Spectrum™ Technology Platform

Version 8.0.0 SP3

Installation Guide for Unix and Linux

Pitney Bowes Software

USPS® Notices

Pitney Bowes Inc. holds a non-exclusive license to publish and sell ZIP + 4® databases on optical and magnetic media. The following trademarks are owned by the United States Postal Service: CASS, CASS Certified, DPV, eLOT, FASTforward, First-Class Mail, Intelligent Mail, LACS^{Link}, NCOA^{Link}, PAVE, PLANET Code, Postal Service, POSTNET, Post Office, RDI, Suite^{Link} , United States Postal Service, Standard Mail, United States Post Office, USPS, ZIP Code, and ZIP + 4. This list is not exhaustive of the trademarks belonging to the Postal Service.

Pitney Bowes Inc. is a non-exclusive licensee of USPS® for NCOA^{Link}® processing.

Prices for Pitney Bowes Software's products, options, and services are not established, controlled, or approved by USPS® or United States Government. When utilizing RDI™ data to determine parcel-shipping costs, the business decision on which parcel delivery company to use is not made by the USPS® or United States Government.

Centrus Notices

Centrus Data Products contained on this media and used within Centrus applications are protected by various trademarks and by one or more of the following copyrights:

© Copyright United States Postal Service. All rights reserved.

© 2011 TomTom. All rights reserved. TomTom and the TomTom logo are registered trademarks of TomTom N.V.

© Copyright NAVTEQ. All rights reserved

© Copyright United States Census Bureau

© Copyright Nova Marketing Group, Inc.

Portions of this program are © Copyright 1993-2007 by Nova Marketing Group Inc. All Rights Reserved

© Copyright Canada Post Corporation

This CD-ROM contains data from a compilation in which Canada Post Corporation is the copyright owner.

© 2007 Claritas, Inc.

ICU Notices

Copyright © 1995-2011 International Business Machines Corporation and others.

All rights reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, provided that the above copyright notice(s) and this permission notice appear in all copies of the Software and that both the above copyright notice(s) and this permission notice appear in supporting documentation.

GeoNames Notices

The World Geocoding data set contains data licensed from the GeoNames Project (**www.geonames.org**) provided under the Creative Commons Attribution License ("Attribution License") located at **http://creativecommons.org/licenses/by/3.0/legalcode**. Your use of the GeoNames data (described in the Spectrum™ Technology Platform User Manual) is governed by the terms of the Attribution License, and any conflict between your agreement with Pitney Bowes Software, Inc. and the Attribution License will be resolved in favor of the Attribution License solely as it relates to your use of the GeoNames data.

Pitney Bowes Software
Documentation Team
pbbidocs@pb.com

July 16, 2013

Contents

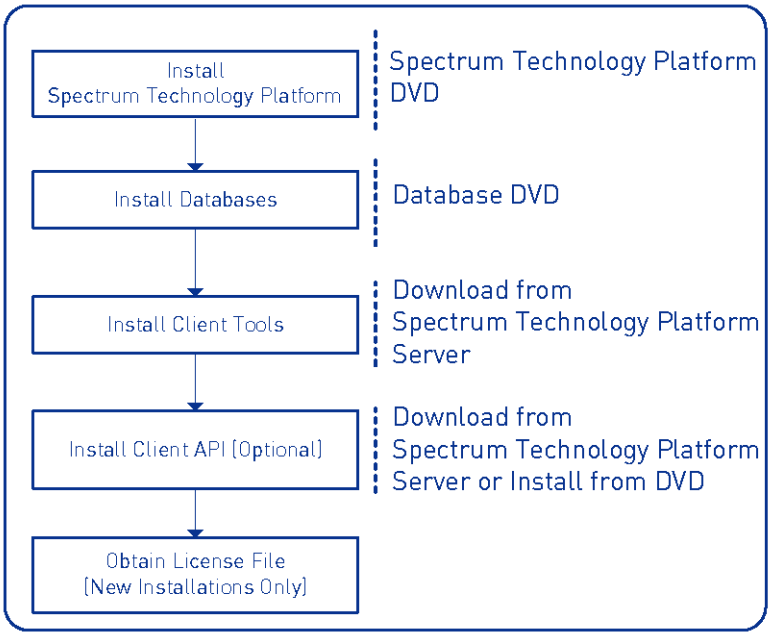
1

Installation Overview

In this section:

Overview of Installation Process

The following diagram illustrates the process of installing Pitney Bowes Spectrum™ Technology Platform for the first time:



To start the installation process you insert the Spectrum™ Technology Platform DVD and run the installer. (If you downloaded Spectrum™ Technology Platform from the Pitney Bowes Software web site, you start the installation process by running the installer from the location where it was downloaded.)

Note: Spectrum™ Technology Platform can be installed from media or by downloading the software from the Pitney Bowes Software Technical Support web site. Once you have downloaded the files, the installation process is the same regardless of whether you are using physical media or downloaded software for the installation.

After you have installed Spectrum™ Technology Platform you will then install the databases that support the module(s) you have installed. For example, if you have installed the Enterprise Geocoding Module, you will need to install databases that contain geospatial data; if you have installed the Universal Addressing Module, you will need to install databases that contain postal data. Most databases are included in your shipment, but some U.S. postal data must be downloaded from the USPS® website.

Once Spectrum™ Technology Platform, modules, and databases are installed, you install the client tools by downloading them from your Spectrum™ Technology Platform server. The client tools are:

- **Management Console**—Used for administering Spectrum™ Technology Platform.
- **Enterprise Designer**—Used for creating and modifying dataflows and process flows.
- **Interactive Driver**—Used to preview output from services.
- **Job Executor**—A command line tool that allows you to run jobs from a command line or script.

- **Process Flow Executor**—A command line tool that allows you to run process flows from a command line or script.

If you will be integrating Spectrum™ Technology Platform into an application, you will need to install the Client API on the computer where you will be developing the application. The Client API allows access to Spectrum™ Technology Platform through several programming languages, including Java, C++, and web services. You can install the Client API directly to your computer or on the Spectrum™ Technology Platform server, where it can be downloaded as needed.

Finally, with Spectrum™ Technology Platform installed successfully, you will need to obtain a license file from Pitney Bowes Software which provides long-term access to your software.

2

System Requirements

In this section:

Server Requirements

Operating Systems

- AIX 6.1 [1]
- AIX 7.1 [1, 2]
- HP-UX 11.31 (Itanium) [1, 3]
- Solaris 9 (SPARC only) [1]
- Solaris 10 (SPARC only) [1]
- Red Hat 5 [4]
- Red Hat 6.1 with the following required packages: [4]
  - Linux Standard Base
  - glibc.i686 glibc-devel.i686
  - zlib.i686 zlib.x86_64 zlib-devel.i686 zlib-devel.x86_64
  - libstdc++.i686 libstdc++-devel.i686 libstdc++-devel.x86_64
  - compat-libstdc++-33.i686 compat-libstdc++-33.x86_64
- SUSE 10.0 [4] (requires glibc-2.4-31.2 which is approximated by the standard SUSE 10.1 distribution)
- SUSE 11.1 [4] (requires glibc-2.9 or glibc-2.11)

Disk Space

- 2 GB to install all modules, less if installing fewer modules
- You will also be loading one or more databases. The total disk space varies, depending on what modules(s) and what database(s) you are installing.
- Typically you should have 2 GB to 3 GB of temp space for the installation to extract the files it needs, but you may need more depending on the options you are installing. If necessary, modify your IATEMPDIR environment variable to point to a location with enough space.

Memory

- Basic memory requirement: 2 GB
- The Enterprise Geocoding Module requires an additional 500 MB memory for the first non-U.S. geocoder, and 250 MB for each additional non-U.S. geocoder, with these exceptions:
  - Germany, Australia, and the U.K. each require 1 GB additional memory

---

1 The Universal Address Module component Validate Address AUS is not supported on this operating system.

2 To use the Address Now Module on this operating system you must install the gcc332 libraries.

3 The Address Now Module, GeoConfidence Module, Location Intelligence Module, and Universal Address Module component Validate Address Global are not supported on this operating system.

4 The Universal Addressing Module component Validate Address AUS is not supported on this operating system.

- Japan requires 2 GB additional memory

Note that you may distribute processing among multiple servers which may allow you to take advantage of existing hardware instead of adding memory to a single Spectrum™ Technology Platform server. This is referred to as remote server processing. For information on remote servers, see the *Spectrum™ Technology Platform User's Guide*.

- The Data Normalization Module and Universal Name Module require additional memory if you use the following name databases:
  - Arabic Plus Pack: 5.5 GB
  - Asian Plus Pack - Chinese: 32 MB
  - Asian Plus Pack - Japanese: 1.6 GB
  - Asian Plus Pack - Korean: 8 MB
  - Core Names: 1.1 GB

  Note: The Arabic Plus Pack and Asian Plus Pack databases are only supported on 64-bit computers.

Network Ports

- 1701—Used to maintain a connection to an internal database.
- 8080—Used for HTTP communication with all clients including COM, .NET, C, etc. During the installation process you are given the option to specify a different port for HTTP communication.
- 10119—Used for proprietary SOCKET client communication protocol.

Note: You can modify these ports by editing the following file: `$G1DCG/server/app/conf/spring/spectrum-container.properties`. You will need to restart the server if you change this file.

Network port conflicts can result in module components failing to start up. One indication that a component has failed to start up is if it does not appear in the Management Console. To troubleshoot the problem, look in the Spectrum™ Technology Platform log file. This log shows which port is causing the problem. You can find the Spectrum™ Technology Platform log file in:

```
$G1DCG/server/app/repository/logs/server.log
```

where %G1DCG% and $G1DCG are the environment variables for the Spectrum™ Technology Platform directory.

Additional Requirements

- For all Unix/Linux systems, a minimum of 8192 file descriptors is required. This can be set by running the ulimit command:

  ```
  ulimit -n 8192
  ```

- For IBM AIX systems only, you must download and install Java 6 before installing Spectrum™ Technology Platform. If you do not have Java 6 installed, download and install it from:

  www.ibm.com/developerworks/java/jdk/aix/service.html

- DVD-ROM drive with driver support for mounting ISO 9660 filesystems
- Root privileges

Requirements for the Address Now Module

- Redhat/SuSe Linux—512 MB RAM, gcc compiler, and library version 4.1.2
- Sun Solaris—At least an UltraSparc processor with a speed of at least 400 MHz and at least 512 MB RAM, gcc compiler, and library version 3.3
- AIX—Version 5.3 with gcc compiler and library version 3.3
- HP-UX—Version 11.23 or greater with gcc compiler and library version 4.1

Client Tools Requirements

- Operating system requirements:
  - Windows XP
  - Windows 7
- The following is the amount of disk space needed to install the client without any modules. Each module you install requires additional disk space.
  - Enterprise Designer, Management Console, and Interactive Driver—86 MB
  - Client API—1.25 GB
- Microsoft .NET Framework 4.0 (available from the Spectrum™ Technology Platform Welcome Page, http://<SpectrumServerName>:8080)
- A monitor with 800 x 600 resolution
- Maximum DPI settings:
  - Windows XP: Large size (120 DPI)
  - Windows 7: Medium - 125%
- JDK 1.6 is required to install the Client API. Be sure that JDK 1.6 is in the PATH environment variable. Once installed, the Client API supports JDK 1.4 and greater.
- iSeries platforms support the Client API in Java only
- Adobe Reader 7 or later (for viewing and saving reports)
- To use the Business Steward Portal or the Data Hub Relationship Analysis Client, a browser with Microsoft Silverlight 4 installed. See **www.microsoft.com/getsilverlight**.

3

Installing the Server and Modules

In this section:

Upgrading from a Previous Version

Before upgrading, be sure to read the release notes for the new version. The release notes contain important compatibility information as well as release-specific installation notes.

1. Source the `<SpectrumLocation>/server/bin/setup` script.
2. Execute the `<SpectrumLocation>/server/bin/server.stop` script to shut down the Spectrum™ Technology Platform server.
3. If you have the Address Now Module installed, shut down the Address Now server by executing the `<SpectrumLocation>/server/bin/stop_adn_server.sh` script.
4. If you have the Global Sentry Module installed, shut down the Global Sentry server by executing the `<SpectrumLocation>/server/GlobalSentryDatabase/bin/globalsentrydb.stop` script.
5. The files in the folder `<SpectrumPlatformLocation>\server` will be deleted. Before upgrading, review the files and folders in this location and back up any files you have modified. If you are installing the Siebel or SAP modules, be sure to back up existing dataflows, especially any that are customized.
6. If you want to change the location where Spectrum™ Technology Platform is installed, uninstall the existing Spectrum™ Technology Platform installation first. For instructions on uninstalling, see **Removing Spectrum** on page 91.
7. Run the Spectrum™ Technology Platform installer to upgrade your system.

Installing Spectrum™ Technology Platform

Before installing Spectrum™ Technology Platform, be sure to read the release notes. The release notes contains important compatibility information as well as release-specific installation notes.

Note: You must have root privileges to install Spectrum™ Technology Platform.

1. Open the Spectrum™ Technology Platform installation package.
   - If you are installing from DVD:
     - Insert the Spectrum™ Technology Platform DVD.
     - If it does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system. For more information, see your system's man pages for the mount(1) command and allow for lower case.

       Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system. You may experience file loading difficulties when using DVDs mounted with the Rockridge extension. Pitney Bowes Software recommends using the standard ISO 9660 format without extensions.

   - If you are downloading Spectrum technology Platform:

- Go to **www.g1.com/support**, log in, and browse to My Products > Spectrum™ Technology Platform. Download the software and obtain the access key for each module you are installing as well as the databases for your modules.
- Extract the zip file. Make sure that the **Use Folder Names** check box is selected before extracting the files, otherwise your folder structure will not be correct.
- Transfer the extracted file to the server where you want to install Spectrum™ Technology Platform.

2. Change the directory to the location of `install.sh` (either the DVD or the location where you downloaded Spectrum™ Technology Platform from the Pitney Bowes Software web site). For example:

   ```
   cd /cdrom/
   ```

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

3. Be sure you have execute permission on the files by typing the following command:

   ```
   chmod a+x install.sh
   ```

4. Execute install.sh from the media or from the location where you placed the downloaded files.
5. The install script walks you through the installation process.

   - When prompted, select the modules that you want to install.

