

CODE-1 PlusTM International

Version 1.8.5

Getting Started Guide

For Open Systems



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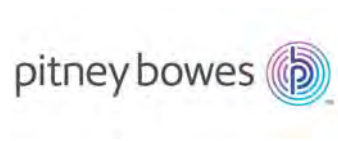
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3001 Summer Street
Stamford CT 06926-0700
USA

www.pitneybowes.com

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CHAPTER 1

CODE-1 Plus International Concepts

This chapter describes the purpose and use of CODE-1 Plus International. It introduces you to the features, functions, and benefits of CODE-1 Plus International.

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What Is CODE-1 Plus International?

CODE-1 Plus International is an address-matching system that compares your input address to the Pitney Bowes international database of postal address information. Using CODE-1 Plus International, you can:

- Validate and correct address elements to the street level for approximately 58 countries*
- Validate and correct address elements to the city, province (or state), and country level for approximately 132 countries*
- Validate postal code formats to comply with the formats of the 141 countries recognized by the United Nations*
- Allow for diacritical marks, such as umlauts, accents, and other special characters, to be included as part of an address
- Determine the most likely gender of a “first” name in a given country, if you have the International Postal Database of “first” names.

*Actual level of validation/correction for a given country is dependent on the level of data provided by that country’s postal authorities.

Please refer to your *CODE-1 Plus International Reference Guide* for a list of the countries for which you can process files using CODE-1 Plus International.

Why Should You Use CODE-1 Plus International?

CODE-1 Plus International is a crucial step toward doing business on a global scale. Since your name and address database is your most important link to prospects and customers, it needs to be accurate. CODE-1 Plus International can greatly enhance the integrity of your company’s international addresses, which in turn can vastly improve the deliverability of your mail around the world.

Database Integrity

CODE-1 Plus International allows you to verify and correct the international addresses you include in your client and prospect databases. Additionally, you can tell the program to return names and addresses with the correct multinational characters, including diacritical marks such as umlauts or accents. When you process a record or file with the optional CODE-1 Plus International name database, you can even return a gender code that will tell you whether the person is most likely a male or female. For example, in France “Jean” is likely to be a male, but in England “Jean” is likely to be a female, and CODE-1 Plus International can tell you this.

Mailing Efficiency

Processing your international client and prospect address lists through CODE-1 Plus International helps to remove the guesswork from delivering mail for up to 220 countries. Using the CODE-1 Plus International software and the International Postal Database, you can validate, correct, and format your addresses; thereby reducing waste from undeliverable mail and potentially providing a higher response to your mailings.

The International Postal Database

The International Postal Database is a collection of Postal Address Files from countries around the world. The software compares your input file to the International Postal Database to validate and correct the addresses so that they may comply with the particular country's standards. CODE-1 Plus International validates, corrects, and formats to the extent that specific rules and data are available from each country. Since the amount of data and standards available from each country vary, CODE-1 Plus International data files are categorized according to those levels.

NOTE: Within this user's guide, *database* or *International Postal Database* means those Postal Address Files for which you are licensed. Also, we use the term *correct*. In this context, correct means validate and/or correct and/or format, depending upon the available data for the particular country.

There are three categories of data files:

- Category A — Validates, corrects, and provides missing postal code, city name, state/county name, street address elements, and country name.
- Category B — Validates, corrects, and provides missing postal code, city name, state/county name, and country name (does not validate, correct, or provide missing street address elements).
- Category C — Validates and corrects the country name, and validates the format of the postal code.

CODE-1 Plus International Components

CODE-1 Plus International is divided into three components: batch, interactive, and callable.

The Batch System

The batch system is discussed in Chapter 4.

The batch system takes specifications about your input name-and-address records and about the layout and content of the output records, and generates one or more output files of matched name-and-address records. You submit entire input files to CODE-1 Plus International for processing in a single pass. During processing, CODE-1 Plus International:

- Verifies input addresses against the International Postal Database
- Generates reports.

The batch processing environment is made up of the following components:

- **Batch Driver** — coordinates the matching and output engine processes.
- **Batch Address Analyzer and Matching Module** — analyzes each input record and matches the analyzed elements to the database to determine address matches.

These components operate in conjunction with the input file and International Postal Database to produce a corrected output file and processing reports. On the following page is a diagram that illustrates the relationship of the batch CODE-1 Plus International components.

The following figure shows the components of the batch system.

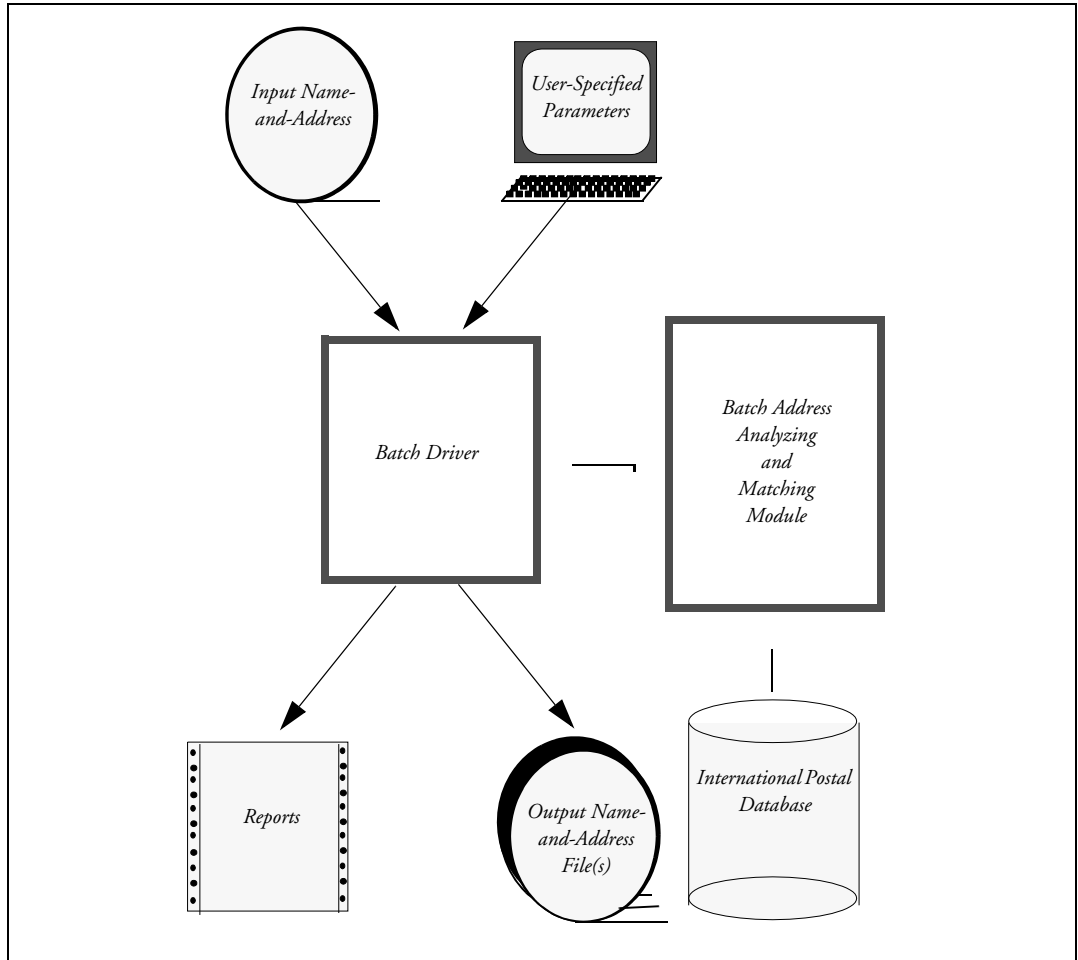


Figure 1-1: Batch System Components

File Names

The following table presents a list of the CODE-1 Plus International input files, output files, and reports.

Table 1-1: CODE-1 Plus International Batch System Files

File Name	Description	System File Name Assignment
Input Parameter Record File	Contains all the parameter records used to specify your batch job requirements. The parameter records are described on the following pages.	ICPMPRM
Input Name-and-Address File	Contains the records that you want to correct using CODE-1 Plus International.	ICPMNAM
Output Reports File	Contains all the CODE-1 Plus International reports, including the standard Parameter Record Listing and Control Totals.	PRNTRPT
Output Execution Log File	Contains the Execution Log.	PRNTXLG
Output Matched Records File	Contains all the records that CODE-1 Plus International matched against the International Postal Database and then verified and corrected.	ICPMCOK
Output Unmatched Records File (Uncoded)	Contains all the records that did not match against the International Postal Database for some reason.	ICPMNCO
USA Records	If requested, contains all records from the United States of America.	ICPMUSA
Canadian Records	If requested, contains all records from Canada.	ICPMCAN

Creating a Batch Job

To create a batch job, you need to do the following:

- Specify information about the layout of the data in the input name-and-address records
- Define the content and layout of your output records
- Specify headers and footers for the CODE-1 Plus International reports, as well as define the date and the number of lines to be printed on each page of the reports.

Parameter Records

You can create a batch job by completing parameter records. Parameter records pass user-specific information (for example, the layout of your input file) to CODE-1 Plus International.

The two types of parameter records include:

- **Required** —parameter records are necessary to run a job.
- **Optional** — parameter records can be used to customize your job.

We briefly describe each CODE-1 Plus International parameter record in Chapter 4 so you can determine what parameter records to use in your job. You can define parameter records to describe your input file, output file, and reports. There are other miscellaneous parameter records used for processing functions.

The Interactive System

The interactive system is discussed in Chapter 5.

Interactive address matching allows you to:

- Match a single input address against the master file
- Analyze return codes to determine actions that were taken to attempt a match
- Detect the types and quantities of problems encountered in an input address.

The address matching component operates independently of the CODE-1 Plus International batch driver. Address matching is intended to be used as part of your own (or other vendor) applications. The following diagram illustrates the relationship of the interactive CODE-1 Plus International components.

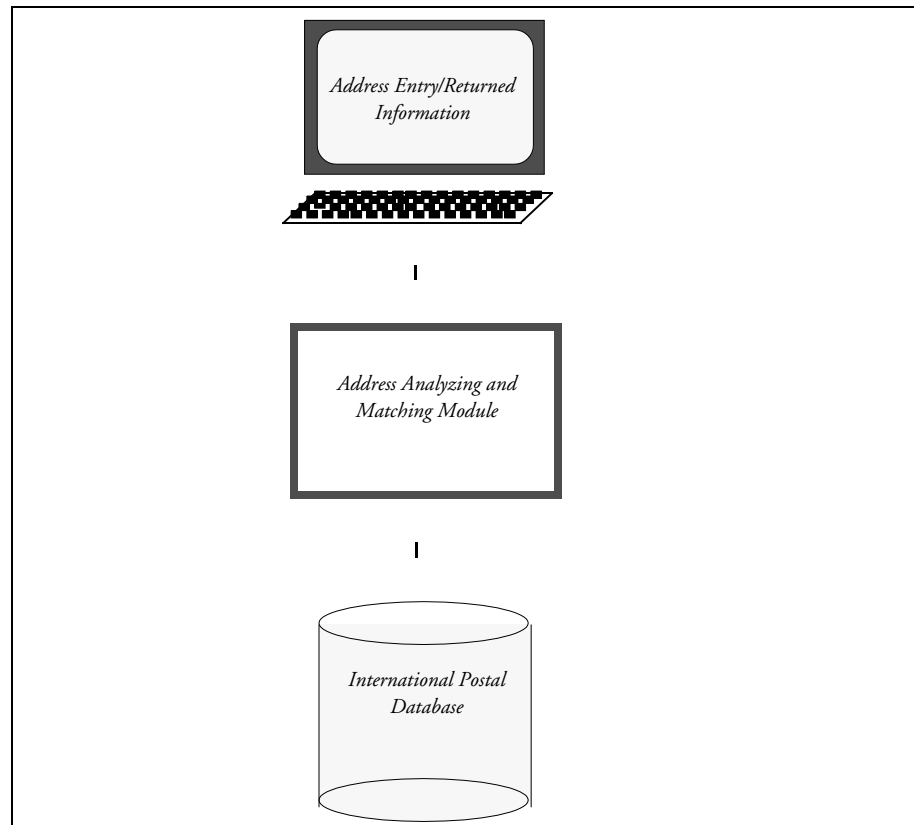


Figure 1-2: Interactive Components

The Callable Module

CODE-1 Plus International also provides you with program modules and callable routines for flexible use of CODE-1 Plus International with your own products.

