comments at the top of the JCL. After the files have been uploaded, you will find the following files and partitioned datasets located relative to 'yourhlq.VERIMOVE'.

Uploaded File Descriptions

| File Name | Description |
|-----------|---|
| INSTALIB | JCL used to execute various processes |
| LOADLIB | Executables used by the JCL in INSTALIB |
| OBJLIB | Object files used by the linking process (see next section) |
| SAMPJOB | Sample job definitions in XML that may be used to test VeriMove |
| SAMPMANI | Manifest files in XML format used to control the upload of data to the system |
| SAMPNCFG | Sample configuration file (equivalent to config.ini on Windows) |
| SAMPDATA | Sample input file (equivalent to SampleData\SampleData.txt on Windows) |
| SAMPDATA2 | Sample input file (equivalent to SampleData\SampleDataFormat2.dat) |

3. (Optional) Relink the executables. Before executables in 'yourhlq.VERIMOVE.LOADLIB' can be executed, they must be relinked for your particular MVS platform. Edit "yourhlq.VERIMOVE.INSTALIB(LNKBATC)", inserting a job card at the beginning and doing a "change all" on the lowercase variables as indicated in the comments at the top of the JCL.
4. Edit the configuration file.

i The configuration file includes preset values tested for optimum performance across platforms. Changing the preset values may adversely affect your system performance. Pitney Bowes Software recommends you consult with a Pitney Bowes Software Technical Support Representative or Professional Services Representative before changing any preset default values.

Edit the sample config.ini file 'yourhlq.VERIMOVE.SAMPCNFG' to provide the information required by the upload process. Set the following lines to be able to execute VeriMove executed:

- Registered Company=
- Registered User=
- NCOALink Key=
- SerialNumber=
- NCOA Platform ID=
- Licensee=
- NCOA License Type=
- NCOA Use High Memory=0

This line may affect the performance of your system. Setting this to 1, causes a number of database tables to be loaded into memory. The set up of the database takes more time at the beginning of a run but may improve performance if your platform has lots of physical memory.

- NCOA Use Flat Single=

If you process with a single flat file database, set the following in your configuration file:

NCOA Use Flat Single=1

If you process with the 26 flat file A-Z database, set the following in your configuration file:

NCOA Use Flat Single=0

- NCOA Use Flat Hash=

The flat file database includes a set of 26 hash files that are used to do a quick test to see if the full data needs to be looked up. The hash files are not strictly necessary for the operation of the flat file database, since a single lookup is done to get all information. Most tests, however, show that using the hash files improves performance. If you want to verify this for your system, set this line to 0 instead of 1. Valid values for this configuration setting are:

0 — Do not use flat hash files.

1 — Use flat hash files (default value).

For more information on configuring your VeriMove installation, see [“Configuration File Properties,” on page 18](#).

5. Load your new or updated database file(s). See ["Installing USPS Data" on page 28](#).

6. To run a sample job, follow these steps:
 - a. Depending on your version of the uploaded USPS database, customize MU (for Hash File database), MUF (for Single Flat File database), or MUFZ (for 26 Flat File A-Z database).
 - b. Verify that you have defined 'yourhlq.VERIMOVE.SAMPCNFG' correctly.
If you are using MUF or MUFO, verify that you have set NCOA Use Flat Single=1.
If you are using MUFZ or MUFZO, verify that you have set NCOA Use Flat Single=0.
 - c. Do a global replace of the lowercase variables as described at the top of the file. To run the sample job, set the following variables as shown.
yourJob-' VERI MOVE. SAMPJOBDD(I VPXCASS) '
yourInput-' VERI MOVE. SAMPDATA '
yourOutput1-' VERI MOVE. OUTPUT '
yourOutput2-' VERI MOVE. SI DEOUT '
yourSummary-' VERI MOVE. SUMRPT '
 - d. Execute the JCL.

Installing VeriMove on IBM i


For instructions on installing VeriMove on the IBM i platform, see the *VeriMove Installation Guide for IBM i*.

Configuring Your VeriMove Installation

This section provides guidelines for configuring your VeriMove installation.

What is the config.ini Configuration File?

The settings in the VeriMove config.ini configuration file determine how VeriMove processes your files. By default, during installation, the config.ini file is placed in the VeriMove directory with default settings. You can process with VeriMove using the default settings in the config.ini file or you can change the settings in the config.ini file for your specific installation site.

 The configuration file includes preset values tested for optimum performance across platforms. Changing the preset values may adversely affect your system performance. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing any preset default values.

Refer to the table below for information on populating your config.ini configuration file.

Configuration File Properties (Part 1 of 10)

| Property | Description |
|--|--|
| General Attributes (All Environments) | |
| Registered Company | Name of the PAF registered company. |
| Registered User | Name of the PAF registered user. |
| NCOALink Key | NCOA ^{Link} key assigned to you by Pitney Bowes Software. |
| SerialNumber | Serial number assigned to you by Pitney Bowes Software. |
| NCOA Platform ID | Four-character platform ID assigned by the USPS. |
| Licensee | Customer name as you want it to appear in the reports sent to the USPS. |
| NCOA License Type | Specify the type of NCOA ^{Link} license: <ul style="list-style-type: none">• 0 — Full Service Provider• 1 — Limited Service Provider• 2 — End User |
| Report Attributes (Windows, Unix, and Linux Only) | |
| ReportPath | Path name for generated report files. |

Configuration File Properties (Part 2 of 10)

| Property | Description |
|--|--|
| Matching Attributes (All Environments) | |
| Business Name Matching Enhancements | <p>The Business Name Matching level.</p> <ul style="list-style-type: none"> • 0 — Use the standard Business Name Matching process. The default value is 0. • 1 — Use the enhanced Business Name Matching process. This option, using additional algorithms, may improve Business Name Matching for a small cost in performance and slightly slower run times. |
| Internal CASS Processing Attributes (Windows, Unix, and Linux Only) | |
| CASSSerialNumber | <p>CASS serial number that Pitney Bowes Software assigned to you.</p> <p>If you are a new VeriMove customer, your CASS serial number is included with your product shipment.</p> <p>If you are an existing VeriMove customer and want to continue using external CASS processing, specify your current CASS serial number.</p> <p>If you are an existing VeriMove Unix or Linux customer using external CASS processing and you want to start using the VeriMove internal CASS processor, contact your Technical Support Representative for your CASS serial number. If you decide to switch from external CASS processing to the VeriMove internal CASS processor, in accordance with your USPS license agreement, you must recertify your current VeriMove configuration with the USPS. Your Technical Support Representative can answer any questions you may have on recertifying with the USPS.</p> |
| DPVKey | <p>To perform DPV processing using the VeriMove internal CASS processor, specify your DPV product software key as provided by Pitney Bowes Software.</p> |
| LACSKey | <p>To perform LACS^{Link} processing using the VeriMove internal CASS processor, specify your LACS^{Link} product software key as provided by Pitney Bowes Software.</p> |

