

PER/ZIP4 Postal Coding User's Guide

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CHAPTER 1 – INTRODUCTION

WHAT IS PER/ZIP4?

PER/ZIP4 is a software product for the IBM iSeries or AS/400 computer which allows you to postal code name and address files. Postal coding consists of the following:

- Correcting street and city names and state codes
- Standardizing addresses according to U.S. Postal Service rules
- Adding or correcting ZIP Codes
- Adding ZIP+4 Codes
- Adding carrier route codes
- Adding delivery point bar code information

PER/ZIP4 will work with both uppercase and lowercase (mixed case) address files.

HOW TO USE THIS MANUAL

If you are responsible for installing PER/ZIP4, you should read the section "Installing the system" in chapter 2. This will show you how to install the system and how to install PER electronic customer support.

If you are new to the system, you should first read the section "How PER/ZIP4 works" in chapter 2. This will show you how to sign on to the system, sign off of the system, and give you a brief orientation as to how the system is structured.

If you are an experienced user of PER/ZIP4 and you want more detailed information about a specific task, use the table of contents and the index to find the particular section you need.

A NOTE TO NEW USERS

The following installation outline is provided in order that your evaluation of the PER/ZIP4 - Postal Coding product can proceed as smoothly as possible. Please refer to the indicated chapters in this manual for detailed information concerning the following steps:

- Install the product on your iSeries or AS/400 (chapter 2).
- Load the ZIP+4 database (chapter 4).
- Enter the U.S.P.S. form 3553 information (chapter 4).

You are now ready to use PER/ZIP4. Use this manual and the HELP key to orient yourself to the product as you proceed with your evaluation. Please remember that unlimited telephone support is available to you by calling WorksRight Software, Inc. at 601-856-8337.

CHAPTER 2 - GETTING STARTED

INSTALLING PER/ZIP4

In the following instructions command keywords and values given in uppercase characters may be entered in lowercase characters but otherwise should be keyed exactly as shown. Where "device" is shown, enter the name of the device on which you have mounted the product CD (e.g., OPT01, *OPT).

QTEMP must be in your library list when running the installation. System value QALWUSRDMN must either be set to *ALL or include MLLIBR.

- A. Sign on to the iSeries or AS/400 as the security officer.
- B. Load the first product CD (volume 1 - gold) into the CD drive.
- C. Enter the following command to install the system:

LODRUN DEV(device)

```
12/24/02                PER/ZIP4 - POSTAL CODING
07:41:47                PRODUCT INSTALLATION

Installing the system for the first time . . .

The following libraries will be created: MLCTRL, MLLIBR

Call WorksRight Software, Inc. at (601) 856-8337 if you
have any non-PER libraries with these names.

Installing a release upgrade . . .

Make sure no one is currently using any PER/MAIL system.

Press Enter to continue.

F3=Exit   F12=Previous
```

The initial product installation screen allows you to confirm that the installation should be performed.

- F3 Exit the job.
- F12 Go to the previous display.

12/24/02
07:41:47

PER/ZIP4 - POSTAL CODING

PRODUCT INSTALLATION

Your system has more than one Auxiliary Storage Pool (ASP).
You must select the ASP in which you want the product to be
installed.

Install to ASP . . . 1

Possible values . . 1 2 3 16

F3=Exit F12=Previous

If you are installing the application for the first time and your iSeries or AS/400 is configured with multiple Auxiliary Storage Pools (ASP's), you will be prompted for the ASP in which the product is to be installed. If your iSeries or AS/400 is configured with only the system ASP (ASP 1) or if any PER/MAIL products are already installed on your system, the ASP selection prompt will not be shown. In the case of PER/MAIL products already installed, the installation will proceed using the same ASP.

- F3 Exit the job.
- F12 Go to the previous display.

2/20/03
09:45:29

PER/ZIP4 - POSTAL CODING

QPADEV0001

PRODUCT INSTALLATION

Select one of the following:

1. Run interactively
- * 2. Submit to batch (attended load)
- ** 3. Submit to batch (unattended load)

Selection

==> 2

* This option loads PER/ZIP4 directly from CD. Manual intervention may be required if the correct CD is not mounted when the job actually runs.

** This option copies PER/ZIP4 objects to a temporary library. When the job actually runs in batch no manual intervention is required. You must have sufficient disk capacity available to hold the new version of the product until installation is complete.

F3=Exit F12=Previous

You will be prompted for how you want to run the installation.

- 1 = run interactively
- 2 = submit to batch
- 3 = unattended installation

Batch installation and unattended installation are very similar. The difference is that the unattended installation immediately loads the product into a temporary library for later installation. The batch installation submits the installation job to be run at a later time. In the batch installation, the software and data are not loaded from the CD's until the job actually runs.

- F3 Exit the job.
- F12 Go to the previous display.

12/24/02
07:42:38

PER/ZIP4 - POSTAL CODING

PRODUCT INSTALLATION

Select one of the following:

1. Do not load postal database
2. Load entire postal database
3. Load states which were previously loaded
4. Select states to be loaded

Selection

====> 2

F3=Exit F12=Previous

Begin the installation with the gold CD-ROM in your CD drive. The software and first half of the database is on the gold CD-ROM. The second half of the database is on the silver CD-ROM. You will be prompted to change to the silver CD-ROM when the load program is finished with the gold CD-ROM.

Batch Installation

If you choose to run the installation in batch, you will be prompted for the postal database load option.

- 1 = do not load the postal database (the database must then be loaded later from the PER/ZIP4 menu)
- 2 = load the entire postal database
- 3 = load states which were previously loaded (not available for first-time installations)
- 4 = select states to be loaded

F3 Exit the job.

F12 Go to the previous display.

12/24/02
07:42:38

PER/ZIP4 - POSTAL CODING

QPADEV0001

PRODUCT INSTALLATION

Enter the submit options:

Hold on job queue *job
Schedule date *current
Schedule time *current

F3=Exit F12=Previous

If you choose to run the installation in batch, you will next be prompted for the submit options.

Hold on job queue

- *JOBDB = The value specified in the job description determines whether the job is held when it is put on the job queue.
- *NO = The job is not held when it is put on the job queue.
- *YES = The job is held when it is put on the job queue until it is released by a Release Job (RLSJOB) command or ended by an End Job (ENDJOB) command.

Schedule date

- *CURRENT = The submitted job becomes eligible to run on the current date.
 - *MONTHSTR = The submitted job becomes eligible to run on the first day of the month.
 - *MONTHEND = The submitted job becomes eligible to run on the last day of the month.
 - *MON = The submitted job becomes eligible to run on Monday.
 - *TUE = The submitted job becomes eligible to run on Tuesday.
 - *WED = The submitted job becomes eligible to run on Wednesday.
 - *THU = The submitted job becomes eligible to run on Thursday.
 - *FRI = The submitted job becomes eligible to run on Friday.
 - *SAT = The submitted job becomes eligible to run on Saturday.
 - *SUN = The submitted job becomes eligible to run on Sunday.
- date = Specify a date in the job date format with or without separators.

Schedule time

- *CURRENT = The job is submitted on the current time.
- time = Specify the time you want the job to start. The time is specified in 24-hour format and can be specified with or without a time separator (hhmmss, hh:mm:ss, hhmm, hh:mm).

12/24/02
07:43:16

PER/ZIP4 - POSTAL CODING

QPADEV0001

PRODUCT INSTALLATION

```
P.E.R. -----  
 / SSSSSS  OOOOOO  FFFFFFF  TTTTTTTTWW  WW  AAAA  RRRRRR  EEEEE  /  
 / SSSSSS  OOOOOO  FFFFFFF  TTTTTTTTWW  WW  AA  AA  RR  RR  EEEEE  /  
 / SS      OO  OO  FF          TT  WW  WW  AA  AA  RR  RR  EE  /  
 / SSSSSS  OO  OO  FFFF        TT  WW  WW  AAAAAA  RRRR  EEEE  /  
 / SSSSSS  OO  OO  FFFF        TT  WW  W  WW  AAAAAA  RRRR  EEEE  /  
 /      SS  OO  OO  FF          TT  WW  W  WW  AA  AA  RR  RR  EE  /  
 / SSSSSS  OOOOOO  FF          TT  WW  W  WW  AA  AA  RR  RR  EEEEE  /  
 / SSSSSS  OOOOOO  FF          TT  WWW  WWW  AA  AA  RR  RR  EEEEE  /  
-----  
INC.
```

PER/ZIP4 help documents are being deleted.

Interactive Installation

During an interactive installation, status messages are issued which indicate the current process being performed.

1/14/03
08:24:53

PER/MAIL - MAIL MANAGEMENT

QPADEV0001

INSERT PASSWORD

Serial number . . . 103V7VM

```
P.E.R. -----
 / SSSSSS  OOOOOO  FFFFFFF  TTTTTTTTWWW  WW  AAAA  RRRRRR  EEEEE  /
 / SSSSSS  OOOOOO  FFFFFFF  TTTTTTTTWWW  WW  AA  AA  RR  RR  EEEEE  /
 / SS      OO  OO  FF      TT  WW  WW  AA  AA  RR  RR  EE  /
 / SSSSSS  OO  OO  FFFF      TT  WW  WW  AAAAAA  RRRR  EEEE  /
 / SSSSSS  OO  OO  FFFF      TT  WW  W  WW  AAAAAA  RRRR  EEEE  /
 /      SS  OO  OO  FF      TT  WW  W  WW  AA  AA  RR  RR  EE  /
 / SSSSSS  OOOOOO  FF      TT  WW  W  WW  AA  AA  RR  RR  EEEEE  /
 / SSSSSS  OOOOOO  FF      TT  WWW  WWW  AA  AA  RR  RR  EEEEE  /
-----
INC.
```

Type password, press Enter. XXX XXX XXX

F3=Exit F12=Previous

For new installations or for installations which had only a temporary password, the password insertion prompt will be displayed. This screen shows the serial number of the machine on which you are installing the product and allows you to enter the password which was provided with the application package.

Enter the password exactly as shown on the password sheet and press Enter. If the password sheet is missing or some other condition prevents the entry of the password, you can press F3 to exit the password screen.

You can enter the password at any later time by entering the command PERINSPSW on any command line within PER/ZIP4. A password must be entered before you can use the system. If the application already has the password inserted (e.g., you are installing an upgrade), the password prompt will not be presented.

- F3 Exit the job.
- F12 Go to the previous display.

12/24/02
07:52:02

PER/ZIP4 - POSTAL CODING

QPADEV0001

PRODUCT INSTALLATION

Congratulations! You have successfully installed the PER/ZIP4 product.

You must load the ZIP+4 database, however, before you can use the application. If you want to load the database at this time, press Enter and you will be presented with the state selection screen. Otherwise, press F3 and load the database at a later time using option 5 (Load/remove ZIP+4 database members) on the PER/ZIP4 main menu.

F3=Exit F12=Previous

After the software installation (interactive) has been completed, you will be given the opportunity to load the ZIP+4 database. If you choose not to load the database during product installation, you will have to use option 5 (Load/remove ZIP+4 database members) on the PER/ZIP4 main menu to load it at a later time. **Remember, PER/ZIP4 cannot be used until the ZIP+4 database has been loaded.**

F3 Exit the job.

F12 Go to the previous display.

When an interactive installation is complete, the main PER/ZIP4 menu will be displayed.

D. Sign on to the iSeries or AS/400 with your own user profile if different from the security officer.

Refer to the section "How PER/ZIP4 works" to orient yourself to the logic and functions of the system.

Deleting PER/ZIP4 from your system

To delete PER/ZIP4 from your system:

Sign on to your iSeries or AS/400 as the security officer.

