



VeriMove™

Version 3.5.5

pitney bowes

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 — 350 MB of space
 - Delivery Point Validation (DPV) Option database — 900 MB of additional space
 - LACS^{Link} Option database — 375 MB of space
 - Suite^{Link} Option database — 525 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 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 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

This section describes the steps for installing VeriMove on Unix from an internet download or DVD.

Installing VeriMove on Unix from Internet Download

To install VeriMove on Unix from internet download, follow these steps.

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. Download the appropriate installation file to Windows.
6. Extract the files.
7. Use an FTP type of program to binary transfer the 'install', 'nlkxyz.taz', and 'vmrls' files from your Windows machine to your desired platform.
8. Run the install script:

```
./install
```

9. 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 Inc.
```

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

```
VeriMove install complete.
```

10. 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 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 20](#).
- 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 20](#).

Installing VeriMove on Unix from CD/DVD

Installation media is only available at an additional charge from the Pitney Bowes eStore. Please log in to the Pitney Bowes eStore for media purchasing and shipping. To install VeriMove on Unix from CD/DVD, follow these steps.

 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 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.
3. Change the directory to the root directory of the CD/DVD (or to where your specific mount point is located).

```
cd <mountpoint>
```

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 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 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 20.
- 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 20.

Installing VeriMove on Linux

This section describes the steps for installing VeriMove on Linux from an internet download or DVD.

Installing VeriMove on Linux from Internet Download

To install VeriMove on Linux from internet download, follow these steps.

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. Download the appropriate installation file to Windows.
6. Extract the files.
7. Use an FTP type of program to binary transfer the 'install', 'nlkxyz.taz', and 'vmrls' files from your Windows machine to your desired platform.
8. Run the install script:

```
./install
```

9. 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.

Converting old statistics file to new format.

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

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

```
VeriMove install complete.
```

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.

10. 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 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 20](#).
- 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 20](#).

Installing VeriMove on Linux from CD/DVD


Installation media is only available at an additional charge from the Pitney Bowes eStore. Please log in to the Pitney Bowes eStore for media purchasing and shipping. To install VeriMove on Linux from CD/DVD, follow these steps.

 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>
```

 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 Inc.
```

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

VeriMove install complete.

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 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 20.
- 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 20.

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 14](#). Add your site-defined job card.

```
//j obcard
//*
//* UNLOAD <PRODUCT NAME> JCL LI BRARY.
//*
//LOAD      EXEC PGM=I EBCOPY
//SYSPRINT 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 recommends you consult with a Pitney Bowes 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 20](#).

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 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
SAMPCNFG	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 recommends you consult with a Pitney Bowes 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 20.](#)

5. Load your new or updated database file(s). See ["Installing USPS Data" on page 30.](#)

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.

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 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.
NCOA ^{Link} Key	NCOA ^{Link} key assigned to you by Pitney Bowes.
SerialNumber	Serial number assigned to you by Pitney Bowes.
NCOA ^{Link} 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 ^{Link} 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)	
CASSerialNumber	<p>CASS serial number that Pitney Bowes assigned to you. 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	To perform DPV processing using the VeriMove internal CASS processor, specify your DPV product software key as provided by Pitney Bowes.
LACSKey	To perform LACS ^{Link} processing using the VeriMove internal CASS processor, specify your LACS ^{Link} product software key as provided by Pitney Bowes.

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 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 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 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 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^{Link} move prequalification processing. The default value is 3000.</p> <p>CAUTION: A change to this value can impact throughput and memory usage. Pitney Bowes 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 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 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 32.</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 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 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 support site at www.g1.com/support (Download at no charge - no backup media) Or Pitney Bowes 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 support site at www.g1.com/support (Download at no charge - no backup media) Or Pitney Bowes 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 support site at www.g1.com/support (Download at no charge - no backup media) Or Pitney Bowes 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 support site at www.g1.com/support (Download at no charge - no backup media) Or Pitney Bowes 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 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

