

Finalist<sup>®</sup>

Release 8.3.0 - November 2013  
Working With Finalist<sup>®</sup> Guide  
for Linux, Unix, Windows, and z/OS

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# CHAPTER 1

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## Using the Workbench

This chapter provides information on the Finalist Workbench. You can use the Finalist Workbench to create the Job File (.job) and Definition File (.def) required to process with the batch driver. The Finalist Workbench runs in a 32-bit Microsoft Windows environment.

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## Starting Finalist Workbench

The steps for accessing the Finalist Workbench are:

1. From the Start menu, select **Programs**.
2. Select **PB**.
3. From the PB menu, select **Finalist**.
4. Select **Workbench**.

The *Workbench* window displays.

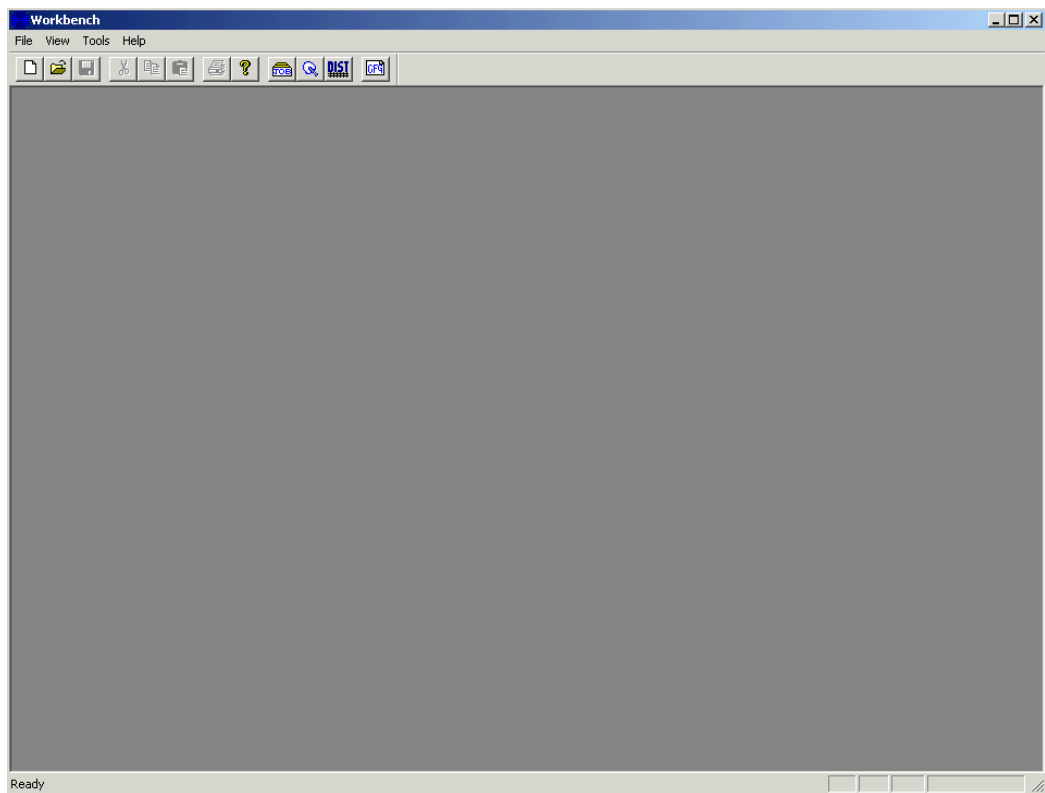


Figure 1: Finalist Workbench

The bar along the top of the window displays the menus available from the Finalist Workbench window. A brief description of each menu follows.



## File Menu

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The File menu options are:

- **New** — Select New from the File to create a new Definition File (.def) or a Job File (.job). The Definition File (.def) and Job File (.job) are needed to process with the driver.
- **Open** — Select Open to open an existing file.
- **Print Setup** — Select Print Setup to access the Print Setup window.
- **Recent File** — This area of the File menu display recently-used files.
- **Exit** — Select Exit to exit Finalist Workbench.

## View Menu

---

The View menu options are:

- **Toolbar** — Select Toolbar to indicate whether to display the toolbar on the Finalist Workbench windows.
- **Status** — Select Status to indicate whether to display the status bar on the Finalist Workbench windows.

## Tools Menu

---

The Tools menu options are:

- **Run Batch Job** — Select Run Batch Job to start the driver program. For detailed information on the driver program, refer to [Chapter 7, "Running Jobs With the Batch Driver"](#).
- **Run Lookup** — Select Run Lookup to run the Lookup Tool. You can use the Lookup Tool to search the contents of the postal data files for a specific entry. For detailed information on the Lookup Tool, refer to [Chapter 3, "Using the Lookup Tool"](#).
- **Run Distribution** — Select Run Distribution to run the Distribution Tool. You can use the Distribution Tool to build a Finalist database that includes only selected states. For detailed information on the Distribution Tool, refer to [Chapter 4, "Using the Distribution Tool"](#).
- **PBFN Setup** — Select PBFN Setup to define the configuration settings. The configuration settings define various program specifications and options. You can also access PBFN Setup from the Edit menu in the Lookup Tool. For detailed information on configuration settings, refer to [Chapter 2, "Configuring Finalist"](#).

## Help Menu

---

The Help menu options are:

- **About Workbench** — Select About Workbench to access information on the current version of Finalist Workbench.
- **Contents** — Provides global online access to all of the Finalist documentation in help format.
- **Developers Reference** — Provides online access to the *Developer's Reference Guide*.
- **Getting Started** — Provides online access to the *Getting Started with Finalist Guide*.
- **Installation Guide** — Provides online access to the *Finalist Installation Guide*
- **Working With Guide** — Provides online access to the *Working With Finalist Guide*.

## Creating a Definition File (.def)

You can use Finalist Workbench to create the Definition File (.def) required for processing with the driver. The Definition File defines the layout of the input file to be processed by the driver program. The Definition File contains keywords that specify the location and length of the input fields that the driver program will pass to Finalist. For information on the Definition file keywords, refer to [Chapter 7, "Running Jobs With the Batch Driver"](#). To create a Definition File:

1. From the *File* menu, select **New**. The New Definition File dialog box displays.

2. Select **def** on the New Definition File dialog box. The Definition File Setup dialog box displays. Use this dialog box to define your input and output fields.

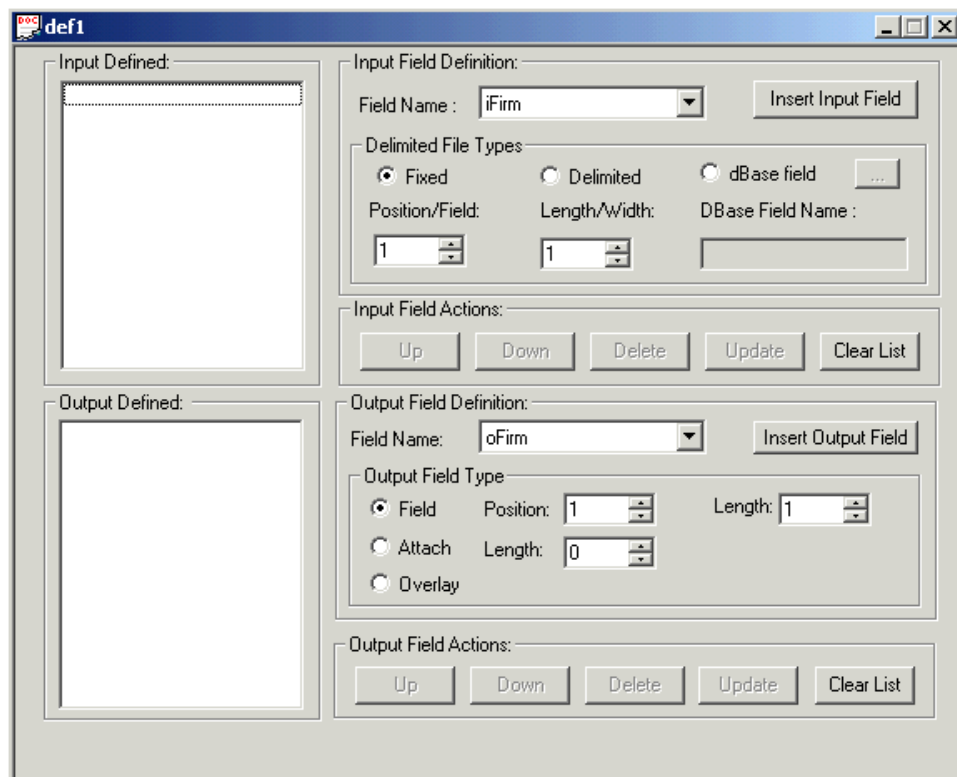


Figure 2: New Definition File Setup Dialog Box

## Defining Your Input Fields

Use the top portion of the Definition File Setup dialog box to define the name, position, and length of your input fields. The Field Name box in the Input Defined section lists the keywords for the input fields you can add to your Definition File. The Input Defined list is blank when you first access this screen. You can use the buttons in the Input Field Actions section to build or change the Input Defined list.

1. Select the input field to add to your Definition file from the drop down **Field Name** list.
2. Select the delimited file type for your input file to identify the method used to separate components of the address data in your input file:
  - If your input file is in a fixed field format, click **Fixed**. Proceed to [Step 3](#).
  - If your input file is in a delimited format, click **Delimited**. Proceed to [Step 3](#).

- If your input file is in a dBase format, select **dBase field** to define your dBase input file. Specify the appropriate dBase field names for the fields you want to add to your Definition file. Proceed to [Step 4](#).
3. Use the Position, and Length fields to define your input file by specifying the starting position and length of each field in the input file.
    - a. Use the Position/Field box to define the starting position in your input file for the field you selected in the Field Name box. Select a number in the range 1-1024 for the starting position of the field you selected.
    - b. Use the Length/Width box to define the length of the field you selected in the Field Name box. Select a number in the range 1-1024 for the length of the field you selected.
  4. Click **Insert Input Field**.

### Input Field Actions

The Input Field Actions section lists the actions you can perform for the Input Definition File fields.

- **Insert Input Field** — Adds the field you selected and defined to the Input Defined section and the Definition File.
- **Up** — Moves a selected field up in the order specified in the Input Defined list.
- **Down** — Moves a selected field down in the order specified in the Input Defined list.
- **Delete Field** — Deletes the highlighted field from the Definition File.
- **Update Field** — Updates a selected field in an existing Definition File. The steps to change a field in a Definition File are:
  1. Open the existing Definition File.
  2. Select the field in the Input Defined list that you want to update.
  3. Make your changes to the Position/Field and/or Length/Width field(s) in the Delimited File Types section.
  4. Click on the Update button to update the Definition File with your changes. Note that the changes you made are now reflected in the Input Defined list.
- **Clear List** — Deletes all items in the Input Defined list.

---

## Defining Your Output Fields

---

Use the bottom portion of the Definition File Setup Screen to define the format for your output file. The Field Name box in the Output Defined section lists the keywords for the output fields you can add to your Definition File. This list is blank when you first access this screen. You can use the buttons in the Output Field Actions section to build or change the Output Defined list.

1. Select the output field to add to your Definition file from the drop down **Field Name** list. Before the field is added to the Output Defined list, you must define the location for the output field you selected. You can specify a location by:
  - Defining the starting position and length of the output field
  - Attaching the output field to the end of the input record
  - Overlaying the input field location with the output results
2. To identify the location for the output field by defining the actual position and length, click **Field**.
  - a. In the **Position** box, enter the starting position in your output file for the output field you selected.
  - b. In the **Length** box, enter the length in your output file for the selected output field.
  - c. Proceed to [Step 5](#).

For example, if you specify a position of 1 and a length of 28 for oFirm, the output Firm field will be placed in position 1 of the output record for a length of 28.

3. To identify the location of an output field that is to be attached to the end of the input record, click **Attach**.
  - a. In the **Length** box, specify the length for the output field to attach to the end of the input record.
  - b. Proceed to [Step 5](#).

For example, if you specify a length of 28 for oFirm, the output Firm field will be attached to the end of the input record for a length of 28 characters.

4. To overlay the selected output field over the corresponding input field, click **Overlay**. Proceed to [Step 5](#).

---

**NOTE:** This option is only available if a corresponding input field has been specified.

---

For example, if you specify oFirm, the output Firm field (oFirm) will overlay the input Firm field (provided you have specified a corresponding iFirm field). In this example, if no iFirm has been defined, an initialization error will occur and be written in the output log.

5. Click **Insert Output Field**.

### Output Field Actions

The Output Field Actions section lists the actions you can perform for the Output Definition File fields.

- **Insert Output Field** — Adds the field you selected and defined to the Output Defined section and the Definition File.
- **Up** — Moves a selected field up in the order specified in the Output Defined list.
- **Down** — Moves a selected field down in the order specified in the Output Defined list.
- **Delete Field** — Deletes the highlighted field from the Definition File.
- **Update Field** — Updates a selected field in an existing Definition File. To change an output field in a Definition File, follow these steps.
  1. Open the existing Definition File.
  2. Select the field in the Output Defined list that you want to update.
  3. Make your changes to the Field, Attach, or Overlay field in the Output Field Type section.
  4. Click on the Update button to update the Definition File with your changes. Note that the changes you made are now reflected in the Output Defined list.
- **Clear List** — Deletes all items in the Output Defined list.

### Saving Your Definition File

---

Your changes do not become a permanent part of your Definition File until you save the changes. To save the Definition File you created or changed, click on the Save button or click on Save from the File menu.

To close the Definition File without saving any changes, click on the Close button in the top right corner of the screen or click Close from the File menu.

## Creating the Job File (.job)

You can use Finalist Workbench to create the Job File (.job) required for processing with the driver. The Job File defines your job setup including:

- Job processing options
- Input file format
- Processing mode (CASS vs. non-CASS processing)
- Job file locations
- Job reports
- Output files
- Output return options

To create a Job File:

1. From the *File* menu, select **New**. The New Definition File dialog box displays.
2. In the New Definition File dialog box, select **job**. The Batch Job Set Up dialog box displays. Use this dialog box to define your input and output options.

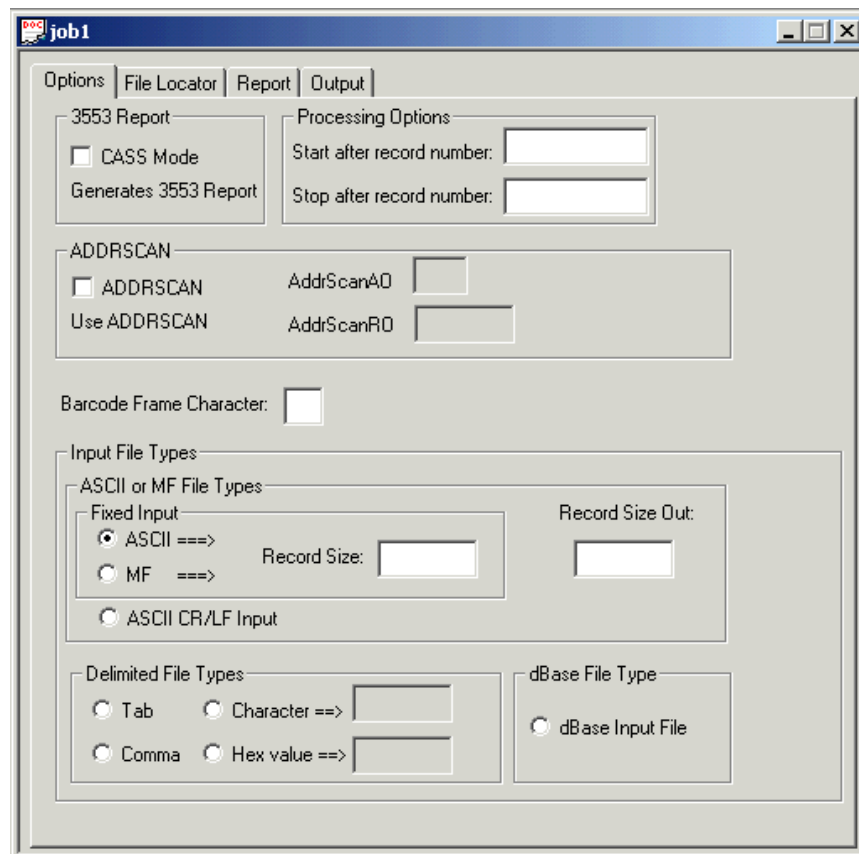


Figure 3: Batch Job Set Up Dialog Box - Options Tab

## Defining Your Job Options

---

This section provides information for defining your job options.

### Defining USPS Form 3553 (CASS Summary Report) Options

To process in a CASS-certified mode and generate the USPS Form 3553 (CASS Summary Report), click on **CASS Mode**.

---

**NOTE:** You must process in a CASS-certified mode to generate the USPS Form 3553 (CASS Summary Report). The CASS Flag in pbfncfg (or your configuration file) should also be set to ON in order to generate USPS Form 3553 (CASS Summary Report).

---

### Defining Processing Options

To define your job processing options, follow these steps:

1. In the **Start after record number** field, enter a number in the range 1-9999999 to bypass records before the driver begins processing.

For example, you want to begin processing with record number 25. You would enter 24 in the Start After field. The driver bypasses 24 records and begins processing with record number 25.

2. In the **Stop after record number** field, enter a number in the range 1-9999999 to define the number of records to process before the driver ends processing. The default value for this field is EOF indicating processing will end at the end of your input file. For example, to end processing after processing 50 records. You would enter 50 in the **Stop after record number** field. The driver processes 50 records and ends processing.

### Defining ADDRSCAN Processing Options

To define your ADDRSCAN processing options, follow these steps:

1. To perform ADDRSCAN processing, click **ADDRSCAN**. For more information on ADDRSCAN processing, refer to your *Getting Started With Finalist Guide*.



---

**NOTE:** ADDRSCAN can only be used if your input is defined in label line format, using the iL1-iL6 input field names. If defining any address components, like iAddress1, or iCity, etc. will result in an initialization error being written out to the joblog.

---

2. To define the ADDRSCAN addressing options, follow these steps:
  - a. To prevent ADDRSCAN from concatenating lines beginning with # to existing address lines, enter # in the **AddrScanAO** field. This field is only available when ADDRSCAN processing is selected (see previous step).
  - b. To prevent ADDRSCAN from recognizing periods as valid characters and to specify that periods should be removed before scanning address lines, enter a **P** in the **AddrScanAO** field. This field is only available when ADDRSCAN processing is selected (see previous step).
  - c. To prevent ADDRSCAN from concatenating one-word lines to address lines, enter a **D** in the **AddrScanAO** field. This field is only available when ADDRSCAN processing is selected (see previous step).

---

**NOTE:** The values #, P, and D can populate any of the first three positions of the AddrScanAO field.

---

3. To define the ADDRSCAN return options and override the Returned Line Order, you can specify up to 9 codes in the **AddrScanRO** field. For more details, refer to Chapter 10, ADDRSCAN Option in your *Getting Started With Finalist Guide*. Valid Returned Line Order codes are:

**Table 1: Returned Line Order (Part 1 of 2)**

| Code | Description                                                                      |
|------|----------------------------------------------------------------------------------|
| 0    | Firm line                                                                        |
| 1    | PO Box address line                                                              |
| 2    | Address line with both a range and a suffix word                                 |
| 3    | Address line with a range but no suffix, address line with a suffix but no range |
| 4    | Rural route address line                                                         |
| 5    | Personal name, firm name (without firm words), unidentified                      |
| 6    | Apartment type line                                                              |

Table 1: Returned Line Order (Part 2 of 2)

| Code | Description                                           |
|------|-------------------------------------------------------|
| 7    | Possible city line                                    |
| 8    | City line                                             |
| 9    | Ignore this line                                      |
| R    | Rural route address line preceding a box line         |
| B    | Box address line following a rural route address line |
| M    | Military address line                                 |

### Defining Barcode Framing Options

To define a barcode framing character for your job, specify one or two characters to be used for the beginning and/or ending characters for barcodes.

- If you specify only one character in the **Barcode Frame Character** field, Finalist uses the specified character for both the beginning and ending frame character.
- If you specify two characters, Finalist uses the first character as the beginning frame character and the second character as the ending frame character.
- If the field is blank, Finalist uses the exclamation point (!) as the default value.

### Defining Your Input File

To define your input file options, follow these steps:

1. To define your input file type, select one of the following:
  - If your input file is in an ASCII fixed file format and each record in your input file occupies a fixed number of bytes (no CR/LF at the end of each record), click **ASCII for Fixed Input**. To define the record length of the records in your input file, enter a number in the range of 1-32,767 in the **Record Size** field.
  - If your input file is in a mainframe fixed file format and each record in your input file occupies a fixed number of bytes (no CR/LF at the end of each record), click **MF for Fixed Input**. To define the record length of the records in your input file, enter a number in the range of 1-32,767 in the **Record Size** field.

- If your output file is in a mainframe file format or you want to define an output Record Size, enter a number in the range 1-32,767 in the Record Size Out field.
  - If each record in your input file is terminated with a carriage return/line feed (CR/LF) pair, click **ASCII CR/LF Input**.
2. If the records in your input file are delimited by a specific character called a delimiter (a character that marks the beginning or end of a unit of data), select one of the following:
- If the records in your input file are delimited by a tab, click **Tab**.
  - If the records in your input file are delimited by a comma, click **Comma**.
  - If the records in your input file are delimited by a specific character, click **Character**. Specify the delimiter character in the field to the right of Character.
  - If the records in your input file are delimited by a hexadecimal value, click **Hex value**. Specify the delimiter character in the field to the right of Hex value. For example, if you enter 09 in the delimiter field, 09 is the ASCII hexadecimal value for the tab character.
3. If your input file is a dBase file, click **dBase Input File**.

## Defining Your Job Files

To identify the location of key files for your Job File (.job), select the **File Locator** tab.

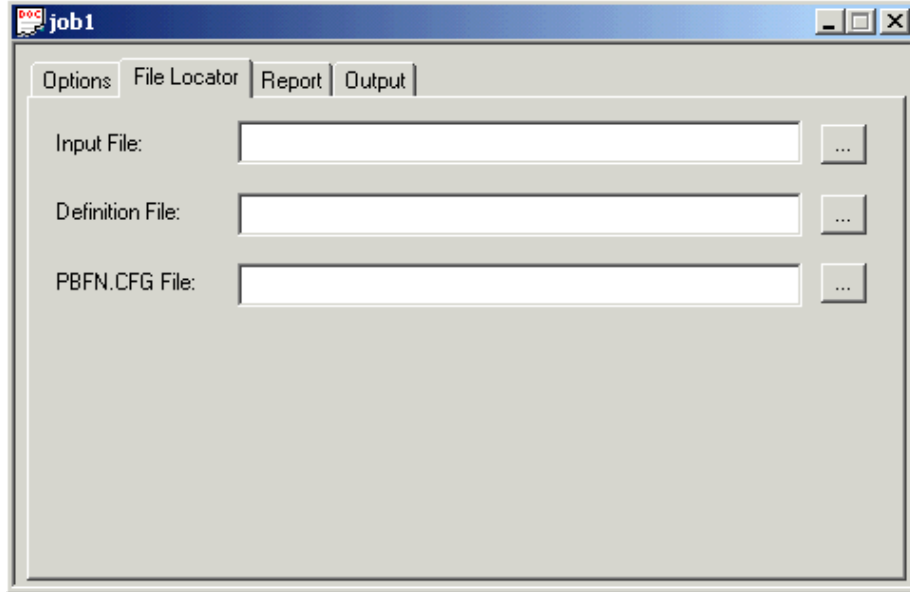


Figure 4: Batch Job Set Up Dialog Box - File Locator Tab

To define the files for your batch job, follow these steps:

1. In the **Input File** field, enter the name of the input file you want to process with the driver program. Click on the Browse button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.
2. In the **Definition File** field, enter the name of the Definition File you want to process with the driver program. Click on the Browse button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.
3. In the **PBFN.CFG File** field, enter the name of your configuration file. This is an optional field. This field defaults to the pbfncfg located in the home directory. If you want to use an alternate pbfncfg, enter the path and file name of the alternate pbfncfg you want to use. Click on the Browse button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.

## Defining Your Report Files

To identify the filenames for the report files and the mailer's name and address information for Box D3 on the USPS Form 3553 (CASS Summary Report) for your Job File (.job), select the *Report* tab.

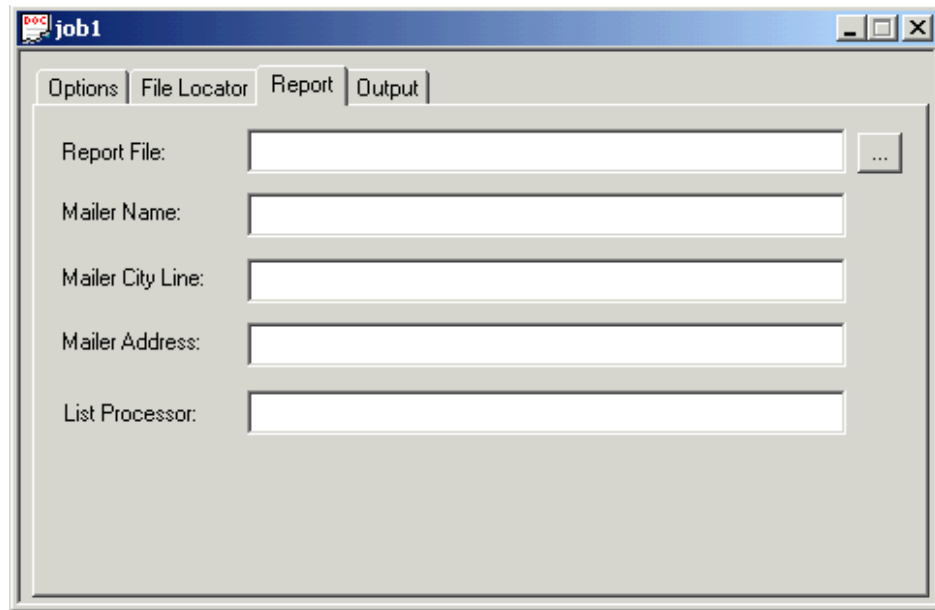


Figure 5: Batch Job Set Up Dialog Box - Report Tab

To define the report information for your batch job, follow these steps:

1. In the **Report File** field, enter the name of the file to contain the processing statistics. Click on the Browse button to open a dialog box to specify a name for the Report File. For information on the Finalist reports, refer to [Chapter 8, "Using the Finalist Reports"](#).
2. In the **Mailer Name** field, enter up to 30 alphanumeric characters for the mailer name to print in Box D3 on the USPS Form 3553 (CASS Summary Report).

---

**NOTE:** The mailer fields described here allow more than 30 characters; however, only 30 characters can be written to each line in the D3 box on the USPS Form 3553 (CASS Summary Report).

---

3. In the **Mailer City Line** field, enter up to 30 alphanumeric characters for the mailer city, state, and ZIP Code to print in Box D3 on the USPS Form 3553 (CASS Summary Report).

4. In the **Mailer Address** field, enter up to 30 alphanumeric characters for the mailer address to print in Box D3 on the USPS Form 3553 (CASS Summary Report).
5. In the **List Processor** field, enter the name of the list processor. This is usually your company's name.

## Defining Your Job Output

To identify the returned data options and the path and filenames for the output files for your Job File (.job), select the *Output* tab.

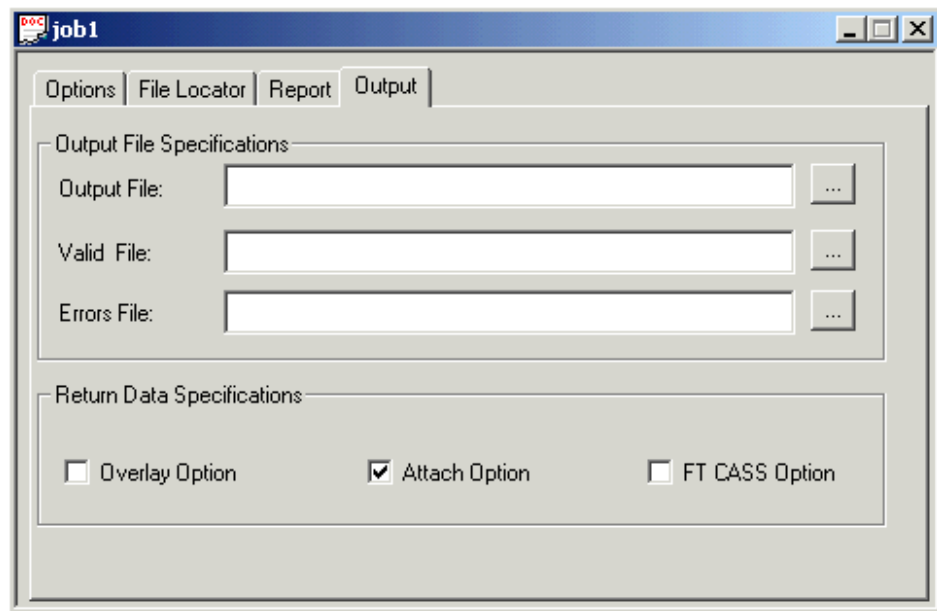


Figure 6: Batch Job Set Up Dialog Box - Output Tab

To define the output for your batch job, follow these steps:

1. In the **Output File** field (optional), enter the name of the Output File that will contain all records passed to the driver. Click on the Browse button (located to the right of the field) to open a dialog box to specify a path and file name for the Output File.

2. In the **Valid File** field (optional), enter the name of the file to contain all records passed to the driver that were successfully coded. Click on the Browse button (located to the right of the field) to open a dialog box to specify a path and file name for the Valid File.
3. In the **Errors File** (optional), enter the name of the file to contain all records passed to the driver that failed coding attempts. Click on the Browse button (located to the right of the field) to open a dialog box to specify a path and file name for the Errors File.
4. To overwrite your original input file with the processing results of the driver program, click **Overlay Option**. For information on overlay processing, refer to [Chapter 7, "Running Jobs With the Batch Driver"](#).

---

**NOTE:** Proceed with caution when selecting overlay processing to avoid losing your original address information.

---

5. To have the driver program write the returned information and a copy of the original input record to a separate output file, click **Attach Option**. The driver writes the information in the following order:

1. Original input record
2. Processing results
3. Error code

For detailed information on attach processing, refer to [Chapter 7, "Running Jobs With the Batch Driver"](#).

6. To return data in the Pitney Bowes Software VeriMove format, click **FT CASS Option**.

## Saving Your Job File

---

Your changes do not become a permanent part of your Job file until you save the changes. To save the Job file you created or changed, click on the Save button or click on Save from the File menu.

To close the Job File without saving any changes, click on the Close button in the top right corner of the screen or click Close from the File menu.

## Running a Batch Job

You can use the Batch Option to start the driver program. To start the driver program:

1. From the *Tools* Menu, click **Run Batch Job**. The Open dialog box displays.
2. Use the *Open* dialog box to navigate to and select the batch job to run.
3. Click the **Open** button to start the driver program and the Finalist postal coding process.
4. A window displays processing statistics and error messages as processing continues along with the file names for all files created during processing.

## Accessing the Finalist Help

To access the entire set of Finalist documentation from a single access point in an online Help format, click **Help > Contents**.

You can also select **Help** then **Developers Reference**, **Getting Started**, **Installation Guide**, or **Working With Guide** to access each guide individually.

## Accessing Version Information

You can use the About Workbench Option to access current version information. From the **Help** menu, click **About Workbench**. The About Workbench dialog box displays the current version information for the Finalist Workbench. Click **OK** to return to the Workbench.



# CHAPTER 2

---

## Configuring Finalist

This chapter provides information on configuring your Finalist application.

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## Using the pbfncfg File to Configure Finalist

This section provides guidelines for using the pbfncfg file to configure your Finalist installation.

### What is the pbfncfg Configuration File?

---

The settings in the Finalist pbfncfg configuration file determine how Finalist processes your files. During installation, the pbfncfg file is placed in the **bin** directory with default settings. You can process with Finalist using the default settings in the pbfncfg file or you can change the settings in the pbfncfg file for your specific installation site.

For example, the default file name for the Finalist Batch Report file is **batch.txt**. You can edit the **Batch Report Filename** field in pbfncfg to use a different name for the Finalist Batch Report file.

### Altering the pbfncfg Configuration File

---

You can alter the pbfncfg configuration file using your application or any ASCII text editor. After you modify the pbfncfg file, the PBFNInit function loads the desired parameters. If you do not wish to use the pbfncfg configuration file to save setup parameters for your user-written application, you can store these values elsewhere. In that case, instead of using the PBFNInit call, you would allocate your own PBFNSetupDef structure, fill in the appropriate information, and pass that PBFNSetupDef structure directly to the PBFNInit call. The following is a sample pbfncfg configuration file for the Windows and Unix platforms.

```
File Section:
-----
City Directory Filename =
ZIP+4 Directory Filename 1 =

CASS Section:
-----
Batch Report Filename = batch.txt
3553 Report Filename =
CASS Company Name =
CASS Product Name =
CASS Product Version =
Z4 Change Certified Company Name =
Z4 Change Product Name =
Z4 Change Product Version =
LOT Certified Company Name =
LOT Certified Product Name =
LOT Certified Product Version =
DPC Certified Company Name =
DPC Certified Product Name =
DPC Certified Product Version =
CASS Mailer Name =
CASS Mailer Address =
CASS Mailer Address2 =
CASS Mailer Address3 =
CASS Mailer Address4 =
CASS Mailer City Line =
```

```

CASS Configuration = AAA
Batch Report = ON
3553 Report = ON

Process Section:
-----
CASS Flag = ON
Assign Carrier Routes = ON
Assign Unassign Records =
Assign Abbreviated City = OFF
CASS Standardize Case = U
Cache Size = 12
Beginning Frame Char = !
End Frame Char = !
Return DPBC = ON
Dual Address Switch = P
Return Alias Street Name =
Assign LOT = OFF
Padded String Data =
Process LOT Only =
Uppercase Input =
Remove Noise Characters =
Process Firms = ON
Return Input Firm =
All Street Matching =
Number Exception Table Entries =
Suggestion Count = 10

Product Section:
-----
Exception Table Filename =
EWS Filename =
LOT Filename =
DPV Filepath =
RDI Filepath =
LACSLink Filepath =
Sui teLink Filepath =
Early Warning System =
Delivery Point Validation =
DPV Shutdown Indicator =
Delivery Point Validation Tie Break =
DPV No-Stat Table =
DPV Vacant Table =
DPV Buffer Size =
Residential Delivery Indicator =
Commercial Mail Validation =
LACSLink =
LACSLink Processing =
Sui teLink =
Sui teLink Small Memory Flag =
Sui teLink Shutdown Indicator =
Return SLK Input Secondary =
SOFTWARE KEY =
DPVKey =
LACSLink Key =

Report Section:
-----
Report Filename = report.txt
Report Title = Finalist Report File From PBFN.CFG
Address Detail Report PAGE LEN = 0
Address Detail Report MAX REC = 0
Address Detail Report NTH REC = 0
Address Detail Report Type =
Address Detail Report Isol =
Address Detail Report Sugg =
Address Detail Report Info =

Log Msg Section:
-----
Log Filename = log.txt
Log Level = 3

```

The following table provides a description for each field in the pbfncfg configuration file.

Table 1: Finalist pbfncfg Configuration File (Part 1 of 15)

| Section                    | Configuration Setting                                                                                             | Description                                                                                                                                                                            |
|----------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| File                       | City Directory Filename                                                                                           | Identifies the City Database file name.                                                                                                                                                |
|                            | ZIP + 4 Directory Filename 1                                                                                      | Identifies the ZIP + 4 Database file name.                                                                                                                                             |
| CASS                       | Batch Report Filename                                                                                             | Output file name for the Finalist Batch Report. If you do not enter the output file name in the pbfncfg File, Finalist uses the default file name <b>batch.txt</b> .                   |
|                            | 3553 Report Filename                                                                                              | Output file name for the USPS Form 3553 (CASS Summary Report). If you do not enter the output file name in the pbfncfg File, Finalist uses the default file name <b>cass3553.txt</b> . |
|                            | CASS Company Name                                                                                                 | Name of the CASS-certified company. This information displays in section A box 1 on the USPS Form 3553 (CASS Summary Report).                                                          |
|                            | CASS Product Name                                                                                                 | Name of the CASS-certified product. This information displays in section A box 2 on the USPS Form 3553 (CASS Summary Report).                                                          |
|                            | CASS Product Version                                                                                              | Version number for the CASS-certified product. This information displays in section A box 2 on the USPS Form 3553 (CASS Summary Report).                                               |
|                            | Z4 Change Certified Company Name                                                                                  | Z4Change-certified company name. This information displays in section A box 4 on the USPS Form 3553 (CASS Summary Report).                                                             |
|                            | Z4 Change Product Name                                                                                            | Z4Change product name. This information displays in section A box 5 on the USPS Form 3553 (CASS Summary Report).                                                                       |
|                            | Z4 Change Product Version                                                                                         | Z4Change product version number. This information displays in section A box 5 on the USPS Form 3553 (CASS Summary Report).                                                             |
|                            | LOT Certified Company Name                                                                                        | Line of Travel (LOT)-certified company name. This information displays in section A box 10 on the USPS Form 3553 (CASS Summary Report).                                                |
|                            | LOT Certified Product Name                                                                                        | Line of Travel (LOT)-certified product name. This information displays in section A box 11 on the USPS Form 3553 (CASS Summary Report).                                                |
|                            | LOT Certified Product Version                                                                                     | Version number for the Line of Travel (LOT)-certified product. This information displays in section A box 11 on the USPS Form 3553 (CASS Summary Report).                              |
|                            | DPC Certified Company Name                                                                                        | DirectDPV company name. This information displays in section A box 7 on the USPS Form 3553 (CASS Summary Report).                                                                      |
| DPC Certified Product Name | DirectDPV product name. This information displays in section A box 8 on the USPS Form 3553 (CASS Summary Report). |                                                                                                                                                                                        |

Table 1: Finalist pbfncfg Configuration File (Part 2 of 15)

| Section | Configuration Setting         | Description                                                                                                                                                                                                                                                                                                   |
|---------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | DPC Certified Product Version | This information displays in section A box 8 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                                                                     |
|         | CASS Mailer Name              | Mailer's name. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                                                      |
|         | CASS Mailer Address           | Mailer's address. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                                                   |
|         | CASS Mailer Address 2         | Additional address lines for Mailer's address. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                      |
|         | CASS Mailer Address 3         | Additional address lines for Mailer's address. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                      |
|         | CASS Mailer Address 4         | Additional address lines for Mailer's address. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                      |
|         | CASS Mailer City Line         | Mailer's city, state, and ZIP Code information. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                     |
|         | CASS Configuration            | CASS configuration value. This information displays in section A box 3 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                                           |
|         | Batch Report                  | Indicate whether to print the Finalist Batch Report: <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not print the Finalist Batch Report</li> <li>• <b>ON</b> — Print the Finalist Batch Report</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                |
|         | 3553 Report                   | Indicate whether to print the USPS Form 3553 (CASS Summary Report): <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not print the USPS Form 3553 (CASS Summary Report).</li> <li>• <b>ON</b> — Print the USPS Form 3553 (CASS Summary Report).</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul> |

Table 1: Finalist pbfncfg Configuration File (Part 3 of 15)

| Section | Configuration Setting   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Process | CASS Flag               | <p>Indicate whether Finalist processes in a non-CASS or CASS mode. This field determines whether Finalist checks expiration dates for bases and engines. Valid values are:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Process in non-CASS mode. Finalist will not check bases and engines for expiration dates.</li> <li>• <b>ON</b> — Process in CASS mode. Finalist will check bases and engines for expiration dates.</li> <li>• blank — Defaults to <b>ON</b>.</li> </ul> <p><b>NOTE:</b> If CASS Flag = ON and a conflicting option is encountered (Configuration, Assign CR, Return DPBC, LACSLink=OFF, SuiteLink=OFF, or DPV=OFF), a warning message is written to the log file indicating that CASS has been forced off and the reason for CASS being forced off. The message is similar to:</p> <p>Warning Message: CASS forced off: CASS Configuration, Return DPBC, Assign CR, Assign SuiteLink, Assign LACSLink, Assign DPV</p>                                                                                                                                                                                                                                                                                                                            |
|         | Assign Carrier Routes   | <p>Indicate whether Finalist assigns carrier route codes to your file:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not assign carrier route codes.</li> <li>• <b>ON</b> — Assign carrier route codes.</li> <li>• blank — Defaults to <b>ON</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|         | Assign Unassign Records | <p>Indicate how to code previously unassigned or expired addresses. For more information on the assign/unassign feature, refer to the description of the cProcessUnassigned field of the PBFNSetupDef structure.</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Process all supplied addresses.</li> <li>• <b>ON</b> — Process only previously unassigned or expired addresses. If an encrypted address assignment date [cProcessDate] in the PBFNProcessDataDef structure is passed to Finalist and that assignment date meets USPS regulations for valid address records, Finalist will not process that record but will include that record as valid for CASS record counts. If a record has not been previously coded and a date assigned, Finalist will also process that record. Records bypassed and counted will return with a 5200 error code. This date must be stored and passed on subsequent processing runs.</li> <li>• <b>XXX</b> — Number of elapsed days since address was assigned. This number can be any value from 1 to the USPS determined number of days an address is valid. That value is currently set to 180. If a number greater than 180 is entered, the USPS expiration days are used.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul> |

Table 1: Finalist pbfncfg Configuration File (Part 4 of 15)

| Section | Configuration Setting   | Description                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Assign Abbreviated City | <p>Indicate whether to return abbreviated city names in the label lines.</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not return abbreviated city names.</li> <li>• <b>ON</b> — Return abbreviated city names.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                         |
|         | CASS Standardize Case   | <p>Indicate whether to return addresses in all upper, all lower, or mixed upper and lower case. This field affects the address coding output only.</p> <ul style="list-style-type: none"> <li>• <b>U</b> — Return addresses in all upper case.</li> <li>• <b>L</b> — Return addresses in all lower case.</li> <li>• <b>M</b> — Return addresses in upper and lower case.</li> <li>• blank — Defaults to <b>U</b>.</li> </ul> |
|         | Cache Size              | <p>Indicate whether Finalist should use internal caching.</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Turn off internal caching for Finalist.</li> <li>• <b>XX</b> — Replace "XX" with a value between 12-99 for the number of buffers used for internal caching.</li> <li>• The default value for z/OS is <b>30</b>. The default value for all other operating systems is <b>12</b>.</li> </ul>               |
|         | Beginning Frame Char    | <p>Specify the character to use for the front framing character for advanced barcodes.</p> <p>If you do not specify a character for BegFrame or EndFrame, Finalist uses the exclamation point (!) as the default value.</p>                                                                                                                                                                                                  |
|         | End Frame Char          | <p>Specify the character to use for the end framing character for advanced barcodes.</p> <p>If you do not specify a value here, the <b>BegFrame character</b> is used as the default value. If you do not specify a character for BegFrame or EndFrame, Finalist uses the exclamation point (!) as the default value.</p>                                                                                                    |
|         | Return DPBC             | <p>Indicate whether to return delivery point barcodes:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not return delivery point barcodes.</li> <li>• <b>ON</b> — Return delivery point barcodes.</li> <li>• blank — Defaults to <b>ON</b>.</li> </ul>                                                                                                                                                          |

