Oracle® Retail Xstore Point-of-Service Software

Mobile User Guide Release 15.0 **E69457-03**

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Oracle® Retail Xstore Point-of-Service Software Mobile User Guide, Release 15.0 E69457-03

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Preface

Oracle Retail Xstore Mobile is a mobile point-of-sale (POS) extension of the Xstore register software. Using Xstore Mobile, many of the actions that employees normally performed on a register can now be performed out on the sales floor. This guide describes the activities supported by Oracle Retail Xstore Mobile.

Audience

This guide is for staff who implement, support, or use Xstore Mobile.

Documentation Accessibility

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http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Documents

For more information, see the following documents in the Oracle Retail Xstore Suite Release 15.0 documentation set.

- Oracle Retail Xstore Suite Implementation and Security Guide
- Oracle Retail Xstore Suite Release Notes
- Oracle Retail Point-of-Service User Guide
- Oracle Retail Point-of-Service Manager's Guide
- Oracle Retail Point-of-Service Reports Guide
- Oracle Retail Shipping, Receiving and Inventory Guide

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https://support.oracle.com

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 15.0) or a later patch release (for example, 15.0.1). If you are installing the base release and additional patch releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch releases can contain critical information related to the base release, as well as information about code changes since the base release.

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http://www.oracle.com/technetwork/documentation/oracle-retail-100266.html

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Oracle Retail Documentation on the Oracle Technology Network

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http://www.oracle.com/technetwork/documentation/oracle-retail-100266.html

(Data Model documents are not available through Oracle Technology Network. You can obtain them through My Oracle Support.)

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, emphasis, or terms defined in text or the glossary.
italic	Italic type indicates book titles, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction to Oracle Retail Xstore Mobile

Oracle Retail Xstore Mobile is a mobile point-of-sale (POS) extension of the Xstore register software. Using Xstore Mobile, many of the actions that employees normally performed on a register can now be performed out on the sales floor.

About this Guide

The *Oracle Retail Xstore Point-of-Service Software Mobile User Guide* describes how to perform the functions available in Xstore Mobile. These functions are described in the following chapters:

- <u>Chapter 2, Installation and Configuration</u> Describes the installation and configuration of Xstore Mobile.
- <u>Chapter 3, Custom Branding</u> Describes how to customize the Xstore Mobile user interface for your brand.
- <u>Chapter 4, Sale</u> Describes the sale transaction process.
- <u>Chapter 5, Item Lookup</u> Describes how to look up an item to view information about it.
- <u>Chapter 6, Time Clock</u> Describes clocking in, clocking out, and changing the work code under which time is logged.
- <u>Chapter 7, Admin</u> Describes the administrative functions that can be performed in Xstore Mobile.
- <u>Chapter 8, Receiving</u> Describes inventory receiving.
- <u>Chapter 9, Shipping</u> Describes inventory shipping.
- <u>Chapter 10, Inventory Counts</u> Describes how to create, perform, update, and submit inventory counts.
- <u>Chapter 11, Inventory Adjustment</u> Describes how to make adjustments to inventory counts.
- <u>Chapter 12, Item Transfer</u> Describes how to transfer items between inventory buckets.
- <u>Appendix A: Item Adjustment</u> Explains each of the adjustments that can be made to sale items in Xstore Mobile.
- <u>Appendix B: SSL and Certificates</u> Describes the methods for creating SSL certificates.

Interface

The interface for Xstore Mobile is made up of common elements in any mobile application. These elements include text fields, buttons, links, lists, and menus used to select options, enter data, or open new screens.

Important: The appearance of Xstore Mobile differs depending upon the operating system and the specific device on which it runs. Therefore, your screens may differ from the screens that appear in this manual.

Main Menu



The main menu for Xstore Mobile is the first screen displayed when opening the application. This screen displays a list of buttons, each of which accesses certain areas of Xstore Mobile.

Select the respective option to access the appropriate functionality.

- Sale Perform sale transactions. See Chapter 4, Sale.
- **Item Lookup** Look up information about items in the system. See <u>Chapter 5</u>, <u>Item Lookup</u>.
- Time Clock Perform time clock functions, such as clocking in and clocking out. See <u>Chapter 6, Time</u> <u>Clock</u>.
- Inventory Perform inventory actions. See Chapter 8, Receiving, Chapter 9, Shipping, Chapter 10,

Inventory Counts, Chapter 11, Inventory Adjustment.

 Admin - Access administrative tasks that can be performed in Xstore Mobile. See <u>Chapter 7, Admin.</u>

Text Field



A text field is used for keying in information. When a text field is selected, an on-screen keyboard opens on the mobile device, which you can use to enter the

requested information.

Note that the appearance of the keyboard will depend upon the device on which you run Xstore Mobile.



Button

By selecting a button on the screen, you select the action that button performs. Buttons can take many forms, depending on their use.









Figure 1-1: Standard Buttons

Figure 1-2: <u>Back</u> Button

Figure 1-3: <u>Context</u> <u>Menu Button</u>

Figure 1-4: Item Lookup Button

Back Button

The Back button exits out of the current activity and returns to the previous activity. The text in a Back button may differ and the activity to which it returns depends upon its location in the application.







Figure 1-5: Back Buttons

Context Menu Button



The Context Menu Button opens a context menu.

- When it is present, the Context Menu Button will always be in the upper-right hand corner of the screen.
- The Context Menu Button will not be present on all screens.
- The options in the context menu itself will depend upon the screen in which it is located.

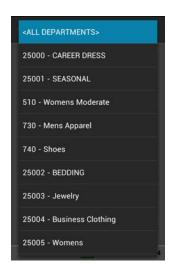
Selection Menu

A selection menu displays a list of options among which one item can be picked. Selection menus are generally used as part of a set of entry fields within a form.

A closed selection menu displays the option that has been selected (below).



To change the option selected, select the selection menu to display the list of possible options (right), then select the correct option in the list.



List

A list displays a series of items. Each item in the list can be selected to open it.

- Lists are frequently used to display search results, such as customers returned by a <u>Customer Search</u>, or documents returned when you <u>Search for a Receiving</u> <u>Document</u>.
- Lists are also used for standard menus throughout the Xstore Mobile application.



Status Bar



The status bar is shown on the bottom of the screen. It is divided into three parts, each displaying information about the system.

The status bar has the following organization:

- On the left, the name of the logged-in user. If no user is currently logged in, nothing will be displayed in the lower-left corner.
- In the center, the register number and whether the store is open or closed.
 - If the store is open, the indicator will be green:



- If the store is closed, the indicator will be red:
- On the right, Xstore Mobile displays the business date.

Installation and Configuration

This chapter describes the procedures for setting up an Xstore Mobile server, and installing and configuring Xstore Mobile on a mobile device.

Xstore Mobile is installed on an Android or iOS device as a thin client for Xstore. Therefore, Xstore must be installed and configured on an Xstore Mobile server before Xstore Mobile can be used.

About This Chapter

This chapter contains the following information:

- <u>Installation</u> Provides a basic procedure for installing Xstore Mobile on the server and on the mobile device(s).
- <u>Configure Xstore Mobile</u> Describes how to configure Xstore Mobile on a mobile device.
- <u>Update Xstore Mobile Configuration</u> Describes how to open Xstore Mobile configuration on a mobile device after the initial configuration.

Installation

This installation procedure assumes the following:

- You have a file archiver application that can navigate both . jar and .zip files (for example, 7-Zip).
- You have the necessary SSL certificates. See <u>Appendix B: SSL and Certificates</u> for information on creating SSL certificates.
- You have mobile device management software installed on a system (not the Xstore Mobile server).
- You have a utility for creating MD5 hashes.
- If you are installing Xstore Mobile on an unsupported device (for example, an iPad), you have turned off screen rotation on the device.

To install Xstore Mobile, do the following before installing Xstore:

Extract the Jetty Utility File

- **1.** Navigate to the file location of the Xstore installation . jar file.
- **2.** Open the Xstore installation file in a file archiver that can navigate both . jar and . zip files (for example, 7-Zip).
- **3.** Open xstore-pos-mobile.zip in the archive.

- **4.** Open the lib\ext\jetty\ subdirectory in the archive.
- **5.** Copy the file jetty-util-9.1.3.v20140225. jar from the archive to your local file system. *This should be placed in an easy-to-find directory.*

Edit ant.install.properties

6. Open the installation file ant.install.properties in a text editor (e.g. Notepad).

See also the *Xstore Suite Implementation and Security Guide* for the location of the ant.install.properties file, a description of the use of encrypt.bat and encrypt.sh for encrypting information (step 9), more information about password obfuscation (step 12), and/or the full installation procedure (step 15).

- 7. Search for the text # Xstore Mobile in the ant.properties file.
- 8. Configure the following settings in ant.properties:

```
# Xstore Mobile
xstore.mobile = true
mobileInstallDir = C\:\\xstore-mobile
```

- **9.** Generate an MD5 hash of a the Xstore Mobile password.
- 10. Enter the plain-text username and MD5 hash of the password for Xstore Mobile:

```
mobileUserName =
mobilePasswordHash =
```

11. Enter the key alias that will be used by Xstore Mobile:

```
mobileKeyAlias =
```

12. Enter the obfuscated keystore password that will be used by Xstore Mobile:

```
mobileKeystorePassword =
To obfuscate the password:
```

- **a.** Open a command prompt.
- **b.** Run the following command:

```
java -cp <jetty_util_path>/jetty-util-9.1.3.v20140225.jar
    org.eclipse.jetty.util.security.Password
<keystore_password>
```

where <jetty_util_path> is the location of the jetty-util-9.1.3.v20140225.jar file (see step 5)

and <keystore_password> is the password to obfuscate.

The output of the command will look like the following (if the password is allgoodthings).

```
allgoodthings
OBF:1v1p1uv81w8t1u9p1vnq1y0q1sov1y101vnc1u9t1w8x1uuy1v2p
MD5:dfc8e399fa36b8db59d3c94f24821e72
```

- **c.** Copy the string on the line starting with OBF: (including OBF:).
- **d.** Paste the string into the mobileKeystorePassword line, so that it looks like the following:

```
mobileKeystorePassword =
OBF:1v1p1uv81w8t1u9p1vnq1y0q1sov1y101vnc1u9t1w8x1uuy1v2p
13. Save and close the ant.install.properties file.
```

Software Installation

- **14.** Prepare the security certificate for use by Xstore Mobile:
 - **a.** If necessary, change the name of the keystore file to xstore mobile.keystore.
 - **b.** Move the file xstore_mobile.keystore to the same folder as the Xstore installer.
- **15.** Install version 15.0 of Xstore (including Xenvironment) on the system that will be the Xstore Mobile server.

See also the *Xstore Suite Implementation and Security Guide* for the full installation procedure.

16. If necessary, move the file xstore_mobile.keystore to the mobile directory of the Xstore Mobile installation. *Do not change the name of this file.*

Configure Xenvironment

Xstore Mobile is also an install option in the Xenvironment installation process. See the *Xenvironment User Guide* for more information.

- **17.** Open the settings in \cust_config\version1\local.properties in the Xenvironment directory in a text editor (e.g. Notepad).
- **18.** Ensure that Xservices are turned off by setting the xservices-hh.disabled configuration to the following:

```
xservices-hh.disabled=True
```

19. Ensure that the Xstore Mobile server is turned on by setting the xstoremobile.disabled configuration to the following:

```
xstore-mobile.disabled=False
```

20. If necessary, restart the system to ensure that the configuration changes are enabled.

Create and Install SSL Certificates

- **21.** If necessary, create the SSL certificates from the Xstore Mobile server and Xstore Mobile. See <u>Appendix B: SSL and Certificates</u>.
- **22.** Install the SSL certificate on the device.
 - If you are installing Xstore Mobile on an Android device:
 - <u>CA-Signed Certificate</u> Install a certificate signed by a certificate authority.
 - <u>Self-Signed Certificate</u> Install a self-signed certificate.
 - If you are installing Xstore Mobile on an iOS device, you must use a certificate signed by a certificate authority. See <u>CA-Signed Certificate</u>. *Xstore Mobile will not work on iOS with a self-signed certificate*.

Android

CA-Signed Certificate

- **a.** Copy the provided certificate file to the storage of the Android device. *If you used the certificate creation process in <u>Appendix B: SSL and Certificates</u>, this is the cacert.pem file.*
- **b.** If necessary, change the extension of the file from .pem to .cer.

- **c.** Open the device's security menu.
- **d.** In the security menu of the Android device, enable a face unlock, pattern, PIN, or password lock screen.
- **e.** In security menu of the Android device, select the **Install from storage** option and, when prompted for the name, select the file that was copied to the device's storage.