     - If you are upgrading from a previous version of Spectrum™ Technology Platform, your currently installed modules are selected.
     - If this is the first time you are installing Spectrum™ Technology Platform, make sure that Spectrum™ Technology Platform is selected.
     - If you are installing the SAP Module you must install these modules: **Address Now Module** and **Advanced Matching Module**. The Enterprise Tax Module is optional. The **Universal Addressing Module** is only required if you will be using the SAP module service SAPValidateAddressWithCandidates.
     - If you are installing the Siebel Module you must install these modules: **Advanced Matching Module**, *Data Normalization Module*, and **Universal Name Module** You may need to install one or more of these modules depending on the features you have licensed: **Address Now Module**, **Enterprise Geocoding Module**, and **Universal Addressing Module**.

   - If you are on a 64-bit platform, you are prompted to select 32-bit or 64-bit architecture. Note that after you make this selection, you will be able to change it just once upon upgrading to a new version. After that, you will need to uninstall and reinstall Spectrum™ Technology Platform to make a subsequent change.
   - If no previous version is detected, you are prompted for the HTTP port number. Enter the HTTP port that you want to use and then press **Enter**. The default is `8080`. For a complete listing of ports used by Spectrum™ Technology Platform see **System Requirements** on page 13.
   - When prompted, enter your access keys, one key per line. The number of access keys you have depends on which features you licensed. Your access keys can be found on the packing slip included with your shipment and the shipment notification email. Access keys are case sensitive. If you do not have access keys, you can obtain them from **www.g1.com/support**, under My Products. Note that some databases require access keys, which you should enter now.

   Note: Access keys expire 21 days after receipt.

6. If you installed the Global Sentry Module, the server starts automatically. To start or stop the server manually:
   a) Change directories to `<Spectrum Platform>/GlobalSentryDatabase/bin.`
   b) Source the setup file by typing `. ./setup`.
   c) Type `./globalsentrydb.start` to start the server.
   d) Type `./globalsentrydb.stop` to stop the server.

Using the Silent Installer

The silent install process allows you to pre-configure the installation process so that it runs without user intervention. Instead of the user responding to prompts from the installation process for information such as the installation location and which modules to install, you specify these responses in a properties file which the installer uses instead of user prompts.

1. On the Spectrum™ Technology Platform DVD, browse to the `SilentInstaller` folder. If you downloaded Spectrum™ Technology Platform from the technical support website, this folder is in the media image you downloaded.
2. Open the file `installer.properties` in a text editor.
3. Edit `installer.properties` as necessary to specify the installation settings you want to use. See the comments in `installer.properties` for additional information.
4. To run the installer in silent mode, place `installer.properties` in the same directory as install.sh. When the installer executes it will detect `installer.properties` and automatically run in silent mode.

   Alternatively, you can place `installer.properties` in different directory and give the absolute path to the property in the command prompt using the `-f` argument, as follows:

   ```
   install.sh -f %PathOfPropertyFile%\installer.properties
   ```

Adding a Language Pack

A language pack provides translated UI and documentation for a particular language. To install a language pack, follow this procedure.

1. Stop the Spectrum™ Technology Platform server.
2. Download the language pack from **www.g1.com/support**.
3. Extract the downloaded zip file to a temporary location on the Spectrum™ Technology Platform server.
4. Do one of the following:
   - For Windows, open the `i18n` folder and run `i18ninstall.exe`.
   - For Linux and Unix, open the `i18n` folder and be sure you have execute permission on the files by typing the following command: `chmod a+x i18ninstall.sh`. Then, execute `i18ninstall.sh`.

5. Follow the prompts.
6. After the installation completes, start the Spectrum™ Technology Platform server.

4

Installing Databases

In this section:

Introduction to Databases

Databases provide the information that Spectrum™ Technology Platform modules use to process data, such as postal address data, name data, or geospatial data. These databases vary in size from a few hundred megabytes to over a gigabyte.

Installing the Address Now Module Database

Note: If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, please check that the Oracle environment variables are not active when you perform the DVD database loads.

1. Copy the `liclcs.sbi` license file provided by Pitney Bowes Software into the following directory: `<SpectrumPlatformLocation>/server/modules/anow/license`.
2. Make sure that Spectrum™ Technology Platform is stopped. To stop Spectrum™ Technology Platform, change the working directory to the bin directory of where Spectrum™ Technology Platform is installed, then type the following command:

   ```
   ./server.stop
   ```

3. Insert the database DVD containing the database(s) you want to install.

   Note: You must install the Postal databases if you want to use the Enhanced databases.

4. If your system does not auto-mount the DVD, issue the appropriate mount command to indicate that the DVD device is a file system.

   If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

5. Run the `load_adn_db` script inside `<SpectrumPlatformLocation>/server/bin`.

6. Press <Enter> to accept the default location of the Address Now directory: `<SpectrumPlatformLocation>/server/modules/anow`. Do not change this path or the database will not install correctly.
7. Follow the prompts as the script verifies your environment and database location. When prompted for the location of the Installation Media Directory, be sure to select the directory on the database DVD that contains the **kbase** folder.
8. Start the Address Now server by going to `<SpectrumPlatformLocation>/server/bin` and running the `start_adn_server` script.
9. Start the Spectrum™ Technology Platform by changing the working directory to the bin directory of where Spectrum™ Technology Platform is installed, then type the following command:

   ```
   ./server.start
   ```

Installing the Advanced Matching Module Database

The Advanced Matching Module provides a load utility to install databases. The database files that you install depend on the databases you have licensed.

1. If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, check that the Oracle environment variables are not active when you perform the DVD database loads.
2. Make sure that Spectrum™ Technology Platform is stopped. To stop Spectrum™ Technology Platform, change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed, then type the following command:

   ```
   ./server.stop
   ```

3. Insert the database DVD or download the database from **www.g1.com/support**.

   Note: If you download the database from the technical support web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

4. If you are installing from DVD and your system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system.

   If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

5. Change the working directory to the bin directory of where Spectrum™ Technology Platform is installed.
6. Source the "setup" bourne shell script to setup the environment by typing the following command:

   ```
   . ./setup
   ```

7. Execute the script for installing the database by typing the following command:

   ```
   ./installdb_cdq
   ```

8. Follow the prompts as the script verifies your environment and database location.

9. If the database requires keys and you have not entered the key, see **Adding Modules and Features** on page 87 for instructions on adding access keys.
10. Open the file `<SpectrumDirectory>/server/bin/wrapper/wrapper.conf` in a text editor.
11. Increase the Java settings for initial heap size (`wrapper.java.initmemory`) and maximum heap size (`wrapper.java.maxmemory`) to reflect the total amount of memory required for the Arabic Plus Pack and Asian Plus Pack. For the amount of memory required by these databases, see **Memory** on page 14.
12. Save and close `wrapper.conf`.
13. Start the Spectrum™ Technology Platform by changing the working directory to the bin directory of where Spectrum™ Technology Platform is installed, then type the following command:

    ```
    ./server.start
    ```

Installing Data Normalization Module Databases

The Data Normalization Module provides a load utility to install databases for the Advanced Transformer, Open Parser, and Table Lookup components. The database files that you install depend on the databases you have licensed. Use this list of database tables to determine which files you should download and install. For more information on the tables contained in each database, refer to the reference documentation for each component.

Advanced Transformer

- Data Normalization Module - Base Tables

Open Parser

- Data Normalization Module - Base Tables
- Core Names Database
- Company Names Database
- Arabic Plus Pack
- Asian Plus Pack

Table Lookup

- Data Normalization Module - Base Tables
- Core Names Database
- Arabic Plus Pack
- Asian Plus Pack
- ZREPLACE (Used by the SAP Module for French address validation)

1. If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, check that the Oracle environment variables are not active when you perform the DVD database loads.
2. Make sure that Spectrum™ Technology Platform is stopped. To stop Spectrum™ Technology Platform, change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed, then type the following command:

```
./server.stop
```

3. Insert the database DVD or download the database from **www.g1.com/support**.

   Note: If you download the database from the technical support web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

4. If you are installing from DVD and your system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system.

   If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

5. Change the working directory to the bin directory of where Spectrum™ Technology Platform is installed.
6. Source the "setup" bourne shell script to setup the environment by typing the following command:

   ```
   . ./setup
   ```

7. Execute the script for installing the database by typing the following command:

   ```
   ./installdb_dnm
   ```

8. Follow the prompts as the script verifies your environment and database location.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

9. If the database requires keys and you have not entered the key, see **Adding Modules and Features** on page 87 for instructions on adding access keys.
10. Open the file `<SpectrumDirectory>/server/bin/wrapper/wrapper.conf` in a text editor.
11. Increase the Java settings for initial heap size (`wrapper.java.initmemory`) and maximum heap size (`wrapper.java.maxmemory`) to reflect the total amount of memory required for the Arabic Plus Pack and Asian Plus Pack. For the amount of memory required by these databases, see **Memory** on page 14.
12. Save and close `wrapper.conf`.
13. Start the Spectrum™ Technology Platform by changing the working directory to the bin directory of where Spectrum™ Technology Platform is installed, then type the following command:

    ```
    ./server.start
    ```

Installing Enterprise Geocoding Module Databases

This module has several databases. You may have one or more of these, depending on the features you have licensed.

- **Early Warning System (U.S. Only)** on page 31

International Geocoding Databases

International geocoding databases contain the data necessary to perform geocoding and reverse geocoding for locations outside the U.S. Each country has its own database, and some countries have optional databases that provide enhanced geocoding.

Note: If you install multiple databases, install each database to a separate folder.

To install the international geocoding databases you need to meet the following requirements:

- You must have Java 6 installed.
- You must point your Java_Home environment variable to your JDK 1.6 installation location.

Note: If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, please check that the Oracle environment variables are not active when you perform the DVD database loads.

1. Insert the database DVD or download the database from **www.g1.com/support**.

   Note: If you download the database from the technical support web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

2. If your system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system. If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

3. Change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed.
4. Source the "setup" bourne shell script to setup the environment by typing the following command:

   ```
   . ./setup
   ```

5. Execute the `dbloader.bin` script.
6. Follow the prompts as the script verifies your environment and database location.

   Note: Do not install geocoding databases on a network drive. Doing so can cause performance problems.

7. If the database requires keys and you did not enter the key for the database, see **Adding Modules and Features** on page 87 for instructions on adding access keys.
8. After you install the database files, use the Database Resource tool in the Management Console to define the database as a resource. For more information, see "Configuring Database Resources" chapter of the *Spectrum™ Technology Platform User's Guide*.

Note: If you installed the Australia Geocoded National Address File (G-NAF), you must specify the GNAF123 and GNAF456 subfolders as separate database resources in the Management Console.

If you install the Australia Geocoded National Address File (G-NAF), there will be two subfolders: `GNAF123` and `GNAF456`. `GNAF123` contains the point-level dictionary. This has the highest precision of geocoding (characterized by Reliability Level 1, 2, or 3.) `GNAF456` contains the remainder of address information in G-NAF that does not meet high precision geocoding criteria (characterized by Reliability Level 4, 5, or 6.) We recommend that you use both databases to validate the existence of addresses but only use `GNAF123` for parcel-level geocoding. If you do not require parcel-level geocodes you can use `GNAF456` for geocoding.

U.S. Geocoding Databases

The U.S. geocoding databases contain the spatial data necessary to perform address standardization and geocoding. You must install at least one of these databases.

- **Centrus Enhanced Geocoding**—This database consists of TIGER data provided by the U.S. Geological Survey and address data provided by the U.S. Postal Service.
- **GDT Geocoding**—This database provides more up-to-date data than the Centrus Enhanced Geocoding database. It requires an additional license. GDT data is provided by Tele Atlas, a third-party provider of spatial data, and postal data from the U.S. Postal Service.
- **NAVTEQ Geocoding**—This database provides more up-to-date data than the Centrus Enhanced Geocoding database. It requires an additional license. NAVTEQ data is provided by NAVTEQ, a third-party provider of spatial data. For more information about these databases, contact your sales representative.
- **ZIP + 4 Centroid**—This database provides only address standardization and ZIP + 4 centroid matching. It does not provide street-level matching.

These databases use proprietary files called GSD files. For ZIP Code centroid matching, the files us.Z9 contains all the centroid info for all states and normally has a z9 extension.

Each geocoding database has an optional Statewide Intersections Index. The Statewide Intersection Index is designed to enable fast intersection identification on a statewide basis. For example, the Statewide Intersection Index will allow the database search for "1st and Main St, CO" and return a list of possible matches in Colorado more quickly than searching the entire geocoding database for each instance of the intersection.

Note: If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, please check that the Oracle environment variables are not active when you perform the DVD database loads.

1. Insert the database DVD or download the database from **www.g1.com/support**.

   Note: If you download the database from the technical support web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

2. If you are installing from DVD and your system auto-mounts, skip this step. If you system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system. If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

3. If you have previously installed the Centrus Data Product Suite, delete any copies of the .gsd, .gsl, .gsi, .gsu, .gsz, .z9, .dir, .las, .los, .apn and .elv files.
4. Copy the files you need to a local directory.
5. If you installed the `Zip5.gs_` file, decrypt the file using the Centrus_decrypt program located on your installation media in the `/datasets/unix/ <platform>` directory. Enter the password when prompted.

   Note: You can find your password in the email containing your license file.

6. After you install the database files, use the Database Resource tool in the Management Console to define the database as a resource. For more information, see "Configuring Database Resources" chapter of the *Spectrum™ Technology Platform User's Guide*.

U.S. Reverse Geocoding Databases

If you are licensed for Reverse Geocode US Location, you need additional data files called gsx files. The data installation wizard prompts you to create these files. If you choose not to create these files you must run the batchind utility after installing the geocoding database. This utility creates the reverse geocoding files. This utility can be found in `server/modules/geostan/bin`. Before running batchind, create a subdirectory called `gsx` in the location where you installed the geocoding database. When you run batchind, specify the `gsx` folder as the location for the gsx files.

Points Databases (U.S. Only)

Points databases contain data for locating the center of a parcel. These databases provides enhanced geocoding accuracy for internet mapping, property and casualty insurance, telecommunications, utilities, and others.

- **Centrus Points**—This database contains the data necessary to locate the center of a parcel or building. It does not contain assessor's parcel number (APN) or elevation data.
- **Centrus Elevation**—This database contains the same data as Centrus Points, plus elevation data.
- **Centrus Enhanced Points**—This database contains the same data as Centrus Points, plus APN data.
- **Centrus Premium Points**—This database contains the same data as Centrus Points, plus both APN and elevation data.
- **Centrus Tele Atlas Points Database**—The data in this database is provided by Tele Atlas, a third-party provider of spatial data.

Note: If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, please check that the Oracle environment variables are not active when you perform the DVD database loads.