Configuration File Properties (Part 3 of 10)

| Property | Description |
|-----------------|--|
| DPVMemory | <p>(Optional) Memory model for DPV processing:</p> <ul style="list-style-type: none"> • P — Pico. Stores no data in memory. No tables or indexes are loaded. • U — Ultra-small. Stores no data in memory. Partial indexes are loaded. • S — Small • M — Medium • L — Large • H — Huge. Stores all data in memory. • blank or missing — Defaults to: <ul style="list-style-type: none"> – S — When you specify NCOA Use High Memory=0 (default value for NCOA Use High Memory) – H — When you specify NCOA Use High Memory=1 |
| LACSLinkMemory | <p>(Optional) Indicates the memory model for LACS^{Link} processing:</p> <ul style="list-style-type: none"> • P — Pico. Stores no data in memory. No tables or indexes are loaded. • U — Ultra-small. Stores no data in memory. Partial indexes are loaded. • S — Small • M — Medium • L — Large • H — Huge. Stores all data in memory. • blank or missing — Defaults to: <ul style="list-style-type: none"> – S — When you specify NCOA Use High Memory=0 (default value for NCOA Use High Memory) – L — When you specify NCOA Use High Memory=1 |
| SuiteLinkMemory | <p>(Optional) Indicates the memory model for Suite^{Link} processing:</p> <ul style="list-style-type: none"> • P — Pico. Stores no data in memory. No tables or indexes are loaded. • U — Ultra-small. Stores no data in memory. Partial indexes are loaded. • S — Small • M — Medium • L — Large • H — Huge. Stores all data in memory. • blank or missing — Defaults to: <ul style="list-style-type: none"> – S — When you specify NCOA Use High Memory=0 (default value for NCOA Use High Memory) – L — When you specify NCOA Use High Memory=1 |

Configuration File Properties (Part 4 of 10)

| Property | Description |
|--|--|
| High Memory Attributes (All Environments) | |
| NCOA Use High Memory | <p>Specify whether to use high memory using these codes:</p> <ul style="list-style-type: none">• 0 — Turns off the large memory model. This is referred to as the small memory model. Use this option when only a small amount of limited real memory is available to you. The default value is 0.• 1 — Turns on the large memory model. A large number of data files are loaded into memory to improve performance. Use this option only if you have enough free real memory available (see note below). <p>NOTE: When using the large memory model and internal CASS processing, VeriMove uses approximately 1.7 GB of memory. When using the large memory model and external CASS processing, VeriMove uses approximately 1 GB of memory.</p> <p>NOTE: For HP-UX Unix, if you are running on an Itanium based machine, the large memory model will not work for NCOA^{Link} processing. Set this option to 0.</p> <p>NOTE: When VeriMove is set to “Large Memory Model” (NCOA Use High Memory=1), DPV, LACS^{Link} and Suite^{Link} are configured to the “L” (Large) memory model. When VeriMove is set to “Small Memory Model” (NCOA Use High Memory=0), DPV, LACS^{Link} and Suite^{Link} are configured to the “U” (Ultra) memory model.</p> |

Configuration File Properties (Part 5 of 10)

| Property | Description |
|--|--|
| Small Memory Attributes (All Environments) | |
| SmallMemEnh | <p>This feature enhances the small memory model only. To turn on the small memory model, specify configuration variable NCOA Use High Memory = 0. To turn on the small memory model enhancement, you must also specify SmallMemEnh=1. The small memory model enhancement may provide a performance gain when running in small memory model if your list is sorted in ZIP Code order. If your list is sorted in ZIP Code order and there are a large number of records within the same ZIP Code segment (first two digits of the ZIP Code), you can use the small memory model enhancement to have VeriMove load an entire segment into memory and perform memory lookups for each record. This process may improve performance by not performing an I/O lookup on disk for each record.</p> <p>Specify whether to use the small memory model enhancement:</p> <ul style="list-style-type: none">• 0 — Do not use the small memory model enhancement. The default value is 0.• 1 — Use the small memory model enhancement for a potential performance enhancement. <p>NOTE: To use the small memory model, specify configuration variable NCOA Use High Memory = 0.</p> <p>NOTE: It is recommended that you sort your list(s) in ZIP Code order even if you are NOT using the small memory model enhancement to achieve optimum performance.</p> |
| Internal Diagnostic Attributes (All Environments) | |
| NCOA Logging | Used for internal diagnostics. The default value is 0. |

Configuration File Properties (Part 6 of 10)

| Property | Description |
|---|---|
| Footnote Legend (All Environments) | |
| NCOA Footnote Legend | <p>Defines the appearance of the NCOA^{Link} Footnote Statistics section in the NCOA^{Link} Processing Summary Report.</p> <ul style="list-style-type: none"> • 0 — The NCOA^{Link} Footnote Statistics section in the NCOA^{Link} Processing Summary Report does not include a description for each footnote. • 1 — The NCOA^{Link} Footnote Statistics section in the NCOA^{Link} Processing Summary Report includes a short text description for each footnote. The default value is 1. <p>For information on how the NCOA^{Link} Footnote Statistics section displays in the NCOA^{Link} Processing Summary Report, see the section "NCOA^{Link} Footnote Statistics" in Chapter 6, Reports in your <i>VeriMove User's Guide</i>.</p> |
| Database Attributes (All Environments) | |
| NCOA Use Flat Single | <p>Specifies whether to use a single (vs. 26 A-Z) flat file database.</p> <ul style="list-style-type: none"> • 0 — Use the 26 flat file A-Z database. • 1 — Use the single flat file database. |
| NCOA Use Flat Hash | <p>Determines whether to use the 26 hash files that are used to do a quick test to see if the full data needs to be looked up. The hash files are not strictly necessary for the operation of the flat file database, since a single lookup is done to get all information. Most tests, however, show that using the flat hash files improves performance.</p> <ul style="list-style-type: none"> • 0 — Do not use the flat hash files. • 1 — Use the flat hash files (default value). |