Self-Signed Certificate

a. Export the certificate from the keystore file by typing the following command:

```
keytool -export -alias xstoremobile-YYYYMMDD -keystore
xstoremobile.keystore -rfc-file
xstoremobile-YYYYMMDD.cer
```

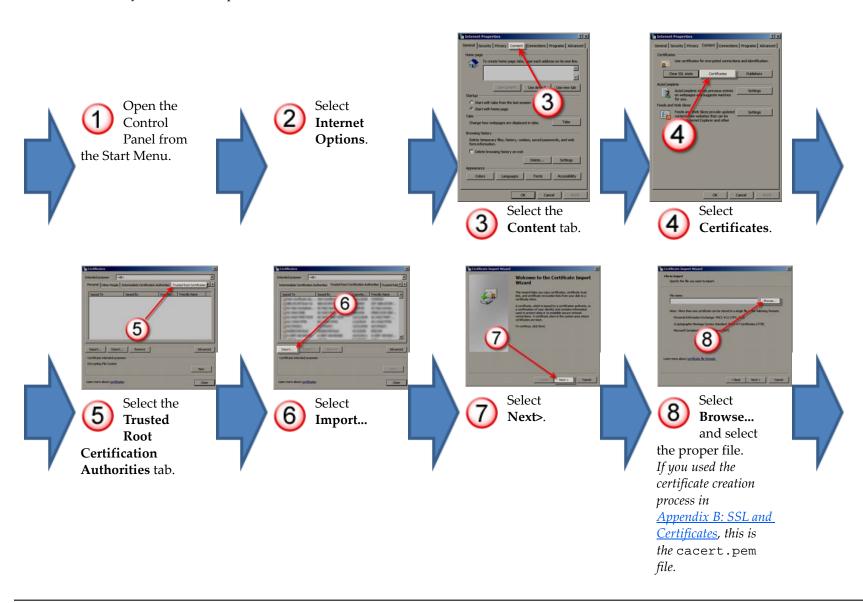
- **b.** Copy the xstoremobile-YYYYMMDD.cer file to the storage of the Android device.
- **c.** Open the device's security menu.
- **d.** In the security menu of the Android device, enable a face unlock, pattern, PIN, or password lock screen.
- **e.** In security menu of the Android device, select the **Install from storage** option and, when prompted for the name, select the file that was copied to the device's storage.

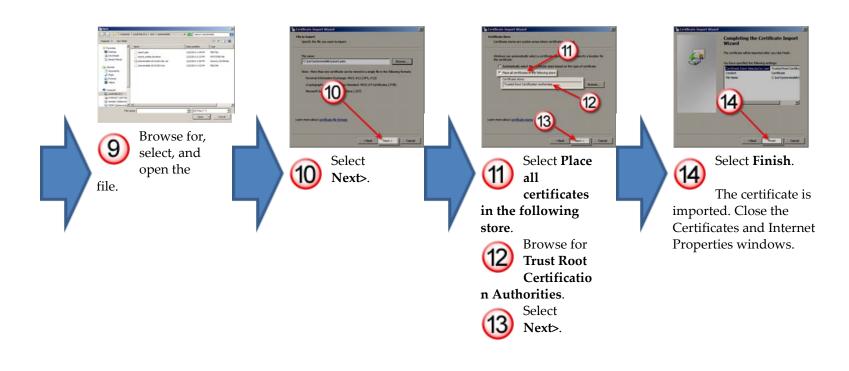
iOS

Important: iOS devices can only use CA-signed certificates. You cannot use Xstore Mobile with a self-signed certificate.

Import the certificate

If you have not imported the certificate into Windows:





Install Xstore Mobile

Android

- If you are using mobile device management (MDM) software:
 - **a.** Use your mobile device management software to install Xstore Mobile on the device(s).
 - **b.** Run Xstore Mobile on the mobile device. Continue with <u>Configure Xstore Mobile</u>.
- If you are not using MDM software:
 - **a.** Connect to the device using a USB cable.
 - **b.** Copy the .apk file onto the device.
 - **c.** Use an Android software installation program to install the .apk file.
 - d. Continue with <u>DataWedge configuration (Android only)</u>.

iOS

- If you are using mobile device management (MDM) software:
 - **a.** Use your MDM software to install Xstore Mobile on the device(s).
 - **b.** Run Xstore Mobile on the mobile device. Continue with <u>Configure Xstore Mobile</u>.

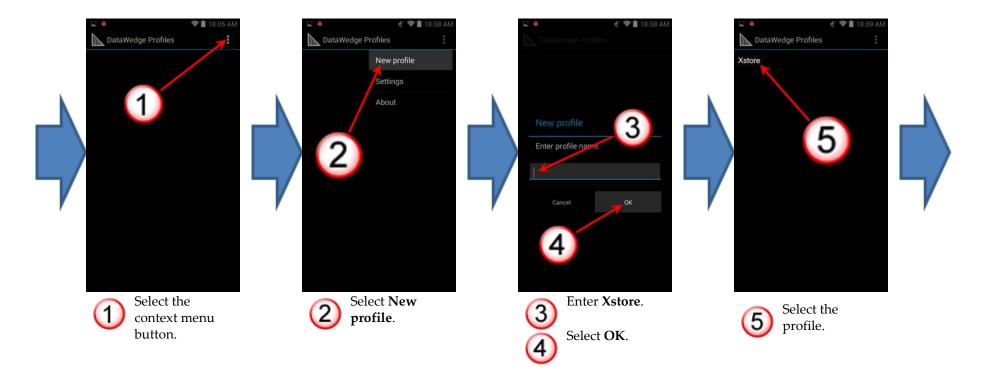
DataWedge configuration (Android only)

If you are installing Xstore Mobile on an Android device, configure DataWedge:

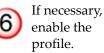
- **1.** Install DataWedge, if necessary. *DataWedge should already be installed on the Motorola MC40 or Motorola TC70.*
- 2. Open DataWedge.
- 3. Continue with Create and configure a new profile in DataWedge.

Create and configure a new profile in DataWedge

To create and configure a new profile in DataWedge:







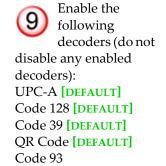
[DEFAULT]

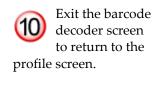
If necessary, enable barcode input in the profile. [DEFAULT]







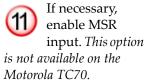






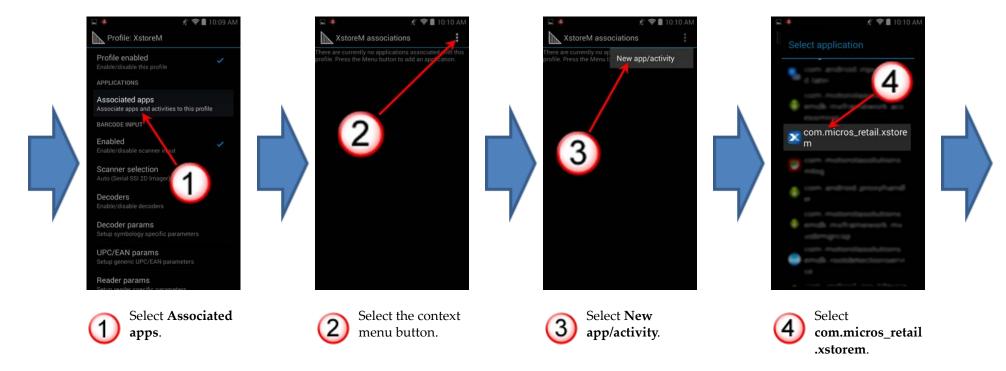


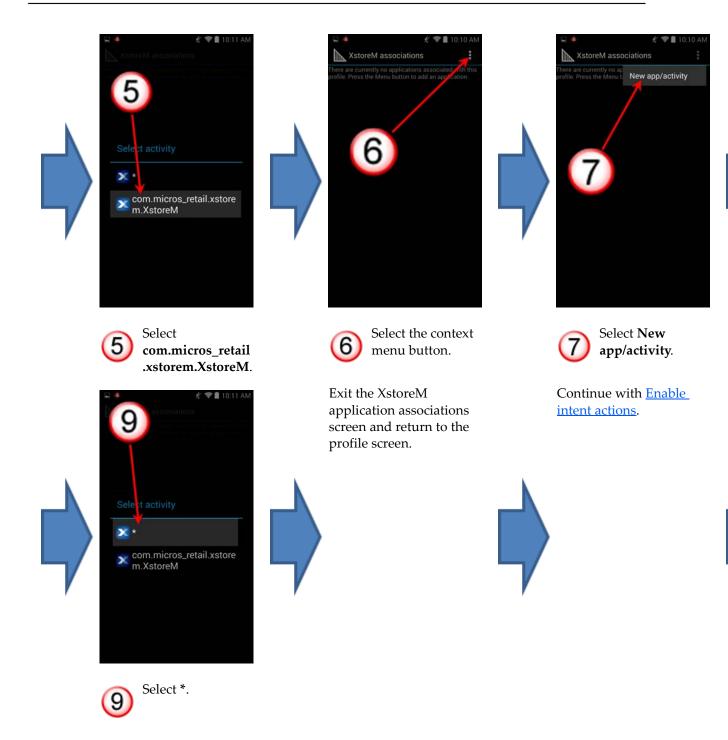
Continue with Associate the profile with Xstore Mobile.



Associate the profile with Xstore Mobile

To associate the profile with Xstore Mobile:

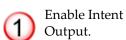




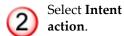
Enable intent actions

To enable intent actions in the profile:





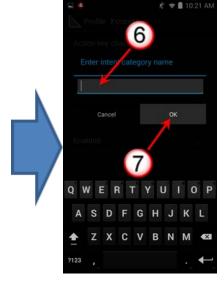


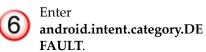












Select OK.



DataWedge configuration is complete.
Exit DataWedge.
Run Xstore Mobile and continue with Configure Xstore Mobile.

Update Xstore Mobile Configuration

To update the configurations on Xstore Mobile after installation, long-select the Xstore logo (1) on the Main Menu of Xstore Mobile. This opens the Server Configuration screen. See Configure Xstore Mobile.

Configure Xstore Mobile

Configuration of Xstore Mobile includes the following procedures:

- <u>Server Configuration</u>
- Location Configuration



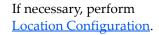
Server Configuration

Enter the server configuration information on the device:

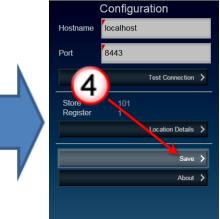












×

≺ Back



- Enter the hostname or IP address for the Xstore Mobile server.
- 2 Enter 8443 as the server port.



Select **Test Connection** to test the connection to the

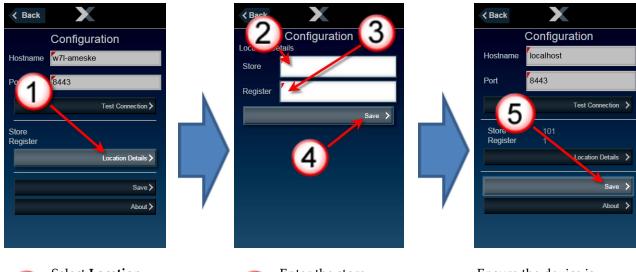
server.

If the test is successful, continue the procedure. If the test fails, check the hostname and port, and the network connection.

Configuration is complete. Xstore Mobile continues to the Main Menu.

Location Configuration

To configure the location information in Xstore Mobile:





2

Enter the store number.

3

Enter the register number.

4

Ensure the device is enabled in Xstore.
Select **Save**.

<u>(5)</u>

Select **Save**.

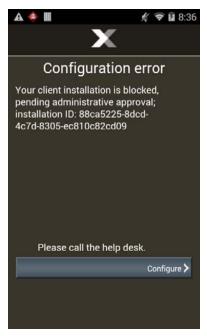


Xstore Mobile returns to the <u>Server Configuration</u> screen.

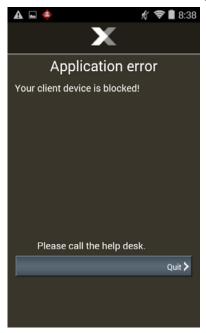
Additional Configuration

Additional configuration of Xstore Mobile is performed through the back office component of Xstore.

For initial configuration, or whenever changing the Register number, a pop-up message appears with a token.



The Xstore Mobile server will initially block that device from running Xstore until an administrator goes into a new function (Mobile Client Device Access) within Manage Hardware in Xstore's back office to enable the newly configured device.



Administrators can also use this new function in Xstore's back office to disable access to any currently enabled mobile device.

See also the *Xstore Point-of-Service Manager's User Guide* for more information about these configurations.

Functional Settings

Inventory

- **Prompt For a Quantity After Manual Entry Of An Item?** Determines whether Xstore and Xstore Mobile will prompt for a quantity after a user enters an item ID.
- **Prompt For a Quantity After Scanning An Item?** Determines whether Xstore and Xstore Mobile will prompt for a quantity after the user scans an item.