This section describes the steps for installing NCOA^{Link} data on the Windows and z/OS platforms. The USPS delivers the NCOA^{Link} data files in a compressed or tarred format. As part of the installation process, you will need to uncompress/expand the USPS NCOA^{Link} data files using the VeriMove "explode" process to make the data files fully functional. Prior to installing the NCOA^{Link} data:

- **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 setting up your configuration file, see "[Configuration File Properties](#)," on page 20.
- **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.
- **If you are processing on an IBM i platform**, please refer to your *VeriMove Installation Guide for IBM i* for instructions on how to install NCOA^{Link} data on the IBM i platform.
- **If you are processing on a Unix or Linux platform**, please refer to "[Installing NCOA^{Link} Data on Unix and Linux](#)" on page 36.

Obtaining the NCOA^{Link} Data

Pitney Bowes does not supply the NCOA^{Link} data. You must contact the USPS directly to obtain the NCOA^{Link} data. The USPS requires all licensees to obtain product updates from the USPS Electronic Product Fulfillment (EPF) web site. In the event that the USPS sends you NCOA^{Link} data on a DVD, we have included instructions for installing from a DVD. However, per the USPS mandate to download product updates from the EPF website, in most cases you will use the first option below.

1. Download the NCOA^{Link} data from the USPS Electronic Product Fulfillment (EPF) web site at <http://epf.usps.gov>. Note the following additional steps required when downloading the NCOA^{Link} data from the USPS EPF web site:
 - a. Navigate to the location of the downloaded NCOA^{Link} data file.
 - b. The downloaded NCOA^{Link} data from the USPS EPF web site may be in a zipped or tar format. Unzip or untar the data before running the explode process.
 - c. Navigate to the folder that contains the unzipped or untarred NCOA^{Link} data. The number of files in the directory will vary depending on the database format you are licensed to use (hash or flat). The following table provides information on the unzipped/untarred files.

NCOA^{Link} Data Files (Part 1 of 2)

File Name	Description
clk.zip	Zipped data file that contains necessary NCOA ^{Link} data files.
dvdhdr01.dat dvdhdr02.dat	Files that store the contents of the NCOA ^{Link} database.
rv9.zip	Zipped data file that contains additional NCOA ^{Link} data files.

NCOA^{Link} Data Files (Part 2 of 2)

File Name	Description
clk.*	Additional NCOA ^{Link} tables present when you receive 18 month (hash or flat) or 48 month data (hash or flat).
ank.*	Additional NCOA ^{Link} tables present only when you receive ANK ^{Link} data (hash or flat). NOTE: After the explode process, these files are renamed to clk.* file names.

- d. Proceed to the section "[Using explode.bat to Explode the NCOA^{Link} Files](#)" on page 33.
2. If you received NCOA^{Link} data on a DVD, follow these steps:
 - a. Insert the NCOA^{Link} data DVD into the DVD drive of a Windows PC. You must use a Windows PC regardless of your execution platform.
 - b. Proceed to the section "[Using explode.bat to Explode the NCOA^{Link} Files](#)" on page 33.

Using explode.bat to Explode the NCOA^{Link} Files

To explode the NCOA^{Link} data files to your database location using explode.bat, follow these steps:

1. Browse to the location where you installed VeriMove and go to the **Tables** subfolder. For example, C:\PB\Veri Move\Tables.
2. Edit explode.bat as follows.
 - a. Omit all quotes from path names. If you leave the INPUTDATAPATH= and NCOADATADESTINATION= values blank, you will be asked for this information in an interactive query mode.
 - Change set INPUTDATAPATH= to the location of the NCOA^{Link} data.
 - Change set NCOADATADESTINATION= to the path where you want to install the NCOA^{Link} data. This folder is automatically created if it does not already exist. For example, if you are installing the data to D:\USPSDATA, specify set NCOADATADESTINATION=D:\USPSDATA.
 - b. This item only applies if you are exploding the NCOA^{Link} data from a DVD.