1. Insert the database DVD or download the database from **www.g1.com/support**.

   Note: If you download the database from the technical support web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

2. If you are installing from DVD and your system auto-mounts, skip this step. If you system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system. If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

3. If you are installing a Centrus points database:
   a) If you have previously installed any of the Centrus points databases, delete these files: `cpoints.gsd`, `cpoints.gsi`, `cpoints.apn`, `cpoints2.apn`, `cpoints3.apn`, and `cpoints.elv`.
   b) Copy these files to the Spectrum™ Technology Platform server: `points.gsd`, `cpoints.gsi`, `cpoints.apn`, `cpoints2.apn`, `cpoints3.apn`, and `cpoints.elv`.
4. If you are installing the Centrus TomTom Points database:
   a) If you have previously installed the Centrus TomTom Points database (formerly the Centrus TeleAtlas Points database), delete these files: `points.gsd` and `points.gsi`.
   b) Copy these files to the Spectrum™ Technology Platform server: `points.gsd` and `points.gsi`.
5. After you install the database files, use the Database Resource tool in the Management Console to define the database as a resource. For more information, see "Configuring Database Resources" chapter of the *Spectrum™ Technology Platform User's Guide*.

Early Warning System (U.S. Only)

The USPS provides free Early Warning System (EWS) data to prevent matching errors due to the age of the address information in the .gsd files. The USPS creates a new EWS data set each week that you can download from the USPS website (**www.ribbs.usps.gov**).

To install the Early Warning System (EWS) database rename the database file from OUT to EWS.txt and place it in the same folder as the primary database.

Installing Enterprise Routing Module Databases

1. To install the routing databases you need to meet the following requirements:

   - You must have Java 6 installed.
   - You must point your Java_Home environment variable to your JDK 1.6 installation location.

   Note: If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, please check that the Oracle environment variables are not active when you perform the DVD database loads.

2. Insert the database DVD or download the database from **www.g1.com/support**.

   Note: If you download the database from the technical support web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

3. If you are installing from DVD and your system auto-mounts, skip this step. If you system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system.
4. If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

5. Change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed.
6. Source the "setup" bourne shell script to setup the environment by typing the following command:

   ```
   . ./setup
   ```

7. Execute the `dbloader.bin` script.
8. Follow the prompts as the script verifies your environment and database location.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

9. If the database requires keys and you did not enter the key for the database, see **Adding Modules and Features** on page 87 for instructions on adding access keys.
10. After you install the database files, use the Database Resource tool in the Management Console to define the database as a resource. For more information, see "Configuring Database Resources" chapter of the *Spectrum™ Technology Platform User's Guide*.

Installing Enterprise Tax Module Databases

Depending on the features you have licensed, you need to install one or more of these databases:

Installing Master Files, Taxware, Vertex, and Boundary Files

1. Insert the database disc, or download the database from the Pitney Bowes Software website.
2. Open a command prompt.
3. If the database that you are installing is larger than 2 GB, type the following two commands:

   ```
   export LARGE_FILE_LIMIT_2TB=1
   export USE_LARGE_FILE_API=1
   ```

4. Change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed.
5. Type the following to source the setup script:

   ```
   . ./setup
   ```

6. Run the database install script `installdb_gsl`.
7. Select the database you want to install:

   - **GeoTAX Master Files**—The master files are the main data files used by the Enterprise Tax module. They identify all geographic components associated with a street address, such as the latitude/longitude, census tract, and block group. The GeoTAX master files are on the disc labeled "GeoTAX Subscription."
   - **Boundary File**—Boundary files provide additional data about locations of special tax districts: Special Purpose Tax Districts (SPD.txb), Insurance Premium Tax Districts (IPD.txb), Payroll Tax Districts (PAY.txb), and Personal Property Tax Districts (PTD.txb).
   - **Taxware® cross reference file**—Select this option to install the Taxware® sales tax cross-reference file. Sales tax cross-reference files allow you to use the Enterprise Tax module to determine tax jurisdictions for a given address, then use Taxware® software to determine the sales tax rates for those jurisdictions.
   - **Vertex® cross reference file**—Select this option to install the Vertex® cross-reference file if you obtained the file from Vertex. Sales tax cross-reference files allow you to use the Enterprise Tax module to determine tax jurisdictions for a given address, then use Vertex® software to determine the sales tax rates for those jurisdictions.
   - **PBBI Vertex® cross reference file**—Select this option to install the Vertex® cross-reference file supplied by Pitney Bowes Software.

8. Specify the source folder. Some databases also require you to specify the source file.
9. Specify the destination. The program creates the specified database.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

10. In Management Console, open the Enterprise Tax Module database resource tool and define a database resource that includes the database you just installed. Be sure to update Assign GeoTAX info to use the new database resource.

Installing Florida Format Files

You can obtain the Florida format files from the Florida Department of Revenue. The Florida Department of Revenue compiles the database based on county.

1. Download the files from the Florida website at: **geotax.state.fl.us/dorPubIdx.jsp**
2. Unzip the downloaded files and transfer them to the server.

   Note: Be sure to FTP your files in binary format.

3. Combine the county files into a single file if you downloaded more than one county. If you downloaded the entire state list, you have approximately 67 files. You must combine all the files into one file.
4. Change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed.
5. Type the following to source the setup script:

```
. ./setup
```

6. Run the database install script `installdb_gsl`.
7. Specify the source folder. Some databases also require you to specify the source file.
8. Specify the destination. The program creates the specified database.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

9. Ensure the DD_G1GTSST, DD_G1GTSSN, and DD_G1GTSSD file definition variables are defined.
10. In Management Console, open the Enterprise Tax Module database resource tool and define a database resource that includes the database you just installed. Be sure to update Assign GeoTAX info to use the new database resource.

Installing TS-158 Format Files

The Federation of Tax Administrators (FTA) maintains a website with links to all data sources that use the TS-158 format.

1. Download the files from: **geotax.state.fl.us/dorPubIdx.jsp**.
2. Unzip the downloaded files and transfer them to the Spectrum™ Technology Platform server.
3. State files are often broken up into individual county files. Combine all state and/or county files into a single file.
4. Change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed.
5. Type the following to source the setup script:

   ```
   . ./setup
   ```

6. Run the database install script `installdb_gsl`.
7. Select **State supplied TS-158 format file**.
8. Specify the source folder. Some databases also require you to specify the source file.
9. Specify the destination. The program creates the specified database.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

10. Ensure that the DD_G1GTGST, DD_G1GTGSN, and DD_G1GTGSD file definition variables are defined.
11. In Management Console, open the Enterprise Tax Module database resource tool and define a database resource that includes the database you just installed. Be sure to update Assign GeoTAX info to use the new database resource.

Installing the GeoTAX Auxiliary File

The GeoTAX Auxiliary file contains new addresses that have not yet been added to the Master File. It provides the most up-to-date address data possible.

1. Insert the database disc, or download the database from the Pitney Bowes Software website.

2. Change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed.
3. Type the following to source the setup script:

   ```
   . ./setup
   ```

4. Run the database install script `installdb_gsl`.
5. Follow the prompts to select the file input and output areas, enter the directory of the GeoTAX auxiliary file, and enter the name of the GeoTAX auxiliary file.

   The program creates the indexed sequential file g1gtax2 in the output area you specified. The Enterprise Tax Module can now use the auxiliary file for matching.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

6. In Management Console, open the Enterprise Tax Module database resource tool and define a database resource that includes the database you just installed. Be sure to update Assign GeoTAX info to use the new database resource.

Installing a User Auxiliary File

A user-defined auxiliary file contains addresses that override the results from master files in street-level matching. For instructions on creating a user-defined auxiliary file, see the *Spectrum™ Technology Platform User's Guide*.

1. Change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed.
2. Type the following to source the setup script:

   ```
   . ./setup
   ```

3. Run the database install script `installdb_gsl`.
4. Select **User auxiliary file**.
5. Follow the prompts to select the file input and output areas, enter the directory of the GeoTAX auxiliary file, and enter the name of the GeoTAX auxiliary file.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

6. The program creates the file G1GTAUX.
7. In Management Console, open the Enterprise Tax Module database resource tool and define a database resource that includes the database you just installed. Be sure to update Assign GeoTAX info to use the new database resource.

Installing Payroll Tax Correspondence Files

Payroll tax correspondence files, also called payroll tax cross-reference files, allow you to use third-party software to determine the payroll tax rates for the tax jurisdictions returned by Assign GeoTAX Info.

1. Insert the database disc, or download the correspondence file from the Pitney Bowes Software website.

2. Change the working directory to the `server/bin` directory of where Spectrum™ Technology Platform is installed.
3. Run the database install script `installdb_gsl`.
4. Select **Payroll tax correspondence file**.
5. Specify the source folder. Some databases also require you to specify the source file.
6. Specify the destination. The program creates the specified database.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

7. The program produces a database files called G1GTPTC and G1GTPTC.vix.
8. In Management Console, open the Enterprise Tax Module database resource tool and define a database resource that includes the database you just installed. Be sure to update Assign GeoTAX info to use the new database resource.

Installing the Global Sentry Module Database

The following databases are required to run Global Sentry in real-time mode:

- globalsentrydb.script
- globalsentrydb.properties

The following databases are required to run Global Sentry in batch mode:

- globalsentrydb.script
- globalsentrydb.properties
- globalsentrydb.addresses.csv
- globalsentrydb.fullnames.csv
- globalsentrydb.ids.csv
- globalsentrydb.names.csv

In addition, you must install the Data Normalization Module databases to use Global Sentry. For instructions, see **Installing Data Normalization Module Databases** on page 26.

Note: If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, please check that the Oracle environment variables are not active when you perform the DVD database loads.

1. If you have an existing Global Sentry database installed:
   a) Change directories to `<InstallLocation>/GlobalSentryDatabase/bin`.
   b) Type: `./globalsentrydb.stop`
2. Make sure that Spectrum™ Technology Platform is stopped. To stop Spectrum™ Technology Platform, change the working directory to the bin directory of where Spectrum™ Technology Platform is installed, then type the following command:

   ```
   ./server.stop
   ```

3. Insert the database DVD or download the database from **www.g1.com/support**.

   Note: If you download the database from the technical support web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

4. If you are installing from DVD and your system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system. If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

5. In the `server/bin` directory, source the "setup" bourne shell script to setup the environment by typing the following command:

   ```
   . ./setup
   ```

6. Execute the script for installing the database by typing the following command:

   ```
   ./installdb_ois
   ```

7. Follow the prompts as the script verifies your environment and database location.

   Note: You may install databases on a network drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

8. If the database requires keys and you did not enter the key for the database, see **Adding Modules and Features** on page 87 for instructions on adding access keys.
9. After installing the Global Sentry Module database, you must configure a JDBC connection in the Spectrum™ Technology Platform Management Console.
10. Type `./globalsentrydb.start` to start the server.
11. Start Spectrum™ Technology Platform. To start Spectrum™ Technology Platform, change the working directory to the bin directory of where Spectrum™ Technology Platform is installed, then type the following command:

    ```
    ./server.start
    ```

12. Open Management Console by clicking **Start** > **Programs** > **Pitney Bowes** > **Spectrum™ Technology Platform** > **Client Tools** > **Management Console**.
13. Under Resources, select **JDBC Drivers**.
14. Click **Add**.
15. Type the JDBC properties in the applicable text box:

    - JDBC driver configuration name: HSQLDB
    - JDBC driver class name: org.hsqldb.jdbcDriver
    - Connection string template: jdbc:hsqldb:hsql://${host}:${port}/${instance}

16. Add the following driver file:

    file:<SpectrumPlatformLocation>/GlobalSentryDatabase/lib/hsqldb.jar

17. Add the following Connection properties:

    a) Click **Add**. In the JDBC Connection property dialog box, type "`Password`" in both the **Label** and the **Property Token** fields and click **OK**.

b) Click **Add**. In the JDBC Connection property dialog box type "`User`" in the label and the property token fields and click **OK**.

18. Click **OK**.
19. Under Resources, click **Connections**.
20. Click **Add**.
21. Define the following connection properties:
    - Connection name: Global Sentry
    - Database driver: select the HSQLDB JDBC driver that you created in the previous steps.
22. Enter the following values in the **Connection Properties** dialog box:
    - user: sa
    - password: <there is no password>
    - host: localhost or <your server name>
    - port: 9001
    - instance: globalsentrydb
23. Click **Test** to verify the connection works.
24. Click **OK**, then click **OK** again.

Installing Location Intelligence Module Databases

1. Place the data on the file system, or install the data into a database.

   Note: If your data is in the form of MapInfo TAB files, you can use the MapInfo EasyLoader utility to upload the TAB files into a remote database such as Oracle, SQL Server, Microsoft Access or PostgresSQL/ PostGIS. The spatial information in the TAB files is maintained in the remote database. The EasyLoader utility is available for download at **http://www.pbinsight.com/support/product-downloads/for/easyloader**. For information about how to use EasyLoader, see the *EasyLoader User Guide* that is included when you install EasyLoader.

2. Use the Named Connection and Named Table tools in the Location Intelligence Module section of the Management Console to define the database resources.

   For more information, see the "Configuring Database Resources" chapter of the *Spectrum™ Technology Platform User's Guide*.

Installing Universal Addressing Module Databases

This procedure describes how to install databases used by Get Candidate Addresses, Get City State Province, Get Postal Codes, Validate Address, and Validate Address AUS. For instructions on installing databases used by Validate Address Global, see **Installing Validate Address Global Databases** on page 39.

Note: If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, please check that the Oracle environment variables are not active when you perform the DVD database loads.

1. Insert the database DVD or download the database from **www.g1.com/support**.

   Note: If you download the database from the technical support web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

2. If you are installing from DVD and your system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system. If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

3. Change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed.
4. Source the "setup" bourne shell script to setup the environment by typing the following command:

   ```
   . ./setup
   ```

5. Execute the script for installing the database by typing the following command:

   ```
   ./installdb_unc
   ```

6. Follow the prompts as the script verifies your environment and database location.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

7. If you choose to install Residential Delivery Indicator, an optional database that you license directly from the U.S. Postal Service, you are prompted for the nine-digit RDI table and the eleven-digit RDI table. These are the .R9 and .R11 files provided from the U.S. Postal Service.
8. If the database requires keys and you have not entered the key, see **Adding Modules and Features** on page 87 for instructions on adding access keys.

Installing Validate Address Global Databases

This procedure describes how to install the databases used by the Validate Address Global stage. For instructions on installing databases used by other Universal Addressing Module stages, see "Configuring Database Resources" chapter of the *Spectrum™ Technology Platform User's Guide*.