Inventory Count

• **Enable Count Sheet Mode?** - Determines whether count sheets are used in inventory counts. *This must be set to* **False** *for any implementation using Xstore Mobile.*

Item Options

• **Show item images?** - Determines whether images will be shown for items in Xstore Mobile.

Security Settings

Xstore Mobile also uses the following user security settings for Xstore:

- Search Inventory Count Permission to search for inventory counts.
- Create Inventory Count Permission to create inventory counts.
- Complete Inventory Count Permission to complete inventory counts.
- Cancel Inventory Count Permission to cancel inventory counts.

Custom Branding

Xstore Mobile allows you to set up the user interface so that it is configured specifically for your organization. Setting up your brand on Xstore Mobile is done by configuring a custom skin on the Xstore Mobile server.

Custom branding in Xstore Mobile is performed by placing override configurations in the XstoreMobileBranding.properties override file within the cust_config directory.

The configurations in this file are described in XstoreMobileBranding.properties.

XstoreMobileBranding.properties

This file has the following properties:





The main menu logo image.

This image has the following configurations:

 mainMenuLogoImageUrl - The file location for the image. This can be a URL or a file location within the root directory for Xstore Mobile.

Examples:

```
mainMenuLogoImageUrl=res/graphics/
branding/xstoremobile/
XstoreM_MainImage.png
```

mainMenuLogoImageUrl=http://www.example.
com/xstoremobileimages/main_image.png

• mainMenuLogoStyles - CSS style information that configures how the image is displayed.

Example:

```
mainMenuLogoStyles=background-size:
cover; background-repeat: no-repeat;
background-position: 50%; min-height:
150px;
```



The main menu background image. This image has the following configurations:

 mainMenuMainBackgroundImageUrl - The file location for the image. This can be a URL or a file location within the root directory for Xstore Mobile.

Examples:

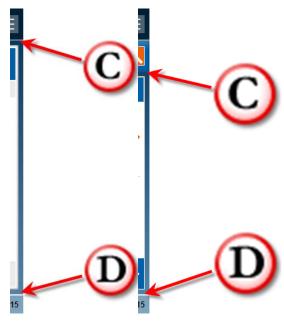
```
mainMenuMainBackgroundImageUrl=res/graph
ics/ branding/xstoremobile/
XstoreM_MainBackground.png
```

mainMenuMainBackgroundImageUrl=http://
www.example.com/xstoremobileimages/
main_menu_background_image.png

• mainMenuMainBackgroundStyles - CSS style information that configures how the image is displayed.

Example:

```
mainMenuMainBackgroundStyles=background-
size: cover; background-repeat: no-
repeat; background-position: 50%;
```





The start color for the gradient on the sale items and item details screens.

This color is configured using the following:

• saleScreenBackgroundGradientStartColor=rgb(rrr,ggg,bbb) - The start color of the gradient in the background. This color is configured using CSS color formatting.

Examples:

saleScresenBackgroundGradientStart
Color=Red

saleScreenBackgroundGradientStart
Color=#FF0000

saleScreenBackgroundGradientStart
Color=rgb(0,50,87)



The end color for the gradient on the sale items screen, and the item details screen.

This color is configured using the following:

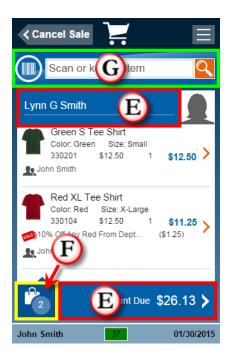
 saleScreenBackgroundGradientEndColor=rg b(rrr,ggg,bbb) - The end color of the gradient in the background. This color is configured using CSS color formatting.

Examples:

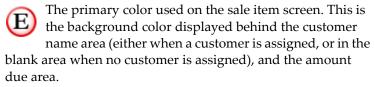
saleScreenBackgroundGradientEnd
Color=Yellow

saleScreenBackgroundGradientEnd
Color=#FFFF00

saleScreenBackgroundGradientEnd
Color=rgb(255,255,0)







This color is configured using the following:

 saleScreenPrimaryColor - The primary color on the sale screen. This color is configured using CSS color formatting.

Example:

saleScreenPrimaryColor=ForestGreen
saleScreenPrimaryColor=rgb(34,139,34)
saleScreenPrimaryColor=#228B22

The secondary color used on the sale item screen. This is the background color displayed behind the item count area.

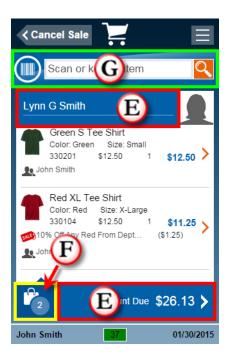
This color is configured using the following:

 saleScreenAccentColor - The primary color on the sale screen. This color is configured using CSS color formatting.

Examples:

saleScreenAccentColor=Salmon
saleScreenAccentColor=rgb(250,128,114)
saleScreenAccentColor=#FA8072

(cont'd)







The item entry background image. This image has the following configurations:

• saleItemEntryBackgroundImageUrl - The file location for the image. This can be a URL or a file location within the root directory for Xstore Mobile.

Examples:

```
saleItemEntryBackgroundImageUrl=res/
graphics/branding/xstoremobile/
XstoreM_BlueBackground_small.png
saleItemEntryBackgroundImageUrl=
```

saleItemEntryBackgroundImageUrl=
http://www.example.com/
xstoremobileimages/
blue_item_entry_background.png

 saleItemEntryBackgroundStyles - CSS style information for the image. This configures how the image is displayed.

Example:

saleItemEntryBackgroundStyles=background
-size: 100% 100%;



The header image for a sale without an assigned customer.

This images has the following configurations:

• saleItemHeaderNoCustomerImageUrl - The file location for the image. This can be a URL or a file location within the root directory for Xstore Mobile.

Examples:

```
saleItemHeaderNoCustomerImageUrl=res/
graphics/branding/xstoremobile/
XstoreM_SmallXLogo.png
```

saleItemHeaderNoCustomerImageUrl=http://
www.example.com/xstoremobileimages/
small_logo.png

 saleItemHeaderNoCustomerStyles - CSS style information for the image. This configures how the image is displayed.

Example:

saleItemHeaderNoCustomerStyles=
background-repeat: no-repeat;
background-position:10px 50%;

Example Configuration

This sample configuration uses the following images, placed in the res/graphics/branding/Sample folder in the Xstore Mobile root directory:

Table 1: Images Used in XstoreMobileBranding.properties Example

Image	Used in section
Star.png	A Main menu logo image
Diamond.png	B Main menu background image
Arrows.png	G Sale item entry background
Lightning	Header image for a sale without a customer

Configuration Descriptions

The configurations in the XstoreMobileBranding.properties configure the following areas of Xstore Mobile.

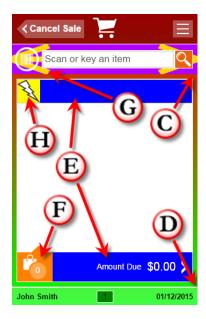




Main Menu logo configuration
mainMenuLogoImageUrl=res/graphics/branding/
Sample/Star.png
mainMenuLogoStyles=background-size: cover;
background-repeat: no-repeat; backgroundposition: 50%; min-height: 150px;



Main Menu background configuration
mainMenuMainBackgroundImageUrl=res/graphics/
branding/Sample/Diamond.png
mainMenuMainBackgroundStyles=background-size:
auto; background-repeat: repeat; backgroundposition: 50%;



Scan or key an item



Start color for the gradient. In this case, red.

This gradient will also be displayed behind the item details screen and the customer context menus.

Note that the gradient continues up behind the action bar.

saleScreenBackgroundGradientStartColor=rgb
(255,0,0)



End color for the gradient. In this case, green.

This gradient will also be displayed behind the item details screen and the customer context menus.

Note that the gradient continues down under the register information bar.

saleScreenBackgroundGradientEndColor=rgb
(0, 255, 0)



Primary color on the sale screen. In this case, blue.

saleScreenPrimaryColor=Blue



Accent color on the sale screen. In this case, orange.

saleScreenAccentColor=#FF8000



Background image for the item entry field.
saleItemEntryBackgroundImageUrl=res/graphics/
branding/Sample/Arrows.png

saleItemEntryBackgroundStyles=background-size:
110% 110%; background-position: center center;



Image shown on the item list header when no customer is assigned.

saleItemHeaderNoCustomerImageUrl=res/graphics/
branding/Sample/Lightning.png

saleItemHeaderNoCustomerStyles=backgroundrepeat: no-repeat; background-position: left
center;



01/12/2015

Amount Due \$0.00

The complete file, as described in Configuration Descriptions, would be the following:

Main Menu logo configuration
mainMenuLogoImageUrl=res/graphics/branding/Sample/Star.png
mainMenuLogoStyles=background-size: cover; background-repeat:
no-repeat; background-position: 50%; min-height: 150px;
Main Menu background configuration
mainMenuMainBackgroundImageUrl=res/graphics/branding/Sample/
Diamond.png
mainMenuMainBackgroundStyles=background-size: auto; background-

mainMenuMainBackgroundStyles=background-size: auto; backgroundrepeat: repeat; background-position: 50%;

- # Start color for the gradient. In this case, red.
- # This gradient will also be displayed behind the item details screen and the customer context menus.
- # Note that the gradient continues up behind the action bar. saleScreenBackgroundGradientStartColor=rgb(255,0,0)
- # End color for the gradient. In this case, green.
- # This gradient will also be displayed behind the item details screen and the customer context menus.
- # Note that the gradient continues down under the register information bar.
- saleScreenBackgroundGradientEndColor=rgb(0, 255, 0)
- # Primary color on the sale screen. In this case, blue. saleScreenPrimaryColor=Blue
- # Accent color on the sale screen. In this case, orange.
 saleScreenAccentColor=#FF8000
- # Background image for the item entry field.
- saleItemEntryBackgroundImageUrl=res/graphics/branding/Sample/
 Arrows.png
- saleItemEntryBackgroundStyles=background-size: 110% 110%;
 background-position: center center;
- # Image shown on the item list header when no customer is assigned.
- saleItemHeaderNoCustomerImageUrl=res/graphics/branding/Sample/
 Lightning.png
- saleItemHeaderNoCustomerStyles=background-repeat: no-repeat;
 background-position: left center;

Sale



The Sale option in Xstore Mobile provides users with the ability to perform sale transactions. To begin a sale transaction, select the **Sale** option (left) on the <u>Main Menu</u> of Xstore Mobile.

Important: The process for a sale transaction in Xstore Mobile follows the steps configured for Xstore.

Important: The process for your version of Xstore Mobile may differ from the procedure(s) described below.

Start Transaction

To start a sale transaction:



Select **Sale** in the <u>Main Menu</u> to start a new transaction.

Register Login

To log in to a register:



Ok >

Choose Commissioned Associate

There are two ways to select a commissioned associate for a transaction:

Select Associate

Enter Associate ID



Select the associate(s) in the list.

Select Ok. Continue the

transaction with:

Loyalty Registration

-Or-

Add an Item



Select the **Select** By Associate ID button.



For each associate to add to the transaction:

Enter Associate ID. The ID of the logged-in user is the

default value.

Select Ok.



adding associates:

associate ID field blank.

Select **Ok**. (5)

Continue the transaction with:

Loyalty Registration

-Or-

Add an Item

Assign a Customer

Important: To continue the transaction without adding a customer, select the Skip button.



To assign a customer to a transaction:



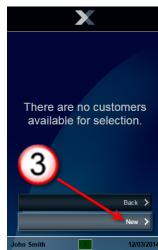


Enter search information.



Select the **Process** button.
To change the states/provinces in the State search menu, see <u>Change Country</u>.





Do one of the following:

Select the customer.
Continue the transaction with either Loyalty

Registration or Add an Item.

-Or-

Long-select the proper customer for additional options. See <u>View</u>

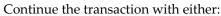
<u>Customer Menu</u> for more information.

-Or-

3 s

Select the **New** button to add a customer. See Create a Customer for

more information.

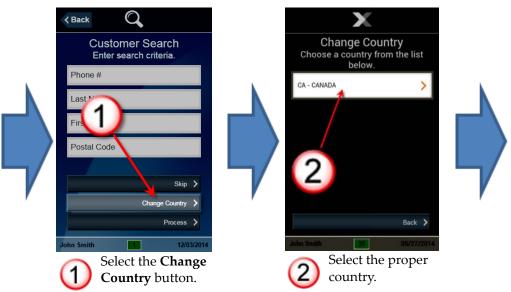


• Loyalty Registration

Add an Item

Change Country

To change the states/provinces in the State field (if present) to those of a different country:



Return to Assign a Customer.