Table 1: Finalist pbfncfg Configuration File (Part 5 of 15)

| Section | Configuration Setting | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Dual Address Switch   | <p>Specify the order for processing and matching addresses when the input file contains dual addresses (one a conventional address, a second containing a PO Box address). If the selected address is valid, processing stops. If the selected address does not validate, Finalist attempts to code the secondary address.</p> <ul style="list-style-type: none"> <li>• <b>ACZ</b> — Above city and ZIP Code line. The address line closest to the last line in the address is given the highest priority in the match process. Any address line above the last line is not used for matching.</li> <li>• <b>L12</b> — Line 1 in the dual address is given the highest priority in the match process.</li> <li>• <b>L21</b> — Line 2 in the dual address is given the highest priority in the match process.</li> <li>• <b>A</b> — The conventional address is given the highest priority in the match process.</li> <li>• <b>P</b> — The PO Box address is given the highest priority in the match process.</li> <li>• <b>1ST</b> — The first valid address (in the order Address line 1 and then Address line 2) is given the highest priority in the match process.</li> <li>• blank — Defaults to <b>ACZ</b>.</li> </ul> <p>When dual addresses are contained on a single line and cCASSFlag is set to ON, the USPS address type priority is used in the following order:</p> <ol style="list-style-type: none"> <li>1. PO Box</li> <li>2. Firm</li> <li>3. Highrise</li> <li>4. Street</li> <li>5. Rural Route</li> <li>6. General Delivery</li> </ol> |



Table 1: Finalist pbfncfg Configuration File (Part 6 of 15)

| Section | Configuration Setting    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Return Alias Street Name | <p>Indicates whether Finalist returns alias street names in label lines. An alias street name is an alternate name for a street, maintained at the range Plus4 ZIP Code level. An alias street name can be a nickname alias street name of a preferred alias street name.</p> <ul style="list-style-type: none"> <li>• <b>ON</b> - If the input address matches to an alias, return the alias. If the input address matches to a base address, but a Preferred alias exists, return the Preferred alias. If the input address matches to a base address and no Preferred alias exists, return the base address.</li> <li>• <b>PX0</b> - If a Preferred alias exists, return the Preferred alias. If no Preferred alias exists, but an Abbreviated alias exists, return the Abbreviated alias. If no Abbreviated or Preferred alias exists, but some other alias does exist, return the alias. If no alias of any kind exists, return the base street name.</li> <li>• <b>OFF   P</b> — If a Preferred alias exists, return the Preferred alias. Otherwise, return the base street.</li> <li>• <b>PX</b> — If a Preferred alias exists, return the Preferred alias. If no Preferred alias exists, but an Abbreviated alias exists, return the Abbreviated alias. If neither exists, return the base street name.</li> <li>• <b>XPO</b> — If an Abbreviated alias exists, return the Abbreviated alias. If no Abbreviated alias exists, but a Preferred alias exists, return the Preferred alias. If no Abbreviated or Preferred alias exists, but some other alias does exist, return the alias. If no alias of any kind exists, return the base street name.</li> <li>• <b>XP   X</b> — If an Abbreviated alias exists, return the Abbreviated alias. If no Abbreviated alias exists, but a Preferred alias exists, return the Preferred alias. If neither exists, return only the base street name.</li> <li>• Blank — Defaults to <b>OFF</b>.</li> </ul> |
|         | Assign LOT               | <p>Indicate whether to assign Line of Travel (LOT) codes:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not assign Line of Travel (LOT) codes.</li> <li>• <b>ON</b> — Assign Line of Travel (LOT) codes.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|         | Padded String Data       | <p>If you use a platform or coding language (for example, COBOL) that does not support null terminated strings, you will need to pad all fields with blanks. Indicate whether you use input/output fields that are padded with blanks or null terminated:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Use null terminated strings.</li> <li>• <b>ON</b> — Use blank filled fields.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Table 1: Finalist pbfncfg Configuration File (Part 7 of 15)

| Section | Configuration Setting   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Process LOT Only        | <p>Indicate whether to perform only eLOT processing:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Perform normal Finalist processing.</li> <li>• <b>ON</b> — Perform eLOT processing only. <b>If you specify "ON" for this field, Finalist does not perform address cleansing.</b> A fully-coded address record will be passed to the engine. Finalist performs an eLOT lookup and returns the eLOT code.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                  |
|         | Uppercase Input         | <p>Indicate if your input data is in an all uppercase format:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Input data may not be in an all uppercase format. Convert input data to an all uppercase format.</li> <li>• <b>ON</b> — All input data is in an all uppercase format. To improve performance, do not perform the all uppercase format conversion.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul> <p><b>NOTE:</b> Mainframe data tends to be all uppercase.</p>                                                                 |
|         | Remove Noise Characters | <p>Indicate whether to remove noise characters (unnecessary punctuation and blanks):</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Input data does not contain unnecessary punctuation and/or blanks. Bypass the Finalist routine that removes noise characters. To improve performance, bypass the routine that checks each line for noise characters.</li> <li>• <b>ON</b> — Input data may contain unnecessary punctuation and blanks. Remove noise characters.</li> <li>• blank — Defaults to <b>ON</b>.</li> </ul>                           |
|         | Process Firms           | <p>Indicate whether to perform firm processing:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not process firms. If you do not store firm names, or are not interested in matching to a firm level (for non-CASS mode processing only), specify "OFF" for this field to bypass firm processing and improve performance. Finalist will not load or use the firm portion of the database to improve performance.</li> <li>• <b>ON</b> — Finalist performs normal CASS processing for firms.</li> <li>• blank — Defaults to <b>ON</b>.</li> </ul> |
|         | Return Input Firm       | <p>Indicate whether to return the input firm:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not return the input firm.</li> <li>• <b>ON</b> — Return the input firm.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                     |

Table 1: Finalist pbfncfg Configuration File (Part 8 of 15)

| Section        | Configuration Setting          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | All Street Matching            | <p>Indicate whether to perform All Street Matching (ASM) processing. All Street Matching (ASM) applies additional matching logic to correct errors in street names and obtain a match. For example, when the first letter of a street is misspelled or missing on input, this feature will search all street names in a locality to find an input address. ASM provides the best address validation but may reduce performance. ASM processing is available for U.S. addresses only. Valid values are:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform ASM processing.</li> <li>• <b>ON</b> — Perform ASM processing.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul> |
|                | Number Exception Table Entries | <p>Specify the maximum number of exception table entries.</p> <ul style="list-style-type: none"> <li>• blank — Defaults to <b>1000</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                | Suggestion Count               | <p>Specify the maximum number of returned suggestions per address based on the specified suggestion criteria.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Product</b> | Exception Table Filename       | Specify the Exceptions Table file name and path.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                | EWS Filename                   | Specify the Early Warning System (EWS) file name and path.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                | LOT Filename                   | Specify the Line of Travel (LOT) file name and path.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                | DPV Filepath                   | Specify the Delivery Point Validation (DPV) file path.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                | RDI Filepath                   | Specify the Residential Delivery Indicator (RDI) File path.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                | LACSLink Filepath              | Specify the LACS <sup>Link</sup> File path.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                | SuiteLink Filepath             | Specify the Suite <sup>Link</sup> File path.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                | Early Warning System           | <p>Indicate whether to perform Early Warning System (EWS) processing:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform Early Warning System (EWS) processing.</li> <li>• <b>ON</b> — Perform Early Warning System (EWS) processing</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                     |

Table 1: Finalist pbfncfg Configuration File (Part 9 of 15)

| Section | Configuration Setting     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Delivery Point Validation | <p>Indicate whether to perform Delivery Point Validation (DPV) processing:</p> <p><b>NOTE:</b> The USPS CASS regulations require Delivery Point Validation (DPV) processing to generate the USPS Form 3553 (USPS CASS Summary Report).</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform Delivery Point Validation (DPV) processing.</li> <li>• <b>ON</b> — Perform Delivery Point Validation (DPV) processing using the DPV Full database (dpvh.db).</li> <li>• <b>MEM</b> — Perform Delivery Point Validation (DPV) processing with the DPV Full database (dpvh.db) fully in memory for improved performance.</li> </ul> <p><b>NOTE:</b> MEM is converted to ON with DPV Buffer Size=H.</p> <ul style="list-style-type: none"> <li>• <b>SPL</b> — Perform Delivery Point Validation (DPV) processing using the DPV Split database (dpvs.db). Split File processing separates the DPV Data File into 100 smaller files based on the first two digits of the ZIP Code. The Split File segment associated with the first two digits of the ZIP Code is loaded into memory. If you sort your mailing file by ZIP Code, you can bring the relevant portion of the DPV file into memory. This process reduces the number of I/O requests that normally occurs when you use the full DPV Data File. Use this option if your file is sorted by ZIP Code. This is the optimal solution for Finalist customers having at least 100MB, but no more than 650MB, of RAM/Memory.</li> <li>• <b>FLT</b> — Perform Delivery Point Validation (DPV) processing using the DPV Flat database (dpv.db). Use the DPV Flat File for improved batch performance. This file is in excess of 2.1GB and not dependent on RAM/Memory capacity. Input files should be sorted by ZIP Code. This is an optimal solution if you have less than 100MB of RAM/Memory available.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul> |

Table 1: Finalist pbfncfg Configuration File (Part 10 of 15)

| Section | Configuration Setting  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | DPV Shutdown Indicator | <p>Indicate the action to take when encountering a DPV Seed during the processing run:</p> <ul style="list-style-type: none"> <li>• <b>W</b> — Issue warning message when a DPV Seed has been encountered. Processing continues but DPV processing is disabled.</li> <li>• <b>S</b> — Stop processing when encountering a DPV Seed. Finalist issues an error message, stops processing succeeding addresses, and exits the program.</li> <li>• blank — Defaults to <b>W</b>.</li> </ul> <p><b>NOTE:</b> If a DPV seed is encountered and <b>W</b> is set, CASS processing is turned off.</p> <p>CASS processing is turned off for any jobs submitted after the DPV False Positive (Seed) violation was encountered.</p> <p>For the job that encountered the DPV False Positive (Seed) violation, the CASS statement is provided showing the number of records that were DPV confirmed up until the point of the DPV False Positive (Seed) violation. No records will be DPV confirmed after the DPV False Positive (Seed) violation occurred.</p> <p>Any jobs submitted before the DPV False Positive (Seed) violation was encountered will run through to completion, including DPV processing for each file. This occurs even if the jobs do not complete processing until after the time the DPV False Positive (Seed) violation was found in the job that first encountered the DPV False Positive (Seed) violation. Finalist generates the USPS Form 3553 (CASS Summary Report) for these jobs.</p> <p>For any job set to perform CASS processing and submitted after a DPV False Positive (Seed) violation occurs, Finalist generates an initialization error and stops processing.</p> <p><b>NOTE:</b> The Shutdown Indicator applies to batch processing only. If your DPV key is NCOA or “No-Stop”, this option is ignored.</p> |

Table 1: Finalist pbfncfg Configuration File (Part 11 of 15)

| Section | Configuration Setting               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Delivery Point Validation Tie Break | <p>The USPS allows DPV processing to be used as a tie breaker for matching inexact street records. If only one of the records in a tie is delivery point validated, a match is allowed to the inexact record. When processing results in an inexact match due to the input address directional, DPV processing can be used as a tie breaker if only one of the records is found to be delivery point validated and the delivery point validated record does not violate the cardinal direction rule.</p> <p><b>NOTE:</b> The USPS CASS regulations require DPV Tie Break processing to generate the USPS Form 3553 (USPS CASS Summary Report).</p> <p>Indicate whether to perform DPV Tie Breaker processing:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform DPV Tie Breaker processing.</li> <li>• <b>ON</b> — Perform DPV Tie Breaker processing. The DPV Tie Breaker Option can increase your matching percentages but can also negatively impact performance. For memory loading options, refer to the section "Delivery Point Validation (DPV) Option" in your <i>Getting Started With Finalist Guide</i>.</li> <li>• blank — Defaults to <b>ON</b>.</li> </ul> <p><b>NOTE:</b> The default value "ON" only applies when "Delivery Point Validation" is defined as ON, MEM, SPL, or FLT.</p> |
|         | DPV No-Stat Table                   | <p>The USPS has added a No-Stat Table for DPV processing to identify deliveries that are not valid for Computerized Delivery Sequence (CDS) pre-processing. Indicate whether to use the No-Stat Table and return the proper No-Stat code to the output:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform No-Stat Table processing.</li> <li>• <b>ON</b> — Perform No-Stat Table processing.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|         | DPV Vacant Table                    | <p>The USPS has added a Vacant Table for DPV processing. This table identifies delivery addresses that have been active in the past but, according to USPS data, have not been occupied within the last 90 days. Indicate whether to use the Vacant Table and return the proper Vacant code to the output:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform Vacant Table processing.</li> <li>• <b>ON</b> — Perform Vacant Table processing. For memory loading options, refer to the section "Delivery Point Validation (DPV) Option" in your <i>Getting Started With Finalist Guide</i>.</li> <li>• Blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

Table 1: Finalist pbfncfg Configuration File (Part 12 of 15)

| Section | Configuration Setting          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | DPV Buffer Size                | <p>Indicates the memory model for DPV processing:</p> <ul style="list-style-type: none"> <li>• <b>P</b> — Pico. Stores no data in memory. No tables or indexes are loaded.</li> <li>• <b>U</b> — Ultra-small. Stores no data in memory. Partial indexes are loaded.</li> <li>• <b>S</b> — Small</li> <li>• <b>M</b> — Medium</li> <li>• <b>L</b> — Large</li> <li>• <b>H</b> — Huge. Stores all data in memory.</li> <li>• blank — Defaults to <b>M</b>.</li> </ul> <p>Values from releases prior to the Finalist 8.0.0 release are accepted as:</p> <ul style="list-style-type: none"> <li>• If you specified 0, M is substituted.</li> <li>• If you specified 1, U is substituted</li> <li>• If you specified a value greater than 1 but less than or equal to 30, S is substituted.</li> <li>• If you specified a value greater than 30 but less than or equal to 500, M is substituted.</li> <li>• If you specified a value greater than 500, but less than or equal to 900, L is substituted.</li> <li>• If you specified a value greater than 900, H is substituted.</li> </ul> |
|         | Residential Delivery Indicator | <p>Indicate whether to perform Residential Delivery Indicator (RDI) processing:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform Residential Delivery Indicator (RDI) processing.</li> <li>• <b>ON</b> — Perform Residential Delivery Indicator (RDI) processing.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|         | Commercial Mail Validation     | <p>Indicate whether to perform CMRA processing. Private companies offering mailbox rental services to individuals and businesses are Commercial Mail Receiving Agents (CMRA).</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform CMRA processing.</li> <li>• <b>ON</b> — Perform CMRA processing.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Table 1: Finalist pbfncfg Configuration File (Part 13 of 15)

| Section | Configuration Setting       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | LACSLink                    | <p>Indicate whether to perform LACSLink processing. The USPS CASS regulations require LACSLink processing. If you do not perform LACSLink processing, Finalist does not generate a USPS Form 3553 (CASS Summary Report).</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform LACSLink processing. Finalist does not generate the USPS Form 3553 (CASS Summary Report).</li> <li>• <b>ON</b> — Perform LACSLink processing. Finalist generates the USPS Form 3553 (CASS Summary Report).</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                   |
|         | LACSLink Processing         | <p>Indicates the memory model for LACSLink processing:</p> <ul style="list-style-type: none"> <li>• <b>P</b> — Pico. Stores no data in memory. No tables or indexes are loaded.</li> <li>• <b>U</b> — Ultra-small. Stores no data in memory. Partial indexes are loaded.</li> <li>• <b>S</b> — Small</li> <li>• <b>M</b> — Medium</li> <li>• <b>L</b> — Large</li> <li>• <b>H</b> — Huge. Stores all data in memory.</li> </ul> <p>blank — Defaults to <b>S</b>.</p>                                                                                                                                                                                                                                 |
|         | SuiteLink                   | <p>Indicate whether to perform SuiteLink processing:</p> <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not perform SuiteLink processing.</li> <li>• <b>ON</b> — Perform SuiteLink processing.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|         | SuiteLink Small Memory Flag | <p>Indicates the memory model for SuiteLink processing:</p> <ul style="list-style-type: none"> <li>• <b>P</b> — Pico. Stores no data in memory. No tables or indexes are loaded.</li> <li>• <b>U</b> — Ultra-small. Stores no data in memory. Partial indexes are loaded.</li> <li>• <b>S</b> — Small</li> <li>• <b>M</b> — Medium</li> <li>• <b>L</b> — Large</li> <li>• <b>H</b> — Huge. Stores all data in memory.</li> </ul> <p>blank — Defaults to <b>L</b>.</p> <p>Values from releases prior to the Finalist 8.0.0 release are accepted as:</p> <ul style="list-style-type: none"> <li>• If you specified ON, L is substituted.</li> <li>• If you specified OFF, U is substituted.</li> </ul> |



Table 1: Finalist pbfncfg Configuration File (Part 14 of 15)

| Section               | Configuration Setting        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | SuiteLink Shutdown Indicator | <p>Indicate the action to take when encountering a Suite<sup>Link</sup> processing error during the processing run. Valid values are:</p> <ul style="list-style-type: none"> <li>• <b>W</b> — Issue warning and turn off Suite<sup>Link</sup> processing.</li> <li>• <b>S</b> — Stop Finalist processing when encountering a Suite<sup>Link</sup> error.</li> <li>• <b>I</b> — Ignore errors and continue Suite<sup>Link</sup> processing.</li> <li>• blank — Defaults to <b>W</b>.</li> </ul> <p><b>NOTE:</b> USPS regulations require Suite<sup>Link</sup> processing for CASS certification and to generate a USPS Form 3553 (CASS Summary Report). Per the USPS regulations, any job that does not include Suite<sup>Link</sup> processing, must not generate the USPS Form 3553 (CASS Summary Report). If you are processing in a CASS-certified mode (CASS=ON), Finalist sets the Suite<sup>Link</sup> Shutdown Indicator to "S" in order to stop processing if the Suite<sup>Link</sup> initialization fails and to prevent generation of an invalid USPS Form 3553 (CASS Summary Report).</p> |
|                       | Return SLK Input Secondary   | <p>Indicates how to return secondary information when Suite<sup>Link</sup> secondary information is available.</p> <ul style="list-style-type: none"> <li>• <b>B</b> — Both. Return both Suite<sup>Link</sup> and input secondary information. (This is the Default).</li> <li>• <b>S</b> — Suite<sup>Link</sup>. Return Suite<sup>Link</sup> secondary only. Do not return input secondary.</li> <li>• <b>I</b> — Input. Return input secondary only. Do not return Suite<sup>Link</sup> secondary.</li> <li>• <b>N</b> — None. Do not return Suite<sup>Link</sup> secondary or input secondary.</li> <li>• blank — Defaults to <b>B</b>.</li> </ul> <p><b>NOTE:</b> If Suite<sup>Link</sup> processing does not result in a match, Finalist ignores this option and returns the normal address output. Regardless of the option specified, the output ZIP + 4 is based on the match made using the Suite<sup>Link</sup> secondary. Input secondary information includes the "#" designator for purposes of this option.</p>                                                                         |
|                       | Software Key                 | Enter your Finalist activation key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                       | DPVKey                       | Enter the Delivery Point Validation (DPV) activation key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                       | LACSLink Key                 | Enter the LACS <sup>Link</sup> activation key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Report Section</b> | Report Filename              | <p>Specify the Address Detail Report output file name.</p> <ul style="list-style-type: none"> <li>• blank — Defaults to <b>rpt.txt</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                       | Report Title                 | Specify the title of the Address Detail Report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Table 1: Finalist pbfncfg Configuration File (Part 15 of 15)

| Section | Configuration Setting          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Address Detail Report PAGE LEN | Specify the maximum page length for the Address Detail Isolation Report.                                                                                                                                                                                                                                                                                                                                                                       |
|         | Address Detail Report MAX REC  | Specify the maximum number of records to output to the Address Detail Isolation Report.                                                                                                                                                                                                                                                                                                                                                        |
|         | Address Detail Report NTH REC  | Specify the records to print on the Address Detail Isolation Report (for example, print every 8th record).                                                                                                                                                                                                                                                                                                                                     |
|         | Address Detail Report Type     | Indicate whether to print the Address Detail Report: <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not print the Address Detail Report.</li> <li>• <b>ON</b> — Print the Address Detail Report.</li> <li>• <b>ERR</b> — Print only failed addresses on the Address Detail Report.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                             |
|         | Address Detail Report Isol     | Indicate whether to print the Address Detail Isolation Report: <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not print the Address Detail Isolation Report.</li> <li>• <b>ON</b> — Print the Address Detail Isolation Report.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                                 |
|         | Address Detail Report Sugg     | Indicate whether to print the Address Detail Suggestion Report: <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not print the Address Detail Suggestion Report.</li> <li>• <b>ON</b> — Print the Address Detail Suggestion Report.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                              |
|         | Address Detail Report Info     | Indicate whether to print the Address Detail Information Report: <ul style="list-style-type: none"> <li>• <b>OFF</b> — Do not print the Address Detail Information Report.</li> <li>• <b>ON</b> — Print the Address Detail Information Report.</li> <li>• blank — Defaults to <b>OFF</b>.</li> </ul>                                                                                                                                           |
| Log Msg | Log Filename                   | Specify the Log file name and path.                                                                                                                                                                                                                                                                                                                                                                                                            |
|         | Log Level                      | Indicates the level of the message to log: <ul style="list-style-type: none"> <li>• <b>0</b> — No messages.</li> <li>• <b>1</b> — Critical messages.</li> <li>• <b>2</b> — Error and critical messages.</li> <li>• <b>3</b> — Warning, error, and critical messages.</li> <li>• <b>4</b> — Information, warning, error, and critical messages.</li> <li>• <b>5</b> — Debugging, information, warning, error, and critical messages.</li> </ul> |

## Using the Workbench or Lookup Tool to Configure Finalist

You can use the PBFN Setup Option to configure your Finalist application. To use the PBFN Setup Option to configure your Finalist application, use one of the following methods to access the *PBFN Config Setting* dialog box:

- From the Workbench, click **Tools > PBFN Setup**.
- From the Lookup Tool, click **Edit > Config**.

### Defining Your Files

To define the files to use for Finalist processing, follow these steps:

1. From the *PBFN Config Setting* dialog box, click the **Files** tab.

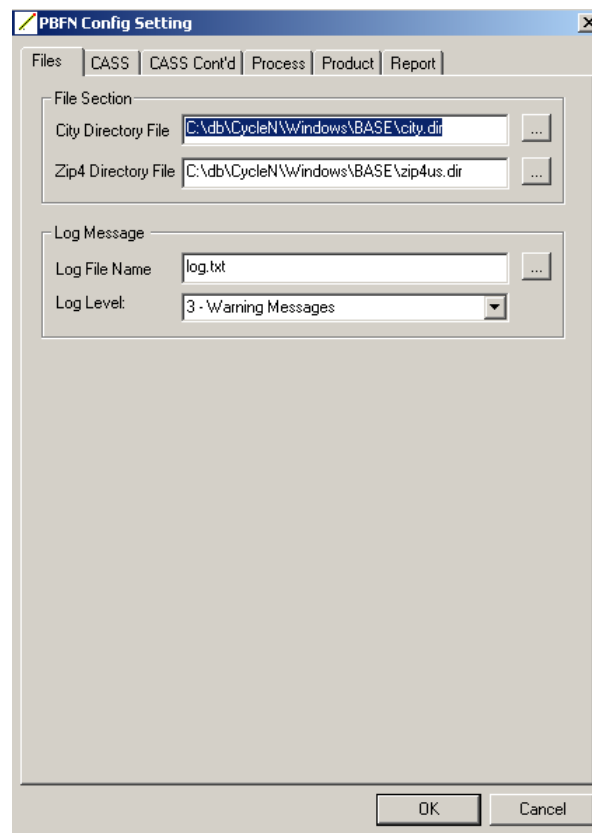


Figure 1: PBFN Config Setting Dialog Box - Files Tab

2. In the **City Directory File** field, enter the name and path to the City database file. Click on the Browse button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.

3. In the **Zip 4 Directory File** field, enter the name and path to the ZIP + 4 database file. Click on the Browse button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.
4. In the **Log Filename** field, enter the name and path to the Log file. Click on the Browse button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.
5. In the Log Level field, from the drop down list, select the level of the messages to log:
  - **0** — No messages.
  - **1** — Critical messages.
  - **2** — Error and critical messages.
  - **3** — Warning, error, and critical messages.
  - **4** — Information, warning, error, and critical messages.
  - **5** — Debugging, information, warning, error, and critical messages.

## Defining CASS Options

To define your files for Finalist processing, follow these steps:

1. From the *PBFN Config Setting* dialog box, click **CASS**.

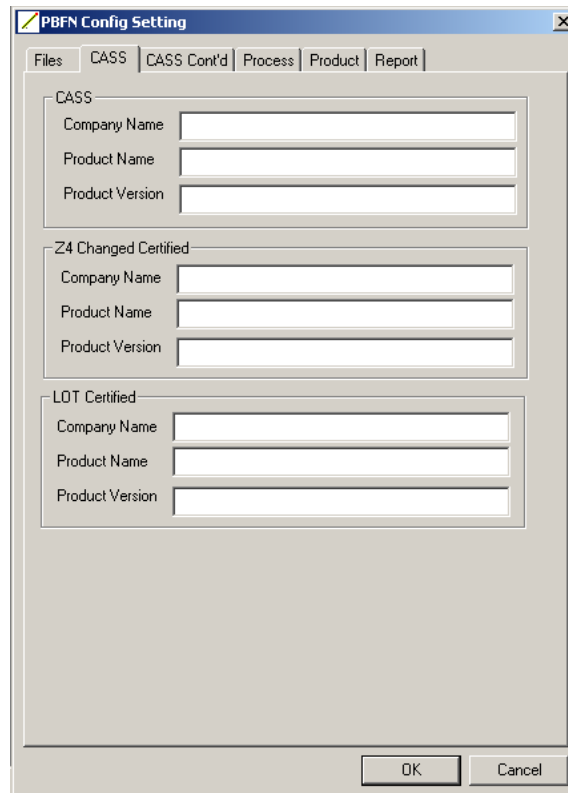
The image shows a screenshot of the 'PBFN Config Setting' dialog box. The title bar reads 'PBFN Config Setting' with a close button (X) on the right. Below the title bar are several tabs: 'Files', 'CASS', 'CASS Cont'd', 'Process', 'Product', and 'Report'. The 'CASS' tab is currently selected. The main area of the dialog is divided into three sections, each with three text input fields: 'Company Name', 'Product Name', and 'Product Version'. The first section is labeled 'CASS', the second is 'Z4 Changed Certified', and the third is 'LOT Certified'. At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

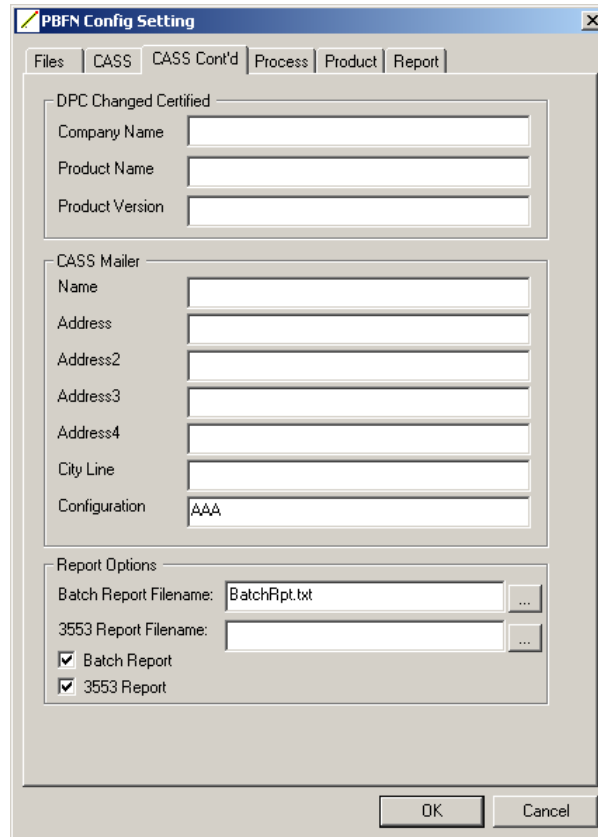
Figure 2: PBFN Config Setting Dialog Box - CASS Tab

2. In the **Company Name** field, enter the name of the CASS-certified company. This information displays in section A1 box 1 on the USPS Form 3553 (CASS Summary Report).
3. In the **Product Name** field, enter the name of the CASS-certified product. This information displays in section A1 box 2 on the USPS Form 3553 (CASS Summary Report).
4. In the **Product Version** field, enter the version number for the CASS-certified product. This information displays in section A1 box 2 on the USPS Form 3553 (CASS Summary Report).
5. In the **Company Name** field, enter the Z4Change-certified company name. This information displays in section A1 box 4 on the USPS Form 3553 (CASS Summary Report).

6. In the **Product Name** field, enter the Z4Change product name. This information displays in section A1 box 5 on the USPS Form 3553 (CASS Summary Report).
7. In the **Product Version** field, enter the Z4Change product version number. This information displays in section A1 box 5 on the USPS Form 3553 (CASS Summary Report).
8. In the **Company Name** field, enter the Line of Travel (LOT)-certified company name. This information displays in section A1 box 10 on the USPS Form 3553 (CASS Summary Report).
9. In the **Product Name** field, enter the Line of Travel (LOT)-certified product name. This information displays in section A1 box 11 on the USPS Form 3553 (CASS Summary Report).
10. In the **Product Version** field, enter the version number for the Line of Travel (LOT)-certified product. This information displays in section A1 box 11 on the USPS Form 3553 (CASS Summary Report).

## Defining Additional CASS Options

1. To continue defining your CASS-related options for Finalist processing, from the *PBFN Config Setting* dialog box, click the **CASS Cont'd** tab.



The screenshot shows the 'PBFN Config Setting' dialog box with the 'CASS Cont'd' tab selected. The dialog has a title bar with a close button and a menu bar with 'Files', 'CASS', 'CASS Cont'd', 'Process', 'Product', and 'Report'. The main area is divided into three sections: 'DPC Changed Certified' with fields for 'Company Name', 'Product Name', and 'Product Version'; 'CASS Mailer' with fields for 'Name', 'Address', 'Address2', 'Address3', 'Address4', 'City Line', and 'Configuration' (containing 'AAA'); and 'Report Options' with fields for 'Batch Report Filename' (containing 'BatchRpt.txt') and '3553 Report Filename', and checkboxes for 'Batch Report' and '3553 Report'. At the bottom are 'OK' and 'Cancel' buttons.

Figure 3: PBFN Config Setting Dialog Box - CASS Cont'd Tab

2. In the **Company Name** field, enter the DirectDPV company name.
3. In the **Product Name** field, enter the DirectDPV product name.
4. In the **Product Version** field, enter the version number for the DirectDPV product.
5. In the **Name** field, enter the mailer's name. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).
6. In the **Address** field, enter the mailer's address. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).
7. In the **Address2**, **Address3**, and **Address4** fields, enter additional mailer's address information. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).

8. In the **City Line** field, enter the mailer's city, state, and ZIP Code information. This information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).
9. In the **Configuration** field, enter the CASS configuration value. This information displays in section 1 box 3 on the USPS Form 3553 (CASS Summary Report).
10. In the **Batch Report Filename** field, enter the output file name for the Finalist Batch Report or click on the **Browse** button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files. The default file name is batch.txt.
11. In the **3553 Report Filename** field, enter the output file name for the USPS Form 3553 (CASS Summary Report) or click on the **Browse** button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files. The default file name is cass3553.txt.
12. In the **Batch Report** field, click **Batch Report** to generate the Finalist Batch Report.
13. In the **3553 Report** field, click **3553 Report** to generate the USPS Form 3553 (CASS Summary Report).



## Defining Process Options

To define your Finalist processing options, follow these steps:

1. From the *PBFN Config Setting* dialog box, click the **Process** tab.

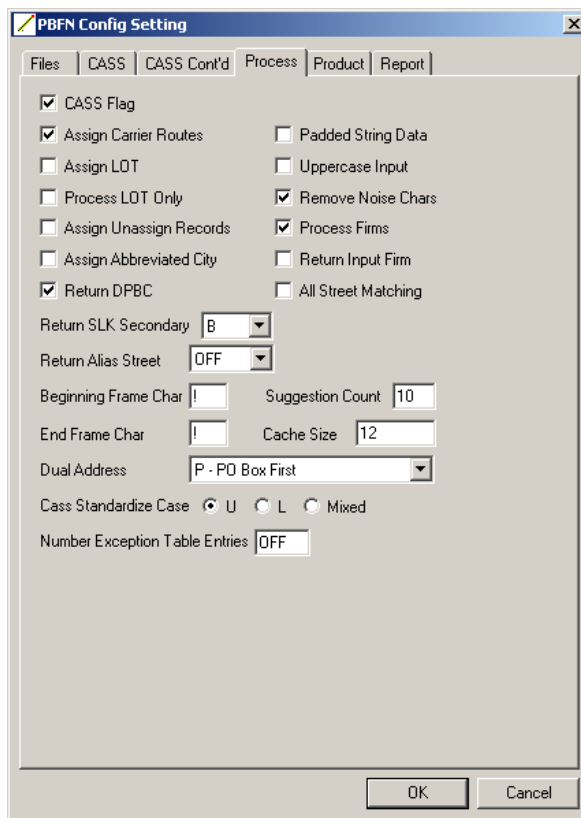


Figure 4: PBFN Config Setting Dialog Box - Process Tab

2. To process in a CASS-certified mode, click **CASS Flag**. If you process in a CASS-certified mode, Finalist checks expiration dates for bases and engines. The `cCASSMode` field in the Job Definition File (.job file) should also be set to YES in order to generate the USPS Form 3553 (CASS Summary Report).

**NOTE:** If CASS Flag = ON and a conflicting option is encountered (Configuration, Assign CR, Return DPBC, `LACSLink=OFF`, `SuiteLink=OFF`, or `DPV=OFF`), a warning message is written to the log file indicating that CASS has been forced off and the reason for CASS being forced off. The message is similar to:

Warning Message; CASS forced off: CASS Configuration, Return DPBC, Assign CR, Assign SuiteLink, Assign LACSLink, Assign DPV

3. In the Assign Carrier Routes field, click **Assign Carrier Routes**.

4. If you are using a platform or coding language that does not support null terminated strings and you need to pad all fields with blanks, click **Padded String Data**. This field indicates whether you will be using input/output fields that are padded with blanks or null terminated.
5. To assign Line of Travel (LOT) codes to your file, click **Assign LOT**.
6. To indicate your input data is in an all uppercase format, click **Uppercase Input**.
7. To performs only eLOT processing, click **Process Lot Only**. If you choose to perform only eLOT processing, Finalist does not perform address cleansing. A fully-coded address record is passed to the engine and Finalist performs an eLOT lookup and returns the eLOT code.
8. To remove noise characters (unnecessary punctuation and blanks) during Finalist processing, click **Remove Noise Chars**.
9. To indicate that only previously unassigned or expired addresses should be postal coded in batch mode, click **Assign Unassign Records**. For more information on the process unassigned records option, see the section "PBFNSetupDef" in your *Finalist Developer's Reference Guide*.
10. To perform normal CASS-certified processing of firms, click **Process Firms**. If you do not store firm names, or are not interested in matching to a firm level (for non-CASS mode processing only), do not select this option. Finalist will not load or use the firm portion of the database to improve performance.
11. To return abbreviated city names in label lines, click **Assign Abbreviated City**.
12. To return the input firm, click **Return Input Firm**.
13. To return delivery point barcodes, click **Return DPBC**.
14. To perform All Street Matching (ASM) processing, click **All Street Matching**. All Street Matching (ASM) applies additional matching logic to correct errors in street names and obtain a match. ASM provides the best address validation but may reduce performance. ASM processing is available for U.S. addresses only.

15. In the **Return SLK Input Secondary** field, from the drop down list, select the method to use for returning secondary information when Suite<sup>Link</sup> secondary information is available.
- **B** — Both. Return both SuiteLink and input secondary information. (This is the Default).
  - **S** — SuiteLink. Return SuiteLink secondary only. Do not return input secondary.
  - **I** — Input. Return input secondary only. Do not return SuiteLink secondary.
  - **N** — None. Do not return SuiteLink secondary or input secondary.
  - blank — Defaults to **B**.

---

**NOTE:** If Suite<sup>Link</sup> processing does not result in a match, Finalist ignores this option and returns the normal address output. Regardless of the option specified, the output ZIP + 4 is based on the match made using the Suite<sup>Link</sup> secondary. Input secondary information includes the “#” designator for purposes of this option.

---

16. In the **Return Alias Street** field, from the drop down list, select the method to use for returning alias street names. This field indicates whether Finalist returns alias street names. An alias street name is an alternate name for a street, maintained at the range Plus4 ZIP Code level.
- **ON** - If the input address matches to an alias, return the alias. If the input address matches to a base address, but a Preferred alias exists, return the Preferred alias. If the input address matches to a base address and no Preferred alias exists, return the base address.
  - **PXO** - If a Preferred alias exists, return the Preferred alias. If no Preferred alias exists, but an Abbreviated alias exists, return the Abbreviated alias. If no Abbreviated or Preferred alias exists, but some other alias does exist, return the alias. If no alias of any kind exists, return the base street name.
  - **OFF | P** — If a Preferred alias exists, return the Preferred alias. Otherwise, return the base street.
  - **PX** — If a Preferred alias exists, return the Preferred alias. If no Preferred alias exists, but an Abbreviated alias exists, return the Abbreviated alias. If neither exists, return the base street name.
  - **XPO** — If an Abbreviated alias exists, return the Abbreviated alias. If no Abbreviated alias exists, but a Preferred alias exists, return the Preferred alias. If no Abbreviated or Preferred alias exists, but some other alias does exist, return the alias. If no alias of any kind exists, return the base street name.
  - **XP | X** — If an Abbreviated alias exists, return the Abbreviated alias. If no Abbreviated alias exists, but a Preferred alias exists, return the Preferred alias. If neither exists, return only the base street name.
  - Blank — Defaults to **OFF**.

17. In the **Beginning Frame Char** field, enter the character to use for the front framing character for advanced barcodes. If you do not specify a character for Beginning Frame Char or End Frame Char, Finalist uses the exclamation point (!).
18. In the **End Frame Char** field, enter the character to use for the end framing character for advanced barcodes. If you do not specify a value here, the Beginning Frame character is used. If you do not specify a character for Beginning Frame Char or End Frame Char, Finalist uses the exclamation point (!).
19. In the **Suggestion Count** field, enter the maximum number of returned suggestions allowed per address based on the specified suggestion criteria.
20. In the **Cache Size** field, enter the number of buffers to use for internal caching.
  - **0** — Turn off internal caching for Finalist.
  - **XX** — Enter a value between 12-99 for the number of buffers used for internal caching. The default value for z/OS is **30**. The default value for all other operating systems is **12**.
21. In the **Dual Address** field, from the drop down list, select the option to use when the input file contains dual addresses (one a conventional address, a second containing a PO Box address). This field determines what order to use to process and match the addresses. If the selected address is valid, processing stops. If the selected address does not validate, Finalist will attempt to code the secondary address. Valid values are:
  - **ACZ** — Above city and ZIP Code line. The address line closest to the last line in the address is given the highest priority in the match process. Any address line above the last line is not used for matching.
  - **L12** — Line 1 in the dual address is given the highest priority in the match process.
  - **L21** — Line 2 in the dual address is given the highest priority in the match process.
  - **A** — The conventional address is given the highest priority in the match process.
  - **P** — The PO Box address is given the highest priority in the match process.
  - **IST** — The first valid address (in the order Address line 1 and then Address line 2) is given the highest priority in the match process.

When dual addresses are contained on a single line and you select CASS Flag, the USPS address type priority is used in the following order:

1. PO Box
2. Firm
3. Highrise
4. Street

5. Rural Route
6. General Delivery

22. In the **CASS Standardize Case** field, select an option to indicate whether to return addresses in all upper, all lower, or mixed upper and lower case. This field affects the address coding output only. It does not affect the database APIs (APIs prefixed with PBCS). The database APIs always return upper case data.

- **U** — Return addresses in all upper case.
- **L** — Return addresses in all lower case.
- **Mixed** — Return addresses in upper and lower case.

23. In the **Number Exception Table Entries** field, enter the maximum number of exception table entries.

## Defining Product Options

To define your Finalist product options, click **Product** from the *PBFN Config Setting* dialog box.

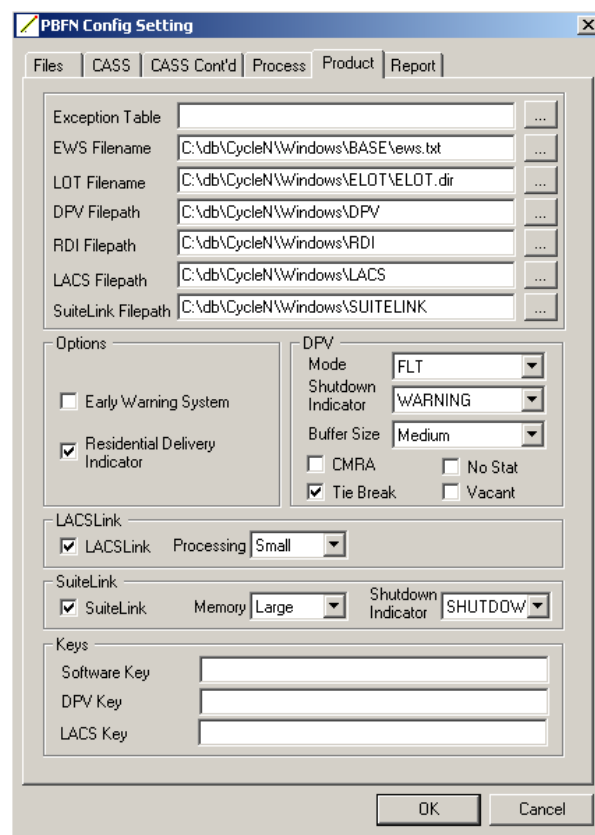


Figure 5: PBFN Config Setting Dialog Box - Product Tab

### Defining Files

To define your files, follow these steps:

1. In the **Exception Table File** field, enter the Exceptions Table file name and path or click on the **Browse** button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.
2. In the **EWS Filename** field, enter the Early Warning System (EWS) file name and path or click on the **Browse** button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.
3. In the **LOT Filename** field, enter the Line of Travel (LOT) file name and path or click on the **Browse** button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.
4. In the **DPV Filepath** field, enter the Delivery Point Validation (DPV) file path or click on the **Browse** button (located to the right of the field) to open a dialog box and point to the folder (path) that contains the database(s). This field is not used for z/OS.
5. In the **RDI Filepath** field, enter the Residential Delivery Indicator (RDI) File path or click on the **Browse** button (located to the right of the field) to open a dialog box and point to the folder (path) that contains the database(s). This field is not used for z/OS.
6. In the **LACS Filepath** field, enter the LACS<sup>Link</sup> File path or click on the **Browse** button (located to the right of the field) to open a dialog box and point to the folder (path) that contains the database(s). This field is not used for z/OS.
7. In the **Suite<sup>Link</sup> Filepath** field, enter the Suite<sup>Link</sup> File path or click on the **Browse** button (located to the right of the field) to open a dialog box and point to the folder (path) that contains the database(s). This field is not used for z/OS.