1. Insert the database DVD or download the database from the technical support web site, **www.g1.com/support**.

   Note: If you download the database from the Pitney Bowes Software web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

2. Unzip the database file to the location you want. The database zip files are:

   - VAGlobal-EMEA.zip—Contains the data for Europe, Middle East, and Africa.

- VAGlobal-APAC.zip—Contains the data for Asia-Pacific.
- VAGlobal-Americas.zip—Contains the data for the Americas.

Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

3. To install the unlock code:
   a) Open the following file in a text editor:
      `<SpectrumLocation>/server/modules/addressglobal/conf/unlockcodes.txt`
   b) Enter your unlock codes, one per line.
   c) Save and close the file.

Installing Validate Address Loqate Databases

This procedure describes how to install the databases used by the Validate Address Loqate stage. For instructions on installing databases used by other Universal Addressing Module stages, see "Configuring Database Resources" chapter of the *Spectrum™ Technology Platform User's Guide*.

1. Insert the database DVD or download the database from the technical support web site, **www.g1.com/support**.

   Note: If you download the database from the Pitney Bowes Software web site, it will be downloaded as a zip file.

2. If you are installing from DVD and your system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system. If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

3. Unzip the database file(s) to the location you want. If you are installing data from multiple zip files or discs, be sure to unzip them all to the same location. The database zip files are:

   - LQ0—Contains general database setup files.

     Note: Regardless of which set of data you use, the files in LQ0- must be installed.

   - LQ1—Contains the data for Middle East, Africa, and Asia-Pacific.
   - LQ2—Contains the data for North, Central, and South America.
   - LQ3—Contains the data for Europe.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

4. Change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed.
5. Source the "setup" bourne shell script to setup the environment by typing the following command:
   `. ./setup`
6. Execute the script for installing the database by typing the following command:

```
./install.bin
```

7. Follow the prompts as the script verifies your environment and database location.
8. If the database requires keys and you have not entered the key, see **Adding Modules and Features** on page 87 for instructions on adding access keys.

Installing Universal Name Module Databases

The Universal Name Module provides a load utility to install databases. The database files that you load depend on the databases you have licensed.

1. If you have Oracle environment variables set in your profile, these environment variables may interfere with DVD database loading processes. If you experience database loading problems and are using Oracle, check that the Oracle environment variables are not active when you perform the DVD database loads.
2. Make sure that Spectrum™ Technology Platform is stopped. To stop Spectrum™ Technology Platform, change the working directory to the `bin` directory of where Spectrum™ Technology Platform is installed, then type the following command:

   ```
   ./server.stop
   ```

3. Insert the database DVD or download the database from **www.g1.com/support**.

   Note: If you download the database from the technical support web site, it will be downloaded as a zip file. Unzip the database before proceeding with the installation.

4. If you are installing from DVD and your system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system.

   If necessary, issue the `/etc/filesystem` command to update your system so that it recognizes this file system. Specify the correct device name for the DVD device on your system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system.

5. Change the working directory to the bin directory of where Spectrum™ Technology Platform is installed.
6. Source the "setup" bourne shell script to setup the environment by typing the following command:

   ```
   . ./setup
   ```

7. Execute the script for installing the database by typing the following command:

   ```
   ./installdb_cdq
   ```

8. Follow the prompts as the script verifies your environment and database location.

   Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

9. If the database requires keys and you have not entered the key, see **Adding Modules and Features** on page 87 for instructions on adding access keys.
10. Open the file `<SpectrumDirectory>/server/bin/wrapper/wrapper.conf` in a text editor.

11. Increase the Java settings for initial heap size (`wrapper.java.initmemory`) and maximum heap size (`wrapper.java.maxmemory`) to reflect the total amount of memory required for the Arabic Plus Pack and Asian Plus Pack. For the amount of memory required by these databases, see **Memory** on page 14.
12. Save and close `wrapper.conf`.
13. Start the Spectrum™ Technology Platform by changing the working directory to the bin directory of where Spectrum™ Technology Platform is installed, then type the following command:

    ```
    ./server.start
    ```

5

Installing Client Tools

In this section:

Installing the Client Tools

Before installing, be sure to read the release notes. The release notes contains important compatibility information as well as release-specific installation notes.

The Spectrum™ Technology Platform client applications are Microsoft Windows applications that you use to administer your server and design and run jobs. You must install them on a computer running Microsoft Windows. Even though the client applications are Windows applications, you can use them with a server running on Unix or Linux.

- **Management Console**—Use the Management Console to set processing defaults, manage jobs, specify security settings, and other administrative tasks.
- **Enterprise Designer**— Use Enterprise Designer to create and manage dataflows.
- **Interactive Driver**—Use Interactive Driver to test different processing settings. Interactive Driver allows you to run a small number of records through a process to preview the result.
- **Job Executor**—The Job Executor is a command line tool that allows you to run a job from a command line or script. The job must have been previously created and saved on Spectrum™ Technology Platform using Enterprise Designer.
- **Process Flow Executor**—The Process Flow Executor is a command line tool that allows the execution of a process flow from a command line or script. The process flow must have been previously created and saved on Spectrum™ Technology Platform using Enterprise Designer.

To install the client tools:

1. Open a web browser and go to the Spectrum™ Technology Platform Welcome Page at:

   http://<servername>:<port>

   For example, if you installed Spectrum™ Technology Platform on a computer named "myspectrumplatform" and it is using the default HTTP port 8080, you would go to:

   http://myspectrumplatform:8080

2. If you do not have Microsoft .NET Framework installed, click **Microsoft .NET Framework** link and follow the prompts to install the Microsoft .NET Framework.
3. Click the link to install the client tool you want:

   - To install Enterprise Designer, Management Console, or Interactive Driver, click **Client Installers**.
   - To install Job Executor, click **Job Executor**.
   - To install Process Flow Executor, click **Process Flow Executor**.

6

Installing the API

In this section:

Introduction to Installing the Client API

The Client API is used to integrate Spectrum™ Technology Platform functionality into your applications. If you will be creating your own program to call Spectrum™ Technology Platform, you need to install the Spectrum™ Technology Platform Client API on the system where you will be developing your application.

Java Requirement

To run the Client API install and uninstall procedures, you must have the Spectrum™ Technology Platform-supported version of Java installed on your machine. Add the `/jre/bin` location to $PATH.

If you are installing the Client API on the same machine as Spectrum™ Technology Platform, you can use the version of Java included with Spectrum™ Technology Platform by sourcing the `server/bin` setup script in your Spectrum™ Technology Platform install location.

Installing the Client API

1. Insert the Spectrum™ Technology Platform Client API DVD or locate the installation folder where you downloaded the installation software.
2. Type the following:

   ```
   ./sdkinst.bin
   ```

3. The installer guides you through the installation process.

7

Configuring SAP and Siebel

In this section:

Configuring SAP

To configure the SAP Module and your SAP system,

1. **Import .SAR Files** on page 49
2. **Configure the SAP GUI** on page 49
3. **Configure SAP Web Dynpro** on page 53
4. **Configure SAP ICWC** on page 54

Import Dataflow Files

When you install the SAP Module, several dataflow files are automatically installed. Other dataflow files must be manually copied into Spectrum™ Technology Platform.

1. If you are adding the Address Now Module, Enterprise Tax Module, or Universal Addressing Module to an existing installation,
   a) Open Spectrum™ Technology Platform Enterprise Designer.
   b) Select **View** > **Server Explorer**.
   c) Delete this dataflow: SAPValidateAddressWithCandidates.
2. Go to: `$G1DCG/server/modules/dataflows/sap`.
3. Review the following table then copy the applicable dataflow files to:

   `$G1DCG/server/app/import`

Table 1: Dataflow Files To Import

If you are installing this set of modules	Copy these dataflow files to the import folder
Universal Addressing Module and Address Now Module and Enterprise Enterprise Tax Module	SAPAssignGeoTAXInfo.df SAPBatchAssignGeoTAXInfo.df SAPGenerateCASSReport.df SAPValidateAddressAndAssignGeoTAXInfo.df SAPValidateAddressWithCandidates.UAM_ANOW_ETM.df
Universal Addressing Module and Address Now Module	SAPGenerateCASSReport.df SAPValidateAddressWithCandidates.ANOW.df SAPValidateAddressWithCandidates.UAM.df
Universal Addressing Module and Enterprise Tax Module	SAPAssignGeoTAXInfo.df SAPBatchAssignGeoTAXInfo.df SAPGenerateCASSReport.df SAPValidateAddressAndAssignGeoTAXInfo.df SAPValidateAddressWithCandidates.UAM_ETM.df

If you are installing this set of modules	Copy these dataflow files to the import folder
Universal Addressing Module only	SAPGenerateCASSReport.df SAPValidateAddressWithCandidates.UAM.df
Enterprise Tax Module only	SAPAssignGeoTAXInfo.df SAPBatchAssignGeoTAXInfo.df
Address Now Module only	SAPValidateAddressWithCandidates.ANOW.df

Note: The following dataflows were automatically installed when you installed the SAP Module:

- SAPGenerateMatchKey.df
- SAPGenerateMatchScore.df
- SAPGenerateSearchKey.df

Note: If errors occur in Management Console or Enterprise Designer, delete the contents of `<WindowsTemporaryDirectory>\g1Assemblies`, where <WindowsTemporaryDirectory> is one of the following: %TMP%, %TEMP%, %USERPROFILE%, or the Windows directory. Typically, C:\Documents and Settings\<USERNAME>\Local Settings\Temp\g1Assemblies. After you delete the contents of this folder log in again.

Import .SAR Files

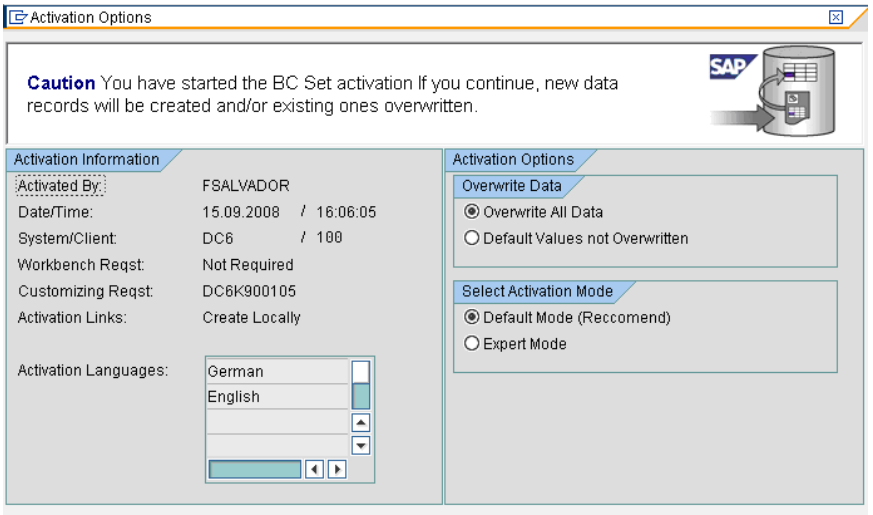
A .SAR file is a file that contains a third-party add-on package for SAP, such as the Spectrum™ Technology Platform SAP Module. The .SAR file is located on the Spectrum™ Technology Platform DVD in the `SAP Objects` folder. For information on importing .SAR files into SAP applications, see your SAP Basis administrator.

Configure the SAP GUI

Before continuing make sure that you have done the following:

- Either the SAP ECC or SAP CRM environment is available
- The SAR file has been deployed

1. Activate the BC sets.
   a) Log-on to the client where the settings for the Spectrum™ Technology Platform SAP Module is to be configured.
   b) Enter the T-Code SCPR20 to activate Business Configuration (BC) sets. This will place the default entries on the Spectrum™ Technology Platform customizing tables. Enter the BC Set /HSGRP1/BC-SET_BC_BAS_PV. Activate it with the options Overwrite Data and Default Mode.



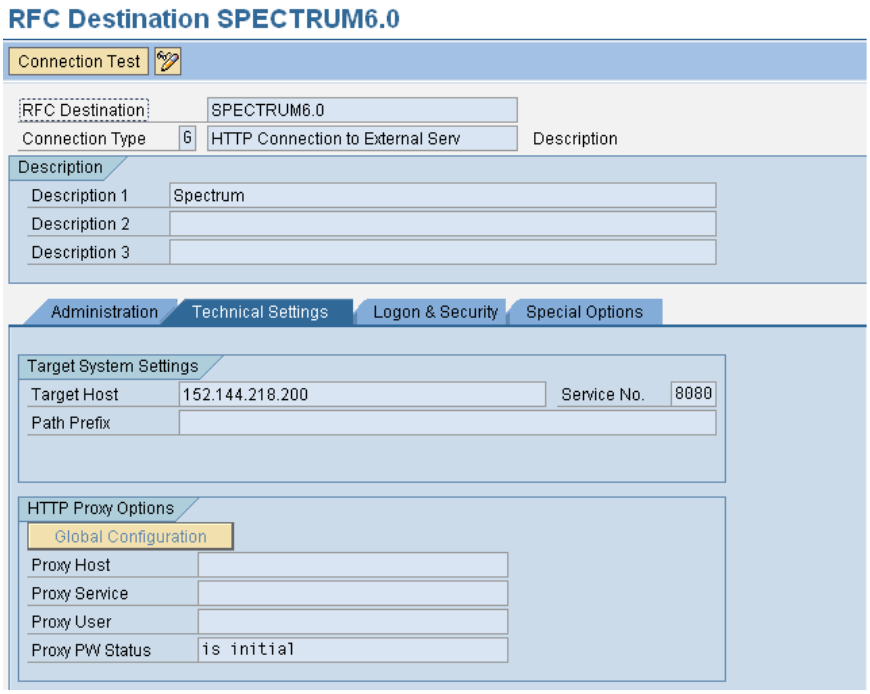
c) After activating the BC set for Postal Validation, select and activate the remaining BC Sets (/HSGRP1/BCSET_BC_BAS_DES, /HSGRP1/BCSET_BC_BAS_GTX, /HSGRP1/MERGE_SETTINGS) with the Activation Options set to Overwrite Data and Expert Mode.