View Customer Menu

By long-selecting a customer in the customer search list, you can open a customer options menu that provides additional options:

Assign the Customer

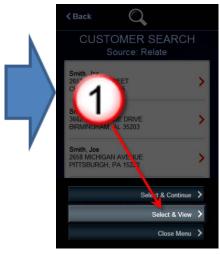


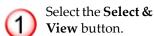
Select the Select & Continue button.
Continue the

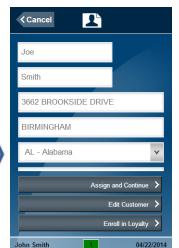
transaction with either:

- Loyalty Registration
- -Or-
- Add an Item

Select and View the Customer





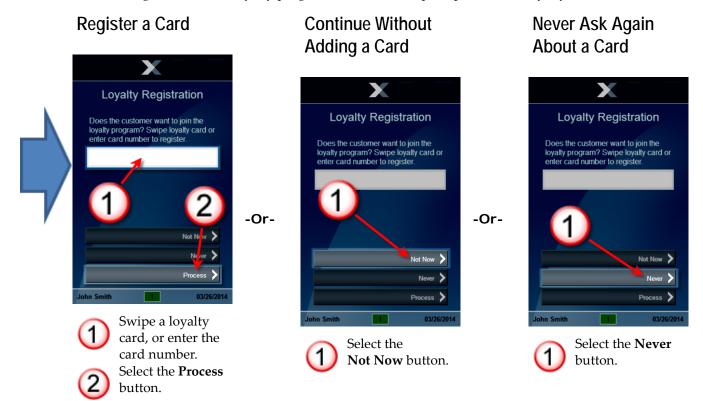


Do one of the following:

- Select **Edit Customer** to edit the customer information. See Edit a Customer.
- •Select Enroll in Loyalty to assign a loyalty card to the customer. See Enroll in Loyalty.
- Select **Assign and Continue** to assign the customer to the transaction and continue the transaction with either:
- Loyalty Registration
- -Or-
- Add an Item

Loyalty Registration

If a customer is not registered with a loyalty program, Xstore Mobile prompts to add a loyalty card. Do one of the following:



Add an Item

To add an item to a transaction:



Scan an item to add it to the transaction.

-Or-



Enter an Item ID.



If the entered item is agerestricted:



Enter the customer's ID number. Select **OK**.





≺ Back

If prompted for an item serial number:



Enter the item serial number. Select **OK**.



To add another item, repeat these steps.

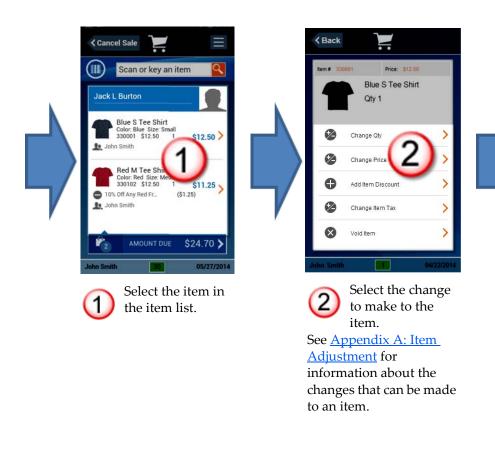
To adjust an item, see Adjust an Item.

When you are finished entering/adjusting items, tender the transaction. See Tender Transaction.



Adjust an Item

To adjust an item that has been added to a transaction:



To make another item adjustment, repeat these steps.

To add another item to the transaction, see <u>Add an Item</u>.

When you are finished entering/adjusting items, tender the transaction.
See Tender Transaction.

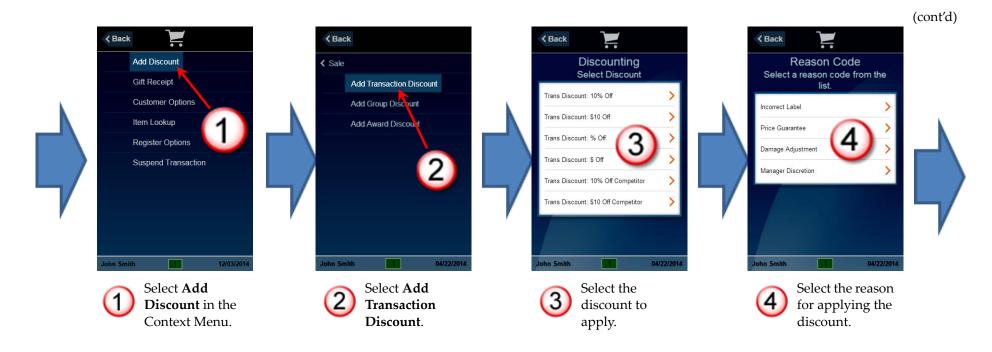
Context Menu Options

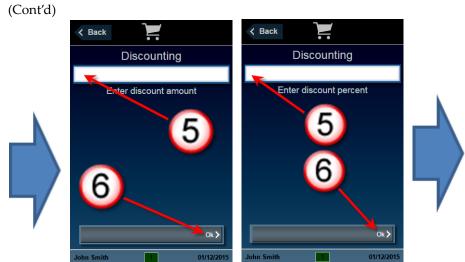
To access all additional transaction options through the context menu, select the Context Menu Button in the upper-right corner of the transaction screen. This opens the context menu for transactions.



Add a Transaction Discount

To add a discount to a transaction:





The discount is applied to the transaction. Return to the sale screen.

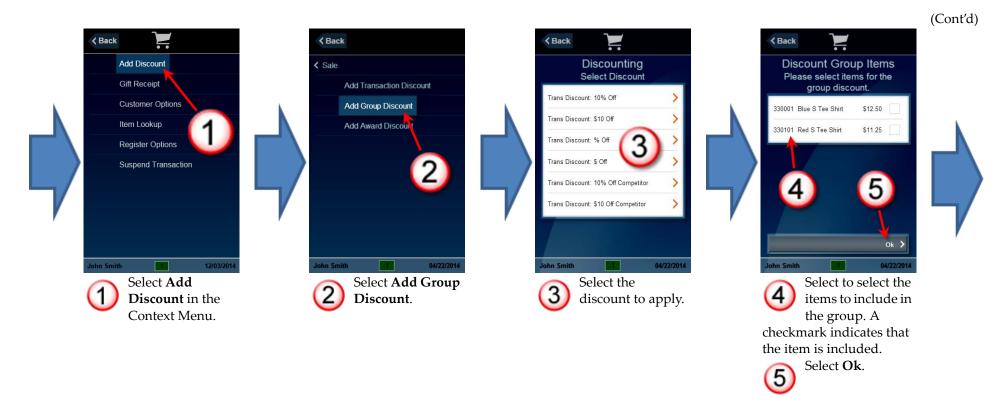
<u>(5)</u>

If the discount is not fixed, enter the amount or percentage of the discount.

Select Ok.

Add a Group Discount

To add a discount to a group of items in a transaction:



(Cont'd)







The discount is applied to the items. Return to the sale screen.



Select the reason for applying the discount.

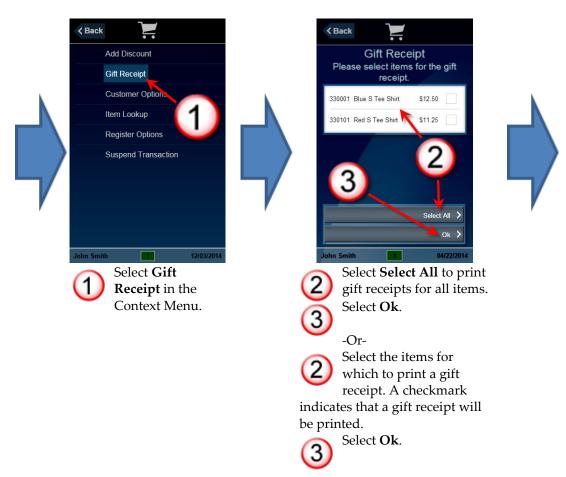


If the discount is not fixed, enter the amount or percentage of the discount. Select $\mathbf{O}\mathbf{k}$.



Print Gift Receipts

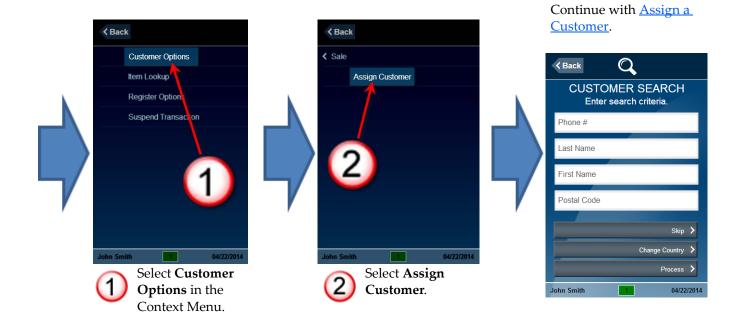
To select items for which gift receipts will be printed:



Return to the sale screen.

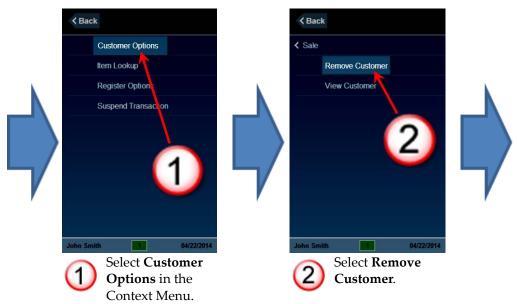
Assign Customer

To add a customer to a transaction:



Remove Customer

To remove a customer from a transaction:

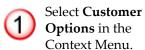


The customer is removed from the transaction. Return to the sale screen.

View/Edit Customer Information

To view or edit information about the customer assigned to a transaction:









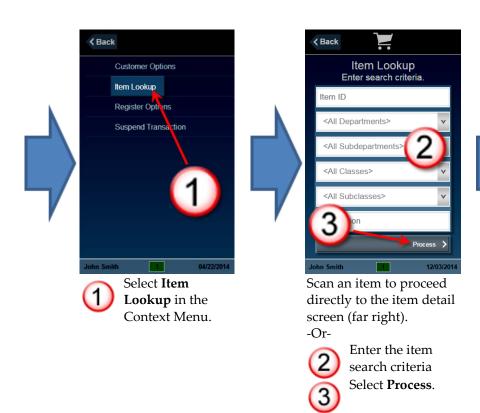


Do one of the following:

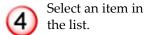
- Select Cancel to return to the sale screen.
- Select **Edit Customer** to edit the customer information. See <u>Edit a Customer</u>.
- Select Enroll in Loyalty to assign a loyalty card to the customer. See Enroll in Loyalty.

Find an Item

To search for an item to add to the transaction:







Xstore Mobile displays details about the item.



Select **Back** to return to the sale screen. -Or-Continue with the appropriate procedure:

- Add Item to Transaction
- Print Rain Check

Add Item to Transaction

To add the searched-for item to a transaction:



The item is added to the transaction. Return to the sale screen.

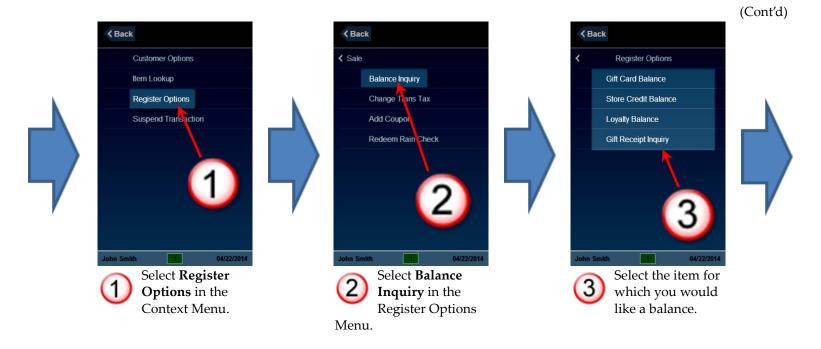
Print Rain Check

To print a rain check for the item:



Balance Inquiry

To find the balance for any account or tender possessed by or associated with a customer:



(Cont'd)











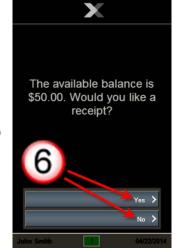
Scan or swipe the appropriate item. -Or-

Enter the appropriate number or identifier for the item or account.

Select **Ok**. (5)

(Cont'd)

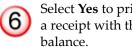




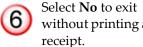
(Cont'd) Xstore Mobile returns to the sale screen.



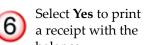
has the following account balances: LOYALTY = 57 Would the customer like a receipt?

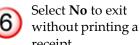


-Or-



Card #3710357061621955





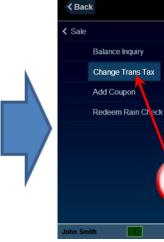
Change Transaction Tax

To change the tax applied to a transaction:

(Cont'd)





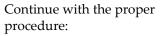




04/22/2014

Menu.