Display the main PER/ZIP4 menu:

STRPERZIP4

Enter the following command:

DLTZIP4

HOW PER/ZIP4 WORKS

PER/ZIP4 can be run in three different modes: in batch with user files, interactively with data keyed by the user, and by using callable programs (API's) in a user written program . When run in batch, PER/ZIP4 will print a U.S.P.S form 3553 (Coding Accuracy Support System (CASS) Report) and optionally a report showing all addresses which are not codable and the reason.

```
MLZIP4                      PER/ZIP4 - Main Menu          Ver 7.09.00.J.06.01

Select one of the following:

    1. Postal code user files

    3. Interactive postal coding

    4. Work with file definitions
    5. Load/remove ZIP+4 database members
    6. Enter PS form 3553 information

    7. Utility functions
    8. Go to PER/SORT (if installed)

    90. Sign off

                                     CASS certified through 07/31/06
                                     Database valid through 04/30/06

                                     COPYRIGHT (C) 2006 PER SOFTWARE, INC.

Selection or command
====> _____

F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel
F13=Information Assistant   F16=AS/400 main menu
```

Signing on and off the system

To display the main PER/ZIP4 menu enter:

STRPERZIP4

To sign off PER/ZIP4, select option 90 on any of the menus.

USING THE ON-LINE HELP KEY

When using PER/ZIP4, you will probably want detailed information concerning the particular tasks you are performing. On-line help screens are available that describe menus and program screens. These help screens provide specific information on program operations, field values, and program function keys.

MENUS: To get general information about the various options available on a menu, just press the HELP key. For more detailed information about a particular menu option, enter the number of the option and then press the HELP key.

MLZIP4

PER/ZIP4 - Main Menu

The PER/ZIP4 Main Menu allows you to select the postal coding task you want to perform.

To display the description of a particular option, enter the option number, then press the HELP key.

F3=Exit F12=Cancel

PROGRAMS: When you are viewing a program screen, you can get a description of a particular field by placing the cursor in that field and pressing the HELP key. If several pages of HELP text are available for a particular screen, you can use the roll keys to browse through them. Program function key descriptions can be viewed by placing the cursor at the bottom of the screen and pressing the HELP key. When you are finished viewing the HELP text, press F3 to return to the program screen.

```
HPZIP4  HELP                                Pg: 24  Ln: 31

  Option

Enter an option code next to each definition you want to work with.

      2 = change the definition
      3 = copy the definition into a new definition
      4 = delete the definition
      6 = print the definition

F3    Exit the job.
F6    Add a new definition.
F12   Go to the previous display.
Roll  Roll the list up or down (if "+" in the lower right of screen).

      ADD FILE DEFINITION (SELECT ADDRESS FORMAT)

When F6 is pressed on the select options screen, the select address format
screen is displayed. This screen is functionally identical to the first

Section, page, or label name . . . . . _____
F3=Exit                                F24=More keys
```

PROMPT SCREENS

When you select batch processing menu options, you are prompted for information to control the processing of the program you chose.

Defaults are displayed for most parameters. If the default values do not suit your needs, you can enter the values you want before you submit the program for processing. If you want to permanently change the defaults to your own values, enter the values you want and then press F1 to save them (F13 resets the parameters to their shipped values). Each work station can have its own set of default values saved.

On some prompt screens you can retrieve the previous set of parameters that was run by pressing the F9 key. These sets are saved by user profile rather than by work station as default changes are. PER/ZIP4, as shipped, saves the last ten parameter sets. The number of parameter sets that can be retrieved can be changed with the Set System Values (Z4SYSVAL) command.

If you do not know what values are available, certain parameters allow you to display a list of possible values by entering a question mark (?).

```
2/05/03                PER/ZIP4 - POSTAL CODING                QPADEV0003
14:52:34
                        POSTAL CODING FOR USER FILES

File name (? for list)..... _____ *
  Library..... *LIBL_____ *
Member..... *FIRST_____ *
Definition number (1-9)..... 1 *
Records to print (A=all E=exception N=none 1=changed &
  exception 2=changed & exception (no update))..... E *

WARNING!!! The file named above will be updated during the
run. Be sure you have a back-up copy to insure
the integrity of your data.

F1=Change defaults (*)  F3=Exit    F9=Retrieve   F10=PS 3553  F12=Previous
F13=Reset defaults (*)  F23=Work with file definitions  F24=Printer options
```

If you decide that you do not want to run the program that you selected, press F3 to exit the job and return to the menu, or press F12 to go to the previous screen (this functions the same as F3 when you are on an initial prompt).

To run the program, press the ENTER key. Before the program is run, the values that you entered are edited. If an invalid value is detected, the prompt screen is redisplayed with the value in reverse image along with an error message. You must press the RESET key to clear the error message before you can enter a correct value.

PRINTER OPTIONS

On some prompt screens you can press F24 to display the printer options. The printer options display is a second level prompt screen. All of the features described on the prior page for prompt screens are also available for the printer options display. You can use this display to override the printer options shown. For detailed information concerning the various fields on this screen, refer to the Override with Printer File (OVRPRTF) command in the iSeries or AS/400 CL Reference.

```
  2/05/03                PER/ZIP4 - POSTAL CODING                QPADEV0003
14:56:50
Coding rpts      (pg 1/2)      PRINTER OPTIONS

Print device..... *SYSVAL_____ * Lines per page..... _____ *
Positions per line..... _____ * Lines per inch..... _____ *
Characters per inch..... _____ * Overflow line number..... _____ *
Fold records..... *NO_____ * Align page..... *YES_____ *
Form feed..... *DEV_____ * Print quality..... *DEV_____ *
Source drawer..... _____ * Font identifier..... *DEV_____ *
Degree of page rotation.. *DEV_____ * Hardware justification... _____ *
Spool the data..... *YES_____ * Form type..... *STD_____ *
Copies..... 1_____ * File separators..... _____ *
Spooled output schedule.. *FILEEND_____ * Hold spooled file..... *NO_____ *
Save spooled file..... *NO_____ * Output priority..... *JOB_____ *
User data..... _____ * Spool file name..... _____ *

F1=Change defaults (*)  F3=Exit  F12=Previous  F13=Reset defaults (*)
(Page/roll)
```

This page intentionally left blank.

CHAPTER 3 – POSTAL CODING

POSTAL CODE USER FILES

To postal code a user file, you must first define the file. This can be done through the Edit File Definition by selecting option 4 (Work with file definitions) on the PER/ZIP4 main menu. A file definition can also be edited by pressing F23 (Work with file definitions) on the prompt screen. A file definition consists of the from/thru positions of the fields required by PER/ZIP4 to perform the postal coding function. Up to 9 different definitions can be maintained for each file (used when the records in the file contain more than one set of address data). For more information on file definitions, see "Work with file definitions" in chapter 4.

Both uppercase and lowercase (mixed case) address files can be processed.

```
2/05/03                PER/ZIP4 - POSTAL CODING                QPADEV0003
14:52:34

                POSTAL CODING FOR USER FILES

File name (? for list)..... _____ *
  Library..... *LIBL _____ *
Member..... *FIRST _____ *
Definition number (1-9)..... 1 *
Records to print (A=all E=exception N=none 1=changed &
  exception 2=changed & exception (no update))..... E *

WARNING!!!  The file named above will be updated during the
            run.  Be sure you have a back-up copy to insure
            the integrity of your data.

F1=Change defaults (*)  F3=Exit  F9=Retrieve  F10=PS 3553  F12=Previous
F13=Reset defaults (*)  F23=Work with file definitions  F24=Printer options
```

File name (? for list)

Enter the name of the file you want to postal code. A logical file can be used for record selection; however, the physical file will always be processed in arrival sequence.

Library

Enter a valid library name or *LIBL (if the library containing the file exists in your library list).

Member

Enter the name of the file member you want to postal code or *FIRST to process the first member of the file, *LAST to process the last member of the file, or *ALL to process all members in the file.

Definition number (1-9)

Enter the definition number you want to use. A file can have up to 9 different definitions to accommodate multiple addresses within a single record.

Records to print (A=all E=exception N=none 1=changed & exception 2=changed & exception (no update))

Indicate which records are to print on the report. U.S.P.S. form 3553 (Coding Accuracy Support System (CASS) Report) will print for all options except "2" (where the file is not updated).

- F1 Change the default parameters (for items marked with an *) for the current prompt screen to those you have just entered. Only the defaults for this display station will be changed.
- F3 Exit the job.
- F9 Retrieve the previous set of parameters that were run
- F10 Override the name and address of the mailer on the PS form 3553
- F12 Go to the previous display.
- F13 Reset the default parameters (for items marked with an *) for the current prompt screen to their shipped values. Only the defaults for this display station will be changed.
- F23 Work with file definitions.
- F24 Display printer options.

When postal coding a user file, if an address can be coded, the record is updated with the standardized address, ZIP, ZIP+4, carrier route, and delivery point codes (assuming the carrier route and delivery point fields were defined). The address will be printed on the coding report only if the "Records to print" prompt was set to A (all) or 1 / 2 (changed and exception) and the record was changed.

For addresses that cannot be coded, the record is updated with the error code if the error code output positions were specified on the file definition. The address will be printed on the coding report along with the error code if the "Records to print" prompt was set to A (all), E (exception), or 1 / 2 (changed and exception). In any case, the coding report's error statistics are updated.

PER/ZIP4 will update addresses that cannot be ZIP+4 Coded in the following cases: (1) If the address cannot be ZIP+4 Coded because it results in a multiple response (MLT) error, PER/ZIP4 will check to see if all possible responses have the same ZIP Code, and, if they do, the ZIP Code will be assigned. Then it will check to see if all the possible carrier route codes match, and, if so, the carrier route code will be assigned. The address and last line, however, are not standardized or updated in either case.

Therefore, the record is not updated if the file definition directs output to the address last line rather than the city, state, ZIP fields. (2) If the address is a nondelivery address (NDA). In this case, the ZIP and carrier route codes are assigned and the address is standardized. (3) If the address is a post office box, rural route, or highway contract route, the delivery address is standardized. (4) The ZIP+4 Code will be blanked if the address cannot be coded.

When a standardized address is to be written to the file, PER/ZIP4 checks to see if it will fit into the address field, and, if so, the record is updated. If it is too long, PER/ZIP4 will try to abbreviate it to a length less

than or equal to the defined address field length or wrap any apartment information to the secondary address line if one is defined. If this is successful, the record is updated, and the address is printed on the address standardization exception report. If the address is still too long, the standard address will not be written, but it is noted on the exception report.

OVERRIDE PS FORM 3553 INFORMATION

U.S. Postal Service form 3553 (Coding Accuracy Support System (CASS) Report) is generated by PER/ZIP4 as a part of the postal coding report. This form requires the name and address of the list processor and the name and address of the mailer. You can override the default name and address of the mailer which is stored in the system (through "Enter PS form 3553 information") by pressing F10 on the batch postal coding prompt.

```
2/05/03                PER/ZIP4 - POSTAL CODING                QPADEV0003
15:28:53
                        POSTAL CODING FOR USER FILES

                        ----- Name and address of mailer -----
Line 1... WORKSRIGHT_SOFTWARE,_INC.-=====
Line 2... 458_PEBBLE_CREEK_DR=====
Line 3... MADISON_MS__39110-9192=====
Line 4... =====
Line 5... =====
Line 6... =====

F3=Exit   F5=Refresh   F12=Previous
```

Name and address of mailer

Enter the override name and address of the mailer. Up to six lines are provided for this information which will be used on the 3553 printed for this run only.

- F3 Exit the job.
- F5 Refresh.
- F12 Go to the previous display.

INTERACTIVE POSTAL CODING

PER/ZIP4 can postal code addresses directly on a display station when you run the "Interactive postal coding" program. When an address is successfully coded, the standardized address is displayed along with the county name, the FIPS (federal information processing standard) state and county numbers, the carrier route code, the delivery point code, the delivery point correction digit, the congressional district number, LACS (locatable address conversion service) indicator, and a representation of the delivery point barcode (where 0 = a half bar and 1 = a full bar). If an address cannot be coded, the reason is displayed at the bottom of the screen. You can also search the ZIP+4 database for a particular address during interactive postal coding by pressing F6 on the coding screen.