For more information about the callable modules, refer to Chapter 3 of Working With CODE-1 Plus International.

The matcher module allows you to analyze and match input addresses. To use this module, you pass, as parameters, the name of pre-defined call areas. These call areas provide the module with all the information necessary to perform the function accurately and return the appropriate information. COBOL copy books are available on the distribution media that is used in your program to define the call area. The report module formats statistics from the matcher into various reports. Finally, the format module formats fixed-fielded address information into address label format.

Dispatcher4 for CODE-1 Plus International

Refer to Chapter 3 for step-by-step instructions on creating a job using Dispatcher4.

In addition to processing your job using the batch and interactive methods, CODE-1 Plus International also offers a Graphical User Interface (GUI) known as Dispatcher4. Dispatcher4 essentially “sits on top” of the batch product code and looks like a familiar Windows application. Using the Dispatcher4 screens, you define job control settings, provide processing options, and define the form and content of reports. You can also import batch jobs that you have already set up on your host machine.

Refer to the Dispatcher4 online help system for complete instructions on defining your input file using Dispatcher4.

To run a job using the GUI, you must export the job to a file to transfer to your host machine. You then run the exported file on your host machine. Additionally, the GUI can submit jobs over a network connection to Windows and UNIX platforms.

For more information on using Dispatcher4 with CODE-1 Plus International, refer to [Chapter 3, “Getting Started with Dispatcher4”](#), and the Dispatcher4 online help system.

The Graphical User Interface allows you to set up and run a CODE-1 Plus International batch job without writing any parameter records or control language. To define your input and output files, specify processing requirements, and define report information, you simply complete the appropriate dialog boxes. In this section, we briefly describe the function of the GUI dialog boxes as they relate to the requirements for creating a batch job.

CODE-1 Plus International Environments

CODE-1 Plus International operates on the following platforms:

- UNIX
- Windows
- MVS
- IMS
- iSeries

It currently accepts fixed-fielded input address files in ASCII text, EBCDIC flat file, or delimited file format, based on the platform used.

G1G001

For more information about G1G001, refer to Chapter 4 of Working With CODE-1 Plus International.

The executable routine G1G001 enables you to print detailed reports using your coded records output file. The module is explained, along with each of the parameter records used to execute the module. Additionally, sample control language is included.

CODE-1 Plus International: The Big Picture

CODE-1 Plus International is more than the base product you licensed when you received this user's guide. To complement the base product's functions, Pitney Bowes also offers CODE-1 Plus International callables (which ship with the base product) as well as CODE-1 Plus International Integrator. These components work together to offer you a complete address verification system. The following diagram illustrates a few areas in your organization where CODE-1 Plus International would fit to offer a complete address verification system.

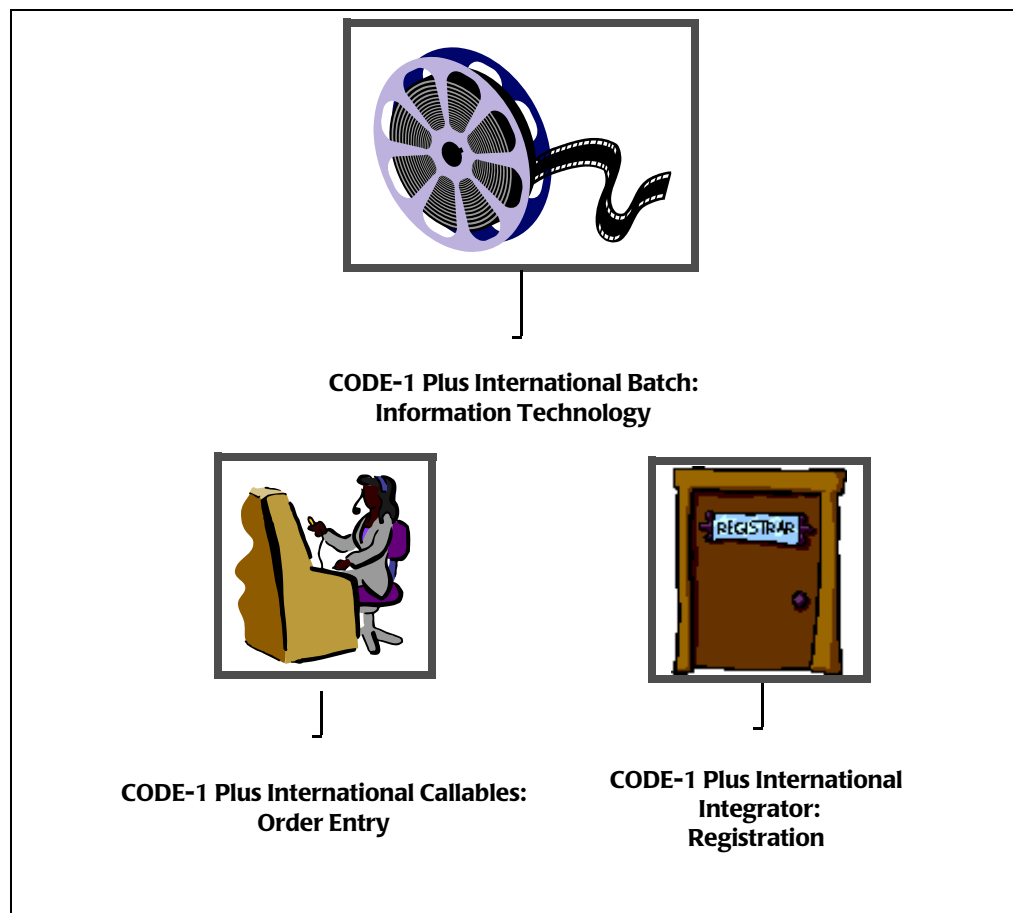


Figure 1-3: CODE-1 Plus International: The Big Picture

Batch Processing

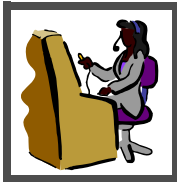


You could, for example, provide CODE-1 Plus International with an input file of 1,000,000 customer names and addresses. The product will then attempt to verify and correct each record. It can then provide the following separate output files:

- Coded output file
- Not-coded output file
- U.S. address output file
- Canadian address output file

NOTE: Please refer to Chapter 3 for step-by-step instructions for processing your file.

CODE-1 Plus International Callables



Callable modules are those that CODE-1 Plus International uses to analyze your input addresses and attempt to match the address to the database. These modules are primarily designed so you can call them from your own applications.

For example, your organization might have a COBOL-written data entry system application. You want to verify or correct the addresses as they are entered onto your mainframe system. CODE-1 Plus International provides a callable named ICMATCHN to allow you to verify or correct the addresses as they are entered into your order entry system.

CODE-1 Plus International Integrator Series



CODE-1 Plus Integrator Series is a collection of application programming interfaces (APIs) to analyze your input addresses and attempt to match the address to the database. These APIs are primarily designed so you can call them from your own Windows or Unix application supporting the C or VB language call interface.

Here's an example of how you might use this: Your organization might have an in-house seminar registration system used by a single user. You want to verify or correct the addresses as they are entered into your registration system. CODE-1 Plus International allows you to do just that.

CHAPTER 2

You've Installed the Software: What's Next?

If you have never before defined and run a CODE-1 Plus International job “from scratch,” you will want to review this chapter. Learn about the International Postal Database as well as how to use the supplied sample or IVP scripts to suit your needs.

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For New CODE-1 Plus International Users: First Things First

Okay, you've installed your software and loaded the International Postal Database. You've run the sample or IVP job and looked at the Execution Log to ensure that the job ran to completion... now what?

If you installed the product on a Windows operating system, you probably noticed that some icons were placed in the folder where you installed the software. If you installed the software on a mainframe or Unix platform, you probably see some new library members. DEC Open VMS installations place command files in the work folder. But how do you create a job?

We admit that your first acquaintance with CODE-1 Plus International can leave you wondering, "What do I do next?" Be assured that we are here to help! This chapter removes the mystery surrounding the first steps in creating your CODE-1 Plus International jobs. We will explain the International Postal Database in greater detail and tell you how to copy and use the sample job as a template for your own. We will also briefly discuss how to modify parameters for your job.

Since CODE-1 Plus International installation differs by platform, we've separated this chapter into separate sections, one for each platform.

Getting Started with Windows

For purposes of this discussion, we assume that you installed CODE-1 Plus International in the default directory, c:\Program Files\Group1\ICP

After you've completed your Windows installation and run your IVP job, take a look at the Group 1 folder. If this is the first time you've installed a product, you will find that this is the folder that the installation program creates to contain the Pitney Bowes applications and the associated files.

What Is the International Postal Database?

Double-click the DB folder icon to view the items in it. This folder contains the International Postal Database. These files all begin with the letters "G1IC". Note that there are pairs of files: one file with the .vix extension, and an accompanying file with a .dat extension. The icdbload.xlg file is the Execution Log file resulting from the last time you loaded an International Postal Database.

Pitney Bowes compiles the International Postal Database from the update files received from countries around the world. These files allow CODE-1 Plus International to process your files accurately and ensure that your mailings comply with postal regulations. If you keep your International Postal Database current, you can reduce delivery errors and maximize postal discounts.

The installation procedure discusses the International Postal Database installation in the \DB directory. We highly recommend that you update your \DB directory with the latest G1IC files as you receive them from Pitney Bowes.

Copying the Sample Job to Use as a Template

The CODE-1 Plus International installation process copies one file to your system. This file is a basic job that verifies the proper installation of the application files and programs. Sample files are useful as a template for your new jobs, since they have the required organization and content.

The first step in defining your CODE-1 Plus International jobs is to copy the sample job for your own purposes.

- 1 Go to the **Group1** folder and locate the **ICP** sub-folder.
- 2 Double-click on the **ICP** folder icon.
- 3 Double-click on the **bin** folder icon.
- 4 Click on the **sample.bat** file to highlight it.
- 5 Right-click to copy the job, then paste it for your new job.
- 6 Rename the new file.

Congratulations! You now have a template to use for your own jobs.

Modifying the Parameter Files for Your New Job

Review the contents of the **data** folder again. The **Sample.*** files contain the various output files for the “stock” sample job. These files include reports, etc. Typically, you will make parameter changes to the **.prm** file members.