Configuration File Properties (Part 7 of 10)

| Property | Description |
|--|--|
| Thread Interval Attributes (All Environments) | |
| Interval Input | <p>Frequency of the input thread gaining control of processing. The default value is 6. The recommended range is from 0 to 100.</p> <p>CAUTION: A change to this value can impact throughput, wait time, and CPU usage. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing this value.</p> <p>NOTE: The smaller the value specified, the more frequently the thread awakens to determine if work is available.</p> <p>NOTE: A guideline for the Input Thread is to be 1-3 times greater than the value specified for the NCOA Thread to allow for queue transfer to NCOA Thread.</p> |
| Interval NCOA | <p>Frequency of the NCOA thread gaining control of processing. The default value is 2. The recommended range is from 0 to 100.</p> <p>CAUTION: A change to this value can impact throughput, wait time, and CPU usage. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing this value.</p> <p>NOTE: The smaller the value specified, the more frequently the thread awakens to determine if work is available.</p> <p>NOTE: The NCOA Thread should always be kept at a low value. This thread should rarely sleep, and for very short periods of time, to avoid impacting performance.</p> |
| Interval Output | <p>Frequency of the output thread gaining control of processing. The default value is 8. The recommended range is from 0 to 100.</p> <p>CAUTION: A change to this value can impact throughput, wait time, and CPU usage. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing this value.</p> <p>NOTE: The smaller the value specified, the more frequently the thread awakens to determine if work is available.</p> <p>NOTE: A guideline for the Output Thread is to be 2-4 times greater than the value of the NCOA Thread to avoid excessive wakes.</p> |

Configuration File Properties (Part 8 of 10)

| Property | Description |
|---|---|
| Queue Size Attributes (All Environments) | |
| Queue Size Input | <p>Number of input records that can be processed through the input thread before the queued records are passed to the next processing step. The default value is 3000.</p> <p>CAUTION: A change to this value can impact throughput and memory usage. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing this value.</p> <p>NOTE: The recommended range is from 200-50,000 in 100 record increments. The queues are held in memory. The higher the queue size specified, the more memory that will be required.</p> |
| Queue Size Job Input | <p>Number of input records VeriMove processes through the input thread before passing the records to preliminary NCOA move prequalification processing. The default value is 3000.</p> <p>CAUTION: A change to this value can impact throughput and memory usage. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing this value.</p> <p>NOTE: The recommended range is from 200-50,000 in 100 record increments. The queues are held in memory. The higher the queue size specified, the more memory that will be required.</p> <p>NOTE: A general guideline is for the size to match the queue size of the input queue.</p> |
| Queue Size NCOA | <p>Number of prequalified records passed to the move thread or to the output thread. The default value is 4000.</p> <p>CAUTION: A change to this value can impact throughput and memory usage. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing this value.</p> <p>NOTE: The recommended range is from 200-50,000 in 100 record increments. The queues are held in memory. The higher the queue size specified, the more memory that will be required.</p> <p>NOTE: A general guideline is for the size to be two times the queue size of the job queue.</p> |

Configuration File Properties (Part 9 of 10)


| Property | Description |
|---|---|
| Queue Size Output | <p>Number of output records that can be written to the output file including move and non-move records. The default value is 3000.</p> <p>CAUTION: A change to this value can impact throughput and memory usage. Pitney Bowes Software recommends you consult with a Technical Support Representative or Professional Services Representative before changing this value.</p> <p>NOTE: The recommended range is from 200-50,000 in 100 record increments. The queues are held in memory. The higher the queue size specified, the more memory that will be required.</p> <p>NOTE: A general guideline is for the size to be equal to the queue size of the job queue.</p> |
| Mainframe Upload Attributes (z/OS Only) | |
| UploadSourceFolderUSPS | <p>This is the folder on the Windows computer that will contain the NCOA^{Link} data that has been decompressed and is ready to upload to the mainframe. For information on the NCOA^{Link} data installation process, see Installing NCOA/Link Data on Windows and z/OS in Chapter 1 on page 30.</p> |
| UploadSourceFolderVeriMove | <p>The folder on the Windows computer that contains the VeriMove data files to be uploaded to the mainframe. Generally this will be the same as UploadSourceFolderUSPS.</p> |
| File Allocation Attributes for Sequential Datasets (z/OS Only) | |
| UploadSeqTargetPrefixUSPS | <p>High level qualifier to be prepended to the file names of the NCOA^{Link} sequential datasets.</p> |
| UploadSeqTargetPrefixVeriMove | <p>High level qualifier to be prepended to the file names of the VeriMove sequential datasets.</p> |
| UploadSeqTargetSuffix | <p>(Optional) Value to append to file names when creating sequential datasets.</p> |
| UploadSeqTargetVolumes | <p>(Optional) Volume serial number(s) used for allocating sequential datasets.</p> |
| UploadSeqTargetUnit | <p>Device unit to use when allocating sequential datasets. For example, "SYSDA" or "3390".</p> |
| UploadSeqRetainFor | <p>(Optional) The number of days to retain the sequential files uploaded to the mainframe. If you specify this parameter, do not specify the UploadSeqRetainTo parameter.</p> |

Configuration File Properties (Part 10 of 10)

| Property | Description |
|--|---|
| UploadSeqRetainTo | (Optional) The day that uploaded sequential files will expire, in the format YYYYDDD (Julian format). If you specify this parameter, do not specify the UploadSeqRetainFor parameter. |
| File Allocation Attributes for VSAM RRDS Datasets (z/OS Only) | |
| UploadRRDSTargetPrefixUSPS | High level qualifier to be prepended to the names of the USPS VSAM RRDS datasets. |
| UploadRRDSTargetPrefixVeriMove | High level qualifier to be prepended to the names of the VeriMove VSAM RRDS datasets. |
| UploadRRDSTargetVolumes | List of volumes to use when allocating VSAM RRDS datasets. The list can be either comma or space separated. |
| UploadRRDSRetainFor | (Optional) The number of days to retain the VSAM RRDS files uploaded to the mainframe. If you specify this parameter, do not specify the UploadRRDSRetainTo parameter. |
| UploadRRDSRetainTo | (Optional) The day that uploaded VSAM RRDS files will expire, in the format YYYYDDD. If you specify this parameter, do not specify the UploadRRDSRetainFor parameter. |

Installing USPS Data

The following table describes the VeriMove databases. The VeriMove software is available for download from the Pitney Bowes Software support site at www.g1.com/support. An alternative location to download, with the option to purchase backup media, has been established on our Pitney Bowes Software on-line store at <http://store.pbinsight.com/>.