ADDRESS ENTRY

```
2/05/03                PER/ZIP4 - POSTAL CODING                QPADEV0003
15:35:14

                INTERACTIVE POSTAL CODING

Firm name.... _____
Secondary adr _____
Delivery adr. 501 COBBLESTONE CT_____
City St ZIP.. MADISON MS 39110-7570_____
County name.. MADISON                FIPS state/county number..... 28 089
Carrier rt... R014 Delivery point... 01 Cor dgt... 6 Cong dist... 03 LACS... _
DPV ind..... Y DPV CMRA ind... N DPV footnotes... AA BB _ _ _ RDI.... N

  3   9   1   1   0   7   5   7   0   0   1   6
1 00110 10100 00011 00011 11000 10001 01010 10001 11000 11000 00011 01100 1

F3=Exit   F5=Refresh   F6=ZIP+4 database search   F7=City/state look up
F12=Previous   F18=Pass address to ZIP+4 database search   (Page/roll)
```

Firm name

Enter the firm name if appropriate. This field is optional.

Secondary address

Enter the secondary address line if one exists. This field is optional.

Delivery address

Enter the delivery address line. This field is required.

City, state, ZIP Code

Enter the address last line (combined city, state, ZIP Code). This field is required and must minimally contain either a city and state or a ZIP Code.

MULTIPLE ADDRESS DISPLAY

If the input address matches more than one address in the ZIP+4 database, PER/ZIP4 will display all the possible matches and allow you to select the one you want.

```
2/06/03                PER/ZIP4 - POSTAL CODING                QPADEV0002
08:34:21
                INTERACTIVE POSTAL CODING

Firm name.... _____
Secondary adr _____
Delivery adr. 102 UNIVERSITY
City St ZIP.. CHAMPAIGN IL

-----Address----- -----City----- St -ZIP- ZIP4 CRRT
102 E UNIVERSITY AVE                CHAMPAIGN                IL 61820 4111 C008
102 W UNIVERSITY AVE                CHAMPAIGN                IL 61820 3910 C013

F3=Exit   F5=Refresh   F6=ZIP+4 database search   F7=City/state look up
F12=Previous   F18=Pass address to ZIP+4 database search           (Page/roll)
Multiple addresses found
```

A multiple address match is most commonly caused by a missing directional or street suffix. For example, if the address given is 102 University and there is both a 102 North University and a 102 South University, PER/ZIP4 would be unable to determine the correct address and return a multiple match. Likewise, if the given address is 12 North Main and there is a 12 North Main Street and a 12 North Main Avenue, PER/ZIP4 would return a multiple match.

- F3 Exit the job.
- F5 Refresh (clear) the screen.
- F6 ZIP+4 database search.
- F7 City/state look up.
- F12 Go to the previous display.
- F18 Pass address to ZIP+4 database search.
- Roll Roll the list up or down (if "+" in the lower right of screen).

CITY/STATE LOOK UP

By pressing F7 on the interactive postal coding screen you can access the city/state look up function. This allows you to display detailed information about post offices by entering a ZIP Code or a city/state name.

This screen allows you to use the ZIP Code as the input field.

```
2/06/03          PER/ZIP4 - POSTAL CODING          QPADEV0002
08:43:00

          CITY/STATE LOOK UP

Type ZIP Code, press Enter.
39110

-----Name----- St ----Abrev---- -Classification- -Facility type-
GLUCKSTADT          MS              Non-unique ZIP  Non-postal name
MADISON             MS              Non-unique ZIP  Post office

F1=Fold   F3=Exit   F6=Name search  F12=Previous          (Page/roll)
```

The F1 key will "unfold" the record to show additional information.

```
2/06/03          PER/ZIP4 - POSTAL CODING          QPADEV0002
08:43:00

          CITY/STATE LOOK UP

Type ZIP Code, press Enter.
39110

-----Name----- St ----Abrev---- -Classification- -Facility type-
GLUCKSTADT          MS              Non-unique ZIP  Non-postal name
Preferred name.. MADISON          Mail name... No  City del... No
County name..... MADISON          Auto zone... No  Unq name... N/A
Finance number.. 4810 FIPS county no..... 089 City key.. 00689 Pfd key.. 00690

MADISON             MS              Non-unique ZIP  Post office
Preferred name.. Same              Mail name... Yes City del... No
County name..... MADISON          Auto zone... No  Unq name... N/A
Finance number.. 4810 FIPS county no..... 089 City key.. 00690 Pfd key.. 00690

F1=Fold   F3=Exit   F6=Name search  F12=Previous          (Page/roll)
```

The F6 key allows you to switch to a city name search mode.

This screen allows you to use the city name and state code as the input field.

```
2/06/03                PER/ZIP4 - POSTAL CODING                QPADEV0002
14:15:39
Search type... EXACT          CITY/STATE LOOK UP

Type city, state, press Enter.
MADISON_____ MS_

-----Name----- St -ZIP-          -Classification- -Facility type-
MADISON                MS 39110        Non-unique ZIP   Post office
MADISON                MS 39130        PO box ZIP       Post office

F1=Fold  F2=Change search  F3=Exit  F6=ZIP search          (Page/roll)
F12=Previous
```

The F1 key will “unfold” the record to show additional information.

```
2/06/03                PER/ZIP4 - POSTAL CODING                QPADEV0002
14:15:39
Search type... EXACT          CITY/STATE LOOK UP

Type city, state, press Enter.
MADISON_____ MS_

-----Name----- St -ZIP-          -Classification- -Facility type-
MADISON                MS 39110        Non-unique ZIP   Post office
Preferred name.. Same          Mail name... Yes City del... No
County name..... MADISON      Auto zone... No  Unq name... N/A
Finance number.. 4810 FIPS county no..... 089 City key.. 00690 Pfd key.. 00690

MADISON                MS 39130        PO box ZIP       Post office
Preferred name.. Same          Mail name... Yes City del... No
County name..... MADISON      Auto zone... No  Unq name... N/A
Finance number.. 4810 FIPS county no..... 089 City key.. 00690 Pfd key.. 00690

F1=Fold  F2=Change search  F3=Exit  F6=ZIP search          (Page/roll)
F12=Previous
```

In either the ZIP Code or city name search mode the following information is displayed on the expanded information screen.

CITY NAME

This is a name associated with the Five-Digit ZIP Code. A ZIP Code may be known by more than one name.

STATE CODE

This is a two-character abbreviation for the name of a state, U.S. Territory, or Armed Forces ZIP Code designation.

CITY NAME ABBREVIATION

This is a standard 13-character abbreviation for a city name. This field is only used for names that are greater than 13 characters and is always blank if the Facility Code is "Nonpostal name".

ZIP CLASSIFICATION

This is a field that describes the type of ZIP Code area that a Five-Digit ZIP Code serves, e.g., a single educational institution, with only Post Office Boxes, or a single address that has unusually high mail volume or many different addresses.

Nonunique ZIP = a standard ZIP with many addresses assigned to it
PO Box ZIP = ZIP Code has Post Office Boxes only
Military ZIP = Military ZIP Code
Unique ZIP = Unique ZIP Code (ZIP assigned to a single organization)

FACILITY TYPE

This field indicates the type of locale identified in the City Name. The facility may be a postal facility, such as a Post Office, station, or branch, or it may be a non-postal place name.

Airpt mail fac = Airport mail facility
Branch = Branch
Comm post off = Community post office
Area dist ctr = Area distribution center
Sec ctr fac = Sectional center facility
Del dist ctr = Delivery distribution center
Gen mail fac = General mail facility
Bulk mail ctr = Bulk mail center
Money ord unit = Money order unit
Non-postal name = Nonpostal name, comm name, former postal facility, or place name
Post office = Post office
Station = Station
Urbanization = Urbanization

Folded screen...

PREFERRED CITY NAME

This field contains the U.S.P.S. default Preferred City Name for the given ZIP Code.

COUNTY NAME

This is the name of the county or parish in which the Five-Digit ZIP Code resides. For military ZIP Codes the County name will be blank.

FINANCE NUMBER

The Finance Number is a code assigned to Postal Service facilities for purposes of collecting cost and statistical data and for compiling revenue and expense data. Finance Numbers are six-digit numbers with the first two positions being the State Number. Since PER/ZIP4 does not use the State Number, only the last four positions of the Finance Number are returned. A city may have multiple ZIP Codes but will have only one finance number.

FIPS COUNTY NUMBER

This is the Federal Information Processing Standard (FIPS) Code assigned to a given county or parish within a state. In Alaska, it identifies a region within the state. For military ZIP Codes the County Number will be zero.

MAILING NAME INDICATOR

This field specifies whether or not the City Name can be used as a last line of address on a mail piece.

No = City Name is not approved for mailing purposes
Yes = City Name is a U.S.P.S. approved mailing name

CITY DELIVERY INDICATOR

This field specifies whether or not a Post Office has city-delivery carrier routes.

No = Office does not have city delivery carrier routes
Yes = Office has city delivery carrier routes

AUTOMATED ZONE INDICATOR

This indicator specifies whether the mail for the ZIP Code area (ZONE) is or is not sorted by Bar Code Sorting equipment. The automation Basic Carrier Route rate is available for letter-size mail only if the destination ZIP Code's automated zone indicator is Yes.

No = Not automated

Yes = Automated

UNIQUE ZIP NAME INDICATOR

This field specifies if the record contains the organization name for a Unique ZIP Code. If this field contains a "Yes," the organization name will appear in the City Name field. N/A indicates the indicator is not applicable for the record displayed.

CITY KEY

This field contains the internal key PER/ZIP4 uses to identify the city name.

PREFERRED CITY KEY

This field contains the internal key PER/ZIP4 uses to identify the preferred city name.

- F1 Fold or unfold display.
- F3 Exit the job.
- F6 Name search.
- F12 Go to the previous display.
- Roll Roll the list up or down (if "+" in the lower right of screen).

ZIP+4 Database Search

Selected elements window

This window in the upper right-hand corner of the ZIP+4 database search screen displays the address elements (state, city, and street name) which have already been selected.

```
2/06/03                PER/ZIP4 - POSTAL CODING                QPADEV0002
15:04:19
State selection        ZIP+4 DATABASE SEARCH

Place cursor on line to select,
press Enter

__ <==
Code Name
-----
AA ARMED FORCES AMERICAS
AE ARMED FORCES EUROPE
AK ALASKA
AL ALABAMA
AP ARMED FORCES PACIFIC
AR ARKANSAS
AS AMERICAN SAMOA
AZ ARIZONA
CA CALIFORNIA
CO COLORADO

                                                                MORE...

F3=Exit   F6=Postal coding   F12=Previous
F18=Pass address to postal coding                (Page/roll)
```

```
2/06/03                PER/ZIP4 - POSTAL CODING                QPADEV0002
15:05:15
City selection        ZIP+4 DATABASE SEARCH

Place cursor on line to select,
press Enter

                WY
                <= (name, ZIP, *generic*)
Name _____ Abbreviation Preferred name
ACME                                     RANCHESTER
AFTON
ALADDIN
ALBIN
ALCOVA
ALLENDALE                                CASPER
ALPINE
ALTA
ALVA
ARAPAHOE

                                                                MORE...

F3=Exit   F6=Postal coding   F12=Previous
F18=Pass address to postal coding                (Page/roll)
```

2/06/03 PER/ZIP4 - POSTAL CODING QPADEV0002
 15:05:51
 Street selection ZIP+4 DATABASE SEARCH

Place cursor on line to select,
 press Enter

ALPINE WY

<== (name, *generic*)

Street name	Sufx	Pre	Pst	Preferred last line name /	Alias for
AIRPORT	LN			AFTON	
ALLRED	RD			AFTON	
ALLRED	RD		S	AFTON	
ALLRED SOUTH	RD			ALLRED RD S	83110 O
ASPEN HILL	DR			ALPINE	
BITTER CREEK	RD			AFTON	
BOWLES	LN			AFTON	
BUCKAROO	CIR			ETNA	
BURTON	LN			AFTON	
C AND S	LN			ETNA	

MORE...