The explode.bat script defaults to the values required to explode the NCOA^{Link} data from a location (not from a DVD). To explode from a DVD, change set USEDVDLOAD=N to set USEDVDLOAD=Y.
 - c. These 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.
3. Save and close explode.bat under a new name (i.e., myexplode.bat) that will not be overwritten by future updates and installations.

4. Run your modified version of explode.bat.
5. One of the following messages displays:
 - a. If you are exploding from a location, the following messages displays:

```
*****  
NCOALink Database Installation Script.  
*****  
  
This script installs an NCOALink database from a download location onto your hard drive.  
This can require up to 20 GBytes of free space on your hard drive.
```
 - b. If you are exploding from a DVD, the following messages displays:

```
*****  
NCOALink Database Installation Script.  
*****  
  
This script installs an NCOALink database from two DVDs onto your hard drive. This can  
require up to 20 GBytes of free space on your hard drive.
```
6. The following message displays:
 - a. If you are exploding from a location, the following messages displays:

```
Folder dst is about to be loaded from the  
NCOALink database found at location 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.  
*****
```
 - b. If you are exploding from a DVD, the following messages 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 explode.bat process continues as follows:
 - a. If you are exploding from a DVD, the following messages display:

```
Insert NCOALink data DVD 1 from the USPS into Drive src  
Press any key to continue  
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.
```
 - b. If you are exploding from a location, the following messages displays:

```
Copying from location (src) to dst  
File copy complete.
```

8. After the NCOA^{Link} data has 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 missing, there was a problem with your NCOA^{Link} data explode process. There may have been a problem copying the NCOA^{Link} data from the source location.
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. You may have corrupted NCOA^{Link} data and need to replace the download source (downloaded file or DVD).
10. If there are no problems with the process 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 terminate 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 changed in July 31, 2006. The change is transparent to those running on platforms other than MVS. If you are still running an old version of the database, you need to upload using "manifestmember" being set to "USPSO", "USPSFO", and "USPSFZO".

Installing NCOA^{Link} Data on Unix and Linux

This section describes the steps for installing NCOA^{Link} data on the Unix and Linux platforms. The USPS delivers the NCOA^{Link} data files in a compressed or tarred format. As part of the installation process, you will need to uncompress/expand the USPS NCOA^{Link} data files using the VeriMove "explode" process to make the data files fully functional. Prior to installing the NCOA^{Link} data:

- **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 20](#).
- **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.
- **If you are processing on an IBM i platform**, please refer to your *VeriMove Installation Guide for IBM i* for instructions on how to install NCOA^{Link} data on the IBM i platform.
- **If you are processing on a Windows or z/OS platform**, please refer to ["Installing NCOA^{Link} Data on Windows and z/OS" on page 32](#).

Obtaining the NCOA^{Link} Data

Pitney Bowes does not supply the NCOA^{Link} data. You must contact the USPS directly to obtain the NCOA^{Link} data. The USPS requires all licensees to obtain product updates from the USPS Electronic Product Fulfillment (EPF) website. In the event that the USPS sends you NCOA^{Link} data on a DVD, we have included instructions for installing from a DVD. However, per the USPS mandate to download product updates from the EPF website, in most cases you will use the first option below.

1. Download the NCOA^{Link} data from the USPS Electronic Product Fulfillment (EPF) web site at <http://epf.usps.gov>. Note the following additional steps required when downloading the NCOA^{Link} data from the USPS EPF web site:
 - a. Navigate to the location of the downloaded NCOA^{Link} data file.
 - b. If necessary, transfer NCOA^{Link} data file to your Unix/Linux system.
 - c. The downloaded NCOA^{Link} data from the USPS EPF site may be in zipped or tar format. Unzip or untar the data before running explode.
 - d. Navigate to the folder that contains the unzipped or untarred NCOA^{Link} data. The number of files in the directory will vary depending on the database format you are licensed to use (hash or flat). The following table provides information on the unzipped/untarred files.