Refer to Chapter 4, “Getting Started with Your Batch Job” on page 49, to write your parameters and add them to your job script.

Getting Started with Unix

The sections that follow discuss the International Postal Database and provide information on modifying parameters and creating a job template.

What Is the International Postal Database?

Pitney Bowes compiles the International Postal Database from the update files received from various countries. These files allow CODE-1 Plus International to process your jobs accurately and ensure that your mailings comply with postal regulations. If you keep your International Postal Database current, you can reduce delivery errors and maximize postal discounts.

Modifying the Parameter Files for Your New Job

Review the sample files in the **lib** directory. These files contain the various output files for the “stock” sample job. These files include reports, etc.

Refer to Chapter 4, “Getting Started with Your Batch Job” on page 49, to write your parameters and add them to your job script.

Copying the Sample Job to Use as a Template

The CODE-1 Plus International installation copies a sample job (Installation Verification Procedure) to your system. This is a basic job that verifies the proper installation of the application files and programs. The sample job is useful as a template for your new jobs, since it has the required organization and content.

The first step in defining your CODE-1 Plus International job is to copy the sample job to use for your own purposes.

- 1 Go to the **\$G1DIR/ICP/bin** directory.
- 2 Source the setup file. For example

```
../setup
```

This is necessary once at login time and usually not necessary to do again for the session.

- 3 Copy **sample** to **newname**.

Remember that the name you choose, by default, will be used to name all output data report, and Execution Logs.

newname is the name you assign to the job.

For example, to create a job called **myown**, enter the following:

```
cp sample myown.
```

- 4 Edit the file created above.

Congratulations! You now have a template to use for your own jobs.

Getting Started with MVS

If this is the first time you've installed a Pitney Bowes product, read this section to learn about the libraries and files CODE-1 Plus International has installed on your system. Once you have completed the install process, you will end up with these libraries:

- A Load library that will contain the actual CODE-1 Plus International (ICP) load members
- An Object library that will contain the ICP Object members
- An Install JCL library that will contain all required JCL for proper execution and subsequent maintenance of ICP.
- A Sample library that contains JCL, copybooks, and sample source code to illustrate how to call the various CODE-1 Plus International functions, such as matching, reverse lookup, and browsing the masterfile.

What Is the International Postal Database?

Pitney Bowes compiles the International Postal Database from the update files received from various countries. These files allow CODE-1 Plus International to process your jobs accurately and ensure that your mailings comply with postal regulations. If you keep your International Postal Database current, you can reduce delivery errors and maximize postal discounts.

Locate member ICPDBINS in the JCL library. Edit this member, replacing the lower-case variable names with your site-specific names. Run this JCL against your most current, uninstalled International Postal Database. You should perform this operation each time you receive International Postal Database media.

Tailoring IVPFILE

After you've completed your MVS CODE-1 Plus International product installation, go to the JCL library created by the installation and locate the member IVPFILE. This is a sample installation verification job that you can use to verify that the installation was successful and that the "plumbing" works.

- 1 Locate member IVPFILE. Edit this member, replacing the lower-case variable names with your site-specific ones.
- 2 Submit the IVPFILE JCL for processing.
- 3 Once the IVP job runs, go to your SDSF (Systems Display and Search Facility), or IOF, or use the display tool of choice for viewing reports, logs, system messages, etc.
- 4 Select the jobid for the IVPFILE job that you just ran.

All steps should have completed with a return code of zero (RC=0). Among several other files created, each job produces a report and an Execution Log for each execution of the CODE-1 Plus International product. The following driver program makes up a CODE-1 Plus International job:

- ICPM00 — Batch Driver
- ICPMVP00 — Parameter Check and Verification Program

The output report files that will most likely interest you are the PRNTPRT Report that is created for every driver program. CODE-1 Plus International creates one Execution Log when ICPM00 is executed.

Getting Started with IMS

If this is the first time you've installed a Pitney Bowes product, read this section to learn about the libraries and files CODE-1 Plus International has installed on your system. Once you have completed the install process, you will end up with these libraries:

- A load library that will contain the actual CODE-1 Plus International (ICP) load members
- An object library that will contain the ICP Object members
- An install JCL library that will contain all required JCL for proper execution and subsequent maintenance of ICP
- An MFS library that will contain the MESSAGE FORMAT SERVICE SOURCE members
- A PSB library that will contain the PROGRAM SPECIFICATION BLOCKS SOURCE members

- A DBD library that will contain the DATABASE DEFINITION SOURCE members
- A sample library that contains JCL, copybooks, and sample source code to illustrate how to call the various CODE-1 Plus International functions, such as matching, reverse lookup, and browsing the masterfile.

What Is the International Postal Database?

Pitney Bowes compiles the International Postal Database from the update files received from various countries. These files allow CODE-1 Plus International to process your jobs accurately and ensure that your mailings comply with postal regulations. If you keep your International Postal Database current, you can reduce delivery errors and maximize postal discounts.

Locate member ICPDBINS in the JCL library. Edit this member, replacing the lower-case variable names with your site-specific names. Run this JCL against your most current, uninstalled International Postal Database. You should perform this operation each time you receive International Postal Database media.

Tailoring IVPFILE

After you've completed your IMS CODE-1 Plus International product installation, go to the JCL library created by the installation and locate the member IVPFILE. This is a sample installation verification job that you can use to verify that the installation was successful and that the "plumbing" works.

- 1 Locate member IVPFILE. Edit this member, replacing the lower-case variable names with your site-specific ones.
- 2 Submit the IVPFILE JCL for processing.
- 3 Once the IVP job runs, go to your SDSF (Systems Display and Search Facility), or IOF, or use the display tool of choice for viewing reports, logs, system messages, etc.
- 4 Select the jobid for the IVPFILE job that you just ran.

All steps should have completed with a return code of zero (RC=0). Among several other files created, each job produces a report and an Execution Log for each execution of the CODE-1 Plus International product. The following driver program makes up a CODE-1 Plus International job:

- ICPM00 — Batch Driver
- ICPMVP00 — Parameter Check and Verification Program

The output report files that will most likely interest you are the PRNTPRT Report and PRNTXLG Execution Log that is created for every driver program.

CHAPTER 3

Getting Started with Dispatcher4

This chapter describes how to use CODE-1 Plus International with Dispatcher4.

NOTE: A large part of the set-up process takes place in Dispatcher4. We strongly recommended that you familiarize yourself with Dispatcher4 by reading the *Dispatcher4 Workflow Console User's Guide* before working with the CODE-1 Plus International GUI.

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Introduction

With the help of the CODE-1 Plus International GUI and Dispatcher4, you can set up and run your CODE-1 Plus International jobs using the point-and-click features on a familiar Windows desktop environment. Parameter records and other options are configured behind the scenes, based on the input you provide to the GUI. This chapter includes a reference between the GUI and the parameter records it influences, giving you the flexibility to combine parameter record-based and GUI-based configuration.

Setting up a job starts in Dispatcher4, which functions as a “wrapper” to all product-specific GUIs. You begin by defining the record type of your input file, the record length, and the specific fields in your input file. You then select which output files or reports you want CODE-1 Plus International to generate.

With all file-related selections complete, you continue working in the CODE-1 Plus International GUI. A series of dialog boxes lets you select how you want to run your job. For example, you may select how to treat various types of records, how to match addresses, and what to do with unmatched addresses.

Once you have made your CODE-1 Plus International selections using the GUI, you return to the Dispatcher4 environment. At this point you may either run your CODE-1 Plus International job, or select other Pitney Bowes applications to run before or after CODE-1 Plus International.

When you initiate processing, a dialog box shows the progress and status of your job.

NOTE: For further, non-product specific information on the software, please refer to the *Dispatcher4 User's Guide*.

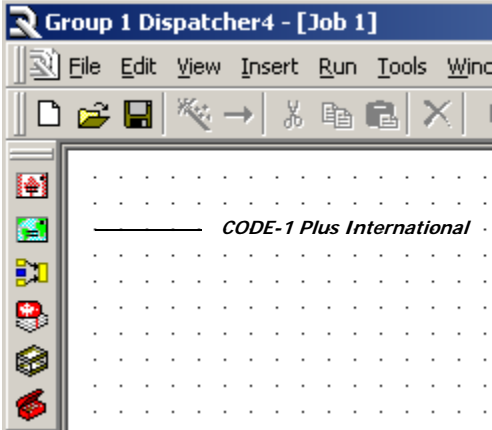
Dispatcher4 Tutorial

This section takes you through the steps required to set up a CODE-1 Plus International job using Dispatcher4.

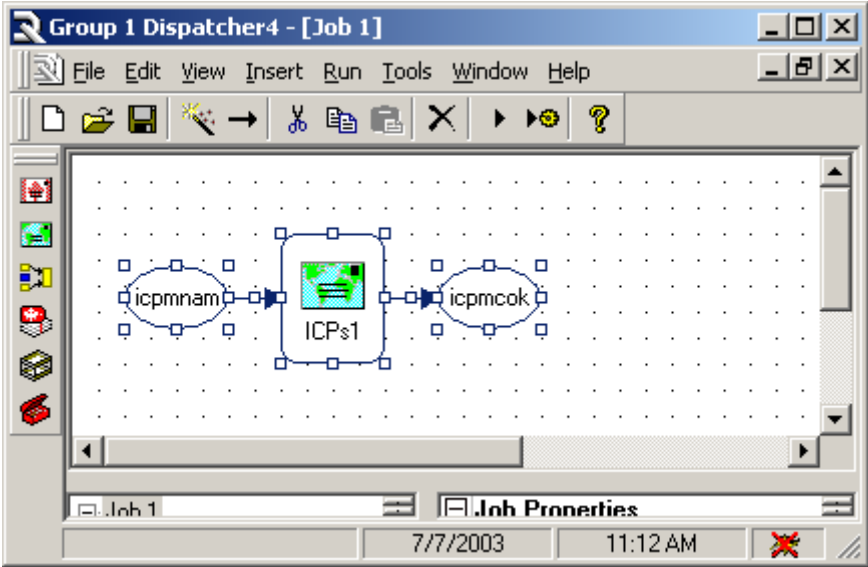
1. Pick the CODE-1 Plus International Step

Dispatcher4 handles all file-related functions and is the starting point for your CODE-1 Plus International job setup.

- 1 Start Dispatcher4.
- 2 Select the CODE-1 Plus International step from the job steps bar by clicking on its icon once.



- 3 Move your cursor into the layout area and click once to place the CODE-1 Plus International step in your job.



At this point, you have set up a job consisting of one step, CODE-1 Plus International. You could now place additional steps before or after the CODE-1 Plus International step. Please refer to your *Dispatcher4 User's Guide* for more information on using multiple steps within Dispatcher4.

2. Set Up Your Input File

The next step is to define your input and output files for CODE-1 Plus International. You should know the following things about your input file before you proceed:

- Which fields are in the input file
- The starting position of each field
- The length of each field
- The record type (fixed length, line sequential, or delimited).