### Defining Additional Processing Options

To define additional processing options, follow these steps:

1. To perform Early Warning System (EWS) processing, click **Early Warning System**.
2. To perform Residential Delivery Indicator (RDI) processing, click **Residential Delivery Indicator**.

## Defining DPV Product Options

To define your DPV options, follow these steps:

---

**NOTE:** The USPS CASS regulations require Delivery Point Validation (DPV) processing for CASS certification. If you do not perform DPV processing, Finalist does not generate a USPS Form 3553 (CASS Summary Report).

---

1. From the **Mode** drop down list, select a value to indicate whether Finalist performs DPV processing and the DPV mode to use for processing your file.
  - **OFF** — Do not perform Delivery Point Validation (DPV) processing.
  - **ON** — Perform Delivery Point Validation (DPV) processing with the DPV Full database (dpvh.db).
  - **MEM** — Perform Delivery Point Validation (DPV) processing with the DPV Full database (dpvh.db) fully in memory for improved performance. You will need a minimum of 650MB of RAM/Memory if you choose this option.

---

**NOTE:** MEM is converted to ON with a buffersize (cDPVBufSize) of H (huge).

---

- **SPL** — Perform Delivery Point Validation (DPV) processing using the DPV Split database (dpvs.db). Split File processing separates the DPV Data File into 100 smaller files based on the first two digits of the ZIP Code. The Split File segment associated with the first two digits of the ZIP Code is loaded into memory. If you sort your mailing file by ZIP Code, you can bring the relevant portion of the DPV file into memory. This process reduces the number of I/O requests that normally occurs when you use the full DPV Data File. Use this option if your file is sorted by ZIP Code. This is the optimal solution for Finalist customers having at least 100MB, but no more than 650MB, of RAM/Memory.
  - **FLT** — Perform Delivery Point Validation (DPV) processing with the DPV Flat database (dpv.db). Use the DPV Flat File for improved batch performance. This file is in excess of 2.1GB and not dependent on RAM/Memory capacity. Input files should be sorted by ZIP Code. This is an optimal solution if you have less than 100MB of RAM/Memory available.
  - blank — Defaults to **OFF**.
2. From the **Shutdown Indicator** drop down list, select a value to specify the action to take during batch processing when a False Positive (Seed) record is encountered.

- **WARNING** — Continue batch processing when a False Positive (Seed) violation record is encountered. Finalist displays a warning message indicating a violation occurred. Finalist processing continues but DPV processing is disabled.

---

**NOTE:** If a DPV False Positive (Seed) violation is encountered and WARNING is set, CASS processing is turned off.

---

CASS processing is turned off for any jobs submitted after the DPV False Positive (Seed) violation was encountered. Any jobs submitted after the DPV False Positive (Seed) violation, fail with an initialization error.

For the job that encountered the False Positive (Seed) violation, the CASS statement will be provided showing the number of records that were DPV confirmed up until the point of the False Positive (Seed) violation. No records will be DPV confirmed after the False Positive (Seed) violation occurred.

Any jobs submitted before the False Positive (Seed) violation was encountered run to completion, including DPV processing for each file. This occurs even if the jobs do not complete processing until after the time the DPV False Positive (Seed) violation was found in the job that first encountered the False Positive (Seed) violation.

- **SHUTDOWN** — Stop batch processing when a False Positive (Seed) violation record is encountered. Finalist does not process subsequent records and automatically exits the program.

---

**NOTE:** The Shutdown Indicator applies to batch processing only. If your DPV key is NCOA or “No-Stop”, this option is ignored.

---

3. From the **Buffer Size** drop down list, select a value to indicate the memory model for DPV processing:
  - **Pico** — Pico. Stores no data in memory. No tables or indexes are loaded.
  - **Ultra** — Ultra-small. Stores no data in memory. Partial indexes are loaded.
  - **Small** — Small
  - **Medium** — Medium
  - **Large** — Large
  - **Huge** — Huge. Stores all data in memory.
  - blank — Defaults to **Medium**.



Values from releases prior to the Finalist 8.0.0 release are accepted as:

- If you specified 0, Medium is substituted.
  - If you specified 1, Ultra is substituted
  - If you specified a value greater than 1 but less than or equal to 30, Small is substituted.
  - If you specified a value greater than 30 but less than or equal to 500, Medium is substituted.
  - If you specified a value greater than 500, but less than or equal to 900, Large is substituted.
  - If you specified a value greater than 900, Huge is substituted.
4. Private companies offering mailbox rental services to individuals and businesses are Commercial Mail Receiving Agents (CMRA). To perform CMRA processing, click **CMRA**.
  5. The USPS has added a No-Stat Table for DPV processing to identify deliveries that are not valid for Computerized Delivery Sequence (CDS) pre-processing. To use the USPS No-Stat Table for DPV processing and return the proper No-Stat code to the output, click **No Stat**. Defaults to **OFF**.
  6. The USPS allows DPV processing to be used as a tie breaker for matching inexact street records. If only one of the records in a tie is delivery point validated, a match is allowed to the inexact record. When processing results in an inexact match due to the input address directional, DPV processing can be used as a tie breaker if only one of the records is found to be delivery point validated and the delivery point validated record does not violate the cardinal direction rule. To perform DPV Tie Breaker processing, click **Tie Break**.

---

**NOTE:** The USPS CASS regulations require DPV Tie Break processing to generate the USPS Form 3553 (USPS CASS Summary Report).

---

7. The USPS has added a Vacant Table for DPV processing. This table identifies delivery addresses that have been active in the past but, according to USPS data, have not been occupied within the last 90 days. To use the Vacant Table and return the proper Vacant code to the PBFNProcessDataDef structure, click **Vacant**. Defaults to **OFF**.

### Defining LACS<sup>Link</sup> Options

To define your LACS<sup>Link</sup> options, follow these steps:

1. To perform LACS<sup>Link</sup> processing, click **LACS<sup>Link</sup>**. The USPS CASS regulations require LACS<sup>Link</sup> processing. If you do not perform LACS<sup>Link</sup> processing, Finalist does not generate a USPS Form 3553 (CASS Summary Report).
2. From the LACS<sup>Link</sup> Processing drop down list, select the LACS<sup>Link</sup> memory model for processing your file:
  - **Pico** — Pico. Stores no data in memory. No tables or indexes are loaded.
  - **Ultra** — Ultra-small. Stores no data in memory. Partial indexes are loaded.
  - **Small** — Small
  - **Medium** — Medium
  - **Large** — Large
  - **Huge** — Huge. Stores all data in memory.
  - blank — Defaults to **Small**.

### Defining Suite<sup>Link</sup> Options

To define your Suite<sup>Link</sup> options, follow these steps:

1. To perform Suite<sup>Link</sup> processing, click **Suite<sup>Link</sup>**. The USPS CASS regulations require Suite<sup>Link</sup> processing. If you do not perform Suite<sup>Link</sup> processing, Finalist does not generate a USPS Form 3553 (CASS Summary Report).
2. From the Suite<sup>Link</sup> drop down list, select the Suite<sup>Link</sup> memory model for processing your file:
  - **Pico** — Pico. Stores no data in memory. No tables or indexes are loaded.
  - **Ultra** — Ultra-small. Stores no data in memory. Partial indexes are loaded.
  - **Small** — Small
  - **Medium** — Medium
  - **Large** — Large
  - **Huge** — Huge. Stores all data in memory.
  - blank — Defaults to **Large**.

Values from releases prior to the Finalist 8.0.0 release are accepted as:

- If you specified ON, Large is substituted.
- If you specified OFF, Ultra is substituted.

3. From the **Shutdown Indicator** drop down list, select a value to specify the action to take when encountering a Suite<sup>Link</sup> processing error during the processing run:
  - **WARNING** — Issue warning and turn off SuiteLink processing.
  - **SHUTDOWN** — Stop Finalist processing when encountering a SuiteLink error.
  - **IGNORE** — Ignore errors and continue SuiteLink processing.
  - blank — Defaults to **WARNING**.

---

**NOTE:** USPS regulations require Suite<sup>Link</sup> processing for CASS certification and to generate a USPS Form 3553 (CASS Summary Report). Per the USPS regulations, any job that does not include Suite<sup>Link</sup> processing, must not generate the USPS Form 3553 (CASS Summary Report). If you are processing in a CASS-certified mode (CASS=ON), Finalist sets the Suite<sup>Link</sup> Shutdown Indicator to “S” in order to stop processing if the Suite<sup>Link</sup> initialization fails and to prevent generation of an invalid USPS Form 3553 (CASS Summary Report).

---

### Defining Your Software Keys

To define your software keys, follow these steps:

1. In the **Software Key** field, enter your Finalist activation key.
2. In the **DPV Key** field, enter the Delivery Point Validation (DPV) activation key.
3. In the **LACS<sup>Link</sup> Key** field, enter the LACS<sup>Link</sup> activation key.

## Defining Report Options

To define your Finalist report options, click **Report** from the *PBFN Config Setting* dialog box.

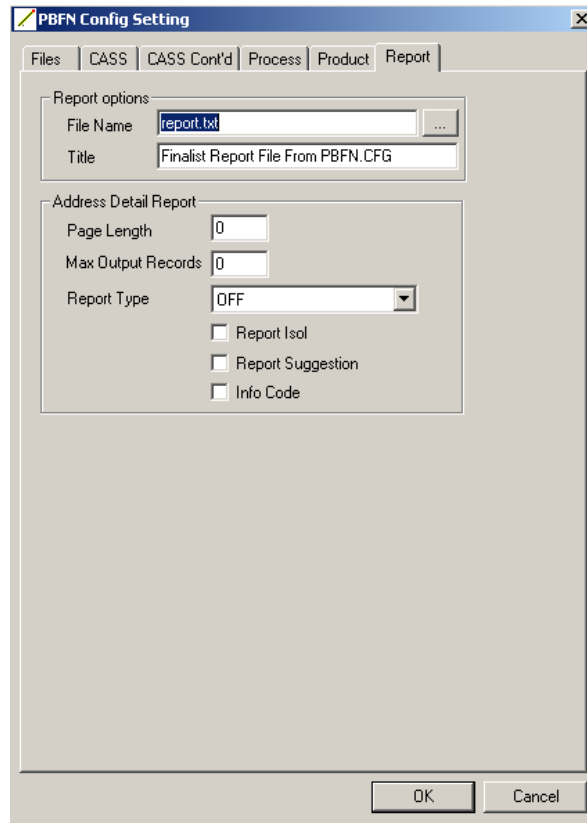


Figure 6: PBFN Config Setting Dialog Box - Report Tab

To define your report options, follow these steps:

1. In the **Report Filename** field, enter the Address Detail Report output file name. Defaults to **rpt.txt** or click on the **Browse** button (located to the right of the field) to open a dialog box and select the path and file name from a list of existing files.
2. In the **Report Title** field, enter the title of the Address Detail Report.
3. In the **Page Length** field, enter the maximum page length for the Address Detail Isolation Report.
4. In the **Max Output Records** field, enter the maximum number of records to output to the Address Detail Isolation Report.

5. From the **Report Type** drop down list, select the method for printing the Address Detail Report:
  - **OFF** — Do not print the Address Detail Report.
  - **ON** — Print the Address Detail Report.
  - **ERR** — Print only failed addresses on the Address Detail Report.
  - blank — Defaults to **OFF**.
6. To print the Address Detail Isolation Report, click **Report Isol.**
7. To print the Address Detail Suggestion Report, click **Report Suggestion.**
8. To print the Address Detail Information Report, click **Info Code.**



# CHAPTER 3

---

## Using the Lookup Tool

This chapter provides information on using the Finalist Workbench Lookup Tool.

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## Using the Lookup Tool

This section describes how to use the Finalist Lookup Tool. The Finalist Lookup Tool runs in a 32-bit Microsoft Windows environment. The Lookup Tool lets you search the contents of the postal data files for a specific entry. The ways you can use the Lookup Tool are described next.

- Display a list of streets within a ZIP Code
- Display a list of cities, and the city's ZIP Code, within a state
- Postal code an individual address
- Display last line information for city, state, or ZIP Code

You can use this tool if you cannot find a particular address during regular postal coding. You can also use this tool to obtain the highest-quality address. For example, you may want to determine a directional of N, S, E, or W for an address.

## Opening the Lookup Tool

To open the Lookup Tool, follow these steps:

1. Click on the **Start** button.
2. From the *Start* menu, select **Programs**.
3. Select the folder in which Finalist was installed (by default, PB).
4. Select **Finalist**.
5. Click on **Lookup**. The Lookup Tool window appears. You can also access the Lookup Tool from the Workbench by selecting **Run Lookup** from the *Tools* menu.

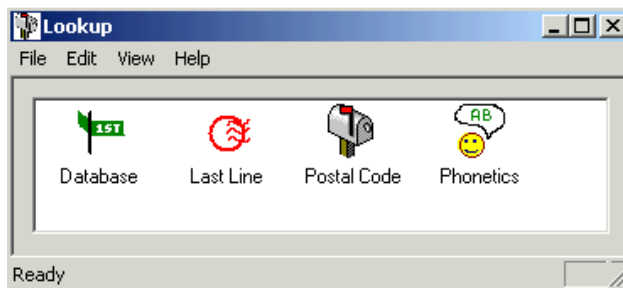


Figure 1: Lookup Tool Window



## Using the Database Viewer

You can use the Database Viewer to look at the ZIP + 4 and City Files to determine whether your address is in the database.

### Looking for An Address Within a ZIP Code

To search for an address in the Finalist database using a ZIP Code, follow the steps listed next.

1. Click on the Database icon. The Database Viewer dialog box displays.
2. In the *Mode* section, identify the mode for your search. You can select to choose information for a street, rural route/highway contract, or P. O. box address. The Mode indicator section is located at the top right corner of the Database Viewer. For illustration purposes, we will select Streets to describe the options available from the Database Viewer dialog box.
3. In the **ZIP Code** field, enter a ZIP Code to view a list of city names for the specified ZIP Code. When you have typed in at least three numeric characters, you will see a list of city names associated with those first three ZIP Code numeric characters.

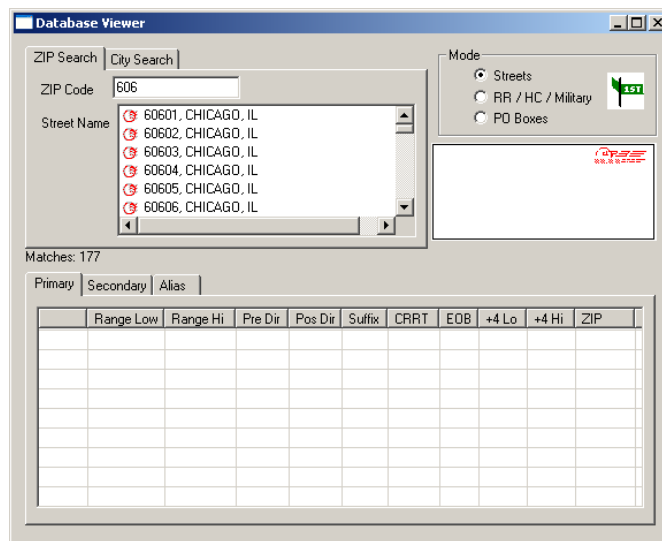


Figure 2: Database Viewer Dialog Box, ZIP Search Tab

The list of possible city names will get smaller as you key in more of the ZIP Code. In the previous figure, all city names for the ZIP Code prefix "606" display. The list narrows to one city name when the full ZIP Code 60605 is keyed in.

- In the **Street Name** field, click on a city name to see a list of streets for the specified city name.

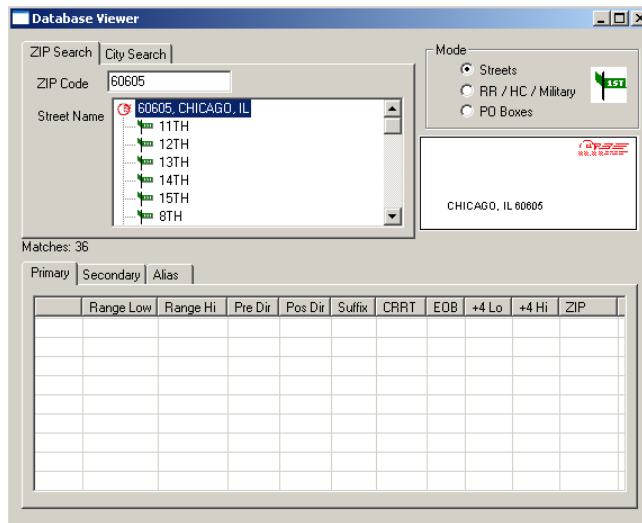


Figure 3: Database Viewer Dialog Box, ZIP Search Tab - City Selected

- Click on a street name to view detailed information for the street specified. The Primary tab displays high and low range, predirectional, postdirectional, suffix, carrier route, EOB (even/odd/both/consolidated) range indicator, and high and low ZIP Code range, and ZIP Code.

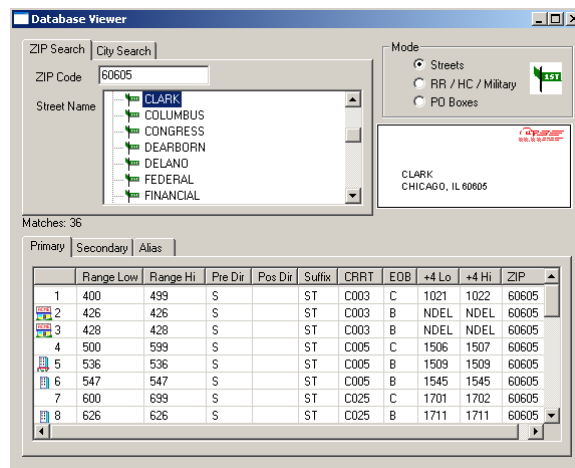


Figure 4: Database Viewer Dialog Box, Primary Tab

Note the icons in the first column. These icons provide a visual representation of the address type.

- Firm icon



- Highrise icon



- Highrise with firm on first floor



- Alias street address



- P. O. Box



- Rural route address



- To view secondary information for a highrise, click on a highrise address. The Secondary Tab displays the secondary information for the specified highrise address. The Secondary Tab displays secondary range, unit, carrier route, EOB (even/odd/both/consolidated) range indicator, and high and low ZIP Code range.

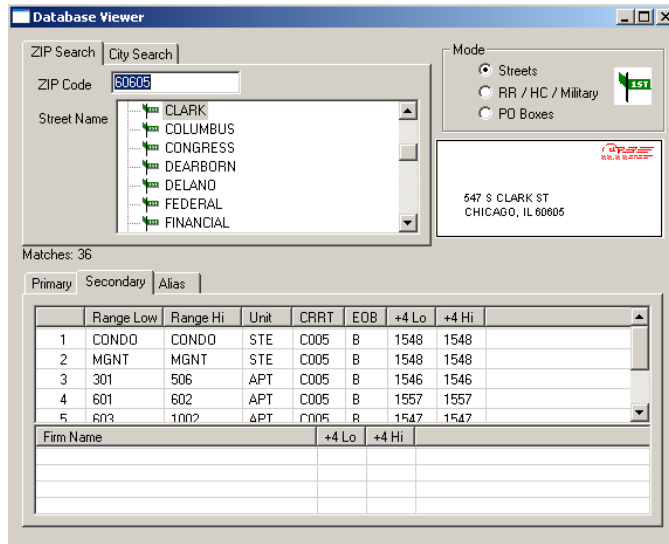
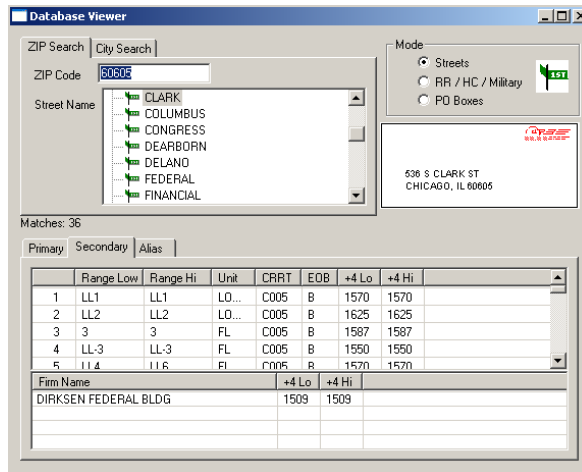


Figure 5: Database Viewer Dialog Box, Secondary Tab

If available and applicable, the firm name also displays.



If the street includes a preferred or non-preferred alias street name, the Alias icon displays in the first column.

- To view alias information, click on an address with an alias icon. The Alias tab displays detailed information for the alias address.

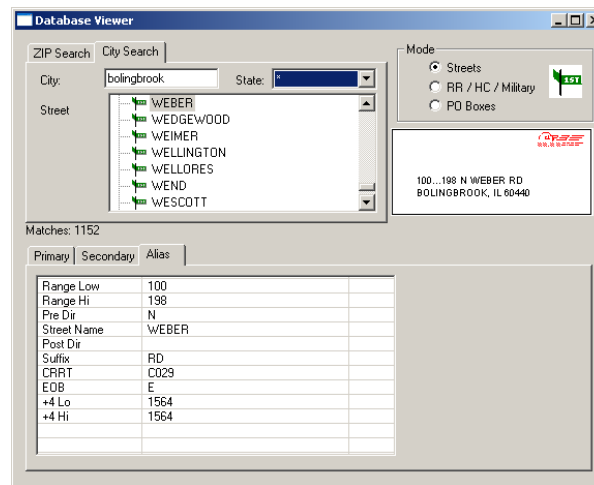


Figure 6: Database Viewer Dialog Box, Alias Tab

## Looking for An Address Within a City

To search for an address in the Finalist database using a city name, follow these steps:

- Click on the Database icon. The *Database Viewer* displays.
- Click on the **City Search** Tab.
- Identify the mode for your search. You can select to choose information for a street, rural route/highway contract/military, or P. O. box address. The Mode Indicator is located at the top right corner of the Database Viewer.
- Enter the city name in the **City** field to view a list of city names for the specified state. The list of possible city names will get smaller as you key in more of the city name. In the previous figure, all city names beginning with the characters "bol" display. In the next figure, the list is narrowed to one city name when the full city name is keyed in.
- Click on the city name displayed in the **Street Name** box to see a list of streets for the specified city name.

- Click on a street name to view detailed information for the street. The **Primary Tab** on the *Database Viewer* displays high and low range, predirectional, postdirectional, suffix, carrier route, EOB (even/odd/both/consolidated) range indicator, and high and low ZIP Code range.

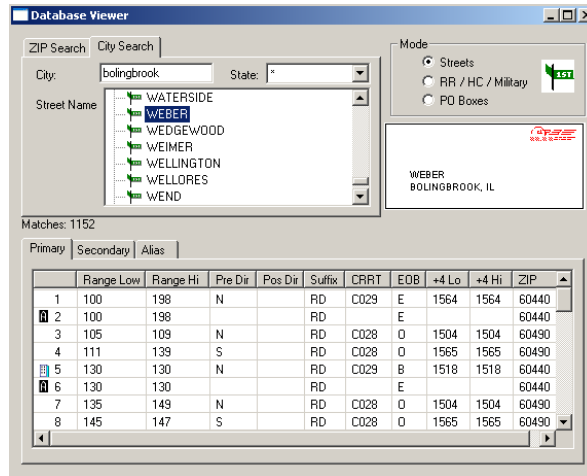


Figure 7: Database Viewer Dialog Box, City Search - Primary Tab

- To view secondary information for a highrise, click on a highrise address. The **Secondary Tab** displays the secondary information for the specified highrise address. The Secondary Tab displays secondary range, unit, carrier route, EOB (even/odd/both/consolidated) range indicator, and high and low ZIP Code range. If available and applicable, the firm name also displays.

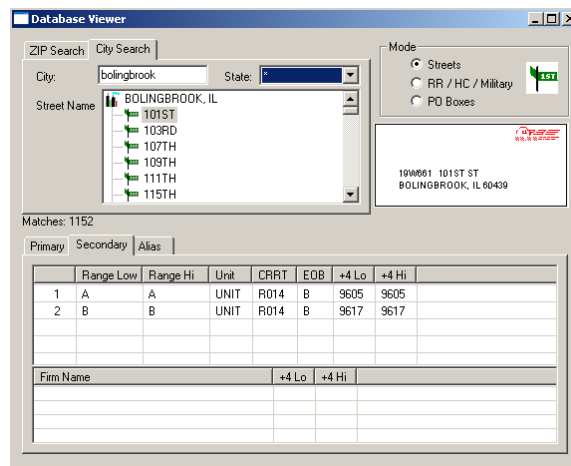


Figure 8: Database Viewer Dialog Box, Secondary Tab

- To view alias information, click on an address with the alias icon. The **Alias** Tab displays detailed information for the alias address.

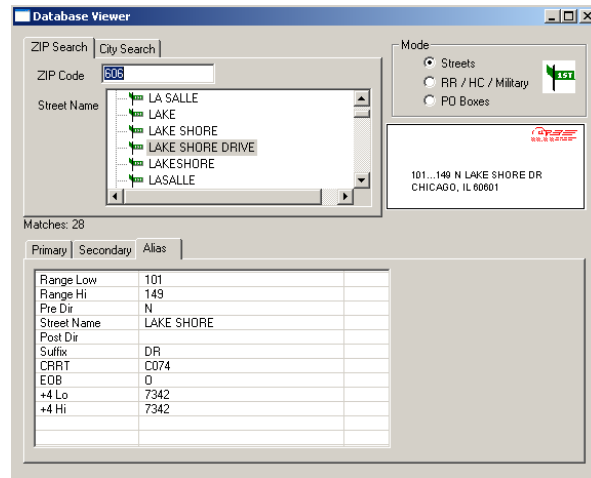


Figure 9: Database Viewer Dialog Box, Alias Tab

## Copying Address Label Information

You can copy the address label information shown in the envelope at the top right of portion of the Database Viewer dialog box to your selected destination. To copy the address label information from the envelope, right click on the envelope. The address information is copied to the clipboard. Click Paste at your selected destination to copy the address label information.

## Last Line Lookup

You can use the Lookup Tool Last Line feature to lookup ZIP Code information based on the city and state for an address. To perform a last line lookup, follow the steps listed next.

- Click the Last Line icon from the Lookup Tool to display the *Last Line Lookup* dialog box.

2. Type the city and state for the address for which you want to find the ZIP Code. Click **Look Up**. The city, state, and ZIP Code information displays.

The screenshot shows a dialog box titled "Last Line" with a search input field containing "CAROL STREAM, IL" and a "Look Up" button. Below the input is a table with the following data:

| City         | State | ZIP   | Mailing Ind. and Preferred City | ZIP type |
|--------------|-------|-------|---------------------------------|----------|
| CAROL STREAM | IL    | 60116 | Y                               | Unique   |
| CAROL STREAM | IL    | 60122 | Y                               | Unique   |
| CAROL STREAM | IL    | 60125 | Y                               | Unique   |
| CAROL STREAM | IL    | 60128 | Y                               | Unique   |
| CAROL STREAM | IL    | 60132 | Y                               | Unique   |
| CAROL STREAM | IL    | 60188 | Y                               | Standard |
| CAROL STREAM | IL    | 60197 | Y                               | PDB Only |
| CAROL STREAM | IL    | 60199 | Y                               | Standard |

Matches: 8

Figure 10: Last Line Dialog Box With City, State, and ZIP Code

## Coding an Address

You can use the Lookup Tool Code an Address feature to postal code a selected address. You must supply at least the range, street name and either the city/state or ZIP Code address elements for the Lookup Tool to code your address. To postal code an address, follow these steps:

1. Click the Postal Code icon from the Lookup Tool to display the *Code an Address* dialog box.

The screenshot shows a dialog box titled "Code an Address" with several tabs: "Process Data", "Parsed Data", "Addrscan", and "Process Data2". The "Process Data" tab is active. It contains input fields for "Firm", "URB", "Address1", "Address2", and "City, State Zip". To the right of these fields are "Code" and "Clear" buttons. Below the input fields is an "Output Label" area with a large empty space and a small "PS" logo. To the right of the output label are buttons for "Parsed Info", "Suggestions", "Address Info", and "Process Info". At the bottom, there are tabs for "DPV", "RDI", and "Suite Link", and input fields for "Delivery Point" and "Commercial Mail".

Figure 11: Code an Address Dialog Box



2. On the **Process Data** tab, type in the range, street name and either city/state or ZIP Code. Click **Code**. Your coded address displays in the **Output Label** box. If the following options are enabled, additional information displays.
  - If the Delivery Point Validation (DPV) Option is enabled, the delivery point and commercial mail information may display.
  - If the Residential Delivery Indicator (RDI) Option is enabled, the residential delivery indicator information may display.
  - If the Suite<sup>Link</sup> Option is enabled, the match code, fidelity code, and return code may display.
3. You can also enter address data for coding using a parsed data format. From the **Parsed Data** tab, enter the address elements in the appropriate fields. Click **Code**. Your coded address displays in the **Output Label** box.

The screenshot shows the 'Code an Address' dialog box with the 'Parsed Data' tab selected. The input fields are as follows:

|          |      |
|----------|------|
| Firm     |      |
| URB      |      |
| Range    | 1400 |
| Pre Dir  |      |
| Street   | Iris |
| Post Dir |      |
| Suffix   |      |

The 'Output Label' box contains the following text:

```

1400 IRIS AVE
CAROL STREAM IL 60188-3358
  
```

At the bottom, the 'DPV', 'RDI', and 'Suite Link' options are checked. The 'Delivery Point' field displays 'Delivery Point validation successful'.

Figure 12: Code an Address Dialog Box - Parsed Data Tab With Coded Address

4. You can also enter address data for coding in a free-form format. From the **Addrscan** tab, enter the address elements. To display the standardized address, click **Display Standardized Address**. Click **Code**.

If you did not select Display Standardized Address, your coded address displays in the Output Label box.

If you selected Display Standardized Address, the Addrscan dialog displays your address as processed by Addrscan. Click **OK**. Your coded address displays in the **Output Label** box.

If your entered address data does not result in a coded address, you may receive a message that coding suggestions are available. For more information on coding suggestions, refer to the discussion on the *Suggestion List* Dialog Box later in this section.

The screenshot shows the 'Code an Address' dialog box with the 'Addrscan' tab selected. The input field contains the address '1400 Iris Ave Carol Stream IL'. The 'Output Label' field displays the coded address: '1400 IRIS AVE CAROL STREAM IL 60188-3358'. The 'Delivery Point' field shows 'Delivery Point validation successful'.

Figure 13: Code an Address Dialog Box Addrscan Tab With Coded Address

5. The **ProcessData2** tab allows individual entry of city, state, ZIP Code, and ZIP + 4 components. On the **ProcessData2** tab, enter the secondary information separately from the address line. Click **Code**. Your coded address displays in the **Output Label** box.

The screenshot shows the 'Code an Address' dialog box with the 'ProcessData2' tab selected. The input fields contain the following information: Firm: Pitney Bowes, Address1: 2200 Western Ct, and Unit1: Ste 100. The 'Output Label' field displays the coded address: 'PITNEY BOWES 2200 WESTERN CT STE 100 LISLE IL 60532-3618'. The 'Delivery Point' field shows 'Delivery Point validation successful'.

Figure 14: Code an Address Dialog Box - ProcessData2 Tab With Coded Address

6. For information on how your address was coded, click **Address Info** to display address coding statistics including match level, location settings, address type, and components.

The **Address Information** dialog box has four tabs: **Match Level**, **Location Settings**, **Address Type**, and **Components**. The **Match Level** tab is active, showing the following options:

- General:**
  - Address Unchanged
  - Dual Address
  - Non Deliverable
  - ZIP Move
  - Exceptions
  - Input Alias
  - Chars30Flag
- Address Match Level:**
  - Street
  - Secondary
  - Firm Primary
  - Firm Secondary
  - High Rise Default
  - High Rise Sec Match
  - RR or HC Default
  - RR or HC Sec Match
  - General Delivery
  - PO Box
  - Coded Unique ZIP
  - Coded Unique ZIP Default
  - Military Default
  - Military Sec Match
- Range Match:**
  - Original Primary Ranked
  - Original Secondary #1
  - Original Secondary #2
  - sec 1 + sec 2 combo
  - Alpha Recombo
  - Dash-Recombo
  - Address A@D Retry
  - Unit Used as sec 1
- Return Level:**
  - Valid ZIP+4
  - Valid ZIP and CRRT
  - Valid ZIP code
  - Unknown

Buttons: **OK**, **Cancel**

Figure 15: Address Information Dialog Box

7. To view your address in a parsed address format, click **Parsed Info**. The *Parsed Information* dialog box displays your address separated into individual address elements. The **More** tab displays additional information for your address. The **Alternate** tab displays alternate address information.

The **Parsed Information** dialog box has three tabs: **Address**, **More**, and **Alternate**. The **Address** tab is active, displaying the following address elements in a table:

|               |              |
|---------------|--------------|
| Firm          |              |
| Urb           |              |
| Range         | 1400         |
| Pre Dir       |              |
| Street Name   | IRIS         |
| Post Dir      |              |
| Suffix        | AVE          |
| Unit          |              |
| Unit #        |              |
| Unit 2        |              |
| Unit 2#       |              |
| PMB Unit      |              |
| PMB Unit #    |              |
| City          | CARDL STREAM |
| State         | IL           |
| Zip           | 60188        |
| Zip 4         | 3358         |
| Carrier Route | C013         |
| Street Type   | Res          |

Buttons: **OK**, **Cancel**

Figure 16: Parsed Information Dialog Box



## Using Phonetics to Lookup an Address

You can use the Lookup Tool Phonetics feature to look up street names based on the phonetic sound of the information you have. To postal code an address, follow the steps listed next.

1. Click the Phonetics icon from the Lookup Tool to display the *Phonetic Search* dialog box.
2. Type in the street name. The *Phonetic Search* dialog box displays the phonetic name in the **Phonetic Name** field and suggestions for a street name you can use for a postal coding attempt.

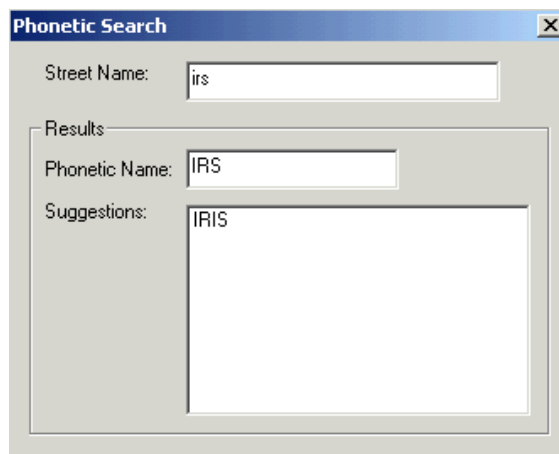


Figure 19: Phonetic Search Dialog Box

## Using the Lookup Tool to Define Configuration Settings

You can use the Lookup Tool to configure your Finalist application.

1. Start the Lookup Tool using one of these methods.
  - a. To start the Lookup Tool from the Finalist Workbench, from the *Tools* menu, click **Lookup Tool**.
  - b. Click the **Lookup Tool** icon on the Workbench toolbar.
  - c. Click Start > Programs > PB > Finalist > Lookup.
2. To define or edit configuration settings, from the **Edit** menu, click **Config**. The *PBFN Config Setting* dialog box displays.

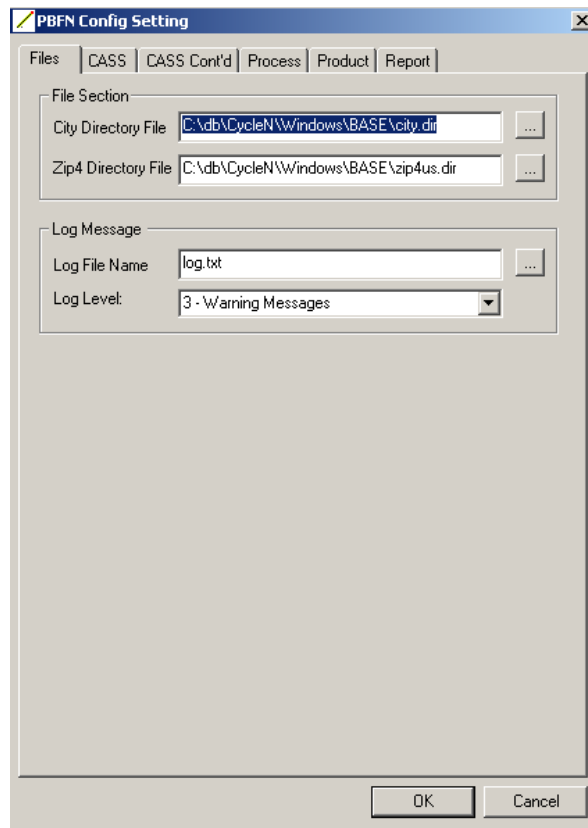


Figure 20: PBFN Config Setting Dialog Box

For information on using the tabs on the *PBFN Config Setting* dialog box to configure your Finalist application, refer to [Chapter 2, "Configuring Finalist"](#).

## Accessing the Finalist Help

To access the entire set of Finalist documentation from a single access point in an online Help format, click **Help > Contents**.

You can also select **Help** then **Developers Reference**, **Getting Started**, **Installation Guide**, or **Working With Guide** to access each guide individually.

## Accessing Version Information

You can use the About Lookup Option to access current version information. From the **Help** menu, click **About Lookup**. The About Lookup dialog box displays the current version information for the Finalist Lookup Tool including whether you are processing in a 32-bit or 64-bit mode. Click **OK** to return to the Lookup Tool.

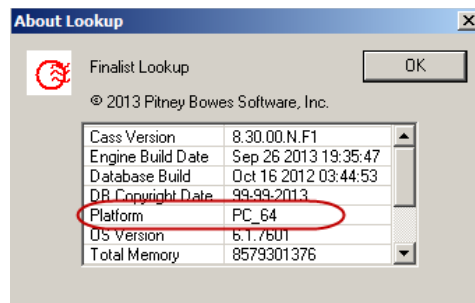


Figure 21: About Lookup Dialog Box





# CHAPTER 4

---

## Using the Distribution Tool

This chapter describes how to use the Distribution Tool State Cut feature to build a Finalist database that includes only selected states. By doing this, you decrease the size of the Finalist database which may result in decreased processing time. You can use the State Cut feature of the Distribution Tool in a Windows or command line environment.

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## Before You Begin

Before you begin, you must first install the Finalist database files onto a local or networked hard drive. If you are using the Finalist database files from a networked hard drive, you must verify that you have a connection to the networked hard drive where the files are located.

## Using the State Cut Feature

The State Cut feature lets you reduce the Finalist database files to smaller files. These smaller state-specific files could increase the number of records processed per minute.

### EXAMPLE

Your database includes data from fifty states, DC, and all United States territories. However, you only need data from two states to complete a current project. You can use the State Cut Feature to create a database file for just the two states you need on your hard drive. Finalist will have less data to search through during address assignment resulting in less processing time.

---

**NOTE:** The Finalist City and ZIP + 4 database files are both required to use the State Cut feature. The State Cut feature creates new City and ZIP + 4 database files containing data for the requested states. These files must be used together for address assignment. The new zip4us.sc will not work with the original city.dir database file and the new city.sc will not work with the original zip4us.dir database file.

---

You can use the State Cut feature from the Finalist Workbench, from a Windows or Unix platform command line, or from JCL on the mainframe.

---

**NOTE:** To use the database files generated by the State Cut program, you will need to edit the pbfncfg file to point to the new State Cut database files. For more information on the pbfncfg file, refer to [“Configuring Finalist” on page 25](#).

---

## Using the State Cut Feature From the z/OS JCL

---

The FNSOURCE library includes sample JCL to run the State Cut program.

## Using the State Cut Feature From the Command Line

The Finalist installation program installs the State Cut program in the bin directory. To run the State Cut program using the default values:

1. Change the directory to the folder containing the Finalist database files (default is C:\PitneyBowes\Finalist\db).

```
cd C:\PitneyBowes\Finalist\db
```

2. Run the State Cut program.

```
c:\Program Files\Pitney Bowes\Finalistxxx\bin\statecut.exe
```

3. Enter the state abbreviations for the states for which you want to build new database files. When entering the commands via standard input, enter a blank line to end the list of states. You can enter state abbreviations in any order.

```
IL
```

```
IN
```

4. State Cut processing begins.

```
Processing ... please wait.
Press any key to continue
```

## Usage Statement

The following usage statement can be displayed by running the State Cut program with the -h or -? options.

```
Usage: StateCut.exe [-s statefile][-l logfile][-f refdb][-g rngdb]
                [-o refOut][-z rngOut][-v loglevel][-i][-h?]
```

where:

```
-s statefile  = File containing list of state abbreviations.
-l logfile   = Log file name.
-f refdb     = Reference/City DB file name.
-g rngdb     = Range/Zip4 DB file name.
-o refOut    = Output Reference/City DB file name.
-z rngOut    = Output Range/Zip4 DB file name.
-v loglevel  = Set log level.
-i           = Display state name and abbreviation info.
-h           = Display usage.
-?          = Display usage.
```

A list of state abbreviations must be specified either in a file or at standard input.

The list of state names and abbreviations can be displayed using the -i option.

If the reference db and range db are not found, the configuration file will be used.

There is no default state file name.

The default log file is pbflog.txt.

The default ref/city db file is city.dir.

The default range/zip4 db file is zip4us.dir.

The default output ref/city db is city.sc.

The default output range/zip4 db is zip4us.sc.

Options can be in upper case (e.g. -S is the same as -s), but file names are case sensitive.

See documentation for MF defaults.

Figure 1: State Cut Usage Statement

## State List File

---

The USPS state abbreviations are used as input to the State Cut program. A list of the state abbreviations and names can be displayed using the `-i` option at the command line. To perform the same State Cut process each month, a state list file can be created using any text editor or the Finalist Workbench Save button.