F3=Exit F6=Postal coding F12=Previous (Page/roll)
 F18=Pass address to postal coding

2/06/03 PER/ZIP4 - POSTAL CODING QPADEV0002
 15:06:19
 Address display ZIP+4 DATABASE SEARCH

Partial firm names are in reverse
 image. Place cursor on line and
 press Enter to see full name.

BITTER CREEK RD

ALPINE WY

Pri low	Pri high	E	City	Abrv	Sec low	Sec high	E	ZIP	CRRT	Z4lo	Z4hi
2000	2999	B	AFTON					83110	R001	9775	9775
3000	3999	B	AFTON					83110	R001	9776	9776
4000	4999	B	AFTON					83110	R001	9777	9777
5000	5399	B	AFTON					83110	R001	9712	9712
5400	5699	B	AFTON					83110	R001	9778	9778
5700	5799	B	AFTON					83110	R001	9713	9713
5800	5999	B	AFTON					83110	R001	9714	9714
6000	6999	B	AFTON					83110	R001	9779	9779
7000	7700	B	AFTON					83110	R001	9723	9723

BOTTOM

F3=Exit F6=Postal coding F11=City view F12=Previous (Page/roll)
 F18=Pass address to postal coding

<== (position to) field

Enter a value in this field to position the list to that point. If the value entered has an exact match in the list, the cursor will be placed on that value after the list is redisplayed. For a generic search the following forms

are allowed: ABC* (names beginning with ABC), *ABC (names ending with ABC), *ABC* (names containing ABC).

Selection list

Place the cursor anywhere on the line of the element you want to select. After you press Enter, the next selection screen or the detail address screen will be displayed.

The information displayed on the selection list for each of the search screens is as follows:

State selection . . .

Code	U.S.P.S. standard two-character abbreviation of the name of a state, U.S. Territory, or Armed Forces ZIP Code.
Name	State, U.S. Territory, or Armed Forces ZIP Code complete name.

City selection . . .

Name	Name of the city.
Abbreviation	U.S.P.S. standard 13-character abbreviation (used only for names which are greater than 13 characters).
Preferred name	The U.S.P.S. preferred city name if different than the city name listed.

Street selection . . .

Street name	Name of the street.
Sufx	Street suffix abbreviation (AVE, BLVD, ST, etc.).
Pre	Predirection abbreviation (N, S, E, W, NE, NW, SE, SW).
Pst	Postdirection abbreviation (N, S, E, W, NE, NW, SE, SW).
Preferred last line name	The U.S.P.S. preferred last line (city) name for the street.
Alias for	The U.S.P.S. base street name if the listed street is an alias name (a name by which a street may be known locally which is different from the official name used by the U.S. Postal Service). These entries are displayed in reverse image along with the ZIP Code and the type of alias (P = preferred street name, C = official street name change, O = other).

Address display . . .

Firm names which are too long to be fully displayed on this screen are shown in reverse image. To see the entire firm name, place the cursor on the line containing the name and press Enter. Pressing Enter again with the cursor still on the same line will redisplay the name in the short format.

Pri low	Primary address range low number.
Pri high	Primary address range high number.
OE	Primary address range odd/even indicator (O = odd, E = even, B = both).
Prfd city	Preferred city name for the address range (This information is shown only if more than one

	preferred city name is associated with the street or if the preferred city name is different from the city name selected.)
Sec abrv	Secondary address range abbreviation (APT, RM, etc.).
Sec low	Secondary address range low number.
Sec high	Secondary address range high number.
OE	Secondary address range odd/even indicator (O = odd, E = even, B = both).
ZIP	ZIP Code for the address range.
CRRT	Carrier route code for the address range.
Z4lo	The low ZIP+4 add on for the address range.
Z4hi	The high ZIP+4 add on for the address range.

A ZIP+4 add on describes the last four positions of a ZIP+4 Code. The ZIP+4 low and high add-on numbers determine the limits of a range of codes. Most delivery addresses are assigned a single ZIP+4 Code. However, large companies may be given a range of ZIP+4 codes that can be used to route mail to specific departments. A range of ZIP+4 Codes can also be assigned to a corresponding range of Post Office Boxes, where each box is mapped, one-to-one, with a ZIP+4 Code in the range. A single Post Office Box can also be assigned a range of ZIP+4 Codes. ZIP+4 Codes associated with nondelivery areas end with "ND". Nondelivery areas include vacant lots, land which borders railroad tracks, or other areas to which the U.S.P.S. does not deliver mail.

F3	Exit the job.
F6	Postal coding.
F11	City view / combined view toggle (only on the address display when preferred city names are relevant.)
F12	Go to the previous display.
F13	Previous city (only on the address display city view.)
F14	Next city (only on the address display city view.)
F18	Pass address to postal coding.
Roll	Roll the list up or down (if "+" in the lower right of screen.)

CALLING PER/ZIP4 FROM A USER PROGRAM

PER/ZIP4 can be called from a user program thus making it possible to correct, standardize, and postal code addresses during data entry, insuring that only good addresses enter your database. There are several methods available to call PER/ZIP4. A description of each method and actual code is provided for you in source file QSMPLSRC in library MLLIBR.

QSMPLSRC also contains sample code for calling other PER/ZIP4 functions from within your application programs such as:

- printing POSTNET barcodes
- calling the city/state lookup program
- calling the batch postal coding program
- calling the interactive postal coding / search program

Since new code is added to this file from time to time, you should check it periodically to see if any of the functions described therein can be of benefit to you. The #READ.ME member in QSMPLSRC will alert you to all new features and functions added to the PER/ZIP4 product.

ERROR CODE DESCRIPTIONS

ADR - insufficient address information

The delivery address does not contain enough information for a search to be performed.

ANS - address not on street

The street number does not fall within the primary address range(s) for the street on the ZIP+4 database. For example, if the address is 100 MAIN ST and the ZIP+4 database contains only a range of 1-99 MAIN ST, PER/ZIP4 will return this error code.

BNC - PO Box not found in city (finance number)

The PO Box in the delivery address cannot be found in the given city.

BNR - Box missing or not found in RR/HC (default taken)

This is only a warning error. The delivery address contains a rural route or highway contract route address with either no box number or one that cannot be found in the ZIP+4 database. The database does, however, contain a default ZIP+4 for the route which is returned by the program.

DBE - USPS database exception (firm required to make match)

This error is caused when the delivery address is not an official mailing address but a commonly used (alternate) address (usually a building name address, eg. 123 IBM BUILDING) which requires firm name information in order to make a match. Since PER/ZIP4 attempts to locate the actual street address associated with this type of address, this error should be extremely rare.

DBX – US Postal Service database has expired

The currently loaded database has passed its expiration date. Load a newer version of PER/ZIP4.

EWS - Early Warning System (EWS) match

The address matches a record in the Early Warning System file and should not be changed in any way. It cannot be coded at this time because it has not yet been entered into the U.S. Postal Service's national ZIP+4 database. It will be codable in a future release of the database.

LLN - insufficient last line (city, state, ZIP) information

The last line of the address does not contain a valid city and state or a valid ZIP Code.

MLT - multiple addresses found

The delivery address given can possibly be matched to more than one address range in the ZIP+4 database. A multiple address match is most commonly caused by a missing directional or street suffix. For example, if 102 University is entered and there is both a 102 E University and a 102 W University, PER/ZIP4 would be unable to determine which one is correct and return a multiple match. Likewise, if the given address is 12 N Main and there is a 12 N Main Street and a 12 N Main Avenue, PER/ZIP4 would also return a multiple match.

NDA - nondelivery address

PER/ZIP4 has uniquely matched the delivery address to an address range in the ZIP+4 database, but that range is designated as a nondelivery area. Nondelivery areas include vacant lots and roads that border railroad tracks, rivers, etc. The USPS does not deliver mail to these locations.

PGM - program error

The most probable cause of this error is the inability of the program to find certain ZIP+4 database objects because of an incorrectly set library list or an incorrectly installed or corrupted ZIP+4 database. If these causes have been eliminated, please report the error (with the address that caused it) to WorksRight Software.

PWX – Password has expired.

The current password for PER/ZIP4 has expired. Contact WorksRight Software, Inc. at 601-856-8337.

RNF - RR/HC number not found in city (finance number)

The delivery address contains a rural route or highway contract route that cannot be found in the given city.

SNF - street not found in city (finance number)

The street name in the delivery address cannot be found in the given city. This could be the result of a gross misspelling of the street name or an incorrect last line (city, state, ZIP).

STR - street name not found

The delivery address contains a street name which cannot be found in the entire state. A gross misspelling of the street name or extraneous information in the delivery address can cause this error.

XST - ZIP+4 database member missing for state

The ZIP+4 database for the state contained in the address has not been loaded. Load the required state and run the postal coding again.

CHAPTER 4 - SYSTEM FILE MAINTENANCE

PER/ZIP4 relies on various system files to perform its function. Occasionally it is necessary to maintain these files so the application can function properly in your environment. This chapter describes the system file maintenance tasks you will need to perform.

WORK WITH FILE DEFINITIONS

To postal code a user file, you must first define the file. This is done by selecting option 4 (Work with file definitions) on the PER/ZIP4 main menu. File definitions can also be entered by pressing F23 (Work with file definitions) on the "Postal code user files" prompt screen.

```
2/07/03                PER/ZIP4 - POSTAL CODING                QPADEV0002
11:16:46

                        WORK WITH FILE DEFINITIONS

Type options, press Enter.
  2=Change   3=Copy   4=Delete   6=Print

==>
Opt  File name      Def  Text
-   DATAFILE      1   sample file in mulib
-   TNCUST         1   WRSI master file
-   TNLAB          1   WRSI master file
-   TNMASTG        1   WRSI master file                               +

F3=Exit   F6=Add   F12=Previous                (Page/roll)
```

SELECT OPTIONS

==> (Position list to)

If you have too many records to be displayed on one screen, you can enter a value to position the list to the point closest to the value entered.

Option

Enter an option code next to each definition you want to work with.

- 2 = change the definition
- 3 = copy the definition into a new definition
- 4 = delete the definition

6 = print the definition

- F3 Exit the job.
- F6 Add a new definition.
- F12 Go to the previous display.
- Roll Roll the list up or down (if "+" in the lower right of screen).

ADD FILE DEFINITION (SELECT ADDRESS FORMAT)

When F6 is pressed on the select options screen, the select address format screen is displayed. This screen is functionally identical to the first Edit File Definition screen which is displayed following the initial prompt for "Postal code user files" if the definition for the file you entered cannot be found.

```
2/07/03          PER/ZIP4 - POSTAL CODING          QPADEV0002
11:25:18
                WORK WITH FILE DEFINITIONS

Address format type (1=fixed 2=floating)..... 1

F3=Exit  F12=Previous
```

Address format type

Enter the address format type of the file definition you are adding. If 1 is entered, the fixed format file definition screen is displayed. If 2 is entered, the floating format file definition screen is displayed.

- F3 Exit the job.
- F12 Go to the previous display.

ADD/CHANGE FILE DEFINITION (FIXED FORMAT)

When 2 (change) is entered next to a fixed format file definition on the select options screen or F6 (add) is pressed and format 1 is selected, the fixed format file definition add/change screen is displayed. This screen is functionally identical to the Edit File Definition screen for fixed format records which is displayed following the initial prompt for "Postal code user files" if the definition for the file you entered cannot be found.

```
2/14/03                PER/ZIP4 - POSTAL CODING                QPADEV0001
07:43:08

                WORK WITH FILE DEFINITIONS

File name / definition number..... TNLAB_____ / 1
Text..... WRSI master file
-----
Output single address to address line 1 or 2..... 1
Input / output positions..... From Thru * / From Thru *
Key number.....          9   16          _____
Firm name.....          66  100          _____
Address line 1 (secondary)..... 101 135          _____
Address line 2 (delivery)..... 136 170          _____
City (or City/State).....    171 205          _____
State.....              206 207          _____
ZIP Code.....           208 212          _____
ZIP+4 Code.....         213 216          _____
Address last line.....
Carrier route code.....          218 221          _____
Delivery point code.....        236 238          _____
Error code.....
* blank=alpha/numeric B=binary P=packed S=signed
F3=Exit   F5=Display physical file member   F7=Display file field description
F12=Previous                                     Roll up
```

Note: Use the output position fields only if you do not want the specified input fields updated by PER/ZIP4.