2. Set Up the RFC destination.

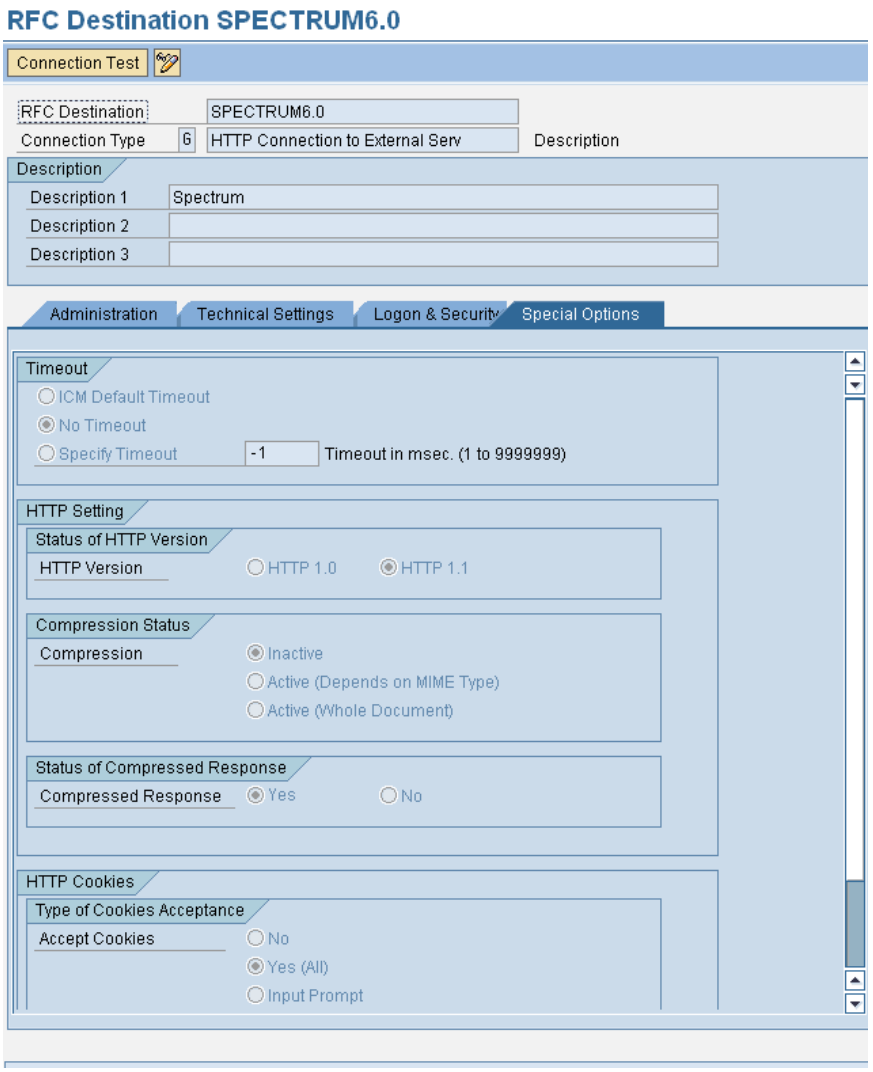
a) Go to transaction SM59. Click **Create**.

b) Complete the details of the RFC. Enter any valid name in RFC Destination, select G (HTTP connection to external server) in Connection Type and add a short description in Description 1, and then press Enter.

c) On the Technical Settings tab, in the **Target Host** field, enter the computer name or IP Address of the server where the Spectrum™ Technology Platform server was installed. In the **Service No** field enter 8080.



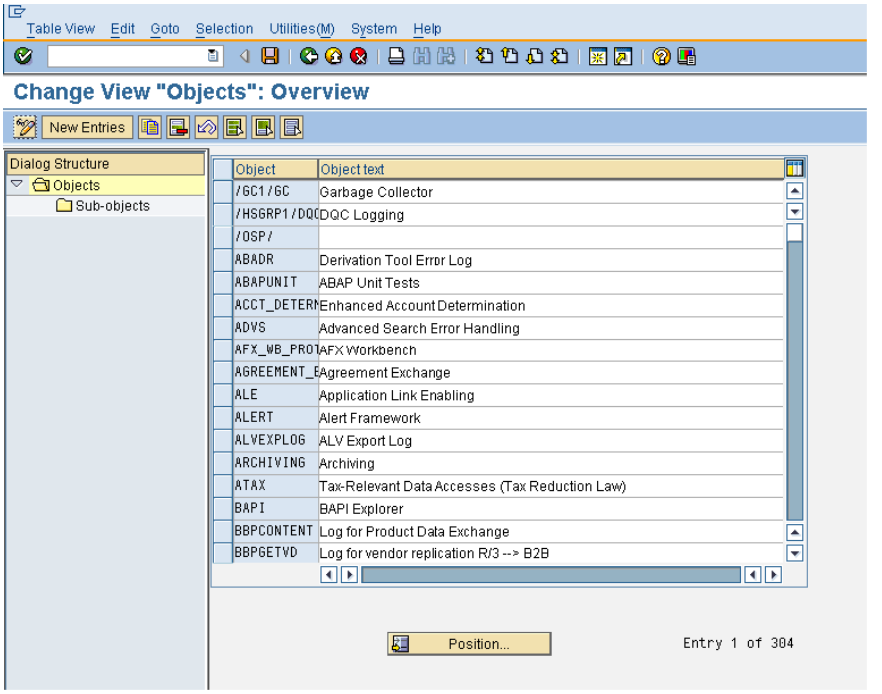
d) On the Special Options tab, select **No Timeout** and **HTTP 1.1** on HTTP Setting, and then save the configuration.



e) After you save, test the RFC by clicking the Connection Test button. If there is a popup window, check the Accept All Further Cookies checkbox and select YES. When the test is successful, go to Response Body tab to view the Spectrum™ Technology Platform page.

3. Setting up the Spectrum™ Technology Platform Logging Object

a) Go to Transaction code SLG0 and On the screen select New Entries then add /HSGRP1/DQC as the Object and DQC Logging as the Object Text and save.



Configure SAP Web Dynpro

Before continuing make sure that you have done the following:

- Make sure that you have configured the SAP Interface. For more information, see **Configure the SAP GUI** on page 49.
- SAP Application, SAP NetWeaver 7.01 with Patch 3 and Spectrum™ Technology Platform is available
- PBS SCA files has been deployed.
- System Landscape Directory (SLD) has been properly configured

1. Set up JCO destinations:
   a) Go to the NetWeaver Portal Content Administrator URL and login as J2EE_ADMIN or an account that has an Administrator Privilege.
   b) Expand **Deployed Content**, then **pb.com**, then **pb.com/dqc**. On the **Details** window, select the **JCO Connections** tab.
   c) Select WD_DQC_MODELDATA_DEST and click **Create**. Complete all the required information to be able to run and test the connection.
   d) Repeat the steps and complete the required information for WD_DQC_MODELDATA_DEST.

   Note: WD_DQC_MODELDATA_DEST is the Application Data and WD_DQC_RFC_METADATA_DEST is the Dictionary Metadata.

2. Configure the BuildGlobalAddress web service in the SAP Visual Admin:

a) Go to <drive>:/usr./sap/<system id>/DVEBMGS01/ j2ee/admin and click go.bat and enter J2EE_ADMIN password.
b) Go to **Cluster** > **Server** > **Services** > **JCo RFC Provider** and select the **Bundles** tab.
c) Enter all of the information needed by the application and click **Set** to save the changes.
d) Go to **Cluster** > **Server** > **Services** > **Web Services Security** .
e) Create a proxy in **Web Services Client** > **sap.com** > **Dynamic WSProxies** with the name `PB-BIWebServiceConnectorBGA`.
f) For the URL, enter:

   `http://<spectrumservername>:<port>/services/BuildGlobalAddress?wsdl`

   For example,

   `http://MySpectrumServer:8080/services/BuildGlobalAddress?wsdl`
g) Restart the application server.

Configure SAP ICWC

Before continuing make sure that you have done the following:

- SAP CRM 6.0 and Spectrum™ Technology Platform is available
- Spectrum™ Technology Platform SAR files has been deployed
- ICWC user has the CRM_UI_PROFILE parameter ID with IC_AGENT as the Parameter Value
- Check duplicate option is activated in SPRO under ICWC (SPRO > CRM > ICWC > Define Account Identification Profiles)

To configure the SAP ICWC:

1. Activate BC Sets.

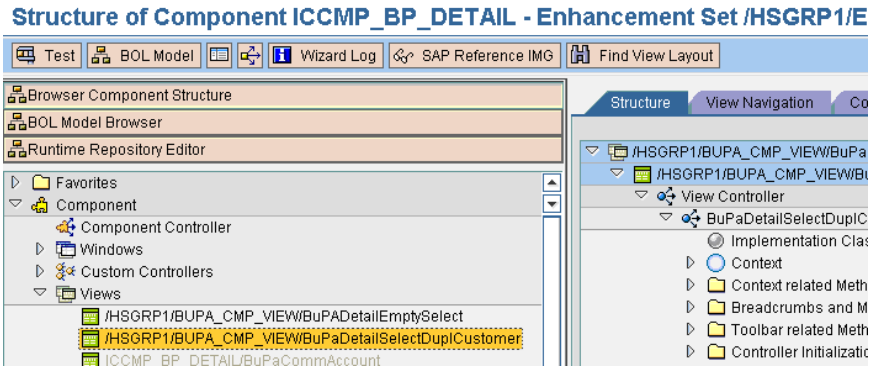
   See **Configure the SAP GUI** on page 49 for the initial steps. After performing the activation for all available Group1 BC sets, activate the BC Set for Group1 ICWC (/HSGRP1/ICWC_SETTINGS) Activation Options Overwrite Data and Expert Mode.
2. Set up the RFC Destination. For more information, see **Configure the SAP GUI** on page 49.
3. Set up the Group1 Logging Object. For more information, see **Configure the SAP GUI** on page 49.
4. Enable the Group1 ICWC Enhancement Set.

   Enter T-CODE SM30. In the Table View text box, enter BSPWDV_EHSET_ASG and then click Maintain to change the current configurations.

   Select New Entries to add the Spectrum™ Technology Platform Enhancement Set. After the screen is displayed, type the client number where the enhancement set would take effect and the enter /HSGRP1/ENHANCEMENT_SET as the Enhancement Set.
5. Add the ICWC Configurations.

   Enter T-CODE BSP_WD_CMPWB. Enter ICCMP_DETAIL in the Component text box and /HSGRP1/ENHANCEMENT_SET in the Enhancement Set text box and click Display.

   Expand Views and select /HSGRP1/BUPA_CMP_VIEW/BuPaDetailSelectDuplCustomer.



After the View is displayed, go to the Configuration tab and edit the configurations. On the edit screen select Full Name, Telephone, Street, City and Country context and click the right arrow button and arrange it in this order; Full Name, Telephone, Street, City, and Country. Save the configuration.

Configuring French Address Validation

If you will be using French address validation, you must install the Data Normalization Module table `cdq-TableLookup-SAP.tba`. For more information, see **Installing Data Normalization Module Databases** on page 26.

Configuring Siebel

To configure the Siebel module and your Siebel system,

1. **Import Dataflow Files** on page 55
2. **(Optional) Verify the Geocoding Database Resource Name** on page 57
3. **Integrate Spectrum™ Technology Platform with Siebel** on page 57

Import Dataflow Files

When you install the Siebel module, several dataflow files are automatically installed. Other dataflow files must be manually copied into Spectrum™ Technology Platform.

1. If you are adding the Address Now Module, Enterprise Geocoding Module, or Universal Addressing Module to an existing Siebel Module installation,
   a) Open Spectrum™ Technology Platform Enterprise Designer.
   b) Select **View** > **Server Explorer**.
   c) Delete these dataflows:
      - SiebelValidateAddressWithCandidates
      - SiebelValidateAddressWithNoCandidates

2. Do one of the following:
   - If you are installing the Siebel Module for **Siebel Business Application**, go to: `$G1DCG/server/modules/dataflows/siebel/sea`
   - If you are installing the Siebel Module for **Siebel Industry Application**, go to: `$G1DCG/server/modules/dataflows/siebel/sia`
3. Review the following table then copy the applicable dataflow files to:

   `$G1DCG/server/app/import`

Table 2: Dataflow Files To Import

If you are installing this set of modules	Copy these dataflow files to the import directory
Universal Addressing Module and Address Now Module and Enterprise Geocoding Module	SiebelGeocodeUSAddressWithCandidates.df (subflow) SiebelGeocodeUSAddressWithNoCandidates.df (subflow) SiebelGetGlobalCandidateAddresses.df (subflow) SiebelValidateAddressWithCandidates.UAM_EGM_ADN.df SiebelValidateAddressWithNoCandidates.UAM_EGM_ADN.df
Universal Addressing Module and Address Now Module	SiebelGetGlobalCandidateAddresses.df (subflow) SiebelValidateAddressWithCandidates.UAM_ADN.df SiebelValidateAddressWithNoCandidates.UAM_ADN.df
Universal Addressing Module and Enterprise Geocoding Module	SiebelGeocodeUSAddressWithCandidates.df (subflow) SiebelGeocodeUSAddressWithNoCandidates.df (subflow) SiebelValidateAddressWithCandidates.UAM_EGM.df SiebelValidateAddressWithNoCandidates.UAM_EGM.df
Enterprise Geocoding Module and Address Now Module	SiebelGeocodeUSAddressWithCandidates.df (subflow) SiebelGeocodeUSAddressWithNoCandidates.df (subflow) SiebelGetGlobalCandidateAddresses.df (subflow) SiebelValidateAddressWithCandidates.EGM_ADN.df SiebelValidateAddressWithNoCandidates.EGM_ADN.df
Universal Addressing Module only	SiebelValidateAddressWithCandidates.UAM.df SiebelValidateAddressWithNoCandidates.UAM.df
Enterprise Geocoding Module only	SiebelValidateAddressWithCandidates.EGM.df SiebelValidateAddressWithNoCandidates.EGM.df
Address Now Module only	SiebelGetGlobalCandidateAddresses.df (subflow) SiebelValidateAddressWithCandidates.ADN.df SiebelValidateAddressWithNoCandidates.ADN.df
Note: The following dataflows were automatically installed when you installed the Siebel Module: • SiebelBusinessNameStandardization.df	

If you are installing this set of modules	Copy these dataflow files to the import directory
	• SiebelStandardizeName.df • SiebelGenerateMatchKey.df • SiebelGenerateMatchScore.df • SiebelGenerateSearchKey.df

Note: If errors occur in Management Console or Enterprise Designer, delete the contents of `<WindowsTemporaryDirectory>\g1Assemblies`, where <WindowsTemporaryDirectory> is one of the following: %TMP%, %TEMP%, %USERPROFILE%, or the Windows directory. Typically, C:\Documents and Settings\<USERNAME>\Local Settings\Temp\g1Assemblies. After you delete the contents of this folder log in again.