To use the state list file at the command line, use the `-s statefile` option where `statefile` is the name (and path if necessary) of the file containing the list of states. State abbreviations can be listed in any order. An example of your input for running the State Cut program from the command line is shown next.

```
c:\Program Files\Pitney Bowes\Finalistxxx\bin\statecut.exe -s stateslist.txt
```

The State Cut program status messages display to allow you to monitor processing.

```
Opened state file: stateslist.txt
Processing ... please wait.
Press any key to continue
```

## Log File

---

The State Cut program generates a log file containing information regarding the user selections and the run times. An example of a State Cut log file is shown below.

```
Start Time: 04 14 2008 09:13:57
States read from standard input.
Log file      : pbflog.txt
Ref/City db file : X:\Finalist 8.0 DB\04-04-08 USPS2\city.dir
Range/Zip4 db file : X:\Finalist 8.0 DB\04-04-08 USPS2\zip4us.dir
Output Ref/City db : city.sc
Output Range/Zip4 : zip4us.sc
Log level     : 3
List of States...
IL
End Time: 04 14 2008 09:14:20
```

**Figure 2: State Cut Sample Log File**

## Log Level

---

The log level option of the command line (`-v loglevel`) controls the amount of information dumped to the log file. The log level 3 is the default. Values 0 through 5 are valid, where 5 displays the most information. The following is a short segment of additional information dumped at level 5.

```
09:33:30;INFO;dbaccess:0661;2396;0;Info;Opened ref/city db: X:\Finalist 8.0 DB\04-04-08 USPS2\city.dir
09:33:30;INFO;dbapi:0169;2396;0;Info Message;          Reference Control Record - required - 304 bytes
09:33:30;DBG;dbapi:0329;2396;0;Debug Control Record;----- Reference database control record -----
09:33:30;DBG;dbapi:0332;2396;0;Debug Control Record;Version and Release      : 8.00.00.M.01
09:33:30;DBG;dbapi:0338;2396;0;Debug Control Record;Copyright Date         : 02-15-2008
09:33:30;DBG;dbapi:0345;2396;0;Debug Control Record;Build Time Stamp          : 04-09-2008 06:09:00
```

## Using the State Cut Feature in a Windows Environment

To create a new Finalist database for selected states, follow these steps:

1. Build a State List containing the names of the states you want to include in your new Finalist database.
2. Define the Path to the Finalist Database Files. The State Cut feature will get the data for your selected states from these database files. You must specify the location for both the City database and the ZIP + 4 database.
3. Define a name and path for the Finalist database files you want to create to contain the data for the states you selected in step 1.
4. Run the State Cut program to build your new database files.

To create a new Finalist database for your selected states, follow these steps.

1. Start the Finalist Workbench.
2. From the *Tools* menu, click **Run Distribution** or click the **DIST** icon on the Workbench toolbar. The *State Cut Process* dialog box displays.

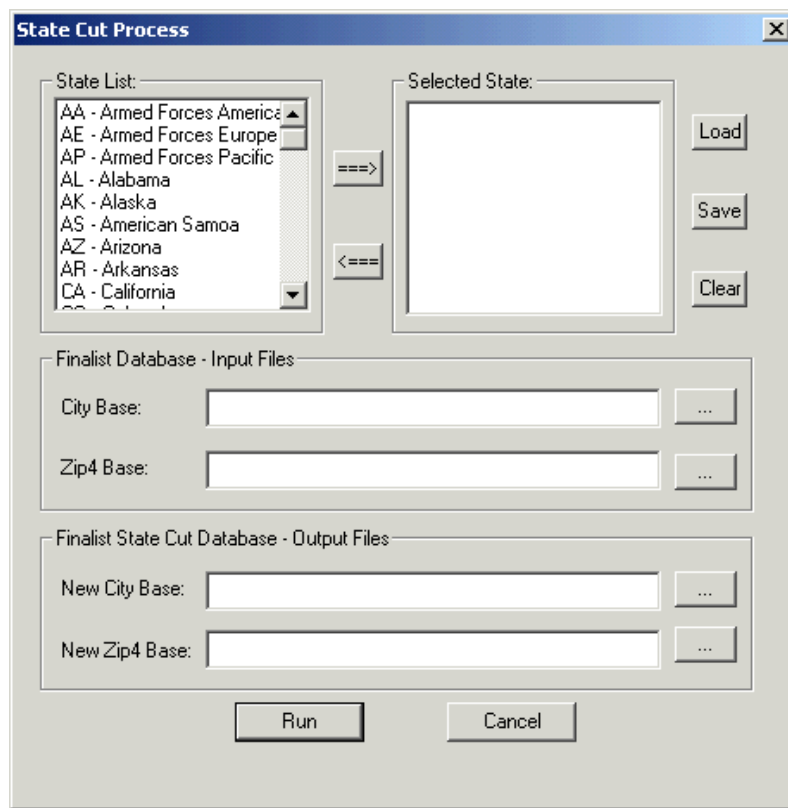


Figure 3: State Cut Process Dialog Box

3. To build a list of states to be included in the new database file, select states for the State List using one of the following options:
  - Click once on the state abbreviation and name in the left-side State List box. Click on the right arrow button.
  - Double click on the state abbreviation and state name in the State List box.
  - With the mouse cursor active in the State List box, type in the state abbreviation of the state you want to select. The state abbreviation and name appears in a highlighted mode. Click on the right arrow button to move the selected state to the Selected State box.

The selected state appears in the Selected State box for selected states. Repeat for each state you want to include in the new database file to be created.

4. To remove states from the list of selected states in the Selected State box, use one of the following options:
  - Click once on the state abbreviation and name in the **Selected State** box. Click on the left arrow button.
  - Double click on the state abbreviation and state name in the **Selected State** box.
  - To empty all selected files from the Selected State box, click **Clear**.
5. Click **Save** to save your state list file. The Open dialog pop-up appears. Use the Open dialog pop-up to create a new file or overwrite an existing file.
6. To load the your newly created state list, follow these steps:
  - a. From *State Cut Process* Dialog Box, click **Load**.
  - b. Use the *Open* dialog box to locate and select the state list file containing the states you want in your new Finalist database file. Your state list file appears in the **Selected State** box. After loading the file, you may remove or add states and save your new selections before running the state cut program.
7. To define the path to the Finalist database files to use for building your state database, follow these steps:
  - a. In the **City Base** field, use the Browse button to identify the location of the Finalist City database file.
  - b. In the **Zip4 Base** field, use the Browse button to identify the location of the Finalist ZIP + 4 database file.

8. To define a location and file name for the your state database file, follow these steps:
  - a. In the **New City Base** field, use the Browse button to identify the name and location of the Finalist City database file.
  - b. In the **New Zip4 Base** field, use the Browse button to identify the name and location of the Finalist ZIP + 4 database file.
9. After building and loading your state list file, defining the path to the Finalist database files, and defining the name and path for the state database file you want to create, you are ready to run the State Cut program. Click the **Run** button.

---

**NOTE:** If the mouse cursor is active in one of the State List boxes, the run command will also be initiated when you click **Enter** on the keyboard.

---

### Canceling the State Cut Process

If you decide not to run the state cut program, click **Cancel** to return to the Finalist Workbench window.





# CHAPTER 5

---

## Working With Finalist CICS

This chapter provides information on Finalist CICS. You can use Finalist CICS to perform Finalist processing in an on-line, real-time environment.

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## Finalist Keys

Beginning with this 8.1.0 release, the Finalist® key is now restricted to your licensed System ID(s). The System ID information must be provided to Pitney Bowes Software Account Manager before a software key can be created for your use. If you use Finalist® on more than one system, you can provide up to seven System IDs in a single key.

---

**NOTE:** When you upgrade your hardware, you must provide the new System ID information to Pitney Bowes Software Account Manager so a new software key can be generated.

---

### Finding Your System ID

If you already have Finalist® 8.1.0 or higher installed on your system, you can run the KeyStore program with no input to display your System ID information. If you do not have access to the KeyStore program, the following methods can also be used to obtain the System ID information.

#### z/OS

1. Issue the operator command:

```
D M=CPU
```

2. The response is similar to:

```
IEE174I 15.33.37 DISPLAY M 648
PROCESSOR STATUS
ID CPU SERIAL
00 + 01E3E02096
...
```

3. The System ID for Finalist® is the first six characters below the SERIAL field. In the example above, the value is:

```
01E3E0
```

### KeyStore

PGM=KEYSTORE is a program that will allow you to avoid storing your software key in your individual driver code or in individual pbfm.cfg files. This is required for CI users and optional for all other users.

---

**NOTE:** Pitney Bowes Software provided CICS and IMS transactions run with the CI interface. If you are using CICS or IMS, you will need to run PGM=KEYSTORE multiple times, each one targeting the proper LOAD library.

---

Sample JCL for KeyStore can be found in the FNSOURCE library that is part of the installation. In summary, PGM=KEYSTORE:

1. Reads in the key
2. Generates an assembler (BAL) program that is compiled and linked and placed into the Finalist LOADLIB. This program only needs to be rerun if you replace your LOADLIB or change your system hardware.

If you run PGM=KEYSTORE without a value in SYSIN, it will display the System ID. It is this System ID that is required to generate your Finalist software key. You can use this method as an alternative to the D M=CPU command described above.

## Getting Started with Finalist CICS Transactions

Finalist CICS allows you to perform Finalist processing in an on-line, real-time environment. After you enter address data for processing, CICS returns the same information as Finalist batch processing.

## Using the LPCT Transaction

1. Enter the **LPCT** transaction name. The *Inquiry Input* screen displays. Follow the information on the screen.

```

                                FINALIST ON-LINE N.N
                                (C) YYYY PITNEY BOWES SOFTWARE, INC.

PLEASE ENTER THE FOLLOWING INFORMATION:

FUNCTION CODE  ===>    EXCEPTION TABLE  ===> (Y/N) N

VALID FUNCTION CODES ARE:

4 - ZIP LOOK-UP, IF FAILURE TRY CITY/STATE LOOK-UP
5 - CITY/STATE LOOK-UP, IF FAILURE TRY ZIP LOOK-UP
6 - ZIP LOOK-UP ONLY
7 - CITY/STATE LOOK-UP

FIRM LINE    ===>
URB  LINE    ===>
ADDR LINE 1  ===>
ADDR LINE 2  ===>
CITY/STATE   ===>
ZIPCODE      ===>          SECSG ===>          CARRTE ===>

PRESS ENTER TO CONTINUE - CLEAR TO CANCEL

```

## Using the PBFN Transaction

1. Enter the transaction name **PBFN**. The *Inquiry Input* screen displays. Follow the information on the screens.

```

FINALIST ON-LINE N.N                                (C) YYYY PITNEY BOWES SOFTWARE, INC.

Option ==>    (Select one of the following)

    1 Finalist Address Lookup                2 Product Information

Processing Options (Y or N):
Exception Table      ==> N                Delivery Point Validation ==> N
Early Warning System ==> N                LACSLink                  ==> N
RDI                  ==> N                Sui teLink                 ==> N

Firm Line   ==>
URB Line    ==>
Addr Line 1 ==>
Addr Line 2 ==>
City/State ==>
ZIPCode     ==>          SecSg ==>          CarRte ==>

-----
PF1: Opt 1   PF2: Opt 2   PF3:          PF4 :          PF5 :          PF6 :
PF7:         PF8:         PF9: Reset   PF10: Clear   PF11:         PF12: Exit
  
```

## Getting Started with the Finalist CICS LPCF Transaction

The section of this chapter provides complete information for each screen including:

- A brief screen description
- A screen sample
- Characters defining the entry field's size
- Place holding characters mark the data fields in which you can enter information. These placeholders define the type of data allowed in the field.
  - A — Alpha data.
  - N — Numeric data.
  - X — Alpha or numeric data.
- Beginning cursor position
- Entry notes
- Active PF keys
- Possible error messages

## Using the LPCF Transaction

Type the transaction name **LPCF**. The *Main Menu* displays.

## Main Menu

```

FINALIST ON-LINE N.N                                     (C) YYYY PITNEY BOWES SOFTWARE, INC.
OPTION CODE : 1 (VALID OPTIONS LISTED BELOW)           08:19:54

1- FINALIST ADDRESS LOOKUP          4- STREET NAME LIST
2- CITY INFORMATION                 5- STREET INFORMATION
3- ZIPCODE INFORMATION              6- PRODUCT INFORMATION

FINALIST FUNCTION, TAILORING, AND SETUP PARMS:        ALSLBL : Y    FIRMLBL: I
CONFIG :                                               OR
FUNCTION: 4 (VALID FUNCTIONS LISTED BELOW)           TAILORING (Y OR N)
4- ZIP LOOKUP, ON FAILURE CITY/STATE LOOKUP          UNIQUE : Y    STRPHON: Y
5- CITY/STATE LOOKUP, ON FAILURE ZIP LOOKUP          CTYPHON: Y    CWEIGHT: N
6- ZIP LOOKUP ONLY                                   SWEIGHT: N   ZPCORR: Y
7- CITY/STATE LOOKUP ONLY                            CTYCORR: Y    STRCOSM: N
EXCEPTION TABLE PROCESSING: N (Y OR N)              FIRMPRS: Y    UNIDES: Y
EARLY WARNING SYSTEM PROCESSING: N (Y OR N)          CTYLONG: N    FRM CORR: N
DELIVERY POINT VALIDATION PROCESSING: N (Y/N/S/F)
LACS LINK PROCESSING: N (Y OR N)                     SUI TELINK PROCESSING: N (Y OR N)

PF KEYS =====
PF1: OPT 1  PF2: OPT 2  PF3: OPT 3  PF4 : OPT 4  PF5 : OPT 5  PF6 : OPT 6
PF7: N/A    PF8: N/A    PF9: RESET  PF10: N/A   PF11: N/A   PF12: EXIT

```

For information on the various options, please refer to Chapter 3, Using the Compatibility Interface, in your *Finalist Developer's Reference Guide*.

## Address Lookup Screen

The Address Lookup Screen is the primary address data input screen.

```

FINALIST ON-LINE N.N                                     (C) YYYY PITNEY BOWES SOFTWARE, INC.
ADDR KEY : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ADDRESS LOOKUP
FIRM LN  : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
URB LN   : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR LN 1 : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR LN 2 : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CITY/STATE : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ZIPCODE   : NNNNN
SEC/SEG   : NNNN
CARRTE    : XXXXX

RETURN INFORMATION
CARRTE: XXXX  DPV:  CMRA:  LLK:  SLK:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXX( LABEL FORMAT OUTPUT )XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
COUNTY: NNNNN
APARTMENT INFO: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
RETURN CODES: N-NNNNNNNNNNNN-NNNNNNNNNN
**** ERROR MESSAGE ****
PF KEYS =====
PF1: N/A    PF2: CITY  PF3: ZIP   PF4 : STREET PF5 : RANGE  PF6 : INFO
PF7: READ   PF8: SAVE  PF9: RESET PF10: CLEAR PF11: RETCODE PF12: EXIT

```

## Reason Codes Screen

From the *Address Lookup* screen, press PF11 to access the *Reason Codes* screen. On this screen, **PF10** acts as a toggle switch, taking you between the *Reason Codes* screen and the *Address Information Codes* screen. This screen does not accept input. Press **PF12** to exit.

| FINALIST ON-LINE N.N    |      |       |                                            | (C) YYYY PITNEY BOWES SOFTWARE, INC. |     |       |         |       |         |       |      |
|-------------------------|------|-------|--------------------------------------------|--------------------------------------|-----|-------|---------|-------|---------|-------|------|
| RETURN AND REASON CODES |      |       |                                            |                                      |     |       |         |       |         |       |      |
| TYPE                    | CODE | VALUE | MEANING                                    | 13: 56: 53                           |     |       |         |       |         |       |      |
| RETURN                  | 1    | : 0   | = ZIP, CARRIER ROUTE AND ZIP+4 ASSIGNED    |                                      |     |       |         |       |         |       |      |
| REASON                  | 1    | : 0   | = ZIP CODE VERIFIED                        |                                      |     |       |         |       |         |       |      |
|                         | 2    | : 0   | = CITY VERIFIED AS INPUT                   |                                      |     |       |         |       |         |       |      |
|                         | 3    | : 1   | = CARRIER ROUTE RETURNED                   |                                      |     |       |         |       |         |       |      |
|                         | 4    | : 1   | = ZIP+4 RETURNED                           |                                      |     |       |         |       |         |       |      |
|                         | 5    | : 1   | = STREET STANDARDIZED FROM INPUT           |                                      |     |       |         |       |         |       |      |
|                         | 6    | : 0   | = STREET RANGE CORRECT                     |                                      |     |       |         |       |         |       |      |
|                         | 7    | : 0   | = SUFFIX AND DIRECTIONAL CORRECT           |                                      |     |       |         |       |         |       |      |
|                         | 8    | : 0   | = INPUT STREET IS NOT AN ALIAS             |                                      |     |       |         |       |         |       |      |
|                         | 9    | : 2   | = FIRM NAME CHANGED FOR MATCHING ONLY      |                                      |     |       |         |       |         |       |      |
|                         | 10   | : 2   | = UNIT DESIGNATOR ABBREVIATED              |                                      |     |       |         |       |         |       |      |
|                         | 11   | : 0   | = UNIT NUMBER (IF ANY) CORRECT             |                                      |     |       |         |       |         |       |      |
|                         | 12   | : 0   | = NON-CONVENTIONAL ADDR. GOOD (IF PRESENT) |                                      |     |       |         |       |         |       |      |
| PF KEYS =====           |      |       |                                            |                                      |     |       |         |       |         |       |      |
| PF1:                    | N/A  | PF2:  | N/A                                        | PF3:                                 | N/A | PF4:  | N/A     | PF5:  | N/A     | PF6:  | N/A  |
| PF7:                    | N/A  | PF8:  | N/A                                        | PF9:                                 | N/A | PF10: | AICODES | PF11: | RETINFO | PF12: | EXIT |

## Address Information Codes Screen

From the *Reason Codes* screen, press PF10 to access the *Address Information Codes* screen. Press **PF10** to toggle between the *Reason Codes* screen and the *Address Information Codes* screen. This screen does not accept input. To exit, press **PF12**.

| FINALIST ON-LINE N.N      |      |       |                                            | (C) YYYY PITNEY BOWES SOFTWARE, INC. |     |       |         |       |     |       |      |
|---------------------------|------|-------|--------------------------------------------|--------------------------------------|-----|-------|---------|-------|-----|-------|------|
| ADDRESS INFORMATION CODES |      |       |                                            |                                      |     |       |         |       |     |       |      |
| TYPE                      | CODE | VALUE | MEANING                                    | 13: 57: 55                           |     |       |         |       |     |       |      |
| INFO                      | 1    | : 0   | = SINGLE ZIP CODE CITY                     |                                      |     |       |         |       |     |       |      |
|                           | 2    | : 5   | = FIRM ADDRESS                             |                                      |     |       |         |       |     |       |      |
|                           | 3    | : 0   | = CITY DELIVERY                            |                                      |     |       |         |       |     |       |      |
|                           | 4    | : 7   | = FIRM ON FIRM LN; DELIVERY ADDR ON LINE 1 |                                      |     |       |         |       |     |       |      |
|                           | 5    | : 0   | = ADDRESS FOUND ON PRIMARY LOOKUP          |                                      |     |       |         |       |     |       |      |
|                           | 6-8  | : 200 | = BUILDING HOUSING ONE OR MORE FIRMS       |                                      |     |       |         |       |     |       |      |
|                           | 9    | : 7   | = FIRM AT HIGHRISE ADDRESS CODED           |                                      |     |       |         |       |     |       |      |
|                           | 10   | : 9   | = ZIMOVE FORWARDING DID NOT OCCUR          |                                      |     |       |         |       |     |       |      |
| PF KEYS =====             |      |       |                                            |                                      |     |       |         |       |     |       |      |
| PF1:                      | N/A  | PF2:  | N/A                                        | PF3:                                 | N/A | PF4:  | N/A     | PF5:  | N/A | PF6:  | N/A  |
| PF7:                      | N/A  | PF8:  | N/A                                        | PF9:                                 | N/A | PF10: | RETCODE | PF11: | N/A | PF12: | EXIT |

For more information on the various options, please refer to Chapter 3, Using the Compatibility Interface, in your *Finalist Developer's Reference Guide*.

## Return Area Screen

On the *Return Code* screen, press **PF11** to display the *Return Area* screen. To return to the *Return Code* screen, press **PF11**. To exit from the *Return Area* screen and return to the *Address Lookup* screen, press **PF12**. This screen does not accept input.

```

FINALIST ON-LINE N.N                                (C) YYYY PITNEY BOWES SOFTWARE, INC.
INPUT INFORMATION:                                RETURN AREA
FIRM LINE : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
URB LINE : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR LINE 1: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR LINE 2: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CITY/STATE: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ZIP: NNNNN SEC-SEG: NNNN CAR-RTE: XXXXX FUNCTION: 4 CONFIG: XXXX
RETURN INFORMATION:
ISOLATION RESULTS:                                ISOLATION ATTEMPTS: N
RANGE: XXXXXXXXXX                                SUFFIX1: AAAA
PRE-DIRECT: AA                                  SUFFIX2: AAAA
POST-DIR: AA                                    APARTMENT: XXXXXX
STREET: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX        EXTRANEOUS: XXXXXXXX

DEFAULT DIRECTION/SUFFIX COMBINATIONS           OUTPUT INFORMATION
PRE-DIR SUFX1 SUFX2 POST-DIR                    ZIPCODE: NNNNN
-----
1) AA AAAA AAAA AA                               SEC-SEG: NNNN
2) AA AAAA AAAA AA                               CAR-RTE: XXXX
3) AA AAAA AAAA AA                               CITY: XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX STATE: XX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ERROR MESSAGE XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
PF KEYS=====
PF1: N/A PF2: N/A PF3: N/A PF4: N/A PF5: N/A PF6: N/A
PF7: N/A PF8: N/A PF9: N/A PF10: N/A PF11: RETCODE PF12: EXIT

```

The cursor is not visible and entry is not allowed on this screen. Error information is not available on this screen.

## System Error Codes

The following table describes the system error codes.

**Table 1: System Error Codes (Part 1 of 2)**

| Abend Code | Abending Module       | Description                                                                                                                                                                                          |
|------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LP00       | LPWN500C              | Transfer control attempted to program LPWN512C. The transfer control has failed. The program name might be missing from the CICS program Table (PPT). Check the installation again.                  |
| LP01       | LPWN500C              | GETMAIN failure - required storage not available.                                                                                                                                                    |
| LP02       | LPWN500C              | Link attempted to program LPWN502C, LPWN503C, LPWN504C, LPWN510C or FINALOL. The link has failed. The program name might be missing from the CICS Program Table (PPT). Check the installation again. |
| LP03       | LPWN500C              | The load has failed for LPWN501C (the Finalist messages table). Same probable reason and correction needed as described above for Abend Code LP02.                                                   |
| LP04       | LPWN500C              | Pseudo-conversational return failed - possibly because LPWN511C was LINKed to or XCTL'd to by a program that was LINKed to.                                                                          |
| LP10       | LPWN502C              | The caller (LPWN500C) did not pass a COMMAREA on the CICS link command.                                                                                                                              |
| LP11       | LPWN502C              | The caller (LPWN500C) passed an invalid screen type indicator. Valid values are 2, 3, 4, and 5.                                                                                                      |
| LP20       | LPWN503C              | The caller (LPWN500C) did not pass a COMMAREA on the CICS link command.                                                                                                                              |
| LP21       | LPWN503C              | The caller (LPWN500C) passed an invalid screen type indicator. Valid values are 2, 3, 4, and 5.                                                                                                      |
| LP30       | LPWN504C              | The caller (LPWN500C) did not pass a COMMAREA on the CICS link command.                                                                                                                              |
| LP32       | LPWN504C              | Unexpected, fatal error from a CICS command.                                                                                                                                                         |
| LP40       | LPWN505C,<br>LPWN508C | The caller (LPWN500C) did not pass a COMMAREA on the CICS link command.                                                                                                                              |
| LP41       | LPWN505C,<br>LPWN508C | Load failure for LPWN501C.                                                                                                                                                                           |
| LP42       | LPWN505C,<br>LPWN508C | Link to LPWN507C failed.                                                                                                                                                                             |
| LP50       | LPWN506C              | The caller (LPWN500C) did not pass a COMMAREA on the CICS link command.                                                                                                                              |



Table 1: System Error Codes (Part 2 of 2)

| Abend Code | Abending Module | Description                                                                    |
|------------|-----------------|--------------------------------------------------------------------------------|
| LP60       | LPWN511C        | COMMAREA passed in XCTL to LPWN511C was too short to contain required pasdata. |
| LP61       | LPWN511C        | Link to tailoring code translator failed.                                      |
| LP62       | LPWN511C        | XCTL to LPWN500C failed.                                                       |
| LP70       | LPWN512C        | COMMAREA passed from Windows to LPWN512C was not the expected length.          |
| LP71       | LPWN512C        | XCTL back to user program failed. Field PASSPGM is invalid.                    |
| LP80       | LPWN507C        | COMMAREA not passed to LPWN507C during link.                                   |
| LP81       | LPWN507C        | Load failure on LPWN501C.                                                      |
| LP90       | LPWN509C        | Wrong length COMMAREA passed to input exit stub.                               |
| LPA0       | LPWN510C        | Wrong length COMMAREA passed to output exit stub.                              |

A failed LINK, LOAD, or XCTL may be caused by a missing RDO entry, a missing program, or a missing library. Missing or wrong-length COMMAREAs may result from mixed releases.

## City Information Screen

|                               |           |                                      |            |
|-------------------------------|-----------|--------------------------------------|------------|
| FINALIST ON-LINE N.N          |           | (C) YYYY PITNEY BOWES SOFTWARE, INC. |            |
|                               |           | CITY NAME LIST                       |            |
|                               |           | HH: MM: SS                           |            |
| INPUT CITY : XXXXXXXXXXXXXXXX |           | INPUT STATE: XX (2 CHAR ABRV)        |            |
| CITY NAMES                    | ZIP CODES | CITY NAMES                           | ZIP CODES  |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| XXXXXXXXXXXXXXXX              | NNNNN     | XXXXXXXXXXXXXXXX                     | NNNNN      |
| *****ERROR MESSAGE*****       |           |                                      |            |
| PF KEYS=====                  |           |                                      |            |
| PF1: N/A                      | PF2: N/A  | PF3: N/A                             | PF4: N/A   |
| PF5: N/A                      | PF6: N/A  | PF7: UP                              | PF8: DOWN  |
| PF9: N/A                      | PF10: N/A | PF11: N/A                            | PF12: EXIT |

### ZIP Code Information Screen

```

FINALIST ON-LINE N.N                               (C) YYYY PITNEY BOWES SOFTWARE, INC.
                                                    ZIPCODE LIST
                                                    HH:MM:SS

STARTING ZIPCODE: NNNNN

  ZIP CODE      CITY NAME      STATE  COUNTY  MOTHER  MULTI ZIP  MULTI CITY
                                     ZIP CODE  CITY       ZIP

  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X
  NNNNN      XXXXXXXXXXXXXXXX  AA     NNNNN  NNNNN    X          X

*****ERROR MESSAGE*****
PF KEYS=====
PF1: N/A  PF2: N/A  PF3: N/A  PF4: N/A  PF5: N/A  PF6: N/A
PF7: UP   PF8: DOWN PF9: N/A  PF10: N/A PF11: N/A PF12: EXIT
  
```

### Street Name List

```

FINALIST ON-LINE N.N                               (C) YYYY PITNEY BOWES SOFTWARE, INC.
                                                    STREET NAME LIST
                                                    HH:MM:SS

INPUT ZIPCODE: NNNNN
INPUT CITY   : XXXXXXXXXXXXXXXX INPUT STATE: XX
INPUT STREET : XXXXXXXXXXXXXXXXXXXXXXXXXXXX

  STREET NAME                                STREET NAME

  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX
  XXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXX

*****ERROR MESSAGE*****
PF KEYS=====
PF1: N/A  PF2: N/A  PF3: N/A  PF4: N/A  PF5: N/A  PF6 : N/A
PF7: UP   PF8: DOWN PF9: N/A  PF10: N/A PF11: N/A PF12: EXIT
  
```

Street Information Screen

```

FINALIST ON-LINE N.N                                (C) YYYY PITNEY BOWES SOFTWARE, INC.
                                                    STREET RANGE LIST
                                                    HH: MM: SS

INPUT ZI PCODE:  NNNNN
INPUT CITY  :  XXXXXXXXXXXXXXXX  INPUT STATE:  XX
INPUT STREET :  XXXXXXXXXXXXXXXXXXXXXXXXXXXX

      LOW      HIGH      PRE  POST      ALS      SEC/SEG      CAR  RTE
      RANGE    RANGE    DIR  DIR  SUFX  IND  EVEN  ODD  EVEN  ODD  ZIP

XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN
XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN
XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN
XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN
XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN
XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN
XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN
XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN
XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN
XXXXXXXXXX XXXXXXXXXXXX AA  AA  AA  A  NNNN NNNN XXXXX XXXXX NNNNN

*****ERROR MESSAGE*****
PF KEYS=====
PF1:  N/A  PF2:  N/A  PF3:  N/A  PF4:  N/A  PF5:  N/A  PF6 :  N/A
PF7:  UP   PF8:  DOWN PF9:  N/A  PF10: N/A  PF11: N/A  PF12: EXIT

```

Product Information

The Product Information Screen provides you with information for the Finalist CICS product.

**NOTE:** The EWSDATA File Copyright Date will not display on the Product Information Screen until you process a record with the EWS Option turned on.

```

FINALIST ON-LINE N.N                                (C) YYYY PITNEY BOWES SOFTWARE, INC.
                                                    PRODUCT INFO
                                                    HH: MM: SS

FINALIST STREET DATA FILE
VERSION      :  N.NN.NN.N.NN
CREATED DATE :  MM-DD-YYYY
EXPIRATION DATE :  MM-DD-YYYY
TYPE        :  FULL (ZIP, ZIP+4 AND CARRIER ROUTES)
COVERAGE    :  NATIONAL

FINALIST CITY FILE                                USPS EWSDATA FILE
VERSION      :  N.NN.NN.N.NN                      COPYRIGHT DATE:  MM-DD-YYYY
CREATED DATE :  MM-DD-YYYY
EXPIRATION DATE :  MM-DD-YYYY

SOFTWARE VERSIONS
WINDOWING    :  N.N
ON-LINE FINALIST :  N.NN.NN.N.NN
ACCESS METHOD :  N.NN.NN.N.NN

PF KEYS=====
PF1:  N/A  PF2:  N/A  PF3:  N/A  PF4:  N/A  PF5:  N/A  PF6 :  N/A
PF7:  N/A  PF8:  N/A  PF9:  N/A  PF10: N/A  PF11: N/A  PF12: EXIT

```

## Troubleshooting Overview

This section includes troubleshooting information for any error messages you may encounter when processing with the Finalist CICS LPCF transaction. The LPCF transaction handles errors by displaying a return code and a window message overlay on each screen where an error occurs.

## LPCF Extended Capabilities

The Finalist LPCF transaction does not have input/output (I/O) capabilities other than its use of the Finalist master files. System exit points help update a file's addresses. These exit points can call I/O routines. One exit point is called to read an address into the Address Lookup Screen (input exit). The other is used to write addresses from the Address Lookup Screen (output exit).

Use these exits to read an input file (PF7) and ensure that an address is correct. After validating and/or correcting an address, the output exit (PF8) can write the corrected address to a new file or the file used as input. This is a highly effective way of ensuring address files are correct and contain deliverable addresses.

You can call the input exit using the PF7 key from the address lookup display. You can call the output exit using the PF8 key.

## The Exit Programs

---

The exit points are coded as CICS links to the exit programs. These programs exist as small stubs when Finalist CICS is delivered. Each stub can be replaced in the load library by a user-written program of the same name. The programs are called by the system via a CICS link command to the following programs:

- LPWN509C program for the input exit.
- LPWN510C program for the output exit.

Both programs are passed a COMMAREA of the same format. The COMMAREA passed to the exit routines is defined in the source member LPWN020D (LPWN021D for COBOL) on the Finalist distribution. LPWN020D contains a copy statement for LPFNCL04 (copybooks LPFNCL01 for COBOL and LPFNCL04 for Assembler) which

is a source member on the Finalist distribution. The figure shown next contains a description of the exit COMMAREA fields.

**Table 2: Exit COMMAREA Fields**

| Field                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXITRC (BYTES 01-02)   | Exit program return code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| EXITDSL (BYTES 03-03)  | <p>Display Security Level:</p> <p>Forty bytes of the area passed between the input and the output exits are displayed for possible update on the address lookup screen in a field labeled "ADDR KEY". Display security level allows you to protect those 40 bytes as follows:</p> <p>Code U-Allow update of the field</p> <p>Code V-Only allow users to view the field</p> <p>Code H-Hide the field entirely</p> <p>(Any value other than "V" or "H" defaults to "U". See EXITPASS below.)</p>                                                                                                                                |
| EXITREQW (BYTES 04-04) | <p>Require rewrite switch</p> <p>Do not allow the user to execute the input exit a second time until the output exit has been called if the value of this field is "Y". This is accomplished by disabling the 'read' and 'clear' PF keys until the "save" PF key has been pressed.</p>                                                                                                                                                                                                                                                                                                                                        |
| EXITPAS4 (BYTES 05-08) | <p>User defined data - not updateable</p> <p>This field is initialized to binary zeros when the output exit is called on an address not read from the input exit. Note that an address is considered to have been read if the input exit was executed and you have not hit the "write" or "clear" PF key. This is true even if the address is altered beyond recognition.</p>                                                                                                                                                                                                                                                 |
| EXITPASS (BYTES 09-48) | <p>User defined data - passed from the input exit to the output exit.</p> <p>This field also displays on the address lookup screen as "ADDR KEY" for update if it is not locked by the input exit.</p> <p>If this field is not locked, it is updated from the address lookup screen. In this case, any bytes containing low values (X'00') are compressed out by CICS mapping. Significant characters to the right of the low value bytes shift left during compression. This causes a potential for inadvertent change.</p> <p>If this field is locked against update, it is passed unchanged and no compression occurs.</p> |
| FINALIST CALLAREA      | <p>This field immediately follows the exit information defined above. This field's length and format are described in the <i>Finalist Developer's Reference Guide</i>. Distributed source members LPFNCL01 and LPFNCL04 map this area in COBOL and Assembler respectively. This same area is passed to Finalist and should be filled in by the input exit as for a call to Finalist. This area should be interpreted by the output exit as if it was returned directly from Finalist.</p>                                                                                                                                     |

### Input Exit Point

---

This section describes the input exit point including the data passed to the exit routine on a call and how the data from the exit routine is processed when returned to the Finalist CICS system. The list shown next describes the steps for a call to the input exit.

1. Press the **PF7** key.
2. The ADDR key is taken from the Address Lookup Screen and placed in the COMMAREA.
3. The Finalist CICS system links to the exit program (LPWN509C) and passes the COMMAREA.
4. The LPWN509C program processing starts.
5. The LPWN509C program returns control to the Windows programs.
6. The input address and the 40-byte passthrough area in the COMMAREA are formatted onto the Address Lookup Screen.
7. The Finalist function and tailoring options (set on the main menu) are restored. The function and tailoring options have priority over those in the COMMAREA.
8. If the value for the require rewrite switch in the COMMAREA is "Y", the read and clear PF keys are disabled on address lookup.
9. If the return code from the exit is not zero, the address lookup screen displays at this point without any further processing. The exit return code displays. Otherwise, Finalist is called with the address passed back by the exit as if the address had been entered on the address lookup screen. The results display on the address lookup screen.

### Output Exit Point

---

This section describes the output exit point including how the output exit point works, the data passed to the exit routine on a call, and the action taking place after the exit routine returns control to the Finalist program. The list shown next describes the steps for a call to the output exit point.

1. You must process the desired address on the address lookup screen before actually executing the exit program. This includes a coding attempt through Finalist. A coding attempt is defined as either of the following:

- An address is keyed into the address lookup screen and the Enter key is pressed.
- The input exit routine returns an address and a return code of "00".

The coding attempt builds the FINALIST CALLAREA. This CALLAREA is part of the COMMAREA passed to the exit routine. If the exit display security level (EXITDSL) is set for update, the field EXITPASS is updated from the address key field on the address lookup screen at this time.

2. Press PF8 to execute the output exit routine.
3. The Finalist system links to the LPWN510C exit program and passes the COMMAREA described earlier in this chapter.
4. The LPWN510C program returns control to the Finalist programs.
5. A message displays the exit return code on the address lookup screen.
6. The read and clear PF keys, PF7 and PF10 respectively, are enabled. This occurs in case these keys were disabled by the require rewrite switch from the input exit.
7. The exit return code initializes to character zeros.
8. The four-byte, hidden pass-through area initializes to binary zeros.
9. The Addr Key field on the Address Lookup Screen is unlocked. This occurs in case the key was locked by the exit display security level from the input exit routine.
10. The Address Lookup Screen displays with the original address and Addr Key data left intact.

### Programming Notes and Tips

---

The exit points were developed to provide a means of reading and writing addresses. These exits can eliminate keying the addresses as input and manually transferring the results of Finalist CICS processing to the proper location for use. The following subsections provide several scenarios for using the exits. These examples do not represent a complete list of uses for the exits. The examples provide a few helpful tips in using the exit points.

---

**NOTE:** There may be times when it is desirable to disable the exits. For details on disabling (locking) the exits, refer to [“Pass Control Block” on page 109](#).

---

### Sequentially Processed Files

The first scenario involves using a sequentially processed file of addresses through Finalist CICS. Each address is read using the input exit program and written using the output exit program. The exit COMMAREA is mapped by distributed source members LPWN020D (Assembler) and LPWN021D (COBOL).

The exit common area contains a safety feature called EXITREQW (the require rewrite switch). If this switch is set to "Y" during the input exit, you are not able to process the next record until the output exit has been called for the current record. This setting prevents records from being accidentally skipped. For more information, refer to the section "The Exit Programs" earlier in this chapter. Once the record is processed, the output routine may need key information to update the record. The two ways to pass this information are described next.

- A four-byte PASSAREA (EXITPAS4): The four-byte PASSAREA is never seen on the screen. This is an ideal use for passing data such as relative record numbers or database keys which only have meaning to a computer.
- A 40-byte PASSTHROUGH area (EXITPASS): The PASSTHROUGH area is shown on the Address Lookup screen. The input routine may set a flag to determine whether this data should be:
  - Hidden from the user entirely
  - Shown but locked against updating
  - Shown with update capability

See source member LPWN020D (Assembler) and/or LPWN021D (COBOL) for more information.

### Using CICS as the Original Entry Screen

The second scenario involves the ability to enter addresses using the Finalist CICS product as the original entry screen. It may be helpful when entering a new address to track whose address is being entered. Key information relating the address to the addressee is keyed into the Addr Key field on the Address Lookup Screen.

Records going to the output exit may have been manually entered or read with the input exit. It may be necessary to distinguish between the two. One way to accomplish this is to take advantage of the four-byte invisible PASSTHROUGH field. This field is initialized to binary zeros after each call to the output exit routine or when PF10 is pressed to clear the Address Lookup Screen. If the input exit routine never passes binary zeros to this field, manually entered addresses are distinguishable from records read using the input exit.



## Reading Input Records Directly

In the third scenario, the input exit reads input records directly rather than sequentially. A record key is needed to find the desired record. The Addr Key field on the Address Lookup Screen is passed to the input exit in the 40-byte PASSTHROUGH and can be used to provide this information to the input exit routine.

## Deleting Records

You may want the output routine to delete rather than update a record. Write the output routine to recognize a specific value in the Addr Key field or one of the address line fields as a delete key.

## Reading Input Without an Automatic Coding Attempt

Input from the input exit routine with an exit return code of "00" results in a system attempt to code the incoming address through Finalist. Any other return code value displays on the Address Lookup screen with the returned address data. No attempt is made to code the address through Finalist. If you do not want immediate Finalist processing, return a non-zero code.

## Calling Finalist CICS From Another Application

---

You can call Finalist CICS from another application to:

- Access Finalist CICS system from another application
- Process an address
- Return to the calling application directly from Finalist CICS system

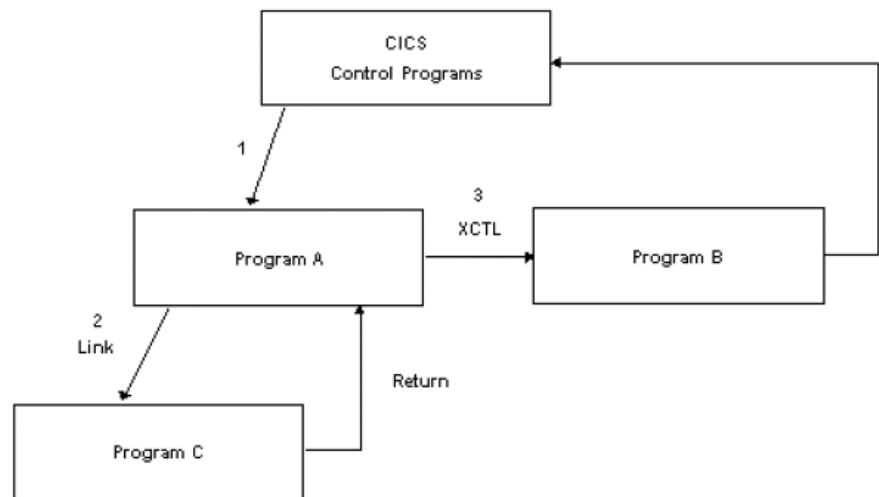
Address information in the same format as a call to Finalist can be carried to and from Finalist CICS application. Any application used in this way must meet the requirements specified in this chapter. The list below contains items you should know when using an application to call Finalist CICS product.

1. The Address Lookup Screen displays first when you access the Finalist CICS system. This screen will look as if you just executed the input exit routine using the PF7 "read" key. This is because the data passed from the calling application closely resembles the data passed back from the input exit routine.
2. Values usually entered on the Main Menu Screen are passed to the Windows programs by the calling application. These values are viewed and updated by accessing the Main Menu Screen from the Address Lookup Screen.

3. Press Clear from any screen or PF12 from the Main Menu Screen to return to the calling application. The Clear key here refers to the Clear key on your terminal and not the clear-screen function PF10 key.
4. The address data returned to the calling application comes from a call to Finalist. This call to Finalist occurs when you press Enter on the Address Lookup Screen. This call can also occur when Finalist CICS receives control from the calling application if the call area's exit return code field contains zeros. Address data entered after the last call to Finalist is not passed back to the calling application.

## Technical Background Information

Finalist CICS is a pseudo-conversational dialog. This means control returns to CICS after a screen displays, and returns to the application each time you press an attention key (for example, Enter, Clear, etc.). CICS applications are broken down into hierarchical levels according to the manner of linkage between programs. The figure below is an illustration of how this works.



**Figure 1: Program Linkage Illustration**

The following is a list of the sequence of events illustrated in the previous figure. The numbers correspond to those in the flowchart.

1. CICS passes control to program A. Program A is on the first level of hierarchy below CICS.
2. Program A links to Program C. This link establishes a lower hierarchical level. When program C returns, control passes to program A rather than to CICS.
3. Program A performs an XCTL to program B. XCTL does not establish a new hierarchical level. When program B returns, control passes to CICS.

The CICS return command only returns control to the next higher level of hierarchy above the returning program. A pseudo-conversational program must be at the hierarchical level immediately below CICS to return control to CICS. This means you cannot link to Finalist CICS as you would link to FINALOL.