For this sample job, we will work with a sample file that shipped with CODE-1 Plus International. The file is called **sample.nam** and is located in the **ICP GUI/data** directory. The sample file has the following fields:

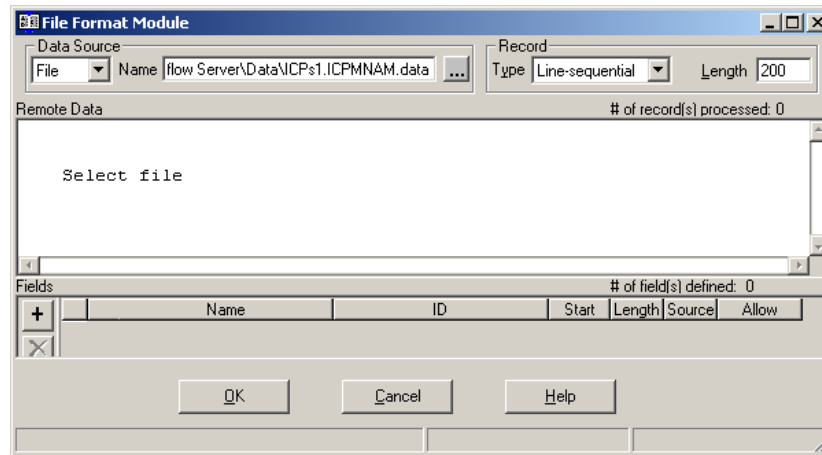
Table 3-1: Fields in the Sample File

Name	Length	Start
Address 1	35	106
Address 2	35	141
City	35	176
State	3	211
Postal Code	20	214
List Code	3	234
Country	16	237

- The record type is **line sequential**.
- The record length is **252**.


You will now enter this information into Dispatcher4.


- 1 Double-click the CODE-1 Plus International input file in the layout area to define your input file. The **File Format Module (FFM)** dialog box appears.

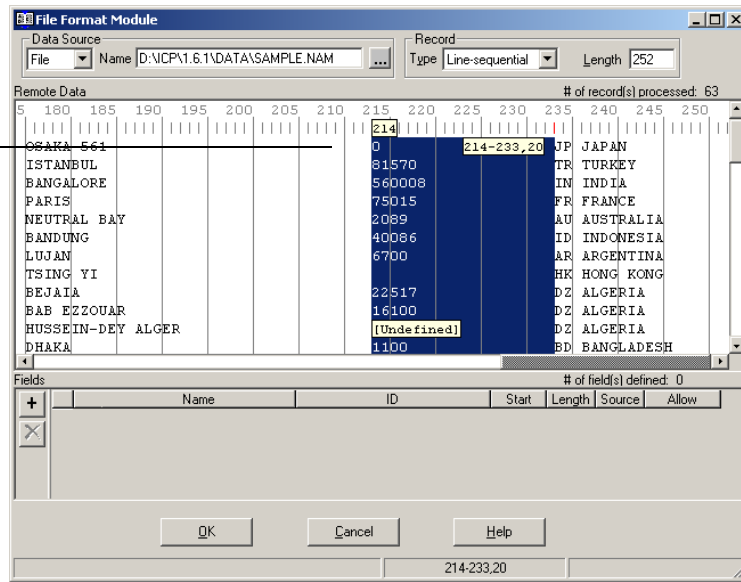


- 2 Click on the “Select Remote File” button. A dialog box appears. Point to the **Group1/xxx/data** directory (where “xxx” is the product code; in this case, ICP). Select the “sample.nam” file, and click [**Open**].”
- 3 In the FFM, select the proper record type from the list box (in this case, select line sequential).
- 4 Now enter the record length (for this sample job, the length is 252).
- 5 You must now enter information about your input records:
 - Which fields are in the input records
 - The starting position of each field
 - The length of each field.
- 6 Place your pointer at the beginning of a field, then hold down the left mouse button. Drag the pointer to the last byte in that field. Be sure to hold down the left mouse button as you drag. The area you select will become highlighted as you drag the pointer. At the end of the field, release the mouse button.

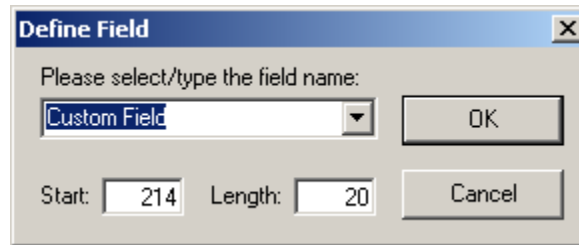
Position your pointer at the first byte of a field; then hold down the left mouse button and drag to the end of the bytes in the field.

Click here to manually add field information. 

Click here to manually delete field information. 



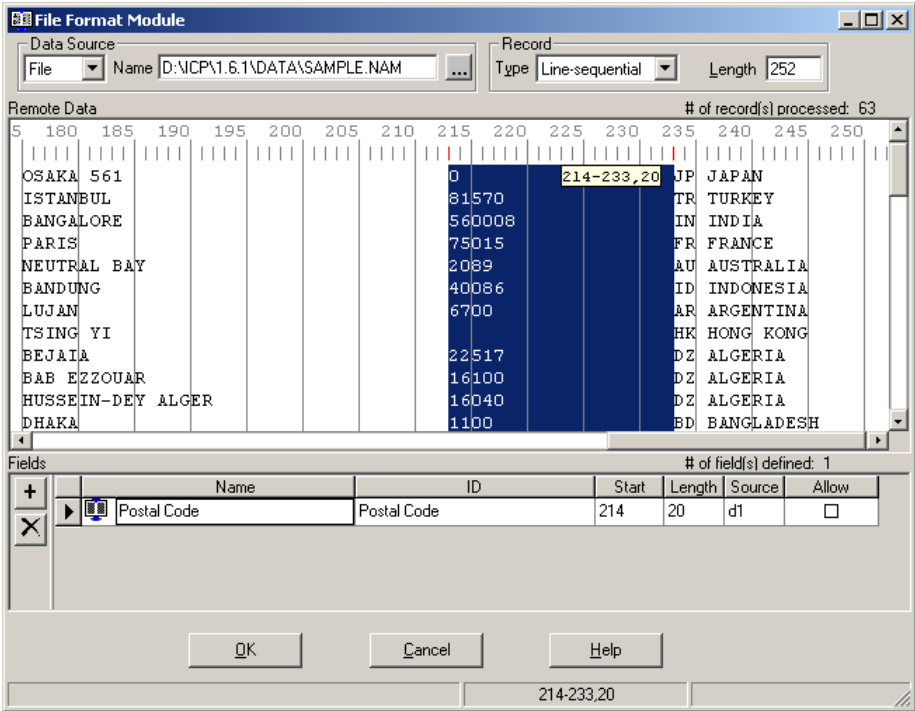
The Define Field dialog box appears.



NOTE: For future field additions, this will be the **Add Field** dialog box.

- Click in the list box to see a list of field names. To select a field name, click on the name, then click the [OK] button. If necessary, use the scroll bar to view names that are not visible. Or, use the type-ahead feature if you know the name of the field. In this case, we have selected the Postal Code field.

When you select a field name, it appears in the **Record Format Layout** area on the (FFM) window. The screen below shows that the Postal Code field has been added.



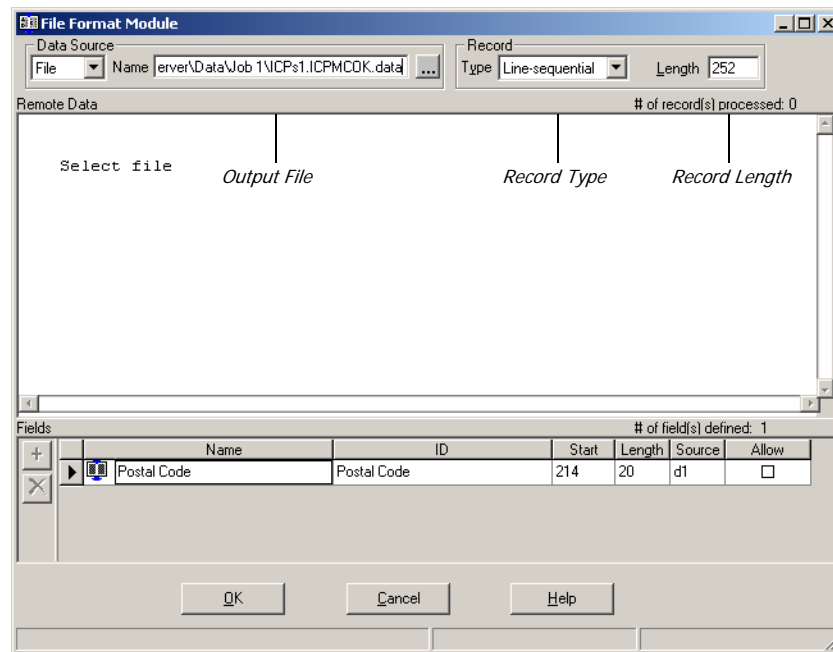
NOTE: To edit existing field information, click in the row/column where you want to change information. Once the area is selected, you can enter the new information.

- 8 Continue adding fields and specifying the starting positions and field lengths until you've defined all the fields on your input record.
- 9 When you've finished defining fields, click one of the following buttons:
 - **[OK]** — to save your settings and close the dialog box.
 - **[Cancel]** — to close the dialog box without saving your settings.

3. Set Up Your Output File

Double-click on the output file icon. The FFM dialog box appears. Specify the following for your output file:

- Output File Name
- Record Type
- Record Length.

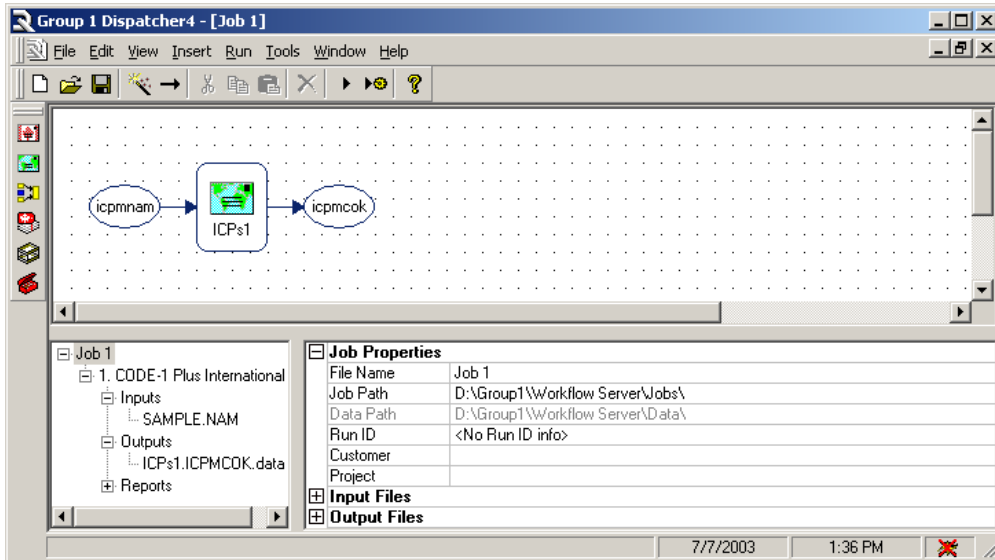


NOTE: You need to define the layout of input files only. Dispatcher4 generates the output file layout automatically. Each step automatically recognizes the file layout from the steps before it.

4. Set Up Additional Files

- 1 In the **Job Step** pane, select the report or additional file you want to define.
- 2 In the **Job Properties** pane, specify the following:
 - Report or additional file name
 - Record type (additional files only)
 - Record length (additional files only).