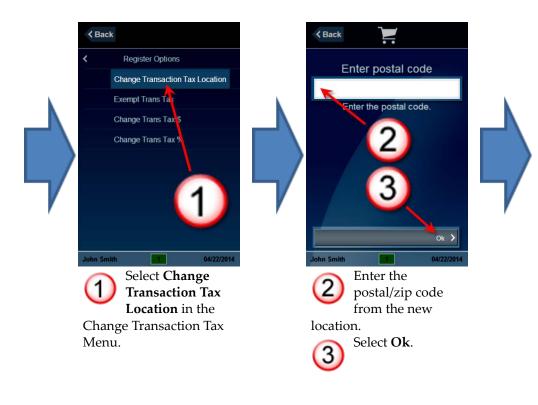


- **Change Transaction Tax** Location
- **Exempt a Transaction** From Tax
- **Change Transaction Tax Amount**
- **Change Transaction Tax** <u>Percentage</u>



Change Transaction Tax Location

To change the location used to determine the tax on a transaction:



The transaction tax location is changed and Xstore Mobile returns to the item entry screen.

Exempt a Transaction From Tax

To exempt a transaction from tax:



Trans Tax in the Change Transaction Tax Menu.



Enter the information about the customer's tax exemption certificate.

Select **Ok**.

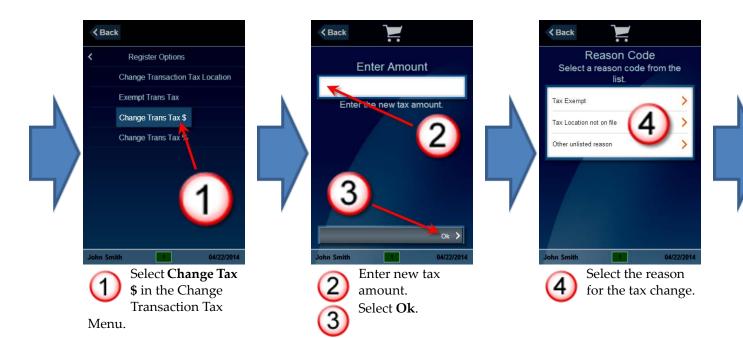




The tax exemption is applied to the transaction and Xstore Mobile returns to the item entry screen.

Change Transaction Tax Amount

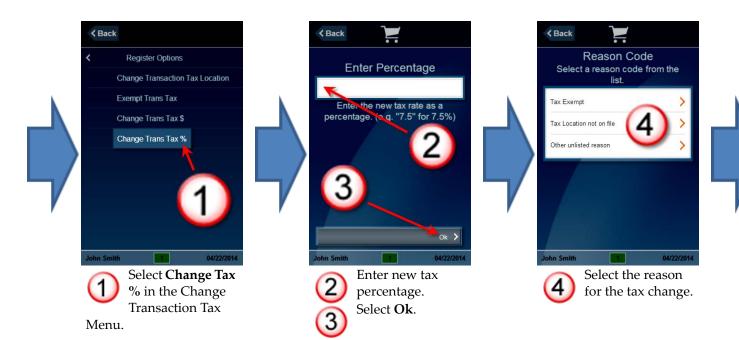
To change the amount of the transaction tax:



The amount of the tax for the transaction is changed to the new value and Xstore Mobile returns to the item entry screen.

Change Transaction Tax Percentage

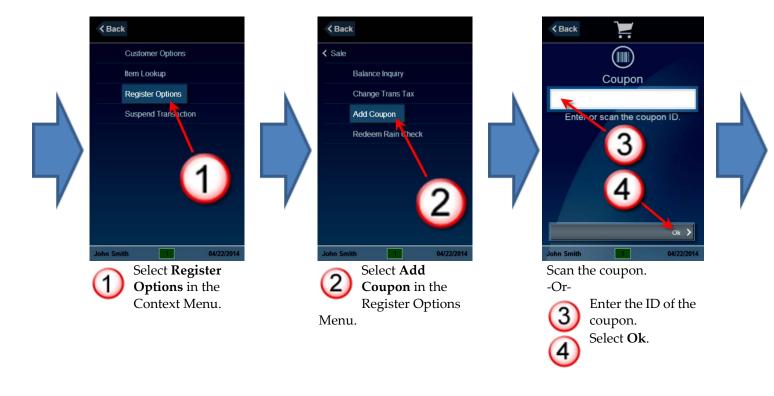
To change the percentage of the transaction tax:



The percentage of the tax for the transaction is changed to the new value and Xstore Mobile returns to the item entry screen.

Add Coupon

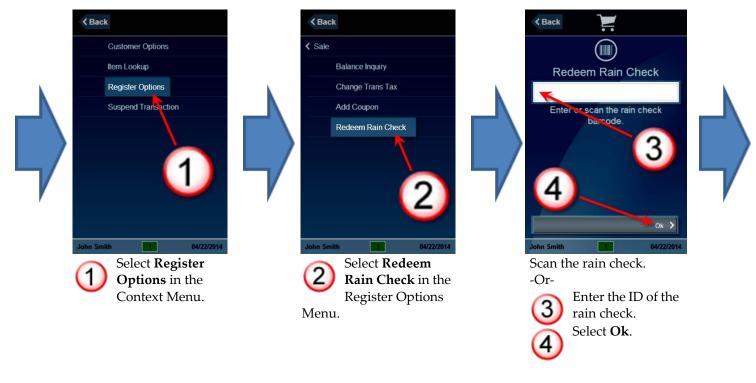
To add a coupon to a transaction:



The coupon is applied to the transaction and Xstore Mobile returns to the item entry screen.

Redeem Rain Check

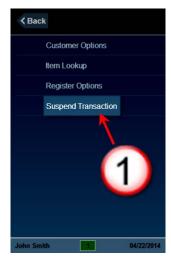
To redeem a rain check:



The rain check is applied to the transaction and Xstore Mobile returns to the item entry screen.

Suspend Transaction

To suspend a transaction:



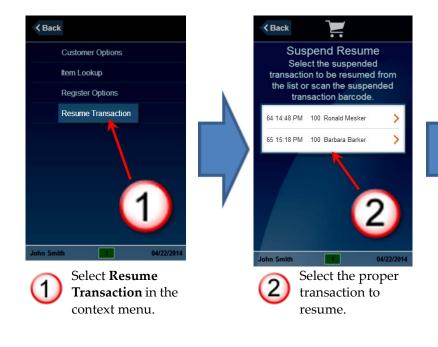
Select **Suspend Transaction** in the context menu to suspend a transaction. Xstore Mobile returns to the Main

Menu.

Resume Transaction

Important: A transaction must have no customer assigned and no items added for it to be used for resuming a suspended transaction.

To resume a suspended transaction:



The transaction resumes. Xstore Mobile returns to the sale screen.

Tender Transaction

To tender a transaction:



Tender and complete the transaction. For more information:

- Credit Card
- Gift Card
- Redeem Store Credit

Credit Card

Important: Debit cards are not supported in Xstore[®] 15.0 Mobile.

To tender a transaction with a credit card:



Enter the card information by doing one of the following:

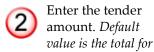
• Swipe the card on the Xstore Mobile device.

-Or-

Enter the card manually. See Manual Entry.





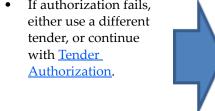


Select **OK**.

the transaction.

Xstore Mobile attempts to authorize the tender.

- If authorization is successful, continue the transaction.
- If authorization fails, tender, or continue with **Tender** Authorization.





Select Credit.



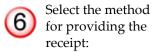




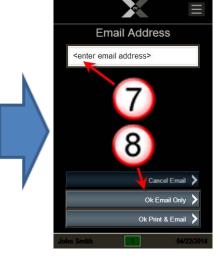
The customer should provide their signature.

After the customer signs, select **Accept**.





- Click Email to email the receipt and, if necessary, also provide a printed copy.
- Click **Print Only** to provide only a printed copy. The transaction ends.



If you selected an email receipt, enter the

customer's email address.

Indicate whether to only create an email receipt, or whether to both email and print the receipt.



If necessary, confirm that the customer signed

the receipt. The transaction is complete.

Manual Entry

To enter a card manually:



Continue the transaction.

Gift Card

To tender a transaction with a gift card:



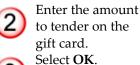
Enter the card information by doing one of the following:

Swipe the card on the Xstore Mobile device.

-Or-

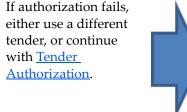
Enter the card manually. See Manual Entry.





Xstore Mobile attempts to authorize the tender.

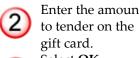
- If authorization is successful, continue the transaction.
- If authorization fails, tender, or continue with **Tender** Authorization.



Select Gift Card.

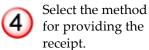


ij









- •Click **Email** to email the receipt and, if necessary, also provide a printed copy.
- Click Print Only to provide only a printed copy.



If you selected an email receipt, enter the

customer's email address.

- Select the receipt creation method.
 - •Click **Ok Email Only** to only email the receipt.
- Click Ok Print & Email to both email and print the receipt.

The transaction is complete. Return to the Main Menu.



Manual Entry

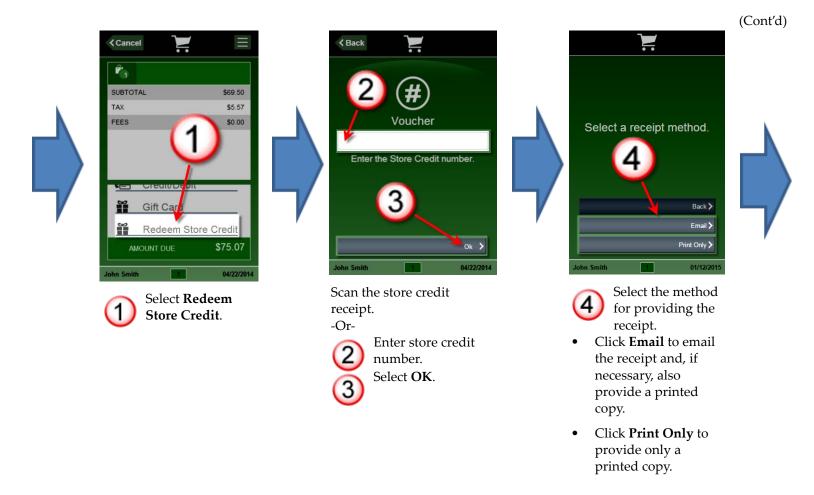
To enter a card manually:



Continue the transaction.

Redeem Store Credit

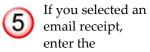
To tender a transaction by redeeming store credit:



(Cont'd)



The transaction is complete. Return to the Main Menu.



customer's email address.

- Select the receipt creation method.
 Click Ok Email
 Only to only email the receipt.
- Click Ok Print & Email to both email and print the receipt.

Tender Authorization

If an attempt to authorize a tender fails, perform one of the following procedures to continue with the same tender:

Retry Authorization

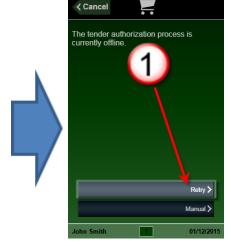
To attempt the authorization again:

Troubleshoot the connection to the authorizer.

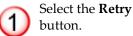
 Check the network connection for the Xstore Mobile server.



 Check whether the Xstore Mobile server can connect to the internet.



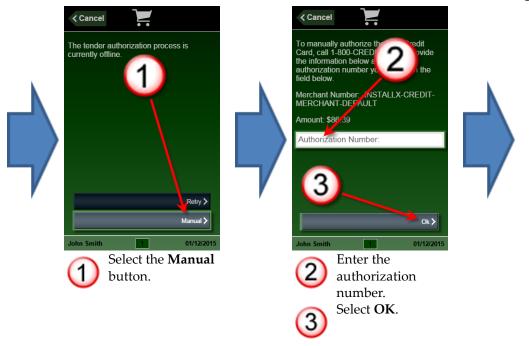
If the retry is successful, continue the transaction. If the retry fails, either perform another retry, or continue with Manual Authorization.



Manual Authorization

Important: Call the appropriate authorization provider to manually authorize a tender. Xstore Mobile does not provide manual authorization numbers.

To enter manual authorization information:



Continue the transaction.

Item Lookup



The Item Lookup option in Xstore Mobile provides the ability to look up and find information about items in the database.

The procedure for performing an item lookup is described in <u>Look Up An Item</u>.

Look Up An Item

To perform an item lookup:



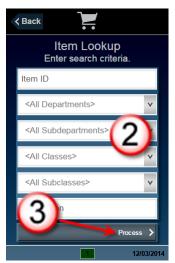
Select **Item Lookup** in the <u>Main Menu</u>. (Cont'd)

Select **Item Lookup** in the <u>Inventory</u> area of the <u>Admin</u> menu.

-Or-

Select the Item Lookup button in the Item Entry screen.





Scan an item to go directly to the Item Detail screen (far right).

-Or-



Enter the item search criteria.



