RFTagAware™

Compliance Jump Start™

User Guide

Version 1.1.3

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Preface

Purpose of This Manual

This manual describes how to install and use the RFTagAware™ Compliance Jump Start™ application.

Audience

- Tagging station operators
- Tagging station and tagging server administrators.

Administrators should be familiar with Microsoft® Windows or Linux® and networking concepts.

Related Documents

- *RFTagAware Programmer Guide*
- *RFTagAware Deployment Guide*
- *RFTagAware Reader Configuration Guide*

What's in This Manual

- Chapter 1: Introduction

  This chapter provides an overview of the Compliance Jump Start application.
- Chapter 2: Installing and Configuring Compliance Jump Start

  This chapter describes how to install and configure Compliance Jump Start.
- Chapter 3: Getting Started: A Quick Tour of a Sample Workflow

  This chapter gives you a quick tour of the application by walking you through a sample pallet workflow.
- Chapter 4: Administrative Tasks

  This chapter describes common tasks for the administrator.
- Chapter 5: Troubleshooting

  This chapter describes how to fix various problems that may come up in the workflow.

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Chapter 1: Introduction

Contents

This chapter provides an overview of RFTagAware™ Compliance Jump Start.

Compliance Jump Start Overview

Compliance Jump Start provides operational software for a warehouse floor RFID tag-at-ship station. It combines an easy-to-use graphical interface with the RFTagAware RFID infrastructure software.

Using Compliance Jump Start with an RFID label printer and an RFID verification reader, you can:

- Set up the tag-at-ship station with:
  - A catalog of your products, including GTIN, SKU, and UPC codes
  - Destination addresses for your shipments
  - Various case label templates, selectable by product
  - Various pallet label templates, selectable by destination
  - Work lists of pallets to be built
- Modify any of the above listed information either online through the Compliance Jump Start user interface or by re-importing your own data files.
- Write and verify RFID labels for cases on a pallet.
- Write and verify RFID labels for pallets.
- Write and verify RFID labels for parcels.
- Generate reports capturing case-to-pallet associations for a work session and any associated exceptions and rework actions.
- Generate reports capturing case-to-pallet associations for a specified time period.

(For a list of supported readers and printers, see the *RFTagAware Reader Configuration Guide*.)

The Compliance Jump Start software solution is built on a solid, layered architecture that allows rapid modification and customization of workflows and the graphical user interface.

Please contact our sales representatives if you would like more information on customization options.

What's Next: Installing and Configuring Compliance Jump Start

To get started using Compliance Jump Start, take a look at Installing Compliance Jump Start (page 2-3).

Chapter 2: Installing and Configuring Compliance Jump Start

Contents

This chapter describes how to install and configure Compliance Jump Start.

System Requirements

The four main components of an Compliance Jump Start system are:

- Compliance Jump Start Operator Console (user interface)
- RFTagAware (RFID infrastructure software)
- BEA WebLogic Server® (application server)
- PointBase® (database)

Compliance Jump Start is supported on the following platforms:

- Microsoft Windows 2000 Professional, Windows 2000 Server, Windows XP, and Windows 2003 Server.
- Intel Pentium-compatible running Red Hat Linux (Version 8, Version 9, or Fedora Core 3).

A full standalone installation of Compliance Jump Start requires approximately 172 MB (UNIX) or 159 MB (Windows) of disk space.

Prerequisite Software

You will need to install the following software before installing Compliance Jump Start:

- BEA WebLogic Server 8.1 SP4. This installation will provide access to the WebLogic application server and PointBase database.
- A Java™ Development Kit. We recommend BEA JRockit or Sun Java 2 JDK, version 1.4.2_06 or higher.
- RFTagAware. The Compliance Jump Start installer will prompt you for the hostname and port number of an Edge Server, which is required to run Compliance Jump Start.

If you are installing on Linux, you must use a graphical environment to run the installer. Specifically, you must have a valid X Window System `DISPLAY` variable set in your environment.

In addition, if you are installing onto a Fedora Core 3 machine, you must add the `xorg-x11-deprecated-libs` package before starting the installer.

Supported RFID Readers

You need one or more RFID readers to use Compliance Jump Start. A list of supported readers appears in the *RFTagAware Reader Configuration Guide*. We are committed to providing support for new makes and models of RFID readers as they become available, so check with your sales representative if your selected RFID reader does not appear in the list of supported readers.

Some readers may require specific configuration prior to use with RFTagAware. The *RFTagAware Reader Configuration Guide* also provides configuration details for supported readers.

If you do not have an RFID reader, you can use the reader simulator provided with RFTagAware for testing. The reader simulator runs on any workstation. Out of the box, it provides a minimal simulation of a ThingMagic Mercury4 reader; with minor configuration it can provide a minimal simulation of a Printronix printer. The reader simulator is useful for software evaluation, application development, and debugging.

Installing Compliance Jump Start

This section shows you how to install Compliance Jump Start.

Installation Modes

There are two basic installation modes:

Add Features/Reinstall Installation Mode (page 2-4) is available if you install the software, and then reinstall the same version.

Full Installation Mode

The **Full** install places all the components on a single machine, sets the configuration parameters accordingly and provides documentation.

Distributed Installation Mode

The **Distributed** install allows you to place individual components on a particular machine, or to omit certain components entirely. The Distributed install requires a certain familiarity with the product, and in some cases will require you to make changes to property or configuration files once the installation is complete.

The components available in a Distributed install are:

- Tagging Server – Data repository and external integration point for EPCIS messages.
- Tagging Station – Client workstation for printing and applying tags to cases and pallets.
- Sample Data – Sample input data, printer label templates, and XSL transforms.
- Documentation – Compliance Jump Start User Guide and release notes.

You would choose the Distributed install to, for example, place the Tagging Server software on one machine and the Tagging Station software on one or more other machines.

Add Features/Reinstall Installation Mode

The **Add Features/Reinstall** mode appears only when you run the installer in an environment where you already installed **this version** of Compliance Jump Start. It lets you:

- Add additional components to the current version of the software.

  You might want to do this if you initially installed a subset of components, then later want to add additional components.
- Reinstall keeping your configuration information.
- Reinstall overwriting your configuration information.

Directory Structure Concepts

Defaults and Allowed Install Locations

RFTagAware's default installation directories are:

- Windows: `C:\Program Files\ConnecTerra\Compliance`
- UNIX: `/opt/ConnecTerra/Compliance`

You can choose different primary install locations.

Directory Structure

Regardless of where you put your primary install directory, Compliance Jump Start creates two main subdirectories beneath the primary install directory:

- `control` – Version-independent location for the master startup scripts for the various components of Compliance Jump Start. These scripts act like pointers or symbolic links to the actual scripts for a particular version. This lets you continue to use the same `control\bin\<script_name>` path to run a script, no matter how many times you upgrade.
- *`version_number`* – Contains the files for a specific version of Compliance Jump Start.

Directory Tree Overview

Here are some highlights from a sample installed directory tree:

control	
control\bin	Use these master scripts to perform Compliance Jump Start tasks. compliance-gui.bat run-printer-reader-sim.bat init-compliance-db-tables.bat These scripts will always invoke the version of Compliance Jump Start that you have most recently installed.

1.1.3	
1.1.3\bin	Version-specific scripts used by Compliance Jump Start. Use these scripts to start a *particular* version of the software, even if it is not the version you most recently installed.
1.1.3\deploy	Files that provide Compliance Jump Start functionality to the application server. compliance-enterprise.ear compliance-local.ear kodo.rar
1.1.3\etc	Tagging Station properties and logging files: tagging-station.props logging.props.compliance
1.1.3\lib	Java libraries used by Compliance Jump Start components.
1.1.3\samples	Sample data used to test system functionality.
1.1.3\UninstallerData	Files used by the installer during uninstallation.
1.1.3\var	Files created and used during operation, including log files.

Note: The version number (1.1.3) shown above will be different depending on the specific version of Compliance Jump Start installed on your system.

Shortened Pathnames in Documentation

Compliance Jump Start documentation uses standard shortcuts to refer to subdirectories where necessary files reside, as follows:

- COMPLIANCE-HOME = C:\Program Files\ConnecTerra\Compliance*<version>*
- WL-HOME = C:\Program Files\bea\weblogic81
- WL-DOMAIN-HOME = C:\Program Files\bea\user_projects\domains
- RFTA-HOME = C:\Program Files\ConnecTerra\RFTagAware*<version>*
- ORACLE-HOME = The directory location of the Oracle installation on this machine.

Running the Installer

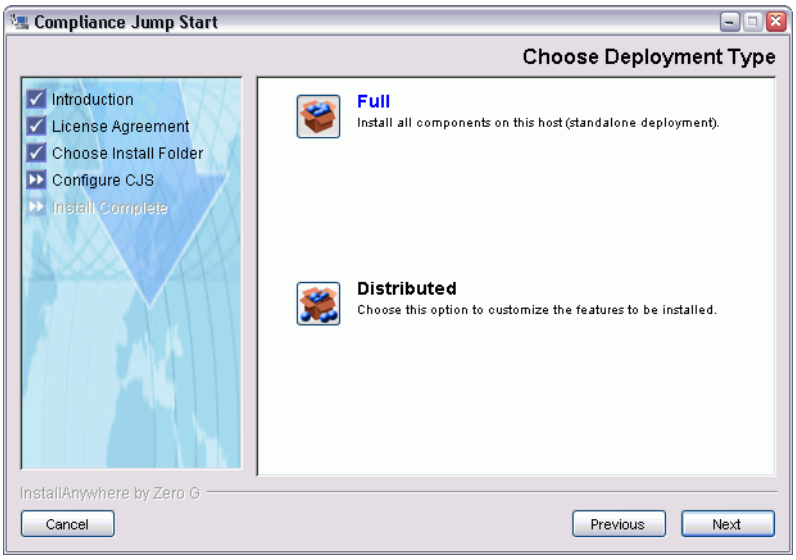
This section provides screenshots and descriptions of a sample installation, where the user chooses a **Full** deployment type. Other deployment types will differ.

1. Insert the Compliance Jump Start installation CD into the machine where you want to install, and run the install program for your platform:
   (Windows) `win_cjs_install.exe`
   (Linux) `lin_cjs_install.bin`
2. The installer walks you through the introduction screen and license agreement.

   The Choose Install Folder screen appears.

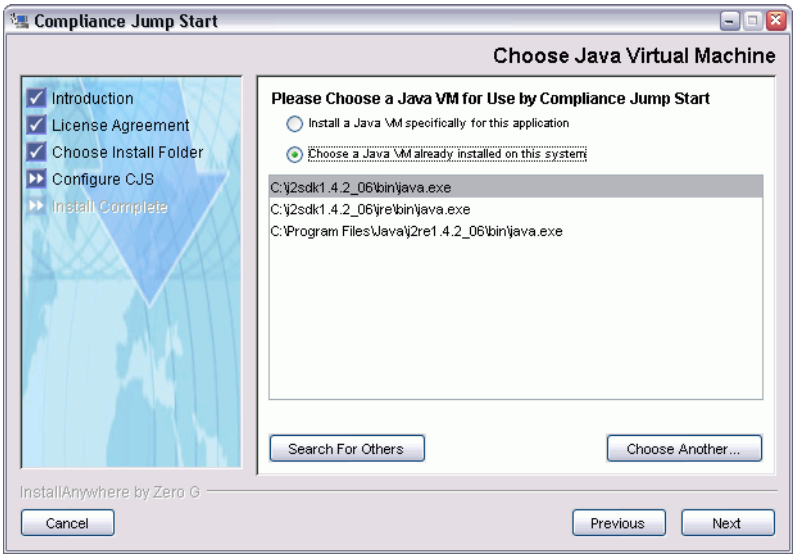
3. Click the **Choose** button to browse to the directory where you want to install the software.
4. Select the directory from the dialog that displays and click **OK**. Click **Next** to proceed with the installation.

The Choose Deployment Type screen appears.



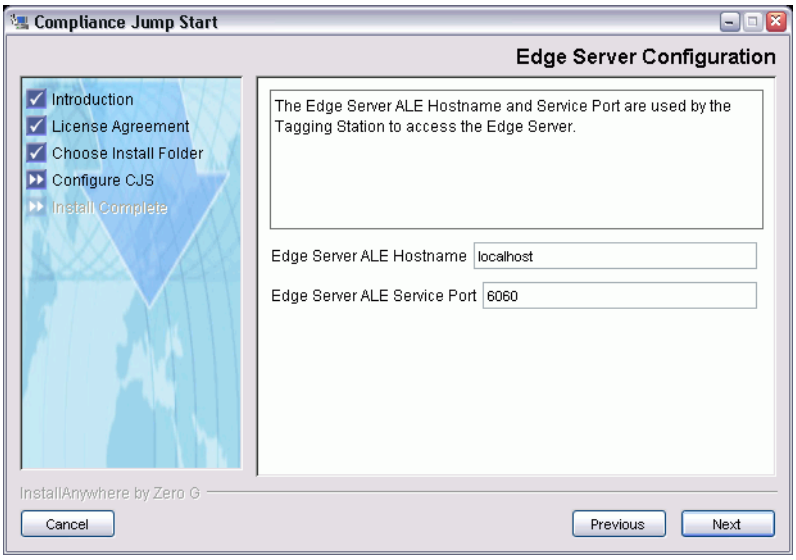
5. In this example, choose **Full** to install all components on the same machine, and click **Next**.

   The Choose Java Virtual Machine screen appears.



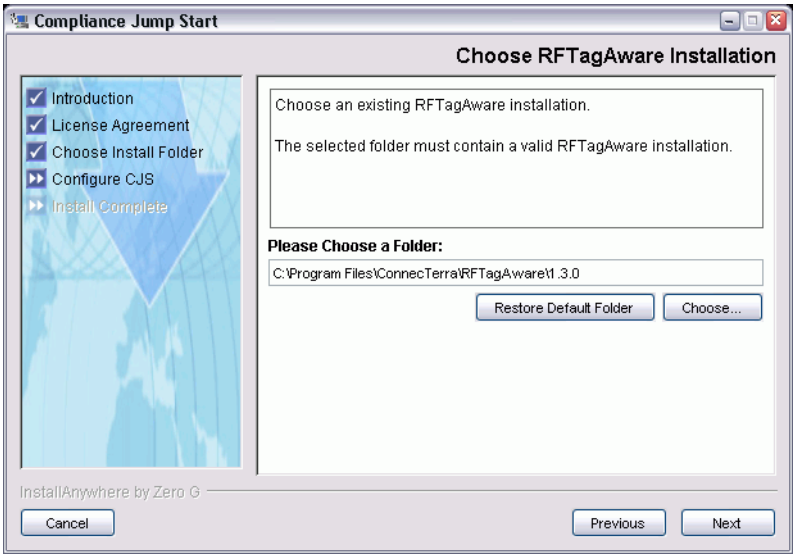
6. If you want to install the Java Virtual Machine included with the Compliance Jump Start installer, leave the default radio button checked (*Install a Java VM specifically for this application*). Otherwise, choose an existing Java VM, or use the buttons to find another Java VM to use. When you have finished, click **Next**.

7. The Edge Server Configuration screen appears.



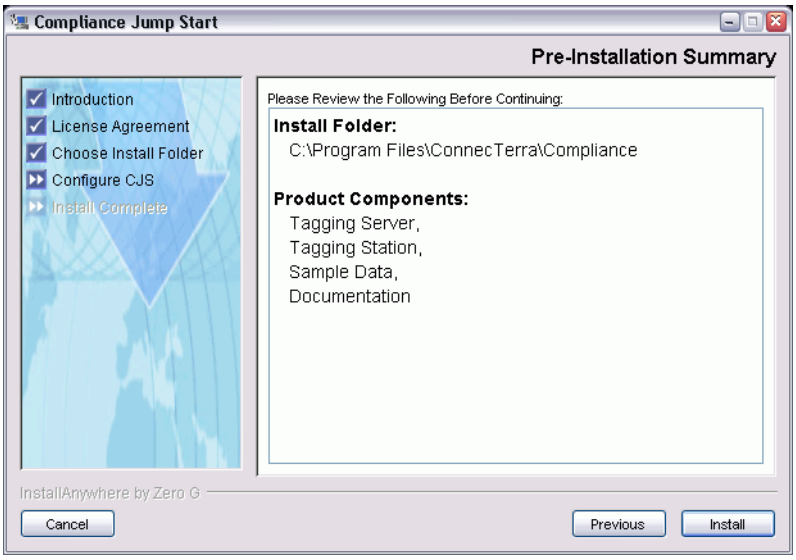
8. Type a hostname and port for the Edge Server that will be used by this Compliance Jump Start installation. Remember that the Edge Server ALE Service Port is the port **on the Edge Server machine** that your applications will use.

   Click **Next**, and the Choose RFTagAware Installation screen appears.



9. Enter the pathname to the most recent version of RFTagAware, and click **Next**.

The Pre-Installation Summary screen appears.



10. Click **Install** to proceed with the installation
11. Click **Done** when the Install Complete screen appears.

Configuring Compliance Jump Start

This section provides configuration information for a sample Full installation. If you have a Distributed installation, or multiple Tagging Stations, or questions about more complex configurations, please consult your authorized representative for assistance.

Initial Configuration

There are several initial configuration steps you will need to perform before starting the Compliance Jump Start system.

1. Configure readers and printers to be used with Compliance Jump Start in RFTagAware using either of these methods:

   - Use the controls under RFID Devices on the RFTagAware Administration Console.
   - Edit the `edge.props` file in the `RFTA-HOME\etc` directory.

   See the *RFTagAware Deployment Guide* and *RFTagAware Reader Configuration Guide* for more information.