The **Job Step** pane and the **Job Properties** pane are labeled below. See the *Dispatcher4 User's Guide* for more information on how to use the Job Step and the Job Properties pane.

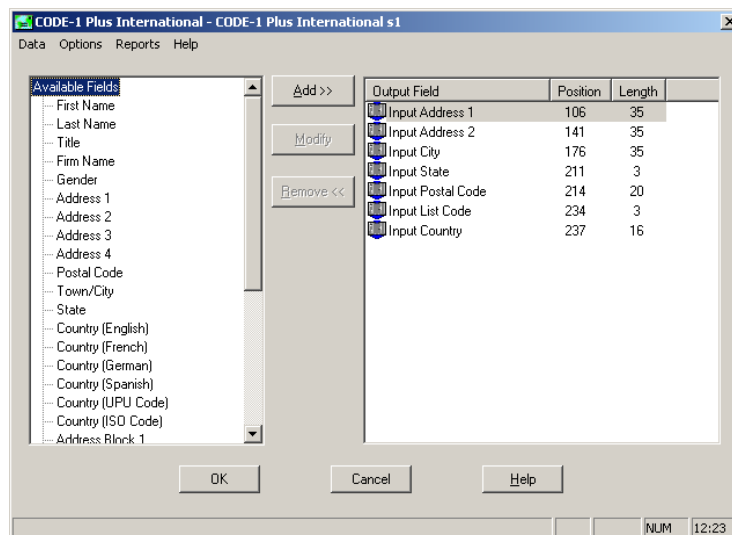


Job Step Pane

Job Properties Pane

5. Define a Batch Job From the Primary Window

In the layout area, double-click the **CODE-1 Plus International** step. This invokes the CODE-1 Plus International GUI. The first window that appears is the CODE-1 Plus International primary window.



The primary window is your base for defining your CODE-1 Plus International job. All functions of the GUI are accessed from this screen. The information you specify on this screen determines the availability of many options throughout the rest of the CODE-1 Plus International GUI.

The list box on the left shows all the fields you can add to your output file, while the display field on the right shows the fields currently in your output file.

Select Fields to Add to the Output File

We start configuring the GUI by selecting which fields to add to the output file. For this sample job, we will add address blocks 1 through 4.

First, we will add **Address Block 1** to the output file.

- 1 In the “Available Fields” list box, double-click the “Address Block 1”. The *Add Field* dialog box appears.

- 2 The next available location will automatically be assigned by Dispatcher4.
- 3 In the selection box, choose the output storage options you would like for this field. In the example above, we chose to post blanks for non-matched posting options and to have the language code be English.

The section below describes each option in the storage output storage options area of the *Add Field* dialog box for Address Block 1 information.

- **Don't Post Anything:** If you select “Don't Post Anything” in the adjoining drop-down box, CODE-1 Plus International will store nothing if the address cannot be matched.
- **Post the Input:** If you select “Post the Input” in the adjoining drop-down box, CODE-1 Plus International will store the input information for non-matched addresses.

- **Post Blanks:** If you select “Post Blanks” in the adjoining drop-down box, CODE-1 Plus International will store spaces in the specified field for non-matched addresses.
 - **Store, Regardless of Record Status:** If you select “Store, Regardless of Record Status” in the adjoining drop-down box, CODE-1 Plus International will store the information regardless of record status. This refers to when part, but not all, of a record has passed or been corrected. Therefore, some of the information is correct but some is not.
 - **English:** CODE-1 Plus International will return the country name in English.
 - **French:** CODE-1 Plus International will return the country name in French.
 - **German:** CODE-1 Plus International will return the country name in German.
 - **Spanish:** CODE-1 Plus International will return the country name in Spanish.
- 4 Repeat steps 1-3 for address blocks 2, 3, and 4.
 - 5 Click [OK] to return to the primary window.

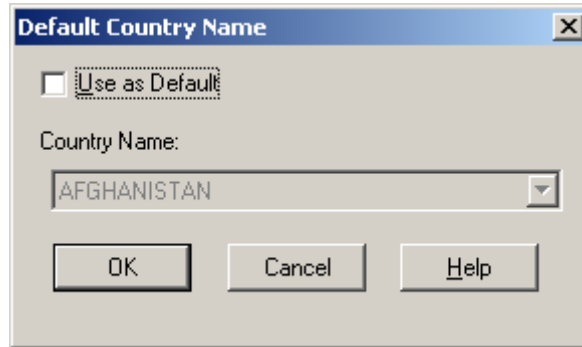
Configure the Options on the Data Menu

For an actual job, you do not necessarily have to configure every single option in CODE-1 Plus International. And, for the purposes of this tutorial, we will configure only some of the dialog boxes and illustrate all options available in the GUI. Please refer to Chapter 1 of *Working With CODE-1 Plus International* for explanations of every dialog box within the CODE-1 Plus International GUI.

When you don't make changes to a field, CODE-1 Plus International simply uses the default value.

Default Country Name

- 1 Define the default country by selecting **Data > Default Country Name** to display the **Default Country Name** dialog box. This option allows you to select the country you would like CODE-1 Plus International to use as a default when the name and address file does not specify the country name.



- 2 Select the radio buttons that best match the way your input address is formatted and click [OK] to save the definition.

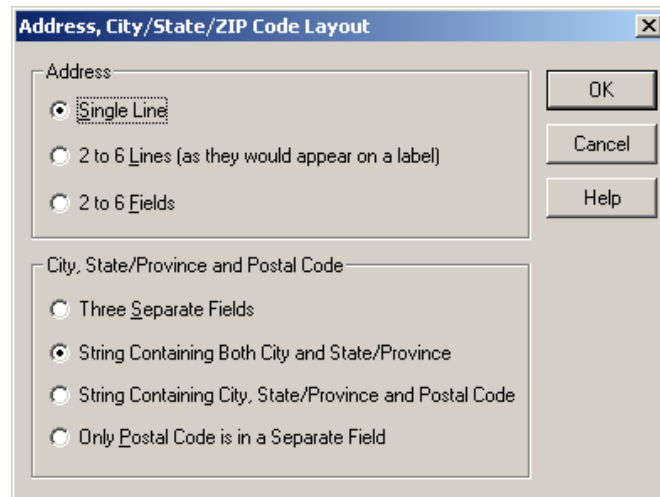
Table 3-2: Address, City/State/ZIP Code Layout Dialog Box Definitions

This field...	Performs this function...	Requires this action...	And maps to this parameter record...
Use Default	Provides the default setting to use when the input records do not contain a country	Check this box to specify that a default country should be used when no other country is specified in the input record.	CNTRYI 8-10
Country Name	Provides the ISO Code for the country indicated as default for all records.	Select a country to be used as the default country when no other country is specified in the input record.	CNTRYI 15-16

Address, City/State/ZIP Code Layout

- 1 Define the input address format by selecting **Data > Input Address Format > Input Address Format** to display the **Address, City/State/ZIP Code Layout** dialog box.

This option allows you to define the layout of the input address, city, state/province, and postal code.



- 2 Select the radio buttons that best match the way your input address is formatted and click [OK] to save the definition.

Table 3-3: Address, City/State/ZIP Code Layout Dialog Box Definitions

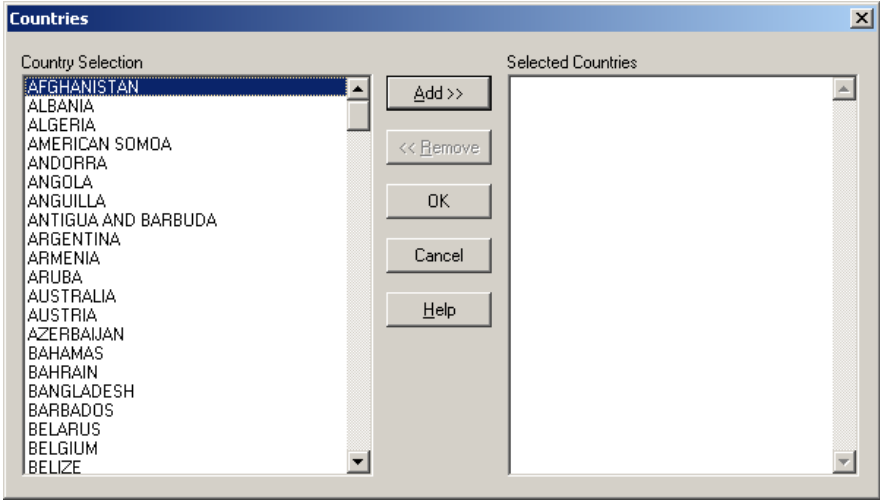
This field...	Performs this function...	Requires this action...	And maps to this parameter record...
Address	Defines the layout of the input street address	Choose one of the following: <ul style="list-style-type: none"> • Single Line: Use this option if your input is a single-line street address. • 2 to 6 Lines: Select this option for up to 6 address lines. Appearing as a mailing label, it may or may not include the city, province, and postal code. • 2 to 6 Fields: Select this option for up to 6 street address fields, which can be joined together to build one good street address. 	ADDRDF column 8
City, State/Province and Postal Code	Defines the layout of the input city, state or province and postal code	Choose one of the following: <ul style="list-style-type: none"> • Three Separate Fields: City, state/province, and postal code are located in three separate fields. • String Containing Both City and State/Province: City and state/province are located in a single field separate from the address. • String Containing Both City, State/Province and Postal Code: City, state/province, and postal code are located in a single field separate from the address. • Only Postal Code is in a Separate Field: All address elements except the postal code are included in the defined address lines. 	CS PCD column 8

Configure the Options on the Options Menu

This section discusses the elements available from the Options menu. Again, you do not have to configure every element, and we will configure only some of the dialog boxes on the Options menu.

Countries

- 1 Define which countries you want to be processed by selecting **Options > Country Selection** to display the **Countries** dialog box.



Select which countries you wish to add and click [OK] to save the list.

Table 3-4: Countries Dialog Box Definitions

This field...	Performs this function...	Requires this action...	And maps to this parameter record...
Selected Countries	Shows the countries CODE-1 Plus International is going to process	Choose the countries that you want to be processed.	SELECT columns 8-80

Limit Records

Define whether processed records should be limited by selecting **Options > Limit Records...** to display the **Limit Records** dialog box. This option allows you to determine the number of input records CODE-1 Plus International should process.



The screenshot shows the "Limit Records" dialog box with the following fields and options:

- Limit:**
 - Number of Records to Skip:
 - Max. Number of Records to Process:
- Sampling:**
 - Include
 - Exclude Every th Record
 - or --
 - Total Number of Records in File:
 - Number of Records to Process:

Buttons: OK, Cancel, Help

Enter the information for each field and click **[OK]** to save the definitions.