(Optional) Verify the Geocoding Database Resource Name

If you are using the Enterprise Geocoding Module,

1. In Enterprise Designer, open each of these dataflows: SiebelGeocodeUSAddressWithCandidates and SiebelGeocodeUSAddressWithNoCandidates.
2. In each dataflow, open the Geocode US Address stage.
3. In the **Database** field, select the name of the geocoding database as defined in the Management Console. The default name is KGDDatasource but if the geocoding database has a different name on your system, select the appropriate name.

   Note: For more information about database resources, see the "Spectrum™ Technology Platform Administration" chapter of the *Spectrum™ Technology Platform User's Guide*.

4. Save and close each dataflow.

Integrate Spectrum™ Technology Platform with Siebel

1. Copy Siebel objects to your system:
   a) Open the Spectrum™ Technology Platform DVD. If you downloaded Spectrum™ Technology Platform, browse to the location where you downloaded the software.
   b) Browse to the appropriate folder for your version of Siebel as shown in the following table.

Siebel Version	Folder
Siebel Enterprise 7.8	`Siebel Objects\7.8\Enterprise`
Siebel Industry 7.8	`Siebel Objects\7.8\Industry`
Siebel Business 8.0 Non-SDQ	`Siebel Objects\8.0\Business\non SDQ`
Siebel Business 8.0 SDQ	`Siebel Objects\8.0\Business\SDQ`

Siebel Version	Folder
Siebel Industry 8.0 Non-SDQ	`Siebel Objects\8.0\Industry\non SDQ`
Siebel Industry 8.0 SDQ	`Siebel Objects\8.0\Industry\SDQ`
Siebel Business 8.1.1 Non-SDQ	`Siebel Objects\8.1.1\Business\non SDQ`
Siebel Business 8.1.1 SDQ	`Siebel Objects\8.1.1\Business\SDQ`
Siebel Industry 8.1.1 Non-SDQ	`Siebel Objects\8.1.1\Industry\non SDQ`
Siebel Industry 8.1.1 SDQ	`Siebel Objects\8.1.1\Industry\SDQ`

c) Copy the contents of the folder to a temporary directory. This temporary folder will be the referred to as `<Spectrum Package>` in the following steps.

2. Create objects and allow object locking:

a) Log in to Siebel Tools as the user SADMIN, with the connection pointing to the server data source.

b) (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Business 8.0/8.1.1 non-SDQ, and Siebel Industry 8.0/8.1.1 non-SDQ only.) Go to **Object Explorer**, drill down to the **Project** object. From the Project area, right-click and select **New Record**. Create the following projects:

- Group 1 Data Quality
- Group 1 EAI Testing
- Group 1 Workflow

c) Open the file `<Spectrum Package>\tools\CDQP_Queries.txt`.

d) Copy and paste the query contents to the Project list of your Object Manager. Cross-check the query result with the table below and perform the action suggested. To toggle object locing, go to Object Explorer and browse to the Project object. From the Project area, right-click and select the project, and select **Toggle Object Locking**.

Business SDQ	Business	Industry SDQ	Industry	Enterprise	Project	Action
	X	X	X	X	Account	Toggle Object Locking
	X		X	X	Account (SCW)	Toggle Object Locking
X	X	X	X	X	Account (SSE)	Toggle Object Locking
X	X	X	X	X	Contact	Toggle Object Locking
	X		X	X	Contact (SSE)	Toggle Object Locking

Business SDQ	Business	Industry SDQ	Industry	Enterprise	Project	Action
			X		CUT Account	Toggle Object Locking
			X		CUT Siebel Communications	Toggle Object Locking
			X		CUT Usage	Toggle Object Locking
	X		X	X	DNB Data	Toggle Object Locking
	X		X	X	DeDuplication	Toggle Object Locking
			X		eAutomotive	Toggle Object Locking
X	X	X	X	X	Employee	Toggle Object Locking
			X		FINS Contract	Toggle Object Locking
			X		FINS Contract Info	Toggle Object Locking
			X		FINS Deal Commercial	Toggle Object Locking
			X		FINS Financial Services	Toggle Object Locking
			X		FINS Oppportunity	Toggle Object Locking
	X		X	X	Group 1 Data Quality	Create and Toggle Object Locking
X	X	X	X	X	Group 1 EAI Testing	Create and Toggle Object Locking
X		X	X	X	Group 1 Workflow	Create and Toggle Object Locking
	X			X	List Mgmt (Import)	Toggle Object Locking
X	X	X	X	X	List Mgmt (UI)	Toggle Object Locking
	X			X	Mvg	Toggle Object Locking
	X		X	X	Oppty	Toggle Object Locking

Business SDQ	Business	Industry SDQ	Industry	Enterprise	Project	Action
	X		X	X	Oppty (SSE)	Toggle Object Locking
X	X		X	X	Personal Contact	Toggle Object Locking
X	X	X	X	X	Picklist	Toggle Object Locking
	X		X	X	Server Component Requests	Toggle Object Locking
	X			X	Siebel Sales Enterprise	Toggle Object Locking
	X			X	Siebel Universal Agent	Toggle Object Locking
		X	X		VERT CUT Address	Toggle Object Locking
			X		VERT Cut Common	Toggle Object Locking

3. Check out the Siebel Projects:
   a) Log in to Siebel Tools on Local Datasource.
   b) Select **Tools** > **Checkout**.
   c) Select the projects indicated in the following table and click **Checkout**.

Business SDQ	Business	Industry SDQ	Industry	Enterprise	Project
	X	X	X	X	Account
	X		X	X	Account (SCW)
X	X	X	X	X	Account (SSE)
X	X	X	X	X	Contact
	X		X	X	Contact (SSE)
			X		CUT Account
			X		CUT Siebel Communications

Business SDQ	Business	Industry SDQ	Industry	Enterprise	Project
			X		CUT Usage
	X		X	X	DNB Data
	X		X	X	DeDuplication
			X		eAutomotive
X	X	X	X	X	Employee
			X		FINS Contract
			X		FINS Contract Info
			X		FINS Deal Commercial
			X		FINS Financial Services
			X		FINS Oppportunity
	X		X	X	Group 1 Data Quality
X	X	X	X	X	Group 1 EAI Testing
X		X	X	X	Group 1 Workflow
	X			X	List Mgmt (Import)
X	X	X	X	X	List Mgmt (UI)
	X			X	Mvg
	X		X	X	Oppty
	X		X	X	Oppty (SSE)
X	X		X	X	Personal Contact
X	X	X	X	X	Picklist
	X		X	X	Server Component Requests

Business SDQ	Business	Industry SDQ	Industry	Enterprise	Project
	X			X	Siebel Sales Enterprise
	X			X	Siebel Universal Agent
		X	X		VERT CUT Address
			X		VERT Cut Common

4. (Siebel 7.8 and 8.0/8.1.1 non-SDQ only) Import the Spectrum™ Technology Platform Siebel objects:
   a) Select **Tools** > **Import from Archive**.
   b) Import the Siebel SIF files located in `<Spectrum Package>\sif`. Select **Overwrite the object definition in the repository** and click **Next** to proceed until the import process has been completed.

      Siebel Enterprise 7.8 and Siebel Industry 7.8:

      - G1_NEW.sif
      - G1_APPLET.sif
      - G1_BO.sif
      - G1_BC.sif
      - G1_BC_SCRIPTS.sif
      - G1_EAI_TESTING.sif
      - G1_APPLICATION.sif
      - G1_PICKLIST.sif
      - G1_VIEW.sif

      Siebel Business 8.0/8.1.1 non-SDQ and Siebel Industry 8.0/8.1.1 non-SDQ:

      - G1_NEW.sif
      - G1_APPLET.sif
      - G1_BO.sif
      - G1_LINK.sif
      - G1_BC.sif
      - G1_BC_SCRIPTS.sif
      - G1_EAI_TESTING.sif
      - G1_APPLICATION.sif
      - G1_PICKLIST.sif
      - G1_VIEW.sif
      - G1_WORKFLOW.sif
      - (8.1.1 only) Rebranding.sif

5. (Siebel Enterprise 7.8 and Siebel Industry 7.8 only) Deploy the data quality workflows:
   a) Go to Workflow Process objects using the Object Explorer.
   b) Right-click on the **Workflow Processes** area and choose **Import Workflow Process**.
   c) Specify `Group 1 Workflow` as project name for each workflow imported.

d) Import the workflows **in the order shown in the following list**. The workflows are located in `<Spectrum Package>\workflow`.

1. Baseline workflows:
   a. GROUP 1 ADMIN - VIEW ACCESS WORKFLOW
   b. GROUP 1 ADMIN - ADMIN ACCESS WORKFLOW
   c. GROUP 1 ADMIN - OPTIONS MANAGER WORKFLOW
   d. GROUP 1 DATA CLEANSING WORKFLOW
   e. GROUP 1 DNB ASYNC WORKFLOW
   f. GROUP 1 GENERATE HASH KEY WORKFLOW
   g. GROUP 1 GEOCODING WORKFLOW
   h. GROUP 1 NAME CASING WORKFLOW
   i. GROUP 1 NAME CASING (ACCOUNT) WORKFLOW BATCH
2. Async workflows:
   a. GROUP 1 ASYNC ACCOUNT WORKFLOW
   b. GROUP 1 ASYNC ADDRESS WORKFLOW
   c. GROUP 1 ASYNC ASSOC ADDRESS ACCOUNT WORKFLOW
   d. GROUP 1 ASYNC ASSOC ADDRESS CONTACT WORKFLOW
   e. GROUP 1 ASYNC CONTACT WORKFLOW
   f. GROUP 1 ASYNC DELETE DEDUP RESULT (ADDRESS) WORKFLOW
   g. GROUP 1 ASYNC DELETE DEDUP RESULT (PARENT) WORKFLOW
   h. GROUP 1 ASYNC PERSONAL ADDRESS CONTACT WORKFLOW
   i. GROUP 1 ASYNC WORKFLOW
3. BNS workflows:
   a. GROUP 1 BUSINESS NAME STANDARDIZATION WORKFLOW
4. Data cleansing workflows:
   a. GROUP 1 DATA CLEANSING (ACCOUNT) WORKFLOW BATCH
   b. GROUP 1 DATA CLEANSING (CONTACT) WORKFLOW BATCH
   c. GROUP 1 DATA CLEANSING (PROSPECT) WORKFLOW BATCH
   d. GROUP 1 DATA CLEANSING with GEOCODING (ACCOUNT) WORKFLOW BATCH
   e. GROUP 1 DATA CLEANSING with GEOCODING (CONTACT) WORKFLOW BATCH
   f. GROUP 1 DATA CLEANSING with GEOCODING (PROSPECT) WORKFLOW BATCH
5. Geocoding workflows:
   a. GROUP 1 GEOCODING (Business Address) BATCH WORKFLOW
   b. GROUP 1 GEOCODING (Personal Address) BATCH WORKFLOW
   c. GROUP 1 GEOCODING (Prospect) BATCH WORKFLOW
6. Name casing worflows:
   a. GROUP 1 NAME CASING (CONTACT) WORKFLOW BATCH
   b. GROUP 1 NAME CASING (PROSPECT) WORKFLOW BATCH
7. Deduplication workflows:
   a. GROUP 1 DATA DEDUPLICATION (ACCOUNT) WORKFLOW BATCH

b. GROUP 1 DATA DEDUPLICATION (CONTACT - Business Address) WORKFLOW BATCH
c. GROUP 1 DATA DEDUPLICATION (CONTACT - Personal Address) WORKFLOW BATCH
d. GROUP 1 DATA DEDUPLICATION (PROSPECT) WORKFLOW BATCH
e. GROUP 1 DATA DEDUPLICATION WORKFLOW

8. DNB workflows:

a. GROUP 1 DNB BATCH WORKFLOW
b. GROUP 1 DNB EAI WORKFLOW
c. GROUP 1 DNB LOAD BATCH WORKFLOW
d. GROUP 1 DNB VBC WORKFLOW
e. GROUP 1 DNB WORKFLOW

9. Generate hashkey workflows:

a. GROUP 1 GENERATE HASH KEY (ACCOUNT) WORKFLOW BATCH
b. GROUP 1 GENERATE HASH KEY (CONTACT) WORKFLOW BATCH
c. GROUP 1 GENERATE HASH KEY (PROSPECT) WORKFLOW BATCH

10. EAI test workflows:

a. GROUP 1 ADMIN - EAI TEST (ACCOUNT) WORKFLOW
b. GROUP 1 ADMIN - EAI TEST (CONTACT with ACCOUNT) WORKFLOW
c. GROUP 1 ADMIN - EAI TEST (CONTACT with ACCOUNT_PERSONAL ADDRESS) WORKFLOW
d. GROUP 1 ADMIN - EAI TEST (CONTACT with PERSONAL ADDRESS) WORKFLOW
e. GROUP 1 ADMIN - EAI TEST (PROSPECT) WORKFLOW

e) Copy the files from `<Spectrum Package>\workflow` to C:\.

- Group1_Data_Options_Manager.xml
- Group1_Data_Responsibilities.xml
- Group1_Data_Views.xml
- Group1_EAI_Dataload_Account.xml
- Group1_EAI_Dataload_Contact_With_Account.xml
- Group1_EAI_Dataload_Contact_With_Account_Personal_Address.xml
- Group1_EAI_Dataload_Contact_With_Personal_Address.xml
- Group1_EAI_Dataload_Prospect.xml

f) Go through each imported workflow in the same order listed above and click **Deploy**.

6. Check in all locked projects:
a) Select **Tools** > **Check In**.
b) Select all the Projects to check in and click **Check in**.

7. Compile all Projects:
a) Select **Tools** > **Compile Projects**.
b) Click **All Projects**.
c) In the **Siebel Repository File** field, enter the path of your Siebel Web Client SRF file.
d) Click **Compile**.

8. (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Business 8.0/8.1.1 non-SDQ, and Siebel Industry 8.0/8.1.1 non-SDQ) Update the application .CFG flie:

a) Open the appropriate .cfg file in an editor:

For example, for Siebel Enterprise 7.8 and Siebel Business 8.0/8.1.1:

- Siebel Call Center—`uagent.cfg`
- Siebel Sales—`siebel.cfg`

For example, for Siebel Industry 7.8 and Siebel Industry 8.0/8.1.1:

- eAutomotive—`auto.cfg`
- Financial—`fins.cfg`
- eCommunication—`ecomm.cfg`

Siebel .cfg files are usually found in the following locations:

- Siebel thick client—`Siebel\<version>\web client\bin\enu`
- Siebel thin client—`<Siebel Server>/bin/enu`

b) Add the following lines under the `[SWE]` section:

```
ClientBusinessService0 = G1 Async Service
ClientBusinessService1 = G1 Business Name Standardization Service
ClientBusinessService2 = G1 Common Browser Scripts Service
ClientBusinessService3 = G1 Common Server Scripts Service
ClientBusinessService4 = G1 DNB VBC Service
ClientBusinessService5 = G1 Data Cleansing Service
ClientBusinessService6 = G1 DeDuplication Service
ClientBusinessService7 = G1 Generate HashKey Service
ClientBusinessService8 = G1 GeoCoding Service
ClientBusinessService9 = G1 Interactive Service
ClientBusinessService10 = G1 Merge Records Service
ClientBusinessService11 = G1 Name Casing Service
ClientBusinessService12 = G1WebService
```

9. Deploy the Siebel objects in the client:

Note: Keep a backup of the old SRF in case old binaries need to be re-implemented.

a) Copy the generated SRF to your web client objects folder.