2. Configure the tagging station to recognize the readers and printers you configured.

   See Configure Tagging Station Readers and Printers on page 2-10.

3. Create and initialize compliance databases.

   See Configure Compliance Databases on page 2-11.

4. Perform WebLogic Server setup tasks.

   See Configure WebLogic Server on page 2-12.

5. *(only if you will be using the Reader Simulator)* Edit the startup scripts as needed for configured readers and printers.

   When the Compliance Jump Start and RFTagAware are installed on the same machine, the Compliance Jump Start installer creates a script called `run-printer-reader-sim` in the `COMPLIANCE-HOME\bin` directory. This script will to allow you to simulate reading/writing RFID tags and printing labels in the absence of an actual reader or printer. When the script is run, it simulates a reader listening for tags on port 5151, and a printer capable of writing RFID tags via port 9100. These ports are defaults, and can be changed by editing the script. See the *RFTagAware Deployment Guide* for more information.

Configure Tagging Station Readers and Printers

To configure the Tagging Station to recognize the readers and printers you configured in RFTagAware:

1. Make a backup copy of the `tagging-station.props` file in the in the `COMPLIANCE-HOME\etc` directory.

2. Edit `tagging-station.props` and add properties for:

   Readers:

   ```
   com.connecterra.compliance.reader.rfidVerification =
     <RFTagAware logical reader name>
   ```

Case Label Printers:

```
com.connecterra.compliance.printer.default.logicalName =
  <RFTagAware logical reader name>
com.connecterra.compliance.printer.default.displayName =
  <identifier, will be shown in Operator Console printer lists>
com.connecterra.compliance.printer.default.testLabelTemplateName =
  <label template name>
```

Pallet Label Printers:

```
com.connecterra.compliance.printer.palletDefault.logicalName =
  <RFTagAware logical reader name>
com.connecterra.compliance.printer.palletDefault.displayName =
  <identifier, will be shown in Operator Console printer lists>
com.connecterra.compliance.printer.palletDefault.testLabelTemplateName =
  <label template name>
```

3. Save your changes to the file.

Configure Compliance Databases

To create and initialize the databases used by Compliance Jump Start:

1. Start the PointBase server by running the `WL-HOME\common\bin\startPointBase` script.
2. Create the `compliance` database and `ct` user using the PointBase Console:
   - Run the `WL-HOME\common\bin\startPointBaseConsole` script.
   - Create a database named `compliance` using the URL `jdbc:pointbase://localhost:9093/compliance`
   - Log in as user `PBPUBLIC`, with password `PBPUBLIC`.
   - Create user `ct` (using the **DBA | Create | User...**).
   - Grant the `PBDBA` role to user `ct` (using the **DBA | Grant | Role...**).
   - Disconnect from the database (using **DBA | Disconnect from Database**).
3. Run the `COMPLIANCE-HOME\bin\init-compliance-db-tables` script.

If you will be using Oracle® 9i databases with Compliance Jump Start, use the procedures described in Configuring Oracle® 9i Databases on page 4-26 to configure compliance databases instead.

If you will be using Microsoft SQL Server databases with Compliance Jump Start, use the procedures described in Configuring Microsoft SQL Server Databases on page 4-28 to configure compliance databases instead.

Configure WebLogic Server

To configure the WebLogic Server to run Compliance Jump Start:

1. Use the Configuration Wizard (accessed via the `WL-HOME\common\bin\config` script) to create a WebLogic Server Domain. On the Windows operating system, this command is also available from the **Start** menu.
2. Move the `kodo` directory from `COMPLIANCE_HOME\deploy` to `WL-DOMAIN-HOME\<domain>`.
3. Move the `startWebLogic` script from `COMPLIANCE_HOME\deploy` to `WL-DOMAIN-HOME\<domain>`.

   If you wish to manually update the `startWebLogic` script in `WL-DOMAIN-HOME\<domain>` instead, please set the `KODO_JARS` environment variable and add it to the `CLASSPATH` statement as shown in the version located in `COMPLIANCE_HOME\deploy`.
4. Start the BEA WebLogic Server by running the `WL-DOMAIN-HOME\<domain>\startWebLogic` script.
5. Use a web browser to access the BEA WebLogic Server Administration Console by navigating to: *http://hostname:7001/console*.
   - Configure a new JMS Server. This command can be found by navigating to `<domain> > Services > JMS > Servers` in the tree on the left side of the page.
   - Configure a new JMS Queue called TASQueue. This command can be found by navigating to `<domain> > Services > JMS > Servers > <servername> > Destinations` in the tree on the left side of the page.
6. Move `compliance-enterprise.ear`, `compliance-local.ear`, and `kodo.rar` from `COMPLIANCE-HOME\deploy` to `WL-DOMAIN-HOME\<domain>\applications`, and verify that the new applications appear in the tree on the left side of the page.

Initial System Startup

Use the instructions below to start the system and test printer/reader connectivity.

1. Start the RFTagAware Edge Server by running `RFTA-HOME\bin\RunEdgeServer.bat`.

   The Edge Server may be configured to start automatically when the system boots. In this case, skip this step. For more information, see the *RFTagAware Deployment Guide*.
2. Connect any RFID devices you configured so that they are recognized by the RFTagAware Edge Server, or *(if you will be using the Reader Simulator)* start the Reader Simulator using the `COMPLIANCE-HOME\bin\run-printer-reader-sim` script.

3. Start the database and application servers if they are not already running:
   - Start the PointBase server by running the `WL-HOME\common\bin\startPointBase` script.
   - Start the BEA WebLogic Server by running the `WL-DOMAIN-HOME\<domain>\startWebLogic` script.
4. Once the application server has finished initializing, run the `COMPLIANCE_HOME\bin\compliance-gui` script, which starts the Operator Console.
5. Import or create label templates as described in Managing Label Templates on page 4-5.
6. Test printers and readers recognized by Compliance Jump Start.
   - From the Main Menu, click **Administer System**.
   - From the Administration Menu, click **Administer Tagging Stations**.
   - From the Administer Tagging Station screen, click **Test Printers/Readers**.
   - On the Printers pane, choose a printer name from the *Name* drop-down list, and click **Print Test Label**. The *Messages* field will report any status messages.
   - On the Readers pane, choose a reader name from the *Name* drop-down list, and click **Test Reader**. The *Messages* field will report any status messages.
7. *(only if you will be using the Reader Simulator)* If you have configured more than one printer during Initial Configuration you will need to edit the `COMPLIANCE_HOME\bin\run-printer-reader-sim` script to indicate the correct service port and restart the Reader Simulator before testing the second printer.

System Data Configuration

1. Specify the location of the CSV files to be imported in the `COMPLIANCE_HOME\etc\tagging-station.props` file.

   See Specifying Location of CSV Data Files on page 2-14.
2. Start the system:
   - Start the RFTagAware Edge Server (if it is not already running).
   - Start the database and application servers:

     Start the PointBase server by running the `WL-HOME\common\bin\startPointBase` script.

     Start the BEA WebLogic Server by running the `WL-DOMAIN-HOME\<domain>\startWebLogic` script.
   - Once the application server has finished initializing, run the `COMPLIANCE_HOME\bin\compliance-gui` script, which starts the Operator Console.
3. Set up the workflow by importing CSV data files.

   See Importing CSV Data Files on page 2-14.

Specifying Location of CSV Data Files

Part of the initial configuration activities is specifying the directories in which to store your input files and reports.

- The *import* directory, for input files, will be the location that dialogs default to when you import new catalogs or pallet lists.
- The *export* directory will be where Compliance Jump Start work session reports are stored. See Compliance Jump Start Report Types on page 2-18 for more information on these reports.

To specify these directories:

1. Make a backup copy of the `COMPLIANCE_HOME\etc\tagging-station.props` file.
2. Edit `tagging-station.props` and set the following two properties to your desired pathnames:
   `com.connecterra.compliance.importDir = <data_files_directory>`
   `com.connecterra.compliance.exportDir = <reports_directory>`
3. Save your changes to the file. These changes take effect when the Operator Console is next started.

   Note: (*Windows only*) Pathnames must use double backslashes (\\), for example:
   `com.connecterra.compliance.importDir = C:\\DataFiles\\CJS`

Importing CSV Data Files

Before the system can be used to tag cases and pallets, user data from CSV files must be imported. This data includes:

- Product catalog
- Destination addresses
- Label template catalog for case and pallet labels
- Work lists of pallets to build in a work session

Data is imported from the CSV files through the Operator Console and is stored in the Compliance Jump Start database when the user saves the imported data. The user may modify the product, destination and label template catalogs using the Administration functions. Online modifications will be written to the database when saved, but the edited data cannot be exported as CSV files. The user may create new pallets (in addition to those imported from the CSV pallet list) as part the normal workflow.

When you import data from a CSV file:

- All existing data that is displayed in the Operator Console is deleted.
- The data you just imported from the CSV file is displayed instead.

Follow the instructions to import data files into Compliance Jump Start as outlined in the following sections:

- Managing the Product Catalog (page 4-2)
- Adding and Modifying Destinations (page 4-6)
- Managing Label Templates (page 4-5)
- Selecting a List of Pallets for a Work Period (page 4-2)

For information about the format and content of the CSV data files, see Administering CSV Files on page 4-17. Sample files are provided in the `COMPLIANCE-HOME\samples\csv` directory.

Modifying Compliance Jump Start Properties

Properties in the `COMPLIANCE-HOME\etc\tagging-station.props` file are installed with default values. These property values are documented here in case you need to change them later. To edit property values in the `tagging-station.props` file, first make a backup copy of the file, then make your changes and save the file.

The sections below list properties that you may need to change. Properties not described here should not be changed.

Tagging Station Property	Description
`stationID`	Preset to `station1`. This value can appear on labels and in reports. Must be changed if your Compliance Jump Start installation is one of a set of stations.

The `tagType` and `filter` values shown below are set to emulate retailer RFID tag requirements. These values, along with the case serial number properties described later in this table, determine how Compliance Jump Start will assign EPC codes for each of your products. A range of EPC codes is set aside for each of your products when you import your product catalog, using the parameters below. Thereafter, the range of EPC codes set aside for a given product cannot be changed. If you need to change any of these parameters after you begin tagging products (for example, if you change to a different tag type, need to select different filter bits, or wish to change the range of serial numbers set aside for products), please consult your authorized representative for assistance.

Tagging Station Property	Description
`caseEPC.tagType`	Preset to `sgtin-64`.
`caseEPC.filter`	Preset to 0.
`palletEPC.tagType`	Preset to `sscc-64`.
`palletEPC.filter`	Preset to 0.

The serial number range values below determine the range of serial numbers that are set aside for each product the first time the product is entered or imported into the product catalog. Changing these values will only affect new products you add to the product catalog. The preset maximum value of 4194303 is one eighth of the maximum possible serial number range ((2^{22})-1) for `sgtin-64` tags.

If you are running more than one Tagging Station and multiple stations will process the same products, then each station must have an exclusive range of serial numbers and these values must be changed for all but the first station.

If you know that you will be running only one station, and you expect to ship more than 4194303 cases of a single product, you should raise the maximum value of the range.

Tagging Station Property	Description
`caseEPC.serialNumberRangeMin`	Preset to 0.
`caseEPC.serialNumberRangeMax`	Preset to ((2^{22})-1) or 4194303.

The label template values below are the names of the label templates that Compliance Jump Start will use if no label is specified for destinations or products in their respective catalogs. See Label Templates on page 2-17.

Tagging Station Property	Description
`labelTemplate.caseDefaultName`	Preset to `defaultCaseLabel`.
`labelTemplate.palletDefaultName`	Preset to `defaultPalletLabel`.

The printer property values below configure a second printer to print pallet labels.

Tagging Station Property	Description
`printer.palletDefault.logicalName`	Preset to `PalletPrinter`. This name should correspond to a logical reader name assigned in RFTagAware.
`printer.palletDefault.displayName`	Preset to `Pallet Printer`. This name identifies the pallet label printer on the Operator Console.
`printer.palletDefault.testLabelTemplateName`	Preset to `defaultPalletLabel`. This name corresponds to a label template in Compliance Jump Start.

The import directory, for input files, will be the default directory location used when you import new catalogs or pallet lists. The export directory will be used to store Compliance Jump Start work session reports.

Tagging Station Property	Description
`importDir`	Preset to `C:\\temp\\compliance` on Windows or `/tmp/compliance` on Linux.
`exportDir`	Preset to `C:\\temp\\compliance` on Windows or `/tmp/compliance` on Linux.

Label Templates

Compliance Jump Start allows multiple label templates for cases and pallets, with specific labels assigned according to product and/or destination. Sample label templates for all supported RFID printers are provided in the `COMPLIANCE-HOME\samples\labelTemplates` directory.

The sample pallet and case label templates have certain format/font restrictions (for example, five-digit postal code). The label templates may need to be altered based on your label requirements.

The label templates are written in PGL (for Printronix printers), ZPL (for Zebra printers), MPCLII (for Monarch printers), or Easy Plug (Avery and Accraply printers). You will need to construct your own labels using:

- PGL, ZPL, MPCLII, or Easy Plug statements.
- Substitution strings for human readable parts of the label. These strings are recognized by the application and filled in during operation:

```
[CT_DEST_ADDR_LINE1]
[CT_DEST_ADDR_LINE2]
[CT_DEST_ADDR_LINE3]
[CT_DEST_ADDR_LINE4]
[CT_DEST_ADDR_LINE5]
[CT_DEST_ADDR_LINE6]
[CT_DEST_NAME]
[CT_DEST_ZIP_CODE]
[CT_ORDER_ID]
[CT_PALLET_LPN]
[CT_PALLET_SSCC]
[CT_PRODUCT_CASE_GTIN]
[CT_PRODUCT_DESC]
[CT_PRODUCT_ITEM_CODE]
[CT_PRODUCT_SKU]
[CT_PRODUCT_USER1]
[CT_PRODUCT_USER2]
[CT_PRODUCT_USER3]
[CT_PRODUCT_USER4]
[CT_PRODUCT_USER5]
[CT_STATION_ID]
```

  For information on how to add user-defined values to a Product CSV file, see Product CSV File on page 4-18.

- Substitution strings that are used to print the EPC value on a label:

```
[EPC_HEX]      // the hexadecimal representation of the tag value
[EPC_ID_URI]   // the pure identity URI representation of the tag value
[EPC_TAG_URI]  // the tag URI representation of the tag value
```

  Note: These URI formats are defined by the EPCglobal *Tag Data Standards*.

Label scripts for the Avery 6405 must contain an EasyPlug command to tell the printer the tag position within the label. This command begins with `#IMSR`.... This command must be specific to the type of label you are using. See the Avery document, *HowToRFID 040624.pdf*, or look at the sample `testAveryAlienClass1.epl` provided by Compliance Jump Start for more information.

For information on how to manage your label templates once you have created the label files, see Managing Label Templates on page 4-5.

Compliance Jump Start Report Types

At the completion of a work session, Compliance Jump Start automatically generates *work session reports* in CSV format. Compliance Jump Start stores these files in the export directory you specified (see Modifying Compliance Jump Start Properties on page 2-15).

All report filenames begin with the date and time of the report followed by one of the following:

```
_work
_work-summary
_work-cp-details
_work-case-exception-rework-history
_work-pallet-exception-rework-history
_work-pallet-gtin-count
```

For information about the format of these reports, see Report CSV Files on page 4-20.

In addition to the automatically generated work session reports, you can also generate *summary reports* for any period of time from the **Create Reports** option on the Operator Console. See Printing Reports on page 4-12.

Case-to-pallet associations are written to the database upon completion of a pallet, and all rework actions are immediately written to the database as they are performed. See Accessing the Compliance Jump Start Database on page 4-14.

In addition, you can (optionally) configure case-to-pallet association XML messages to be delivered to a destination. See Using XML Reporting on page 4-29 for more information.

Starting Compliance Jump Start

The instructions given below assume that you have performed a Full installation of Compliance Jump Start, and that all system components reside on the same machine. If you have a Distributed installation, or multiple Tagging Stations, or questions about more complex configurations, please consult your authorized representative for assistance.

1. Start the RFTagAware Edge Server.

   The Edge Server may be configured to start automatically when the system boots. In this case, skip this step. For more information, see the *RFTagAware Deployment Guide*.

2. *(only if you will be using the Reader Simulator)* Start the Reader Simulator using the `COMPLIANCE_HOME\bin\run-printer-reader-sim` script.

3. Start the database and application servers:
   - Start the PointBase server by running the `WL-HOME\common\bin\startPointBase` script.
   - Start the BEA WebLogic Server by running the `WL-DOMAIN-HOME\<domain>\startWebLogic` script.
4. Once the application server has finished initializing, run the `COMPLIANCE_HOME\bin\compliance-gui` script, which starts the Operator Console.

Stopping Compliance Jump Start

To stop the Operator Console, click the **Exit** button on the Main Menu.

To stop the application and database servers:

- Start the PointBase server by running the `WL-HOME\common\bin\stopPointBase` script.
- Start the BEA WebLogic Server by running the `WL-DOMAIN-HOME\<domain>\stopWebLogic` script.

  Note: Shutting down and restarting either the Operator Console or compliance services during a work session will not cause you to lose work done on any partial or completed pallets.

Shut down the RFTagAware Edge Server if all the Tagging Stations communicating with it have been shut down.