Table 3-5: Limit Records Dialog Box Definitions

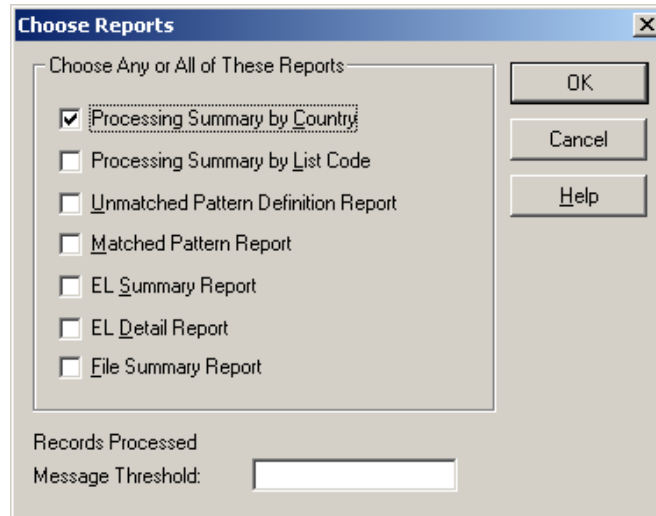
This field...	Performs this function...	Requires this action...	And maps to this parameter record...
Limit	Determines the number of records to skip and the maximum number of records to process	Complete the following fields: <ul style="list-style-type: none"> • Number of Records to Skip - Enter the number of records to be skipped before starting to process records. • Max. Number of Records to Process - Enter the maximum number of records to be processed by CODE-1 Plus International. 	<ul style="list-style-type: none"> • Records to Skip - FILEDF 50-56 • Records to Process - FILEDF 66-72
Sampling	Determines the number of records in the file as well as the number of records to process	Complete the following fields: <ul style="list-style-type: none"> • Include: Check this box to indicate that you want the Nth record to be included when the records are processed. • Exclude: Check this box to indicate that you do not want the Nth record to be included when the records are processed. • Every __th Record: Enter the number of records at which you want CODE-1 Plus International to extract for sampling [e.g., every 10th record, every 50th record, etc.). • Total Number of Records in File - Enter the total number of records in the file. • Number of Records to Process - Enter the total number of records that are to be processed; this causes a portion of the records to be selected evenly spaced throughout the file (i.e., every nth record will be processed to total the number you request). 	<ul style="list-style-type: none"> • Include - NTHSEL 12 • Exclude - NTHSEL 12 • Every __th Record - NTHSEL 8 • Total Number of Records in File - N/A • Number of Records to Process - FILEDF 58-64

Configure the Options on the Reports Menu

This section discusses the elements available from the Reports menu. Because there are only two options in this menu and because both are important, we will configure all of the dialog boxes on the Reports menu.

Choose Reports

- 1 Define your reports by selecting **Reports > Choose Reports...** to display the **Choose Reports** dialog box. This option allows you to determine which optional reports you want CODE-1 Plus International to produce.



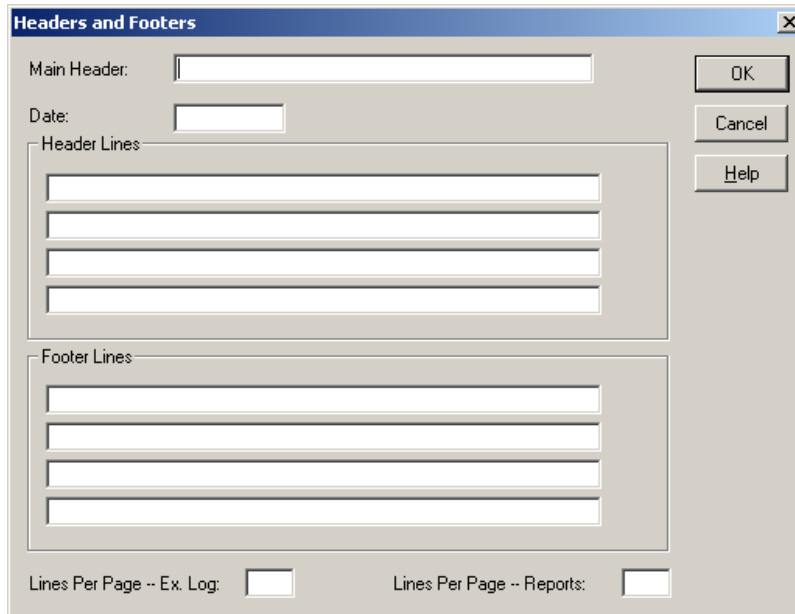
Select the radio buttons that best match which reports you want CODE-1 Plus International to produce and click **[OK]** to save the definitions.

Table 3-6: Choose Reports Dialog Box Definitions

This field...	Performs this function...	Requires this action...	And maps to this parameter record...
Choose Any or All of These Reports	Determines which reports should be produced	Choose any or all of the following: <ul style="list-style-type: none"> • Processing Summary by Country • Processing Summary by List Code • Unmatched Pattern Definition Report • Matched Pattern Report • EL Summary Report • EL Detail Report • File Summary Report 	REPORT 8, 10, 12, 14, 16, 19, 20
Records Processed Message Threshold	Determines the number of records should be passed before processing	Enter a number to indicate how many records should be processed before an entry is written to the Execution Log. For instance, if there are 100 German records in the input file and you choose to specify 10 for the threshold, the Execution Log will s how something like this: <p>ICPM00 started ICPMVP00 started ICPMVP00 completed</p> <p>10 records processed country = Germany 20 records processed country = Germany 30 records processed country = Germany 40 records processed country = Germany 50 records processed country = Germany... ...and so on.</p>	REPORT 60-66

Define Headers and Footers

- 1 Define your report headers and footers by selecting **Reports > Headers/Footers** to display the **Headers and Footers** dialog box. This option allows you to enter header, footer, and date information that CODE-1 Plus International will place on all reports.



The screenshot shows a dialog box titled "Headers and Footers" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Main Header:** A single-line text input field.
- Date:** A date input field.
- Header Lines:** A group box containing four stacked text input fields.
- Footer Lines:** A group box containing four stacked text input fields.
- Buttons:** "OK", "Cancel", and "Help" buttons are located on the right side of the dialog.
- Options:** At the bottom, there are two checkboxes: "Lines Per Page -- Ex. Log:" and "Lines Per Page -- Reports:", both currently unchecked.

Enter the information for each field and click **[OK]** to save the definitions. and click **[OK]** to save the definitions.

Table 3-7: Headers and Footers Dialog Box Definitions

This field...	Performs this function...	Requires this action...	And maps to this parameter record...
Main Header	Determines report headers	Enter the main header you want to print on reports, up to 40 characters.	HEADER columns 19-58
Date	Determines report dates	Enter the date you want to print on reports.	HEADER columns 8-17
Header Lines	Determines header text	Enter the text you want to print on the report headers, up to 132 characters on up to four separate lines.	UHDxx columns 7-72
Footer Lines	Determines footer text	Enter the footer you want to print on reports, up to 132 characters up to four separate lines.	UFTxx columns 7-72
Lines per Page - Ex. Log	Determines number of lines to print on each page of the Execution Log	Enter the number of lines you want to print on each page of the Execution Log, with a minimum of 25 and a maximum of 225.	PAGESZ columns 8-10 and 12-13
Lines per Page - Reports	Determines number of lines to print on each page of reports other than the Execution Log	Enter the number of lines you want to print on each page of reports other than the Execution Log; with a minimum of 25 and a maximum of 225.	PAGESZ columns 8-10 and 12-13

6. Run your Job in Dispatcher4

Now that you have set up your files and configured the CODE-1 Plus International GUI, it is time to run your job.

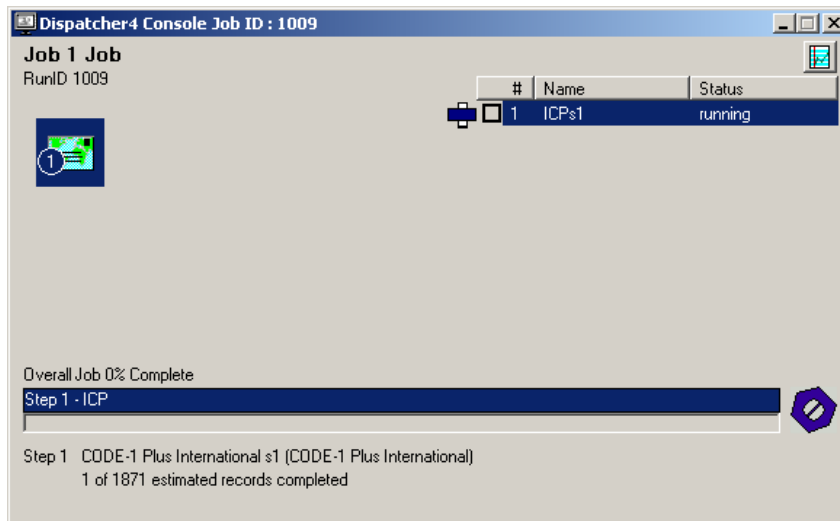
When you submit a job in Dispatcher4, it is copied to the server platform (UNIX or NT), the batch job control language (scripts) is created, and processing begins.

- 1 Save your job.
- 2 Click on the **Run** menu, then select the **Start** option. Or, select the Run button from the button bar.

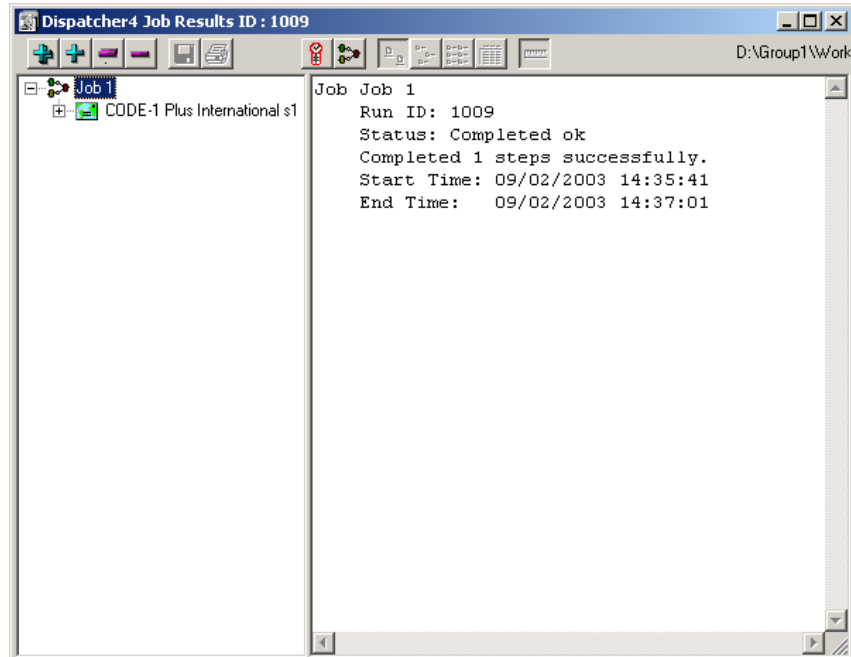
D4 verifies the job. Each step (for this sample job, only CODE-1 Plus International) is verified for parameter record inconsistencies. Refer to your *Dispatcher4 User's Guide* for more information about verifying a job if any error messages appear.

If any input files are not found on the server, an error message is displayed and the job stops. If any output paths are not found on the server, you will be prompted to create a new path. Select “Yes, create path” to run the job, or “No” to stop the job.

If files with the names you specified already exist in your output directories, an overwrite warning is displayed. Select “No” to stop the job, “Yes” to overwrite each file, or “Yes to All” to overwrite all files without being prompted again. The job executes, and the **Console** dialog box is displayed. It indicates the progress of your job.



- 3 Once your job is running, view the results through the **Job Results** dialog box. Click on the **View** menu, then select **Results**.