 Mainframe tape recipients will continue to receive physical media shipments at this time.

Databases, Delivery Methods, and Update Requirements (Part 1 of 2)

| Database | Delivery Method/Source | Required/Optional | Updates |
|--|---|---|--|
| CASS Database | <ul style="list-style-type: none"> Pitney Bowes Software support site at www.g1.com/support (Download at no charge - no backup media) Or Pitney Bowes Software on-line store at http://store.pbinsight.com (Download and purchase backup media) Mainframe tape recipients receive physical media | Required for internal CASS users | Monthly |
| NCOA ^{Link} Datasets | DVD/USPS | Required for all licensees | Monthly or weekly (depending on license level) |
| NCOA ^{Link} - Daily Delete File | Download from USPS website | Required for all licensees | Daily |
| Delivery Point Validation (DPV) Database | <ul style="list-style-type: none"> Pitney Bowes Software support site at www.g1.com/support (Download at no charge - no backup media) Or Pitney Bowes Software on-line store at http://store.pbinsight.com (Download and purchase backup media) Mainframe tape recipients receive physical media | USPS Cycle N regulations require Delivery Point Validation (DPV) processing to generate the USPS Form 3553 (USPS CASS Summary Report) | Monthly |

Databases, Delivery Methods, and Update Requirements (Part 2 of 2)

| Database | Delivery Method/Source | Required/Optional | Updates |
|----------------------------|---|---|---------|
| LACSLink Database | <ul style="list-style-type: none"> Pitney Bowes Software support site at www.g1.com/support (Download at no charge - no backup media) Or Pitney Bowes Software on-line store at http://store.pbinsight.com (Download and purchase backup media) Mainframe tape recipients receive physical media | USPS Cycle N regulations require LACSLink processing to generate the USPS Form 3553 (USPS CASS Summary Report) | Monthly |
| SuiteLink Database | <ul style="list-style-type: none"> Pitney Bowes Software support site at www.g1.com/support (Download at no charge - no backup media) Or Pitney Bowes Software on-line store at http://store.pbinsight.com (Download and purchase backup media) Mainframe tape recipients receive physical media | USPS Cycle N regulations require SuiteLink processing to generate the USPS Form 3553 (USPS CASS Summary Report) | Monthly |
| Early Warning System (EWS) | Download from USPS website. Pitney Bowes Software sends a monthly update of the EWS File with the CASS database updates. | Optional for all licensees | Weekly |

Installing NCOA/Link Data on Windows and z/OS

The following procedure describes how to install NCOA^{Link} data on Windows and z/OS. For instructions on how to install NCOA^{Link} data on IBM i, see the *VeriMove User's Guide for IBM i*.

-
- i** If you are a new customer, you must set up your configuration file prior to attempting to install the NCOA^{Link} data. For more information on the configuration file properties, see **“Configuration File Properties,” on page 18**.
-

To install NCOA^{Link} data, follow these steps.

-
- i** If there is more than one physical drive on the system that executes VeriMove jobs, install the NCOA^{Link} data on a separate physical drive from the VeriMove software, operating system, and pagefile/Virtual Memory. This results in a major performance improvement.
-

1. Insert the NCOA Dataset DVD into the DVD drive of a Windows PC. You must use a Windows PC regardless your execution platform.
2. Browse to the location where you installed VeriMove and go to the **Tables** subfolder. For example, C: \PB\Veri Move\Tables.
3. Explode the NCOA files to your database location using `explode.bat` or `explode_query.bat` (interactive mode).

Using `explode.bat` to Explode the NCOA Files

To explode the NCOA files to your database location using `explode.bat`, follow these steps:

1. Edit `explode.bat` as follows. Omit all quotes from path names. If you leave the `DVDPATH=` and `DVDDESTINATION=` values blank, you will be asked for this information in an interactive query mode.
 - Change `SET DVDPATH=E:` to the desired path if your DVD drive is something other than E:. Note that in older versions of `explode.bat`, you used to specify "E:\". The backslash is no longer specified.
 - Change `SET DVDDESTINATION=XXXXX` to the path where you want to install the NCOA^{Link} data. This folder will automatically be created if it does not already exist. For example, if you are installing the data to D:\USPSDATA, specify `DVDDESTINATION=D: \USPSDATA`.

The last three items only affect Flat File databases and are otherwise ignored.

 - Change `Set MVSONLY=N` to Y only if you are installing on an MVS platform. This will avoid a preprocessing step that is needed for other platforms.
 - Change `Set FLATSI NGLE=N` to Y if you are using the Single Flat File database.
 - Change `Set FLATATOZ=Y` to N if you set `FLATSI NGLE=Y` and do not also want to use the 26 Flat File A-Z database.
2. Save and close `explode.bat` under a new name (i.e., `myexplode.bat`) that will not be overwritten by future updates and installations.
3. Run your version of `explode.bat`.

4. The following message displays:

```
*****  
NCOALink Database Installation Script.  
*****
```

This script installs an NCOA^{Link} database from two DVDs onto your hard drive. This may require up to 40 GBytes of free space on your hard drive.

5. The following message displays:

```
Folder dst is about to be loaded from the  
NCOALink database found on DVD src  
*****  
WARNING -- If you proceed from this point, all data in  
folder dst will be erased first. You may type  
Control -C to abort this process now without erasing anything.  
*****
```

The warning above only displays if the destination folder contains data.