A program on the calling application's top hierarchical level must XCTL to Finalist CICS. In turn, CICS must XCTL back to the calling application to preserve the current hierarchical level. This can lead to complications as all dynamic storage obtained by the program doing the XCTL command is lost after the XCTL unless passed in a COMMAREA.

The calling application must pass all data it will need after CICS processing. This data is passed through CICS via the COMMAREA. The size of the data in the calling application's COMMAREA is not available to CICS. Therefore, it can not carry all the data in its own COMMAREA. Finalist CICS uses a temporary storage queue to hold the calling application's COMMAREA. When CICS processing is complete, the calling application's COMMAREA is rebuilt. The temporary storage queue is deleted. This process is illustrated below.

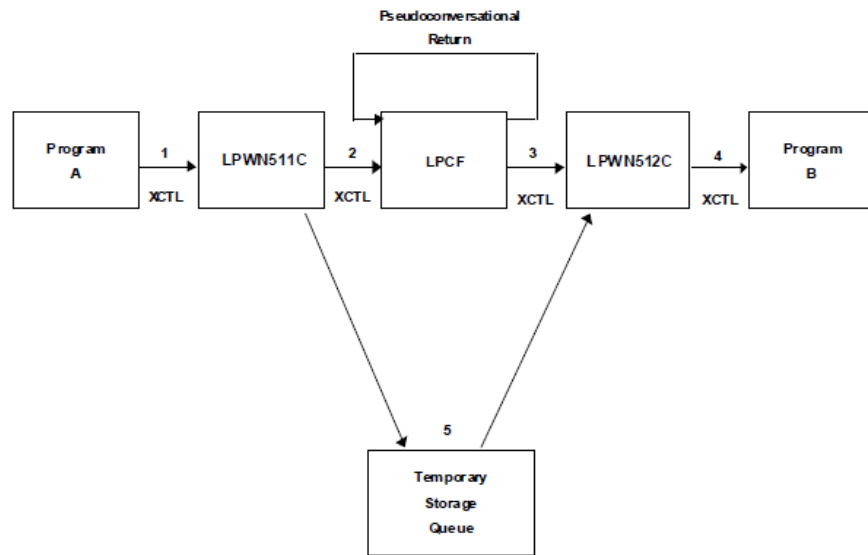


Figure 2: Callable Finalist CICS Linkage

The following is a list of the sequence of events illustrated in the previous figure. The numbers correspond to those in the flowchart.

1. Your program COMMAREA contains user data with additional data added to the end for use by Finalist CICS.
2. XCTL 1 passes the full COMMAREA to LPWN511C.

3. LPWN511C formats a Windows COMMAREA to pass to Windows (LPCF). The rest of the COMMAREA is saved in a temporary storage queue. The TS Queue is named LPCFxxxx where “xxxx”=EIBTRMID. LPWN511C saves the transaction code and changes it to LPCF. The Windows COMMAREA is passed to Windows in XCTL 2.
4. Finalist CICS (LPCF in the previous figure) runs as usual until you press Clear ending CICS processing. Prompted by a flag passed by LPWN511C, CICS XCTLs to LPWN512C instead of returning to CICS. The CICS COMMAREA is passed in the XCTL.
5. LPWN512C performs the following:
  - Reads and deletes the temporary storage queue
  - Merges the CICS CALLAREA into your COMMAREA
  - Restores your transaction code
  - XCTL's to a program named by you
    - This program can be the same one that passed control to CICS or a different program. This is a user decision. The user program (Program B in the previous figure) is responsible for knowing control is coming from CICS.
    - If the field PASSPGM in the Pass Control Block is not filled in by your application prior to calling LPW511C, abend LP71 occurs when Finalist CICS ends and attempts the XCTL. For detailed information on this field, refer to the section “Pass Control Block” later in this chapter.

### Technical Specifications for Calling Finalist CICS

---

Finalist CICS is called externally using the following CICS command:

```
EXEC CICS XCTL PROGRAM(' LPWN511C' ) COMMAREA(dataname) LENGTH(datalen)
```

The “dataname” above refers to the name of the COMMAREA to pass. The “datalen” refers to the length of the COMMAREA to pass.

---

**NOTE:** This must always be an XCTL and not a LINK. Never include this in a program called via a CICS LINK command. The Finalist CICS system must be at the highest level of hierarchy below CICS.

---

## COMMAREA Passed to Finalist CICS

The COMMAREA passed to CICS in the XCTL command described above contains the following:

- Data important to the calling application
- A pass control block defining the call to CICS
- Exit COMMAREA image

Data is not allowed between the pass control block and the exit COMMAREA image. Also, data is not allowed after the exit COMMAREA image. These areas are located by subtracting their lengths from the end of the whole COMMAREA.

## Pass Control Block

The Pass Control block is defined in the source member LPWN030D in the Finalist distribution. The CICS programs assume the pass control block begins on a doubleword boundary. The following table describes the pass control block fields.

**Table 3: Pass Control Block Fields (Part 1 of 2)**

| Field     | Description                                                                                                                                                                      |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PASSPGM   | Bytes 01-08. Program to XCTL to when CICS processing is finished.                                                                                                                |
| PASSTRAN  | Bytes 09-12. Alternate Finalist CICS transaction code. On blank or low-values, this code defaults to LPCF. This code can be used if you renamed LPCF in your own CICS PCT entry. |
| PASSCNFG  | Bytes 13-15. Finalist configuration value. Valid values are those that are currently CASS-certified.                                                                             |
| PASSUNIQ  | Byte 16. Finalist tailoring option for unique ZIP Codes. (One byte. Value "Y" or "N").                                                                                           |
| PASSSTPH  | Byte 17. Finalist tailoring option for street phonetics. (One byte. Value "Y" or "N").                                                                                           |
| PASSFRMC  | Byte 18. Finalist tailoring option for firm correction. (One byte. Value "Y" or "N").                                                                                            |
| PASSCTPH  | Byte 19. Finalist tailoring option for city phonetics. (One byte. Value "Y" or "N").                                                                                             |
| PASSCWGT  | No longer supported.                                                                                                                                                             |
| PASSSWGTT | No longer supported.                                                                                                                                                             |
| PASSZPCR  | Byte 22. Finalist tailoring option for ZIP correct. (One byte. Value "Y" or "N").                                                                                                |

Table 3: Pass Control Block Fields (Part 2 of 2)

| Field       | Description                                                                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PASSCTCR    | Byte 23. Finalist tailoring option for city correct. (One byte. Value "Y" or "N").                                                                                     |
| PASSSTRC    | Byte 24. Finalist tailoring option for street cosmetics. (One byte. Value "Y" or "N").                                                                                 |
| PASSFIRM    | Byte 25. Finalist tailoring option for firm parse. (One byte. Value "Y" or "N").                                                                                       |
| PASSUNIT    | Byte 26. Finalist tailoring option for unit designator. (One byte. Value "Y" or "N").                                                                                  |
| PASSCTYL    | Byte 27. Finalist tailoring option for long city name. (One byte. Value "Y" or "N").                                                                                   |
| PASSALS     | Byte 28. Finalist tailoring option for alias street name in the Finalist label format area. (One byte. Value "Y" or "N" or '1' through '6').                           |
| PASSFRML    | Byte 29. Finalist tailoring option for firm name in the Finalist label format area. (One byte. Value "D" or "I").                                                      |
| PASSEXPS    | Bytes 30-32. Finalist future expansion space - leave blank. (three bytes).                                                                                             |
| PASSEXCP    | Byte 33. Finalist CICS control switch. Exceptions processing. Y = Use exceptions table in Finalist processing.                                                         |
| FILLER      | Byte 34. Reserved for future use.                                                                                                                                      |
| PASSEX1L    | Byte 35. Finalist CICS control switch. Lock input exit. L = Input exit (LPWN509C) can not be accessed while executing Finalist CICS.                                   |
| PASSEX2L    | Byte 36. Finalist CICS control switch. Lock output exit. L = Output exit (LPWN510C) can not be accessed while executing Finalist CICS.                                 |
| PASSWCRI    | Byte 37. Finalist CICS control switch. Finalist CICS call return indicator. Finalist CICS returns a "Y" in this field indicating a return from callable Finalist CICS. |
| Bytes 38-48 | Reserved for future use.                                                                                                                                               |

### Exit COMMAREA Image

The exit COMMAREA image consists of an exit control block followed by the FINALIST CALLAREA. This is the same format as the COMMAREA passed to the user exit routines.

## Sample Program for Calling Finalist CICS

The program shown next illustrates one way to call Finalist CICS from another application. In this case, one program passes control to Finalist CICS and instructs Finalist CICS to pass control back to the same program calling it. You can also set up Finalist CICS to pass control to any other program. When finished, the Finalist CICS system passes control to any program per your instructions.

```

EXAMPLE  TI TLE ' - CICS WINDOWING APPLICATION DRIVER'
          DFHEIGBL ,
          COMMDSCT DSECT
          COMMDATA DS      OD
                   COPY   MAPDS              (MAPSET DSECT)
                   :
                   (MISCELLANEOUS DATA)
                   :
                   COPY   LPWNO30D           (PASS CONTROL BLOCK)
                   COPY   LPWNO20D           (EXIT COMMAREA IMAGE)
          PASSLEN EQU    *-PASSCNTL
          COMMLEN EQU    *-COMMDATA
          EJECT
          DFHEISTG DSECT
                   DFHEISTG
                   :
                   (WORK FIELDS USED ONLY WITHIN 1 PASS THRU THIS PROGRAM)
                   :
          EXAMPLE DFHEIENT CODEREG=(3), DATAREG=(13), EIBREG=(11)
                   USING COMMDSCT, R5
                   :
                   (USER APPLICATION LOGIC)
                   :
                   CLC   EIBCALEN, =H' 0'      IF NO COMMON AREA PRESENT,
                   BNE  NOTFIRST              GET SPACE TO PUT IT IN.
                   EXEC CICS HANDLE CONDITION NOSTG(ABENDIT)
                   EXEC CICS GETMAIN SET(R5) FLENGTH(=A(COMMLEN)) INITIMG(X' 00' )
                   MVI  PASSWCRI, C' N'       RESET WINDOWS RETURN SWITCH
          NOTRETN B      NOTRETN
                   DS    OH
          NOTFIRST L    R5, DFHEICAP          A(COMMAREA)
                   CLI  PASSWCRI, C' Y'      IF RETURNING FROM WINDOWS
                   BE   PROCRETN             PROCESS RETURNED DATA
          NOTRETN DS    OH
                   :
                   (USER APPLICATION LOGIC)
                   :
                   (FILL IN ADDRESS DATA TO PASS TO WINDOWS)
                   :
                   (FILL IN EXIT CONTROL BLOCK TO PASS TO WINDOWS)
                   :
                   MVC  PASSPGM, =C' EXAMPLE ' RETURN TO EXAMPLE PROGRAM AFTER WINDOWS
                   MVC  PASSTRAN, =C' LPCF'   WINDOWS TRAN CODE IS LPCF
                   MVI  PASSEX1L, C' L'      LOCK INPUT EXIT
                   MVI  PASSEX2L, C' L'      LOCK OUTPUT EXIT
                   MVI  PASSEXCP, C' N'      NO EXCEPTION TABLE
                   MVC  PASSTALR, =CL13'     BLANK TAILORING GETS DEFAULTS
                   SPACE
                   EXEC CICS XCTL PROGRAM(=C' LPWN511C' ) COMMAREA(COMMDSCT)X
                   LENGTH(=Y(COMMLEN))
                   EJECT
          PROCRETN DS    OH                   PROCESS RETURN FROM WINDOWS
                   :
                   (PROCESS DATA RETURNED FROM WINDOWS)
                   :
                   MVI  PASSWCRI, C' N'      RESET WINDOWS RETURN SWITCH
                   :
                   (PROCEED WITH USER APPLICATION LOGIC)
                   :
          * USUAL RETURN FOR A PSEUDO-CONVERSATIONAL PROGRAM
          EXEC CICS RETURN TRANSID(EIBTRNID) COMMAREA(COMMDSCT) X
                   LENGTH(=Y(COMMLEN))
                   :
                   (THE REST OF THE PROGRAM)
                   :
                   END
    
```

## Programming Tips for Calling Finalist CICS LPCF

---

The following is a list of programming tips you may find useful when calling the Finalist CICS LPCF transaction:

- The exit COMMAREA image passed in the called Finalist CICS COMMAREA is placed in the same storage area as the exit routine COMMAREA. This means data such as record keys can be passed from the application that calls Finalist CICS to the exit routines. Also, any of the switches set by the exit routines to affect Finalist CICS processing can be set in the calling application.
- In many cases, you will not want to use the exit routines when calling Finalist CICS and passing it an address. Also, it is desirable to protect users from accidentally erasing the passed address. With PASSEX1L and PASSEX2L set to "L" and EXITREQW set to "Y", both the clear address PF10 key and the exit routine calls are locked. All changes made to a passed address must be made deliberately.
- There are separate switches for locking the input and output exits. These exits can be disabled separately allowing you to only read or only write from a called Windows dialog.

## CICS Basic Mapping Support (BMS)

---

Basic mapping support (BMS) is an interface between CICS and its application programs. Input and output data is formatted in response to BMS commands in the application programs. To do this, it uses device information from CICS system tables and formatting information from maps that have been prepared for the application program. A single BMS command in an application program can address more than one kind of device, since the terminal information is retrieved by BMS from a systems table. Since formatting information is stored separately, writing applications is simpler and less susceptible to changes in the system or peripheral devices. To learn more about the use of BMS mapping in an application program, please refer to your IBM CICS system manuals.

## Finalist CICS Sample Code

---

COBOL source for CICS transaction PBFN is included as a sample COBOL program. See PBFNFC00 in the CISOURCE library.



# CHAPTER 6

---

## Working With Finalist IMS

This chapter provides information on using the S56LPCH and S56LPWNH transactions for Finalist IMS processing.

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## Finalist Keys

Beginning with the 8.1.0 release, the Finalist® key is now restricted to your licensed System ID(s). The System ID information must be provided to Pitney Bowes Software Account Manager before a software key can be created for your use. If you use Finalist® on more than one system, you can provide up to seven System IDs in a single key.

---

**NOTE:** When you upgrade your hardware, you must provide the new System ID information to Pitney Bowes Software Account Manager so a new software key can be generated.

---

### Finding Your System ID

If you already have Finalist® 8.1.0 or higher installed on your system, you can run the KeyStore program with no input to display your System ID information. If you do not have access to the KeyStore program, the following methods can also be used to obtain the System ID information.

#### z/OS

1. Issue the operator command:

```
D M=CPU
```

2. The response is similar to:

```
IEE174I 15.33.37 DISPLAY M 648
PROCESSOR STATUS
ID CPU SERIAL
00 + 01E3E02096
...
```

3. The System ID for Finalist® is the first six characters below the SERIAL field. In the example above, the value is:

```
01E3E0
```

### KeyStore

PGM=KEYSTORE is a program that will allow you to avoid storing your software key in your individual driver code or in individual pbfm.cfg files. This is required for CI users and optional for all other users.

---

**NOTE:** Pitney Bowes Software provided CICS and IMS transactions run with the CI interface. If you are using CICS or IMS, you will need to run PGM=KEYSTORE multiple times, each one targeting the proper LOAD library.

---

Sample JCL for KeyStore can be found in the FNSOURCE library that is part of the installation. In summary, PGM=KEYSTORE:

1. Reads in the key
2. Generates an assembler (BAL) program that is compiled and linked and placed into the Finalist LOADLIB. This program only needs to be rerun if you replace your LOADLIB or change your system hardware.

If you run PGM=KEYSTORE without a value in SYSIN, it will display the System ID. It is this System ID that is required to generate your Finalist software key. You can use this method as an alternative to the D M=CPU command described above.

## Using the S56LPCH Transaction

1. Enter the **S56LPCH** transaction name on any IMS terminal.

The *Input Inquiry* Screen displays next. This screen displays after you enter the transaction name and press **Enter**. Follow the information on the screen.

```

                                FINALIST ON-LINE N.N
                                (C) YYYY PITNEY BOWES SOFTWARE, INC.

PLEASE ENTER THE FOLLOWING INFORMATION:

FUNCTION CODE   ==>>

        VALID FUNCTION CODES ARE:

        4 - ZIP LOOK-UP, IF FAILURE TRY CITY/STATE LOOK-UP
        5 - CITY/STATE LOOK-UP, IF FAILURE TRY ZIP LOOK-UP
        6 - ZIP LOOK-UP ONLY
        7 - CITY/STATE LOOK-UP ONLY

FIRM LINE      ==>> XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
URB LINE       ==>> XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR. LINE 1   ==>> XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR. LINE 2   ==>> XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CITY/STATE     ==>> XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ZIP CODE       ==>> XXXXX   SECSG ==>> XXXX CARRTE ==>> XXXX

                                PRESS ENTER TO CONTINUE - ANY PF KEY TO EXIT

```

## Using the S56LPWNH Transaction

This section contains instructions for using the S56LPWNH transaction to verify your Finalist IMS On-Line Windows system installation. This transaction also demonstrates some system capabilities. You may invoke the IMS version of the Finalist IMS by entering the transaction name S56LPWNH at any terminal signed on to IMS/VS. This chapter provides a mockup for each screen showing the data fields eligible for entry marked with place-holding characters. These characters define the type of data allowed in the field. If an "A" appears in a field, the information you enter in that field must be alpha only. If an "N" appears, the information can only be numeric. Finally, an "X" indicates when the information can be either alpha or numeric. You will see the following information for each screen:

- A brief description of the screen
- A screen mockup including:
  - Characters defining the size of the entry field
  - Characters indicating whether the field is alpha only (A), numeric only (N), or alphanumeric (X)
- Data information including:
  - Beginning cursor position
  - Entry notes
  - Active PF keys
  - Possible error messages

Not all PF keys are available from all screens. Consult the screen mockup to see the specific PF key availability.

## Main Menu Screen

Type the transaction name S56LPWNH. The Main Menu displays.

```

S56LPWNH      FINALIST ON-LINE INQUIRY VERSION X.XX (C) PITNEY BOWES SOFTWARE, INC. XXXX
OPTION CODE: 1 (VALID OPTIONS LISTED BELOW)                                HH:MM:SS

1- FINALIST ADDRESS LOOKUP          4- STREET NAME LIST
2- CITY INFORMATION                 5- STREETS INFORMATION
3- ZIPCODE INFORMATION              6- PRODUCT INFORMATION

FINALIST FUNCTION, TAILORING, AND SETUP PARMS:      ALSLBL : Y   FIRMLBL: I
CONFIG :
OR
FUNCTION: 4 (VALID FUNCTIONS LISTED BELOW)          TAILORING (Y OR N):
4- ZIP LOOKUP, ON FAILURE CITY/STATE LOOKUP        UNIQUE : Y   STRPHON: Y
5- CITY/STATE LOOKUP, ON FAILURE ZIP LOOKUP        CTYPHON: Y   CWEIGHT: Y
6- ZIP LOOKUP ONLY                                SWEIGHT: Y   ZI PCORR: Y
7- CITY/STATE LOOKUP ONLY                          CTYCORR: Y   STRCOSM: N
                                                    FIRMPRS: Y   UNITDES: Y
EXCEPTION TABLE PROCESSING: (Y OR N)              CTYLONG: N   FRMCORR: N
EARLY WARNING SYSTEM PROCESSING: N (Y OR N)
DELIVERY POINT VALIDATION PROCESSING: N (Y/N/S/F)
LACSLINK PROCESSING: N (Y OR N)                    SUITELINK PROCESSING: N (Y OR N)

PF KEYS =====
PF1: OPT 1      PF2: OPT 2      PF3: OPT 3      PF4: OPT 4 PF5: OPT 5      PF6: OPT 6
PF9: RESET                                           PF24: EXIT

```

For information on the various options, please refer to Chapter 3, Using the Compatibility Interface, in your *Finalist Developer's Reference Guide*.

## Address Lookup Screen

The *Address Lookup* Screen displays when you select option code **1** (PF1) from the *Main Menu*. This is the primary input screen. Enter the data that defines the targeted information in the input fields and press **Enter**. The return data displays on the screen along with the selection data you entered in the input fields. You may enter new data or type over the existing data in the input fields. If an error window appears, you must press **PF9** to clear the error window before you can enter new information.

```

S56LPWNH      FINALIST ON-LINE N.N                ADDRESS LOOKUP
ADDR KEY : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
FIRM LN  : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
URB LN   : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR LN 1 : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR LN 2 : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CITY/STATE: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ZIP CODE  : NNNNN
SEC/SEG   : NNNN   CR:
RETURN INFORMATION
CR: XXXX SS: XXXX DPV: X
LLK: X   SLK: X   CMRA: X

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXX(LABEL FORMAT OUTPUT)XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
COUNTY: NNNNN
APT INFO:
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
RETURN CODES
1-123456789000-1234567890
***** ERROR MESSAGE *****
PF2: CITY      PF3: ZIP      PF4: STREET PF5: RANGE  PF6: INFO
PF7: READ      PF9: RESET     PF10: CLEAR PF11: RETCODE PF24: EXIT

```

## Return and Reason Codes Screen

The *Return and Reason Codes* Screen displays when you press **PF11** from the *Address Lookup* Screen. On this screen, **PF10** acts as a toggle switch, taking you between the *Return and Reason Codes* Screen and the *Address Information Code* Screen. This screen does not accept input. Press **PF24** to exit.

| S56LPWNH                            |      | FINALIST ON-LINE N.N |                                          | 13: 12: 00 |
|-------------------------------------|------|----------------------|------------------------------------------|------------|
| RETURN AND REASON CODES             |      |                      |                                          |            |
| TYPE                                | CODE | VALUE                | MEANING                                  |            |
| RETURN                              | 1    | : 0                  | ZIP, CARRIER ROUTE AND ZIP+4 ASSIGNED    |            |
| REASON                              | 1    | : 1                  | ZIP CODE RETURNED                        |            |
|                                     | 2    | : 0                  | CITY VERIFIED AS INPUT                   |            |
|                                     | 3    | : 1                  | CARRIER ROUTE RETURNED                   |            |
|                                     | 4    | : 1                  | ZIP+4 RETURNED                           |            |
|                                     | 5    | : 0                  | STREET VERIFIED AS INPUT                 |            |
|                                     | 6    | : 0                  | STREET RANGE CORRECT                     |            |
|                                     | 7    | : 0                  | SUFFIX AND DIRECTIONAL CORRECT           |            |
|                                     | 8    | : 0                  | INPUT STREET IS NOT AN ALIAS             |            |
|                                     | 9    | : 3                  | FIRM RECORD MATCH, BUT FIRM NAME MISSING |            |
|                                     | 10   | : 0                  | UNIT DESIGNATOR (IF ANY) CORRECT         |            |
|                                     | 11   | : 0                  | UNIT NUMBER (IF ANY) CORRECT             |            |
|                                     | 12   | : 0                  | NON-CONVENTIONAL ADDR. GOOD (IF PRESENT) |            |
| PF KEYS =====                       |      |                      |                                          |            |
| PF10: A-INFO F11: RETURN PF24: EXIT |      |                      |                                          |            |

## Address Information Codes Screen

The *Address Information Codes* Screen displays when you press **PF10** from the *Return and Reason Codes* Screen. On this screen, **PF10** acts as a toggle switch, taking you between the *Return and Reason Codes* Screen and the *Address Information Codes* Screen. This screen does not accept input. Press **PF24** to exit.

| S56LPWNH                  |      | FINALIST ON-LINE N.N |                                        | 13:14:58   |
|---------------------------|------|----------------------|----------------------------------------|------------|
| ADDRESS INFORMATION CODES |      |                      |                                        |            |
| TYPE                      | CODE | VALUE                | MEANING                                |            |
| INFO                      | 1    | : 0                  | SINGLE ZIP CODE CITY                   |            |
|                           | 2    | : 0                  | CONVENTIONAL ADDRESS                   |            |
|                           | 3    | : 0                  | CITY DELIVERY                          |            |
|                           | 4    | : 1                  | ADDRESS FOUND ON LINE 1                |            |
|                           | 5    | : 0                  | ADDRESS FOUND ON PRIMARY LOOKUP        |            |
|                           | 6-8  | : 108                | APT # PRESENT ON MFDU ---60 - 67 UNITS |            |
|                           | 9    | : 6                  | HIGHRI SE ADDRESS CODED                |            |
|                           | 10   | : 9                  | ZIMOVE FORWARDING DID NOT OCCUR        |            |
| PF KEYS =====             |      |                      |                                        |            |
|                           |      |                      | PF10: RETCODE                          | PF24: EXIT |

For more information on the various options, please refer to Chapter 3, Using the Compatibility Interface, in your *Finalist Developer's Reference Guide*.



## Return Area Screen

The *Return Area* Screen displays when you select the **PF11** option on the *Return and Reason Codes* Screen. Use **PF11** to get back to the *Return and Reason Codes* Screen. Use **PF12** to exit from the *Return Area* Screen and return to the *Finalist Address Lookup* Screen. There is no input opportunity on this screen.

```

S56LPWNH                                FINALIST ON-LINE N.N                HH:MM:SS
INPUT INFORMATION:
FIRM LINE : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
URB LINE  : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR LINE 1: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDR LINE 2: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CITY/STATE : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ZIP: NNNNN SEC-SEC: NNNN CAR-RTE: XXXX FUNCTION: N
RETURN INFORMATION:
ISOLATION RESULTS:                    ISOLATION ATTEMPTS: N
RANGE: XXXXXXXXXX                     SUFFIX1: XXXX
PRE-DIRECT: XX                          SUFFIX2: XXXX
POST-DIR: XX                             APARTMENT: XXXXXX
STREET: XXXXXXXXXXXXXXXXXXXXXXXXXXXX   EXTRANEOUS: XXXXXXXXXX

DEFAULT DIRECTON/SUFFIX COMBINATIONS      OUTPUT INFORMATION
PRE-DIR SUFX1 SUFX2 POST-DIR              ZI PCODE: NNNNN
-----
1) XX XXXX XXXX XX                        CAR-RTE: XXXX
2) XX XXXX XXXX XX                        CITY: XXXXXXXXXXXXXXXX
3) XX XXXX XXXX XX                        STATE: XX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ERROR MESSAGE XXXXXXXXXXXXXXXXXXXXXXXX
PF KEYS =====
                                           PF11: RETCODE PF24: EXIT
  
```

## City Information Screen

```

                                FINALIST ON-LINE N.N                CITY NAME LIST    HH:MM:SS
INPUT CITY: XXXXXXXXXXXXX INPUT STATE: XX (2 CHAR ABRV)

CITY NAMES          ZI PCODES          CITY NAMES          ZI PCODES
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN
XXXXXXXXXXXXXXXXXX  NNNNN          XXXXXXXXXXXXXXXXXXX  NNNNN

PF KEYS =====
PF7: UP          PF8: DOWN                                PF24: EXIT
  
```

## ZIP Code Information

| FINALIST ON-LINE N.N      |              |           |        | ZIP CODE LIST   |                | HH:MM:SS       |  |  |
|---------------------------|--------------|-----------|--------|-----------------|----------------|----------------|--|--|
| STARTING ZIP CODE: 60440  |              |           |        |                 |                |                |  |  |
| ZIP CODE                  | CITY NAME    | STATE     | COUNTY | MOTHER ZIP CODE | MULTI ZIP CITY | MULTI CITY ZIP |  |  |
| 60440                     | BOLINGBROOK  | IL        | 17197  | 60439           | Y              | N              |  |  |
| 60441                     | LOCKPORT     | IL        | 17197  | 60441           | Y              | Y              |  |  |
| 60442                     | MANHATTAN    | IL        | 17197  | 60442           | N              | N              |  |  |
| 60443                     | MATTESON     | IL        | 17031  | 60443           | N              | N              |  |  |
| 60444                     | MAZON        | IL        | 17063  | 60444           | N              | N              |  |  |
| 60445                     | MI DLOTHI AN | IL        | 17031  | 60445           | N              | Y              |  |  |
| 60446                     | ROMEOVILLE   | IL        | 17197  | 60441           | Y              | Y              |  |  |
| 60447                     | MI NOOKA     | IL        | 17063  | 60447           | N              | N              |  |  |
| 60448                     | MOKENA       | IL        | 17197  | 60448           | N              | N              |  |  |
| 60449                     | MONEE        | IL        | 17197  | 60449           | N              | N              |  |  |
| 60450                     | MORRIS       | IL        | 17063  | 60450           | N              | N              |  |  |
| 60451                     | NEW LENOX    | IL        | 17197  | 60451           | N              | N              |  |  |
| ***** ERROR MESSAGE ***** |              |           |        |                 |                |                |  |  |
| PF KEYS =====             |              |           |        |                 |                |                |  |  |
| PF7: UP                   |              | PF8: DOWN |        |                 |                | PF24: EXIT     |  |  |

## Street Name List

| FINALIST ON-LINE N.N                       |                              | STREET LIST                  |                              | HH:MM:SS                     |                              |            |  |
|--------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------|--|
| INPUT ZIP CODE: NNNNN                      |                              |                              |                              |                              |                              |            |  |
| INPUT CITY : XXXXXXXXXXXXX INPUT STATE: XX |                              |                              |                              |                              |                              |            |  |
| INPUT STREET : XXXXXXXXXXXXXXXXXXXXXXXXXX  |                              |                              |                              |                              |                              |            |  |
| STREET                                     |                              |                              | STREET                       |                              |                              |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX               | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |  |
| ***** ERROR MESSAGE *****                  |                              |                              |                              |                              |                              |            |  |
| PF KEYS =====                              |                              |                              |                              |                              |                              |            |  |
| PF7: UP                                    |                              | PF8: DOWN                    |                              |                              |                              | PF24: EXIT |  |

Street Information

```

FINALIST ON-LINE N.N                RANGE LIST                HH:MM:SS

INPUT ZIPCODE: NNNNN                INPUT STATE: XX
INPUT CITY   : XXXXXXXXXXXXXXXXX
INPUT STREET : XXXXXXXXXXXXXXXXX

      LOW      HIGH  PRE  POST   ALS   SEC/SEG   CAR  RTE
      RANGE    RANGE DIR  DIR  SUFX IND  EVEN ODD  EVEN ODD  ZIP
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN
XXXXXXXXXX XXXXXXXXXXXX XX  XX  XXX  X   NNNN NNNN  NNNN NNNN NNNNN

PF KEYS =====
PF7: UP      PF8: DOWN                                PF24: EXIT
    
```

Product Information Screen

```

FINALIST ON-LINE N.N                PRODUCT INFO                HH:MM:SS
                                (C) YYYY PITNEY BOWES SOFTWARE, INC.

FINALIST STREET DATABASE
VERSION      : N.NN.NN.N.NN
CREATED DATE : MM-DD-YYYY
EXPIRATION DATE : MM-DD-YYYY
TYPE        : XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
COVERAGE    : XXXXXXXXX

FINALIST CITY FILE
VERSION      : N.NN.NN.N.NN
CREATED DATE : MM-DD-YYYY
EXPIRATION DATE : MM-DD-YYYY

SOFTWARE VERSIONS
WINDOWING    : N.N
ONLINE FINALIST : N.NN.NN.N.NN
ACCESS METHOD  : N.NN.NN.N.NN

PF KEYS =====
                                PF24: EXIT
    
```

S56LPCH Extended Capabilities

Finalist IMS does not have I/O (Input/Output) capabilities of its own other than its use of the Finalist master files. To facilitate the update of addresses on a file, there are exit points in the system which can call I/O routines. Call one exit point to read an address into the Windows address lookup screen. Use the other exit point to write addresses from the Windows address lookup. You can call the input exit by pressing the PF7 key from the address lookup display. You can call the output exit by pressing the PF8 key.

## Using the Exit Programs

The programs exist as small stubs. Each stub can be replaced in the load library by a user-written program of the same name. The Finalist IMS system calls the programs through the PF7 and PF8 keys:

- LPWNEX1 program for the input exit
- LPWNEX2 program for the output exit

Both programs pass a call area of the same format. The source member LPCFEXT, on the On-Line Windows distribution tape, defines the call area passed to the exit routines. LPWNEX1 contains a copy statement for LPCFEXT which is a source member on the distribution tape. A description of the WNDWS-EXIT-PASS-AREA fields pertinent to the user appears in the figure below.

**Table 1: Exit Pass Area Fields**

| Field                  | Description                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------|
| FILLER                 | Fourteen-character reserved area used by On-Line Windows                                                         |
| WNDWS-SPA-EXIT-RC      | Two-character return code set by the user to indicate the success or failure of the function of the user's exit. |
| WNDWS-SPA-EXIT-MESSAGE | A 40-character message filled by the user exit that displays upon completion of the exit.                        |
| FILLER                 | A 256-character reserved area used by the windows transaction.                                                   |
| WNDWS-FINAL-CALL-AREA  | The Finalist call area.                                                                                          |
| FILLER                 | Reserved for use by the WINDOWS transaction.                                                                     |

### Input Exit Point

This section describes input exit point processing including:

- Data passed to the exit routine on a call
- How the exit routine data is processed when returned to the Finalist IMS system

The steps for a call to an input exit point are:

1. Press the PF7 key.
2. The Finalist IMS system calls to the exit program, LPWNEX1, and passes the WNDWS-EXIT-PASS-AREA.
3. The LPWNEX1 program processing starts.

4. The LPWNEX1 program returns control to the Windows programs.
5. The WNDWS-EXIT-PASS-AREA is formatted onto the address lookup screen.
6. The Finalist function and tailoring options (set on the main menu) are restored. The function and tailoring options are the same as those in the WNDWS-EXIT-PASS-AREA.
7. The Address Lookup Screen displays the information passed to from the exit.

### Output Exit Point

This section describes output exit processing including:

- Data passed to the exit routine on a call
- Processing after the exit routine returns control to the Finalist IMS program

The steps for a call to an output exit point are:

1. You must process the desired address on the address lookup screen before actually executing the exit program. This includes a coding attempt through Finalist. A coding attempt is defined as an address displays on the address lookup screen, and the Enter key is pressed or the input exit routine returns an address and a return code of "00". The coding attempt builds the Finalist CALLAREA. This CALLAREA is part of the SPAAREA passed to the exit routine.
2. Press the PF8 key to execute the output exit routine.
3. The Finalist IMS system calls to the LPWNEX2 exit program and passes the WNDWS-EXIT-PASS-AREA described earlier in this chapter.
4. The LPWNEX2 program returns control to the On-Line Windows programs.
5. A message displays the exit return code on the address lookup screen.
6. The Address Lookup Screen displays with the original address and ADDR key data field left intact.

## Testing Methods

You may choose to test Finalist processing in batch, on-line, and/or windows mode. This appendix provides information for two testing methods.

- Batch Message Processing (BMP)
- Batch Terminal Simulation (BTS)

## Batch Message Processing (BMP)

---

You may test Finalist processing through BMP. You do not need to modify the S56LPWNH PSBs as the parameter setting CMPAT=YES provides them.

## Batch Terminal Simulation (BTS)

---

You may test Finalist processing through BTS. The following are sample BTS control cards.

```
./D TYPE=3270-A2 SIZE=(24, 80) LIMIT=1
./T TC=S56LPWNH MBR=S56LPWNH LANG=CBL PLC=20 SPA=3500
./D LTERM=IOPCB EOM=$ DDOF=3270-2 TPBUF=2275 FORMBUF=22510
S56LPWN ENTER $
ENTER $
L05C13 ' 1200 RO RD #200'
L07C13 ' GLEN ELLYN IL' ENTER $
/EXIT
```

# CHAPTER 7

---

## Running Jobs With the Batch Driver

This chapter provides information on the Finalist batch driver program including how to create the Job File (.job) and Definition File (.def) that are required to run the program and using the driver to create the desired output.

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## Batch Driver Features

The batch driver program includes the following features.

- Interfaces with the Finalist CASS-certified APIs. This eliminates the need for a custom-written application. You only need to decide how to process the returned address information.
- Interfaces with the ADDRSCAN to handle a wide range of block-type input file data formats.
- Accepts as input straight ASCII text or ASCII text delimited by characters (for example, a tab or comma).
- Can dynamically update your original address file during processing.
- Can optionally create output files containing the addresses that coded successfully, the addresses that did not code successfully, or both. These output files provide you with information on the success or failure of the postal coding process on your addresses.
- Generates the USPS Form 3553 (CASS Summary Report) and the Finalist Batch Report when you run in a CASS-certified mode.
- Processes an entire file or a range of records within a file. This can be especially helpful when you are performing testing on a very large data file.

## Setting Up Batch Driver Processing

To set up batch driver processing, follow these steps to identify the format of the data to process.

1. If a file contains binary data, you must specify an input record size (cRecSz) and an output record size (cRecSzOut).

---

**NOTE:** ASCII files with binary data can only be processed if they are processed with a file type of ASCIIFIXED. In this case, all records must be the same length (not variable defined by CRLF). If an ASCII file contains a CR or LF or both, but is processed as ASCIIFIXED, the input and output record sizes must include the CR or LF fields in the length specification.

---

2. If each record terminates with a carriage return/line feed (CR/LF) pair, set the Job file setting cInputFileType to ASCIICRLF.



3. If each record contains a fixed number of bytes (no CR/LF at the end of each record):
  - a. For z/OS, use the Job file setting `cInputFileType=MFFIXED`.
  - b. For all other platforms, use the Job file setting `cInputFileType=ASCIIFIXED`.
  - c. Set the Job file keyword `cRecsz` to be the number of bytes that each address record occupies.
4. Are the fields within each record delimited (separated) by a specific character (for example, a tab)?
  - a. Use the Job file setting `cInputFileType=DELIMITED`.
  - b. Use the Job file setting for `cDELIMITER` based on your delimiter character as shown next.

`cDelimiter=TAB`

`cDelimiter=COMMA`

`cDelimiter=X` (where X is any single character value)

`cDelimiter=XX` (where XX is the hexadecimal value of the character)

`cDelimiter = 0xXX` (where XX is the hexadecimal value of the character)

`cDelimiter = x'XX'` (where XX is the hexadecimal value of the character)

---

**NOTE:** Refer to the sample files named `DELIMITED.*` for an example of a data file where the fields are delimited by the tab character. Note that for delimited data files, overlaying the original data in place is not allowed, so you must specify one or more output files in the Job file via the `fOutAllFile`, `fOutValidFile`, and `fOutErrorsFile` keywords in order to obtain the results of postal coding your data.

---

#### EXAMPLE

The Windows sample data file `DELIMITD.TXT` is delimited by the tab character. The sample Job file `DELIMITD.JOB` uses the setting `DELIMITER=09` (09 is the hexadecimal value for the ASCII tab character).

5. Are the records in a dbase file? If yes, use the Job file setting `cInputFileType=DBASE`
6. Specify the post processing options for the Finalist return data.

- a. To indicate whether to overlay the input record with the Finalist return data, specify the appropriate OVERLAY Job file setting option (jOverlay=YES or jOverlay=NO).

---

**NOTE:** You will receive an error message and your job will fail if you try to use the jOverlay option on the z/OS platform. The jOverlay option is not supported on the z/OS platform.

---

- b. To indicate whether to add the Finalist return data to the input record, specify the appropriate ATTACH Job file setting option (jAttach=YES or jAttach=NO).

## Batch Driver Input

Before processing an address file, you must provide the Finalist driver with the following information:

- Layout of each record in your input file.
- Processing to perform.
- Location of your input and output files.

The driver looks for this information in the Finalist Job File (.job) and Definition File (.def).

### Job File

---

The Job File contains keyword entries specifying the path and file names to use for the original data file and the output file(s). The Job File also includes information on the processing options to be performed, as well as a keyword that specifies where the Definition File is located. For the z/OS platforms, the job file is specified as PBFNJOB. For other platforms, the file ends with the .job extension.

### Definition File

---

The Definition File contains keyword entries specifying the location and length of the input fields to be passed to the postal coding engine by the driver. The driver determines the location of the Definition File using a keyword in the Job File. For z/OS platforms, the default definition file is specified as PBFNDEF. For other platforms, the file ends with the .def extension.

## How Do I Create and Edit Job and Definition Files?

The following methods are available for creating Job and Definition Files.

- **Finalist Workbench** — 32-bit Windows users can use the Workbench to create and edit Job and Definition Files. For more information on the Finalist Workbench, refer to [Chapter 1, "Using the Workbench"](#).
- **Standard Text Editor** — Advanced users can use a standard text editor to create and edit the Job and Definition Files.

### Creating and Editing Job and Definition Files

---

Before building the Job and Definition Files:

1. Assess the format and level of detail in your address file. You must know the format of your address file in order to create or edit a Definition File. You will need to identify the position and length of each address line or component that is used as input to the driver. For information on address component fields, refer to [Chapter 2, "Using the Structures and Constants"](#) in your *Finalist Developer's Reference Guide*. Refer to the figures in the section "Definition File" later in this chapter for a description of keywords that can be used within the Definition File.
2. Use the information in [Chapter 2, "Using the Structures and Constants"](#) as a checklist. Write down the position and length of address fields on the input record.

Ideally, your data file will contain all of the fields listed in [Chapter 2, "Using the Structures and Constants"](#). To optimize the benefits of OVERLAY processing, it is important to have as many address components available as possible. Detailed address information enables the driver to process and update address fields in the file and eliminates the need for post-processing of the output. Note that the driver can only update the fields that are defined in the Definition File when using the jOverlay option. If your file does not contain the necessary level of detail, you can overlay the components that you have identified in the Definition File, and direct returned address data to a separate file.

If your input file does not contain detailed address components at specific offsets and instead has blocks of address data (i.e., city, state and ZIP Code at a specific offset), you can still set up a Definition File to handle the data using block-style keywords in the Definition File.

Consider reformatting your input file to attain a higher level of detail. You can achieve this by using block-style addressing for a single execution of the driver, building new, more detailed data records using the output from the previous run, and then running the driver a second time on the more detailed data. After reformatting the data, a new Job and Definition file should be created to use the new fields. You can then use overlay processing option to update the data in place.

---

**NOTE:** It is strongly recommended that you create a backup copy of your data before performing OVERLAY processing on your file for the first time.

---

## Job File

The Job File contains the two sections of information described next.

- **[FILES] section** — Contains complete path names for files associated with the job (either used for input or created as output)
- **[OPTIONS] section** — Contains processing options

### [FILES] Section

---

The [FILES] section identifies each file to be used during processing. For z/OS platforms, provide the DD name for each file to be used during processing. For all other platforms, provide the complete path for each file to be used during processing.

## Keywords

The following table describes the required and optional keywords that can be defined in the [FILES] section. In the table descriptions, note that (file spec) should be replaced with the complete path of the appropriate files without the parenthesis (i.e., C:\Pitney Bowes\MYDATA.TXT).