Congratulations! You have successfully set up and executed a CODE-1 Plus International job.

CHAPTER 4

Getting Started with Your Batch Job

This chapter outlines the steps required for defining your job with parameter records. Each type of information you will define is provided as is a list of the parameter records required. For a complete reference of every field on each parameter record, please refer to Chapter 1 in the *CODE-1 Plus International Reference Guide*.

Using CODE-1 Plus International	50
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Using CODE-1 Plus International

CODE-1 Plus International is manipulated by *parameter records* and *control language*. You can use them independently or combine them to work together.

Parameter Records

Parameter records contain your processing instructions to the CODE-1 Plus International program that tell the program what you want to accomplish. Through these parameter records, you will tell CODE-1 Plus International information such as:

- The format of your input file
- The location, length, and format of each relevant data element in your input file
- Which output files to create
- The processing options that should be performed on each input record
- The location, length, and format of additional output record data elements (such as return codes that tell you what occurred when CODE-1 Plus International processed each record)
- Which reports to print at the end of the job
- The headers, footers, and lines per page for your reports.

Control Language

In addition to writing parameter records to control your job, you will have to write control language. Control language varies from processing platform to processing platform, but its purpose is always the same: to define the operating environment and execute the programs that will process your records. Pitney Bowes assumes that you are familiar with writing control language for your platform. The control language provided in this manual is example only, and must be modified to meet your site-specific needs. The following table shows the types of control language used by each of the platforms supported by CODE-1 Plus International. For other platform-specific information, please refer to the “Using Different Environments” chapter in the Working With CODE-1 Plus International User’s Guide.

Table 4-1: Platforms and Control Language

Processing Platform	Control Language
MVS	MVS JCL
VSE	VSE JCL
IMS	MVS JCL
UNIX	Shell Scripts
Windows/NT	Scripts

Combining Parameter Records and Control Language

Parameter records and control language can be combined in two ways:

- Have a file that contains all of your parameter records and “point” to that file from your control language.
- Embed your parameter records directly into your control language file.

Either method is acceptable, and CODE-1 Plus International will run with the same efficiency regardless of the method you choose.

CODE-1 Plus International Steps

To create a CODE-1 Plus International job, you will perform seven steps:

- Copy the IVP file (or the sample job file) to use as a template.
- Define the physical attributes of your input and output files.
- Define the layout of your input records.
- Define the layout of your output records.
- Define your processing options.
- Define your reporting options.
- Write control language.

Parameter Record Reference

The table below shows which parameter records are required for each element or segment of a CODE-1 Plus International job. Please refer to the Parameter Records chapter of the *Reference Guide* for complete detail of each parameter record.

Table 4-2: Parameter Records by Job Step

Job Step	Parameter Records Used
Defining the physical attributes of input and output files	FILEDF* *a separate FILEDF is required for each input and output file
Defining the layout of input records	AB INP, ADDRDF, CNTRYI, CS PCD, FIRMNM, L CODE, NAMEDF
Defining the layout of output records	AB OUT, AM OUT, CS OUT, CT OUT, NM OUT, PC OUT, SA OUT
Defining processing options	CONFIG, CONFIRM
Defining reporting options	HEADER, PAGESZ, REPORT, UFTxx, UHDxx

Step 1. Copying the Sample Job File

The CODE-1 Plus International installation process copies a sample job file to your system. This is a basic job that verifies the proper installation of the application files and programs. The sample job file is useful as a template for new jobs because it contains the minimum required organization and content.

Step 2. Defining the Physical Attributes of Your Files

The first step to creating a CODE-1 Plus International job is to define the physical attributes of your input and output files. You will define some or all of the following files:

- **ICPMNAM**—This required file contains your input name-and-address records.
- **ICPMCOK**—This required file will contain all of the records that were matched against the CODE-1 Plus International database and then verified and corrected.
- **ICPMNCO**—This optional file will contain all of the records that CODE-1 Plus International could not validate or correct (i.e., the postal code was valid, but the address could not be validated or corrected).

- **ICPMUSA**—This optional file will contain all of the records that have United States ZIP codes.
- **ICPMCAN**—This optional file will contain all of the records that have Canadian postal codes.

NOTE: You **must** define the input file and at least one output file.

Define each of these files by creating a **FILEDF** parameter record. Remember that each input and output file requires a separate **FILEDF** parameter record.

Step 3. Defining the Layout of Input Record Elements

To define the data elements that are contained in your input records, you will create parameter records to define the format of your address and the locations and lengths of the elements that make up the address, such as municipality, province, and postal code.

To define an input file, use the following parameter records:

- **AB INP** — (**required if no ADDRDF is defined; required if no CNTRYI is defined; required if no CS PCD is defined**) specifies the location and length of the data fields making up an address block on the input record
- **ADDRDF** — (**required if no AB INP is defined**) specifies the location, length, and format of the street address fields on the input record.
- **CNTRYI** — (**required if no AB INP is defined**) specifies the location and length of the country name on the input record.
- **CONSxx** — (**optional**) defines up to 99 constants used with the **MOVE x** parameter.
- **CS PCD** — (**required if no AB INP is defined**) specifies the location and length of the city, state/province, and postal code data in the input record.
- **EXITIN** — (**optional**) names an operation exit routine to be called before a record has been processed.
- **FIRNMN** — (**optional**) specifies the location and length of the firm names (company names) in the input record.
- **L CODE** — (**optional**) specifies the location and length of a list code in the input record.
- **MOVE I** — (**optional**) rearranges the pieces of the input record before it is processed.
- **NAMEDF** — (**optional**) specifies the location and length of the name information in the input record.

Step 4. Defining the Layout of Output Record Elements

The next type of information you will define is the layout and content of the records that CODE-1 Plus International will write to the output files you have defined. You will define locations, lengths, and sometimes formats for the various types of data elements. Additionally, you can specify format options for the standardized street address information.

NOTE: CODE-1 Plus International creates output records as follows:

1. It copies the input record to the output area.
2. It reads all output parameter records, writing the data elements they describe to the desired locations.

For this reason, you must take care when defining output locations for your data elements. It is very easy to accidentally overwrite input data that you want to preserve with output data. Unless you intentionally want to overwrite input data, you should take care to define the locations for your output elements so that they are written beyond the input data.

To define an output file, use the following parameter records:

- **AB OUT** — (**optional**) specifies where to store a completed address block line in the output record.
- **AM OUT** — (**required**) specifies where to store the address match return codes in the output record.
- **CS OUT** — (**optional**) specifies the location and length of the city and state/province data in the output record.
- **CT OUT** — (**optional**) specifies the location and length of the country name in the output record.
- **EXITOP** — (**optional**) names an operation exit routine to be called after a record has been processed.
- **MOVE O** — (**optional**) rearranges the pieces of the output record before it is written to the output file.
- **NM OUT** — (**optional**) specifies where the addressee and firm name information is to be stored in the output file.
- **PC OUT** — (**optional**) specifies where the postal code is to be stored in the output record.
- **SA OUT** — (**optional**) specifies where the standardized address components are to be stored in the output record.

NOTE: At least one xx OUT parameter is required in addition to the FILEDF parameter.

Step 5. Defining Processing Options

To define the processing options that control your CODE-1 Plus International job, create parameter records for the following:

- To define the processing configuration used to process your input file. This configuration includes matching preferences (e.g., multiple matches of accents or multinational characters).
- To write records with a specific input field value directly to the ICPMCOK file without being processed. This procedure is called “automatic confirmation.”
- To indicate that the parameter records in your job should be checked for errors but that the job should not be executed at this time.

To complete a job, write the following parameter records:

- **CONFIG** — (**optional**) modifies the configuration of the system.
- **CONFRM** — (**optional**) specifies that records containing confirmation flag values should be confirmed without undergoing the matching process.
- **SELECT** — (**optional**) specifies which countries from your input file CODE-1 Plus International will process.
- **FORMAT** — (**optional**) defines the characteristics of the output data posted to the records.

Step 6. Defining Reporting Options

You can optionally print several reports within CODE-1 Plus International in addition to those that are printed automatically. You can also determine some of the format options for your reports.

Defining Which Reports to Print

CODE-1 Plus International has six reports that are printed automatically for every job; therefore, you cannot suppress them. These reports include:

- Parameter Record Listing
- Execution Log
- Control Totals
- Country Statistics for Entire File
- Processing Summary by Country
- File Summary Report.

You can, however, choose to print or suppress the following reports by using the REPORT parameter record:

- Processing Summary by Country
- Processing Summary by List Code
- Unmatched Pattern Definition
- Matched Pattern
- Element Table ID Summary
- Element Table ID Detail
- Country Summary

NOTE: The default is to print each of these reports for your job. If you do not want to suppress any of them, you do not need to include a REPORT parameter record in your job.

To specify report information, use the following parameter records:

- **HEADER** — (**required**) defines a header that is to be printed just below the report title on each page of each report.
- **PAGESZ** — (**optional**) indicates how many lines to print on each page of either the Execution Log or all other reports.
- **REPORT** — (**optional**) controls the reports from the CODE-1 Plus International system
- **UHDxx** — (**optional**) defines additional headers that print above the report title on each report page.
- **UFTxx** — (**optional**) defines additional footers that print just below the report title on the bottom of each report page.

Defining Report Formats

While the format for the body of all reports is internally set by CODE-1 Plus International, you can control the format and content of the reports' headers and footers as well as the number of lines that will be printed on each report page. You will write parameter records to accomplish the following report formatting:

- Control the main header
- Control the additional header
- Control the footer
- Specify the number of lines per page.

Headers and Footers

There are three kinds of headers and two kinds of footers on all CODE-1 Plus International reports. The types of headers are:

- System Header—Generated by CODE-1 Plus International, the system header is a single line that prints at the very top of the report page and includes the name of the report and the page number.
- Main Header—Generated by the data you specify, this single-line includes a date (either the system date or another date you specify) and/or up to 40 characters of text. This header line is the last header line printed, and appears just above the main body of the report page.
- Additional Header—Generated by data you specify, this header can be up to 4 lines of text. Each line can contain up to 132 characters. These lines are printed below the system header but above the main header.

The types of footers are:

- System Footer—Generated by CODE-1 Plus International, the system footer is a single line that prints at the very top of the report page, and includes the name of the report and the page number exactly as it appears in the system header.
- Additional Footer — Generated by data you specify, this footer can be up to 4 lines of text. Each line can contain up to 132 characters. These lines are printed below the body of the report page, but above the system footer.

For example, a report with all lines of all headers and footers defined would be formatted as follows:

```
System Header

Additional Header Line 1
Additional Header Line 2
Additional Header Line 3
Additional Header Line 4

Main Header

.
.
.
Body of Report

.
.
.

Additional Footer Line 1
Additional Footer Line 2
Additional Footer Line 3
Additional Footer Line 4

System Footer
```

Step 7. Writing Control Language

Your software media came with a sample file that you should copy and edit as necessary to run your CODE-1 Plus International job. The “Using Different Environments” chapter in the Working With CODE-1 Plus International User’s Guide provides additional information on file names and platform-specific functions.

CHAPTER 5

Getting Started with Interactive Processing

This chapter describes interactive address matching and database inquiry functions that make up the Interactive CODE-1 Plus International System. Conceptual information and screen examples are presented for both functions. For a complete list and description of each screen in the interactive system, please refer to Chapter 3 in your *CODE-1 Plus International Reference Guide*.