Example: `/disk2/sia78/webclient/OBJECTS/enu/`

b) (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Business 8.0/8.1.1 non-SDQ, and Siebel Industry 8.0/8.1.1 non-SDQ only) Open a command prompt and go to the BIN directory of the web client.

Example: `/disk2/sia78/webclient/BIN`

c) (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Business 8.0/8.1.1 non-SDQ, and Siebel Industry 8.0/8.1.1 non-SDQ only) Generate browser scripts by issuing the command:

```
genbscript [location of .cfg] [public/enu folder]
```

For example:

```
genbscript /disk2/sia78/webclient/BIN/enu/siebel.cfg sia78/webclient/PUB-
LIC/enu
```

d) (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Business 8.0/8.1.1 non-SDQ, and Siebel Industry 8.0/8.1.1 non-SDQ only) Copy `g1_check.gif` and `g1_x.gif` from the temporary folder to `public\enu\imagespublic/enu/images` in the Siebel server.

e) (Siebel Business 8.0/8.1.1 SDQ and Siebel Industry 8.0/8.1.1 SDQ only) Copy the contents of `<Spectrum Package>\dll` to your `BIN` folder.

f) (Siebel Business 8.0/8.1.1 SDQ and Siebel Industry 8.0/8.1.1 SDQ only) Copy the contents of `<Spectrum Package>\cfg` to your `BIN/ENU` folder.

10. Deploy the Siebel objects to the server:

a) Login to the Siebel Server environment using the command prompt.

b) Go to the directory of the Siebel server:

```
cd /siebel_root/siebsrvr
```

c) Run the Siebel server environment settings by typing this command:

```
. ./siebenv.sh
```

d) Go to the BIN directory:

```
cd /siebel_root/siebsrvr/bin
```

e) Stop the Siebel Server by typing the command:

```
./siebel_server stop
```

f) Copy the generated SRF file to your web client objects folder.

Example (Siebel Business): `/disk2/sea78/siebsrvr/OBJECTS/enu/`

g) (Siebel Industry 7.8, Siebel Enterprise 7,8, Siebel Industry 8.0/8.1.1 non-SDQ, and Siebel Business 8.0/8.1.1 non-SDQ only) Open a command prompt and go to the BIN drive of the web client.

Example: `/disk2/sea78/siebsrvr/BIN`

h) (Siebel Industry 7.8, Siebel Enterprise 7.8, Siebel Industry 8.0/8.1.1 non-SDQ, and Siebel Business 8.0/8.1.1 non-SDQ only) Generate browser scripts by issuing this command:

```
genbscript [location of Siebel.cfg] [webmaster folder]
```

Example:

```
genbscript /disk2/sea78/siebsrvr/BIN/enu/siebel.cfg /disk2/sea78/siebsr-
vr/WEBMASTER/
```

i) (Siebel Industry 7.8, Siebel Enterprise 7.8, Siebel Industry 8.0/8.1.1 non-SDQ, and Siebel Business 8.0/8.1.1 non-SDQ only) Copy `g1_check.gif` and `g1_x.gif` from the temporary directory to `WEBMASTER/images/enu` in the Siebel server.

Note: For Siebel Thin Client, copy `g1_check.gif` and `g1_x.gif` from the temporary directory to `SWEApp/PUBLIC/enu/images`.

j) (Siebel Industry 7.8, Siebel Enterprise 7.8, Siebel Industry 8.0/8.1.1 non-SDQ, and Siebel Business 8.0/8.1.1 non-SDQ only) Copy the generated browser scripts from `/WEBMASTER` to `<SWEApp Location>/public/ENU`.

k) (Siebel Industry 8.0/8.1.1 SDQ, Siebel Business 8.0/8.1.1 SDQ only) Copy the contents of `<Spectrum Package>/lib/sol` to your `LIB` folder.

l) (Siebel Industry 8.0/8.1.1 SDQ, Siebel Business 8.0/8.1.1 SDQ only) Copy the contents of `<Spectrum Package>/cfg` to your `BIN/ENU` folder.

m) Go to the directory of the Siebel server:

```
cd /siebel_root/siebsrvr
```

n) Set the environment variable:

```
. ./siebenv.sh
```

o) Go to the BIN directory:

```
cd /siebel_root/siebsrvr/bin
```

p) Start the Siebel server by typing this command:

```
./siebel_server start
```

11. Activate the Spectrum™ Technology Platform workflows in the Siebel web client:

a) Log in to the Siebel Application, connecting to the server data source.
b) Select **Site Map** > **Administration - Business Process** > **Workflow Deployment**.
c) Query for all the GROUP 1* workflows.
d) Click **Activate** for each workflow.
e) Query for all the Promote* workflows.
f) Click **Activate** for the ff workflows **Promote Prospect (Single)** and **Promote Prospect (Many)**.

12. (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Business 8.0/8.1.1 non-SDQ, and Siebel Industry 8.0/8.1.1 non-SDQ only) Load the Group 1 configuration.

a) Log in to the Siebel application connecting to the server data source.
b) Go to **Site Map** > **Administration - Business Service** > **Simulator**.
c) In the top applet, create a new record and set the following fields:

Service Name	Workflow Process Manager
Method Name	Run Process
Iterations	1

d) In the Input Arguments applet, load:

```
<Spectrum Package>\tools\OptionsManagerLoadData.xml
```

Note: Delete the entry if previous GROUP 1 options already exist in the database. Run the following SQL Script: `DELETE SIEBEL.S_LST_OF_VAL WHERE CODE = 'G1'`

e) Click **Run** in the top applet of the Simulator view. Delete the record.
f) Repeat steps c. and d. for the ff files:

- `ViewAccessLoadData.xml`
- `AdminAccessLoadData.xml`

g) Go to **Site Map** > **Administration - Application** > **Responsibilities**:
h) Query for the responsibility Group 1 Responsibility.
i) In the Users tab, add SADMIN or any Siebel administrator. This associates the Group 1 Administration Screen to the user.

Note: In order to see the changes you must log-in again.

j) Go to **Site Map** > **Administration - Group 1 Data Quality** > **Options Manager** > **General Behavior**.
k) Change the server and port number where the Spectrum™ Technology Platform server is located.

13. Verify the installation:

a) Log in to Siebel Application.
b) All applets should load properly without error.

14. (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Business 8.0/8.1.1 non-SDQ, and Siebel Industry 8.0/8.1.1 non-SDQ only) Modify and apply web services.
    a) Go to **Site Map** > **Administration - Web Services** > **Outbound Web Services**.
    b) Click **Import** on the **Outbound Web Services** area and then specify the file `<Spectrum Package>\tools\G1WebService.xml`.
    c) Query on the Name field ValidateAddress, and modify its settings as follows:

       On the Service Port applet, change the following fields:

       - Transport: Local Business Service
       - Address: G1 WebService Filter Service

       On the Operations applet, change the following fields:

       - Response Filter Service Display: G1 WebService Filter Service
       - Response Filter Method Display: filter Response

15. (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Industry 8.0/8.1.1 non-SDQ, and Siebel Business 8.0/8.1.1 non-SDQ only) Encrypt and apply Spectrum™ Technology Platform user name and password.
    a) Run the following command on the command prompt:

       ```
       java -version
       ```

       Java Runtime Environment (JRE) 1.4.x is required. If none is installed, you can download from **java.sun.com/j2se/1.4.2/download.html**. Download the JRE of your target platform.
    b) Acquire the file `<Spectrum Package>\tools\Base64.class`.
    c) On the command prompt, type the following command:

       ```
       java Base64 -encode -s "<username>:<password>"
       ```

       where <username> and <password> is to the login information of Spectrum™ Technology Platform server. Copy the generated value.

       Note: The default Spectrum™ Technology Platform password can be found in `<Spectrum Package>\tools\Default Password.txt`.

    d) Go to **Site Map** > **Administration - Group 1 Data Quality** > **Password Manager**. Paste the value generated in step c. and click **Save Changes**.

16. (Siebel Business 8.0/8.1.1 SDQ and Siebel Industry 8.0/8.1.1 SDQ only) Configure the Siebel instance configuration parameters:
    a) Select **Site Map** > **Administration - Server Configuration** > **Enterprises**.
    b) Verify/Change the ff Parameters:

       - Data Cleansing Type—G1Cleansing
       - DeDuplication Data Type—G1DataMatching

    c) Select **Component Definitions** and select the ff components. For each component, verify parameters and values.

Table 3: Siebel Business

Component Definitions	Parameter	Value/Value on Restart
*Data Quality Manager *Sales Object Manager (ENU) *List Import Service Manager	Data Cleansing Type	G1Cleansing
	Data Cleansing Enable Flag	True
	DeDuplication Data Type	G1DataMatching
	DeDuplication Enable Flag	True

Table 4: Siebel Industry

Component Definitions	Parameter	Value/Value on Restart
*Data Quality Manager *eAutomotive Object Manager (ENU) *List Import Service Manager	Data Cleansing Type	G1Cleansing
	Data Cleansing Enable Flag	True
	DeDuplication Data Type	G1DataMatching
	DeDuplication Enable Flag	True

d) Select **Site Map** > **Server Configuration** > **Servers**. Repeat steps b through c for server configuration parameters.

e) Select **Site Map** > **User Profile Preferences** > **Data Quality**. Change the following settings:

Parameter	Value
Enable DeDuplication	Yes
Enable Data Cleansing	Yes

f) Browse to `<Siebel Installation>\bin\ENU` and open the appropriate file:

- Siebel Business: siebel.cfg and uagent.cfg
- Siebel Industry: auto.cfg

g) Under the area [DataCleansing] change the ff Parameters:

```
Enable = TRUE
Type = G1Cleansing
```

h) Under the area [DeDuplication] change the ff Parameters:

```
Enable = TRUE
Type = G1DataMatching
```

i) Select **Site Map** > **Administration - Server Configuration**. Click the **Synchronize** link and select **Synchronize** after being redirected.

17. (Siebel Business 8.0/8.1.1 SDQ, Siebel Industry 8.0/8.1.1 SDQ only) Configure data cleansing configuration parameters:

a) Select **Site Map** > **Administration** > **Data Quality** > **Third Party Administration**. On the Vendor Applet, include the ff value

Name	DLL Name
G1Cleansing	Group1Connector

b) Add the ff BC Vendor Field Mapping:

Table 5: Siebel Business

Business Component	Operation
Account	Data Cleansing
Business Address	Data Cleansing
Contact	Data Cleansing
List Mgmt Prospective Contact	Data Cleansing

Table 6: Siebel Industry

Business Component	Operation
Account	Data Cleansing
CUT Address	Data Cleansing
Contact	Data Cleansing
List Mgmt Prospective Contact	Data Cleansing

c) Under each BC operation, add the ff field mappings:

Table 7: Siebel Business

Business Component Field	Mapped Field
Account	

Business Component Field	Mapped Field
Name	FirmName
Business Address	
City	City
Country	CountryName
County	USCountyName
G1 Latitude	Latitude
G1 Location Code	LocationCode
G1 Longitude	Longitude
G1 Match Code	MatchCode
Postal Code	PostalCode
State	StateProvince
Street Address	AddressLine1
Street Address 2	AddressLine2
Disable DataCleansing	DisableDataCleansing
Contact	
First Name	FirstName
Last Name	LastName
Middle Name	MiddleName
M/M	TitleOfRespect
List Management Prospective Contact	
City	City
Country	CountryName

Business Component Field	Mapped Field
County	USCountyName
First Name	FirstName
Last Name	LastName
Middle Name	MiddleName
G1 Latitude	Latitude
G1 Location Code	LocationCode
G1 Longitude	Longitude
G1 Match Code	MatchCode
Postal Code	PostalCode
State	StateProvince
Street Address	AddressLine1
Street Address 2	AddressLine2
Disable DataCleansing	DisableDataCleansing

Table 8: Siebel Industry

Business Component Field	Mapped Field
Account	
Name	FirmName
CUT Address	
City	City
Country	CountryName
County	USCountyName

Business Component Field	Mapped Field
G1 Latitude	Latitude
G1 Location Code	LocationCode
G1 Longitude	Longitude
G1 Match Code	MatchCode
Postal Code	PostalCode
State	StateProvince
Street Address	AddressLine1
Street Address 2	AddressLine2
Disable Data Cleansing	DisableDataCleansing
Contact	
First Name	FirstName
Last Name	LastName
Middle Name	MiddleName
M/M	TitleOfRespect

d) Add the ff Vendor Parameters.

Table 9: Siebel Business

Name	Value
Account DataCleanse Record Type	Account
Business Address DataCleanse Record Type	Business Address
Contact DataCleanse Record Type	Contact
List Mgmt Prospective Contact DataCleanse Record Type	List Mgmt Prospective Contact

Table 10: Siebel Industry:

Name	Value
Account DataCleanse Record Type	Account
CUT Address DataCleanse Record Type	CUT Address
Contact DataCleanse Record Type	Contact
List Mgmt Prospective Contact DataCleanse Record Type	List Mgmt Prospective Contact

e) Select **Site Map** > **Administration - Data Quality** > **Third Party Administration** > **Data Quality Settings**. Add the ff data for Data Quality Settings. These settings enable data cleansing for your Siebel Application

Name	Value
Enable DataCleansing	Yes

18. (Siebel Business 8.0/8.1.1 SDQ and Siebel Industry 8.0/8.1.1 SDQ only) Configure data matching configuration parameters:

a) Select **Site Map** > **Administration** > **Data Quality** > **Third Party Administration**. On the Vendor Applet, include the ff value

Name	DLL Name
G1DataMatching	Group1Connector

b) Add the ff BC Vendor Field Mapping:

Table 11: Siebel Business

Business Component	Operation
Account	DeDuplication
Business Address	DeDuplication
Contact	DeDuplication
List Mgmt Prospective Contact	DeDuplication

Table 12: Siebel Industry

Business Component	Operation
Account	DeDuplication
CUT Address	DeDuplication
Contact	DeDuplication
List Mgmt Prospective Contact	DeDuplication

c) Under each BC Operation, add the ff Field Mappings.