Chapter 3: Getting Started: A Quick Tour of a Sample Workflow

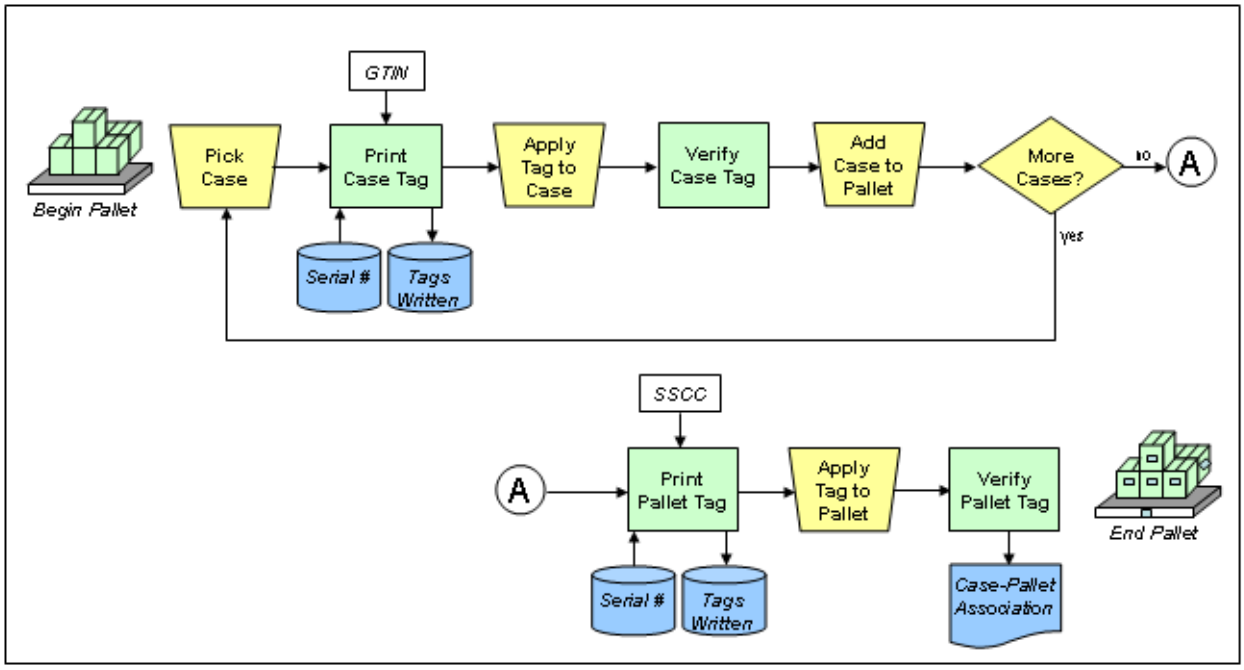
Contents

This chapter gives you a quick tour of the application by walking you through a sample pallet workflow.

Overview

In this chapter, you will start with a pallet whose cases already have SKU bar codes on each case. Your goal is to attach RFID labels to each case, and then attach an RFID label to the pallet as a whole.

Compliance Jump Start Workflow



To do this, follow this workflow:

1. Set up for the tour.

   See Set Up for the Tour on page 3-3.

2. Within Compliance Jump Start, select a pallet to work on.

   See Start a Pallet on page 3-4.

3. Repeat the steps below for each case in the pallet:

   - Scan a case and make sure its bar code corresponds to a listing in your product catalog.

     See Scan a Case on page 3-6.

   - Print and attach an RFID tag for the case.

     See Print Case Label on page 3-7.

   - Read the RFID tag that you just printed, to make sure it is correct.

     See Verify Case Label on page 3-8.

4. When you have created tags for all the cases, tell Compliance Jump Start that you have finished the pallet.

   See Finish Pallet on page 3-8.

5. Print an RFID tag for the entire pallet.

   See Print Pallet Label on page 3-9.

6. Read the RFID tag that you just printed, to make sure it is correct.

   See Verify Pallet Label on page 3-10.

7. If you have to exit the Operator Console while you are processing a pallet, you can restart Compliance Jump Start and continue processing the pallet.

   See Resume Pallet on page 3-11

Note that this chapter describes one specific workflow for building a pallet. It walks you through this workflow step by step. If you are using a different workflow, your account representative will walk you through that workflow.

Set Up for the Tour

The system administrator or account representative who set up your system will have created the product catalog, label template, and destination information used in this tour. See Chapter 2: Installing and Configuring Compliance Jump Start if this information is missing.

To set up for the tour of Compliance Jump Start:

- Create a pallet list CSV file, as described in Pallet List CSV File on page 4-18. You can use the `COMPLIANCE_HOME\samples\csv\pallet-list.csv` file as a model, or import that file using the instructions in Selecting a List of Pallets for a Work Period on page 4-2 if you are interested in working with sample data.
- Make sure Compliance Jump Start is configured to let you tag parcels, print case labels, and to require you to click the **Print Case Label** button. To do this:
  - Start Compliance Jump Start, as described in Initial System Startup on page 2-12.
  - From the Main Menu, click **Administer System**, **Administer Tagging Station, Administer Workflow** to display the Administer Workflow screen.
  - Make sure the *Tag parcels* checkbox is checked. (Be sure to record the original setting, so you can restore the original setting after you finish this quick tour.)
  - Make sure the *Print case labels as pallets are built* radio button is selected. (Be sure to record the original setting, so you can restore the original setting after you finish this quick tour.)

- Make sure the *Automatically continue after scanning a barcode* checkbox is unchecked. (Be sure to record the original setting, so you can restore the original setting after you finish this quick tour.)
- Make sure the *Skip pallet label verification* checkbox is unchecked. (Be sure to record the original setting, so you can restore the original setting after you finish this quick tour.)
- Click **Save**.

Start a Pallet

1. Start Compliance Jump Start, as described in Starting Compliance Jump Start on page 2-18.
2. From the Main Menu, click the **Begin Work** button.

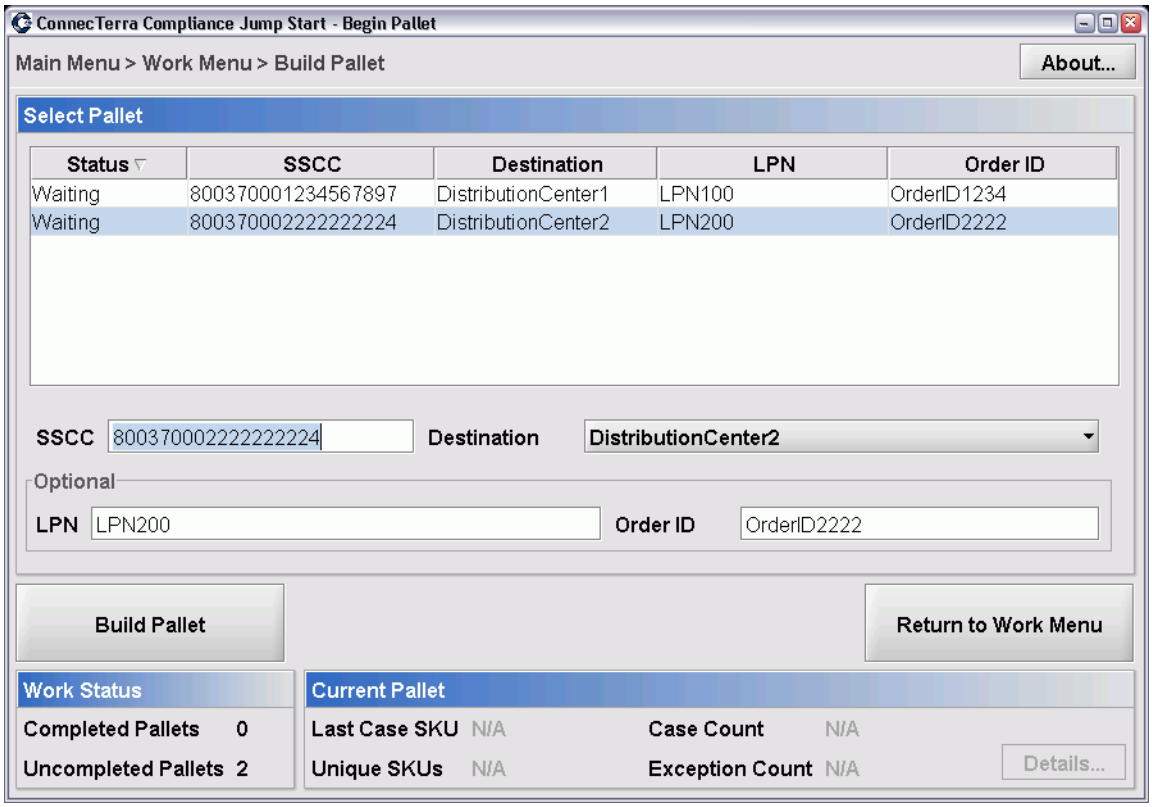
   The Work Menu appears.

Work Menu

3. Click the **Begin Pallet** button.

   The Begin Pallet screen appears.

Begin Pallet Screen



This screen shows the pallets that should be worked on in a given work period. You obtain this list of pallets through the Import Pallet List screen. See Selecting a List of Pallets for a Work Period on page 4-2.

4. Highlight the pallet you want to work on, and click **Build Pallet**.

   The Add Case screen appears. The *Pick Case* step is highlighted, showing you where you are in the workflow.

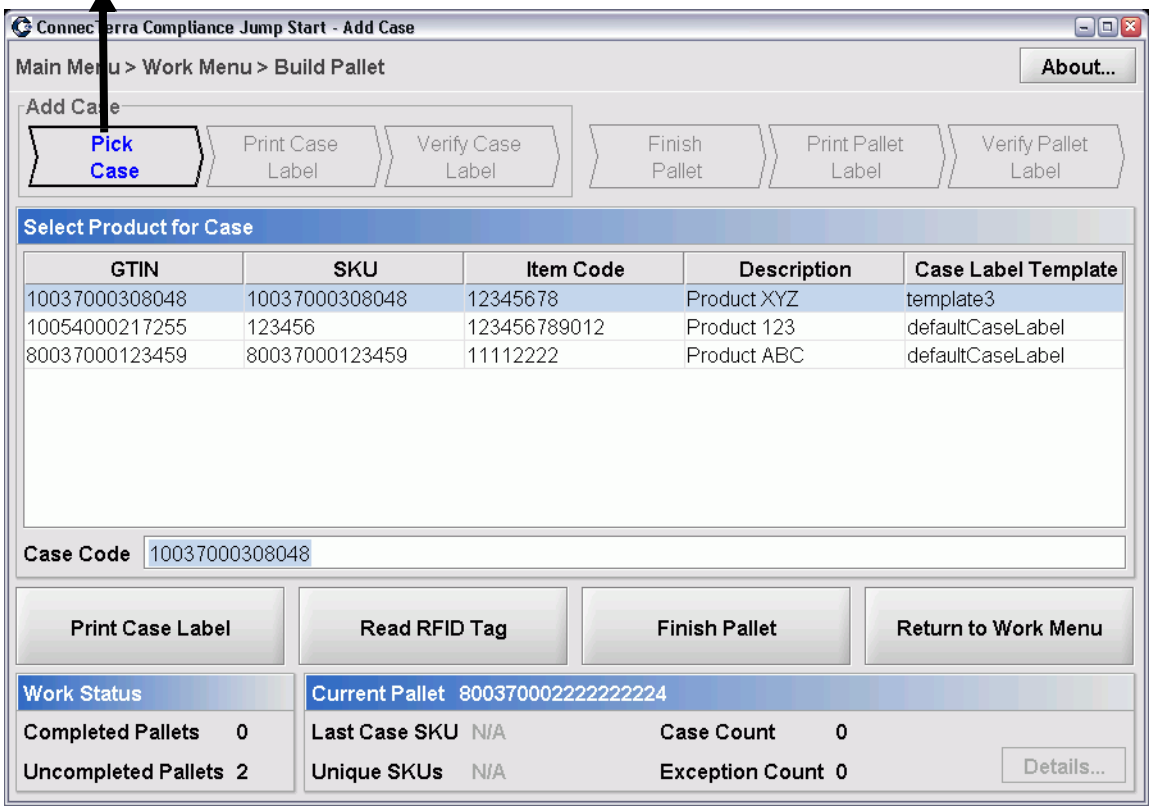
   This screen (shown below) lists all the products in your catalog, along with their GTIN, SKU, and item codes. Each case must have a bar code that matches one of the entries in the product list. A case's bar code can match the GTIN, SKU or item code. For information on working with the product catalog, see Creating Product Catalog Entries on page 4-3.

   This screen lets you:

   - Scan the bar code on a case.
   - Verify that the case's bar code is part of your product catalog.
   - Print an RFID tag.

Add Case Screen (Pick Case)

"Pick Case" step is highlighted, showing you where you are in the workflow.



Scan a Case

While still on the Add Case screen, scan a bar code on a case. At this point, one of three things can happen:

- Bar code scans and matches one of the product identification numbers listed on the screen.
- Bar code scans but does not match.

  If the bar code scans, but does not match any of the product identification numbers listed, you need to add this case's product information to the product catalog, as described in Creating Product Catalog Entries on page 4-3.

  After you do this, scan the bar code again, and it should match.
- Bar code does not scan.

  In this case, the scanner cannot read the bar code and does not "beep." This can happen when the bar code has been smudged, torn, etc. If you know what product is in the case, scroll through the list of products on the screen, and click the correct product.

The bar code scan or your choice from the list of products should display the case code for the product in the *Case Code* field. To continue the tour, click the **Print Case Label** button and see the instructions at Print Case Label on page 3-7.

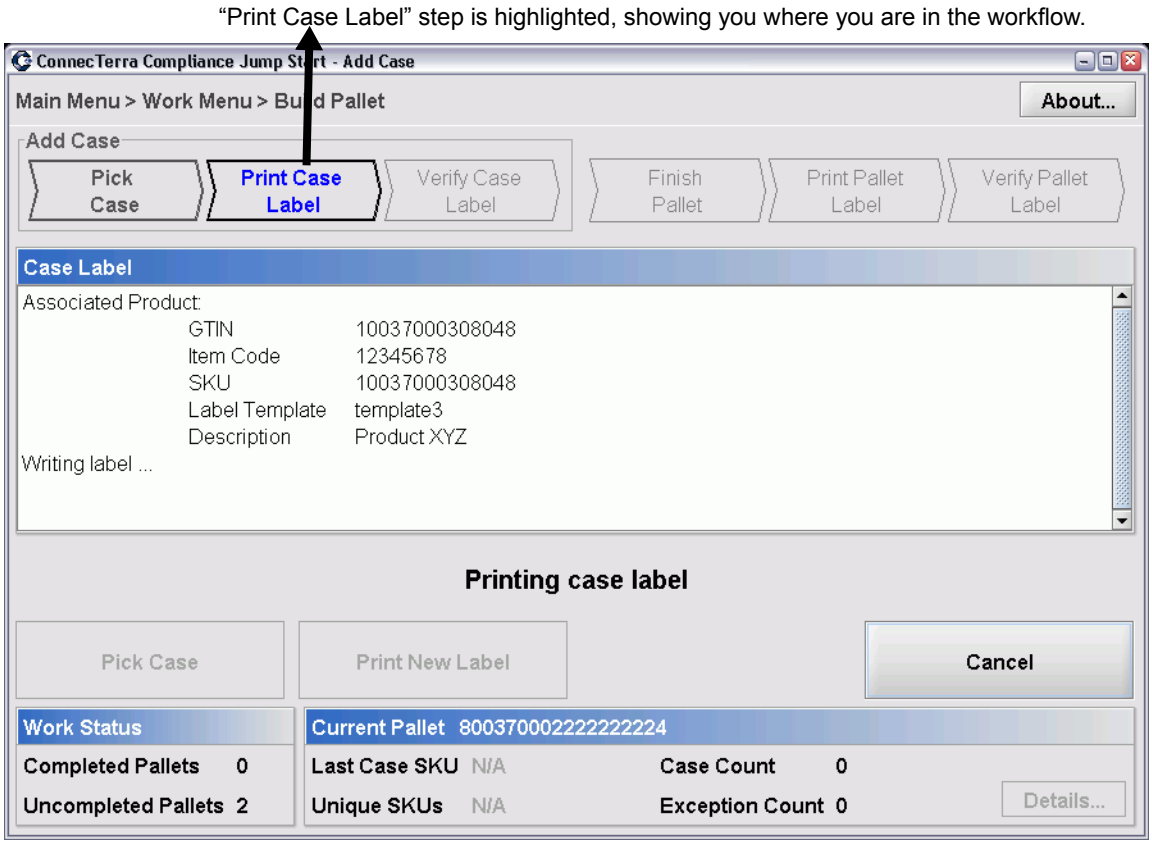
Print Case Label

The Add Case screen highlights *Print Case Label* step, showing you where you are in the workflow (see figure below). This screen indicates that Compliance Jump Start has printed your RFID tag:

Usually, the next step is for an operator to put the printed tag on the case, at which point Compliance Jump Start verifies the tag by reading the tag from the case.

The tag verification uses the configuration settings you specified on the Administer Workflow screen. These settings include how long to wait before beginning verification, how long to try to verify, and so on. (For details, see Changing the Workflow on page 4-7.)

Add Case Screen (Print Case Label)



If there are errors, they appear in the middle of the screen. See Can't Print a Case Label on page 5-2 for more information. If there are no errors, proceed to Verify Case Label on page 3-8.