Select Process.









Xstore Mobile displays details about the item. When you are finished, select **Back** to return to the item lookup criteria screen.

05/27/2014

Time Clock



The time clock area in Xstore Mobile provides users with the ability to clock in, clock out, and change the work code used for logging their time. All time clock options are accessed through the Time Clock button on the Main Menu (left).

About This Chapter

This chapter contains the following procedures:

- <u>Clock In</u> Describes how to clock in.
- <u>Clock Out</u> Describes how to clock out.
- <u>Change Work Code</u> Describes how to change the work code under which your time is to be logged.

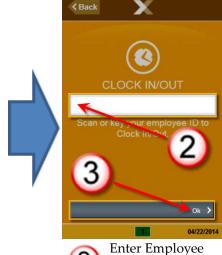
Clock In

Important: You must be clocked out to clock in.

To clock in:







ID.
Select OK.



Select OK.



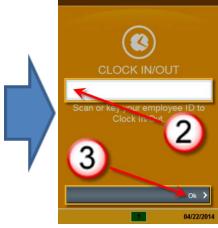
You are now clocked in.
Xstore Mobile returns to the Main Menu.

Clock Out

Important: You must be clocked in to clock out.

To clock out:



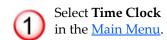








You are now clocked out. Xstore Mobile returns to the Main Menu.



Enter Employee ID and select **OK**. Select the employee ID field to select it.

Enter Password and select **OK**.

Select the password field to select it.

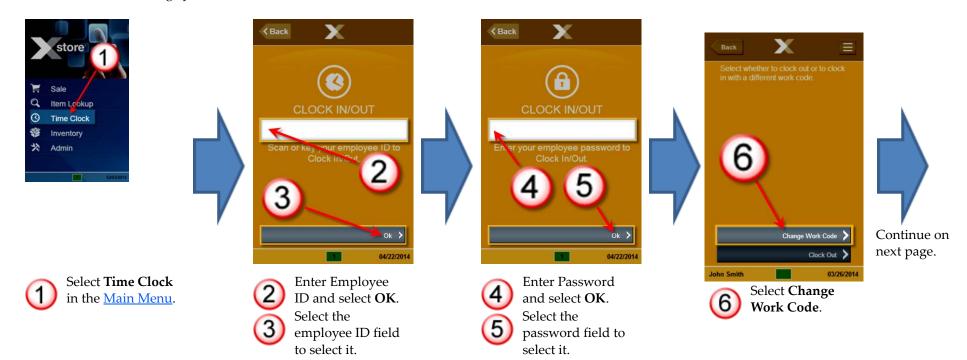
04/22/2014

Select Clock Out. 6

Change Work Code

Important: You must be clocked in to change your work code.

To change your work code:







Your work code has been changed. Xstore Mobile returns to the Main Menu.

Admin



The Admin option provides access to Xstore back office functions available in Xstore Mobile.

About This Chapter

This chapter provides information about the following procedures:

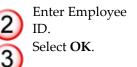
- <u>Using Admin Functions</u>
- <u>Inventory</u>
- Register Open/Close
- Customer Maintenance

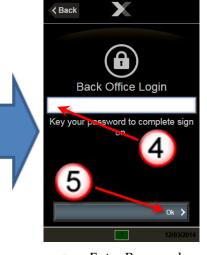
Using Admin Functions

To use Admin functions in Xstore Mobile:









Enter Password.

Select OK.

The Admin menu opens.



Continue with the appropriate procedure:

- <u>Inventory</u>
- Register Open/Close
- <u>Customer</u> <u>Maintenance</u>

Inventory

The inventory options in the Admin menu can be accessed from other areas of the application. See Receiving or Shipping for more information.

Register Open/Close

The Xstore Mobile register is opened and closed through the Admin menu. The following procedures describe the method for opening and closing the register.

Note: Xstore Mobile only supports Register Accountability.

Open Register

To open a closed Xstore Mobile register:

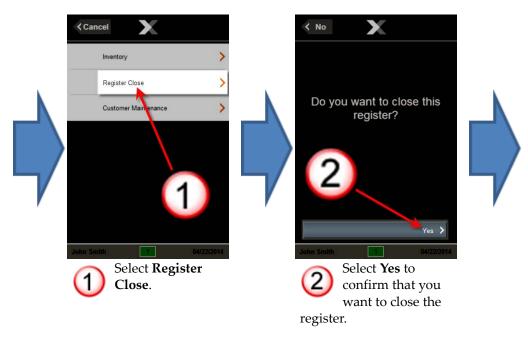


register.

The store opens and Xstore Mobile returns to the Admin menu.

Close Register

To close an open Xstore Mobile register:



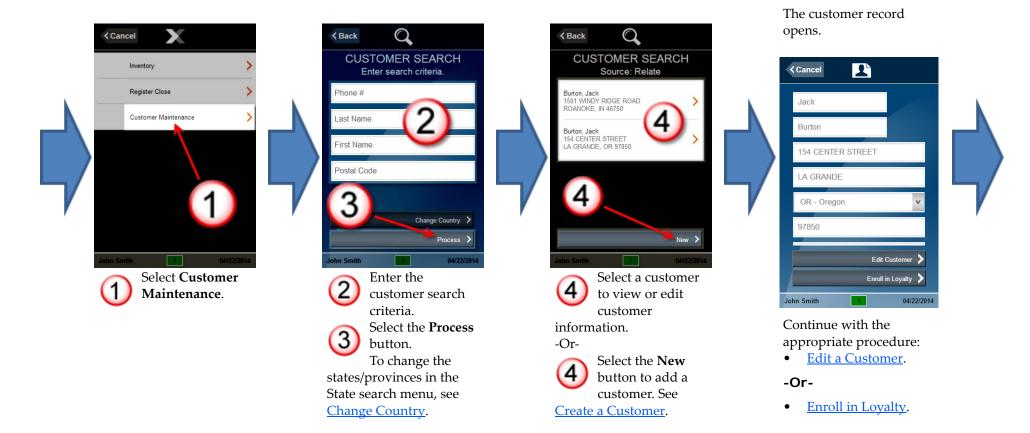
The store closes and Xstore Mobile returns to the Admin menu.

Customer Maintenance

The Customer Maintenance option provides the ability to search for, view, and edit customer information, including adding loyalty cards to customer records.

Customer Search

To search for a customer:



Change Country

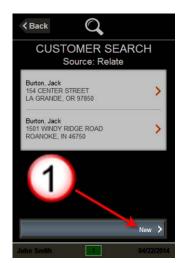
To change the states/provinces in the State field (if present) to those of a different country:



Return to Customer Maintenance.

Create a Customer

To create a new customer record:

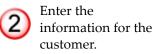


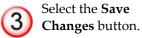




The customer is created. Xstore Mobile continues to the customer information screen.









Select the **New** button.

Edit a Customer

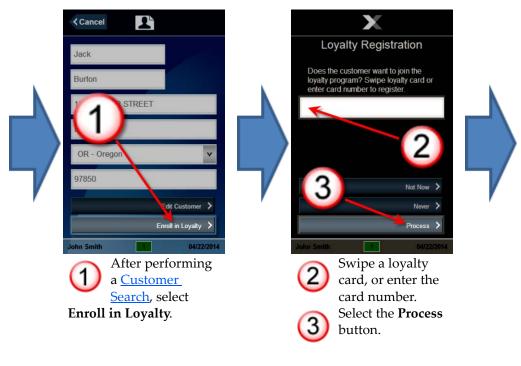
To edit customer information:



The customer information is saved and Xstore Mobile returns to the customer information screen.

Enroll in Loyalty

To add a loyalty card to a customer account:



The loyalty card is assigned to the customer and Xstore Mobile returns to the view customer screen.

Receiving

Inventory receiving can be performed through Xstore Mobile. Through a handheld device, you can create a receiving document, open a receiving document, scan in items, and scan items directly into Xstore's inventory.

About This Chapter

This chapter includes the following procedures:



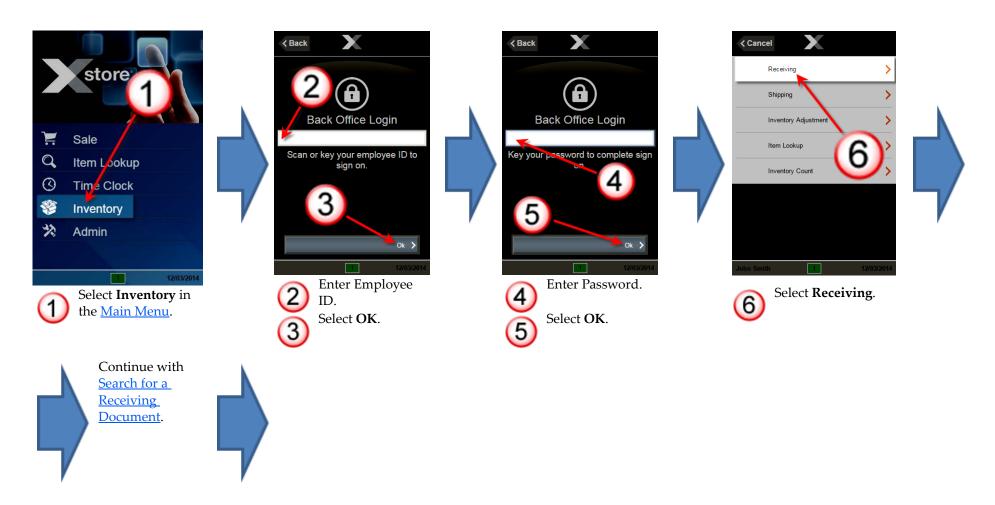
- Start Receiving
- Search for a Receiving Document
- Create a New Receiving Document
- Select or Add a Carton
- <u>Item Entry Screen</u>
- Add a Comment to a Document
- Receive Document in Total
- Save Document

Start Receiving

The receiving process can be started through either the Main Menu, or the Admin menu.

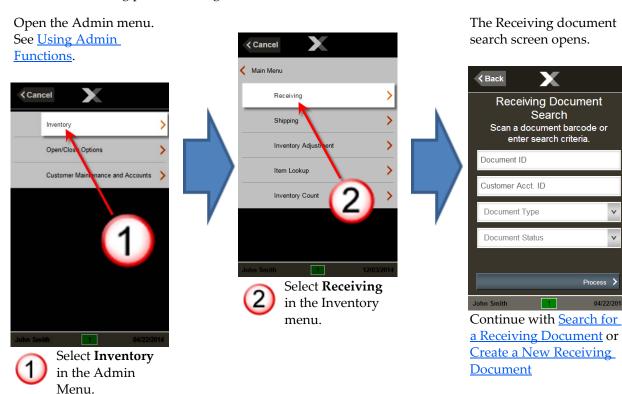
Main Menu

To start the receiving process through the Main Menu:



Admin Menu

To start the receiving process through the Admin menu:



Search for a Receiving Document

To search for and select a receiving document:



1

Enter the search criteria.
Select **Process**.

2

Receiving
Scan or select from the following
list:

ASN
ASN11PA1131111111

STORE_TRANSFER
TF11PA113111119

ASN
ASN11PA113111117

CLOSED
Y

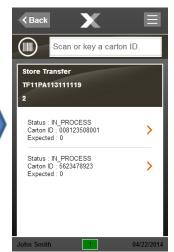
Select the correct

≺ Back

Select the correct receiving document in the

list.

The carton list opens.

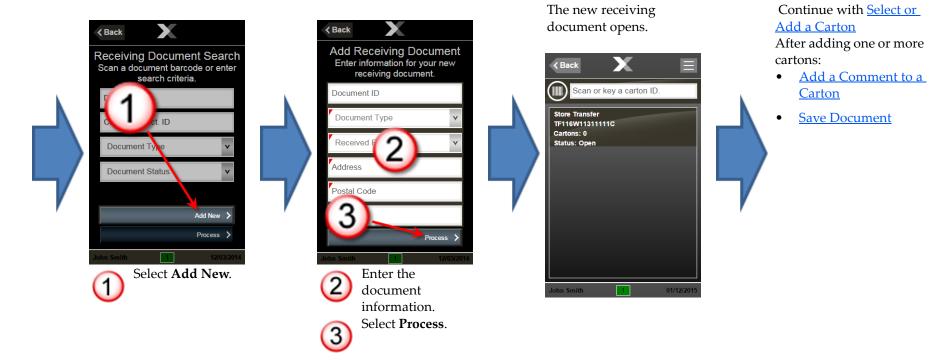


Continue with the appropriate procedure:

- Select or Add a Carton
- Add a Comment to a Carton
- Save Document

Create a New Receiving Document

To add a new receiving document:



-Or-

Select to select the proper carton.

Select or Add a Carton

To select or add a carton for a receiving shipment:



If you added a new carton, the <u>Item Entry Screen</u> will not have any items listed (right).

Item Entry Screen

The item entry screen can be used for the following functions:



Back button.