File name / definition number

Enter the name of the file you are defining and the number of the definition. These fields are only accessible when adding a new definition.

Text

Enter the text describing the definition. If this field is left blank and the system can find the file, the text describing the file will be inserted. This text description is for internal use only and does not appear on any reports generated by the system.

Output single address to address line 1 or 2

If you are defining two address lines and only one contains data, you must indicate which address line is to receive the output.

Key number

Enter the input positions of the record key number to be printed on the coding report. This field is optional but if specified must be from 1 to 15 alpha/numeric, 2(4) or 4(9) binary, 1(1) to 8(15) packed numeric, or 1 to 15 signed numeric positions long. If the field is binary, packed numeric, or signed numeric, enter a "B," "P," or "S" respectively in the "*" column. If no key number is specified, the relative record number is used as the key number on the coding report.

Firm name

Enter the input positions of the firm name. This field is optional, but if specified must be from 15 to 64 positions long.

Address line 1 (secondary address)

Enter the input and output positions of the first address line. This field is optional but if specified must be from 20 to 64 positions long. Leave the output positions blank if they are the same as the input positions.

Address line 2 (delivery address)

Enter the input and output positions of the second address line. This field is required and must be from 20 to 64 positions long. Leave the output positions blank if they are the same as the input positions.

City (or City/State)

Enter the input and output positions of the city or city and state. This field is required if the address last line is not used and must be from 13 to 64 positions long if the field contains only the city or 16 to 64 positions long if it contains the city and the state. Leave the output positions blank if they are the same as the input positions.

State

Enter the input and output positions of the state. This field is required if the address last line is not used and there is not a combined city/state field. It must be from 2 to 64 positions long. Leave the output positions blank if they are the same as the input positions.

ZIP Code

Enter the input and output positions of the ZIP Code. This field is required if the address last line is not used and must be 5 or 10 alpha/numeric, 4(9) binary, 3(5) or 5(9) packed numeric, or 5 signed numeric positions long. If the field is binary, packed numeric, or signed numeric, enter a "B," "P," or "S" respectively in the "*" column. If the field is 4(9) binary or 5(9) packed positions long, it must contain the ZIP+4 Code appended to the ZIP Code. If the field is 10 character positions long, PER/ZIP4 assumes the ZIP+4 Code

is in the last four positions and will insert a hyphen in position 6 followed by the ZIP+4 Code when it codes the records. Leave the output positions blank if they are the same as the input positions.

ZIP+4 Code

Enter the input and output positions of the ZIP+4 Code. This field is required if the address last line is not used and must be 4 alpha/numeric, 2(4) binary, 3(5) packed numeric, or 4 signed numeric positions long. If the field is binary, packed numeric, or signed numeric, enter a "B," "P," or "S" respectively in the "*" column. Leave the output positions blank if they are the same as the input positions.

Address last line

Enter the input and output positions of the address last line (combined city, state, ZIP Code). This field is required if the city, state, and ZIP Code fields are not used and must be 27 to 64 positions long. If the city, state, and ZIP Code exist in a single field in your file, you should use this field to define its position. Leave the output positions blank if they are the same as the input positions.

Carrier route code

Enter the output positions of the carrier route code. This field is optional but if specified must be 4 positions long.

Delivery point code

Enter the output positions of the delivery point code. This field is optional but if specified must be 2 or 3 alpha/numeric, 2(4) binary, 2(3) packed numeric, or 2 or 3 signed numeric positions long. If the field is binary, packed numeric, or signed numeric, enter a "B," "P," or "S" respectively in the "*" column. A 2 position alpha/numeric or signed numeric field will contain only the delivery point code, while a 3 position alpha/numeric, 2(4) position binary, 2(3) position packed numeric, or 3 position signed numeric field will also contain the delivery point bar code check digit in the last position.

Error code

Enter the output positions of the error code. This field is optional but if specified must be 3 positions long. If specified, the same error code which prints on the postal coding report will be placed in this field.

- F3 Exit the job.
- F5 Display the first physical file member of the file being defined.
- F7 Display the file field description of the file being defined.
- F12 Go to the previous display.
- Roll Roll up to next display.

ADD/CHANGE FILE DEFINITION (FLOATING FORMAT)

When 2 (change) is entered next to a floating format file definition on the select options screen or F6 (add) is pressed and format 2 is selected, the floating format file definition add/change screen is displayed. This screen is functionally identical to the Edit File Definition screen for floating format records which is displayed following the initial prompt for "Postal code user files" if the definition for the file you entered cannot be found.

```
2/14/03          PER/ZIP4 - POSTAL CODING          QPADEV0001
08:03:10

                WORK WITH FILE DEFINITIONS

File name / definition number..... DATAFILE__ / 1
Text..... Sample file in mulib

Input / output positions..... From Thru * / From Thru *
Key number.....          1 8          _____
Address line 1.....      9 43         _____
Address line 2.....      44 78         _____
Address line 3.....      79 113        _____
Address line 4.....      114 148       _____
Address line 5.....      149 183       _____
Address line 6.....      184 218       _____
ZIP code.....            _____ 219 223
ZIP+4 Code.....          _____ 224 227
Carrier route code.....  _____ _____
Delivery point code..... _____ 228 230
Error code.....          _____ _____

* blank=alpha/numeric B=binary P=packed S=signed
F3=Exit  F5=Display physical file member  F7=Display file field description
F12=Previous                                     Roll up
```

Note: Use the output position fields only if you do not want the specified input fields updated by PER/ZIP4.

File name / definition number

Enter the name of the file you are defining and the number of the definition. These fields are only accessible when adding a new definition.

Text

Enter the text describing the definition. If this field is left blank and the system can find the file, the text describing the file will be inserted. This text description is for internal use only and does not appear on any reports generated by the system.

Key Number

Enter the input positions of the record key number to be printed on the coding report. This field is optional but if specified must be from 1 to 15 alpha/numeric, 2(4) or 4(9) binary, 1(1) to 8(15) packed numeric, or 1 to 15 signed numeric positions long. If the field is binary, packed numeric, or signed numeric, enter a "B", "P," or "S" respectively in the "*" column. If no key number is specified, the relative record number is used as the key number on the coding report.

Address lines

Enter the input and output positions of the address lines. These fields are optional, but if specified must be from 27 to 64 positions long and must all be the same length. At least three address lines should be defined; otherwise, the fixed format definition should be used. Leave the output positions blank if they are the same as the input positions. It is assumed that address information will be entered in a normal sequence in the defined address fields (name(s), address(es), city/state/ZIP). PER/ZIP4 will process the address lines from the bottom up, first trying to locate the city/state/ZIP line, then the delivery address, and last any secondary or firm information. If the record is successfully coded, the address lines will be compressed up in the stack so that any blank lines will be placed in the fields defined last.

ZIP Code

Enter the input and output positions of the ZIP Code. This field is required if the ZIP Code is not contained in the address lines and must be 5 or 10 alpha/numeric, 4(9) binary, 3(5) or 5(9) packed numeric, or 5 signed numeric positions long. If the field is binary, packed numeric, or signed numeric, enter a "B," "P," or "S" respectively in the "*" column. If the field is 4(9) binary or 5(9) packed positions long, it must contain the ZIP+4 Code appended to the ZIP Code. If the field is 10 unpacked positions long, PER/ZIP4 assumes the ZIP+4 Code is in the last four positions and will insert a hyphen in position 6 followed by the ZIP+4 Code when it codes the records. Leave the output positions blank if they are the same as the input positions. Optionally, only the output positions can be entered if the ZIP Code is contained in the address lines and you want it also placed in the defined positions.

ZIP+4 Code

Enter the input and output positions of the ZIP+4 Code. This field is required if the ZIP+4 Code is not contained in the address lines and must be 4 alpha/numeric, 2(4) binary, 3(5) packed numeric, or 4 signed numeric positions long. If the field is binary, packed numeric, or signed numeric, enter a "B," "P," or "S" respectively in the "*" column. Leave the output positions blank if they are the same as the input positions. Optionally, only the output positions can be entered if the ZIP+4 Code is contained in the address lines and you want it to also be placed in the defined positions.

Carrier route code

Enter the output positions of the carrier route code. This field is optional but if specified must be 4 positions long.

Delivery point code

Enter the output positions of the delivery point code. This field is optional but if specified must be 2 or 3 alpha/numeric, 2(4) binary, 2(3) packed numeric, or 2 or 3 signed numeric positions long. If the field is binary, packed numeric, or signed numeric, enter a "B," "P," or "S" respectively in the "*" column. A 2 position alpha/numeric or signed numeric field will contain only the delivery point code, while a 3 position alpha/numeric, 2(4) position binary, 2(3) position packed numeric, or 3 position signed numeric field will also contain the delivery point bar code check digit in the last position.

Error code

Enter the output positions of the error code. This field is optional but if specified must be 3 positions long. If specified, the same error code which prints on the postal coding report will be placed in this field.

- F3 Exit the job.
- F5 Display the first physical file member of the file being defined.
- F7 Display the file field description of the file being defined.
- F12 Go to the previous display.
- Roll Roll up to next display.

ADD/CHANGE FILE DEFINITION (FIXED OR FLOATING FORMAT)

When the Roll up key is pressed on either the fixed or floating format file definition screen, the additional file definition add/change screens are displayed.

```
2/14/03          PER/ZIP4 - POSTAL CODING          QPADEV0001
14:31:34

                WORK WITH FILE DEFINITIONS

File name / definition number..... TNMASTG__ / 1
Text..... WRSI master file

Input / output positions..... From Thru * / From Thru *
County name.....      ___  ___
FIPS state/county number.....      ___  ___
Congressional district number.....  ___  ___
LACS indicator.....      ___  ___
Street match level indicator.....  ___  ___
Secondary address flag.....      ___  ___
** LOT sequence number.....      ___  ___
** LOT ascending/descending code.....  ___  ___
ZIP+4 coding date (YYMMDD).....  ___  ___
Urbanization (Puerto Rico).....  ___  ___

* blank=alpha/numeric B=binary P=packed S=signed
** requires that PER/SORT is installed
F3=Exit   F5=Display physical file member   F7=Display file field description
F12=Previous                                     Roll down
```

County name

Enter the output positions of the county name. This field is optional, but if specified must be 25 to 64 positions long.

FIPS state/county number

Enter the output positions of the FIPS state/county number. This field is optional, but if specified must be 5 alpha/numeric, 4(9) binary, 3(5) packed numeric, or 5 signed numeric positions long.

Congressional district number

Enter the output positions of the congressional district number. This field is optional, but if specified must be 2 alpha/numeric, 2(4) binary, 2(3) packed numeric, or 2 signed numeric positions long.

LACS indicator

Enter the output positions of the LACS (locatable address conversion service) indicator. This field is optional, but if specified must be 1 position long. If an address has been LACS converted, this field will contain an "L" after processing.

Street match level indicator

Enter the output positions of the street match level indicator. This field is optional but if specified must be 1 position long. For street type addresses this field will contain the level of the match as follows:

- S = street match
- H = highrise match
- A = apartment (suite, room, etc.) match
- F = firm match
- N = nondelivery address match
- D = firm required to make match

When this field is used in conjunction with the secondary address flag, you can isolate addresses that are incomplete as given. If the street match level indicator is "H" and the secondary address flag is "Y," the firm name and/or apartment information may be missing or incorrect on the address.