6. The following message displays:

```
Insert NCOA Link data DVD 1 from the USPS into Drive src  
Press any key to continue
```

7. The explode.bat process continues as follows:

```
Copying DVD 1 (src) to dst  
DVD 1 copy complete.  
Insert NCOALink data DVD 2 from the USPS into Drive src Press any key to continue.  
Copying DVD 2 (src) to dst  
DVD 2 copy complete.
```

8. After both DVDs have been copied, the .zip (zipped) files are automatically expanded. Then, the .szp (USPS-compressed) files are expanded. Afterward, a series of preprocesses and tests are performed. If there are errors, one of the following messages displays:

```
**** FILE NOT FOUND: filename  
**** ERROR COPYING FILE: filename  
**** ERROR PROCESSING FILE: filename  
**** ERROR: message
```

This message is followed by:

```
FAILURE!!!  
Press any key to continue
```

9. If the message indicates that there is a file in the VeriMove installation folder, then there was a problem with your VeriMove installation. If the error involves copying a file from the DVD, then you may have a bad DVD or your DVD drive may be unable to properly handle this type of DVD.

A process called "TestFileSha" produces a file called TablesTestFileSha.log in the parent folder of the folder containing these scripts. This file contains detailed descriptions of the tests performed and any errors that have occurred. If an error occurs, the following message displays:

```
**** ERROR: Verifying Data File Signatures
```

If you get this message, the data files indicated in the log file were corrupted and you may have a bad DVD or DVD drive. This error is specific to data on the DVD or to "read" problems with the DVD. You may need to request replacement production DVD datasets from USPS NCOA^{Link} support.

10. If there are no problems with these various processes and tests, the following message displays to indicate that the process completed. You must still check the log file generated during the explode process to ensure the explode process ran error free.

SUCCESS!!

Press any key to continue

Using the Interactive Mode (explode_query.bat) to Explode the NCOA Files

To run the explode process in an interactive mode, leave the following blank:

- SET DVDPATH=
- DVDDESTINATION=

If both of these variables are blank when executing explode.bat, the explode.bat process calls explode_query.bat to ask for the required information in an interactive mode as described in the following steps.

1. The explode.bat process executes explode_query.bat. The following message displays:

```
*****  
NCOALink Database Installation Script.  
*****
```

This script installs an NCOA^{Link} database from two DVDs onto your hard drive. This may require up to 40 GBytes of free space on your hard drive.

The questions below appear when explode_query.bat is executed. The default answer is shown in [...]. If you press Enter in response to a query, you accept and specify the [default].

2. The following prompt appears in explode_query.bat:

Is this installation only for an MVS system [N]?

Answering "Y" can save you time on a Flat File database if you are only going to use this database on the MVS platform.

3. The following prompt appears in explode_query.bat:

Where do you want the NCOALink database installed [D:\USPSDATA]?

Type a new destination folder or press Enter to use the default.

4. The following prompt appears in explode_query.bat:

Folder dst does not exist. Create it [Y]?

This question appears only if that folder does not exist. If you answer "N", then the script returns to the previous step.

5. The following prompt appears in explode_query.bat:

Specify source DVD drive [E:]:

6. The following message displays:

Folder dst is about to be loaded from the NCOALink database found on DVD src

```
*****
```

WARNING -- If you proceed from this point, all data in folder dst will be erased first. You may type Control -C to abort this process now without erasing anything.

```
*****
```

The warning above only displays if the destination folder contains data.

7. The following message displays:
Insert NCOA Link data DVD 1 from the USPS into Drive src
Press any key to continue
8. If you are running `explode_query.bat` and the DVD contains a Flat File database, the questions below are asked. Note: The second question is only asked if you answer “Y” to the first question.
This is a flat file database
Do you want to use single flat file mode [N]?
Do you also want to use 26 flat file A-Z mode [N]?
9. The explode process continues as follows:
Copying DVD 1 (src) to dst
DVD 1 copy complete.
Insert NCOA^{Link} data DVD 2 from the USPS into Drive src Press any key to continue.
Copying DVD 2 (src) to dst
DVD 2 copy complete.
10. After both DVDs have been copied, the .zip (zipped) files are automatically expanded. Then, the .szp (USPS-compressed) files are expanded. Afterward, a series of preprocesses and tests are performed. If there are errors, one of the following messages displays:
**** FILE NOT FOUND: filename
**** ERROR COPYING FILE: filename
**** ERROR PROCESSING FILE: filename
**** ERROR: message
This message is followed by:
FAILURE!!!
Press any key to continue
11. If the message indicates that there is a file in the VeriMove installation folder, then there was a problem with your VeriMove installation. If the error involves copying a file from the DVD, then you may have a bad DVD or your DVD drive may be unable to properly handle this type of DVD. A process called “TestFileSha” produces a file called `TablesTestFileSha.log` in the parent folder of the folder containing these scripts. This file contains detailed descriptions of the tests performed and any errors that have occurred. If an error occurs, the following message displays:
**** ERROR: Verifying Data File Signatures
If you get this message, the data files indicated in the log file were corrupted and you may have a bad DVD or DVD drive. This error is specific to data on the DVD or to “read” problems with the DVD. You may need to request replacement production DVD datasets from USPS NCOA^{Link} support.
12. If there are no problems with these various processes and tests, the following message displays to indicate that the process completed. You must still check the log file generated during the explode process to ensure the explode process ran error free.
SUCCESS!!!
Press any key to continue

Uploading Exploded Files to the z/OS Platform

If you run VeriMove on z/OS, follow these steps to upload exploded files to the z/OS platform:

1. Run UploadServer. Before the USPS database can be uploaded to an MVS system, you must run UploadServer on the PC where the USPS database has been loaded. Go to the folder where VeriMove is installed (i.e. C:\PB\VeriMove) and click on "UploadServer.exe". A DOS window will appear indicating that the program is running. Each time a file is uploaded in the steps described in the following sections, the name of the file will be echoed. When you are done uploading, you may close the DOS window to kill the UploadServer.
2. Edit the Config File. On the MVS system, edit 'yourhlq.VERIMOVE.SAMPCNFG' and do a "change all" on the lowercase variables described at the top of the file.
3. Upload the VeriMove Data. These are files that originally came from the installation of VeriMove on the PC but were copied (by explode.bat) into the same folder as the USPS database. Edit the file 'yourhlq.VERIMOVE.INSTALIB(UPLOAD)' and do a "change all" as described the comments at the top of the file. In particular, set "manifestmember" to 'VERIMOVE'. When you execute this JCL, which only takes a few seconds, several files are uploaded.
4. Upload the USPS Database. The upload of the USPS database requires one of three JCLs depending on the type of database you are uploading.
 - **Upload Hash Database** — To upload a hash database, edit 'yourhlq.VERIMOVE.INSTALIB(UPLOAD)' as described above, setting "manifestmember" to "USPS" (or "USPSO" for an old style database). The upload may take several hours depending on the speed of your MVS system and your network connection.
 - **Upload the Single Flat File database** — To upload the Single Flat File database, edit 'yourhlq.VERIMOVE.INSTALIB(UPLOADF)' in the same manner as for UPLOAD of a Hash database but includes additional variables to be replaced. Also, set "manifestmember" to "USPSF" (or "USPSFO" for an old style database).
 - **Upload the 26 Flat File A-Z database** — To upload the 26 Flat File A-Z database, edit 'yourhlq.VERIMOVE.INSTALIB(UPLOADFZ)' in the same manner as for UPLOAD of a Hash database but includes additional variables to be replaced. Also, set "manifestmember" to "USPSFZ" (or "USPSFZO" for an old style database).
5. For performance evaluation, you may want to upload both the Single Flat File database and the 26 Flat File A-Z databases. Since they are both derived from the same DVD set, it is not necessary to load two completely separate databases.

If you have already used UPLOADF to upload the Single Flat File database, you may use UPLOADFZ to upload the 26 Flat File A-Z database setting "manifestmember" to "USPSFZF".

If you have already used UPLOADFZ to upload the 26 Flat File A-Z database, you may use UPLOADF to upload the Single Flat File database, setting "manifestmember" to "USPSFF".

The USPS database is being changed as of July 31, 2006. The change is transparent to those running on platforms other than MVS. Those who are still running old versions of the database will need to upload using "manifestmember" being set to "USPSO", "USPSFO", and "USPSFZO".

Customizing explode.bat

If you have created a customized version of explode.bat and stored this version in your own folder, please note that explode.bat changed significantly with release 3.2.0. It is recommended that you replace your copy with the new explode.bat located in "VeriMove-installation-folder\Tables". If you keep explode.bat in your own folder, it is recommended that you change the last line in explode.bat from:

```
call explode_query.bat
```

to

```
call VeriMove-installation-folder\Tables\explode_query.bat
```

The new explode.bat sets five environment variables and then calls explode_query.bat to perform the actual work. Future releases may involve more changes to explode_query.bat but customers should only have to modify the variables in explode.bat.

Installing NCOA/Link Data on Unix and Linux

The following procedure describes how to install NCOA^{Link} data on the Unix and Linux platforms. For instructions on installing NCOA^{Link} data on Windows and z/OS, see "Installing NCOA/Link Data on Windows and z/OS" on page 30. For instructions on how to install NCOA^{Link} data on IBM i, see the *VeriMove User's Guide for IBM i*.

i If you are a new customer, you must set up your configuration file prior to attempting to install the NCOA^{Link} data. For more information on configuration file properties for the Unix and Linux platforms, refer to "**Configuration File Properties,**" on page 18.

To install NCOA^{Link} data, follow these steps.

i If there is more than one physical drive on the system that executes VeriMove jobs, install the NCOA^{Link} data on a separate physical drive from the VeriMove software, operating system, and pagefile/Virtual Memory. This results in a major performance improvement.

1. Insert the NCOA Dataset DVD into the DVD drive for the Unix or Linux machine.
2. Browse to the location where you installed VeriMove and go to the **Tables** subfolder. For example:
`/PB/Veri Move/nl k/Tabl es.`
3. Explode the NCOA files to your database location using `explode.bat` or `explode_query.bat`.

Using `explode.sh` to Explode the NCOA Files

To explode the NCOA files to your database location using `explode.sh`, follow these steps:

1. Edit `explode.sh` as follows. Omit all quotes from path names. If you leave the `DVDPATH=` and `DVDDESTINATION=` values blank, you will be asked for this information in an interactive query mode.
 - a. Change `DVDPATH=` to the location of your mounted DVD drive. For example:
`DVDPATH=/dev/cdrom.`
 - b. Change `DVDDESTINATION=` to the path where you want to install the NCOA^{Link} data. For example, if you are installing the data to `/PB/data/USPSDATA`, specify:
`DVDDESTINATION= /PB/data/USPSDATA.`

The next three items only affect Flat File databases and are otherwise ignored.

- c. Change `MVSONLY=N` to `Y` only if you are installing on an MVS platform. This will avoid a preprocessing step that is needed for other platforms.
- d. Change `FLATSI NGLE=N` to `Y` if you are using the Single Flat File database.
- e. Change `FLATATOZ=Y` to `N` if you set `FLATSI NGLE=Y` and do not also want to use the 26 Flat File A-Z database.

In addition, `explode.sh` includes the fields:

- f. Change `exmount=""` to the DVD mount command used for your system.
- g. Change `exunmount=""` to the DVD unmount command used for your system.

Examples of different types of mount and unmount commands are located in `explode.sh`.

2. Save and close `explode.sh` under a new name (i.e., `myexplode.sh`) that will not be overwritten by future updates and installations.

3. The `explode.sh` is currently designed to be executed from the main installation directory. To run your saved `explode.sh`, navigate to your main installation directory. For Example, `/PB/VeriMove` and execute:

```
. Tables/myexplode.sh
```

4. The following message displays:

```
*****  
NCOALink Database Installation Script.  
*****
```

This script installs an NCOA^{Link} database from two DVDs onto your hard drive. This can require up to 40 GBytes of free space on your hard drive.

5. The following displays:

```
Folder dst is about to be loaded from the  
NCOALink database found on DVD src
```

```
*****  
WARNING -- If you proceed from this point, all data in  
folder dst will be erased first. You may type  
Control -C to abort this process now without erasing anything.  
*****
```

The warning above only displays if the destination folder contains data.