Table 13: Siebel Business

Business Component Field	Mapped Field
Account	
Dedup Token	DedupToken
Id	Id
Location	Location
Name	Name
Primary Account City	City
Primary Account Country	CountryName
Primary Account Postal Code	PostalCode
Primary Account State	StateProvince
Primary Account Street Address	AddressLine1
Business Address	
City	City
Country	CountryName
Id	Id

Business Component Field	Mapped Field
Postal Code	PostalCode
State	StateProvince
Street Address	AddressLine1
Street Address 2	AddressLine2
Contact	
First Name	FirstName
Id	Id
Last Name	LastName
Middle Name	MiddleName
Primary Account Name	AccountName
Primary City	City
Primary Country	CountryName
Primary Postal Code	PostalCode
Primary State	StateProvince
List Management Prospective Contact	
Account	Account
City	City
Country	CountryName
First Name	FirstName
Id	Id
Last Name	LastName
Middle Name	MiddleName

Business Component Field	Mapped Field
Postal Code	PostalCode
State	StateProvince
Street Address	AddressLine1
Street Address 2	AddressLine2

Table 14: Siebel Industry

Business Component Field	Mapped Field
Account	
Dedup Token	DedupToken
Id	Id
Location	Location
Name	Name
Primary Account City	City
Primary Account Country	Country
Primary Account Postal Code	PostalCode
Primary Account State	State
Primary Account Street Address	AddressLine1
CUT Address	
City	City
Country	Country
Id	Id
Postal Code	PostalCode

Business Component Field	Mapped Field
State	State
Street Address	AddressLine1
Street Address 2	AddressLine2
Contact	
First Name	FirstName
Id	Id
Last Name	LastName
Middle Name	MiddleName
Primary Account Name	Name
Primary City	City
Primary Country	Country
Primary Postal Code	Code
Primary State	State
List Management Prospective Contact	
Account	Account
City	City
Country	CountryName
First Name	FirstName
Id	Id
Last Name	LastName
Middle Name	MiddleName
Postal Code	PostalCode

Business Component Field	Mapped Field
State	StateProvince
Street Address	AddressLine1
Street Address 2	AddressLine2

d) Add the ff Vendor Parameters:

Note: Token Expression and Query Expression are custom fields in their respective Business Components.

Table 15: Vendor Parameters

Name	Value
Account DeDup Record Type	Account
Account Query Expression	"|" + [Query Expression 1] + [Query Expression 2] + [Query Expression 3]
Account Token Expression	"|" + [Token Expression 1] + [Token Expression 2] + [Token Expression 3]
Batch Max Num of Records	200
(Siebel Business Only) Business Address DeDup Record Type	Business Address
(Siebel Industry Only) CUT Address DeDup Record Type	CUT Address
Contact DeDup Record Type	Contact
Contact Query Expression	"|" + [Query Expression 1] + [Query Expression 2] + [Query Expression 3]
Contact Token Expression	"|" + [Token Expression 1] + [Token Expression 2] + [Token Expression 3]
List Mgmt Prospective Contact DeDup Record Type	List Mgmt Prospective Contact

Name	Value
List Mgmt Prospective Contact Query Expression	"|" + [Query Expression 1] + [Query Expression 2] + [Query Expression 3]
List Mgmt Prospective Contact Token Expression	"|" + [Token Expression 1] + [Token Expression 2] + [Token Expression 3]
Realtime Max Num of Records	200

e) Select **Site Map** > **Administration - Data Quality** > **Third Party Administration** > **Data Quality Settings**. Add the ff data for Data Quality Settings. These settings enable data matching for your Siebel Application.

Name	Value
Enable DeDuplication	Yes
Force User DeDupe - Account	Yes
Force User DeDupe - Contact	Yes
Force User DeDupe - List Mgmt	Yes

19. (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Business 8.0/8.1.1 non-SDQ, and Siebel Industry 8.0/8.1.1 non-SDQ only) Configure Siebel server configuration events.

The Siebel server must be configured so that the records created in the local database can be synchronized to the server.

a) Navigate to **View** > **Administration - Server Configuration** > **Servers** > **Components** > **Event**.
b) Locate the Workflow Process Manager Server components.
c) Set the following Component Event Configuration for Workflow Process Manager:

Task Configuration	4
Component Tracing	3
SQL Parse and Execute	4
Workflow Definition Loading	4
Workflow Engine Invoked	4
Workflow Step Execution	4
Workflow Process Execution	4

Object Manager Business Service Operation and SetErrorMsg Log	4
Object Manager Business Component Operation and SetErrorMsg Log	4
Object Manager SQL Log	4

d) Locate the Transaction Merger server components.
e) Set the following Component Event Configuration for Transaction Merger:

General Events	4
Components Tracing	3
SQL Parse and Execute	4

20. (Siebel Enterprise 7.8, Siebel Industry 7.8, Siebel Business 8.0/8.1.1 non-SDQ, and Siebel Industry 8.0/8.1.1 non-SDQ only) Enable marketing server components.

The Marketing Server Components must be enabled to import a list from the List Management business object.

a) Navigate to **Administration - Server Configuration** > **Enterprises** > **Component Groups**.
b) In the Spectrum™ Technology Platform Server list, select the appropriate server.
c) In the Enterprise Component Groups list, locate each of the required component groups using the following table. If the **Enable State** field does not contain the value **Enabled**, select the component groups, click the menu button, and choose **Enable Component Group**.

Group Name	Components	Description
MktgOM	• Marketing Obj Mgr • eMarketing Obj Mgr • eEvents Obj Mjr	Marketing Object Manager. Supports the user interface and business objects for the Marketing application.
Mktg Srv	List Import Service Manager	Marketing Server. Used for list management list import.

d) Click the **Synchronize view** tab and click **Synchronize**.
e) Restart the Siebel server. The Siebel server must be restarted each time synchronization occurs.

8

Starting the Server

In this section:

Start Spectrum™ Technology Platform Server

Start Spectrum™ Technology Platform when you are done installing any necessary databases.

Note: Java uses `/var/tmp` as its temporary directory by default. If there is not enough space in this directory, the Spectrum™ Technology Platform server may not start, and you may also experience problems starting Management Console.

1. Change the working directory to the bin directory of where Spectrum™ Technology Platform is installed. For example,

   ```
   cd /usr/g1/tst/server/bin
   ```

2. Source the setup file. For example,

   ```
   . ./setup
   ```

3. Launch Spectrum™ Technology Platform.

   - To launch Spectrum™ Technology Platform in the background, type the following command:

     ```
     ./server.start
     ```

   - To launch Spectrum™ Technology Platform in the foreground, type the following command:

     ```
     ./server.start console
     ```

   Note: To stop Spectrum™ Technology Platform, type the following command: `./server.stop`

9

Installing the Permanent License File

In this section:

Install Permanent License File

A license file provides long-term access to your software pursuant to the terms of your license. For new installations, the access key you enter during installation provides temporary access to the software for 45 days, allowing you to start using your software immediately while you obtain your license file. For upgrades of existing Spectrum™ Technology Platform installation, you may continue to use your existing license file; you do not need to get a new one.

Spectrum™ Technology Platform uses a license management system that enables Pitney Bowes Software to administer agreements with customers and data providers. The license management system monitors transaction counts, term limits, and regulatory compliance. Failure to adhere to license restrictions may result in the disabling of the product until compliance is achieved.

You may be required to update your permanent license file(s) periodically. Pitney Bowes Software may request system audits and reports to provide you with updated license files.

1. Go to **www.g1.com/support**.
2. Log in to support.
3. Click **My Products**, select the correct product name, and click **View Detail**.
4. In the **License File** column, click **Get**. A page appears with a link to download your license file.

   Note: For some modules you will need to view available downloads for the sub component before you see the **Get** link.

5. Click **Download License File**.
6. After you download the license file, copy it to the following directory:

   ```
   $G1DCG/server/app/import
   ```

7. The license file(s) will be applied to your system. If there was a problem installing the license file, check the log file in:

   ```
   $G1DCG/server/app/repository/logs
   ```

   Depending on whether the key was processed successfully or there was an error processing the key, processed keys go into one of these folders:

   - `$G1DCG/server/app/import/archive/license-Keys`
   - `$G1DCG/server/app/import/error/license-Keys`

   Note: License file information is company-specific. Protect it as you would your password.

10

Adding Modules and Features

In this section:

Adding Modules

Spectrum™ Technology Platform is designed so that modules can be added as you grow your system over time. For example, you may have one Spectrum™ Technology Platform module and then license another module a few months later. The second product may be built on a newer version of Spectrum™ Technology Platform. This will require you to upgrade your version of Spectrum™ Technology Platform. In another case, the second product is compatible with the installed version. In both cases, the install program recognizes if it needs to upgrade Spectrum™ Technology Platform and will do so without prompting. If an upgrade is not required, the installer will skip the Spectrum™ Technology Platform install steps and install the new module.

The process for adding a module is similar to that of a new installation. In both cases you start the installation process by running the Spectrum™ Technology Platform installer. Note that Spectrum™ Technology Platform modules do not have their own installer. Instead, you use the Spectrum™ Technology Platform installer to add modules.

1. If the Spectrum™ Technology Platform server is running, stop the server by typing the following command in the Spectrum™ Technology Platform bin directory:

   ```
   ./server.stop
   ```

2. Do one of the following:

   - Download the new module from **www.g1.com/support**.
   - If you are installing the new module from DVD, insert the Spectrum™ Technology Platform DVD. If your system does not auto-mount, issue the appropriate mount command to indicate that the DVD device is a file system.

   Note: Your system must allow DVDs created under the ISO 9660 format to be mounted as a file system. You may experience file loading difficulties when using DVDs mounted with the Rockridge extension. Pitney Bowes Software recommends using the standard ISO 9660 format without extensions.

3. Change the directory to the location of `install.sh`, either on the Spectrum™ Technology Platform DVD or in the location where you downloaded the Spectrum™ Technology Platform installation files from the Pitney Bowes Software web site.
4. Source the `install.sh` script. This is required so you can change DVDs during installation. For example:

   ```
   . ./install.sh
   ```

   The Spectrum™ Technology Platform Installer prompt displays.
5. When prompted, enter one or more valid access keys for the module you wish to add.
6. Load any necessary databases for the new product. See the instructions in **Installing Databases** on page 23.
7. After you install the necessary databases (if any) start Spectrum™ Technology Platform. See the instructions in **Start Spectrum™ Technology Platform Server** on page 84.
8. Change directory to `.../server/bin`.
9. You must now enter the necessary access keys to use the module. For instructions, see **Activating Features After Installation** on page 89.

Activating Features After Installation

Spectrum™ Technology Platform and some modules have optional features. The access keys you entered during the installation process activates the specific features that you have licensed. If you license additional features after installing you can easily enter your new key to unlock the new features. For example, if you originally install the Universal Addressing Module with just U.S. address support and later want to add support for Canadian addresses, you can purchase an updated license, then update your access keys without having to re-install the Universal Addressing Module.

To activate features and databases after the initial installation, follow these steps.

Note: This procedure will activate features on software that you have already installed. It is not for adding new modules. If you are adding a new module, see **Adding Modules** on page 88.

1. Change to the `server/bin` directory.
2. Source the setup script:

   ```
   ../setup
   ```

3. Type the following:

   ```
   ./accessKey.sh
   ```

   Alternatively, you can point the access key installer to a file containing the keys you want to install. To do this specify the `-file` parameter following by the file name. For example:

   ```
   ./accessKey.sh -file mykeys.txt
   ```

11

Removing Spectrum

In this section:

Removing the Server

Before uninstalling any product, back up any files you may need in the future. Uninstalling Spectrum™ Technology Platform will remove any job definitions and server-default changes you may have made.

1. If the Spectrum™ Technology Platform server is running, stop the server by typing the following command in the Spectrum™ Technology Platform working directory:

   ```
   ./server.stop
   ```

2. Source the setup file. For example,

   ```
   . ./setup
   ```

3. Uninstall the Spectrum™ Technology Platform modules by running the uninstall script for each module. The scripts are located in the `Uninstall/Uninstall_<code>` directory. For a list of codes, see **Installation Unit (IU) Codes** on page 94.
4. After uninstalling all Spectrum™ Technology Platform modules, uninstall Spectrum™ Technology Platform by running the uninstall script located in the `Uninstall/Uninstall_LES` directory.

Removing the Client Tools

1. Back up any files you may need in the future.
2. Use the Windows Add/Remove Programs control panel to uninstall the Spectrum™ Technology Platform client tools or Client API.

Removing the Client API

1. Navigate to the folder where you installed the Client API. If you installed the Client API to the default location, navigate to the following path: `/PBSpectrum_ClientSDK/Uninstall_SDK`.
2. Enter the following command and press **Enter**:

   ```
   # ./Uninstall_SDK
   ```

3. The uninstall script walks you through the uninstall process.

   Note: If the Client API and the Spectrum™ Technology Platform server were installed on the same machine and you used the Java installation from Spectrum™ Technology Platform to install the Client API, you cannot remove the server before uninstalling the Client API. If you remove the Spectrum™ Technology Platform server before removing the Client API, you will need to install Java on your machine to complete the uninstallation of the Client API.

A

Installation Unit Codes

In this section:

Installation Unit (IU) Codes

Table 16: IU Codes For Spectrum™ Technology Platform Modules

Module Name	IU Code
Address Now	ADN
Advanced Matching	CDQ
Business Steward Module	BSM
Data Hub Module	GRF
Data Normalization	CDQ
Enterprise Geocoding (Australia)	IAU
Enterprise Geocoding (Global)	GLOBAL
Enterprise Geocoding (U.K.)	IGB
Enterprise Geocoding (U.S.)	KGL
Enterprise Geocoding (World)	IXW
Enterprise Tax	GSL
GeoConfidence	GCO
Global Sentry	OIS
Location Intelligence	LIM
SAP CRM 6.0	CS6
SAP CRM 7.0	70S
SAP ECC 5.0	EC5
SAP ECC 6.0	E6C

Module Name	IU Code
Siebel Industry 7.8	SIC
Siebel Enterprise 7.8	SEC
Siebel Business 8.0	SQB
Siebel Business 8.1.1	81B
Siebel Industry 8.0	SQI
Siebel Industry 8.1.1	81I
Universal Addressing	UNC
Universal Name	CDQ

Index