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Interactive Matching Function

The CODE-1 Plus International Interactive Matching Function allows you to match and correct addresses online through one easy-to-use screen. It allows you to:

- Match a single input address against the master file
- Analyze return codes to determine actions that were taken to attempt a match
- Detect the types and quantities of problems encountered in an input address
- Enter the address as fixed-fielded or in address block format
- View the address formatted per country regulations in the address block.

For each match attempt, CODE-1 Plus International displays return codes that indicate the success or reason for failure of the attempt.

CODE-1 Plus International Address Verification Screen

The *CODE-1 Plus International Address Verification* screen has the address matching function. The different parts of the screen are shown as follows:

	R01.6M02	** CODE-1 PLUS INTERNATIONAL ***	09/16/2003 16:18:48
	-----ADDRESS VERIFICATION-----		
Fixed Field Input Fields/ Match Results	FIRST NAME:		USE ADDR BLK? :
	LAST/FULL NAME:		GENDER CHK? :
	FIRM NAME:		SEPARATE? :
	1ST ADDR LINE:		MULTI NAT? :
	2ND ADDR LINE:		CASE? :
	3RD ADDR LINE:		
	4TH ADDR LINE:		
	CITY:		
	POST CODE:	STATE:	
	COUNTRY:		
	-----VERIFICATION RESULTS-----		
Return Codes	GENDER:	ADDR_BLK	L1:
	ADDRESS:		L2:
Address Block Input Fields/ Match Results	CITY:		L3:
	POST CODE:		L4:
Status Line	STATE:		L5:
	COUNTRY:		L6:
Function Keys	CATEGORY:		L7:
			L8:
	ENTER AN ADDRESS TO BE VERIFIED AND PRESS ENTER		
	F2=NEW ADDR F3=QUIT F4=REVERIFY ENTER=VERIFY		

From this screen, you can enter an address and attempt a match.

- **Input Fields** — Enter the address that you want to match.
- **Format Options** — Enter the format options to be used for the returned output fields.
- **Match Results** — CODE-1 Plus International returns the completed address.
- **Return Codes** — CODE-1 Plus International returns codes that indicate the success or reason for failure of the match attempt.
- **Status Line** — CODE-1 Plus International displays command and error messages.
- **Function Keys**—Execute commands.

Fields

The following table presents a description of, and acceptable values for, each field on the *CODE-1 Plus International Address Verification* screen.

Table 5-1: Fields on the Address Verification Screen (Part 1 of 4)

Field Name	Description
The fields below are used if you select "S" or "N" for "Use Addr Blk". Type your input address in the following fields. After you have pressed <Enter> to attempt a match, CODE-1 Plus International's interactive matching function displays the verified/corrected address in the same fields.	
First Name	Type the first name of the addressee.
Last/Full Name	Type the last or full name of the addressee.
Firm Name	Type the name of the company/firm.
1st Addr Line	Type the first line of the street address.
2nd Addr Line	Type the second line of the street address.
3rd Addr Line	Type the third line of the street address.
4th Addr Line	Type the fourth line of the street address.
City	Type the city name.
Post Code	Type the postal code.
State	Type the state/province name.
Country	Type the country name.
The fields below are used if you select "Y" for "Use Addr Blk". Type your input address in the following fields. After you have pressed <Enter> to attempt a match, CODE-1 Plus International's interactive matching function displays the verified/corrected address in the same fields.	

Table 5-1: Fields on the Address Verification Screen (Part 2 of 4)

Field Name	Description
L1	Type line 1 of the address.
L2	Type line 2 of the address.
L3	Type line 3 of the address.
L4	Type line 4 of the address.
L5	Type line 5 of the address.
L6	Type line 6 of the address.
L7	Type line 7 of the address.
L8	Type line 8 of the address.
Complete the following fields to define processing options.	
Use Addr Blk?	<p>Specify whether to use the address block, which defines where address information should be entered and where to expect returned output. This allows you the flexibility to enter, and have returned, data in the format in which it would appear on a mailing label. For instance, in Canada, the city/province information appears on a mailing label as: "Saskatoon SK S7N 0B3", and this is how the information should be entered/returned if using Address Block processing. Conversely, if you choose fixed-fielded processing We might want to define the term of 'Address Block'. The intent of which is to allow users the flexibility to enter, and have returned, data in the format in which it would appear on a mailing label. For instance in Canada, the city/province information appears on a mailing label as: 'Saskatoon SK S7N 0B3' and this is how the information should be entered/returned if using Address Block processing. Conversely, this same information should be entered/returned as: City = 'Saskatoon', State = 'SK', Post Code = 'S7N 0B3' had the user chosen fixed-fielded processing by putting N in the "Use Addr Blk?" option, this same information should be entered/returned as: City = 'Saskatoon', State = 'SK', Post Code = 'S7N 0B3'.</p> <p>Y Use address block for input and output (complete address information in bottom half of screen); output will overwrite input</p> <p>N Use fixed-fielded (complete address information in top half of screen); output will overwrite input</p> <p>S (default) Use fix-fielded (complete address information in top-half of screen); output will be displayed in the bottom half of the screen.</p>
Gender Chk?	<p>Specify whether CODE-1 Plus International should determine the most likely gender of a first name in a given country. Type one of the following:</p> <p>Y Provide gender code.</p> <p>N (default) Do not provide gender code.</p>

Table 5-1: Fields on the Address Verification Screen (Part 3 of 4)

Field Name	Description
Separate?	Specify whether CODE-1 Plus International should separate the first and last name in the "Last/Full Name" field. Type one of the following: Y Separate first and last name of the addressee. NOTE: This function will not overwrite an entry in the "First Name" field. N (default) Do not separate first and last name of the addressee.
Multi Nat?	Specify whether CODE-1 Plus International should include or exclude multinational characters in address. Type one of the following: Y Include multinational characters. N (default) Exclude multinational characters
Case?	Specify whether CODE-1 Plus International should return characters in upper case or mixed case. U Provide characters in upper case only. M (default) Provide characters in mixed case.
The following fields contain possible return codes.	
Gender	If you typed a "Y" in the Gender Chk? field, CODE-1 Plus International returns one of the following: F The first name most likely belongs to a female. M The first name most likely belongs to a male. A The gender is ambiguous.
Address	Street address status code. One of the following will be displayed: 1 Confirmed 2 Corrected 3 Indeterminate 5 Postal data not available* 6 Multiple choices available.
City	City status code. One of the following codes is stored: 1 Confirmed 2 Corrected 3 Indeterminate 5 Postal data not available* 6 Multiple choices available.

Table 5-1: Fields on the Address Verification Screen (Part 4 of 4)

Field Name	Description
Post Code	Postal code status code. One of the following is returned: <ul style="list-style-type: none"> 1 Confirmed 2 Corrected 3 Indeterminate 4 Reformatted 5 Postal data not available* 6 Multiple choices available.
State	Street address status code. One of the following is returned: <ul style="list-style-type: none"> 1 Confirmed 2 Corrected 3 Indeterminate 5 Postal data not available.*
Country	Country status code. One of the following is returned: <ul style="list-style-type: none"> 1 Confirmed 2 Corrected 3 Indeterminate 4 Not licensed.
Category	Country match level. One of the following is returned: <ul style="list-style-type: none"> A Country has street data B Country has city or postal code data only C Country name only is on database.

* “Postal Data Unavailable” means that the country’s postal address file does not contain the address component in question.

Function Keys

The following table describes the function keys on the *CODE-1 Plus International Address Verification* screen.

NOTE: In Unix, the function keys **may** be set differently or not set at all. Typically, to use an F-key on Unix, you should press **<Esc>**, followed by the number of the function.

Table 5-2: Function Keys on the Address Verification Screen

Function Key	Description
F2 (New Addr)	Press <F2> to clear the <i>CODE-1 Plus International Address Verification</i> screen and enter a new address.
F3 (Quit)	Press <F3> to exit the CODE-1 Plus International interactive address matching function.
F4 (Reverify)	Press <F4> to override some <i>CODE-1 Plus International Address Verification</i> screen error messages and attempt a match.
Enter (Verify)	Press <Enter> to attempt an address match.

Navigation Keys

The following table describes how to move around the *CODE-1 Plus International Address Verification* screen.

Table 5-3: Navigation Keys on the Address Verification Screen

Navigation Key	Description
or <Tab>	Move cursor to next field.
or <Shift-Tab>	Move cursor to previous field.
	Move cursor to above field.
	Move cursor to below field.

Accessing the Address Verification Screen

To access the *CODE-1 Plus International Address Verification* screen, perform the following steps:

Depending on the platform:

- **Windows** — Double-click on the *CODE-1 Plus International Matcher* icon.
- **Unix** — Source the setup file (`./setup`) in the `$G1ICP/bin` directory and enter the following command:
runonline

The `runonline` script is likewise located in the `$G1ICP/bin/` directory.

- **CICS** — Enter the following transid on a blank screen: **G1IS**.

The *CODE-1 Plus International Address Verification* screen appears.

```

R01.6M01                ** CODE-1 PLUS INTERNATIONAL ***
-----ADDRESS VERIFICATION-----
FIRST NAME:                                USE ADDR BLK?:
LAST/FULL NAME:                            GENDER CHK?:
FIRM NAME:                                 SEPARATE?:
1ST ADDR LINE:                             MULTI NAT?:
2ND ADDR LINE:                             CASE?:
3RD ADDR LINE:
4TH ADDR LINE:
CITY:
POST CODE:                                STATE:
COUNTRY:

-----VERIFICATION RESULTS-----
GENDER:      ADDR BLK L1:
ADDRESS:     L2:
CITY:        L3:
POST CODE:   L4:
STATE:       L5:
COUNTRY:    L6:
CATEGORY:   L7:
              L8:

ENTER AN ADDRESS TO BE VERIFIED AND PRESS ENTER
          F2=NEW ADDR F3=QUIT F4=REVERIFY ENTER=VERIFY

```

Matching an Address

At this point, you can enter an address for a match. You can do this either via fixed-fielded or address block format.

Fixed-Fielded Input and Output Matching

- 1 Type the address elements in the appropriate fields.

NOTE: Error fields that appear in red are required.

- 2 Specify your processing options for this address. Type the appropriate one-character code in the following fields:
 - Use Addr Blk? (Enter **N** in this field.)
 - Gender Chk?
 - Separate?
 - Multi Nat?
 - Case?

If you do not specify processing options, CODE-1 Plus International will use the default settings.

- 3 Press <Enter>.

Address Block Input and Output Matching

- 1 Enter the name elements in the appropriate fields.
- 2 Specify your processing options for this address. Type the appropriate one-character code in the following fields:
 - Use Addr Blk? (Enter **Y** in this field.)
 - Gender Chk?
 - Separate?
 - Multi Nat?
 - Case?
- 3 Enter the address in the address block fields.
- 4 Press <Enter>.

Fixed-Fielded Input and Address Block Output Matching

- 1 Enter the name elements in the appropriate fields.
- 2 Specify your processing options for this address. Type the appropriate one-character code in the following fields:
 - Use Addr Blk? (Enter **S** in this field.)
 - Gender Chk?
 - Separate?
 - Multi Nat?
 - Case?
- 3 Enter the address in the address block fields.
- 4 Press <Enter>.

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