6. The following message displays:

```
Insert NCOALink data DVD 1 from the USPS into Drive src  
Press any key to continue
```

7. The `explode.sh` process continues as follows:

```
Copying DVD 1 (src) to dst  
DVD 1 copy complete.
```

```
Insert NCOA Link data DVD 2 from the USPS into Drive src Press any key to continue
```

```
Copying DVD 2 (src) to dst  
DVD 2 copy complete.
```

8. After both DVDs have been copied, the `.zip` (zipped) files are automatically expanded. Then, the `.szp` (USPS-compressed) files are expanded. Afterward, a series of preprocesses and tests are performed. If there are errors, one of the following messages displays:

```
**** ERROR FINDING FILE: filename  
**** ERROR COPYING FILE: filename  
**** ERROR PROCESSING FILE: filename  
**** ERROR: message
```

This message will be followed by:

```
FAILURE!!!
```

```
Press any key to continue
```

9. If the message indicates that there is a file in the VeriMove installation folder, then there was a problem with your VeriMove installation. If the error involves copying a file from the DVD, you may have a bad DVD or your DVD drive may be unable to properly handle this type of DVD. A process called "TestFileSha" produces a file called TablesTestFileSha.log in the parent folder of the folder containing these scripts. This file contains detailed descriptions of the tests performed and any errors that have occurred. If an error occurs, the following message displays:

```
**** ERROR: Verifying Data File Signatures
```

If you get this message, the data files indicated in the log file were corrupted and you may have a bad DVD or DVD drive. This error is specific to data on the DVD or to "read" problems with the DVD. You may need to request replacement production DVD datasets from USPS NCOA^{Link} support.

10. If there are no problems with these various processes and tests, the following message displays. You must still check the log file generated during the explode process to ensure the explode process ran error free.

```
SUCCESS!!!
```

```
Press any key to continue
```

Using the Interactive Mode (explode_query.sh) to Explode the NCOA Files

To run the explode process in an interactive mode, leave the following blank:

- SET DVDPATH=
- DVDDESTINATION=

If both of these variables are blank when executing explode.sh, the explode.sh process calls explode_query.sh to ask for the required information in an interactive mode as described in the following steps.

1. The explode.sh process executes explode_query.sh. The following message displays:

```
*****  
NCOALink Database Installation Script.  
*****
```

This script installs an NCOA^{Link} database from two DVDs onto your hard drive. This may require up to 40 GBytes of free space on your hard drive.

The questions below appear when explode_query.sh is executed. The default answer is shown in [...]. If you press Enter in response to a query, you accept and specify the [default].

2. The following prompt appears in explode_query.sh:
Is this installation only for an MVS system [N]?
Answering "Y" can save you time on a Flat File database if you are only going to use this database on the MVS platform.
3. The following prompt appears in explode_query.sh:
Where do you want the NCOALink database installed [/USPSDATA]?
Type a new destination folder or press Enter to use the default.

4. The following prompt appears in `explode_query.sh`:
Folder `dst` does not exist. Create it [Y]?
This question appears only if that folder does not exist. If you answer “N”, then the script returns to the previous step.
5. The following prompt appears in `explode_query.sh`:
Specify source DVD drive [/dev/cdrom]:
6. The following message displays:
Folder `dst` is about to be loaded from the
NCOALink database found on DVD `src`

WARNING -- If you proceed from this point, all data in
folder `dst` will be erased first. You may type
Control-C to abort this process now without erasing anything.

The warning above only displays if the destination folder contains data.
7. The following message displays:
Insert NCOALink data DVD 1 from the USPS into Drive `src`
Press any key to continue
8. If you are running `explode_query.sh` and the DVD contains a Flat File database, the questions below are asked. Note: The second question is only asked if you answer “Y” to the first question.
This is a flat file database
Do you want to use single flat file mode [N]?
Do you also want to use 26 flat file A-Z mode [N]?
9. The `explode` process continues as follows:
Copying DVD 1 (`src`) to `dst`
DVD 1 copy complete.
Insert NCOA Link data DVD 2 from the USPS into Drive `src` Press any key to continue
Copying DVD 2 (`src`) to `dst`
DVD 2 copy complete.
10. After both DVDs have been copied, the `.zip` (zipped) files are automatically expanded. Then, the `.szp` (USPS-compressed) files are expanded. Afterward, a series of preprocesses and tests are performed. If there are errors, one of the following messages displays:
**** ERROR FINDING FILE: filename
**** ERROR COPYING FILE: filename
**** ERROR PROCESSING FILE: filename
**** ERROR: message
This message will be followed by:
FAILURE!!!
Press any key to continue
11. If the message indicates that there is a file in the VeriMove installation folder, then there was a problem with your VeriMove installation. If the error involves copying a file from the DVD, you may have a bad DVD or your DVD drive may be unable to properly handle this type of DVD.
A process called “TestFileSha” produces a file called `TablesTestFileSha.log` in the parent folder of the folder containing these scripts. This file contains detailed descriptions of the tests performed and any errors that have occurred. If an error occurs, the following message displays:

**** ERROR: Verifying Data File Signatures

If you get this message, the data files indicated in the log file were corrupted and you may have a bad DVD or DVD drive. This error is specific to data on the DVD or to “read” problems with the DVD. You may need to request replacement production DVD datasets from USPS NCOA^{Link} support.

12. If there are no problems with these various processes and tests, the following message displays to indicate that the process completed. You must still check the log file generated during the explode process to ensure the explode process ran error free.

```
SUCCESS!!!  
Press any key to continue
```

Customizing explode.sh

If you are a VeriMove customer who has created a customized version of explode.sh and stored this version in your own folder, please note that explode.sh changed significantly with release 3.2.0. It is recommended that you replace your copy with the new explode.sh located in "VeriMove-installation-folder\Tables". If you keep explode.sh in your own folder, it is recommended that you change the last line in explode.sh from:

```
call explode_query.sh  
  
to  
  
call ./Tables/explode_query.sh
```


The new explode.sh sets five environment variables and then calls explode_query.sh to perform the actual work. Future releases may involve more changes to explode_query.sh but customers should only have to modify the variables in explode.sh.