NCOA^{Link} Data Files

File Name	Description
clk.zip	Zipped data file that contains necessary NCOA ^{Link} data files.
dvdhdr01.dat dvdhdr02.dat	Files that store the contents of the NCOA ^{Link} database.
rv9.zip	Zipped data file that contains additional NCOA ^{Link} data files.
clk.*	Additional NCOA ^{Link} tables present when you receive 18 month (hash or flat) or 48 month data (hash or flat).
ank.*	Additional NCOA ^{Link} tables present only when you receive ANKLink data (hash or flat).
	NOTE: After the explode process, these files are renamed to clk.* file names.

- e. Proceed to the section "Using explode.sh to Explode the NCOA^{Link} Files" on page 38.
2. If you received NCOA^{Link} data on a DVD, follow these steps:
 - a. Insert the NCOA^{Link} data DVD into the DVD drive of a Windows PC. You must use a Windows PC regardless of your execution platform.
 - b. Proceed to the section "Using explode.sh to Explode the NCOA^{Link} Files" on page 38.

Using explode.sh to Explode the NCOA^{Link} Files

To explode the NCOA^{Link} files to your database location using explode.sh, follow these steps:

1. Browse to the location where you installed VeriMove and go to the **Tables** subfolder. For example, /PB/Veri Move/nl k/Tabl es.
2. Edit explode.sh as follows.
 - a. Omit all quotes from path names. If you leave the INPUTDATAPATH= and NCOADATADESTINATION= values blank, you will be asked for this information in an interactive query mode.
 - Change SET INPUTDATAPATH= to the location of the NCOA^{Link} data.
 - Change SET NCOADATADESTINATION= to the path where you want to install the NCOA^{Link} data. This folder is automatically created if it does not already exist. For example, if you are installing the data to /PB/data/USPSDATA, specify SET NCOADATADESTINATION=/PB/data/USPSDATA.
 - b. This item only applies if you are exploding the NCOA^{Link} data from a DVD.

The explode.sh script defaults to the values required to explode the NCOA^{Link} data from a location (not DVD). To explode from a DVD, change set USEDVDLOAD=N to set USEDVDLOAD=Y.
 - c. 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.
 - d. In addition, explode.sh includes the following fields for DVD loading:
 - Change exmount="" to the DVD mount command used for your system.
 - 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.
3. Save and close explode.sh under a new name (i.e., myexplode.sh) that will not be overwritten by future updates and installations.
4. Run your modified version of explode.sh.
5. One of the following messages displays.
 - a. If you are exploding from a location, the following messages displays:


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

This script installs an NCOA^{Link} database from a download location onto your hard drive. This can require up to 20 GBytes of free space on your hard drive.
 - b. If you are exploding from a DVD, the following messages displays:


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

This script installs an NCOA^{Link} database from two DVDs onto your hard drive. This can require up to 20 GBytes of free space on your hard drive.

6. The following message displays:
 - a. If you are exploding from a location, the following messages displays:

```
Folder dst is about to be loaded from the
NCOALink database found at location 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.
*****
```
 - b. If you are exploding from a DVD, the following messages 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 explode.sh process continues as follows:
 - a. If you are exploding from a DVD, the following messages display:

```
Insert NCOALink data DVD 1 from the USPS into Drive src
Press any key to continue
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.
```
 - b. If you are exploding from a location, the following messages display:

```
Copying from location (src) to dst
File copy complete.
```
8. After the NCOA^{Link} data has 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 missing, there was a problem with your NCOA^{Link} data explode process. There may have been a problem copying the NCOA^{Link} data from the source location.

Explode Process Impact on Business Name Matching Tables

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. You may have corrupted NCOA^{Link} data and need to replace the download source (downloaded file or DVD).

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
```

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} data. 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} data 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^{Link} 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 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 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 3.5.4 and VeriMove 3.5.5. No conversion is necessary when upgrading from the VeriMove 3.5.4 release to the VeriMove 3.5.5 release.

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