**Table 1: [FILES] Section Keywords**

| Keyword                    | Required/<br>Optional | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fInput=(file spec)         | Required              | Defines the input address file to be processed by the driver program.<br><br><b>NOTE:</b> The maximum allowed record size for input data is 32,767 bytes (32K).                                                                                                                                                                                                                                                                                                                                               |
| fDefinition=(file spec)    | Required              | Defines the Definition File that describes the layout of address information for the file appearing in the fInput keyword.                                                                                                                                                                                                                                                                                                                                                                                    |
| fOutAllFile=(file spec)    | Optional              | Defines the file to write every record that is processed, regardless of whether or not the record was processed successfully. To see the exact layout of the output record, refer to the section "Contents of Output Record" later in this chapter.                                                                                                                                                                                                                                                           |
| fOutValidFile=(file spec)  | Optional              | Defines the file to write every record that is coded successfully. The layout of each record in this file is identical to the layout of the records written to the fOutAllFile file.                                                                                                                                                                                                                                                                                                                          |
| fOutErrorsFile=(file spec) | Optional              | Defines the file to write every record that is NOT coded successfully. Like the fOutValidFile file, the layout of each record in this file is identical to the layout of the records written to the fOutAllFile file.                                                                                                                                                                                                                                                                                         |
| fReport=(file spec)        | Optional              | Defines the location for the driver program to write the Batch Processing Report. If omitted, the report file path contained in the pbfncfg will be used. We recommend that you specify a unique report file name for each job file using this keyword in order to associate a particular report file with a specific batch run.                                                                                                                                                                              |
| fConfigFile=(file spec)    | Optional              | Defines the configuration file to use. Note that certain keywords in the [OPTIONS] section override values in the pbfncfg. If you want to define individual configuration files for each Job File that you create, you can use the fConfigFile keyword to point to a specific, user-modified copy. Note that the configuration file(s) you create and use can be named something other than "pbfncfg". For more information on the pbfncfg file, refer to <a href="#">Chapter 2, "Configuring Finalist"</a> . |

## [OPTIONS] Section

The [OPTIONS] section contains keywords that are used to indicate the actions required during processing. Note that in the following descriptions, a vertical bar (|) is used to separate possible value for each keyword.

### Keywords

The following table describes keywords that can be defined in the [OPTIONS].

**Table 2: [OPTIONS] Section Keywords (Part 1 of 6)**

| Keyword                          | Description                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cCase=U   L   M                  | Indicates whether to return addresses in all upper, all lower, or mixed upper and lower case. Valid values are: <ul style="list-style-type: none"> <li>• <b>U</b> — Return addresses in all upper case.</li> <li>• <b>L</b> — Return addresses in all lower case.</li> <li>• <b>M</b> — Return addresses in upper and lower case.</li> </ul> |
| cCassMode=YES   NO               | Indicates whether you want to process in a CASS-certified mode. Valid values are described next. <ul style="list-style-type: none"> <li>• <b>YES</b> — The Batch Processing Report and the USPS Form 3553 (CASS Summary Report) will be generated.</li> <li>• <b>NO</b> — Only the Batch Processing Report will be generated.</li> </ul>     |
| rMailerName=(mailer name)        | If you want to CASS certify under your own company name, use this keyword to enter the mailer name to appear on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                                    |
| rMailerAddress=(mailer address)  | If you want to CASS certify under your own company name, use this keyword to enter the street address to appear on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                                 |
| rMailerAddress2=(mailer address) | If you want to CASS certify under your own company name, use this keyword to enter additional street address information to appear on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                              |
| rMailerAddress3=(mailer address) | If you want to CASS certify under your own company name, use this keyword to enter additional street address information to appear on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                              |
| rMailerAddress4=(mailer address) | If you want to CASS certify under your own company name, use this keyword to enter additional street address information to appear on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                              |
| rMailerCity=(mailer city)        | If you want to CASS certify under your own company name, use this keyword to enter the mailer city, state, and ZIP Code to appear on the USPS Form 3553 (CASS Summary Report).                                                                                                                                                               |

Table 2: [OPTIONS] Section Keywords (Part 2 of 6)

| Keyword                                             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cAddrScan=YES   NO  <br>ADDRSCAN Return Line Option | <p>Indicates whether to perform ADDRSCAN processing. For more information on ADDRSCAN processing, refer to your <i>Getting Started with Finalist Guide</i>. This keyword is generally only valid when block-style address keywords are specified in the Definition file (iL1, iL2, iL3, etc.). This keyword is generally only valid when block-style address keywords are specified in the Definition file (iL1, iL2, iL3, etc.). However:</p> <ul style="list-style-type: none"> <li>• If you specify iFirm, ADDRSCAN processes with the SkipFirm option.</li> <li>• If you specify iCity, ADDRSCAN processes with the SkipCSZ option.</li> <li>• If you specify iURB, ADDRSCAN processes with the SkipURB option.</li> </ul> <p>Valid values are:</p> <ul style="list-style-type: none"> <li>• <b>YES</b> — Perform ADDRSCAN processing. The value YES implies the default option of <b>95N</b> for returned line setting.</li> <li>• <b>NO</b> — Do not perform ADDRSCAN processing.</li> <li>• <b>Three-character returned line setting</b> — Use the three character ADDRSCAN returned line setting as described in Chapter 11, ADDRSCAN in the <i>Getting Started With Finalist Guide</i>. (See tables 10, 11 and 12.)</li> <li>• blank — Defaults to <b>95N</b>.</li> </ul> |
| jAddrScanAO={ADDRSCAN<br>addressing options}        | <p>Defines the ADDRSCAN addressing options:</p> <ul style="list-style-type: none"> <li>• <b>#</b> — To prevent ADDRSCAN from concatenating lines beginning with # to existing address lines, enter # in the AddrScanAO field. This field is only available when ADDRSCAN processing is selected (see previous step).</li> <li>• <b>P</b> — To prevent ADDRSCAN from recognizing periods as valid characters and to specify that periods should be removed before scanning address lines, enter a P in the AddrScanAO field. This field is only available when ADDRSCAN processing is selected (see previous step).</li> </ul> <p><b>NOTE:</b> The values # and P can populate either position for the jAddrScanAO keyword definition.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| cStartAft={start after value}                       | <p>Indicates how many records in the input file to bypass before beginning address processing. The driver will skip the number of records specified here prior to processing. Valid values are 0 through 99,999,999. The default value is <b>zero</b>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| cStopAft={stop after value}                         | <p>Indicates the number of the last record to process. Valid values are 1 through 99,999,999 and EOF. If you specify EOF, the driver will process through the last record in the file. The default value is <b>EOF</b>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Table 2: [OPTIONS] Section Keywords (Part 3 of 6)

| Keyword                                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cVerboseCount=[count]                    | <p>Indicates the number of records to process before generating progress status messages. For example, if you specify "100", every 100th record, starting with 1, produces the message:</p> <p>Processing record XXX . . . DDD MMM DD HH:MM:SS YYYY</p> <p>For Windows, the message overlays each preceding instance as processing progresses. If you specify "0", no messages are produced. Windows, Linux, and Unix systems can also prevent the message with the command line option -q. The default value for Windows, Linux, and Unix systems is <b>1</b>. The default value on the mainframe is <b>0</b>.</p> |
| rListProcessorName=(list processor name) | <p>If you want to enter a list processor's name, use this keyword to enter a list processor's name to appear on the USPS Form 3553 (CASS Summary Report).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



Table 2: [OPTIONS] Section Keywords (Part 4 of 6)

| Keyword           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| jOverlay=YES   NO | <p>Defines whether or not your original data will be overlaid with the corrected results. This selection updates a file in place.</p> <p><b>NOTE:</b> You will receive an error message and your job will fail if you try to use the jOverlay option on the z/OS platform. The jOverlay option is not supported on the z/OS platform.</p> <ul style="list-style-type: none"> <li>• <b>YES</b> — Overlay original data with corrected results. Address fields in each input record that you process will be overlaid with the results of the address lookup. Note that only fields that have been defined via keyword entries will be overlaid. For example, if the ZIP Code field is not specified by defining an iZip keyword and an oZip=o keyword within the Definition File, the ZIP Code field will not be overlaid.</li> <li>• <b>NO</b> — Do not overlay original data with corrected results. In order to receive returned address information, you must define the jAttach keyword to attach results to your original input record or specify a new output file using fOutAllFile, fOutValidFile, or fOutErrorsFile in the [FILES] section of the Job File.</li> </ul> <p>You can overlay specific input fields with the processing output on a field level basis by specifying jOverlay=NO and defining an input keyword and output keyword. For example, you do not want to overlay your entire input record with the processing output but only want to overlay the input ZIP Code field with the output ZIP Code resulting from Finalist processing. To accomplish this you would specify jOverlay=NO and define an iZip keyword and an oZip=o keyword. The input ZIP Code field will be overlaid with the output ZIP Code. No other input fields will be overlaid with output information.</p> <p><b>EXAMPLE</b></p> <p>Your input data contains ZIP Code information in the fields you defined as iCity or iState. The driver uses the ZIP Code information to process the address. The driver overlays the city information at the location indicated by the iCity keyword and the state information at the location indicated by the iState keyword. However, since you did not define an iZIP field, the driver has no location for overlaying the ZIP Code information. The returned ZIP Code information is lost. We recommend you use jOverlay=NO if your input file does not contain each address component at a consistent starting position within each record. This will ensure that the driver will return complete address information.</p> |

Table 2: [OPTIONS] Section Keywords (Part 5 of 6)

| Keyword                                                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| jAttach=YES   NO                                                          | <p>Defines whether or not the processed and corrected data will be attached to your original data. Valid values are described next.</p> <ul style="list-style-type: none"> <li>• <b>YES</b> — Attach corrected data to my original data. The results of the address lookup will be attached to the address fields in each input record that you process.</li> <li>• <b>NO</b> — Do not attach corrected data to my original data. In order to receive returned address information, you must define the jOverlay keyword to overlay your original input record with the corrected results or specify a new output file using fOutAllFile, fOutValidFile, or fOutErrorsFile in the [FILES] section of the Job File. For a description of the output record, refer to “<a href="#">Contents of jAttach Record</a>” on <a href="#">page 159</a>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| cRecsz={record size value}                                                | <p>Allows you to indicate the size (in bytes) of each input record within your input file if each record within your input file is not followed by a carriage return/line feed (CR/LF) pair. This field defaults to a value of CR/LF, indicating that each record is followed by a carriage return/line feed pair. If your records do not end with a CR/LF, you must specify a number in the range of 1 to 32,767 inclusive. If you put an incorrect value here, it will result in the improper reading of input records.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| cRecszOut={record size value}                                             | <p>Allows you to indicate the size (in bytes) of each output record. This keyword is only valid for fixed length records.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| cInputFileType=ASCIICRLF  <br>ASCIIFIXED   DELIMITED  <br>DBASE   MFFIXED | <p>This keyword is required, and indicates what type of input data you have.</p> <ul style="list-style-type: none"> <li>• <b>ASCIICRLF</b> — Each record in your data file is terminated with a carriage return/line feed (CR/LF) pair. The default value is ASCIICRLF if cRecsz is zero.</li> <li>• <b>ASCIIFIXED</b> — Each record in your data file is a fixed number of bytes in length, and is not terminated by a CR/LF pair. The default value is ASCIIFIXED if cRecsz is non-zero. Set the Job file keyword cRecsz to the number of bytes that each record occupies.</li> <li>• <b>DELIMITED</b> — The fields within each record are delimited by a specific character (i.e., tab, comma, etc.), and each record is terminated with a CR/LF pair. When using this option, you are required to specify what the delimiting character is via the DELIMITER keyword.</li> <li>• <b>DBASE</b> — The driver program supports dBASE files. dBASE is a popular PC-based file format. This value indicates your input file is in a dBASE format.</li> </ul> <p><b>NOTE:</b> dBase does not support attached fields.</p> <ul style="list-style-type: none"> <li>• <b>MFFIXED</b> — Each record in your data file is a fixed number of bytes in length, and is not terminated by a CR/LF pair (mainframe fixed input file). Set the Job file keyword cRecsz to the number of bytes that each record occupies.</li> </ul> |

Table 2: [OPTIONS] Section Keywords (Part 6 of 6)

| Keyword                                                                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cDelimiter=COMMA   TAB   X   xx<br>(where xx is the hexadecimal value of the character) | <p>Indicates the delimiting character when the fields within each of your data records are delimited by a specific character. There is no default value for this keyword. Valid values are described next.</p> <ul style="list-style-type: none"> <li>• <b>COMMA</b> — The delimiter is a comma (,).</li> <li>• <b>TAB</b> — The delimiter is the tab character.</li> <li>• <b>X</b> — The delimiter is any single character.</li> <li>• <b>xx</b> — The delimiter is any character whose hexadecimal value can be represented using two hexadecimal digits (in the range of 00 to FF).</li> <li>• <b>0xXX</b> — The delimiter is any character whose hexadecimal value can be represented using two hexadecimal digits (in the range of 00 to FF).</li> <li>• <b>x'XX</b> — The delimiter is any character whose hexadecimal value can be represented using two hexadecimal digits (in the range of 00 to FF).</li> </ul>                                                                                                      |
| cXTern=YES   NO                                                                         | <p>Defines whether to attach 250 bytes of additional information codes to your output file. This parameter was designed for use with the Pitney Bowes Software VeriMove move update product. For more information, refer to <a href="#">“Pitney Bowes Software VeriMove Move Update Product Information Codes”</a> on page 140.</p> <ul style="list-style-type: none"> <li>• <b>YES</b> — Return the additional information codes to the output files. To attach the 250 bytes of additional information codes to your output file to use as input to the Pitney Bowes Software VeriMove move update software, specify “YES”.</li> <li>• <b>NO</b> — Do not return the additional information codes to the output files. In order to receive returned address information, you must specify a new output file using fOutAllFile, fOutValidFile, or fOutErrorsFile in the [FILES] section of the Job File. For a description of the output record, refer to <a href="#">“Contents of jAttach Record”</a> on page 159.</li> </ul> |

## Pitney Bowes Software VeriMove Move Update Product Information Codes

Table 3: Information Codes for VeriMove Move Update Product External CASS Support (Part 1 of 3)

| Information Code                | Length (bytes) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ZIP + 4 Software Name           | 30             | CASS-certified software product name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ZIP + 4 Software Version        | 12             | CASS-certified software product version number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| ZIP + 4 Database Date           | 8              | CASS database date in a CCYYMMDD format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Address Coded Flag              | 1              | ZIP + 4 match status.<br><b>Blank</b> — No ZIP + 4 match for address.<br><b>4</b> — Address did ZIP + 4 match.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Address Match Level Indicator   | 1              | Level of matching achieved for an address.<br><b>Blank</b> — No ZIP + 4 match found for address.<br><b>1</b> — Street level match.<br><b>2</b> — Rural route default match.<br><b>3</b> — Highway contract default match.<br><b>4</b> — Rural route with secondary match.<br><b>5</b> — Highway contract default match.<br><b>6</b> — Firm match.<br><b>7</b> — General delivery match.<br><b>8</b> — Highrise default match.<br><b>9</b> — Highrise with secondary match.<br><b>A</b> — PO Box match.<br><b>B</b> — Nondeliverable match.<br><b>C-Y</b> — Reserved for future use.<br><b>Z</b> — Unknown match. |
| ZIP Type                        | 1              | ZIP Code type.<br><b>Blank</b> — No information available.<br><b>M</b> — Military ZIP Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| LACS Indicator                  | 1              | LACS processing indicator.<br><b>Blank</b> — LACS processing not available<br><b>L</b> — LACS indicator.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Early Warning System (EWS) Flag | 1              | EWS status.<br><b>Blank</b> — No ZIP + 4 match found for address.<br><b>Y</b> — EWS match caused address failure.<br><b>N</b> — Did not match an EWS record.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

**Table 3: Information Codes for VeriMove Move Update Product External CASS Support (Part 2 of 3)**

| Information Code          | Length (bytes) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CMRA Present Flag         | 1              | CMRA status.<br><b>Blank</b> — No ZIP + 4 match found for address.<br><b>Y</b> — CMRA information present on input.<br><b>N</b> — CMRA information not present on input.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DPV Software Name         | 30             | DPV software product name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DPV Software Version      | 12             | DPV software product version number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DPV Database Date         | 8              | DPV database date in a CCYYMMDD format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DPV Footnotes             | 24             | DPV footnotes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| DPV Delivery Indicator    | 1              | DPV status.<br><b>Blank</b> — No DPV results.<br><b>Y</b> — Match primary and secondary.<br><b>N</b> — No DPV match.<br><b>D</b> — Primary match but missing secondary.<br><b>S</b> — Primary match but no match on secondary.                                                                                                                                                                                                                                                                                                                                                                                      |
| DPV CMRA Indicator        | 1              | DPV CMRA status.<br><b>Blank</b> — No DPV results.<br><b>Y</b> — Match to CMRA.<br><b>N</b> — No match to CMRA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| LACSLink Software Name    | 30             | LACSLink software product name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| LACSLink Software Version | 12             | LACSLink software product version number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| LACSLink Database Date    | 8              | LACSLink database date in a CCYYMMDD format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| LACSLink Return Code      | 2              | LACSLink processing return code.<br><b>A</b> — Record matched through LACSLink processing.<br><b>00</b> — No matching record found during LACSLink processing.<br><b>09</b> — LACSLink processing matched the input address to an older highrise default address. The address has been converted. However, rather than provide an imprecise address, LACSLink processing does not provide a new address.<br><b>14</b> — Match found during LACSLink processing but conversion did not occur due to other USPS regulations.<br><b>92</b> — Record matched through LACSLink processing. Unit number dropped on input. |
| SuiteLink Software Name   | 30             | SuiteLink software product name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

**Table 3: Information Codes for VeriMove Move Update Product External CASS Support (Part 3 of 3)**

| Information Code                       | Length (bytes) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suite <sup>Link</sup> Software Version | 12             | Suite <sup>Link</sup> software product version number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Suite <sup>Link</sup> Database Date    | 8              | Suite <sup>Link</sup> database date in a CCYYMMDD format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Suite <sup>Link</sup> Footnote         | 2              | This is the Suite <sup>Link</sup> footnote code encountered while CASS processing the input record.<br><b>A1</b> — Exact Match - All words in the business name matched.<br><b>A2</b> — Good Match - All but one word in the business name matched.<br><b>A3</b> — Poor Match - At least one word in the business name matched.<br><b>B</b> — No match.<br><b>C</b> — The business name consisted only of "noise" words.<br><b>D</b> — The Zip+4 provided was not a high rise default.<br><b>E</b> — The database was expired. |
| DPV ZIP4                               | 4              | ZIP + 4 used by DPV.<br><b>Blank</b> — No ZIP + 4 sent to DPV.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| DPV Vacant Flag                        | 1              | DPV Vacant status.<br><b>Blank</b> — No DPV results.<br><b>Y</b> — Match to Vacant table.<br><b>N</b> — No match to Vacant table.                                                                                                                                                                                                                                                                                                                                                                                              |
| DPV NoStat Flag                        | 1              | DPV No Stat status.<br><b>Blank</b> — No DPV results.<br><b>Y</b> — Match to No Stat table.<br><b>N</b> — No match to No Stat table.                                                                                                                                                                                                                                                                                                                                                                                           |
| Reserved                               | 8              | Reserved for future use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Definition File

The Definition File contains keyword entries specifying the location and length of the input fields to be passed to the postal coding engine by the driver. The driver determines the location of the Definition File using the fDefinition keyword in the Job File. Finalist provides the following Definition File formats, and you can use these formats to accommodate almost any record layout (i.e., location of address data within the record).

- [Format One: Block-Style Address Line Keyword Definitions](#)
- [Format Two: Address Component Keyword Definitions](#)

### Format One: Block-Style Address Line Keyword Definitions

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Block style address lines are used when your data file does not contain address information at a fine level of detail.

#### EXAMPLE

Your file does not contain a ZIP Code that starts at a specific offset in each record. Your file contains a ZIP Code that floats in an area containing city, state, and ZIP Code information. You can use block-style keywords to specify that city, state, and/or ZIP Code information is located within a specific area of the record using block-style addresses.

Without use of the ADDRSCAN, the Finalist driver can process three lines of block-style addresses. You can incorporate ADDRSCAN to enable the Finalist driver to process up to six lines of block-style address information prior to calling the postal coding engine for validation and correction. The Finalist driver makes the following assumptions about the contents of block-style address lines prior calling the Finalist API.

- **Line 1 (iL1)** — Contains street address information, including primary and secondary street range, pre-directional, post-directional, and street name. It may also contain unit designator information.
- **Line 2 (iL2)** — Contains unit designator (apt./suite) information, secondary address information, or is blank.
- **Line 3 (iL3)** — Contains city, state, and/or ZIP Code information.

The Definition File should be set up to extract the address information from the proper position within the input record. When defining block-style addresses, you may specify up to ten individual positions and lengths for each line that is defined in the Definition File.

If you cannot extract address information as stated in the previous paragraph, you can use ADDRSCAN. ADDRSCAN makes it possible for the driver to extract up to six lines of address information from the input record. These lines are passed to ADDRSCAN and assembled into three lines of address information conforming to the assumptions listed above.

When ADDRSCAN is used, the input definitions of the block-style address lines are described next.

- Line 1 (**iL1**) — Unknown. Requires ADDRSCAN.
- Line 2 (**iL2**) — Unknown. Requires ADDRSCAN.
- Line 3 (**iL3**) — Unknown. Requires ADDRSCAN.
- Line 4 (**iL4**) — Unknown. Requires ADDRSCAN.
- Line 5 (**iL5**) — Unknown. Requires ADDRSCAN.
- Line 6 (**iL6**) — Unknown. Requires ADDRSCAN.

The following processing steps apply when a Definition File contains definitions for any of iL4, iL5, or iL6.

1. The driver calls ADDRSCAN to examine the lines of data.
2. ADDRSCAN determines which lines best fit the definitions for iL1, iL2, iL3 and iL4, and identifies values for the ZIP Code and ZIP + 4 fields.
3. ADDRSCAN returns these isolated address components to the driver.
4. The driver moves line 1 to the iAddress1 field, line 2 to the iAddress2 field, line 3 to the iCity field, line 4 to the iFirm field, the identified ZIP Code data to the iZip field, and the identified ZIP + 4 data to the iZip4 field.
5. If ADDRSCAN is requested and the DEF file specifies iZIP or iZIP4 fields, the following occurs:
  - If ADDRSCAN identifies a ZIP or ZIP4 inside the data fields (iL1-iL6), ADDRSCAN passes the identified ZIP or ZIP4 fields to Finalist.
  - If ADDRSCAN is not able to identify a ZIP or ZIP4 field, ADDRSCAN passes the information from the iZIP or iZIP4 fields to Finalist.



The following figure shows a sample Definition File using block-style address keywords. Note that you can specify up to 10 positions and lengths to extract information from multiple locations within the data record for each of the lines. This feature accommodates a wide range of record layouts.

**Table 4: Definition File Layout Using Block Style Address Keywords (Part 1 of 2)**

| Keyword                                      | Description                                                                                                                                                                                                               | Recommended Length                                    |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| ;                                            | Comment lines are indicated by a semicolon (;) in column one.                                                                                                                                                             | Semicolon must begin in column one for comment lines. |
| ; Finalist Definition File.                  | Comment. Enter a description of the file.                                                                                                                                                                                 | Fewer than 80 bytes                                   |
| ; Created by:                                | Comment. Enter your name and date created.                                                                                                                                                                                | Fewer than 80 bytes                                   |
| ; Input file=Inputfile.txt                   | Comment. Enter the name of the input file being defined.                                                                                                                                                                  | Fewer than 80 bytes                                   |
| iL1=x,y[x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y] | <b>Required.</b> Identifies positions (x) and lengths (y) of data to be treated as block address input line one. Note that up to 10 starting positions and lengths may be specified.                                      | 70 bytes                                              |
| iL2=x,y[x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y] | <b>Optional.</b> Identifies positions (x) and lengths (y) of data to be treated as block address input line two. Note that up to 10 starting positions and lengths may be specified.                                      | 70 bytes                                              |
| iL3=x,y[x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y] | <b>Optional.</b> Identifies positions (x) and lengths (y) of data to be treated as block address input line three. Required if IZIP is not specified. Note that multiple starting positions and lengths may be specified. | 70 bytes                                              |
| iL4=x,y[x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y] | <b>Optional.</b> Identifies positions (x) and lengths (y) of data to be treated as block address input line four. Note that up to 10 starting positions and lengths may be specified.                                     | 70 bytes                                              |
| iL5=x,y[x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y] | <b>Optional.</b> Identifies positions (x) and lengths (y) of data to be treated as block address input line five. Note that up to 10 starting positions and lengths may be specified.                                     | 70 bytes                                              |
| iL6=x,y[x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y,x,y] | <b>Optional.</b> Identifies positions (x) and lengths (y) of data to be treated as block address input line six. Note that up to 10 starting positions and lengths may be specified.                                      | 70 bytes                                              |
| iCrrt=x,y                                    | <b>Optional.</b> Identifies the position (x) and length (y) of the input carrier route.                                                                                                                                   | 4 bytes                                               |

Table 4: Definition File Layout Using Block Style Address Keywords (Part 2 of 2)

| Keyword   | Description                                                                                                                          | Recommended Length |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| iFirm=x,y | <b>Optional.</b> Identifies the position (x) and length (y) of the input high-rise name or a firm name.                              | 40 bytes           |
| iZip=x,y  | <b>Optional.</b> Identifies the position (x) and length (y) of the input ZIP Code field.<br><b>Required if iL3 is not specified.</b> | 5 bytes            |
| iZip4=x,y | <b>Optional.</b> Identifies the position (x) and length (y) of the input ZIP + 4 (sector segment) field.                             | 4 bytes            |

### Format Two: Address Component Keyword Definitions

If the address information in your data records contains a high level of detail, format two is the preferred method of processing. Having component level address data gives you the option of directly replacing data within the input record with corrected address data via the jOverlay option. This eliminates the need for customized post-processing applications to analyze the output file(s) in order to determine how the data file should be updated.

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**NOTE:** When passing information to the batch driver, you must provide enough information for Finalist to code addresses. This information can consist of a single combined address line or a parsed range and street name (additional components may also be necessary). Last line requirements are a combined city state line, or the City and State, or the ZIP Code.

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**NOTE:** If the batch driver detects a field that begins with iPars, the batch driver will process the entire address with only parsed address components. Combined address components like iAddress1 will be ignored. Conversely, if no fields are found that begin iPars, the batch driver will process the entire address using non-parsed address components like iAddress1.

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If the batch driver is processing non-parsed addresses and no secondary field information is given (iUnit, iUnit2, iPMUnit), the output information will be combined with the oAddress1 field.

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The following table describes the keywords for a Definition File Layout using component keywords for processing. Keywords are not case-sensitive. The maximum length for all allocated fields is 255 bytes.

**Table 5: Definition File Layout Using Component Keywords (Part 1 of 9)**

| Definition Keywords         | Description                                                                                                     | Recommended Length |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------|
| ;                           | Comment line. Indicated by a semicolon (;) in column one. Semicolon must begin in column one for comment lines. |                    |
| ; Finalist Definition File. | Comment. Enter a description of the file.                                                                       |                    |
| ; Created by:               | Comment. Enter your name and date created.                                                                      |                    |
| ; Input file=Inputfile.def  | Comment. Specifies the name of the file being defined.                                                          |                    |
| [INPUT]                     | Identifies the start of the field definition keywords. Recommended length is 7 characters exactly as shown.     |                    |
| iAddress1=x,y               | Identifies the position (x) and length (y) of the input street address.                                         | 70                 |
| iAddress2=x,y               | Identifies the position (x) and length (y) of the second input address line.                                    | 70                 |
| iCity=x,y                   | Identifies the position (x) and length (y) of the input city name.                                              | 28                 |
| iCrrt=x,y                   | Identifies the position (x) and length (y) of the input carrier route.                                          | 4                  |
| iUserKey                    | Identifies the position [x] and length [y] of user key to identify this address in Finalist detail reports.     | 40                 |
| iFirm=x,y                   | Identifies the position (x) and length (y) of the input firm name.                                              | 40                 |
| iParsPMUnitDesignator=x,y   | Identifies the position (x) and length (y) of the input parsed PMB/ MSC unit designator.                        | 3                  |
| iParsPMUnitNum=x,y          | Identifies the position (x) and length (y) of the input parsed PMB/ MSC unit number.                            | 10                 |

Table 5: Definition File Layout Using Component Keywords (Part 2 of 9)

| Definition Keywords      | Description                                                                        | Recommended Length |
|--------------------------|------------------------------------------------------------------------------------|--------------------|
| iParsPostDir=x,y         | Identifies the position (x) and length (y) of the parsed postdirectional.          | 2                  |
| iParsPreDir=x,y          | Identifies the position (x) and length (y) of the output parsed predirectional.    | 2                  |
| iParsRange=x,y           | Identifies the position (x) and length (y) of the input parsed range.              | 10                 |
| iParsStreetName=x,y      | Identifies the position (x) and length (y) of the input parsed street name.        | 28                 |
| iParsStreetSuffix=x,y    | Identifies the position (x) and length (y) of the input parsed street suffix.      | 4                  |
| iParsUnit2Designator=x,y | Identifies the position (x) and length (y) of the input parsed unit 2 designator.  | 4                  |
| iParsUnit2Num=x,y        | Identifies the position (x) and length (y) of the input parsed second unit number. | 8                  |
| iParsUnitDesignator=x,y  | Identifies the position (x) and length (y) of the input parsed unit designator.    | 4                  |
| iParsUnitNum=x,y         | Identifies the position (x) and length (y) of the input parsed unit number.        | 8                  |
| iPMUnit=x,y              | Identifies the position (x) and length (y) of the input PMB or MSC unit.           | 14                 |
| iProcessDate=x,y         | Identifies the position (x) and length (y) of the input process date.              | 4                  |
| iState=x,y               | Identifies starting position (x) and length of the input state.                    | 2                  |
| iUnit=x,y                | Identifies the position (x) and length (y) of the input unit.                      | 13                 |
| iUnit2=x,y               | Identifies the position (x) and length (y) of the input unit 2.                    | 13                 |
| iUrban=x,y               | Identifies the position (x) and length (y) of the input urbanization name.         | 28                 |

Table 5: Definition File Layout Using Component Keywords (Part 3 of 9)

| Definition Keywords         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Recommended Length |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| iZip=x,y                    | Identifies the position (x) and length (y) of the input ZIP Code.                                                                                                                                                                                                                                                                                                                                                                                                                                       | 5                  |
| iZip4=x,y                   | Identifies the position (x) and length (y) of the input ZIP + 4 code.                                                                                                                                                                                                                                                                                                                                                                                                                                   | 4                  |
| o5DigitBarCode=x,y          | Identifies the position (x) and length (y) of the 5-digit barcode.                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8                  |
| o5DigitScheme=x,y; a[,y]    | Identifies the position (x) and length (y) of the 5-digit combined ZIP Code.                                                                                                                                                                                                                                                                                                                                                                                                                            | 5                  |
| oAbbrCityName=x,y; a[,y]    | Identifies the position (x) and length (y) of the output abbreviated city name.                                                                                                                                                                                                                                                                                                                                                                                                                         | 13                 |
| oAddress1=x,y; a[,y]; o     | Identifies the position (x) and length (y) of the output street address.                                                                                                                                                                                                                                                                                                                                                                                                                                | 70                 |
| oAddress2=x,y; a[,y]; o     | Identifies the position (x) and length (y) of the second output address line.                                                                                                                                                                                                                                                                                                                                                                                                                           | 70                 |
| oAdsInfo=x,y; a[,y]         | Identifies the position (x) and length (y) of the output address information codes (PBFNAddressInfoDef structure).<br><br><b>NOTE:</b> The address information codes are binary data and extreme caution should be used when using CRLF or delimited files as the binary data may appear as the delimiter or line ending characters. <b>FIXED records are recommended.</b> COBOL cannot easily manipulate bit values. An interrogation routine like PBITBYTE is recommended for ease of use in a COBOL. | 41                 |
| oAdvancedBarCode=x,y; a[,y] | Identifies the position (x) and length (y) of the output advanced barcode.                                                                                                                                                                                                                                                                                                                                                                                                                              | 14                 |
| oAltStreetName=x,y; a[,y]   | Identifies the position (x) and length (y) of the output alternate street name.                                                                                                                                                                                                                                                                                                                                                                                                                         | 28                 |
| oAltStreetType=x,y; a[,y]   | Identifies the position (x) and length (y) of the output alternate street type.                                                                                                                                                                                                                                                                                                                                                                                                                         | 1                  |

Table 5: Definition File Layout Using Component Keywords (Part 4 of 9)

| Definition Keywords           | Description                                                                                                   | Recommended Length |
|-------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------|
| oAutoCR=x,y; a[,y]            | Identifies the position (x) and length (y) of the output Auto CRRT indicator.                                 | 1                  |
| oCity=x,y; a[,y]; o           | Identifies the position (x) and length (y) of the output city name.                                           | 28                 |
| oCongressDist=x,y; a[,y]      | Identifies the position (x) and length (y) of the output congressional district.                              | 2                  |
| oCountyName=x,y; a[,y]        | Identifies the position (x) and length (y) of the output county name.                                         | 25                 |
| oCrrt=x,y; a[,y]; o           | Identifies the position (x) and length (y) of the output carrier route.                                       | 4                  |
| oDefaultMatch=x,y; a[,y]      | Identifies the position (x) and length (y) of the output default match flag.                                  | 1                  |
| oDelivpt=x,y; a[,y];          | Identifies the position (x) and length (y) of the output delivery point code.                                 | 3                  |
| oDPBCCheckDigit=x,y; a[,y];   | Identifies the position (x) and length (y) of the output Delivery Point Bar Code check digit                  | 1                  |
| oDPVCMRA=x,y; a[,y]           | Identifies the position (x) and length (y) of the output DPV CMRA indicator flag.                             | 1                  |
| oDPVFalsePositive=x,y; a[,y]; | Identifies the position (x) and length (y) of the output DPV False Positive flag.                             | 1                  |
| oDpvFlags=x,y; a[,y]          | Identifies the position (x) and length (y) of the output Delivery Point Validation (DPV) flags.               | 3                  |
| oDpvFootNote=x,y; a[,y]       | Identifies the position (x) and length (y) of the output Delivery Point Validation (DPV) footnote codes.      | 12                 |
| oDpvNoStat=x,y; a[,y]         | Identifies the position (x) and length (y) of the output Delivery Point Validation (DPV) No-Stat return code. | 1                  |
| oDPVvacant=x,y,a[,y]          | Identifies the position (x) and length (y) of the output Delivery Point Validation (DPV) vacant flag          | 1                  |

Table 5: Definition File Layout Using Component Keywords (Part 5 of 9)

| Definition Keywords        | Description                                                                                                                                                                                                                                                                                                                                                      | Recommended Length |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| oError=x,y; a[,y]          | Identifies the position (x) and length (y) of the output error code.                                                                                                                                                                                                                                                                                             | 4                  |
| oEWSFailure=x,y; a[,y]     | Identifies the position (x) and length (y) of the output EWS Failure flag (contains a 'Y' if address failed as a result of EWS processing).                                                                                                                                                                                                                      | 1                  |
| oExtra=x,y; a[,y]          | Identifies the position (x) and length (y) of the output Extra Data field.                                                                                                                                                                                                                                                                                       | 70                 |
| oFips=x,y; a[,y]           | Identifies the position (x) and length (y) of the output FIPS code.                                                                                                                                                                                                                                                                                              | 5                  |
| oFirm=x,y; a[,y]; o        | Identifies the position (x) and length (y) of the output firm name.                                                                                                                                                                                                                                                                                              | 40                 |
| oFullCityName=x,y; a[,y]   | Identifies the position (x) and length (y) of the output full city name.                                                                                                                                                                                                                                                                                         | 28                 |
| oLacs=x,y; a[,y];          | Identifies the position (x) and length (y) of the output LACS indicator.                                                                                                                                                                                                                                                                                         | 1                  |
| oLACSIndicator=x,y; a[,y]; | Identifies the position (x) and length (y) of the output LACS processing indicator: <ul style="list-style-type: none"> <li>• <b>F</b> – Seed violation occurred.</li> <li>• <b>A</b> – Full LACS record match,</li> <li>• <b>N</b> – LACS attempt but no match condition (CASS Stage 2 LACS Indicator flag).</li> <li>• <b>S</b> – Unit record match.</li> </ul> | 1                  |
| oLLKS=x,y; a[,y]           | Identifies the position (x) and length (y) of the output LACS <sup>Link</sup> return code.                                                                                                                                                                                                                                                                       | 2                  |
| oLLKSD=x,y; a[,y]          | Identifies the position (x) and length (y) of the output LACS <sup>Link</sup> Seed detail.                                                                                                                                                                                                                                                                       | 70                 |
| oLot=x,y; a[,y];           | Identifies the position (x) and length (y) of the output Line of Travel (LOT) code.                                                                                                                                                                                                                                                                              | 5                  |
| oLotAlpha=x,y; a[,y];      | Identifies the position (x) and length (y) of the output alpha portion of the LOT code.                                                                                                                                                                                                                                                                          | 1                  |

Table 5: Definition File Layout Using Component Keywords (Part 6 of 9)

| Definition Keywords            | Description                                                                                         | Recommended Length |
|--------------------------------|-----------------------------------------------------------------------------------------------------|--------------------|
| oLRtnAddrLine1=x,y; a[,y]      | Identifies the position (x) and length (y) of the output level of return for the first label line.  | 70                 |
| oLRtnAddrLine2=x,y; a[,y]      | Identifies the position (x) and length (y) of the output level of return for the second label line. | 70                 |
| oLRtnAddrLine3=x,y; a[,y]      | Identifies the position (x) and length (y) of the output level of return for the third label line.  | 70                 |
| oLRtnAddrLine4=x,y; a[,y]      | Identifies the position (x) and length (y) of the output level of return for the fourth label line. | 70                 |
| oLRtnAddrLine5=x,y; a[,y]      | Identifies the position (x) and length (y) of the output level of return for the fifth label line.  | 70                 |
| oNonMailingCityName=x,y; a[,y] | Identifies the position (x) and length (y) of the output nonmailing city name.                      | 28                 |
| oMatchLevel=x,y; a[,y]         | Identifies the position (x) and length (y) of the output level of match flag.                       | 1                  |
| oOriCity=x,y; a[,y];           | Identifies the position (x) and length (y) of the output original city name.                        | 28                 |
| oOriCrrt=x,y; a[,y]            | Identifies the position (x) and length (y) of the output carrier route code.                        | 4                  |
| oOriState=x,y; a[,y]           | Identifies the position (x) and length (y) of the output original state.                            | 2                  |
| oOriZip=x,y; a[,y]             | Identifies the position (x) and length (y) of the output original ZIP Code.                         | 5                  |
| oOriZip4=x,y; a[,y]            | Identifies the position (x) and length (y) of the output original ZIP + 4 code.                     | 4                  |
| oParsAltRange=x,y; a[,y]       | Identifies the position (x) and length (y) of the output parsed alternate range.                    | 10                 |
| oParsAltPreDir=x,y; a[,y]; o   | Identifies the position (x) and length (y) of the output parsed alternate predirectional.           | 2                  |



Table 5: Definition File Layout Using Component Keywords (Part 7 of 9)

| Definition Keywords                 | Description                                                                                | Recommended Length |
|-------------------------------------|--------------------------------------------------------------------------------------------|--------------------|
| oParsAltPostDir=x,y; a[,y]          | Identifies the position (x) and length (y) of the output parsed alternate postdirectional. | 2                  |
| oParsAltSuffix=x,y; a[,y]           | Identifies the position (x) and length (y) of the output parsed alternate suffix.          | 4                  |
| oParsPMUnitDesignator=x,y; a[,y]; o | Identifies the position (x) and length (y) of the output parsed PMB/MSC unit designator.   | 3                  |
| oParsPMUnitNum=x,y; a[,y]           | Identifies the position (x) and length (y) of the output parsed PMB/MSC unit number.       | 10                 |
| oParsPostDir=x,y; a[,y]; o          | Identifies the position (x) and length (y) of the output parsed postdirectional.           | 2                  |
| oParsPreDir=x,y; a[,y]; o           | Identifies the position (x) and length (y) of the output parsed predirectional.            | 2                  |
| oParsRange=x,y; a[,y]; o            | Identifies the position (x) and length (y) of the output parsed range.                     | 10                 |
| oParsStreetName=x,y; a[,y]; o       | Identifies the position (x) and length (y) of the output parsed street name.               | 28                 |
| oParsStreetSuffix=x,y;a[,y]; o      | Identifies the position (x) and length (y) of the output parsed street suffix.             | 4                  |
| oParsUnit2Designator=x,y; a[,y]; o  | Identifies the position (x) and length (y) of the output parsed unit 2 designator.         | 4                  |
| oParsUnit2Num=x,y; a[,y]; o         | Identifies the position (x) and length (y) of the output parsed second unit number.        | 8                  |
| oParsUnitDesignator=x,y,a[,y]; o    | Identifies the position (x) and length (y) of the output parsed unit designator.           | 4                  |
| oParsUnitNum=x,y; a[,y]; o          | Identifies the position (x) and length (y) of the output parsed unit number.               | 8                  |
| oPMUnit=x,y; a[,y]; o               | Identifies the position (x) and length (y) of the output PMB or MSC unit.                  | 14                 |

Table 5: Definition File Layout Using Component Keywords (Part 8 of 9)

| Definition Keywords          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Recommended Length |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| oPreferredCityName=x,y;a[,y] | <p>Identifies the position [x] and length [y] of the output preferred city name.</p> <p>For successfully-coded addresses, the oPreferredCityName and oPreferredState fields are always be populated.</p> <p>For non-coded addresses, the oPreferredCityName and oPreferredState fields are populated for the following scenarios:</p> <ol style="list-style-type: none"> <li>1) ZIP Code only input (city not input, or not found)</li> <li>2) Single ZIP Code city input (ZIP Code not input, or not found)</li> <li>3) City/St/ZIP Code input and agree (ZIP Code is part of city)</li> </ol> <p>For all other non-coded scenarios, the preferred fields will be blank.</p> | 28                 |
| oPreferredState=x,y;a[,y]    | <p>Identifies the position [x] and length [y] of the output preferred state.</p> <p>For successfully coded addresses, the oPreferredCityName and oPreferredState fields are always populated.</p> <p>For non-coded addresses, the oPreferredCityName and oPreferredState fields are populated for the following scenarios:</p> <ol style="list-style-type: none"> <li>1) ZIP Code only input (city not input, or not found)</li> <li>2) Single ZIP Code city input (zip not input, or not found)</li> <li>3) City/St/ZIP Code input and agree (zip is part of city)</li> </ol> <p>For all other non-coded scenarios, the preferred fields will be blank.</p>                  | 2                  |
| oProcessDate=x,y; a[,y]; o   | <p>Identifies the position (x) and length (y) of the output process date.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4                  |
| oRdi=x,y; a[,y]              | <p>Identifies the position (x) and length (y) of the output Residential Delivery Indicator.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                  |

Table 5: Definition File Layout Using Component Keywords (Part 9 of 9)

| Definition Keywords              | Description                                                                                                                           | Recommended Length |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| oSeasonalFlag=x,y; a[,y]         | Identifies the position (x) and length (y) of the output seasonal flags.                                                              | 12                 |
| oSlkRtnCode=x,y; a[,y]           | Identifies the position (x) and length (y) of the Suite <sup>Link</sup> return code.                                                  | 2                  |
| oSlkMatchCode=x,y; a[,y]         | Identifies the position (x) and length (y) of the Suite <sup>Link</sup> match code.                                                   | 1                  |
| oSlkMatchFidelityCode=x,y; a[,y] | Identifies the position (x) and length (y) of the Suite <sup>Link</sup> fidelity code.                                                | 1                  |
| oState=x,y; a[,y]; o             | Identifies starting position (x) and length of the output state.                                                                      | 2                  |
| oStreetType=x,y;a[,y]            | Identifies the position [x] and length [y] of the output street type field.                                                           | 1                  |
| oUnit=x,y; a[,y]; o              | Identifies the position (x) and length (y) of the output unit.                                                                        | 13                 |
| oUnit2=x,y; a[,y]; o             | Identifies the position (x) and length (y) of the output unit 2.                                                                      | 13                 |
| oUrban=x,y; a[,y]; o             | Identifies the position (x) and length (y) of the output urbanization name.                                                           | 28                 |
| oXTern=x,y; a[,y]                | Identifies the position (x) and length (y) of the output Pitney Bowes Software VeriMove™ move update product external CASS indicator. | 250                |
| oZip=x,y; a[,y]; o               | Identifies the position (x) and length (y) of the output ZIP Code.                                                                    | 5                  |
| oZip4=x,y; a[,y]; o              | Identifies the position (x) and length (y) of the output ZIP + 4 code.                                                                | 4                  |

The attach/overlay options featured in the previous figure are described next.