Select this <u>Back Button</u> to return to the carton selection screen.

Item entry field. See Enter Items.

- Context Menu Button.
 Select the Context Menu Button for access to:
 - Add a Comment to a Carton
 - <u>View Exceptions</u>
- Receiving Items
 Each item displays information about an item in the receiving document.

Select an item for access to:

- Change Item Quantity
- Void a Line Item

Enter Items

To enter items into a received shipment:





Enter an Item ID.

If prompted for an item quantity:



Enter the item quantity.
Select OK.

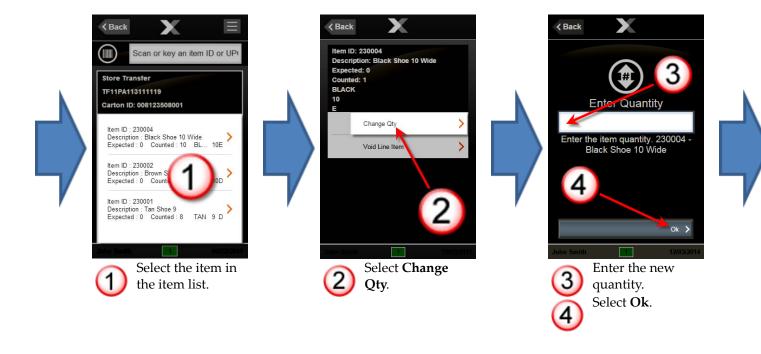
Xstore Mobile returns to the item entry screen. Repeat these steps for each item in the carton.



When you have finished entering the items in a carton, select **Back** to return to the carton entry screen.

Change Item Quantity

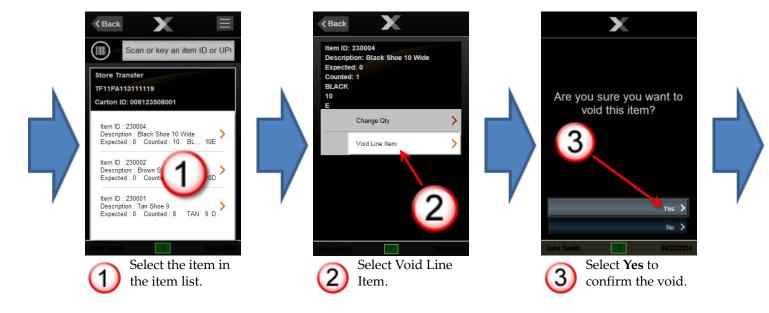
The change the number of an item in a carton:



The item quantity is changed and Xstore Mobile returns to the item entry screen.

Void a Line Item

To remove a line item from a carton:

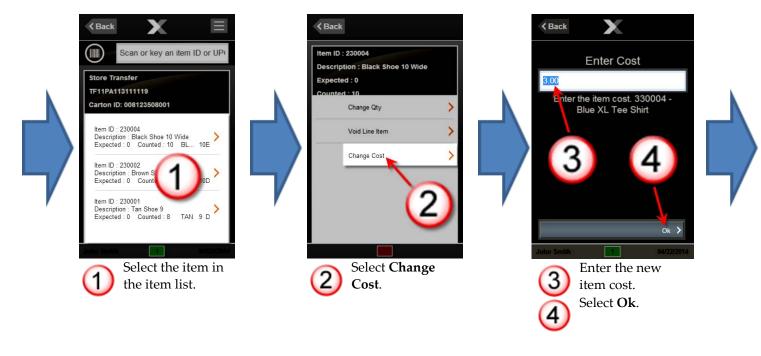


The item is removed and Xstore Mobile returns to the item entry screen.

Change Item Cost

Important: This option is only available if Stock Valuation is enabled in Xstore Mobile.

To change the cost of an item for Stock Valuation:

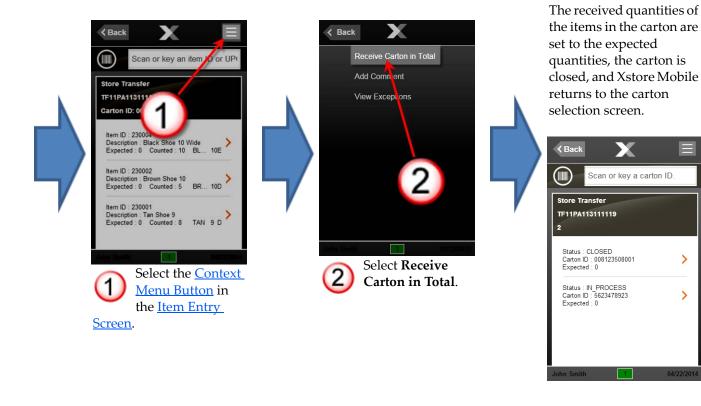


The cost of the item is updated and Xstore Mobile returns to the item entry screen.

Receive Carton in Total

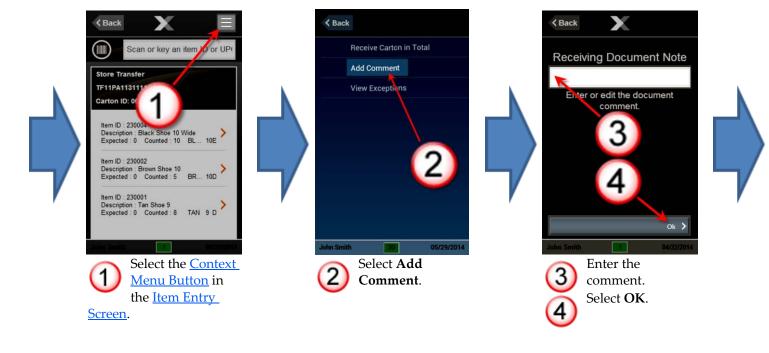
To receive all items within a carton:

Important: The Receive Carton in Total option is only available on cartons with a status of OPEN, and for which no items have yet been received.



Add a Comment to a Carton

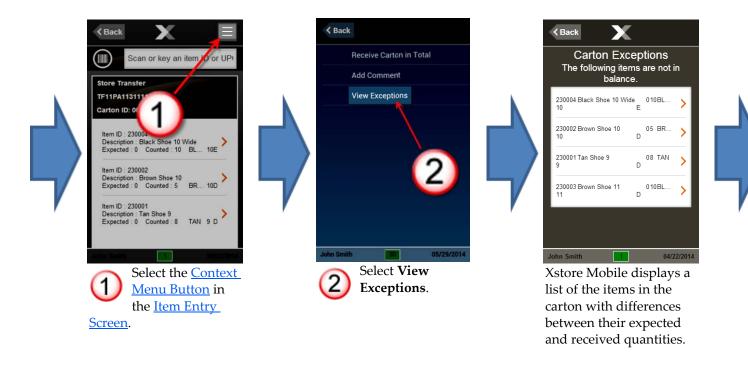
To add a comment to a carton:



The note is added and Xstore Mobile returns to the <u>Item Entry</u> <u>Screen</u>.

View Exceptions

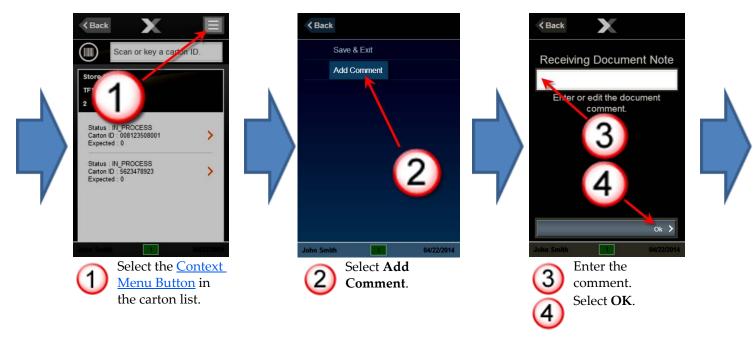
To search for items with differences between their expected and received quantities:



When you are finished viewing the item exceptions select **Back** to return to the <u>Item</u> Entry Screen.

Add a Comment to a Document

To add a comment to a receiving document:



The note is added and Xstore Mobile returns to the carton list.

Receive Document in Total

Important: The ability to receive a document in total must be enabled for this option to be available in Xstore Mobile.

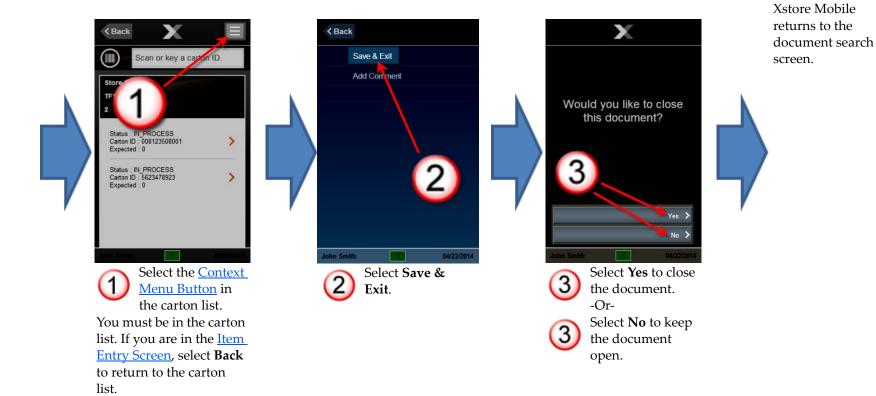
To receive all items within a document:



The received quantities of all the items in all the cartons are set to the expected quantities and the cartons are all closed. Xstore Mobile returns to the carton selection screen.

Save Document

To save changes to a receiving document:



Shipping

Inventory shipping can be performed through Xstore Mobile. Through a handheld device, you can create a shipping document, open a shipping document, and scan items directly into a shipment.

About This Chapter



This chapter includes the following procedures:

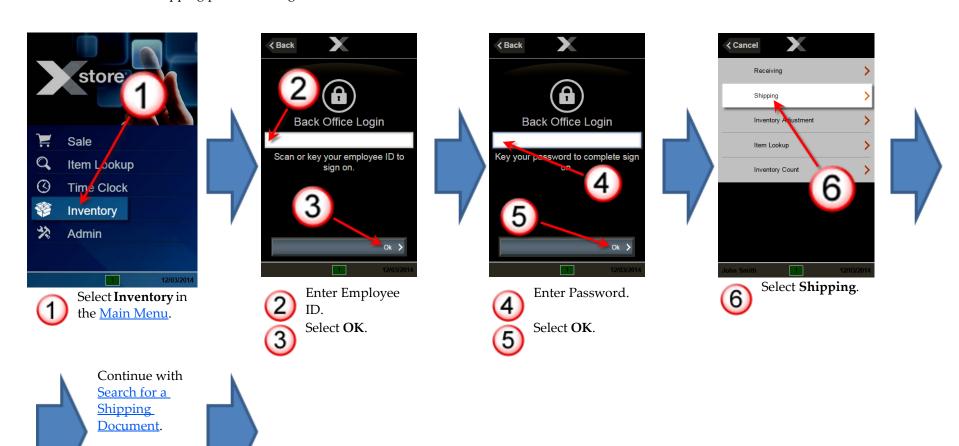
- Start Shipping
- Search for a Shipping Document
- Create a New Shipping Document
- Enter Shipping Items
- Change Item Quantity
- Void a Line Item
- Add a Comment to a Shipping Document
- Look Up an Item
- View Exceptions
- •Save Document

Start Shipping

The shipping process can be performed through either the Main Menu, or the Admin menu.

Main Menu

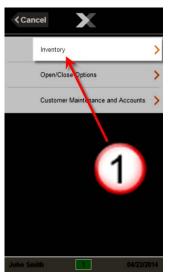
To start the shipping process through the Main Menu:



Admin Menu

To start the shipping process through the Admin menu:

Open the Admin menu. See <u>Using Admin</u> <u>Functions</u>.



Select Inventory in the Admin Menu.



menu.

Document ID

Customer Acct. ID

Document Type

V

Document Status

Add New >

Process >

Continue with Search for a Shipping Document or Create a New Shipping Document

The Shipping document

Shipping Document Search Scan a document barcode or enter

search criteria.

search screen opens.

Search for a Shipping Document

To search for and select a shipping document:



document (far right).

-Or-

Enter the search criteria.

Select Process.



shipping document in the

list.

The shipping document opens.



Continue with the appropriate procedure:

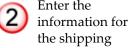
- **Enter Shipping Items**
- Change Item **Ouantity**
- Void a Line Item
- Add a Comment to a **Shipping Document**
- Look Up an Item
- **View Exceptions**
- Save Document

Create a New Shipping Document

To create a new shipping document:







document.

Select **Process**.

The new shipping document opens.