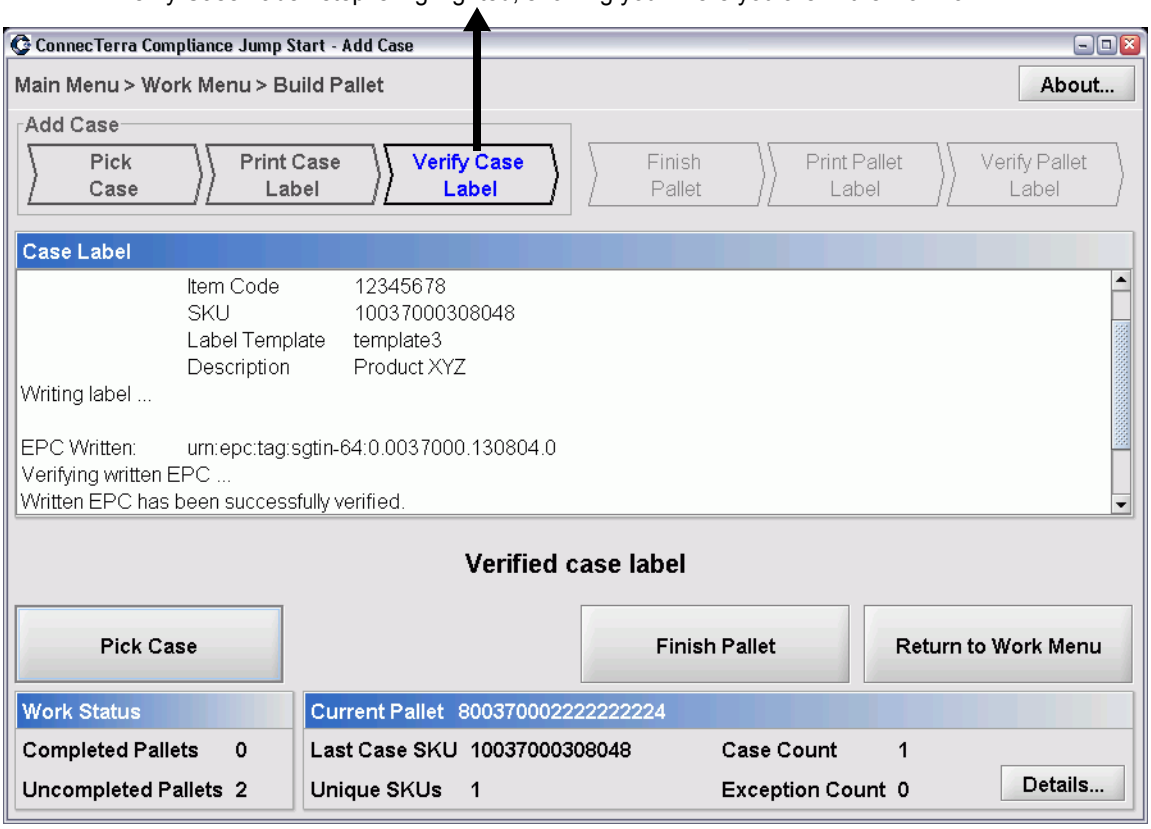
Verify Case Label

The Add Case screen highlights the *Verify Case Label* step, showing you where you are in the workflow. This step indicates that Compliance Jump Start is reading the tag it just wrote, to make sure that there are no errors. If there are errors, see Can't Verify a Case Label on page 5-2.

If you had more cases to tag, you would click the **Pick Case** button to return to the start of this workflow. However, in this quick tour, this is the last case in the pallet, so click the **Finish Pallet** button to proceed to Finish Pallet on page 3-8.

Add Case Screen (Verify Case Label)

"Verify Case Label" step is highlighted, showing you where you are in the workflow.



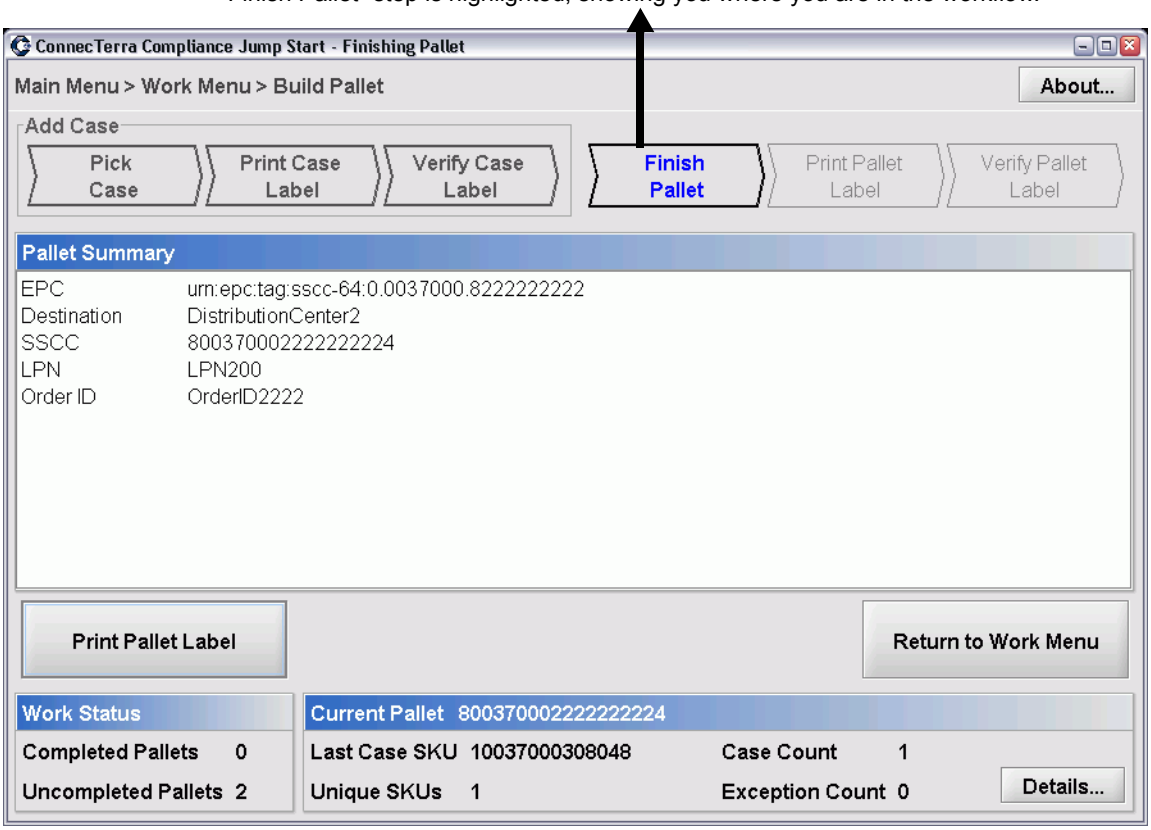
Finish Pallet

The Finishing Pallet screen appears and highlights the *Finish Pallet* step, showing you where you are in the workflow. This lets you print an RFID tag for the pallet.

Click the **Print Pallet Label** button to print the tag. Proceed to Print Pallet Label on page 3-9.

Finishing Pallet Screen (Finish Pallet)(

"Finish Pallet" step is highlighted, showing you where you are in the workflow.



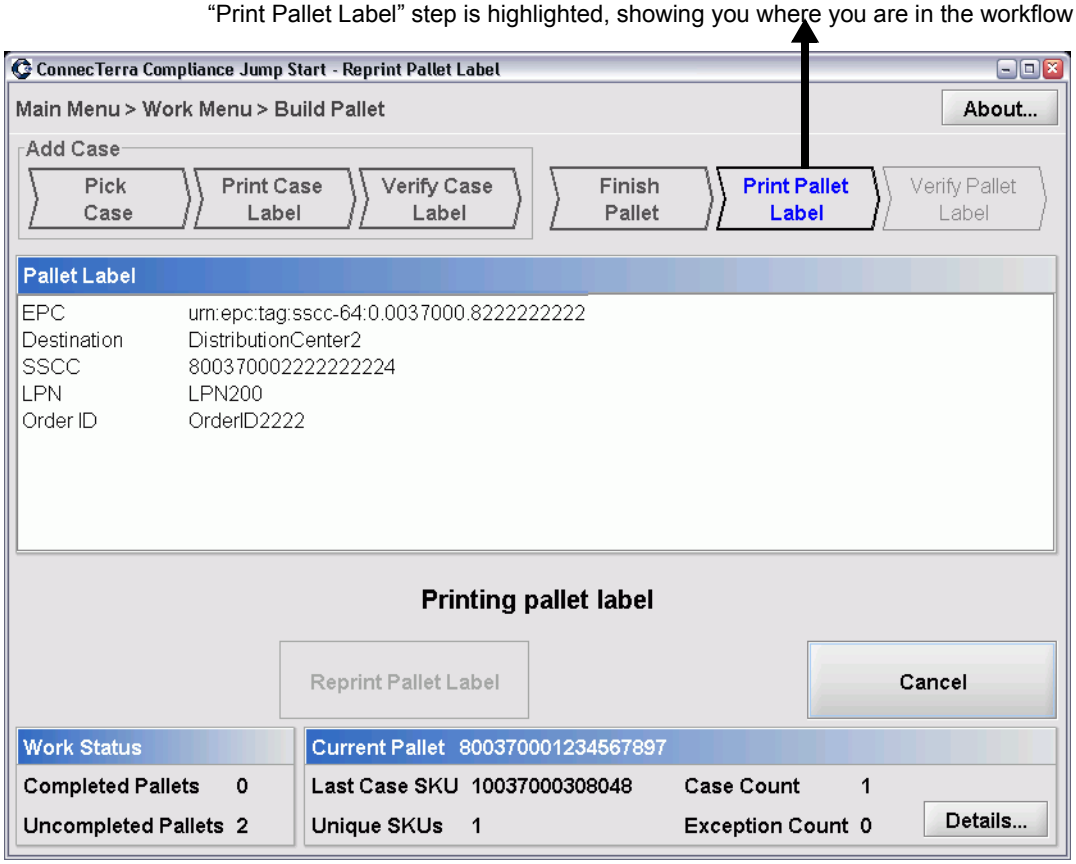
Print Pallet Label

The Finishing Pallet screen highlights the *Print Pallet Label* step, showing you where you are in the workflow. This indicates that Compliance Jump Start has printed an RFID tag for the pallet.

If there are errors, they appear in the middle of the screen. See Can't Print a Pallet Label on page 5-4 for more information. If there are no errors, proceed to Verify Pallet Label on page 3-10.

Finishing Pallet Screen (Print Pallet Label)

"Print Pallet Label" step is highlighted, showing you where you are in the workflow

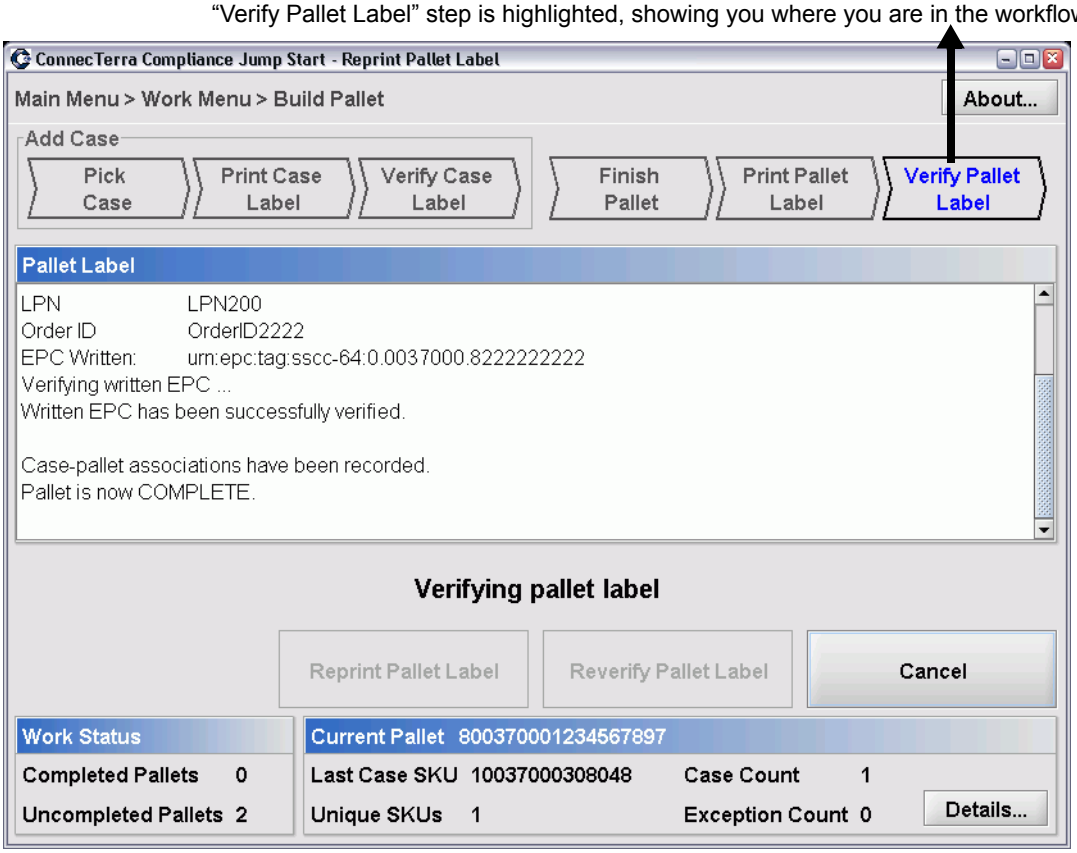


Verify Pallet Label

The Finishing Pallet screen highlights the *Verify Pallet Label* step, showing you where you are in the workflow. This step indicates that Compliance Jump Start is reading the tag it just wrote, to make sure that there are no errors. If there are errors, see Can't Verify a Pallet Label on page 5-4.

Finishing Pallet Screen (Verify Pallet Label)

"Verify Pallet Label" step is highlighted, showing you where you are in the workflow.

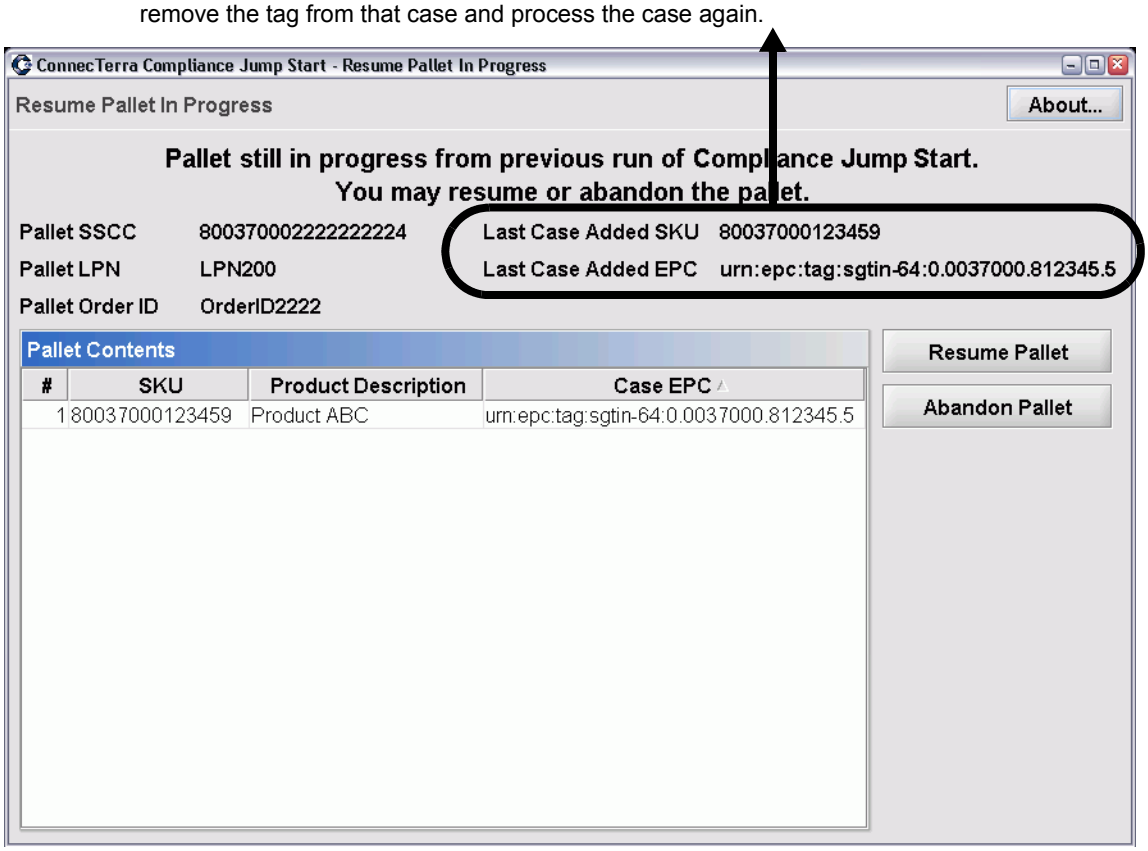


Resume Pallet

Suppose you are in the midst of processing a pallet, and for some reason you stop and then restart the Operator Console. Compliance Jump Start displays the following screen and gives you the opportunity to continue processing the pallet you were working on when the application stopped:

Pallet In Progress Screen

Check that this is really the last case you tagged. If you tagged a case after this, you need to remove the tag from that case and process the case again.



To continue processing the pallet:

1. Take a look at the *Last Case Added EPC* field. This is the last tag that Compliance Jump Start recorded before it stopped.

   In addition, the Pallet Contents pane shows all the cases recorded for this pallet.

2. If you tagged a case that you do not see on this list, remove the tag from that case. (You will need to reprocess that case once you start processing the pallet again.)

3. Click the **Resume Pallet** button. The Main Menu appears.

4. Click the **Resume Work** button. The Work Menu appears.

5. Click the **Resume Pallet** button.

6. Continue processing the cases in the pallet, including any case whose tag you may have had to remove earlier in this procedure.

Chapter 4: Administrative Tasks

Contents

This chapter describes common and advanced tasks for the administrator.