Secondary address flag

Enter the output positions of the secondary address flag. This field is optional, but if specified must be 1 position long. For street type addresses this field will contain a "Y" if secondary address (apartment) records and/or firm records exist for the address. When this field is used in conjunction with the street match level indicator, you can isolate addresses that are incomplete as given. If the street match level indicator is "H" and the secondary address flag is "Y," the firm name and/or apartment information may be missing or incorrect on the address.

LOT sequence number

Enter the output positions of the LOT (line of travel) sequence number. This field is optional, but if specified must be 4 alpha/numeric, 2(4) binary, 3(5) packed numeric, or 4 signed numeric positions long. The LOT number is a sequential number that indicates the order in which add-on codes are arranged within a given carrier route. LOT information is used to qualify mailings for carrier route sortation discounts. This field will be output only if the PER/SORT product is installed.

LOT ascending/descending code

Enter the output positions of the LOT (line of travel) ascending/descending code. This field is optional but if specified must be 1 position long. The ascending/descending code indicates the order in which delivery points are delivered within an add-on code. LOT information is used to qualify mailings for carrier route sortation discounts. This field will be output only if the PER/SORT product is installed.

ZIP+4 coding date (YYMMDD)

Enter the output positions of the ZIP+4 coding date. This field is optional but if specified must be 6 positions long. If an address is successfully coded, this field will contain the coding date in year-month-day format. The field will be set to zero on records that cannot be ZIP+4 Coded.

Urbanization (Puerto Rico)

Enter the input and output positions of the urbanization field. Urbanizations are an important part of Puerto Rican addresses that denote an area, sector, or development within a geographic area. If a separate urbanization field does not exist in the address record, PER/ZIP4 checks the normal address lines for urbanization names when it encounters a Puerto Rican address. This field is optional but if specified must be from 20 to 64 positions long. Leave the output positions blank if they are the same as the input positions.

- F3 Exit the job.
- F5 Display the first physical file member of the file being defined.
- F7 Display the file field description of the file being defined.
- F12 Go to the previous display.
- Roll Roll to next or previous display.

ADD/CHANGE FILE DEFINITION (DPV SPECIFIC FIELDS)

When the Roll up key is pressed on the additional file definition add/change screen, a screen for DPV™ (Delivery Point Validation) fields is displayed. These fields are available only if you have licensed the optional PER/DPV product.

```
4/28/04          PER/ZIP4 - POSTAL CODING          QPADEV0002
11:09:02

                WORK WITH FILE DEFINITIONS

File name / definition number..... TNSTASEL / 1
Text..... WRSI master file

Input / output positions..... From Thru * / From Thru *
# DPV confirmation indicator..... 1001 1001
# DPV CMRA indicator..... 1002 1002
# DPV footnotes..... 1003 1014
## Residential delivery indicator..... 1005 1005

* Blank=alpha/numeric B=binary P=packed S=signed
# requires that PER/DPV is installed
## requires that PER/RDI is installed
F3=Exit   F5=Display physical file member   F7=Display file field description
F12=Previous                                     Roll down
```

DPV confirmation indicator

Y = address was DPV confirmed for both primary and, if present, secondary numbers.

D = address was DPV confirmed for the primary number only, and secondary number information was missing.

S = address was DPV confirmed for the primary number only, and secondary number information was present but unconfirmed.

N = both primary and, if present, secondary number information failed to DPV confirm.

DPV CMRA indicator (CMRA = commercial mail receiving agent)

Y = address was found in the CMRA table.

N = address was not found in CMRA table.

DPV footnotes

AA = input address matched to the ZIP+4 file.

A1 = input address not matched to the ZIP+4 file.

BB = input address matched to DPV (all components.)

CC = input address primary number matched to DPV but secondary number not matched (present but invalid.)

N1 = input address primary number matched to DPV, but highrise address missing secondary Number.

M1 = input address primary number missing.

M3 = input address primary number invalid.

P1 = input address missing PO, RR, or HC box number.

P3 = input address PO, RR, or HC box number invalid.

RR = input address matched to CMRA and PMB designator present (PMB 123 or # 123.)

R1 = input address matched to CMRA but PMB designator not present (PMB 123 or # 123.)

RDI

Y = address is a residence.

N = address is not a residence (business.)

NOTE: All Post Office Boxes will return a Y (residence) RDI code.

COPY FILE DEFINITIONS

When 3 (copy) is entered next to one or more file definitions on the select options screen, the file definition copy screen is displayed.

```
2/14/03          PER/ZIP4 - POSTAL CODING          QPADEV0001
14:38:03

                WORK WITH FILE DEFINITIONS

To rename copied record, type new name and definition number, press Enter.
Press F12=Previous to return to change your choices.

File name  Def  New name  Def
TNMASTG    1   TNMASTG  -

F12=Previous                                     (Page/roll)
```

New name

Enter the new file name. The combination of file name and definition number must not already exist in the file definition file.

Definition number

Enter the new definition number. The combination of file name and definition number must not already exist in the file definition file.

F12 Go to the previous display.

Roll Roll the list up or down (if "+" in the lower right of screen).

DELETE FILE DEFINITIONS

When 4 (delete) is entered next to one or more file definitions on the select options screen, the file definition delete screen is displayed.

```
2/14/03          PER/ZIP4 - POSTAL CODING          QPADEV0001
14:40:12
                WORK WITH FILE DEFINITIONS

Press Enter to confirm your choices for Delete.
Press F12=Previous to return to change your choices.

File name  Def  Text
TNMASTG    1   WRSI master file

F12=Previous                                     (Page/roll)
```

Press enter to confirm the records to be deleted.

F12 Go to the previous display.

Roll Roll the list up or down (if "+" in the lower right of screen).

LOAD/REMOVE ZIP+4 DATABASE MEMBERS

When you install the PER/ZIP4 product, you must also load the ZIP+4 database members for the states you require to process your lists. You can load all states or any number of selected states into the ZIP+4 database. Thereafter, you can choose to load and remove states from the database as the need arises or in order to conserve disk storage resources.

DEVICE SELECTION

```
2/14/03                PER/ZIP4 - POSTAL CODING                QPADEV0001
14:44:30
LOAD/REMOVE ZIP+4 DATABASE MEMBERS

Device..... OPT01 *

F1=Change defaults (*)  F3=Exit  F12=Previous  F13=Reset defaults (*)
```

Device

Enter the name of the device from which the ZIP+4 database members will be loaded. This parameter is required even if you are removing members only.

Begin the database load with the gold CD-ROM in your CD drive. The first half of the database is on the gold CD-ROM. The second half of the database is on the silver CD-ROM. You will be prompted to change to the silver CD-ROM when the load program is finished with the gold CD-ROM.

- F1 Change the default parameters (for items marked with an *) for the current prompt screen to those you have just entered. Only the defaults for this display station will be changed.
- F3 Exit the job.
- F12 Go to the previous display.
- F13 Reset the default parameters (for items marked with an *) for the current prompt screen to their shipped values. Only the defaults for this display station will be changed.

STATE SELECTION

```

12/24/02                PER/ZIP4 - POSTAL CODING                QPADEV0001
07:52:39
L = Load                LOAD/REMOVE ZIP+4 DATABASE MEMBERS
R = Remove
  St -Status-   St -Status-   St -Status-   St -Status-   St -Status-
AA _____  FL _____  MD _____  NJ _____  TN _____
AE _____  FM _____  ME _____  NM _____  TX _____
AK _____  GA _____  MH _____  NV _____  UT _____
AL _____  GU _____  MI _____  NY _____  VA _____
AP _____  HI _____  MN _____  OH _____  VI _____
AR _____  IA _____  MO _____  OK _____  VT _____
AS _____  ID _____  MP _____  OR _____  WA _____
AZ _____  IL _____  MS _____  PA _____  WI _____
CA _____  IN _____  MT _____  PR _____  WV _____
CO _____  KS _____  NC _____  PW _____  WY _____
CT _____  KY _____  ND _____  RI _____
DC _____  LA _____  NE _____  SC _____
DE _____  MA _____  NH _____  SD _____
ASP 1 size = 16777 mb, Cur ASP used = 7653 mb, Load stg rqd = 0 mb
Pct utl = 46 cur, 46 new, Free rmv stg = 0 mb, New ASP used = 7653 mb

F1=Run   F3=Exit   F5=Refresh   F8=Load all   F9=Remove all   F12=Previous

```

Enter "L" next to each state you want to load into the ZIP+4 database and "R" next to each state you want to remove from the ZIP+4 database. If "LOADED" is in the status column, the state currently exists in the ZIP+4 database. If the status column contains "_____", the state is not currently in the ZIP+4 database, or if it contains "////////", the state was not shipped on your product media. When your selections are made, press F1 to run the job. If you are loading the database for the first time after installing PER/ZIP4 (including a periodic update) and you received the product on a multi-volume tape, the system operator will receive a message to first load the last tape volume when the batch job begins running.

Capacity information

The following capacity information is displayed for the Auxiliary Storage Pool (ASP) in which PER/ZIP4 is installed:

- ASP xx size = the capacity of the ASP in megabytes (xx = the ASP number)
- Cur ASP used = the number of megabytes currently used in the ASP
- Load stg req = the number of megabytes of storage required to load the members selected (option L)
- Free rmv stg = the number of megabytes of storage which will be freed by removing the members selected (option R)
- New ASP used = the number of megabytes which will be used after the load/remove procedure runs

Pct utl = the current percent utilization of the ASP and the new percent utilization of the ASP after the members are loaded/removed

- F1 Run the job.
- F3 Exit the job.
- F5 Refresh the screen to its original state.
- F8 Load all states into the ZIP+4 database.
- F9 Remove all states from the ZIP+4 database.
- F12 Go to the previous display.

RUN OPTIONS

```
07:53:44
                                LOAD/REMOVE ZIP+4 DATABASE MEMBERS

Select one of the following:

    1. Run interactively
    2. Submit to batch

Selection
====> 1

F3=Exit  F12=Previous
```

Indicate how the job is to be run.

- 1 = The job is run interactively.
- 2 = The job is submitted to batch.

- F3 Exit the job.
- F12 Go to the previous display.

EXIT CONFIRMATION

```
2/14/03          PER/ZIP4 - POSTAL CODING          QPADEV0001
14:56:59
                LOAD/REMOVE ZIP+4 DATABASE MEMBERS

*****
*
* You have chosen to exit the load/remove function. No *
* states will be loaded or removed. Press F3 to confirm *
* your choice or F12 to return to the previous screen. *
*
*****

F3=Exit  F12=Previous
```

Confirm exit.

- F3 Exit the job.
- F12 Go to the previous display.

ENTER PS FORM 3553 INFORMATION

U.S. Postal Service form 3553 (Coding Accuracy Support System (CASS) Report) is generated by PER/ZIP4 as a part of the postal coding report. This form requires the name and address of the list processor and the name and address of the mailer.

```
2/14/03          PER/ZIP4 - POSTAL CODING          QPADEV0001
14:59:56

          ENTER PS FORM 3553 INFORMATION

          ----- Name and address of list processor -----
Line 1... WORKSRIGHT SOFTWARE INC
Line 2... 458 PEBBLE CREEK DR
Line 3... MADISON MS 39110-9192
Line 4...
Line 5...
Line 6...

          -- Name and address of mailer (if not as above) --
Line 1...
Line 2...
Line 3...
Line 4...
Line 5...
Line 6...

F3=Exit  F12=Previous
```

Name and address of list processor

Enter the name and address of your company. Up to six lines are provided for this information.

Name and address of mailer (if not same as above)

Enter the name and address of the mailer. Up to six lines are provided for this information. If your company is the mailer, you can leave these fields blank, and the name and address given for the list processor will be used for that of the mailer on PS form 3553.

F3 = Exit the job.

F12 = Go to the previous display.