**Table 6: Attach/Overlay Options**

| Overlay/Attachment Option | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| x,y                       | <p>x=position, y=length</p> <p>This option allows you to specify the location for placement of an output field.</p> <p>For example, oFirm=1,28 indicates the output Firm field should be placed in position 1 of the output record for a length of 28.</p>                                                                                                                                                                                                                                                                        |
| a[,y]                     | <p>a=attach, [y]=optional length</p> <p>This option allows you to specify the placement length for an output field that is to be attached to the end of the input record.</p> <p>For example, oFirm=a,28 indicates that the output Firm field will be attached to the end of the input record for a length of 28 characters.</p>                                                                                                                                                                                                  |
| a                         | <p>a=attach</p> <p>This option provides you with the ability to attach individual fields to the end of your input record.</p> <p>This option attaches only the designated output field to the end of the input record.</p> <p>For example, oFirm=a indicates the output Firm field will be attached to the end of the input record.</p>                                                                                                                                                                                           |
| o                         | <p>o=overlay</p> <p>This option provides you with the ability to overlay individual fields over corresponding fields in your input record.</p> <p>This option overlays only the designated output field over the corresponding input field. This option is only available if a corresponding input field has been specified and you have specified jOverlay=NO.</p> <p>For example, oFirm=o indicates that the output Firm field will overlay the input Firm field (provided you have specified a corresponding iFirm field).</p> |

## Overlay Processing

During overlay processing (jOverlay=YES), the keywords define the input and output locations. The driver overlays input information with corrected data on successful verification.

You can perform overlay processing at the field level when you have specified jOverlay=NO. The field level overlay option allows you to overlay a specified output field over the corresponding input field. For example, oFirm=o indicates that the output Firm field will overlay the input Firm field (provided you have specified a corresponding iFirm field).

---

**NOTE:** Proceed with caution when selecting jOverlay=YES processing until fully tested to avoid losing your original address information.

---

## Attach Processing

During attach processing (jAttach=YES), the keywords are only used as reference for input to the driver program. The resulting information is attached to each input record and the new record is written to a separate output file as indicated in the Job File. Definition Files in this format can be constructed by the Finalist Workbench, which is distributed with the 32-bit Windows product.

## Output Options for Returning Results From the API

Depending on the level of detail you have within your address file, you can:

- Have the driver overlay the address data in the original input file
- Have the output directed to new output file(s)

It is strongly recommended that you fully understand use of the OVERLAY option and carefully consider which method best suits your processing needs. Special consideration should be paid to the level of detail available for specific address components. There are two methods available for returning results.

### Overlay Option

---

The driver overlays the original input record address fields with the results. Each specific address component identified as input in the Definition File is overlaid with the information returned from the Finalist API call. To use the Overlay Option, in the [OPTIONS] section of the Job File, specify `jOverlay=YES`.

Note that any address components that are not specified as input in the Definition File cannot be overlaid with return information and may result in incomplete and/or incompatible address information existing within your data file. For example, let's say your input ZIP Code exists as part of the input field defined as the city name (`iCity` in the Definition File). The driver program cannot return the ZIP Code because you did not define a location for it. This would result in you losing the original ZIP Code from your input record because the driver would overlay your original city, state and ZIP Code with just the city name.

You should only use the overlay option when you know the exact location of specific address components. Ideally, you can use this option to update your address file in a single pass without the need for a site-specific post processing application to analyze a separate output file containing the Finalist results.

You should use block-type address lines and the `jOverlay=NO` option if either of the following conditions are true:

- Your address data fields are not in fixed locations within the data record.
- Multiple address components float within a certain range in the record.

## Attach Option

The driver writes a copy of the input record and the returned information to separate output file(s). Specify this option in the Job File (jOverlay=NO). This option allows you to post-process the output file created by the driver. For information on the format of the output file(s) created by the driver, refer to “[Contents of jAttach Record](#)” on page 159.

This type of processing typically requires a custom post-processing application to analyze the results. The application would interrogate the output file created by the driver to inspect the input record, the error code field, and the addressing results. The application would determine the completeness of the original address, and may update your master file with the complete address information.

After processing your file with the driver for the first time, consider having a post-processing application reformat the original data records to include the returned address components. This would allow you to use the driver jOverlay=YES option for future executions. The jOverlay=YES option requires little or no post-processing of the results since the corrected information is written directly over the original data. Only records that could not be successfully coded would need to be processed, and you can easily identify these records using the fOutErrorsFile keyword in the Job File.

## Contents of jAttach Record

During driver processing, records written to any of the output files contain the following data.

- A copy of the original input record with any fields overlaid as requested.
- If you specify jAttach=YES, return information is appended to the end of the file. For more information, see [Table 7, “Contents of Output Record,”](#) on page 159.
- If you requested an individual field to be attached, that field is appended following the optional jAttach=YES fields. Individual fields will be appended in the order specified in the .def file.

For each processing run, the corresponding .log file will contain the actual position for the location of each of these fields. Refer to the “Return Address Information Layout” section of the .log file. If your input is in a dBase format, a message displays indicating position and length do not apply.

**Table 7: Contents of Output Record (Part 1 of 3)**

| Description       | Length (in bytes) |
|-------------------|-------------------|
| Firm              | 40                |
| Urbanization Code | 28                |
| Address           | 70                |

Table 7: Contents of Output Record (Part 2 of 3)

| Description                                         | Length (in bytes) |
|-----------------------------------------------------|-------------------|
| Address2                                            | 70                |
| Unit                                                | 13                |
| Unit2                                               | 13                |
| City                                                | 28                |
| State                                               | 2                 |
| Carrier Route                                       | 4                 |
| Private Mail Box (PMB)/Mail Stop Code (MSC)         | 14                |
| FIPS Code                                           | 5                 |
| County Name                                         | 25                |
| Left Framing Character (used for advanced barcode)  | 1                 |
| ZIP Code (used for advanced barcode)                | 5                 |
| ZIP + 4 Code (used for advanced barcode)            | 4                 |
| Delivery Point (includes check digit)               | 3                 |
| Right Framing Character (used for advanced barcode) | 1                 |
| 5 Digit Barcode                                     | 8                 |
| LOT                                                 | 5                 |
| Full City Name                                      | 28                |
| Abbreviated City Name                               | 13                |
| Nonmailing City Name                                | 28                |
| Match Level                                         | 1                 |
| Default Match                                       | 1                 |
| LACS Indicator                                      | 1                 |
| Auto Carrier Route                                  | 1                 |
| Residential Delivery Indicator (RDI)                | 1                 |
| 5 Digit Scheme                                      | 5                 |
| Congressional District                              | 2                 |
| DPV Flags (DPV, CMRA, False Positive)               | 3                 |
| Delivery Point Validation (DPV) Footnotes           | 12                |



Table 7: Contents of Output Record (Part 3 of 3)

| Description                                                                          | Length (in bytes) |
|--------------------------------------------------------------------------------------|-------------------|
| Seasonal Indicators                                                                  | 12                |
| Error Code                                                                           | 4                 |
| Process Date                                                                         | 4                 |
| Optional Information Codes (for use with the Pitney Bowes Software VeriMove product) | 250               |
| LACSLink Return Code                                                                 | 2                 |
| LACSLink Seed Detail                                                                 | 70                |
| SuiteLink Return Code                                                                | 2                 |
| SuiteLink Match Code                                                                 | 1                 |
| SuiteLink Fidelity Code                                                              | 1                 |

## Viewing Files

You can use any ASCII text editor to view the files.

## Executing Finalist on a z/OS Platform

If you are not using the Finalist Compatibility Interface, you will need to execute Finalist using the Finalist driver program (FINALIST). The following is sample JCL to execute Finalist with the Finalist driver program (FINALIST).

---

**NOTE:** Finalist requires a region size of approximately 100M. Region size may vary depending on options selected.

---

```

1 //stepname EXEC PGM=FINALIST, REGION=OM
2 //STEPLIB DD DSN=user.loadlib, DISP=SHR
  // DD DSN=CEE.SCEERUN, DISP=SHR
  // DD DSN=CEE.SCEERUN2, DISP=SHR
3 //CBDDATA DD DSN=finalist.datafile, DISP=SHR
4 //CBCTYST DD DSN=finalist.cystate, DISP=SHR
  /* EWSFILE
  //CBEWS DD DISP=SHR, DSN=finalist.EWSFILE
  /* ELOTFILE
  //LTDATA DD DISP=SHR, DSN=lot.DATAFILE
  /* LACSFILES
  //LLKDB DD DISP=SHR, DSN=yourhlq.FINALIST.LLKDB
  //LLKSUD DD DISP=SHR, DSN=yourhlq.FINALIST.LLKSUD
  //LACSLOG DD SYSOUT=*
  /* DPVFILES
  //DPVDB DD DISP=SHR, DSN=yourhlq.FINALIST.DPVDB
  //DPVSDB DD DISP=SHR, DSN=yourhlq.FINALIST.DPVSDB
  //DPVHDB DD DISP=SHR, DSN=yourhlq.FINALIST.DPVHDB
  //DPVSUD DD DISP=SHR, DSN=yourhlq.FINALIST.DPVSUD
  /* SUITELINKFILES
  //SLKDB DD DISP=SHR, DSN=yourhlq.FINALIST.SLKDB
5 //PBFNJOB DD *
  ; These cards are sample JOB cards
  [FILES]
  finput=INFILE
  fDefinition=PBFNDEF
  fOutErrorsFile=BADFILE
  fOutAllFile=OUTFILE
  fConfigFile=PBFNCFG
  [OPTIONS]
  clnputFileType=MFFIXED
  cRecSz=600
  jAttach=no
6 //PBFNDEF DD *
  ; These cards are sample DEF cards
  [INPUT]
  iFirm=278, 40
  iUrban=318, 28
  iAddress1=346, 64
  iAddress2=410, 64
  iCity=474, 42
7 //PBFNCFG DD *
  --Sample config cards
  FILE SECTION:
  -----
  CITY DIRECTORY FILENAME = CBCTYST
  ZIP+4 DIRECTORY FILENAME 1 = CBDDATA
  CASS SECTION:
  -----
  BATCH REPORT FILENAME = SYSFINAL
  3553 REPORT FILENAME = SYSPT7
  PRODUCT SECTION:
  -----
  SOFTWARE KEY = your software key
  REPORT SECTION:
  -----
  REPORT FILENAME = SYSPT3
  REPORT TITLE = FINALIST REPORT FILE FROM PBFN.CFG
  Address Detail Report PAGE LEN = 60

```

```

Address Detail Report MAX REC = 1000
Address Detail Report NTH REC = 1000
Address Detail Report TYPE = ON
Address Detail Report ISOL = ON
Address Detail Report SUGG = ON
Address Detail Report INFO = ON
LOG MSG SECTION:
-----
LOG FILENAME = SYSPRT1
LOG LEVEL = 3
8 //INFILE DD DSN=user.input.file,DISP=SHR
9 //OUTFILE DD DSN=user.output.file,DISP=SHR
10 //GOODFILE DD DSN=user.optional.file,DISP=SHR
//BADFILE DD DSN=user.optional.file,DISP=SHR
11 //SYSPRINT DD SYSOUT=*
12 //SYSFINAL DD SYSOUT=*
13 //SYSPRT1 DD SYSOUT=*
14 //SYSPRT3 DD SYSOUT=*
15 //SYSPRT7 DD SYSOUT=*
16 //EXCPIN DD *
17 L1CANTEN CANTON RP356
/*
//
    
```

**Figure 1: Sample JCL for Executing Finalist with the Finalist Driver Program (FINALIST) on a z/OS Platform**

Enter the values that appear in capital letters exactly as shown and in the same logical sequence. Enter the values that appear in lower-case letters with the appropriate substitutions to meet your installation requirements. A number appears to the left of each statement that contains a user-defined variable. These numbers correspond to the following descriptions.

| Statement Number | Description                                                                                                                                                                                                                                                                      |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                | This statement executes FINALIST. Enter a statement name for "stepname," and any other values required for your site.                                                                                                                                                            |
| 2                | This statement identifies the load library containing the Finalist driver, programs, and subroutines. Replace "user.loadlib" with the name of the library containing the Finalist programs and subroutines. You may also need to specify the names of your LE runtime libraries. |
| 3                | This statement identifies your Finalist Data File on disk. Replace "finalist.datafile" with the name of your Data File.                                                                                                                                                          |
| 4                | This statement identifies your Finalist City/State File on disk. Replace "finalist.citystate" with the name of your City/State File.                                                                                                                                             |
| 5                | This statement identifies the JOB cards necessary to run FINALIST.                                                                                                                                                                                                               |
| 6                | This statement identifies the DEF cards necessary to run FINALIST. In this case the JOB card specified PBFNDEF for the DEF cards. It could have specified a different DD name.                                                                                                   |
| 7                | This statement identifies the configuration cards necessary to run FINALIST. In this case the JOB card specified PBFNCNFG for the configuration cards. It could have specified a different DD name.                                                                              |
| 8                | This statement defines your input name-and-address file as identified by the JOB card. It could have specified a different DD name.                                                                                                                                              |

| Statement Number | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9                | This statement defines your output name-and-address file. It could have specified a different DD name.                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10               | This statement defines additional output file(s). It could have specified different DD names.                                                                                                                                                                                                                                                                                                                                                                                                                |
| 11               | The SYSPRINT statement identifies the writer (print) class for the Finalist driver program (FINALIST). It contains a list of the parameters presented to the input and a list of options in effect for this run.                                                                                                                                                                                                                                                                                             |
| 12               | The SYSFINAL statement identifies the writer (print) class for Finalist. It contains the Finalist Batch Report.                                                                                                                                                                                                                                                                                                                                                                                              |
| 13               | This statement identifies where the Finalist system will write any error messages.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 14               | This statement identifies the location of optional reports.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 15               | This statement identifies the writer (print) class for the USPS Form 3553 (CASS Summary Report).                                                                                                                                                                                                                                                                                                                                                                                                             |
| 16-17            | Statement 16 activates the exceptions table processing logic when running the Finalist system Data File. Statement 17 is a sample entry to the exceptions table. You can also have exceptions table processing as a separate data set instead of in-stream data. If you use a separate data set, the record length must be 80. To use Finalist without the exceptions table, either omit these two statements or use the following single statement instead of statement 16 and 17:<br><br>//EXCPIN DD DUMMY |

# CHAPTER 8

---

## Using the Finalist Reports

This chapter provides information on the Finalist reports and the options available with each report.

|                                                   |     |
|---------------------------------------------------|-----|
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| Address Input/Output Report Section .....         | 167 |
| Address Isolation Report Section .....            | 169 |
| Address Suggestion Report Section .....           | 169 |
| Info Codes Report Section .....                   | 170 |
| <b>Finalist Batch Report</b> .....                | 175 |
| <b>USPS Form 3553 (CASS Summary Report)</b> ..... | 193 |

## Address Detail Report

The Address Detail Report consists of four sections providing processing information for each input address. You can set report options in the Configuration File (pbfncfg) or in the PBFNSetupDef structure.

---

**NOTE:** You can specify "ERR" for the "Address Detail Report Type" option in the pbfncfg configuration file or the PBFNSetupDef structure to include only records that did not match on the Address Detail Report.

---

For all fields on the Address Detail Report, if data is not found for a field, the field does not display on the report.

```

Process Date: XX/XX/XX
Process Time: XX:XX:XX
Finalist Rel: XXXX

Page: 1
DB Version: X.XX.XX.X.XX
DB Copyright Date: XX-XX-XXXX

Finalist Report File From PBFN.CFG
Address Detail Report

RECORD NO. 7

##### ADDRESS INPUT/OUTPUT REPORT #####
Input Address:
ADDR1: 2358 S 9TH
CSZ: MI LW WI

Returned Address:
ADDR1: * 2358 S 9TH
CSZ: MI LW WI
ERROR: 4423

##### ADDRESS ISOLATION REPORT #####
RANGE: 2358
PRE-DIR: S
STREET: 9TH
SUFFIX:
POST-DIR:
PMB DES:

UNIT:
UNIT NO.:
UNIT2:
UNIT2 NO.:
PMB NUM:

##### ADDRESS SUGGESTION REPORT #####
2358 S 9TH PL, MILWAUKEE WI 53215-3212 C076
2358 S 9TH ST, MILWAUKEE WI 53215-3208 C027

```

Figure 1: Sample Address Detail Report-Page 1

Process Date: XX/XX/XX  
 Process Time: XX:XX:XX  
 Finalist Rel: XXXX

Page: 2  
 DB Version: X.XX.XX.X.XX  
 DB Copyright Date: XX-XX-XXXX

Finalist Report File From PBFN.CFG  
 Address Detail Report

```
##### INFO CODES REPORT #####                                UserKey
Match:
  Return Level : Unknown
Locations:
  Address      : Line 1
Types:
  Address      : Street
  Lookup       : City Only
  City         : Single Zone, Primary
  ZIP          : Regular ZIP
Components:
  Exact Match  : Range, Pre Dir, Street, State
  No Input     : Suffix, PMB, PMB #, ZIP, Carr, LOT, LACS, URB
  Corrected    : City
  Invalid      : City
  Inv. Corre'd : City
  Multi Choice : Suffix, Carr
```

Figure 2: Sample Address Detail Report-Page 2

## Address Input/Output Report Section

The Address Input/Output Report section displays your input address and the output address generated during Finalist processing. To print the Address Input/Output Report on the Address Detail Report, specify "ON" for "Address Detail Report Type" field in the Configuration File or "ON" for cAddrDtlRptType in the PBFNSetupDef structure.

Table 1: Address Input/Output Report Section (Part 1 of 2)

| Field   | Description                                                                                                                  |
|---------|------------------------------------------------------------------------------------------------------------------------------|
| USERKEY | User key that identifies the address in the Address Detail Report.                                                           |
| FIRM    | Firm name associated with the address.                                                                                       |
| URB     | Urbanization name.                                                                                                           |
| ADDR1   | Information contained on the first address line. An asterisk (*) indicates the ADDR1 line was used as primary address line.  |
| ADDR2   | Information contained on the second address line. An asterisk (*) indicates the ADDR2 line was used as primary address line. |
| CSZ     | City, state, and ZIP Code.                                                                                                   |
| SS      | ZIP + 4 code.                                                                                                                |

**Table 1: Address Input/Output Report Section (Part 2 of 2)**

| <b>Field</b> | <b>Description</b>         |
|--------------|----------------------------|
| CR           | Carrier route code.        |
| COUNTY       | County name.               |
| DP           | Delivery point.            |
| ERROR        | Any applicable error code. |



## Address Isolation Report Section

The Address Isolation Report section provides details on how the Finalist engine isolated address elements from your input address before attempting to standardize and code the address according to USPS regulations. To print the Address Isolation Report on the Address Detail Report, specify "ON" for the "Address Detail Report Isol" field in the Configuration File or "ON" for cAddrDtlRptIsol in the PBFNSetupDef structure.

**Table 2: Address Isolation Report Section**

| Field    | Description                                                        |
|----------|--------------------------------------------------------------------|
| USERKEY  | User key that identifies the address in the Address Detail Report. |
| RANGE    | Primary range information.                                         |
| PRE-DIR  | Pre-directional.                                                   |
| STREET   | Street information.                                                |
| SUFFIX   | Suffix.                                                            |
| POST-DIR | Post-directional.                                                  |
| PMB DES  | Private Mail Box (PMB) or Mail Stop Code (MSC) designator.         |
| UNIT     | First unit designator.                                             |
| UNIT NO  | Unit number.                                                       |
| UNIT2    | Second unit designator.                                            |
| UNIT2 NO | Second unit number.                                                |
| PMB NUM  | Private Mail Box (PMB) or Mail Stop Code (MSC) range.              |

## Address Suggestion Report Section

The Address Suggestion Report section shows complete address information for up to three suggestions for ambiguous address failures. For example, Finalist is unable to code your 47 Wilder Ave input address but generates a suggestion indicating an address 47 Wilder Rd exists for the same city, state, and ZIP Code. To print the Address Suggestion Report on the Address Detail Report, specify "ON" for the "Address Detail Report Sugg" field in the Configuration File or "ON" for cAddrDtlRptSugg in the PBFNSetupDef structure.

## Info Codes Report Section

The Info Codes Report section provides details on the processing performed on your input address.

The PBFNAddressInfoDef structure is the source for the information in this section. To print the Info Codes Report on the Address Detail Report, specify "ON" for the "Address Detail Report Info" field in the Configuration File or "ON" for cAddrDtlRptInfo in the PBFNSetupDef structure.

### Match

The following table describes the fields in the Match section. If data is not found for a field, the field does not display on the report.

**Table 3: Info Codes Report – Match Section (Part 1 of 2)**

| Field   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| USERKEY | User key that identifies the address in the Address Detail Report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| General | <p>Provides general information on the address assignment process.</p> <ul style="list-style-type: none"> <li>• <b>Address Unchanged</b> — Indicates whether changes were made to the input address.</li> <li>• <b>Dual Address</b> — Indicates if the street lines include a dual address. A dual address is an address that contains more than one mailable address (i.e., an address that contains both a PO BOX and a street address).</li> <li>• <b>Non Deliverable</b> — Indicates if a street line includes an address that is not deliverable by the USPS. This is an address that has successfully coded to a valid entry on the USPS database, but the USPS has marked the address as being non-deliverable.</li> <li>• <b>Zip Move</b> — Indicates whether an address was coded using a ZIPMOVE record.</li> <li>• <b>Exceptions</b> — Indicates whether an exceptions table entry was used to process the address.</li> </ul> |

Table 3: Info Codes Report – Match Section (Part 2 of 2)

| Field                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Address Match Level  | <p>Level of matching achieved for the address.</p> <ul style="list-style-type: none"> <li>• <b>Street</b> — Street level default.</li> <li>• <b>Secondary</b> — Matched at secondary range level.</li> <li>• <b>Firm Primary</b> — Firm record match at primary range level.</li> <li>• <b>Firm Secondary</b> — Firm record match at secondary range level.</li> <li>• <b>High Rise Default</b> — High-rise default.</li> <li>• <b>High Rise Sec Match</b> — High-rise secondary range match.</li> <li>• <b>RR or HC Default</b> — RR or HC default.</li> <li>• <b>RR or HC Sec Match</b> — RR or HC box range match.</li> <li>• <b>General Delivery</b> — General delivery.</li> <li>• <b>PO Box</b> — PO Box.</li> <li>• <b>Coded Unique ZIP</b> — Coded to a unique ZIP Code.</li> <li>• <b>Coded Unique ZIP Default</b> — Coded as a default unique ZIP Code.</li> <li>• <b>Military Default</b> — Coded as a default military.</li> <li>• <b>Military Sec Match</b> — Coded as a military secondary match.</li> </ul> |
| Range Match          | <p>Level of matching achieved for the range. Possible values for this field are described below.</p> <ul style="list-style-type: none"> <li>• <b>Original Primary Ranked</b> — Original primary range ranked.</li> <li>• <b>Original Secondary #1</b> — Original secondary #1 ranked.</li> <li>• <b>Original Secondary #2</b> — Original secondary #2 ranked.</li> <li>• <b>sec1 + sec2 combo</b> — Secondary 1 plus secondary 2 combined for matching.</li> <li>• <b>Alpha Recombo</b> — Alpha component of range was moved to secondary for matching.</li> <li>• <b>Dash-Recombo</b> — Range following the dash was moved to secondary for matching.</li> <li>• <b>Address A@D Retry</b> — Primary range moved to secondary for alternate at delivery matching.</li> <li>• <b>Unit Designator Secondary</b> — Unit designator used as the secondary range for matching.</li> </ul>                                                                                                                                       |
| Address Return Level | <p>Level of postal coding information returned.</p> <ul style="list-style-type: none"> <li>• <b>Valid ZIP 4</b> — Returned valid ZIP + 4 code.</li> <li>• <b>Valid ZIP and Carrt</b> — Returned valid ZIP Code and carrier route only.</li> <li>• <b>Valid ZIP Code</b> — Returned valid ZIP Code only.</li> <li>• <b>Unknown</b> — Returned valid carrier route only.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Locations

**Table 4: Info Codes Report – Locations Section**

| Field   | Description                                                                                             |
|---------|---------------------------------------------------------------------------------------------------------|
| Address | Location where Finalist found the address information.                                                  |
| Unit    | Location of the matched unit returned by Finalist.                                                      |
| Firm    | Location of the matched firm returned by Finalist.                                                      |
| PMB     | Location of the matched Private Mail Box (PMB) or Mail Stop Code (MSC) designator returned by Finalist. |

## Types

**Table 5: Info Codes Report – Types Section (Part 1 of 2)**

| Field   | Description                                                                                                                                                                                                                                                                                                                                                            |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Address | Type of address.                                                                                                                                                                                                                                                                                                                                                       |
| Street  | Type of street matched to the address. <ul style="list-style-type: none"> <li>• <b>Preferred Alias</b> — Preferred alias street name.</li> <li>• <b>Nickname Alias</b> — Non-preferred alias street name.</li> <li>• <b>Alternate at Delivery</b> — Alternate at delivery street name.</li> <li>• <b>Abbreviated Alias</b> — Abbreviated alias street name.</li> </ul> |
| Lookup  | Type of lookup PBFNProcess performed on the last supplied address.                                                                                                                                                                                                                                                                                                     |
| Failure | Type of failure resulting from the PBFNProcess look up.                                                                                                                                                                                                                                                                                                                |

Table 5: Info Codes Report – Types Section (Part 2 of 2)

| Field | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| City  | Type of city matched to the address. <ul style="list-style-type: none"> <li>• <b>Single ZIP</b> — Single ZIP Code city.</li> <li>• <b>Single Zone</b> — Single finance city (city with one finance area).</li> <li>• <b>Multi Zone</b> — Multi finance city (city with more than one finance area).</li> <li>• <b>Primary</b> — Primary city name. Not a non-mailing city name.</li> <li>• <b>Non Mailing</b> — Non-mailing city name.</li> <li>• <b>Abbr Name</b> — Abbreviated city name.</li> <li>• <b>Preferred Name</b> — Preferred city name.</li> </ul>                                                                                                                                                                                                                                                                  |
| ZIP   | Type of ZIP Code matched to the address. <ul style="list-style-type: none"> <li>• <b>Regular ZIP</b> — Standard ZIP Code.</li> <li>• <b>Puerto Rico ZIP</b> — Puerto Rico ZIP Code.</li> <li>• <b>Military</b> — ZIP Code for a military installation.</li> <li>• <b>Small Town</b> — Small town ZIP Code.</li> <li>• <b>Unique</b> — Unique ZIP Code.</li> <li>• <b>+4</b> — Address matched within the unique ZIP Code and input plus4 was found.</li> <li>• <b>No +4</b> — Address line was matched within the unique ZIP Code but input plus4 was not found.</li> <li>• <b>No Match +4</b> — Address line was not matched within the unique ZIP Code but input plus4 was matched.</li> <li>• <b>No Match No +4</b> — Address line and input plus4 was not matched within the unique ZIP Code. Defaults returned.</li> </ul> |

## Components

Table 6: Info Codes Report – Components Section

| Field             | Description                                                             |
|-------------------|-------------------------------------------------------------------------|
| Exact Match       | Address components resulted in an exact match.                          |
| No Input          | Address components not found on input.                                  |
| Corrected         | Address components corrected.                                           |
| Return Data       | Address components not found on input but valid data returned.          |
| Invalid           | Address components found on input but invalid.                          |
| Invalid Corrected | Address components found on input but invalid. Corrections made.        |
| Multi Choice      | Address components for which input data resulted in an ambiguous match. |

**Table 6: Info Codes Report – Components Section**

| <b>Field</b>     | <b>Description</b>                                                                                                                     |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Alpha Mismatch   | Alpha value of range was invalid.                                                                                                      |
| Range Overlap    | Range failure due to overlapping ranges found on the USPS database.                                                                    |
| Cardinal Failure | Failed due to a directional change error. Directionals available for user outside USPS approved change rules (Cardinal Failure Rules). |

## Finalist Batch Report

The Finalist Batch Report displays all configured options and statistics generated at the time of the processing run. To print the Finalist Batch Report, specify "ON" for the "Batch Report" field in your pbfncfg configuration file or for the cBatchRptOpt member in the PBFNSetupDef structure.

Finalist Batch Report © YYYY Pitney Bowes Software, Inc.

Page 1

```

Software Version
Release Ver. : X.XX.XX.X.XX
Build Date  : Sep 18 2012 10:02:50
Expire Date  : 99-99-2014

ZIP+4 Database
Version      : X.XX.XX.X.XX
Copyright Date : 99-99-2013
Expire Date  : XX-XX-XXXX

City Database
Version      : X.XX.XX.X.XX
Copyright Date : 99-99-2013
Expire Date  : XX-XX-XXXX

EWS Database
Copyright Date : 99-99-2013

RDI Database
Copyright Date : 99-99-2013

LOT Database
Product      : LOT OPTION
Version      : 2.10.00
Copyright Date : 99-99-2013

LACS Database
Product      : LACSLinktest
Version      : 9999
Release Date  : 99-99-2013

System Information
Processor    : 586
OS           : WIN32
OS Version   : 6.1.7601
System ID(s) : 322FA1,CE272F

DPV Database
Copyright Date : 99-99-2013

Sui teLink Database
Product       : test
Release Number : 9999
Release Date  : 99-99-2013
Expire Date   : 99-99-9999

```

**Figure 3: Finalist Batch Report - Page 1**

If you are processing in a non-CASS certified mode, the Finalist Batch Report (Page 1) Software Version Expire Date field displays "Non-expiring/Non-CASS".

```

Software Version
Release Ver. : X.XX.XX.X.XX
Build Date  : Sep 7 2010 08:05:48
Expire Date  : Non-expiring/Non-CASS

```

## Processing Parameters

## File Section:

|                         |                                       |
|-------------------------|---------------------------------------|
| City Filename:          | D:\PitneyBowes\CycleM\BASE\city.dir   |
| ZIP+4 Filename 1:       | D:\PitneyBowes\CycleM\BASE\zip4us.dir |
| Configuration Filename: | pbfn.cfg                              |
| Config LOAD/NLOAD:      | LOAD                                  |

## CASS Section:

|                                      |              |
|--------------------------------------|--------------|
| Batch Report Filename:               | BatchRpt.txt |
| 3553 Report Filename:                |              |
| CASS Company Name:                   |              |
| CASS Product Name:                   |              |
| CASS Product Version:                |              |
| Z4 Change Certified Company Name:    |              |
| Z4 Change Certified Product Name:    |              |
| Z4 Change Certified Product Version: |              |
| LOT Certified Company Name:          |              |
| LOT Certified Product Name:          |              |
| LOT Certified Product Version:       |              |
| DPC Certified Company Name:          |              |
| DPC Certified Product Name:          |              |
| DPC Certified Product Version:       |              |
| CASS Mailer Name:                    |              |
| CASS Mailer Address:                 |              |
| CASS Mailer City Line:               |              |
| CASS Configuration:                  | AAA          |
| Batch Report:                        | ON           |
| 3553 Report:                         | ON           |

## Process Section:

|                          |     |                            |     |
|--------------------------|-----|----------------------------|-----|
| CASS Flag:               | ON  | CASS Standardize Case:     | U   |
| Assign Carrier Routes:   | ON  | Return Input Firm:         | ON  |
| Assign Unassign Records: | OFF | No. Exception Tbl Entries: | OFF |
| Assign Abbreviated City: | OFF | Process Firms:             | ON  |
| Cache Size:              | 99  | Beginning Frame Char:      | !   |
| End Frame Char:          | !   | Return DPBC:               | ON  |
| Dual Address Switch:     | P   | Return Alias Street Name:  | XP  |
| Assign LOT:              | ON  | Padded String Data:        | OFF |
| Process LOT Only:        | OFF | All Street Matching:       | ON  |

Figure 4: Finalist Batch Report - Page 2



## Product Section:

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| Exception Table Filename:            |                                     |
| EWS Filename:                        | D:\PitneyBowes\CycleM\BASE\ews.txt  |
| LOT Filename:                        | D:\PitneyBowes\CycleM\ELOT\ELOT.dir |
| DPV Filepath:                        | D:\PitneyBowes\CycleM\DPV\          |
| RDI Filepath:                        | D:\PitneyBowes\CycleM\RDI\          |
| LACSLink Filepath:                   | D:\PitneyBowes\CycleM\LACS          |
| SuiteLink Filepath:                  | D:\PitneyBowes\CycleM\suiteLink     |
| Early Warning System:                | ON                                  |
| Delivery Point Validation:           | FLT                                 |
| DPV Shutdown Indicator:              | W                                   |
| Delivery Point Validation Tie Break: | ON                                  |
| DPV Vacant Table:                    | ON                                  |
| DPV No-Stat Table:                   | ON                                  |
| DPV Buffer Size:                     | L                                   |
| LACSLink:                            | ON                                  |
| LACSLink Memory:                     | L                                   |
| Residential Delivery Indicator:      | OFF                                 |
| Commercial Mail Validation:          | ON                                  |
| SuiteLink:                           | ON                                  |
| SuiteLink Small Memory Flag:         | L                                   |
| SuiteLink Shutdown Indicator:        | S                                   |
| Return SLK Input Secondary:          | B                                   |

## Report Section:

|                            |                                    |
|----------------------------|------------------------------------|
| Report Filename:           | report.txt                         |
| Report Title:              | Finalist Report File From PBFN.CFG |
| Detail Report Page Length: | 0                                  |
| Detail Report Max Records: | 0                                  |
| Detail Report Nth Records: | 0                                  |
| I/O Report Option:         | OFF                                |
| Isol Report Option:        | OFF                                |
| Sugg Report Option:        | OFF                                |
| Info Report Option:        | OFF                                |

## Log Section:

|               |         |
|---------------|---------|
| Log Filename: | log.txt |
| Log Level:    | 3       |

Figure 5: Finalist Batch Report - Page 3

## Finalist Batch Report

Page 4

|                      |                      |
|----------------------|----------------------|
| Input Filename:      | inputfile.txt        |
| Batch Start Time:    | Jan 13 2010 16:16:21 |
| Batch End Time:      | Jan 13 2010 16:26:13 |
| Total Process Time:  | 00:09:52             |
| Oldest Process Date: | 0                    |

## Input Address Quality

| Address Assignment Summary   | Count  | %      |
|------------------------------|--------|--------|
| Total Assigned               |        |        |
| Assigned without Correction: | 252739 | 52.60  |
| Assigned with Correction:    | 170144 | 35.41  |
| No match or Uncorrectable:   | 57641  | 12.00  |
|                              | =====  |        |
| Total Records Processed:     | 480524 | 100.00 |

## Processing Summary

|                                                        | Count  | %     |
|--------------------------------------------------------|--------|-------|
| Total Zip Codes Assigned:                              | 469782 | 97.76 |
| Total Carrier Routes Assigned:                         | 422883 | 88.00 |
| Total ZIP+4 Codes Assigned:                            | 397202 | 82.66 |
| Total records with LACS indicator:                     | 8214   | 1.71  |
| Total LOT Assigned:                                    | 397202 | 82.66 |
| Total RDI Identified:                                  | 0      | 0.00  |
| Total Valid But Undeliverable Addresses on AMS (4600): | 446    | 0.09  |
| Total ZIP+4 Suppressed due to DPV Failure (4601):      | 25235  | 5.25  |

Figure 6: Finalist Batch Report - Page 4

|                             |        |       |
|-----------------------------|--------|-------|
| Finalist Batch Report       | Page 5 |       |
| ZIP Codes Assigned          | Count  | %     |
| Without Verification:       | 447045 | 93.03 |
| With Verification:          |        |       |
| From City and State:        | 22423  | 4.67  |
| Ignoring Bad City:          | 0      | 0.00  |
|                             | =====  |       |
| Total                       | 469468 | 97.70 |
| Carrier Routes Assigned To: | Count  | %     |
| Highway Contracts:          | 2559   | 0.53  |
| Post Office Boxes:          | 48078  | 10.01 |
| Rural Routes:               | 67344  | 14.01 |
| All Others:                 | 304902 | 63.45 |
|                             | =====  |       |
| Total                       | 422883 | 88.00 |
| ZIP+4 Codes Assigned To:    | Count  | %     |
| Streets:                    | 253099 | 52.67 |
| PO Boxes:                   | 46629  | 9.70  |
| High Rises:                 | 94424  | 19.65 |
| Rural Routes:               | 785    | 0.16  |
| Firms:                      | 1629   | 0.34  |
| General Delivery:           | 261    | 0.05  |
| Military:                   | 375    | 0.08  |
|                             | =====  |       |
| Total                       | 397202 | 82.66 |

Figure 7: Finalist Batch Report - Page 5

| Finalist Batch Report                                     |       | Page 6 |  |
|-----------------------------------------------------------|-------|--------|--|
| Nonassignment Codes                                       |       |        |  |
| Address Parsing                                           | Count | %      |  |
| 4301 - No Street or Primary Name in Address:              | 281   | 0.06   |  |
| 4399 - Blank Address Record:                              | 9     | 0.00   |  |
| Address Retrieval                                         | Count | %      |  |
| 4411 - No Primary Name Found:                             | 19151 | 3.99   |  |
| 4412 - No Primary Names Ranked with Certainty:            | 16910 | 3.52   |  |
| 4421 - Invalid Range or House Number:                     | 11314 | 2.35   |  |
| 4422 - Incorrect or Missing Directional:                  | 1161  | 0.24   |  |
| 4423 - Incorrect or Missing Suffix:                       | 170   | 0.04   |  |
| 4425 - Incorrect or Missing Suffix and Directional:       | 8     | 0.00   |  |
| 4450 - Missing Range:                                     | 3826  | 0.80   |  |
| 4451 - Multiple Choice or Ambiguous Component Errors:     | 101   | 0.02   |  |
| 4460 - EWS Failure:                                       | 24    | 0.00   |  |
| 4461 - LOT Errors:                                        | 0     | 0.00   |  |
| 4500 - Other Errors:                                      | 176   | 0.04   |  |
| City, State, ZIP Code Parsing                             | Count | %      |  |
| 4101 - No City, State, and ZIP Code in Address:           | 1     | 0.00   |  |
| 4102 - No ZIP Code and No City Name in Address:           | 9     | 0.00   |  |
| 4103 - No ZIP Code and No State Name in Address:          | 99    | 0.02   |  |
| City, State, ZIP Code Retrieval                           | Count | %      |  |
| 4211 - Invalid ZIP Code and no City Name in Address:      | 0     | 0.00   |  |
| 4212 - No ZIP Code and Invalid City Name in Address:      | 2861  | 0.60   |  |
| 4213 - Invalid ZIP Code and Invalid City Name in Address: | 0     | 0.00   |  |
| Total Nonassignment Codes                                 | 58087 | 12.09  |  |

Figure 8: Finalist Batch Report - Page 6

| Finalist Batch Report                                    |        | Page 7 |  |
|----------------------------------------------------------|--------|--------|--|
| <b>DPV Processing Statistics</b>                         |        |        |  |
|                                                          | Count  | %      |  |
| Total Records Through DPV Processing                     | 422437 | 87.91  |  |
| Total DPV Y Type                                         | 348267 | 72.48  |  |
| Total DPV S Type                                         | 18808  | 3.91   |  |
| Total DPV D Type                                         | 30127  | 6.27   |  |
| Total DPV Not Validated                                  | 25235  | 5.25   |  |
| Total DPV Vacant Found                                   | 14777  | 3.08   |  |
| Total DPV No-Stat Found                                  | 9132   | 1.90   |  |
| Total CMRA Found                                         | 1235   | 0.26   |  |
| <b>LACSLink Processing Statistics</b>                    |        |        |  |
|                                                          | Count  | %      |  |
| Total Records Through LACSLink Processing                | 75448  | 15.70  |  |
| Total LACS Street not found ( )                          | 0      | 0.00   |  |
| Total LACS Successful Conversion (A )                    | 7515   | 1.56   |  |
| Total No LACS Match (00)                                 | 67851  | 14.12  |  |
| Total LACS Match Found But No Conversion (14)            | 13     | 0.00   |  |
| Total LACS Match Found With Unit (92)                    | 69     | 0.01   |  |
| Total LACS Match High Rise Default (09)                  | 0      | 0.00   |  |
| <b>SuiteLink Processing Statistics</b>                   |        |        |  |
|                                                          | Count  | %      |  |
| Total Records Through SuiteLink Processing               | 4952   | 1.03   |  |
| Total Successful SuiteLink Matches                       | 411    | 0.09   |  |
| Total Successful SuiteLink Matches with Corrected Suites | 411    | 0.09   |  |

Figure 9: Finalist Batch Report - Page 7

Table 7: Finalist Batch Report Field Descriptions (Part 1 of 12)

| Report Field                                                          | Structure Field    | Description                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Finalist Batch Report © YYYY<br>Pitney Bowes Software, Inc.<br>Page N | N/A                | Report title and page number that displays at the top of each page.<br><br>For the z/OS platform, the copyright symbol displays as EBCDIC characters as shown here:<br><br>Finalist Batch Report (c) YYYY Pitney Bowes Software, Inc.                                                                     |
| <b>Finalist Batch Report - Page 1 - PBFNInfoDef Fields</b>            |                    |                                                                                                                                                                                                                                                                                                           |
| Software Version<br>Release Ver.                                      | cCassEngineVersion | Current CASS version number found on the USPS 3553 Form (CASS Summary Report). This number is returned in a N.NN.NN.D format where "N.NN.NN" is the release number and "D" is the alpha CASS cycle character required and defined by USPS. The release numbers are assigned according to USPS CASS rules. |
| Build Date                                                            | EngineBuild        | Internal number for the engine build. This number is returned in a "FNxx.yy.zz \$Revision n \$" format where "xx.yy.zz" is the Finalist release number and "n" is the version number.                                                                                                                     |
| Expire Date                                                           | cEngineExpDate     | This is the CASS expiration date for the Finalist engine. This date represents the end of a CASS cycle year as declared by the USPS. This date is returned in a mmddyyyy format (two-digit month, two-digit day, and four-digit year).                                                                    |