Selecting a List of Pallets for a Work Period

When you know the pallets you will be building in a work period, it is useful to import a CSV (Comma Separated Values) file that lists the pallets. A *work period* can be a wave, a shipment, or any other grouping of pallets that you find meaningful and convenient.

Each line of the pallet CSV file contains information about a pallet, such as its SSCC, LPN, destination ID, description, and so on.

For information about the format of the pallet CSV file see Pallet List CSV File on page 4-18. There are also sample CSV files in the `COMPLIANCE_HOME\samples\csv` directory:

1. On the Main Menu, click the **Administer System** button.

   This displays the Administrator Menu.

2. On the Administrator Menu, click the **Administer Pallet List** button.

   This displays the Administer Pallet List screen.

3. On the Administer Pallet List screen, click the **Import** button to display a standard file import dialog.

   Note: If this button is disabled, you will need to close any work you have begun before importing a new pallet list. This can be accomplished by finishing all pallets in the current list, or by clicking the **Close Work** button on the Main Menu.

4. Select the CSV file that contains the pallets for this work period, and click **Import**.

   For information about the format of the pallet CSV file see Pallet List CSV File on page 4-18. There are also sample CSV files in the `COMPLIANCE_HOME\samples\csv` directory.

5. On the Import Pallet List screen, click **Save**.

Managing the Product Catalog

Compliance Jump Start maintains a catalog of all the products you want to tag with RFID labels. Before Compliance Jump Start can write an RFID label for a case, the case's ID (GTIN, SKU, or item code) must match an entry in the Compliance Jump Start product catalog.

Creating Product Catalog Entries

To create product catalog entries for all the products you want to tag.

1. On the Main Menu, click the **Administer System** button.

   This displays the Administrator Menu.

2. On the Administrator Menu, click the **Administer Product Catalog** button.

   This displays the Administer Product Catalog screen.

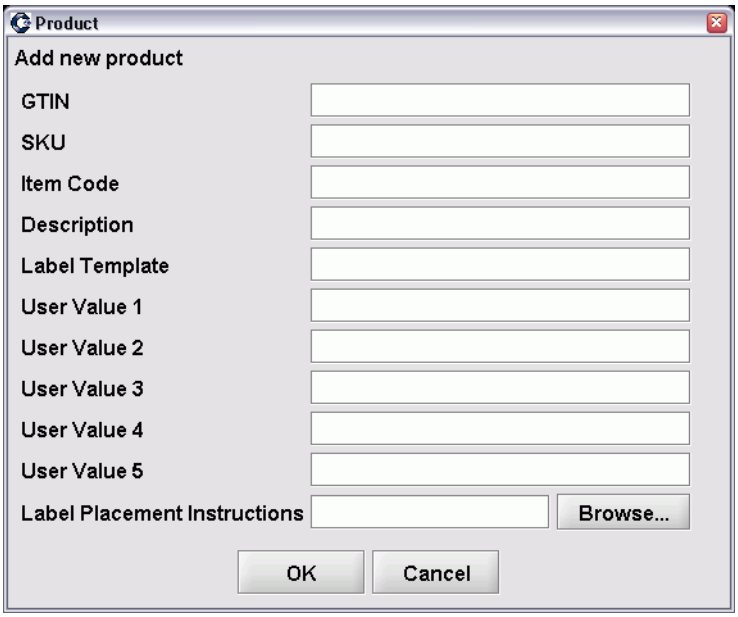
3. On the Administer Product Catalog screen, click the **New** button to add a product, or the **Import** button to import a list of products from another source.

   The **New** button displays the Add Product dialog. Fill in the fields with product information, and click **OK** to save the new product to the product catalog.

   The *User Value* fields can be used to specify any human readable information you would like printed on the label. For more information, see Product CSV File on page 4-18.)

   The *Label Placement Instructions* field allow you to specify an image which will be displayed when the user prints case labels for that product. Products that have a label placement image will display it on the Administer Product Catalog screen when that product is selected, and also on case label printing screens. The maximum image size for a label placement image is 300x200.

Add Product Dialog



You can get the following error messages if you enter an incorrect GTIN:

```
This is a duplicate GTIN.
Case GTIN contains an invalid check digit.
Case GTIN is invalid. It must be exactly 14 digits long.
Case GTIN is invalid. It must conform to proper formatting, and the company
  code must be valid.
```

If you get any of these messages, correct the incorrect case GTIN (marked by a red "X") or press the **Cancel** button.

The **Import** button displays a standard file import dialog, where you can navigate to and import a CSV file that contains a product catalog. (For information about creating the product catalog CSV file see Product CSV File on page 4-18. There are also sample CSV files in the `COMPLIANCE_HOME\samples\csv` directory.) Select the CSV file that contains the product catalog, and click **Import** to import the product information.

4. On the Administer Product Catalog Menu, click **Save**.

Customizing the Product Catalog

You can designate up to five custom fields in product entries in the product catalog. These custom fields are configurable using the Administer Product Catalog screen.

1. On the Main Menu, click the **Administer System** button.

   This displays the Administrator Menu.

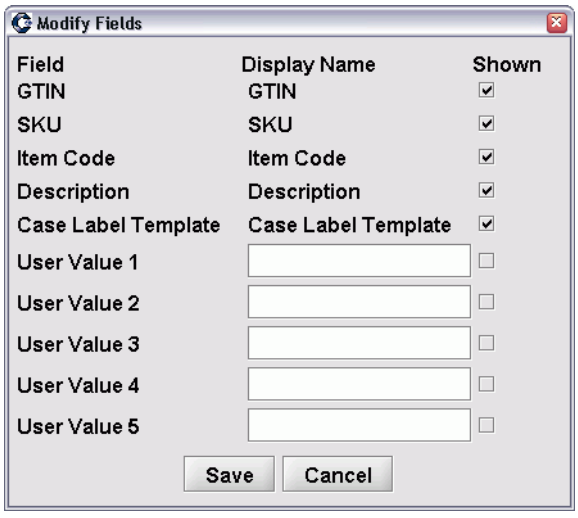
2. On the Administrator Menu, click the **Administer Product Catalog** button.

   This displays the Administer Product Catalog screen.

3. On the Administer Product Catalog screen, click the **Fields...** button.

   This displays the Modify Fields dialog.

Modify Fields Dialog



4. Enter a new display name in one or more of the *User Value* fields, and click **Save** to save your changes.

You can also use the Modify Fields dialog to show or hide any of these fields on the Administer Product Catalog screen. Just select the *Shown* checkbox opposite a field to show the field, and unselect it to hide the field.

Managing Label Templates

When a printer writes an RFID tag, it programs an EPC value onto the embedded tag and prints human readable components as well, such as the pallet's destination — street, city, state, etc. Label templates tell the printer how to format the human readable components of the label.

- If you are using a Printronix printer, the label template is a PGL (Printronix Graphics Language) script. PGL is described in the Printronix document, *IGP/PGL Emulation for T5000e Series Printers: Printronix Graphics Language Programmer's Reference Manual* (Printronix document 750929-001E).
- If you are using a Zebra printer, the label template is a ZPL (Zebra Printing Language) script. ZPL is described in the *ZPLII Programming Guide (Zebra Document 45541LB-R3)*.
- If you are using an Avery 6405 or Accraply printer, the label template is an EasyPlug script. EasyPlug is described in the Avery document, *Manual Easy Plug*, Release 3.00, 11/2003. Commands specific to the Avery 6405 are described in the document, *How to RFID with Avery 6405*.
- If you are using a Paxar Monarch 9855 printer, the label template is an MPCLII (Monarch Printer Control Language II) script. MPCLII is described in the *RFID Application Notes* (Paxar document TC9855RFIDAN).
- Compliance Jump Start supplies a number of substitution strings, which you can include in your scripts. For information about these substitution strings, see Label Templates on page 2-17.

There are two ways to specify the location of your label templates and how to use them:

- You can create a Label Template Catalog CSV file (see Label Template Catalog CSV File on page 4-19)
- You can use the Administer Label Templates function, as described below.

To use the Administer Label Templates function:

1. On the Main Menu, click the **Administer System** button.

   This displays the Administrator Menu.

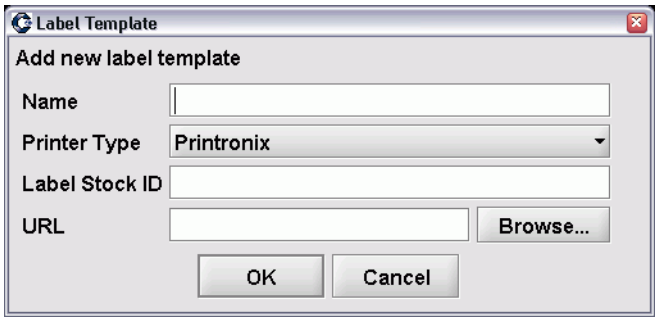
2. On the Administrator Menu, click the **Administer Label Templates** button.

   This displays the Administer Label Templates screen.

3. On the Administer Label Templates screen, click the **New** button to add a new template, or click the **Import** button to import a list of templates from another source.

   - The **New** button displays the Add Label Template dialog. Fill in the *Name*, *Printer Type*, and *URL* fields and click **OK** to save the new product to the product catalog. For more information, see Label Template Catalog CSV File on page 4-19.)

Add Label Template Dialog



- The **Import** button displays a standard file import dialog, where you can navigate to and import a CSV file that contains a list of label templates, one template per row. (For information about this file see Label Template Catalog CSV File on page 4-19. There are also sample CSV files in the `COMPLIANCE_HOME\samples\csv` directory.) Select the CSV file to import, and click **Import**.

Note: Note that once you have imported a label template CSV file, you can highlight an individual label template to edit or delete it.

4. On the Administer Label Templates screen, click **Save**.

Adding and Modifying Destinations

Every pallet has a destination associated with it. The destination contains physical address information such as street address, city, state, and so on.

When a printer writes a pallet label, it looks at the destination associated with the pallet, and prints the address contained in the destination.

1. On the Main Menu, click the **Administer System** button.

   This displays the Administrator Menu.

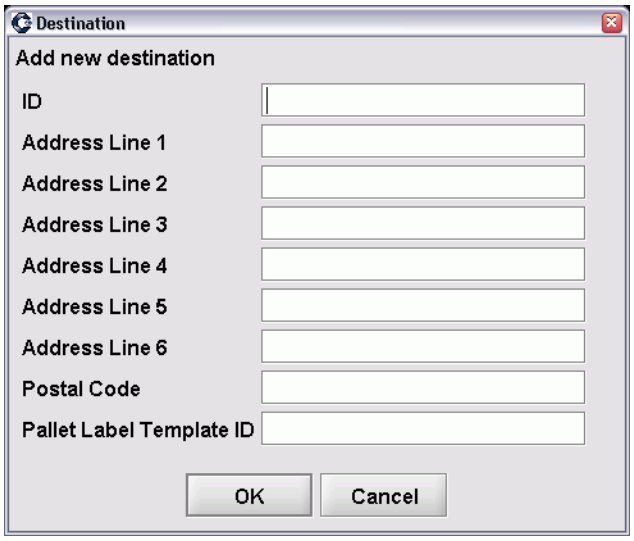
2. On the Administrator Menu, click the **Administer Destinations** button.

   This displays the Administer Destinations screen.

3. On the Administer Destinations screen, click the **New** button to add a new destination, or click the **Import** button to import a list of destinations.

   The **New** button displays the Add Destination dialog. Fill in the fields displayed here and click **OK** to save the new destination. You can enter a Pallet Label Template ID here, which will tell the printer how to format the label. For more information, see Destination CSV File on page 4-20.)

Add Destination Dialog



The **Import** button displays a standard file import dialog, where you can navigate to and import a CSV file that contains a list of destinations, one destination per row. (For detailed information about this file, see Destination CSV File on page 4-20. There are also sample CSV files in the `COMPLIANCE_HOME\samples\csv` directory.) Select the CSV file you want to import and click **Import**.

4. On the Administer Destinations screen, click **Save**.

Changing the Workflow

You can modify the screens that Compliance Jump Start displays during a workflow, along with several other configuration parameters, as described below.

1. On the Main Menu, click the **Administer System** button.

   This displays the Administrator Menu.

2. On the Administrator Menu, click **Administer Tagging Station** button.

   This displays the Administer Tagging Station screen.

3. On the Administer Tagging Station screen, click the **Administer Workflow** button.

   This displays the Administer Workflow screen.

4. Modify values in any of the following fields and click **Save**.s

Workflow Selection	
Print case labels as pallets are built	If you want Compliance Jump Start to print RFID labels for cases as you build pallets, check this field. If you will preprint your labels for your cases (such as by using the Print Labels option from the Work Menu), uncheck this field. When this field is checked, Compliance Jump Start displays the Add Case screen (Pick Case step) during the workflow. This screen lets you scan a case's bar code, or select the case's product ID from a list, and then print a case label. When this field is unchecked, Compliance Jump Start skips directly to the Verify Case Label step, where it checks that the case's RFID label matches a product in the product catalog.
Automatically continue after scanning a barcode	This field applies only if you are printing case labels. On the Add Case screen (Pick Case), after it scans a bar code, Compliance Jump Start can either: • Go directly to the Print Case Label step, and then immediately to the Verify Case Label step, without any human interaction. • Wait for a human to click the **Print Case Label** button, at which time it will go directly to the Print Case Label step, and then immediately to the Verify Case Label step. If you want Compliance Jump Start to go directly to the Verify Case Label step, without human intervention, check this field. If you want Compliance Jump Start to wait until someone clicks the **Print Case Label** button, leave this field unchecked.
Automatically continue after case label verification	This field applies only if you are printing case labels. This field determines whether Compliance Jump Start will stop at the Verify Case Label step and wait for the operator to click **Pick Case** or return directly to the Pick Case step. Select this option to return directly to the Pick Case step. Note that when you select both this option AND the *Automatically continue after scanning a barcode* option, the operator can add cases to a pallet with no interaction with Compliance Jump Start except to scan barcodes on cases.
Read preprinted case labels	Check this option if your cases already have RFID labels applied.

Workflow Options	
Skip pallet label verification	If this option is checked, the pallet label is not read after it is printed. • On the Finishing Pallet screen, if the label prints successfully then verification is skipped and the pallet is closed automatically. • On the Rework Pallet screen, the pallet label prints and verification is skipped. If this option is not checked, then the system automatically reads the pallet label to verify it. Users can skip verification on a one-time basis by pressing Cancel while verification is occurring.
Tag parcels	When this field is checked, Compliance Jump Start shows the **Tag Parcel** button on the Work menu and enables access to the parcel workflow functionality. See Using Parcel Workflows on page 4-10 for more information. When this field is unchecked, Compliance Jump Start hides the **Tag Parcel** button and disables access to the parcel workflow functionality.
Verification Reader Parameters	
Maximum verification time	The maximum amount of time the reader will attempt to read the RFID tag, expressed in seconds. Default: 10.0
Minimum verification time	If the reader keeps seeing the same EPC value for this amount of time, it assumes it has a valid reading and generates a report. Expressed in seconds. Setting this parameter to zero means there is no minimum verification time. Default: 3.0
Delay after printing before verification	Number of seconds to wait after printing the label before starting verification. Default: 0.0
Printer Parameters	
Number of print attempts	How many times to try to print an RFID label, before reporting an error. Default: 1

Using Parcel Workflows

You can enable parcel workflows by checking the **Tag parcels** option on the Administer Workflow screen. See Changing the Workflow on page 4-7 for information on how to access this screen.

Use the following instructions to tag parcels with SSCC RFID labels.

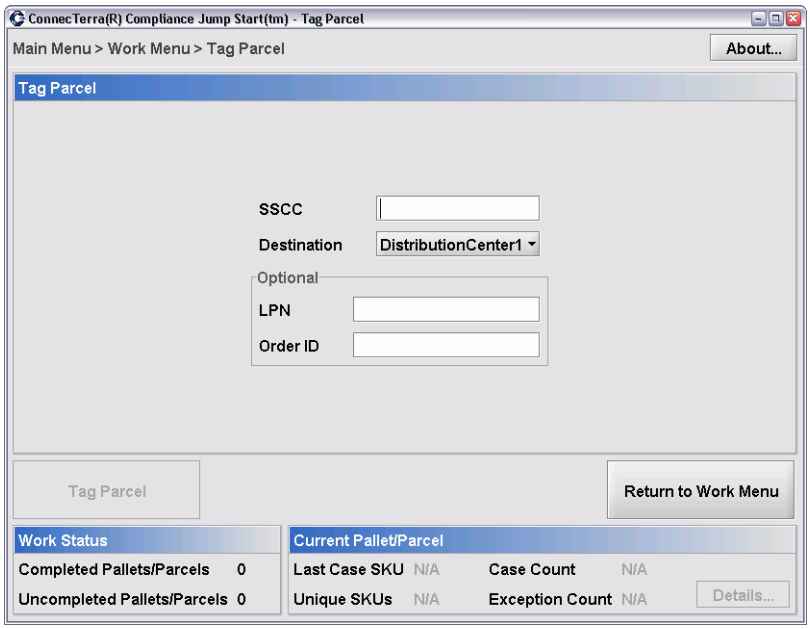
1. From the Main Menu, click the **Begin Work** button.

   The Work Menu appears.

2. From the Work Menu, click **Tag Parcel**.

   This displays the Tag Parcel screen.

Tag Parcel Screen



3. Enter an SSCC into the *SSCC* field (or scan a bar code) to identify the parcel, choose a destination from the drop-down list, and click **Tag Parcel** to print the label.

   This displays the Print Parcel Label screen.