SET SYSTEM VALUES

The command Z4SYSVAL allows you to change the PER/ZIP4 system values.

```
2/14/03          PER/ZIP4 - POSTAL CODING          QPADEV0001
15:25:30

          SET SYSTEM VALUES

For coding reports...
  Characters per inch override..... 15
For CASS (3553) report...
  Device type override..... LASER
  Overlay offset down (inches - laser only)..... 012
  Overlay offset across (inches - laser only)..... 012
  Print in uppercase (line printer only)? (Y=yes N=no)... N
  Maximum number of prompt screens to retrieve (for F9)... 10
  User profiles to receive system messages..... QSYSOPR
                                           QSECOFR
  Printer to receive system messages..... *SYSVAL

F3=Exit  F12=Previous
```

Characters per inch override (coding reports)

Enter a characters per inch value (e.g., 10, 15) to use when printing the coding reports. When this system value is set to a number other than 10, any value entered for the "Characters per inch" prompt on the printer options screen is ignored.

Device type override (CASS report)

Enter one of the following values to force the CASS (3553) report to print in line printer format or in overlay format:

blank	IPDS nonlaser printer (line printer)
LASER	IPDS laser printer (overlay if AFP = *YES)
SCS	SCS nonlaser printer (line printer)
SCSLASER	SCS laser printer (line printer)
4234	4234 IPDS printer (line printer)
4235	

Overlay offset down (CASS report)

This value only affects the printing of the CASS (3553) report in overlay format. It should normally not be changed.

Overlay offset across (CASS report)

This value only affects the printing of the CASS (3553) report in overlay format. It should normally not be changed.

Print in uppercase (line printer only)? (Y=yes N=no) (CASS report)

Indicate if PER/ZIP4 is to print the CASS report in all uppercase characters. The application is shipped with this value set to N (the CASS report is printed in mixed case). This value is used only for the line printer format of the PS-3553.

Maximum number of prompt screens to retrieve (for F9)

On batch processing prompt screens, previous parameter setups are available by pressing the F9=Retrieve command key. PER/ZIP4 is shipped with this value set to 10 (the application saves the last ten sets of prompt screen parameters that were run). You can change the number to any value between 1 and 99 to meet your needs.

User profiles to receive system messages

Enter the user profiles that are to receive database expiration messages. These messages are issued when the database will expire in ten days or less.

Printer to receive system messages

Enter the name of the printer that is to receive database expiration messages. These messages are issued when the database will expire in ten days or less.

F3 Exit the job.

F12 Go to the previous display.

CHAPTER 5 - UTILITY FUNCTIONS

The utility functions menu contains options to save the PER/ZIP4 product library and perform electronic customer support tasks. Option three allows you clear the temporary works file used by PER/ZIP4 during the search function.

```
MLZ410                PER/ZIP4 - Utility Functions

Select one of the following:

    1. Save the PER/ZIP4 product library
    3. Clear PER/ZIP4 work files
    90. Sign off

                                                                    COPYRIGHT (C) 1992 PER SOFTWARE, INC.

Selection or command
===>

F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel
F13=Information Assistant   F16=AS/400 main menu
```

SAVE THE PER/ZIP4 PRODUCT LIBRARY

This option allows you to save the PER/ZIP4 product library for back-up purposes.

```
2/14/03          PER/ZIP4 - POSTAL CODING          QPADEV0001
15:30:06

          SAVE THE PER/ZIP4 PRODUCT LIBRARY

Device..... TAP01_____ *
Expiration date..... *PERM_____ *

F1=Change defaults (*)  F3=Exit  F12=Previous  F13=Reset defaults (*)
```

Device

Enter the name of the device on which the save is to be made.

Expiration date

A valid date or *PERM (permanent) are allowable values.

- F1 Change the default parameters (for items marked with an *) for the current prompt screen to those you have just entered. Only the defaults for this display station will be changed.
- F3 Exit the job.
- F12 Go to the previous display.
- F13 Reset the default parameters (for items marked with an *) for the current prompt screen to their shipped values. Only the defaults for this display station will be changed.

CHAPTER 6 – REPORTS

On the following pages you will find samples of the printed output provided by PER/ZIP4.

PER/ZIP4 provides the following documents:

1. United States Postal Service PS3553. This is commonly called the “CASS Report.” This is the document you provided to the USPS to prove that you mailing files have been properly postal coded.
2. Postal Coding Report – There is a detail report showing individual records that were coded. Records that were not coded have an error code listed.
3. Address standardization report. These are records that contain standardized addresses where the address length will not fit in the available field size. The program attempts to compress the address so that it will fit the available space. If the address cannot be compressed sufficiently, a line of asterisk will print on the report and the address line will not be updated in the file. However, the ZIP Code and ZIP+4 will be updated.



Coding Accuracy Support System (CASS) Summary Report

This form may be generated as the output of address matching processing using CASS (Coding Accuracy Support System) certified software in conjunction with current USPS Address Database Files. Any facsimile must contain the same information in the same format as this printed form. See DMM A950 for more information.

A. Software			
CASS - A1	1. CASS Certified Company Name WorksRight Software, Inc.	2. CASS Certified Software Name & Version PER/ZIP4 ver7.07.00.H	3. Configuration STD
	4. Z4 Change Certified Company Name	5. Z4 Change Certified Software Name & Version	6. Configuration
	7. eLOT Certified Company Name	8. eLOT Certified Software Name & Version	9. Configuration
	10. DPC Utility Certified Company Name	11. DPC Utility Software Name & Version	12. Configuration
MASS - A2	1. MASS Certified Company Name	2. MASS Certified Software Name, Version, & Model No.	3. Configuration
			4. MLOCR Serial No.

B. List		
1. List Processor's Name WORKSRIGHT SOFTWARE INC PO BOX 1156 MADISON, MS 39130-1156	2. Date List Processed	3. Date of Database Product Used
	a. Master File 4/09/2003	a. ZIP + 4 File 4/15/2003
	b. Z4 Change	b. Z4 Change
	c. eLOT	c. eLOT
	d. CRIS	d. CRIS
4. List Name or ID No. QS36F/TNMASTG/*FIRST/1	5. Number of Lists 1	6. Total Records Submitted for Processing 82,552

C. Output							
Output Rating	1. Total Coded	2. Validation Period			1. Total Coded	2. Validation Period	
a. ZIP + 4 Coded ▷	81,962	From	To	d. 5-Digit Coded ▷	82,300	From	To
b. Z4 Change Processed ▷		4/09/2003	10/06/2003	e. CR RT Coded ▷		4/09/2003	4/08/2004
c. DPBC Assigned ▷		From	To	f. eLOT Assigned ▷		From	To

D. Mailer		
I certify that the mailing submitted with this form has been coded (as indicated above) using CASS-certified software meeting all of the requirements of Domestic Mail Manual A950.		3. Name & Address of Mailer WORKSRIGHT SOFTWARE INC PO BOX 1156 MADISON, MS 39130-1156
1. Mailer's Signature	2. Date Signed	

E. Qualitative Statistical Summary (QSS)						
For informational purposes only; QSS is solely made available for the list processor's review and analysis. This information is not to be considered by the Postal Service personnel in determining rate eligibility under any circumstances. See reverse for a detailed explanation.						
High Rise Default	High Rise Exact	Rural Route Default	Rural Route Exact	LACS	EWS	DPV
11,997	13,880	3	90	0	0	

Instructions

A. CASS/MASS Software

CASS-A1.1, 4, 7, 10, & MASS-A2.1 — Company Name: Enter the name for *each kind of software* as it appears on the CASS/MASS certificate.

CASS-A1.2, 5, 8, 11, & MASS-A2.2 — Software Name and Version: Enter the name and version used for *each kind of software* as it appears on the CASS/MASS certificate.

CASS-A1.3, 6, 9, & 12, & MASS-A2.3 — Configuration: Enter the specific software configuration parameter settings as it appears on the CASS/MASS certificate.

MASS-A2.4—MLOCR: Enter the MLOCR serial number as it appears on the MASS Certificate.

NOTE: If information entered in this section represents the list processing of more than one certified company, **attach** a list of company names, software names and versions, as well as the configuration to code the address information used in the mailing.

B. List

- List Processor's Name:** Enter the company name that coded the address list(s) and/or performed ZIP+4 barcoding using CASS certified software. Attach a list if additional space is required.
- Date List Processed:** Enter the processing date for each list. If multiple lists, enter the oldest date from the list.
- Date of Database Product Used:** Enter the version date of each database package used for processing. If multiple lists, enter the oldest version date from the lists.
- List Name or ID No.:** Print the name or identification number of the address list. If more than one list is used, leave blank. If the identification number is used, the number must be preceded by "ID#".
- Number of Lists:** Enter the number of lists used to produce the mailing.
- Total Records Submitted for Processing:** Enter the total number of address records (from all lists in item B5) submitted at the time the list(s) was coded.

C. Output

- Total Coded:** Enter the total number coded.
- Validation Period:** Enter the effective dates as shown below:

Product Name	From Date	To Date
ZIP+4 Coded	30 days before (the 15th of each month or bi-monthly) or no later than 105 days after the file date.	180 days after the ZIP+4 valid "From" date.
Total Delivery Point Barcoded	30 days before (the 15th of each month or bi-monthly) or no later than 105 days after the ZIP+4 product file date.	180 days after the DPBC valid "From" date.
Five-Digit Coded	30 days before (the 15th of each month or bi-monthly) or no later than 105 days after the ZIP+4, Five-digit ZIP, or the Carrier Route product date.	365 days after the Five-Digit Valid "From" date.
Total Carrier Route Coded	30 days before or up to 105 days after the ZIP+4, Five-digit ZIP, or the Carrier Route product date (the 15th of each month or bi-monthly) or up to 105 days after the file date.	90 days after the Carrier Route Valid "From" date.
Enhanced Line of Travel (eLOT) Sequence No. Assigned	30 days before or up to 105 days after the eLOT file product date (the 15th of each month or bi-monthly).	90 days after the eLOT valid "From" date.

D. Mailer

- Signature:** Signature of individual who processed the list, or the mailer's representative.
- Date Signed:** Enter the date this form is signed.
- Name & Address of Mailer:** Enter the name and address of the individual whose signature appears in item D1.

E. Qualitative Statistical Summary (QSS)

This information allows mailers and list processors to evaluate the quality of their address list processed through CASS software before its contents enter the mailstream. A significant number of highrise and/or rural route default matches, although these addresses remain eligible for postal automation rate discounts at this time, increase the costs and reduce the efficient delivery of this mail. Mailers should research to obtain secondary unit designator address information or highrise addresses and specific box number information for rural route addresses which are coded to default records on the National ZIP+4 File.

Locatable Address Conversion System (LACS)

Entries in this box show the number of addresses which have been converted from primarily rural route and box number to standard city style addresses under the National Emergency 911 program. Mailers should make every effort to obtain current address information from a LACS vendor. Please visit our web site at ribbs.usps.gov/files/lacs for more information.

Early Warning System (EWS)

Entries in this box show the number of addresses on the processed address list that are new addresses not in the current US Postal Service's ZIP+4 File. These addresses are, however, valid addresses as formatted and should not be changed in any way since the Postal Service will assign ZIP+4's to these addresses on the next monthly ZIP+4 File.

Delivery Point Validation (DPV)

Entries in this box show the number of records delivery point confirmed. Only DPV enabled software will return a value in this box (Check with your software vendor for obtaining this option). These address records are valid delivery points by the US Postal Service. Addresses that are not confirmed by DPV are either new addresses not available on the current Delivery Sequence File, or are not valid and the list holder should further investigate to determine the accuracy of these addresses. Presently, the Postal Service is not requiring delivery point validation for rate eligibility. However, this policy is subject to change and mailers should make every effort to ensure the quality of their address list(s).