Understanding the Explode Process Impact on Business Name Matching Tables

VeriMove uses three tables during the Business Name Matching process to compare records in your input file against the NCOA^{Link} database. These three tables, formatted and installed in the Tables directory during VeriMove installation, are only used for Business Name Matching. These tables do not change your input records and do not affect VeriMove output of business names but are simply used to aid in comparing your input records against the NCOA^{Link} database to determine a Business Name match.

| Table Name | Description |
|-------------------------|---|
| REDEFINES-WORD-LIST.txt | Maps commonly used abbreviations to full words |
| JUNK-WORD-LIST.txt | Words that are ignored during Business Name Matching |
| COMMON-WORD-LIST.txt | Words that are given higher value when calculating Business Name Match percentages (used to determine whether or not a match has been achieved) |

Each time you explode the NCOA files to your database location, these files are copied from the Tables directory to your database location. Subsequent VeriMove installations will overwrite these tables with the tables VeriMove used to certify with the USPS. If you customize these tables, be sure to backup these files before installing a new VeriMove release. After installing a new VeriMove release, replace the installed VeriMove USPS-certified tables with your backed up versions of your customized tables.

 **IMPORTANT!** Pitney Bowes Software certifies VeriMove with the USPS using these three tables. Editing these tables may result in an increase or decrease in your Business Name Matching rate. If your Business Name Matching rate changes significantly, the USPS may audit your Business Name Matching results and require you to recertify using your customized versions of these three tables.

For more information, please refer to the section "Using Business Name Matching" in Chapter 4, Defining a Job in your *VeriMove User's Guide*.

Installing the Daily Delete File

USPS regulations require all NCOA^{Link} licensees to use the Daily Delete File. Licensees must download and install this file daily. To install the Daily Delete file, follow these steps.


1. Browse to the location where you installed VeriMove and go to the Utilities subfolder. For example, C:\PB\VeriMove\Utilities.
2. Download the Daily Delete file. The Daily Delete file is available from the USPS Electronic Product Fulfillment (EPF) web site at <http://epf.usps.gov>. Note the following:
 - You can use the getFileHTTps.exe utility to download the Daily Delete file. However, the getFileHTTps.exe utility:
 - Can only be used to download files from the USPS <http://epf.usps.gov> secured web site
 - Only downloads the most current version of the USPS file requested.
 - Is only available for the Windows platformFor more information on using the getFileHTTps.exe utility, see Chapter 8, Utilities in your *VeriMove User's Guide*. Note the following:
 - Windows, Unix, and Linux users should download the ASCII version of the Daily Delete file.
 - z/OS and IBM i users should download the EBCDIC version of the file.
3. If you run VeriMove jobs on Unix, Linux, or a remote Windows system, follow these steps:
 - a. Start an FTP session with your execution platform
 - b. FTP the files in binary mode to a directory that VeriMove can access.
4. If you run VeriMove on z/OS, follow these steps:
 - a. Modify the UPLOAD JCL included in the yourhlq.VERIMOVE.INSTALIB library from the VeriMove installation media. See the comments in the JCL for the necessary modifications. In particular, set 'manifestmember' to DAILY.
 - b. On the Windows computer, open a command prompt.
 - c. Change to the location where you installed VeriMove. For example, C:\PB\VeriMove.
 - d. Execute UploadServer.exe. Before the database can be uploaded to an MVS system, you must run UploadServer on the PC where the database has been loaded. Go to the folder where VeriMove is installed (i.e. C:\PB\VeriMove) and click on "UploadServer.exe". A DOS window appears indicating that the program is running. Each time a file is uploaded in the steps described in the following sections, the name of the file will be echoed. When you are done uploading, you may close the DOS window to kill the UploadServer.
 - e. Execute the UPLOAD job on your z/OS system.
5. If you run VeriMove jobs on IBM i, do the following:
 - a. Map a drive to the IFS.
 - b. Create a folder on the IFS, such as /VeriMoveTemp.
 - c. Copy the data to that folder.
 - d. Use the IBM i CHUI to complete the database installation process. For instructions, see the *VeriMove User's Guide for IBM i*.

Installing the USPS Databases

The procedure that you follow to install the CASS, DPV, EWS, LACS^{Link}, and Suite^{Link} databases depends on whether you are using the VeriMove internal CASS processor or an external CASS processor such as Finalist or CODE-1 Plus.

Installing Databases for Internal CASS Processing

Internal CASS processing is available on Windows, Unix, and Linux. To install CASS, DPV, EWS, LACS^{Link}, and Suite^{Link} databases for use with the VeriMove internal CASS processor, follow these steps:

 Some databases are very large, require a great deal of time to download, and consume a large amount of disk space. Be sure that you have sufficient space before you begin this process.

1. Do one of the following:
 - a. To download the CASS, DPV, LACS^{Link}, or Suite^{Link} databases, go to <http://www.g1.com/support> and log in to the Support site. If you do not have a user ID and password, contact Pitney Bowes Software Customer Support at 800-367-6950. Locate the file(s) you wish to download and initiate the download.
 - b. To download EWS data, browse to the location where you installed VeriMove and go to the Utilities subfolder. For example, C:\PB\VeriMove\Utilities. Use getFileHttp.exe to download the file from <http://ribbs.usps.gov/files/CASS>. For more information, see Chapter 8, Utilities in your *VeriMove User's Guide*.
2. Open the .zip file and extract the contents. Or, if the file is an .exe file, double-click on it to extract the contents.
3. If you run VeriMove jobs on a remote Windows system:
 - a. Establish an FTP session with your execution system.
 - b. FTP the files in binary mode to a directory that VeriMove can access.

Installing Databases for External CASS Processing

If you are using an external CASS processor such as Finalist or CODE-1 Plus, see the product documentation for instructions on how to install the CASS, DPV, EWS, LACS^{Link}, and Suite^{Link} databases.

After you update your CASS product data, follow these steps only if you are using the Manually Registered Statistics option in VeriMove. For information on manually registered statistics, see the section "Specifying CASS Settings" in Chapter 4, Defining a Job in your *VeriMove User's Guide*.

1. Launch VeriMove and open a job.
2. Go to the **CASS** tab.
3. Click the **Edit** button next to **Use Manually Registered Statistics**.
4. Update the date to reflect the date of the database(s) you just downloaded. Click **OK**.

Converting the Statistics File for VeriMove

No changes have been made to the Statistics File between VeriMove 3.5.3 and VeriMove 3.5.4. No conversion is necessary when upgrading from the VeriMove 3.5.3 release to the VeriMove 3.5.4 release.

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