4. While this screen is active, Compliance Jump Start prints the parcel RFID label. After you apply the label, Compliance Jump Start reads the tag it just wrote, to make sure that there are no errors, and marks the parcel as completed.

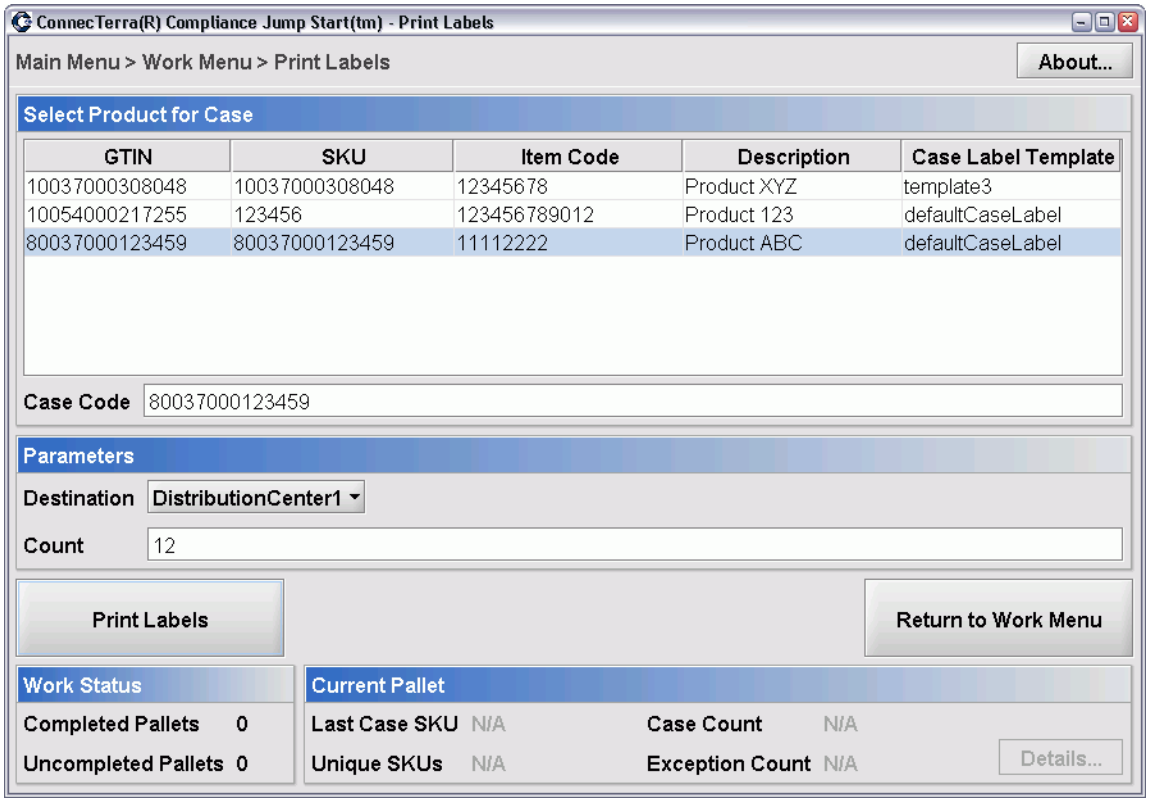
5. When the verification step is complete, click **Tag Another Parcel** to process another parcel, or **Return to Work Menu** if you are finished tagging parcels.

Pre-printing Case Labels

You can pre-print case labels using the Print Labels option. To pre-print labels:

1. On the Work Menu, click the **Print Labels** button. This displays the Print Labels screen.

Print Labels Screen.



2. Choose a product from the list shown, or enter a case code into the *Case Code* field.
3. In the Parameters area:
   - (*optional*) Choose a Destination from the drop-down list.
   - Enter the number of labels to be printed in the *Count* field.
4. Click the **Print Labels** button.

   The next screen displays the status of labels being printed. To stop this set of labels from printing, click the **Cancel** button.
5. When all the labels have printed, click **Select Another Product** to print more case labels, or **Return to Work Menu** if you are finished printing labels.

Printing Reports

You can print a *Case-Pallet Association* report for a specified date/time range. This report lists the information about the cases on a pallet that Compliance Jump Start has tagged. To print a report:

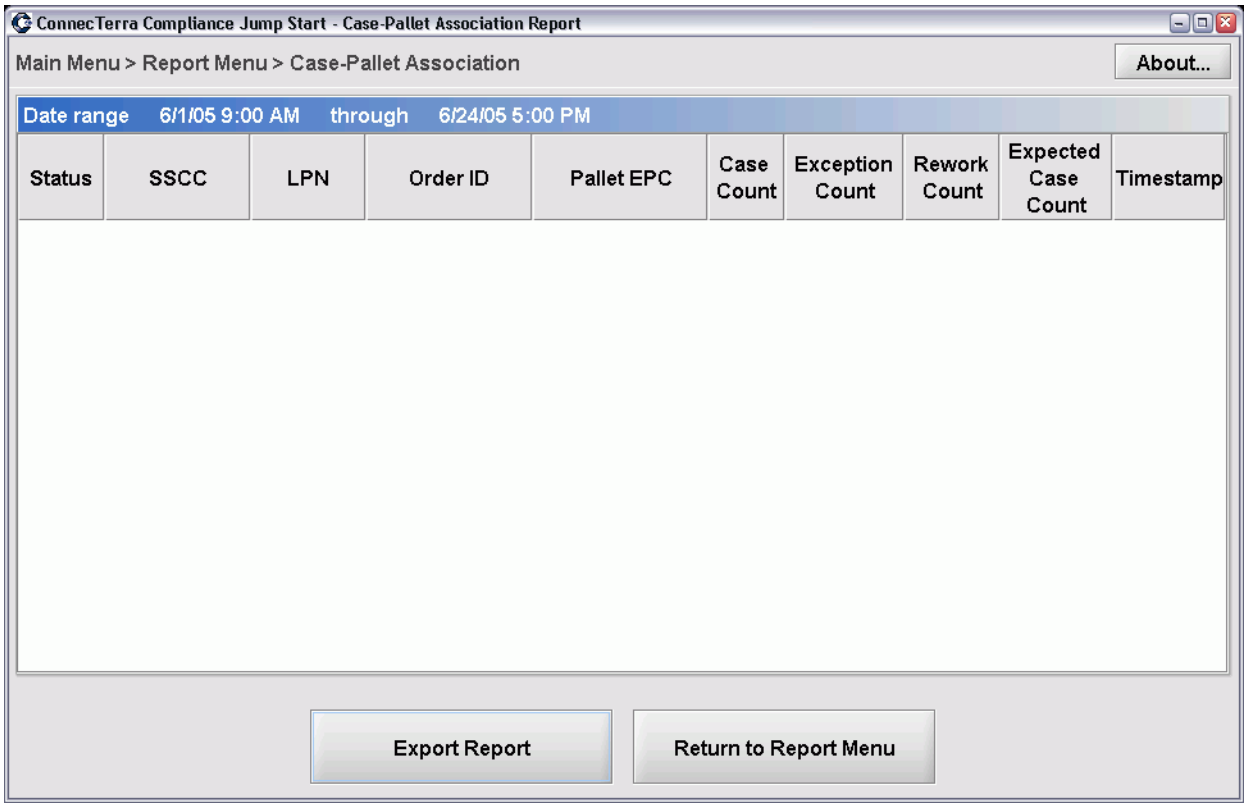
1. On the Main Menu, click the **Create Reports** button.

   This displays the Report Menu.

2. In the *Report Type* drop-down menu, highlight the report you want to create.
3. Use the *Date Range* fields to specify the time period you want covered in the report.
4. Click either the **View Report** button or the **Export Report** button:
   - View Report – Displays a screen view of the report. If you choose this option, you can also export the report (as described below) after you view it on the screen.
   - Export Report – Displays a standard file dialog that lets you export the report as two CSV files to the directory you specify.

     For information on the format of these files, see CPA Summary CSV File on page 4-25 and CPA Case Pallet Details CSV File on page 4-26

View Case-Pallet Association Report.



Removing a Case from a Pallet (After Label Print/Verify)

Follow the same steps as for Damaged a Case Label (After Print/Verify) on page 5-3.

Abandoning a Pallet Before It Is Finished

If you decide to stop work on a pallet while it is in progress:

1. From the Work Menu, click **Rework Pallet**.
2. Select the pallet.
3. Click **Abandon Pallet**.
4. Select an appropriate reason code from the *Reason* drop-down list.
5. Click **Abandon Pallet**.

Note that no records will be written to the database, since the pallet was never completed. Neither the database nor the reports will show any data for an abandoned pallet. See Deleting a Completed Pallet on page 4-13.

Deleting a Completed Pallet

1. From the Work Menu, click **Rework Pallet**.
2. Select the pallet.
3. Click **Delete Pallet**.
4. Select an appropriate reason code from the *Reason* drop-down list.
5. Click **Delete Pallet**.

Data is written to the database upon the completion of a pallet. When you delete a completed pallet, the pallet status is changed to *2* (invalid) in the case-pallet association database table, while the pallet history data is retained.

The pallet **will** appear (marked *deleted*) in the date/time range report generated when you click the **Create Reports** button, but it will **not** appear in the automatically generated work session reports.

Preparing to Print 96-bit Tags

To prepare for printing 96-bit tags, you must clear the cache of any 64-bit EPCs, since Compliance Jump Start does not currently support the coexistence of 64-bit and 96-bit EPC values in its caching mechanism. Follow the instructions below.

1. Close the Operator Console.
2. Run the `bin\clear-cache` script. This script will clear the Edge Server cache of all GTINs.
3. Open `etc\tagging-station.props` for editing, and change the following parameters to read:
   ```
   com.connecterra.compliance.caseEPC.tagType=sgtin-96
   com.connecterra.compliance.palletEPC.tagType=sscc-96
   ```
4. Restart the Operator Console.

Accessing the Compliance Jump Start Database

Compliance Jump Start makes the following database views available so that you can write your own reports or data integration mechanisms:

Database Views

Label_Template View

Column Name	Type
template_id	varchar(255)
type	varchar(255)
contents	glob

Product View

Column Name	Type
case_gtin	varchar(14)
sku	varchar(255)
item_code	varchar(14)
description	varchar(255)
case_label_template_id	varchar(255)

Destination View

Column Name	Type
destination_id	varchar(255)
address1	varchar(255)
address2	varchar(255)
address3	varchar(255)
address4	varchar(255)
address5	varchar(255)
address6	varchar(255)
zip_code	varchar(255)
pallet_label_template_id	varchar(255)

EPC View

Column Name	Type
epc	varchar(64)
location	varchar(255)
source_reference	varchar(255)
status	varchar(255)
status_date	date

EPC_History View

Column Name	Type
epc	varchar(64)
event_type	varchar(255)
event_date	date
location	varchar(255)
source_reference	varchar(255)

CPA View

Column Name	Type
association_id	varchar(255)
sscc	varchar(18)
lpn	varchar(255)
order_id	varchar(255)
location	varchar(255)
pallet_epc	varchar(64)
exception_count	integer
update_count	integer
status	varchar(255)
timestamp	date

CPA_Cases View

Column Name	Type
association_id	varchar(255)
case_epc	varchar(64)

CPA_History View

Column Name	Type
history_id	varchar(255)
association_id	varchar(255)
event_type	varchar(255)
location	varchar(255)
pallet_epc	varchar(64)
timestamp	date

CPA_History_Cases View

Column Name	Type
history_id	varchar(255)
case_epc	varchar(64)

CPA_History_Details View

Column Name	Type
history_id	varchar(255)
detail_type	varchar(255)
epc	varchar(64)
epc_filter	integer
reason_code	varchar(255)
comment	varchar(255)

Administering CSV Files

Compliance Jump Start uses CSV files to store the following types of information:

- List of pallets to be tagged in a work period, one pallet per row.

  For general information, see Selecting a List of Pallets for a Work Period (page 4-2)
  For specific format information, see Pallet List CSV File (page 4-18).

- List of products (product catalog), one product per row.

  For general information, see Managing the Product Catalog (page 4-2)
  For specific format information, see Product CSV File (page 4-18).

- List of label templates, one template per row.

  For general information, see Managing Label Templates (page 4-5).
  For specific format information, see Label Template Catalog CSV File (page 4-19).

- List of destinations, one destination per row.

  For general information, see Adding and Modifying Destinations (page 4-6)
  For specific format information, see Destination CSV File (page 4-20).

- Reports that cover activities during a work period.

  For general information, see Printing Reports (page 4-12).
  For specific format information, see Report CSV Files (page 4-20).

When constructing a CSV file that will be imported into Compliance Jump Start, remember that fields marked OPTIONAL must be present if they are *within* a record. The following line (from a pallet list CSV file) illustrates this principle – the LPN column is present as a placeholder in the record, while the Order ID column is not present.

```
800370001234567897,,DistributionCenter1
```

Pallet List CSV File

Column 1	Column 2	Column 3	Column 4
SSCC	LPN [OPTIONAL]	Destination_Name	Order ID [OPTIONAL]

- **SSCC** is an 18 digit code. It must contain a valid company prefix and a valid check digit. One of SSCC or LPN must be present.
- **LPN** is an alpha- numeric code (up to 255 characters) with hyphen and underscore permitted. The LPN can be any string you want to use to select the pallet or associate the pallet with IDs in other systems. One of SSCC or LPN must be present.
- **Destination Name** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted.
- **Order ID** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted. You can use the Order ID to associate the pallet with IDs in other systems.

Sample CSV files are in the `COMPLIANCE-HOME\samples\csv` directory.

Product CSV File

Column 1	Column 2	Column 3	Column 4	Column 5
Case GTIN	SKU [OPTIONAL]	Item Code [OPTIONAL]	Description [OPTIONAL]	Case Label Template ID [OPTIONAL]

Column 6	Columns 7-11
Case Label Positioning Instructions URL [OPTIONAL]	User Value Fields [OPTIONAL]

- **Case GTIN** is a 14 digit code.
- **SKU** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted.
- **Item Code** is a numeric code (up to 14 digits) typically appearing on a case bar code. This code represents a UPC-8, UPC-12, EAN-13, or GTIN (14 digits).
- **Description** is a text string (up to 255 characters).
- **Case Label Template ID** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted. This name must match an ID entry for a case label, in the Label Template Catalog CSV file. See Label Template Catalog CSV File on page 4-19.
- **Case Label Positioning Instructions URL** is a URL (up to 255 characters) that references an image instructing the operator where to position the case label. Supported image formats are .JPG, .GIF, and .PNG. The positioning image is uploaded and stored in the database if you specify it when you add a product definition. Use the **Edit** key on the Administer

Product Catalog screen to edit the product and upload the new image if it changes. See Managing the Product Catalog on page 4-2 for more information.

- **User Value** fields specify five pieces of human-readable information you would like printed on the label (for example, quantity, color, etc.). These fields correspond to the following substitution strings you can embed in your label template scripts:

```
Column 7  [CT_PRODUCT_USER1]
Column 8  [CT_PRODUCT_USER2]
Column 9  [CT_PRODUCT_USER3]
Column 10 [CT_PRODUCT_USER4]
Column 11 [CT_PRODUCT_USER5]
```

  For example, to print the value in column 7 on a label, embed the substitution string `[CT_PRODUCT_USER1]` in your label template script. For information about using substitution strings in label template scripts, see Label Templates on page 2-17.

  Note: If you specify a value for one User Value field, the others can be blank, but they must be present in the CSV file.

Sample CSV files are in the `COMPLIANCE-HOME\samples\csv` directory.

Label Template Catalog CSV File

Column 1	Column 2	Column 3	Column 4
Label ID	Type	URL	Stock ID [OPTIONAL]

- **Label ID** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted. It contains the name of the label template (which will appear in product and destination catalogs).
- **Type** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted. Currently, the only valid values for type are:

```
Avery
Accraply
Monarch
Printronix
Zebra
```

- **URL** is a URL (up to 255 characters) that indicates the location of the label template file. Note that if you modify one of these files, you will need to edit and save the label format entry, so that Compliance Jump Start will read the changed file.
- **Stock ID** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted.

Sample CSV files are in the `COMPLIANCE-HOME\samples\csv` directory.

Destination CSV File

Column 1	Columns 2-7	Column 8	Column 9
DestinationID	Address Fields [OPTIONAL]	Postal Code	Pallet Label Template ID [OPTIONAL]

- **Destination ID** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted.
- **Address Fields** are text strings (up to 255 characters). There can be up to six address fields.
- **Postal Code** is a text string (up to 255 characters).
- **Pallet Label Template ID** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted. Indicates the label template that Compliance Jump Start will use to print this destination. This ID must match an ID entry for a pallet label, in the Label Template Catalog CSV file. See Label Template Catalog CSV File on page 4-19.

Sample CSV files are in the `COMPLIANCE-HOME\samples\csv` directory.

Report CSV Files

Compliance Jump Start automatically generates a number of reports, formatted as CSV files:

- Work Date CSV File (page 4-21)
- Work Summary CSV File (page 4-21)
- Work Case Pallet Details CSV File (page 4-22)
- Work Pallet Exception/Rework Details CSV File (page 4-22)
- Work Case Exception/Rework Details CSV File (page 4-24)
- Work Pallet GTIN Count CSV Files (page 4-25)

All report filenames begin with the date and time of the report followed by one of the following:

```
_work
_work-summary
_work-cp-details
_work-pallet-exception-rework-history
_work-case-exception-rework-history
_work-pallet-gtin-count
```

In addition to these automatically generated reports, you can use the **Create Reports** function to generate reports for a time period you specify. (See Printing Reports on page 4-12.) When you use the Create Reports function, Compliance Jump Start places the following files in the directory you specify:

- CPA Summary CSV File (page 4-25)
- CPA Case Pallet Details CSV File (page 4-26)

These report filenames begin with the date and time of the report followed by one of the following:

```
_cpa-summary
_cpa-cp-details
```

Work Date CSV File

Sample file name: `2004-09-01T21.16.22.375_work`

Column 1	Column 2	Column 3
Work Begin Date	Work End Date	Location

- **Work Begin Date** is an ISO8601 formatted date.
- **Work End Date** is an ISO8601 formatted date.
- **Location** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted. This is the value of the `com.connecterra.compliance.stationID` property specified in the `tagging-station.props` configuration file.