Table 7: Finalist Batch Report Field Descriptions (Part 2 of 12)

| Report Field                 | Structure Field  | Description                                                                                                                                                                                                                             |
|------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ZIP+4 Database Version       | cZip4BaseVer     | Three-digit version number for the ZIP + 4 database. This number returns without punctuation (i.e., database X.XX will return as XXX).                                                                                                  |
| Copyright Date               | cZip4BaseDate    | This is the maintenance date for the USPS data used for this engine build. This date is returned in a mmyyyy format (two-digit month and four-digit year).                                                                              |
| Expire Date                  | cZip4BaseExpDate | This is the CASS expiration date for the ZIP + 4 File. This date is calculated according to current USPS rules for this engine build. This date is returned in a mmddyyyy format (two-digit month, two-digit day, and four-digit year). |
| City Database Version        | cCityBaseVer     | This is the three-digit version number for the City database. This number returns without punctuation (i.e., database X.XX will return as XXX).                                                                                         |
| Copyright Date               | cCityBaseDate    | This is the maintenance date for the USPS data used for this engine build. This date returns in a mmyyyy format (two-digit month and four-digit year).                                                                                  |
| Expire Date                  | cCityBaseExpDate | This is the CASS expiration date for the City File. This date is calculated according to current USPS rules for this engine build. This date returns in a mmddyyyy format (two-digit month, two-digit day, and four-digit year).        |
| EWS Database Copyright Date  | cEWSBaseDate     | This is the maintenance data for the USPS data used for this engine build. This date is returned in an mm-dd-yyyy format.                                                                                                               |
| RDI Database Copyright Date  | cRDIBaseDate     | This is the maintenance data for the USPS data used for this engine build. This date is returned in an mm-dd-yyyy format. (RDI does not have an actual date as part of the file so the ZIP+4 date is provided.)                         |
| LOT Database Product         | cLOTProdName     | This is the name of the Line of Travel (LOT) database file being used in the run.                                                                                                                                                       |
| Version                      | cLOTBaseVer      | This is the version number for the LOT database. This number is returned without punctuation (i.e., 2.00 returns as 200).                                                                                                               |
| Copyright Date               | cLOTBaseDate     | This is the maintenance date for the USPS data. This date is returned in an mmyyyy format (two-digit month and four-digit year).                                                                                                        |
| LACS Database Product        | cLACSProdName    | Certified LACS <sup>Link</sup> product name.                                                                                                                                                                                            |
| Version                      | cLACSVersion     | LACS <sup>Link</sup> product version number.                                                                                                                                                                                            |
| Release Date                 | cLACSBaseDate    | LACS <sup>Link</sup> database date in format yyyyymmdd.                                                                                                                                                                                 |
| System Information Processor | cProcessorType   | Specifies the type of processor in the system when available.                                                                                                                                                                           |

Table 7: Finalist Batch Report Field Descriptions (Part 3 of 12)

| Report Field                                                | Structure Field             | Description                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OS                                                          | cOSType (PBFN-BINF-OS-TYPE) | Operating system based on program value (MVS, VMS, WIN32) or query of the operating system information (for example, Unix - uname).                                                                                                                              |
| OS Version                                                  | cOSVersion                  | The version of the operating system.                                                                                                                                                                                                                             |
| System ID(s)                                                | CPUID                       | Displays the System ID found on this system.                                                                                                                                                                                                                     |
| DPV Database Copyright Date                                 | cDPVBaseDate                | This is the maintenance data for the USPS data used for this engine build. This date is returned in an mm-dd-yyyy format.                                                                                                                                        |
| Suite <sup>Link</sup> Database Product                      | cSuiteLinkProdName          | Certified Suite <sup>Link</sup> product name.                                                                                                                                                                                                                    |
| Release Number                                              | cSuiteLinkVersion           | Suite <sup>Link</sup> product version number.                                                                                                                                                                                                                    |
| Release Date                                                | cSuiteLinkBaseDate          | Suite <sup>Link</sup> database date in format ccyyymmdd.                                                                                                                                                                                                         |
| Expire Date                                                 | cSuiteLinkBaseExpDate       | Suite <sup>Link</sup> database expiration date in format yyyyymmdd.                                                                                                                                                                                              |
| <b>Finalist Batch Report - Page 2 - PBFNSetupDef Fields</b> |                             |                                                                                                                                                                                                                                                                  |
| City Filename                                               | cCityFileName               | City Database file name.                                                                                                                                                                                                                                         |
| ZIP+4 Filename 1                                            | cZip4FileName               | ZIP + 4 Database file name.                                                                                                                                                                                                                                      |
| Configuration Filename                                      | cConfigFileName             | Path to and file name of the Configuration File.                                                                                                                                                                                                                 |
| Config LOAD/NOLOAD                                          | cLoadSetup                  | Identifies whether or not to load the setup structure from the configuration file.                                                                                                                                                                               |
| Batch Report Filename                                       | cStatFileNameSetup          | Output file name for the Finalist Batch Report and the USPS Form 3553 (CASS Summary Report). This field contains the file name found in the pbfncfg. If you do not enter the output file name in the pbfncfg File, the default file name batch.txt will be used. |
| 3553 Report Filename                                        | c3553FileNameSetup          | Output file name for the USPS Form 3553 (CASS Summary Report). This field contains the file name found in the pbfncfg file. If you do not enter the output file name in the pbfncfg File, the default file name cass3553.txt will be used.                       |
| CASS Company Name                                           | cCASSCompName               | Name of the CASS-certified company. This information displays in section A box 1 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                    |
| CASS Product Name                                           | cCASSProdName               | Name of the CASS-certified product. This information displays in section A box 2 on the USPS Form 3553 (CASS Summary Report).                                                                                                                                    |
| CASS Product Version                                        | cCASSProdVer                | Version number for the CASS-certified product. This information displays in section A box 2 on the USPS Form 3553 (CASS Summary Report).                                                                                                                         |

Table 7: Finalist Batch Report Field Descriptions (Part 4 of 12)

| Report Field                        | Structure Field     | Description                                                                                                                                              |
|-------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Z4 Change Certified Company Name    | cZ4ChngCertCompName | Z4Change-certified company name.                                                                                                                         |
| Z4 Change Certified Product Name    | cZ4ChngProdName     | Z4Change product name.                                                                                                                                   |
| Z4 Change Certified Product Version | cZ4ChngProdVer      | Z4Change product version number.                                                                                                                         |
| LOT Certified Company Name          | cLOTCertCompName    | Line of Travel (LOT)-certified company name. This information displays in section A box 7 on the USPS Form 3553 (CASS Summary Report).                   |
| LOT Certified Product Name          | cLOTCertProdName    | Line of Travel (LOT)-certified-product name. This information displays in section A box 8 on the USPS Form 3553 (CASS Summary Report).                   |
| LOT Certified Product Version       | cLOTCertProdVer     | Version number for the Line of Travel (LOT)-certified product. This information displays in section A box 8 on the USPS Form 3553 (CASS Summary Report). |
| DPC Certified Company Name          | cDPCCertCompName    | Delivery Point Code certified-company name. This information displays in section A box 10 on the USPS Form 3553 (CASS Summary Report).                   |
| DPC Certified Product Name          | cDPCCertProdName    | Delivery Point Code-certified product name. This information displays in section A box 11 on the USPS Form 3553 (CASS Summary Report).                   |
| DPC Certified Product Version       | cDPCCertProdVer     | Version number for the Delivery Point Code-certified product. This information displays in section A box 11 on the USPS Form 3553 (CASS Summary Report). |
| CASS Mailer Name                    | cMailerName         | CASS-certified mailer name.                                                                                                                              |
| CASS Mailer Address                 | cMailerAddress      | CASS-certified mailer address.                                                                                                                           |
| CASS Mailer City Line               | cMailerCityLine     | CASS-certified mailer city line.                                                                                                                         |
| CASS Configuration                  | cCASSConfiguration  | CASS configuration value. This information displays in section A box 3 on the USPS Form 3553 (CASS Summary Report).                                      |
| Batch Report                        | cBatchRptOpt        | Indicates whether to print the Finalist Batch Report.                                                                                                    |
| 3553 Report                         | c3553RptOpt         | Indicates whether to print the USPS Form 3553 (CASS Summary Report).                                                                                     |



Table 7: Finalist Batch Report Field Descriptions (Part 5 of 12)

| Report Field            | Structure Field    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CASS Flag               | cCASSFlag          | <p>Indicates whether Finalist processes in non-CASS or CASS mode. For batch processing, cCASSFlag=ON ensures that CASS-required options are turned on including DPV, LACS<sup>Link</sup>, Suite<sup>Link</sup>, CASS configuration, Carrier Route (CR), and Delivery Point (DPBC). For DPV, the Flat file option is used when no other DPV option is specified.</p> <p><b>NOTE:</b> If CASS Flag = ON and a conflicting option is encountered (Configuration, Assign CR, Return DPBC, LACS<sup>Link</sup>=OFF, Suite<sup>Link</sup>=OFF, or DPV=OFF), a warning message is written to the log file indicating that CASS has been forced off and the reason for CASS being forced off. The message is similar to:</p> <p>Warning Message: CASS forced off: CASS Configuration, Return DPBC, Assign CR, Assign SuiteLink, Assign LACSLink, Assign DPV</p> |
| Assign Carrier Routes   | cAssignCR          | Indicates whether Finalist assigns carrier route codes to your file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Assign Unassign Records | cProcessUnassigned | This field indicates how to code previously unassigned or expired addresses. Specifically, the member indicates whether only previously unassigned or expired addresses should be postal coded in batch mode or whether all supplied address records should be coded.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Assign Abbreviated City | cAssignAbbrevCity  | Indicates whether Finalist returns abbreviated city names.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Cache Size              | cCacheSize         | Indicates whether Finalist should use internal caching.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| End Frame Char          | cEndFrame          | Indicates the character to use for the end framing character for advanced barcodes. If you do not specify a value here, the BegFrame character is used. If you do not specify a character for BegFrame or EndFrame, Finalist uses the exclamation point (!).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Dual Address Switch     | cDualAddrSwt       | If the input file contains dual addresses (one a conventional address, a second containing a PO Box address), this field determines what order to use to process and match the addresses. If the selected address is valid, processing stops. If the selected address does not validate, Finalist will attempt to code the secondary address.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Assign LOT              | cAssignLOT         | Indicates whether Finalist assigns Line of Travel (LOT) codes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Process LOT Only        | cProcessLOTOnly    | Determines whether Finalist performs only eLOT processing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Table 7: Finalist Batch Report Field Descriptions (Part 6 of 12)

| Report Field                                                | Structure Field       | Description                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CASS Standardize Case                                       | cStandardCase         | Indicates whether to return addresses in all upper, all lower, or mixed upper and lower case. This field affects the address coding output only. It does not affect the database APIs (APIs prefixed with PBCS). The database APIs always return upper case data.                  |
| Return Input Firm                                           | cRetInputFirm         | This field determines whether Finalist returns the input firm.                                                                                                                                                                                                                     |
| No. Exception Tbl Entries                                   | cMaxExcpTblEntries    | This field determines the maximum number of exception table entries.                                                                                                                                                                                                               |
| Process Firms                                               | cProcessFirms         | Determines whether Finalist performs firm processing.                                                                                                                                                                                                                              |
| Beginning Frame Char                                        | cBegFrame             | Indicates the character to use for the front framing character for advanced barcodes. If you do not specify a character for BegFrame or EndFrame, Finalist uses the exclamation point (!).                                                                                         |
| Return DPBC                                                 | cRetDPBC              | Indicates whether Finalist returns delivery point barcodes.                                                                                                                                                                                                                        |
| Return Alias Street Name                                    | cRetAliStName         | This field indicates whether Finalist returns alias street names in the label line. An alias street name is an alternate name for a street, maintained at the ranged Plus4 ZIP Code level.                                                                                         |
| Padded String Data                                          | cPaddedStringData     | If you are using a platform or coding language (for example, COBOL) that does not support null terminated strings, you will need to pad all fields with blanks. This field indicates whether you will be using input/output fields that are padded with blanks or null terminated. |
| All Street Matching                                         | cAllStreetMatching    | Determines whether Finalist performs All Street Matching (ASM) processing.                                                                                                                                                                                                         |
| <b>Finalist Batch Report - Page 3 - PBFNSetupDef Fields</b> |                       |                                                                                                                                                                                                                                                                                    |
| Exception Table Filename                                    | cExceptionTblFileName | Exceptions Table file name and path.                                                                                                                                                                                                                                               |
| EWS Filename                                                | cEWSFileName          | Early Warning System (EWS) file name and path.                                                                                                                                                                                                                                     |
| LOT Filename                                                | cLOTFileName          | Line of Travel (LOT) file name and path.                                                                                                                                                                                                                                           |
| DPV Filepath                                                | cDPVFilePath          | Delivery Point Validation (DPV) File path.                                                                                                                                                                                                                                         |
| RDI Filepath                                                | cRDIFilePath          | Residential Delivery Indicator (RDI) File path.                                                                                                                                                                                                                                    |
| LACS <sup>Link</sup> Filepath                               | cLACSLinkFilePath     | LACS <sup>Link</sup> File path.                                                                                                                                                                                                                                                    |
| Suite <sup>Link</sup> Filepath                              | cSuiteLinkFilePath    | Suite <sup>Link</sup> File path.                                                                                                                                                                                                                                                   |
| Early Warning System                                        | cAssignEWS            | This field indicates whether Finalist will perform Early Warning System (EWS) processing.                                                                                                                                                                                          |

Table 7: Finalist Batch Report Field Descriptions (Part 7 of 12)

| Report Field                             | Structure Field       | Description                                                                                                                                                                                                                                                                                       |
|------------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Delivery Point Validation                | cAssignDPV            | Indicates whether Finalist performs Delivery Point Validation (DPV) processing.<br><br><b>NOTE:</b> The USPS CASS regulations require Delivery Point Validation (DPV) processing to generate the USPS Form 3553 (USPS CASS Summary Report).                                                       |
| DPV Shutdown Indicator                   | cDPVShutdownIndicator | Action to take when encountering a DPV Seed during the processing run.                                                                                                                                                                                                                            |
| Delivery Point Validation Tie Break      | cAssignDPVTie         | Indicates whether to use DPV tie break processing.<br><br><b>NOTE:</b> The USPS CASS regulations require DPV Tie Break processing to generate the USPS Form 3553 (USPS CASS Summary Report).                                                                                                      |
| DPV Vacant Table                         | cAssignDPVvacant      | Indicates whether Finalist uses the Vacant Table and returns the proper Vacant code to the PBFNProcessDataDef structure.                                                                                                                                                                          |
| DPV No-Stat Table                        | cAssignDPVNoStat      | Indicates whether Finalist uses the No-Stat Table and returns the proper No-Stat code to the PBFNProcessDataDef structure.                                                                                                                                                                        |
| DPV Buffer Size                          | cDPVBufSize           | Indicates the memory model for DPV processing.                                                                                                                                                                                                                                                    |
| LACS <sup>Link</sup>                     | cAssignLACSLink       | This field determines whether Finalist performs LACS <sup>Link</sup> processing.<br><br><b>NOTE:</b> The USPS CASS regulations require LACS <sup>Link</sup> processing. If you do not perform LACS <sup>Link</sup> processing, Finalist does not generate a USPS Form 3553 (CASS Summary Report). |
| LACS <sup>Link</sup> Memory              | cLACSLinkProcessing   | Indicates the memory model for LACS <sup>Link</sup> processing:                                                                                                                                                                                                                                   |
| Residential Delivery Indicator           | cAssignRDI            | This field indicates whether Finalist will perform Residential Delivery Indicator (RDI) processing.                                                                                                                                                                                               |
| Commercial Mail Validation               | cAssignCMRA           | This field indicates whether Finalist will perform CMRA processing.                                                                                                                                                                                                                               |
| Suite <sup>Link</sup>                    | cAssignSuiteLink      | This field indicates whether Finalist will perform Suite <sup>Link</sup> processing.                                                                                                                                                                                                              |
| Suite <sup>Link</sup> Small Memory Flag  | cSuiteLinkSmallMem    | Indicates the memory model for Suite <sup>Link</sup> processing:                                                                                                                                                                                                                                  |
| Suite <sup>Link</sup> Shutdown Indicator | cSuiteLinkShutdown    | Action to take when encountering a Suite <sup>Link</sup> processing error during the processing run.                                                                                                                                                                                              |
| Return SLK Input Secondary               | cRetSLKinputSecdry    | Action to take when an input secondary is provided that does not match the Suite <sup>Link</sup> returned information.                                                                                                                                                                            |
| Report Filename                          | cRptFileName          | Address Detail Report output file name.                                                                                                                                                                                                                                                           |
| Report Title                             | cRptTitle             | Report title for the Address Detail Report.                                                                                                                                                                                                                                                       |

Table 7: Finalist Batch Report Field Descriptions (Part 8 of 12)

| Report Field                                                | Structure Field                         | Description                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Detail Report Page Length                                   | lAddrDtlRptIsolPageLen                  | Maximum page length for the Address Detail Isolation Report.                                                                                                                                                                                                     |
| Detail Report Max Records                                   | lAddrDtlRptIsolMaxRec                   | Maximum number of records to output to the Address Detail Isolation Report.                                                                                                                                                                                      |
| Detail Report Nth Records                                   | lAddrDtlRptIsolNthRec                   | This field indicates the records to print on the Address Detail Isolation Report (for example., every 8th record).                                                                                                                                               |
| I/O Report Option                                           | cAddrDtlRptType                         | Indicates whether to print the Address Detail Report.                                                                                                                                                                                                            |
| Isol Report Option                                          | cAddrDtlRptIsol                         | Indicates whether to print the Address Detail Isolation Report.                                                                                                                                                                                                  |
| Sugg Report Option                                          | cAddrDtlRptSugg                         | Indicates whether to print the Address Detail Suggestion Report.                                                                                                                                                                                                 |
| Info Report Option                                          | cAddrDtlRptInfo                         | This field indicates whether to print the Address Detail Information Report.                                                                                                                                                                                     |
| Log Filename                                                | cLogFileNames                           | Log File Name.                                                                                                                                                                                                                                                   |
| Log Level                                                   | cLogLevel                               | This field indicates the level of the message logged.                                                                                                                                                                                                            |
| <b>Finalist Batch Report - Page 4 - PBFNStatsDef Fields</b> |                                         |                                                                                                                                                                                                                                                                  |
| Input Filename                                              | ListFileName                            | ListFileName field of the PBFNReportData structure.                                                                                                                                                                                                              |
| Batch Start Time                                            | lStartTime                              | The lStartTime is initialized when PBFNInit function is called and when PBFNStats is called with PBFNReset set to TRUE. Time equals the seconds elapsed since midnight (00:00:00), December 31, 1899, Universal Coordinated Time, according to the system clock. |
| Batch End Time                                              | lStopTime                               | The value is set when the PBFNTerminate function is called. Time is the seconds elapsed since midnight (00:00:00), December 31, 1899, Universal Coordinated Time, according to the system clock.                                                                 |
| Total Process Time                                          | lElapsedTime                            | Seconds elapsed since first address assignment and the most recent address assignment.                                                                                                                                                                           |
| Oldest Process Date                                         | lOldProcDate                            | If the Assign Unassign Records value is set to a value other than OFF in either the PBFNSetupDef structure or the PBFN.CFG file, this value is the oldest process date (cProcessDate) encountered. Otherwise it contains a 0 (zero).                             |
| Assigned without Correction                                 | lTotalAssigned minus<br>lTotalCorrected | Total address records assigned without correction.                                                                                                                                                                                                               |
| Assigned with Correction                                    | lTotalCorrected                         | Total address records corrected.                                                                                                                                                                                                                                 |
| No match or Uncorrectable                                   | lTotalNotAssigned                       | Total number of records that did not code.                                                                                                                                                                                                                       |
| Total Records Processed                                     | lTotalProcessed                         | Total address records processed or presented to PBFNProcess.                                                                                                                                                                                                     |

Table 7: Finalist Batch Report Field Descriptions (Part 9 of 12)

| Report Field                                                | Structure Field                                                               | Description                                                                                                         |
|-------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Total Zip Codes Assigned                                    | lTotalZipsAssigned                                                            | Total ZIP Codes assigned.                                                                                           |
| Total Carrier Routes Assigned                               | lTotalCrrt                                                                    | Total number of carrier routes assigned.                                                                            |
| Total ZIP+4 Codes Assigned                                  | lTotalZ4Assigned                                                              | Total ZIP + 4 Codes assigned.                                                                                       |
| Total records with LACS indicator                           | lTotalLacs                                                                    | Total number of records assigned a LACS indicator.                                                                  |
| Total LOT Assigned                                          | lTotalLOTAssigned                                                             | Total number of records assigned Line of Travel (LOT) codes.                                                        |
| Total RDI Identified                                        | lTotalRDI                                                                     | Total number of records assigned a Residential Delivery Indicator (RDI).                                            |
| Total Valid But Undeliverable Addresses on AMS (4600)       | lTotalNonDeliverable                                                          | Total number of undeliverable addresses.                                                                            |
| Total ZIP+4 Suppressed due to DPV Failure (4601)            | cNonDeliverableInd (PBFNAddressInfoDef)                                       | Total number of addresses that failed Delivery Point Validation (DPV) processing.                                   |
| <b>Finalist Batch Report - Page 5 - PBFNStatsDef Fields</b> |                                                                               |                                                                                                                     |
| Without Verification                                        | lCityStateZipMatches                                                          | Total number of records matching on city, state, and ZIP Code when the option Assign Unassign Records is requested. |
| From City and State                                         | lCityStateMatches                                                             | Total number of records matching on city and ZIP Code.                                                              |
| Ignoring Bad City                                           | lStateAndZipMatches + lStateOrZipMatches                                      | Total number of records with no City but State and/or ZIP Code were presented.                                      |
| Total                                                       | lLineItemTotal + lCityStateMatches + lStateOrZipMatches + lStateAndZipMatches | Category total.                                                                                                     |
| Highway Contracts                                           | lToCrrtHC                                                                     | Total number of Highway Contract carrier routes.                                                                    |
| Post Office Boxes                                           | lToCrrtBox                                                                    | Total number of Post Office Box carrier routes.                                                                     |
| Rural Routes                                                | lToCrrtRR                                                                     | Total number of Rural Route carrier routes.                                                                         |
| All Others                                                  | lToCrrtNorm                                                                   | Total number of default carrier routes, including street, general delivery and postmaster.                          |
| Total                                                       | lToCrrtHC + lToCrrtBox + lToCrrtRR + lToCrrtNorm                              | Category total.                                                                                                     |
| ZIP+4 Codes Assigned To Streets                             | lTotalStreetLevel                                                             | Total number of ZIP + 4 Codes assigned to streets.                                                                  |
| PO Boxes                                                    | lTotalPOBox                                                                   | Total number of ZIP + 4 Codes assigned to Post Office boxes.                                                        |
| High Rises                                                  | lTotalHR                                                                      | Total number of high rises including defaults and secondary records.                                                |

Table 7: Finalist Batch Report Field Descriptions (Part 10 of 12)

| Report Field                                                | Structure Field        | Description                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rural Routes                                                | lTotalRRHC             | Total number of ZIP + 4 Codes assigned to Rural Route and Highway Contract addresses.                                                                                                                                                                                                       |
| Firms                                                       | lTotalFirm             | Total number of ZIP + 4 Codes assigned to firms.                                                                                                                                                                                                                                            |
| General Delivery                                            | lTotalGenDelPostMaster | Total number of ZIP + 4 Codes assigned to general delivery.                                                                                                                                                                                                                                 |
| Military                                                    | lTotalMilitary         | Total number of ZIP + 4 Codes assigned to military ZIP Codes.                                                                                                                                                                                                                               |
| <b>Finalist Batch Report - Page 6 - PBFNStatsDef Fields</b> |                        |                                                                                                                                                                                                                                                                                             |
| 4301 - No Street or Primary Name in Address                 | lNoStreetDataFound     | Total number of address records without street data.                                                                                                                                                                                                                                        |
| 4399 - Blank Address Record                                 | lBlankAddressLineData  | Total number of address records with a blank address line.                                                                                                                                                                                                                                  |
| 4411 - No Primary Name Found                                | lStreetNameNotFound    | Total number of address records where the street name was not found.                                                                                                                                                                                                                        |
| 4412 - No Primary Names Ranked with Certainty               | lStreetSuggOnly        | Total records failed with suggested street records.                                                                                                                                                                                                                                         |
| 4421 - Invalid Range or House Number                        | lInvalidRangeForStreet | Total number of address records containing an invalid range for the street name.                                                                                                                                                                                                            |
| 4422 - Incorrect or Missing Directional                     | lDirectionalError      | Total number of address records missing directionals or containing incorrect directionals.                                                                                                                                                                                                  |
| 4423 - Incorrect or Missing Suffix                          | lSuffixError           | Total number of address records missing suffixes or containing incorrect suffixes.                                                                                                                                                                                                          |
| 4425 - Incorrect or Missing Suffix and Directional          | lSufxDirError          | The total number of address records missing both the suffix and directional or containing incorrect suffix and directional.                                                                                                                                                                 |
| 4450 - Missing Range                                        | lNoRangeProvided       | Total number of address records without a range.                                                                                                                                                                                                                                            |
| 4451 - Multiple Choice or Ambiguous Component Errors        | lMultipleChoiceFailure | Total number of addresses that failed due to multiple choices for one or more address components. Each address component will be marked as multiple choice in the PBFNAddressInfoDef structure (i.e., duplicate street names, two or more directionals available with none on input, etc.). |
| 4460 - EWS Failure                                          | lEWSFailure            | Total number of address records not matched because the records were found in the USPS Early Warning System (EWS) File.                                                                                                                                                                     |
| 4461 - LOT Errors                                           | lLOTFailure            | Total number of address records where LOT assignment failed. Address coded successfully but LOT code was not assigned.                                                                                                                                                                      |
| 4500 - Other Errors                                         | lUnknownFailure        | Total number of records with without a specific reason.                                                                                                                                                                                                                                     |

Table 7: Finalist Batch Report Field Descriptions (Part 11 of 12)

| Report Field                                             | Structure Field                                                                                          | Description                                                                   |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 4101 - No City, State, and ZIP Code in Address           | lBlankCityLineData                                                                                       | Total number of records without a city, state, or ZIP Code.                   |
| 4102 - No ZIP Code and No City Name in Address           | lNoCityZipData                                                                                           | Total number of records without city and ZIP Code.                            |
| 4103 - No ZIP Code and No State Name in Address          | lNoStateZipData                                                                                          | Total number of records without state or ZIP Code.                            |
| 4211 - Invalid ZIP Code and no City Name in Address      | lBadZipNoCity                                                                                            | Total number of records with an invalid ZIP Code and no City provided.        |
| 4212 - No ZIP Code and Invalid City Name in Address      | lBadCityNoZip                                                                                            | Total number of records with an invalid City and no ZIP Code provided.        |
| 4213 - Invalid ZIP Code and Invalid City Name in Address | lBadZipBadCity                                                                                           | Total number of records with an invalid ZIP Code and an invalid city.         |
| Total Nonassignment Codes                                | Total of all of the 4xxx values.                                                                         | Category total.                                                               |
| <b>Finalist Batch Report - Page 7</b>                    |                                                                                                          |                                                                               |
| <b>DPV Fields - PBFNDPVStatsDef Structure</b>            |                                                                                                          |                                                                               |
| Total Records Through DPV Processing                     | lDPVInError + lDPVTypeYValid + lDPVTypeSValid + lDPVTypeDValid                                           | Number of addresses that were processed through DPV.                          |
| Total DPV Y Type                                         | lDPVTypeYValid                                                                                           | Total records with delivery point validated.                                  |
| Total DPV S Type                                         | lDPVTypeSValid                                                                                           | Total records with valid primary range but secondary range is not confirmed.  |
| Total DPV D Type                                         | lDPVTypeDValid                                                                                           | Total records with a valid primary range but secondary range is missing.      |
| Total DPV Not Validated                                  | lDPVInError                                                                                              | Total records not delivery point validated.                                   |
| Total DPV Vacant Found                                   | lDPVVacantFound                                                                                          | Total records that matched to the Vacant table.                               |
| Total DPV No-Stat Found                                  | lDPVNoStatFound                                                                                          | Total records that matched to the No-Stat table.                              |
| Total CMRA Found                                         | lCMRAValid                                                                                               | Total records that matched to the CMRA table.                                 |
| <b>LACSLink Fields - PBFNRtnLACSSStatsDef Structure</b>  |                                                                                                          |                                                                               |
| Total Records Through LACSLink Processing                | lTotalProcessed                                                                                          | Total number of records passed through LACSLink.                              |
| Total LACS Street not found ( )                          | lTotalProcessed - lTotalAMatches - lTotal00Matches - lTotal14Matches - lTotal92Matches - lTotal09Matches | Total number of records passed to LACSLink but did not receive an assignment. |

Table 7: Finalist Batch Report Field Descriptions (Part 12 of 12)

| Report Field                                                            | Structure Field      | Description                                                                       |
|-------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|
| Total LACS Successful Conversion (A)                                    | lTotalAMatches       | Total number of LACS <sup>Link</sup> matches with an assignment code of A.        |
| Total No LACS Match (00)                                                | lTotal00Matches      | Total number of LACS <sup>Link</sup> matches with an assignment code of 00.       |
| Total LACS Match Found But No Conversion (14)                           | lTotal14Matches      | Total number of LACS <sup>Link</sup> matches with an assignment code of 14.       |
| Total LACS Match Found With Unit (92)                                   | lTotal92Matches      | Total number of LACS <sup>Link</sup> matches with an assignment code of 92.       |
| Total LACS Match High Rise Default (09)                                 | lTotal09Matches      | Total number of LACS <sup>Link</sup> matches with an assignment code of 09.       |
| <b>Suite<sup>Link</sup> Fields - PBFNRtnSuiteLinkStatsDef Structure</b> |                      |                                                                                   |
| Total Records Through Suite <sup>Link</sup> Processing                  | lTotalProcessed      | Total number of records processed through Suite <sup>Link</sup> .                 |
| Total Successful Suite <sup>Link</sup> Matches                          | lTotalSuccessMatches | Total number of records successfully matched by Suite <sup>Link</sup> .           |
| Total Successful Suite <sup>Link</sup> Matches with Corrected Suites    | lTotalCorrectedSuite | Total number of records processed by Suite <sup>Link</sup> with suites corrected. |



USPS Form 3553 (CASS Summary Report)

With each mailing submitted at an automation-based rate, a mailer must submit a completed USPS Form 3553 (CASS Summary Report). You can submit the original USPS Form or the facsimile generated by your program. Finalist will produce a facsimile of USPS Form 3553 (CASS Summary Report) and partially complete it for you. For additional information on the USPS Form 3553 (CASS Summary Report), see the USPS Domestic Mail Manual (DMM).

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CODING ACCURACY SUPPORT SYSTEM (CASS)                SUMMARY REPORT
== A. SOFTWARE ==
===== CASS - A1 =====
1. CASS CERTIFIED COMPANY NAME | 2. CASS CERT. SOFTWARE NAME & VER | 3. CFG
Pitney Bowes Inc | Finalist | X.XX.XX.X | AAA
-----
4. Z4CHANGE CERTIFIED COMPANY NAME | 5. Z4CHANGE CERT. SOFTWARE NAME & VER | 6. CFG
-----
7. DIRECTDPV CERTIFIED COMPANY NAME | 8. DIRECTDPV CERT. SOFTWARE NAME & VER | 9. CFG
-----
10. eLOT CERTIFIED COMPANY NAME | 11. eLOT CERT. SOFTWARE NAME & VER | 12.CFG
Pitney Bowes Inc | Finalist | X.XX.XX.X | AAA
= B. LIST =
1. LIST PROCESSOR'S NAME | 2. DATE LIST PROCESSED | 3. DATE OF DATABASE USED
MASTER FILE: XX/XX/XXXX | ZIP+4 FILE: XX/XX/XXXX
Z4CHANGE: | Z4CHANGE:
DIRECTDPV: | DIRECTDPV:
eLOT: XX/XX/XXXX | eLOT: XX/XX/XXXX
CRIS: | CRIS:
-----
4. ADDRESS LIST NAME OR ID# | 5. NUMBER OF LISTS | 6. TOTAL RECORDS SUBMITTED
INPUTFILE.TXT | 1 | 1234567
== C. OUTPUT ==
OUTPUT RATING | VALIDATION PERIOD | OUTPUT RATING | VALIDATION PERIOD
TOTAL CODED | FROM TO | TOTAL CODED | FROM TO
-----
a. ZIP+4/DPV CONFIRMED | XX/XX/XXXX | d. 5-DIGIT CODED | XX/XX/XXXX
1234567 | XX/XX/XXXX | 1234567 | XX/XX/XXXX
-----
b. Z4CHANGE PROCESSED | /////////////// | e. CR RT CODED | XX/XX/XXXX
0 | /////////////// | 1234567 | XX/XX/XXXX
-----
c. DIRECTDPV | 0 | f. eLOT ASSIGNED | XX/XX/XXXX
| | 1234567 | XX/XX/XXXX
-----
== D. MAILER ==
I CERTIFY THAT THE MAILING | 3. NAME & ADDRESS OF MAILER:
SUBMITTED WITH THIS FORM | Pitney Bowes Inc
HAS BEEN CODED (AS INDICATED ABOVE) | 2200 Western Ct Ste 100
USING CASS-CERTIFIED SOFTWARE | Lisle IL 60532
MEETING ALL OF THE REQUIREMENTS
LISTED IN THE DMM SECTION 708.
-----
1. MAILER'S SIGNATURE | 2. DATE SIGNED
-----
== E. QUALITATIVE STATISTICAL SUMMARY (QSS) ==
HR DEFAULT | HR EXACT | RR DFLT | RR EXACT | LACSLINK | EWS | SUI TELINK
XXXXX | XXXXX | XX | XXX | XXXX | XX | XXX
-----
PS Form 3553, XXXXXXXXXX XXXX
    
```

Figure 10: USPS Form 3553 (CASS Summary Report)

Complete the CASS Summary Report as follows:

1. Verify that the user of your application PRINTS in all the blanks indicated below, except in "SIGNATURE OF MAILER."
2. If this form represents a single list, check SINGLE LIST. If this form represents multiple lists, check MULTIPLE LISTS.
3. Verify that all fields in the A1, CASS section are completed.
4. If not already completed, print the company name in the B1, LIST PROCESSOR'S NAME section. This indicates that the company is the USPS customer using the Finalist program to process the list(s) for this mailing.
5. The Finalist program will complete the B2-B3, DATE LIST PROCESSED and DATE OF ZIP+4 DATA BASE report sections.
6. Complete the B4, ADDR LIST NAME OR ID# sections only if the report represents a single list. If the report represents a single list, print the address list's name or identification number. If you use an ID#, begin the number with "ID#".
7. If this report represents a single list, print the number "1" in the B5, NUMBER OF LISTS section. If this report represents multiple lists, print the number of lists the application processed for this mailing.
8. Your program completes sections B6, TOTAL RECORDS SUBMITTED.
9. Complete all of section C, OUTPUT.
10. The person at the company who is responsible for the mailing should sign his/her name in the D1, SIGNATURE section.
11. The person completing the report should enter the date he or she signed the form in the section D2 DATE.
12. If not supplied in the pbfncfg, the person completing the report should print his or her name and the company's address in the D3, NAME & ADDRESS OF MAILER section. The name printed here must match the name appearing in section D1.
13. Finalist completes the QUALITATIVE STATISTICAL SUMMARY section. Refer to Appendix 1 in the CASS Technical Guide for complete description of this section.

# CHAPTER 9

---

## Finalist Error Codes

This chapter provides information on the error codes you may encounter while processing with Finalist.

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## Error Codes (Returned Strings)

This section describes error codes that may appear in the error field (cError) of the PBFNProcessDataDef (PBFNProcessDataAltDef) and PBFNParsedAdrDef (PBFNParsedAdrAltDef) structures. If an error occurs while processing, the function updates the PBFNProcessDataDef (PBFNProcessDataAltDef) structure or the PBFNParsedAdrDef (PBFNParsedAdrAltDef) structure with detailed error information.

**Table 1: Error Codes (Returned Strings) (Part 1 of 2)**

| Error Code | Description                                                                                                                                                       |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4101       | No city, state, and ZIP Code in address.                                                                                                                          |
| 4102       | No ZIP Code and no city name in address.                                                                                                                          |
| 4103       | No ZIP Code and no state name in address.                                                                                                                         |
| 4104       | Unique ZIP Code - no input ZIP.                                                                                                                                   |
| 4211       | Invalid ZIP Code and no city name in address.                                                                                                                     |
| 4212       | No ZIP Code and invalid city name in address.                                                                                                                     |
| 4213       | Invalid ZIP Code and invalid city name in address.                                                                                                                |
| 4301       | No street name in input address.                                                                                                                                  |
| 4399       | Blank address record.                                                                                                                                             |
| 4411       | No primary street name found in Finalist database.                                                                                                                |
| 4412       | No primary names ranked with certainty. Suggestions may be available.                                                                                             |
| 4421       | Invalid range or house number.                                                                                                                                    |
| 4422       | Incorrect or missing directional.                                                                                                                                 |
| 4423       | Incorrect or missing suffix.                                                                                                                                      |
| 4425       | Incorrect or missing suffix and directional.                                                                                                                      |
| 4450       | No range in input address.                                                                                                                                        |
| 4451       | Multiple component failure. An address component had multiple options causing the address to fail assignment. See field information in PBFNAddressInfo structure. |
| 4460       | EWS Failure. Address found on EWS table.                                                                                                                          |
| 4461       | LOT assignment has failed. Address coded successfully but LOT code not assigned.                                                                                  |
| 4500       | Unable to code. If reason for inability to code cannot be determined, this error is issued.                                                                       |

Table 1: Error Codes (Returned Strings) (Part 2 of 2)

| Error Code | Description                                                                                                                                                                                                                                            |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4600       | Undeliverable address in Finalist database.<br><br><b>NOTE:</b> This error code can still be valid with a return code of PBFN_SUCCESS. The combination of the two codes indicates that this is a valid address just not deliverable by USPS standards. |
| 4601       | Address failed Delivery Point Validation (DPV) processing. The PBFNAddressInfoDef structure cNonDeliverableInd flag is set to "Y" (Address is a nondeliverable address).                                                                               |
| 4801       | Address is locked and will not be processed.                                                                                                                                                                                                           |
| 5101       | Warning: Missing apt/suite number.                                                                                                                                                                                                                     |
| 5102       | Warning: Apt/suite number is invalid or unavailable.                                                                                                                                                                                                   |
| 5103       | Warning: Input firm name is missing or invalid.                                                                                                                                                                                                        |
| 5104       | Warning: Multiple firms returned for address.                                                                                                                                                                                                          |
| 5105       | Warning: Box number is invalid or unavailable.                                                                                                                                                                                                         |
| 5200       | Information: Address bypassed counted correct in Process Unassign run.                                                                                                                                                                                 |

## Finalist Batch Driver Return Codes

Table 2, “Finalist Batch Driver Return Codes,” on page 198 describes return codes you may encounter while processing with the Finalist batch driver.

**Table 2: Finalist Batch Driver Return Codes (Part 1 of 2)**

| Return Code | Message               | Description                                                                                                                                      |
|-------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 0           | processComplete       | Processing completed without errors.                                                                                                             |
| 1           | logFileNameTooLong    | Filename specified by the -L option on the command line was more than 256 characters long.                                                       |
| 2           | configFileNameTooLong | Filename specified by the -G option on the command line was more than 256 characters long.                                                       |
| 3           | jobFileNameTooLong    | Filename specified by the -J option (or defaulted as the first command line parameter) was more than 256 characters long.                        |
| 4           | noJobFileDefined      | No job file name was specified. Either the command line parameters were blank or no -J option was specified.                                     |
| 5           | pbfnInitFailed        | Finalist initialize process failed. Refer to the log.txt (SYSOUT DD on the mainframe) for details.                                               |
| 6           | pbfnTermFailed        | Finalist termination process failed. Refer to the log.txt (SYSOUT DD on the mainframe) for details.                                              |
| 7           | pbfnInfoFailed        | Finalist information call process failed. Refer to the log.txt (SYSOUT DD on the mainframe) for details.                                         |
| 8           | loadJobFailed         | Finalist JOB file could not be processed. Refer to the Finalist batch log file (JOBLOG DD on the mainframe) for details.                         |
| 9           | overlayNotOkay        | The Finalist JOB requested OVERLAY processing but this was not confirmed during the run.                                                         |
| 10          | cantOpenLogFile       | Finalist LOG file could not be opened. Refer to stderr (SYSPRINT DD on the mainframe) for details.                                               |
| 11          | cantOpenJobFile       | Finalist JOB file could not be opened. Refer to stderr (SYSPRINT DD on the mainframe) for details.                                               |
| 12          | loadDbaseDefsFailed   | The Finalist access of the Dbase file did not match the DEF file. Refer to the Finalist batch log file (JOBLOG DD on the mainframe) for details. |
| 13          | loadDefsFailed        | The Finalist DEF file could not be processed. Refer to the Finalist batch log file (JOBLOG DD on the mainframe) for details.                     |

Table 2: Finalist Batch Driver Return Codes (Part 2 of 2)

| Return Code | Message                 | Description                                                                                                                                                                              |
|-------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14          | delimitedFieldOverlap   | The fields defined in the DEF files overlap each other. Refer to the Finalist batch log file (JOBLOG DD on the mainframe) for details.                                                   |
| 15          | jobFileContentsBad      | An error occurred processing the JOB options specified. Refer to the Finalist batch log file (JOBLOG DD on the mainframe) for details.                                                   |
| 16          | addrLineInitFailed      | An error occurred during initialization processing. Refer to the Finalist batch log file (JOBLOG DD on the mainframe) for details.                                                       |
| 17          | processFailed           | An error occurred during the Finalist PBFNProcess call. Refer to the Finalist run log file for details (Log Filename in the pbfncfg (PBFNCFG) file).                                     |
| 18          | cantWriteLog            | The Finalist batch driver log file could not be opened. Refer to the Finalist batch log file (JOBLOG DD on the mainframe) or stderr for details.                                         |
| 19          | pbfncfgResetStatsFailed | An error occurred during a call to PBFNStats. Refer to the Finalist log file (Log Filename in the pbfncfg (PBFNCFG) file).                                                               |
| 20          | initAddrFailed          | An error occurred during initialization processing. Refer to the Finalist batch log file (JOBLOG DD on the mainframe) for details.                                                       |
| 21          | invalidFileType         | An invalid file type was specified in the JOB file. Refer to the Finalist batch log file (JOBLOG DD on the mainframe) for details.                                                       |
| 22          | cantOpenSeedLogFile     | The Finalist engine could not open the log file to report a DPV or LACSLink seed violation. Refer to the Finalist run log file for details (Log Filename in the pbfncfg (PBFNCFG) file). |





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