KEY #	ERR	FIRM NAME	ADDRESS	LAST LINE
87331434		DELTA STEEL, INC	5599 SAN FELIPE ST STE 600	HOUSTON TX 77056-3747
87331466		FIRESTONE SYNTHETIC	PO BOX 1269	ORANGE TX 77631-1269
87331478		MEMORIAL MEDICAL CENTER	2606 HOSPITAL BLVD	CORPUS CHRISTI TX 78405-1818
87331490		ANS WEST TEXAS EQUIPMENT COMP	3809-B S. FM1788	MIDLAND TX 79711
87331690		PENNSAVER-SUTTON INDUSTR	27401 LOS ALTOS STE 100	MISSION VIEJO CA 92691-6316
87331740		NORTH FACE	2013 FARALTON DR	SAN LEANDRO CA 94577-6601
87340208		DOWD COMPANY	613 MAIN ST	WILMINGTON MA 01887-3215
87340472		MEDI CREDIT	3512 I-70 DRIVE E PO BOX 7206	LARGO FL 33777-1230
87343130		IBM GLOBAL SVS ECKARD ACC	8333 BRYAN DAIRY RD	SYRACUSE NY 13204-1703
87352664		STRAITHMORE PRODUCTS INC	1970 W FAYETTE ST	FLORENCE SC 29501-3456
87354886		CITY OF FLORENCE	BOX H 180 N IRBY ST	GREENVILLE SC 29601-2640
87354904		GREENVILLE NEWS	305 S MAIN ST	KANSAS CITY MO 64123-1912
87357602		KEYS TO PROFIT INCORPORAT	107 BENNINGTON AVE	LINCOLN NE 68508-1424
87357762		STR DAMA F COLE & COMPANY	200 NBC CENTER	WALLA WALLA WA 99362-2815
87360024		BAKER BOYER BANK	7 W MAIN ST	PEARL MS 39208-4428
87385120		HEAVYQUIP	248 N PEARSON RD	AUSTRALIA
87386205		LLN ISOFT	LEVEL 1, 60 KINGSFORD SMITH DR ALBION, QLD 4010	
87400750		GREEN TREE PERPETUAL INSU	414 WALNUT ST	PHILADELPHIA PA 19106-3737
87400940		CONTAINER CORPORATION	PO BOX 219	PINEVILLE NC 28134-0219
87401290		COBA / SELECT SITES	1224 ALTON DARBY CREEK RD	COLUMBUS OH 43228-9792
87401300		LONGABERGER INC	1500 EAST MAIN ST PO BOX 3400	NEWARK OH 43058-3400
87401364		ST RITA'S MEDICAL CENTER	730 W MARKET ST	LIMA OH 45801-4667
87401484		R J TOMER CORPORATION	PO BOX 670	GREENVILLE WI 48838-0670
87401824		STR CUMMINS-ALLISON CORP	891 SEEHANVILLE DR	MOUNT PROSPECT IL 60056-6098
87401932		LINCOLN INSURANCE AGENCY	855 W WASHINGTON BLVD	CHICAGO IL 60607-2398
87402384		PACET INTERNATIONAL INC	9910 E 56TH ST N	TULSA OK 74117-4011
87403448		IMPERIAL PREMIUM FINANCE	15303 VENTURA BLVD STE 1600	SHERMAN OAKS CA 91403-3133
87410536		HOLT CARGO SYSTEMS	701 N BROADWAY	GLOUCESTER CITY NJ 08030-1034
87412042		AMERICAN SALES	8401 185TH ST	TINLEY PARK IL 60477-9217
87412298		NATIONAL GRAPHIC CORPORAT	2711 MIAMI ST	SAINT LOUIS MO 63118-3831
87420026		STR ST MARY'S GENERAL HOSPITA	PO BOX291	LEWISTON ME 04243-291
87420205		STA-RITE INDUSTRIES	293 S WRIGHT ST	DELAVAN WI 53115-2008
87420254		AMAON SPECIALTY GROUP	16 123 N WACKER DR	CHICAGO IL 60606-1743
87420380		EQUITABLE LIFE & CASUALTY	PO BOX 1006	SALT LAKE CITY UT 84110-2460
87430612		ENGLEHARD CORPORATION	120 PINE ST	ELYRIA OH 44035-5228
87431642		THE BROOKLYN HOSPITAL	121 DEKALB AVE	BROOKLYN NY 11201-5493
87434362		ANVIL KNITWEAR	200 CYPRESS STREET PO BOX 1006	MULLINS SC 29574-1006
87438372		PACKAGING CORP OF AMERICA	777 WHEELING RD	WHEELING IL 60090-5708
87470350		PIONEER SOUTHERN, INC	275 KENYON ROAD PO BOX 706	SUFFOLK VA 23439-0706
87470600		BNC HERITAGE TRUST FEDERAL CR	P O BOX 2941101	CHARLESTON SC 29411-2901
87472420		HOUSE HASSON HARDWARE CO	3125 WATER PLANT RD 37914 PO BOX 1191	KNOXVILLE TN 37901-1191
87473920		FACET ENTERPRISES, INC	6100 S YALE AVE	TULSA OK 74136-1905
87474890		UNITED CHEMICON	635 COLUMBIA ST	BREA CA 92821-2913
87475580		MONROVIA NURSERY COMPANY	18331 EAST FOOTHILL BLVD PO BOX 1385	AZUSA CA 91702-1385
87476370		KNOTT'S BERRY FARM FOODS	200 BOYSENBERRY LN	PLACENTIA CA 92870-6422
87476540		ANS CALIFORNIA ANGELS BASEBAL	2000 STATE COLLEGE	ANAHEIM CA 92803-6116
87490141		ROBERT E COOPER, CONSULTI	101 20 MILE RD NE	CEDAR SPRINGS MI 49319-9629
87500530		B F GOODRICH	1031 E HILLSIDE DR	BLOOMINGTON IN 47401-6586
87505060		COUNTY OF BECKER	913 LAKE AVE	DETROIT LAKES MN 56501-3403
87510116		SNF QUEBECOR WORLD	IT DEPT. U S BYPASS 60	VERSAILLES KY 40383
87510160		ANS AMERITEL CORPORATION	W 6280 AEROTECH DRE	APPLETON WI 54915
87562960		BOTSFORD & GOODFELLOW INC	1576 SE OCHOCO ST	PORTLAND OR 97222-7315
87574204		TIDEWATER SKANSKA, INC.	809 S MILITARY HWY	VIRGINIA BEACH VA 23464-1823
87574991		SOLUTIONS4, INC.	184 BUSINESS PARK DR STE 100	VIRGINIA BEACH VA 23462-6574

QS36F/TMCUST/*FIRST/1
 QS36F/TMCUST/*FIRST/1
 --- KEY # --- ERR --- FIRM NAME --- ADDRESS --- LAST LINE ---

ERR	ERROR STATISTICS	COUNT	%	TTL
ADR	(INSUFFICIENT ADDRESS INFORMATION)	5	.09	
AMS	(ADDRESS NOT ON STREET)	41	.71	
BNC	(PO BOX NOT FOUND IN CITY (FINANCE NUMBER))	10	.17	
BNR	(BOX MISSING OR NOT FOUND IN RR/HC (DEFAULT TAKEN))	1	.01 *	
DBE	(USPS D/B EXCEPTION (FIRM NAME REQUIRED TO MAKE MATCH))	3	.05	
EWS	(EARLY WARNING SYSTEM MATCH (WILL CODE IN THE FUTURE))	0	.00	
LLN	(INSUFFICIENT LAST LINE (CITY, STATE, ZIP) INFORMATION)	222	3.87	
MLT	(MULTIPLE ADDRESSES FOUND)	9	.15	
NDA	(NON-DELIVERY ADDRESS)	3	.05	
PGM	(PROGRAM ERROR)	1	.01	
RNF	(RR/HC NUMBER NOT FOUND IN CITY (FINANCE NUMBER))	4	.06	
SNF	(STREET NOT FOUND IN CITY (FINANCE NUMBER))	30	.52	
STR	(STREET NAME NOT FOUND)	58	1.01	
XST	(ZIP+4 DATABASE MEMBER MISSING FOR STATE)	0	.00	
TOTAL RECORDS REJECTED		386	6.74	
TOTAL RECORDS CODED		5340	93.25	
TOTAL RECORDS PROCESSED		5726	100.00	

* NOT INCLUDED IN TOTAL RECORDS REJECTED

: 03 PM
 36F/TNMASTG/*FIRST/1
 36F/TNMASTG/*FIRST/1

PER/ZIP4 - POSTAL CODING
 ADDRESS STANDARDIZATION EXCEPTIONS 4/28/03

KEY #	STANDARDIZED ADDRESS	OUTPUT ADDRESS	ADR LINE	FLD LENG	REQ LENG	MESSAGE-	PAGE
00265832	1250 E HALLANDALE BEACH BLVD STE 901	1250 E HALLANDALE BEACH BLVD # 901	D/1	35	36	ABV TO 34	1
00279607	1320 N DR MARTIN LUTHER KING DR PL 4	1320 N DR MARTIN LUTHER KING DR # 4	D/1	35	36	ABV TO 35	
00305682	180 INTERSTATE NORTH PKWY SE STE 500	180 INTERSTATE NORTH PKWY SE # 500	D/1	35	36	ABV TO 34	
00597336	6689 PEACHTREE INDUSTRIAL BLVD STE D	6689 PEACHTREE INDUSTRIAL BLVD # D	D/1	35	36	ABV TO 34	
00772459	150 INTERSTATE NORTH PKWY SE STE 300	150 INTERSTATE NORTH PKWY SE # 300	D/1	35	36	ABV TO 34	
00773315	5808 LAKE WASHINGTON BLVD NE STE 100	5808 LAKE WASHINGTON BLVD NE # 100	D/1	35	36	ABV TO 34	
00992020	180 INTERSTATE NORTH PKWY SE STE 180	180 INTERSTATE NORTH PKWY SE # 180	D/1	35	36	ABV TO 34	
80004590	222 MERCHANDISE MART PLZ #1 STE 1450	222 MERCHANDISE MART PLZ #1 # 1450	D/1	35	36	ABV TO 34	
84806272	15990 N GREENWAY HAYDEN LOOP STE 800	15990 N GREENWAY HAYDEN LOOP # 800	D/1	35	36	ABV TO 34	

GLOSSARY

Address last line

The line of the address containing the city, state, and ZIP Code. A term used to designate a combined city, state, ZIP Code field within a file.

Carrier route code

A code assigned by the U.S. Postal Service identifying a specific delivery route or post office box section.

Delivery address

The line immediately above the address last line. This is the address of intended delivery.

Delivery point code

A two-digit numeric code (usually the last two digits of the street address) which together with the ZIP Code, ZIP+4 Code, and a check digit are used to generate the delivery point bar code.

Delivery point bar code

Also referred to as the POSTNET bar code, a graphical code made up of tall and short vertical bars that represent the ZIP Code, ZIP+4 Code, delivery point code, and a check digit.

Electronic customer support (E.C.S.)

A method of transmitting program updates electronically via telephone.

Finance number

A number assigned by U.S. Postal Service to uniquely identify each post office name (city) in the country. Cities which have more than one ZIP Code (multi-coded cities) have only one finance number.

FIPS state/county number

The Federal Information Processing Standard (FIPS) numbers assigned to each state and each county with a state by the Federal Government.

LACS indicator

The Locatable Address Conversion Service (LACS) indicator describes records that have been converted to the LACS system. The LACS indicator will be found primarily on rural route addresses that have been changed to street addresses.

POSTNET bar code

See delivery point bar code.

Secondary address

In dual address records, the line immediately above the delivery address. This is not the address of intended delivery (e.g., a physical address when the delivery address contains a P.O. Box number).

ZIP Code

A five-digit code assigned by the U.S. Postal Service which identifies a specific geographic delivery area. ZIP is an acronym for "Zone Improvement Plan."

ZIP+4 Code.

A four-digit code assigned by the U.S. Postal Service which identifies a specific delivery point within a ZIP Code.

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