Work Summary CSV File

Sample file name: `2004-09-01T21.16.22.375_work-summary`

Column 1	Column 2	Column 3	Column 4	Column 5
SSCC	LPN [OPTIONAL]	Order ID [OPTIONAL]	Pallet EPC [OPTIONAL]	Total Number of Case EPCs

Column 6	Column 7	Column 8	Column 9
Total Exception Count	Total Rework Count	Expected Total Count	Timestamp

- **SSCC** is an 18-digit code.
- **LPN** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted.
- **Order ID** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted.
- **Pallet EPC** is a URI (up to 64 characters).
- **Total Number of Case EPCs** is an integer.
- **Total Exception Count** is an integer.
- **Total Rework Count** is an integer.
- **Expected Total Count** is an integer.
- **Timestamp** is an ISO8601 formatted date.

Work Case Pallet Details CSV File

Sample file name: `2004-09-01T21.16.22.375_work-cp-details`

Column 1	Column 2	Column 3
SSCC	Pallet EPC [OPTIONAL]	Case EPC [OPTIONAL]

- **SSCC** is an 18-digit code.
- **Pallet EPC** is a URI (up to 64 characters).
- **Case EPC** is a URI (up to 64 characters).

Work Pallet Exception/Rework Details CSV File

Sample file name: `2004-09-01T21.16.22.375_work-pallet-exception-rework-history`

Column 1	Column 2	Column 3	Column 4	Column 5
SSCC	Pallet EPC [OPTIONAL]	# of Pallet EPC Exception Details	Pallet Exception Reason Code	# of Pallet Rework Details

Column 6	Column 7
Rework Reason Code: Comment	Timestamp

- **SSCC** is an 18-digit code.
- **Pallet EPC** is a URI (up to 64 characters).
- **# of Pallet EPC Exception Details** is an integer. The number specified here indicates the number of Pallet Exception Reason Codes that will appear in Column 4.
- **Pallet Exception Reason Code** is 0 or more integers. The number of reason codes in this column depends on the integer specified in Column 3 (# of Pallet EPC Exception Details).

  For example, if Column 3 contains the integer 2, there will be two reason codes in Column 4. When there are multiple reason codes, the entire column is enclosed in double quotes, and the reason codes within the column are separated by commas. In this example, Column 4 might look like this: `"10,11"`.

  Valid exception reason codes and their meanings are:

10	VERIFICATION_FAILED
11	OTHER

- **# of Pallet Rework Details** is an integer. The number specified here indicates the number of Rework Reason Code/Comment combinations that will appear in Column 6.
- **Rework Reason Code** is an integer.
- **Comment** is a text string (up to 255 characters).

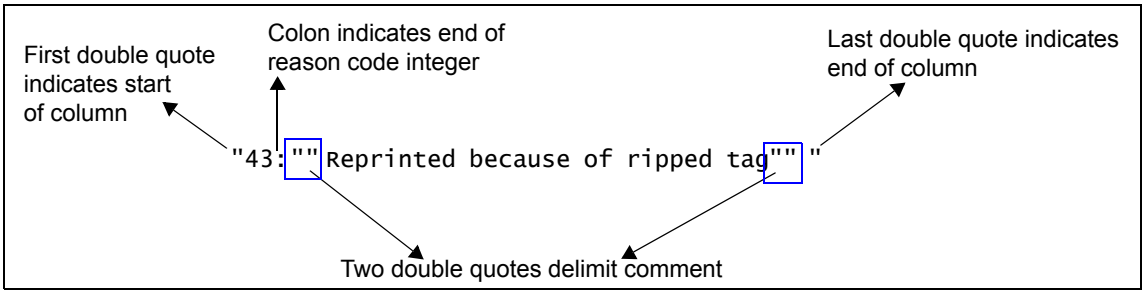
This reason code and its associated comment appear as a pair, formatted like this:
`"43:""Reprinted because of ripped tag"""`

Syntax:

First, note that the contents of the *entire column* are enclosed by the outermost set of double quotes. These outermost double quotes indicate the start and stop of the Comment column.

Starting from the left, after the first double quote, there is:

- the *reason code* (an integer)
- a *colon* (**:**)
- *two double quotes* that indicate the start of the comment associated with the reason code
- the *text of the comment*
- *two double quotes* that indicate the end of the comment



There can be more than one reason code/comment pair in this column, depending on the integer specified in Column 5 (# of Pallet Rework Details).

For example, if Column 5 contains the integer 2, there will be two reason code/comment pairs in Column 6. The pairs within the column are separated by commas. In this example, Column 6 might contain the pairs:
`"47:""Reprinted because of ripped tag"",43:""Reprinted because of torn tag"""`

Valid pallet rework reason codes and their meanings are:

40	PALLET_ASSEMBLY_EXCEPTION
41	PALLET_REPLACE_TAG
42	PALLET_FAILED_TO_VERIFY_TAG
43	PALLET_DELETE_DAMAGED_TAG
44	PALLET_DELETE_LOST_TAG
45	PALLET_ORDER_CANCELLED
46	PALLET_ABANDONED
47	PALLET_ILLEGIBLE_LABEL
100	OTHER

- **Timestamp** is an ISO8601 formatted date.

Work Case Exception/Rework Details CSV File

Sample file name: `2004-09-01T21.16.22.375_work-case-exception-rework-history`

Column 1	Column 2	Column 3	Column 4	Column 5
SSCC	Case EPC [OPTIONAL]	# of Case EPC Exception Details	Case Exception Reason Code	# of Case Rework Details

Column 6	Column 7
Rework Reason Code: Comment	Timestamp

- **SSCC** is an 18-digit code.
- **Case EPC** is a URI (up to 64 characters).
- **# of Case EPC Exception Details** is an integer. The number specified here indicates the number of Case Exception Reason Codes that will appear in Column 4.
- **Case Exception Reason Code** is 0 or more integers. The number of reason codes in this column depends on the integer specified in Column 3 (# of Case EPC Exception Details).

  For example, if Column 3 contains the integer 2, there will be two reason codes in Column 4. When there are multiple reason codes, the entire column is enclosed in double quotes, and the reason codes within the column are separated by commas. In this example, Column 4 might look like this: `"10,11"`.

  Valid exception reason codes and their meanings are:

10	VERIFICATION_FAILED
11	OTHER

- **# of Case Rework Details** is an integer. The number specified here indicates the number of Rework Reason Code/Comment combinations that will appear in Column 6.
- **Rework Reason Code** is an integer.
- **Comment** is a text string (up to 255 characters).

  This reason code and its associated comment appear as a pair, formatted like this:
  `"43:""Reprinted because of ripped tag"""`

  Syntax: See the Syntax explanation for this field as described on page 4-23.

  There can be more than one reason code/comment pair in this column, depending on the integer specified in Column 5 (# of Case Rework Details).

  For example, if Column 5 contains the integer 2, there will be two reason code/comment pairs in Column 6. The pairs within the column are separated by commas. In this example, Column 6 might contain the pairs:
  `"43:""Reprinted because of ripped tag"",43:""Reprinted because of torn tag"""`

Valid case rework reason codes and their meanings are:

20	CASE_ADD_NEW_TAG
21	CASE_REPLACE_TAG
22	CASE_FAILED_TO_VERIFY_TAG
23	CASE_DELETE_DAMAGED_TAG
24	CASE_DELETE_LOST_TAG
25	CASE_DELETE_DAMAGED_CASE
26	CASE_DELETE_WRONG_PRODUCT
27	CASE_ILLEGIBLE_LABEL
28	CASE_ITEM_SHORT
40	PALLET_ASSEMBLY_EXCEPTION

- **Timestamp** is an ISO8601 formatted date.

Work Pallet GTIN Count CSV Files

Sample name: `2005-06-28T10.21.14.187_work-pallet-gtin-count.csv`

Column 1	Column 2	Column 3	Column 4
SSCC	Product ID	Expected Case Count [OPTIONAL]	Actual Case Count

- **SSCC** is an 18-digit code.
- **Product ID** is
- **Expected Case Count** is an integer.
- **Actual Case Count** is an integer.

CPA Summary CSV File

Sample file name: `2004-09-01T21.16.22.375_cpa-summary`

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Status	SSCC	LPN [OPTIONAL]	Order ID [OPTIONAL]	Pallet EPC [OPTIONAL]	Total Number of Case EPCs

Column 7	Column 8	Column 9	Column 10
Total Exception Count	Total Rework Event Count	Expected Total Count	Timestamp

- **Status** is a string describing the status of the pallet. Can have one of the following values:
  `Complete`
  `Deleted`
  `Unknown`

- **SSCC** is an 18-digit code.
- **LPN** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted.
- **Order ID** is an alpha-numeric code (up to 255 characters) with hyphen and underscore permitted.
- **Pallet EPC** is a URI (up to 64 characters).
- **Total Number of Case EPCs** is an integer.
- **Total Exception Count** is an integer.
- **Total Rework Event Count** is an integer.
- **Expected Total Count** is an integer.
- **Timestamp** is an ISO8601 formatted date.

CPA Case Pallet Details CSV File

Sample file name: `2004-09-01T21.16.22.375_cpa-cp-details`

Column 1	Column 2	Column 3
SSCC	Pallet EPC [OPTIONAL]	Case EPC [OPTIONAL]

- **SSCC** is an 18-digit code.
- **Pallet EPC** is a URI (up to 64 characters).
- **Case EPC** is a URI (up to 64 characters).

Configuring Oracle® 9i Databases

The configuration steps provided here provide a generic method of configuring Oracle 9i databases running on Windows XP Professional. Your Oracle installation may require modifications to some of these steps. If you encounter difficulties in configuring Oracle to work with Compliance Jump Start, please contact a customer support representative or your Oracle database administrator.

1. Use Oracle's DB Configuration Assistant to create a database. The complete database creation process might take up to two hours.
   - Global DB Name: `ctglobal.<your_domain>`
   - Oracle System Identifier (SID): `ctglobal`
2. Set up the passwords for `SYS` and `SYSTEM` (you will need these later).

3. Verify that ORACLE-HOME\network\admin\tnsnames.ora is configured correctly.

```
CTGLOBAL_LOCALHOST =
(DESCRIPTION =
(ADDRESS_LIST =
(ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
)
(CONNECT_DATA =
(SERVER = DEDICATED)
(SERVICE_NAME = ctglobal.<your_domain>)
)
)
```

4. Add the listener to the ORACLE-HOME\network\admin\listener.ora file by appending the following lines:

```
(SID_DESC =
(GLOBAL_DBNAME = CTGLOBAL_LOCALHOST)
(ORACLE_HOME = <oracle_install_dir>)
(SID_NAME = ctglobal)
)
```

5. Verify that the CTGLOBAL and Oracle TNSListener Windows services are created and running.

6. Use the Oracle Enterprise Manager Console to log in to the CTGLOBAL_LOCALHOST database using the username and password you created in step 2.

```
Username:   <oracle system administration user>
Password:   <password>
Connect as: SYSDBA
```

7. Select **Object | Create…** from the menu, and then expand the navigation tree under the database to show the User node. Use the interface to create a new user ct with password ct.

   If you would like to create a user with a different name, you will need to change the user name and password shown in WL-DOMAIN-HOME\applications\kodo.rar\META-INF\ra.xml and lib\tools\kodo.properties.

   Note: Altering the META-INF\ra.xml file inside WL-DOMAIN-HOME\applications\kodo.rar requires unzipping the .RAR file, editing the .XML file, and inserting the edited version back into the the .RAR file.

8. Highlight the ct user in the navigation tree on the left, and click the Role tab on the right to access available roles for that user. Grant the roles RESOURCE and CONNECT by using the controls on this tab and click **Apply** to save your changes.

9. On the Tagging Server, open COMPLIANCE-HOME\lib\tools\kodo.properties. Comment out the active database properties and uncomment the Oracle properties:

```
javax.jdo.option.ConnectionDriverName: oracle.jdbc.driver.OracleDriver
javax.jdo.option.ConnectionURL: jdbc:oracle:thin:@<oracle_host>:1521:ctglobal
javax.jdo.option.ConnectionUserName: ct
javax.jdo.option.ConnectionPassword: ct
```

   You will need to replace *<oracle_host>* with the hostname of the computer running the Oracle service.

10. Obtain the JDBC driver (`classes12.zip`) from your customer support representative and copy it to the following locations (where *<version_dir>* is the install location for the current version of Compliance Jump Start):
`COMPLIANCE-HOME\lib\tools\jdbc`

11. Add `;%JDBC_LIB%\classes12.zip` to the end of both the `-classpath` switches in the `init-compliance-db-tables` script.

12. Modify the properties in the `WL-DOMAIN-HOME\applications\kodo.rar\META-INF\ra.xml` file to substitute Oracle driver information for the database driver information located there:
```
<config-property name="ConnectionURL" type="java.lang.String">
     jdbc:oracle:thin:@<oracle_host>:1521:ctglobal
</config-property>
<config-property name="ConnectionDriverName" type="java.lang.String">
     oracle.jdbc.driver.OracleDriver
</config-property>
```

13. Run the `COMPLIANCE-HOME\bin\init-compliance-db-tables` script. Watch for any errors, and use the Oracle Enterprise Manager Console to check that tables were created successfully.

    Note: If you are using the JBoss application server, and it is installed on the same machine as Oracle and allowed to use the default ports, there may be a port conflict. In that case, you will need to shut down the Oracle listener service using the Windows Control Panel, start the application server, then re-start the service afterwards.

Configuring Microsoft SQL Server Databases

If you will be using Microsoft SQL Server databases, follow the steps below to configure compliance databases.

The configuration steps provided here provide a generic method of configuring SQL Server databases. Your SQL Server installation may require modifications to some of these steps. If you encounter difficulties in configuring SQL Server to work with Compliance Jump Start, please contact your customer support representative or your local database administrator.

1. Start the SQL Server Enterprise Manager, right-click on the `(local)` SQL Server Group and choose **Properties** from the context menu that displays. Choose *SQL Server and Windows* Authentication on the Security tab of the Properties dialog and click **OK**.

2. Right-click on Databases (under `(local)`) and choose **New Database...**. Enter `compliance` in the *Name:* field and click **OK** to create the database.

3. Right-click on Security (under `(local)`) and choose **New Login...**. Create a new login called `ct`. Select the *SQL Server Authentication* radio button, enter `ct` as the password, and choose `compliance` as the default database for this login. Click **OK** to create the login.

4. Right-click on Users (under the `compliance` database) and choose **New User...**. Choose `ct` from the *Login:* drop-down list, and select all database roles except the last two in the list (`db_denydatareader` and `db_denydatawriter`). Click **OK** to create the user.

5. On the Tagging Server, open `COMPLIANCE-HOME\lib\tools\kodo.properties`. Comment out the active database properties and uncomment the SQL Server properties:
```
javax.jdo.option.ConnectionDriverName:
     com.microsoft.sqlserver.jdbc.SQLServerDriver
javax.jdo.option.ConnectionURL:
     jdbc:sqlserver://localhost:1433;database=compliance;user=ct;password=ct
```

6. Obtain the JDBC driver (`sqljdbc.jar`) from your customer support representative and copy it to the following location:
`COMPLIANCE-HOME\lib\tools\jdbc`

7. Add `;%JDBC_LIB%\sqljdbc.jar` to the end of both the `-classpath` switches in the `COMPLIANCE-HOME\bin\init-compliance-db-tables` script.

8. Modify the properties in the `WL-DOMAIN-HOME\applications\kodo.rar\META-INF\ra.xml` file to substitute SQL Server driver information for the database driver information located there:
```
<config-property name="ConnectionURL" type="java.lang.String">
     jdbc:sqlserver://localhost:1433;database=compliance;user=ct;password=ct
</config-property>
<config-property name="ConnectionDriverName" type="java.lang.String">
     com.microsoft.sqlserver.jdbc.SQLServerDriver
</config-property>
```

   Note: Altering the `META-INF\ra.xml` file inside `WL-DOMAIN-HOME\applications\kodo.rar` requires unzipping the `.RAR` file, editing the `.XML` file, and inserting the edited version back into the the `.RAR` file.

9. Run the `COMPLIANCE-HOME\bin\init-compliance-db-tables` script. Watch for any errors, and use the SQL Server Enterprise Manager to check that tables were created successfully.

Using XML Reporting

In addition to its CSV reports (Report CSV Files on page 4-20), Compliance Jump Start automatically generates an XML message containing case-to-pallet associations when a pallet is finished. This message can be delivered via JMS, HTTP, or TCP, or written to a file.

The XML message contains:

- SSCC
- Station ID
- Pallet EPC
- Case EPCs
- Exception Details

- Rework Details
- Timestamp

Delivery Options

By editing `tagging-station.props`, you can configure Compliance Jump Start to send XML messages as a file, or to send it via HTTP, JMS or TCP.

File

To send the XML report as a file, add the following lines to `tagging-station.props`:

- `com.connecterra.compliance.notificationDriver.file.class = com.connecterra.notifytypes.FileNotificationDriver`
- `com.connecterra.compliance.notificationDriver.palletReport.destinationURI = file_destinationURI`

  Example:
  `com.connecterra.compliance.notificationDriver.palletReport.destinationURI = file:///C:/temp`

HTTP

To send the XML report via HTTP, add the following lines to `tagging-station.props`:

- `com.connecterra.compliance.notificationDriver.http.class = com.connecterra.notifytypes.HTTPNotificationDriver`
- `com.connecterra.compliance.notificationDriver.palletReport.destinationURI = http_destinationURI`

  Example:
  `com.connecterra.compliance.notificationDriver.palletReport.destinationURI = http://localhost:8085`

TCP

To send the XML report via TCP, add the following lines to `tagging-station.props`:

- `com.connecterra.compliance.notificationDriver.tcp.class = com.connecterra.notifytypes.TCPNotificationDriver`
- `com.connecterra.compliance.notificationDriver.palletReport.destinationURI = tcp_destinationURI`

  Example:
  `com.connecterra.compliance.notificationDriver.palletReport.destinationURI = tcp://mycompany.com:5000`

JMS

To send the XML report via JMS, add the following lines to `tagging-station.props`:

- `com.connecterra.compliance.notificationDriver.jms.class = com.connecterra.notifytypes.JMSNotificationDriver`
- `com.connecterra.compliance.notificationDriver.palletReport.destinationURI = jms_destinationURI`

  Example:
  `com.connecterra.compliance.notificationDriver.palletReport.destinationURI = jms:///queue/QueueConnectionFactory/DestQueue`
- `com.connecterra.compliance.notificationDriver.jms.default.namingPropertiesFile = naming.props`

  The file name may include either an absolute path or a path relative to the location of `tagging-station.props`. See Chapter 2 of the *RFTagAware Deployment Guide* for more information on specifying and using the `naming.props` file.

  Example:
  ```
  com.connecterra.compliance.notificationDriver.palletReport.destinationURI =
  C:\\Program Files\\ConnecTerra\\RFTagAware\\1.3.0\\samples\\JMSSamples\\JBoss\\
  etc\\naming.props
  ```

Format Options

By default, the XML report uses the schema:

```
COMPLIANCE-HOME\share\schemas\epcis.xsd
```

However, you can convert the report to other formats by applying an XSL transformation on the default format. To do this, add the following line to `tagging-station.props`:

```
com.connecterra.compliance.xml.casePalletAssociation.xslFile=path_to_XSL_file
```

SAP-AII Transformation

To produce a report for SAP-AII, use the XSL file:

```
samples\xsl\cpa-sap-aii.xsl
```

Setting Up and Using the Scanner

To scan bar codes into Compliance Jump Start, you need to use a Symbol® LS1900 Series scanner: See the following sections for more information:

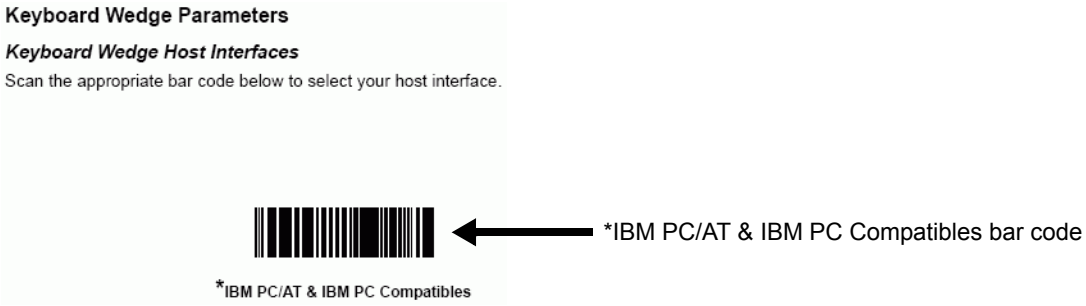
- Setting Up the Scanner (page 4-32)
- Using a Scanner to Automatically Generate Labels (page 4-33)

Setting Up the Scanner

1. Obtain a hard copy of the *Symbol LS1900 Series Product Reference Guide*. This document is available at http://www.scarpaz.com/barcodes/Symbol_LS1900_5339901a.pdf.
2. Scan the following bar codes from Chapter 4 of the *Symbol LS1900 Series Product Reference Guide*:

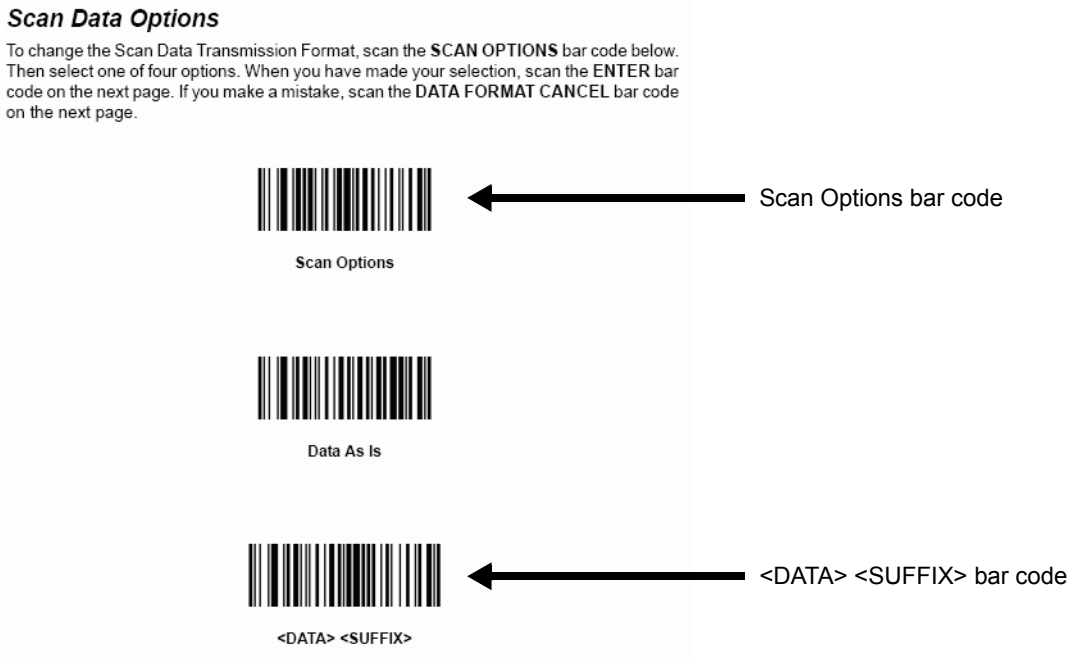
   ***IBM PC/AT & IBM PC Compatibles**

   This bar code is located under the heading for Keyboard Wedge Parameters. The bar code looks like this:



   Scan Options and **<DATA> <SUFFIX>**

   These bar codes are located under the heading "Scan Data Options". They look like this:



   Enter

   This bar code is located under the heading "Scan Data Transmission Format (continued)". The bar code looks like this:

Using a Scanner to Automatically Generate Labels

To modify the system to allow hands-free operation, follow the instructions below:

1. Connect the scanner via a USB port prior to starting the system.
2. Follow the instructions in Starting Compliance Jump Start on page 2-18 to start the system.
3. Modify the workflow for hands-free operation:
   a. From the Administration Menu, click **Administer Tagging Station**.
   b. Select **Administer Workflow**.
   c. At the top, check the *Automatically continue after scanning a barcode* and *Automatically continue after case label* verification fields.
   d. Save your settings.
   e. Click **Return to Admin Menu**, then **Return to Main Menu**.

Now when you use the barcode scanner, Compliance Jump Start will automatically print a label and add the case to the pallet.

Follow the instructions below to configure Compliance Jump Start to scan a case GTIN and automatically generate a RFID label from the scan.

1. Shut down the Operator Console if it is running.
2. Locate the GTIN on the product case, then locate the company code within the GTIN.
3. Edit the Manager Translation table (`etc\ManagerTranslation.xml`) and add the company code.
4. Restart the Operator Console.
5. Add the new product to the product catalog, using instructions found in Creating Product Catalog Entries on page 4-3.
6. Modify the workflow so that scanning the bar code will trigger the printing of a label:
   a. From the Administration Menu, click **Administer Tagging Station**.
   b. Select **Administer Workflow**.
   c. At the top, check the *Automatically continue after scanning a barcode* field.

d. Save your settings.

e. Click **Return to Admin Menu**, then **Return to Main Menu**.

Now when you use the barcode scanner to scan the GTIN on your product case, Compliance Jump Start will automatically print a label.

To modify the system to allow hands-free operation, follow the instructions below:

1. Connect the scanner via a USB port prior to starting the system.
2. Follow the instructions in Starting Compliance Jump Start on page 2-18 to start the system.
3. Modify the workflow for hands-free operation:
   a. From the Administration Menu, click **Administer Tagging Station**.
   b. Select **Administer Workflow**.
   c. At the top, check the *Automatically continue after scanning a barcode* and *Automatically continue after case label* verification fields.
   d. Save your settings.
   e. Click **Return to Admin Menu**, then **Return to Main Menu**.

Setting Up Notification Events

This section explains how to configure `tagging-station.props` for event notification. All the lines below are included in `tagging-station.props`; you will need to uncomment lines as necessary to enable this functionality.

You can set up notification event to two types of external systems: loggers (via the meta-name LOGGING) and PLC devices (via the meta-name OPC_PLC). Currently, there are three events available for notification: `CaseTagVerified`, `PalletTagVerified`, and `ParcelTagVerified`. These events may be used as described below.

Notifications to Loggers

Notification to loggers (`LOG1` in this example) logs events at the INFO level. To set up `LOG1` to receive event notification, uncomment this line in `tagging-station.props`.

```
com.connecterra.compliance.eventNotification.LOG1.eventNotificationMetaName=LOGGING
```

Use the `enabledEvents` and `disabledEvents` properties to specify which events result in notification. A correctly configured system will have one of these properties (or none) specified.

```
com.connecterra.compliance.eventNotification.LOG1.enabledEvents=CaseTagVerified
#com.connecterra.compliance.eventNotification.LOG1.disabledEvents=CaseTagVerified
```

- If neither of these is specified, then all events will result in notifications.
- If `enabledEvents` is specified, then only the event listed will result in notifications.
- If `disabledEvents` is specified, then all events except the event listed will result in notifications.

Then specify whether the application should stop altogether if a failure to communicate with the system receiving the notification occurs. As before, a correctly configured system will have one of these properties (or none) specified.

```
com.connecterra.compliance.eventNotification.LOG1.fatalExceptions=CaseTagVerified
#com.connecterra.compliance.eventNotification.LOG1.nonFatalExceptions=CaseTagVerified
```

- If neither property is specified, then all exceptions in communicating with external systems will be treated as fatal.
- If `fatalExceptions` is specified, then only exceptions around those events will result in stopping a workflow.
- If `nonFatalExceptions` is specified, then all exceptions for all events except those specified will result stopping a workflow.

Notifications to PLC Devices

Setting up notifications to PLC devices (`PLC1` in this example) is more complex. In addition to specifying the event notification meta-name, you must also specify a transport, a transaction, and one or more message types. We start with the usual properties:

```
com.connecterra.compliance.eventNotification.PLC1.eventNotificationMetaName=OPC_PLC
com.connecterra.compliance.eventNotification.PLC1.enabledEvents=CaseTagVerified
com.connecterra.compliance.eventNotification.PLC1.nonFatalExceptions=CaseTagVerified
```

Next, specify the name of the message that should be issued to PLC1 when a particular event occurs:

```
com.connecterra.compliance.eventNotification.PLC1.event.CaseTagVerified.messages=
    NotifyPLC
```

If there is more than one message, the messages will be sent in the order specified.

For each message, specify a transaction that will be used to send the message and the content of the message.

```
com.connecterra.compliance.message.NotifyPLC.plcTransaction=Simple
com.connecterra.compliance.message.NotifyPLC.sendItem=PLC.DL05.CTV
com.connecterra.compliance.message.NotifyPLC.sendValue=1
```

This message will be sent using a transaction named `Simple` (defined below). In the current version, it supports only one property, named `send`. The `send` property should be a two-item list, which specifies the item name and value that should be sent to the PLC, for example `PLC.DL05.CTV` and `1`.

Next, define the transaction `Simple`. Specify the meta-name `SimpleTransaction`, and a transport for the transaction (`opcplc`), defined below.

```
com.connecterra.compliance.plcTransaction.Simple.transactionMetaName=SimpleTransaction
com.connecterra.compliance.plcTransaction.Simple.plcTransport= opcplc
```

Finally, define the transport, specifying a provider (`OPC_XML` is the only one currently supported) and an URL to connect to:

```
com.connecterra.compliance.plcTransport.opcplc.provider=OPC_XML
com.connecterra.compliance.plcTransport.opcplc.url=
       http://localhost:8099/opcxmlda/vendor.opc.simulation.1
```

Chapter 5: Troubleshooting

Contents

This chapter describes what to do if you encounter various situations while using Compliance Jump Start.

What to do if you:

Can't Scan a Case Bar Code

In this case, the scanner cannot read the bar code and does not "beep." This can happen when the bar code has been smudged, torn, etc.

If you know what product is in the case, scroll through the list of products on the Add Case screen (*Pick Case* step), and click the correct product. You can also type in the SKU, item code, or GTIN rather than scrolling if you want to.

The product you clicked or typed appears in the *Case Code* field, just as if the scanner was able to read the bar code.

Can't Print a Case Label

If you get an error message when you try to print a label:

1. Check the printer to make sure that it is online, that it has tags, and that its tags are properly aligned.
2. Click the **Reprint Case Label** button.
3. If you get another error message, click **Cancel** and return to the Main Menu.
4. Click **Administer System**, **Administer Tagging Station**, **Print Test Label**.
5. If the test label prints correctly, you know your printer is working properly. Contact your support representative for help.

   If the test label does not print correctly, contact the printer manufacturer for help.

Can't Verify a Case Label

Verification can fail due to the signal not reaching the tag, or due to a bad tag.

- If the signal is not reaching the tag, repositioning the case can fix the problem.
- If you have a bad tag, you will need to reprint the case label. Tags can be bad due to manufacturing defects that enable them to be programmed inside the printer but not read over any larger distances. Tags can also be bad because they were damaged when they were attached to the case.

Verification can also fail because something inside the case, for example metal or fluids, is interfering with the tag's ability to be read.

1. Try repositioning the case relative to the reader's antenna, and click **Reverify**.
2. If this fails, click **Reprint Case Label** and try rewriting the label with another EPC value.

   (Note that reprinting the label deletes the original EPC value from the case-pallet association report.)
3. Try verifying again.

Can't Match a Scanned Bar Code to SKU in Product Catalog

In this case, the bar code scans but does not match any of the products listed on the Add Case screen (*Pick Case* step).

1. Add this case's product information to the product catalog, as described in Creating Product Catalog Entries on page 4-3.
2. After you do this, scan the bar code again, and it should match the listing you just added to the product catalog.

   Note: Although this solution lets you manually modify the product catalog within the Compliance Jump Start system (you will see your newly added product in the list), it does not add the new product to the CSV file that defines a product catalog. For consistency, you should add the new product listing to your CSV file as well. See Administering CSV Files on page 4-17 for more information.

Damaged a Case Label (After Print/Verify)

1. On the Main Menu, click the **Resume Work** button. The Work Menu appears.
2. On the Work Menu, click the **Rework Pallet** button. The Rework Pallet screen appears.
3. On the Rework Pallet screen, click the **pallet** with the damaged case label.
4. Click the **Delete Case** button. The Delete Case screen appears.
5. Click the **Select and Delete Case** button. A list of case EPCs appears.
6. Click the case EPC you want to delete.

7. In the *Reason* drop-down menu, highlight **Delete Damaged Tag**.

   Optional: Type in a comment in the *Comment* field.

8. Click the **Delete Case** button.

Can't Print a Pallet Label

If you get an error message when you try to print a label:

1. Check the printer to make sure that it is online, that it has tags, and that its tags are properly aligned.
2. Click the **Reprint Pallet Label** button.
3. If you get another error message, click **Cancel** and return to the Main Menu.
4. Click **Administer System**, **Administer Tagging Station**, **Print Test Label**.
5. If the test label prints correctly, you know your printer is working properly. Contact your support representative for help.

   If the test label does not print correctly, contact the printer manufacturer for help.

Can't Verify a Pallet Label

Verification can fail due to the signal not reaching the tag, or due to a bad tag.

- If the signal is not reaching the tag, repositioning the pallet can fix the problem.
- If you have a bad tag, you will need to reprint the pallet label. Tags can be bad due to manufacturing defects that enable them to be programmed inside the printer but not read over any larger distances. Tags can also be bad because they were damaged when they were attached to the pallet.

Verification can also fail because something inside the case, for example metal or fluids, is interfering with the tag's ability to be read.

1. Try repositioning the case relative to the reader's antenna, and click **Reverify**.
2. If this fails, click **Reprint Case Label** and try rewriting the label with another EPC value.

   (Note that reprinting the label deletes the original EPC value from the case-pallet association report.)

3. Try verifying again.

Damaged a Pallet Label (After Print/Verify)

1. On the Main Menu, click the **Resume Work** button. The Work Menu appears.
2. On the Work Menu, click the **Rework Pallet** button. The Rework Pallet screen appears.
3. On the Rework Pallet screen, click the **name of the pallet** with the damaged pallet label.
4. Click the **Reprint Pallet Label** button. The Reprint Pallet Label screen appears.
5. In the *Reason* drop-down menu, highlight the appropriate reason.

   Optional: Type in a comment in the *Comment* field.
6. Click the **Reprint Pallet Label** button.

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