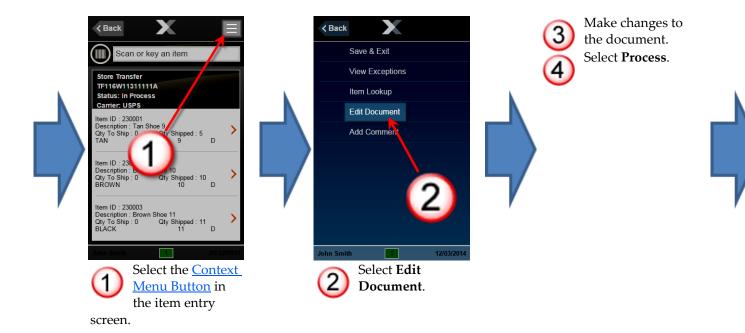


Continue with:

- **Enter Shipping Items**
- After adding one or more items:
- Change Item Quantity
- Void a Line Item
- Add a Comment to a **Shipping Document**
- Look Up an Item
- **View Exceptions**
- Save Document

Edit a Shipping Document

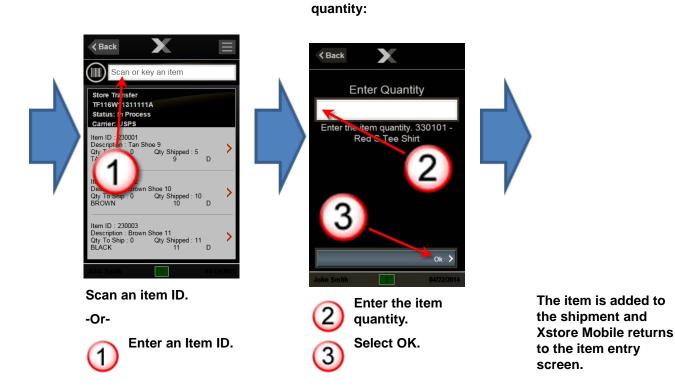
To edit a shipping document:



The shipping document is updated and Xstore Mobile returns to the item entry screen.

Enter Shipping Items

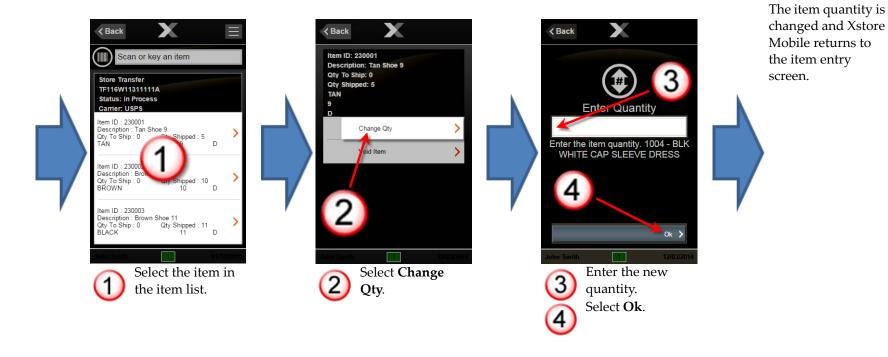
To enter shipping items:



If prompted for an item

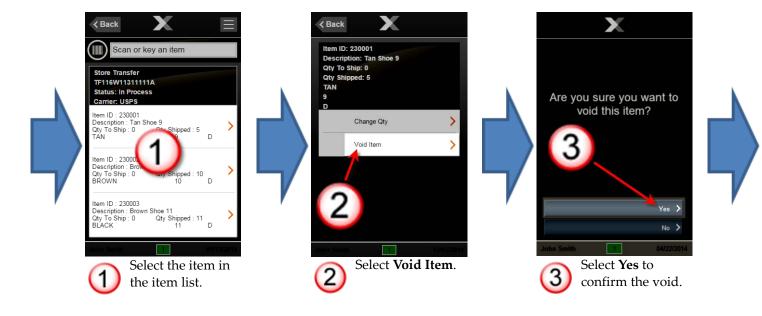
Change Item Quantity

To change the quantity of an item in a shipment:



Void a Line Item

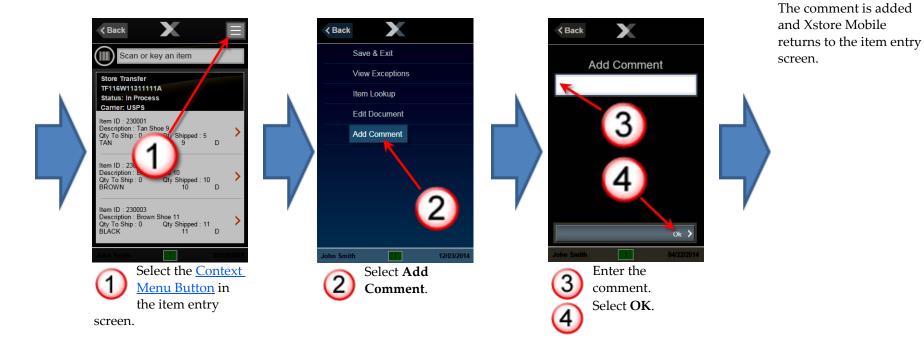
To remove a line item from a shipment:



The item is removed from the shipment and Xstore Mobile returns to the item entry screen.

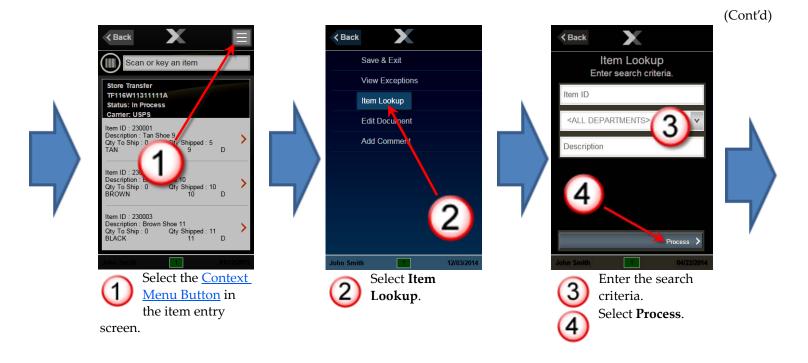
Add a Comment to a Shipping Document

To add a comment to a shipping document:



Look Up an Item

To look up an item:



(Cont'd) A list of items matching the search criteria is displayed.



Select the proper item.

The item is displayed.

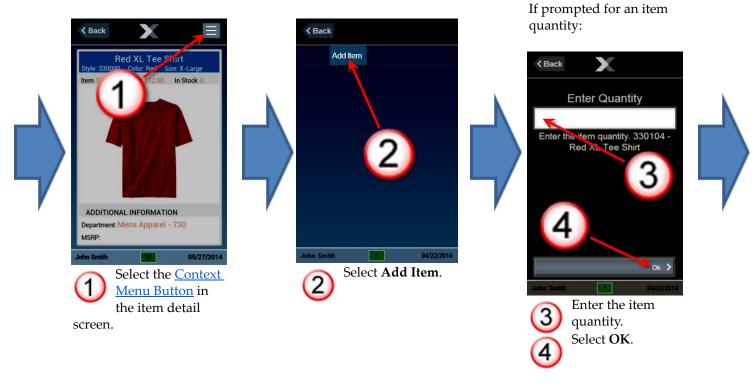


Do one of the following: Select **Back** to return to the item search criteria screen.

Add the item to the shipment. See <u>Add the Search Item</u>.

Add the Search Item

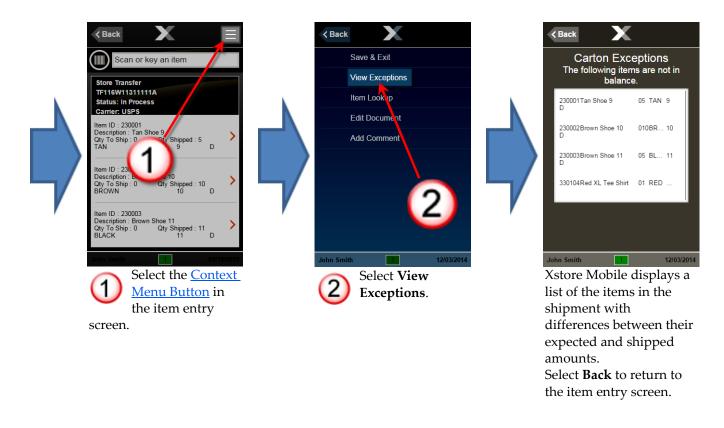
To add an item that has been located through the <u>Look Up an Item</u> procedure:



The item is added to the shipment and Xstore Mobile returns to the item entry screen.

View Exceptions

To search for items with differences between their expected and shipped quantities:



Save Document

To save changes to a shipping document:

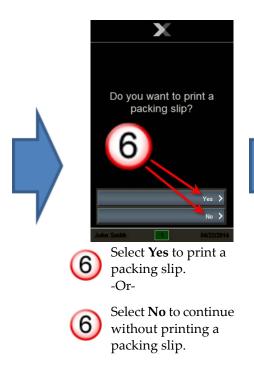




Shipping Label and Packing Slip

To determine the printing options for the label and packing slip:





Xstore Mobile returns to the shipping document search criteria page.

Inventory Counts



Inventory counts can be performed using Xstore Mobile. Using a handheld device, you can create cycle counts and supply counts, perform counts, and submit completed counts.

About this Chapter

This chapter includes the following procedures:

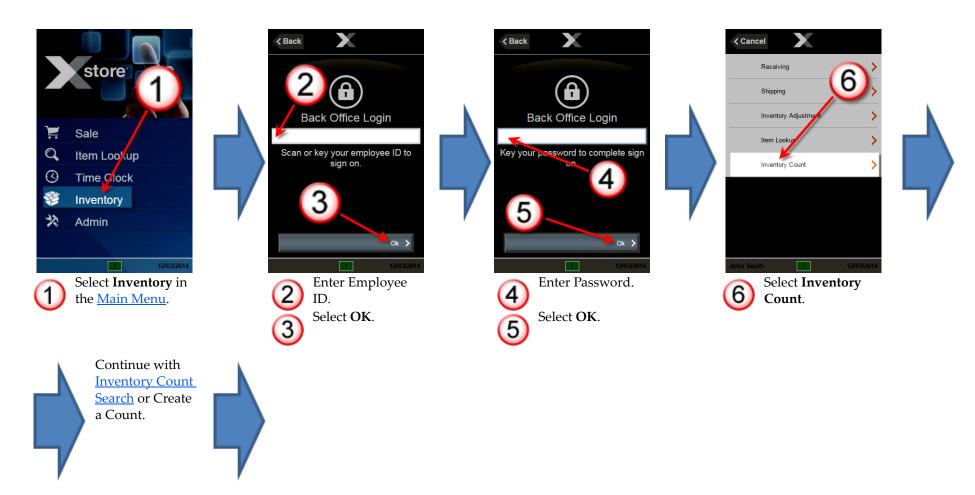
- Open Inventory Count
- Inventory Count Search
- Create a Count
- Perform an Inventory Count

Open Inventory Count

An inventory count process can be started through the Main Menu, or the Admin Menu.

Main Menu

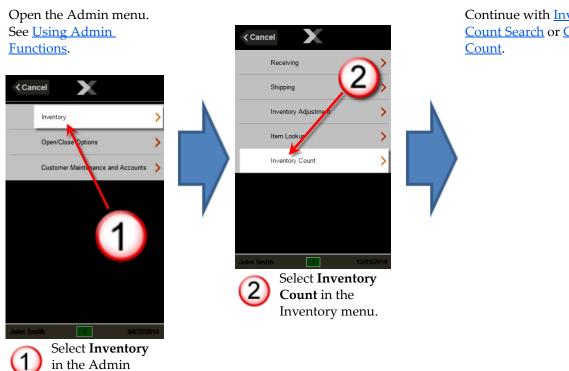
To start the receiving process through the Main Menu:



Menu.

Admin Menu

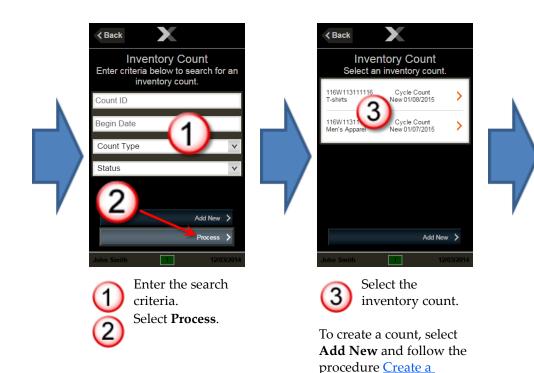
To start the shipping process through the Admin menu:



Continue with **Inventory** Count Search or Create a

Inventory Count Search

To search for an inventory count:



Count.

The Inventory count opens.

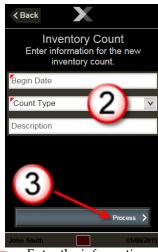


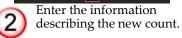
Continue with <u>Perform</u> an <u>Inventory Count</u>.

Create a Count

To create a new inventory count:







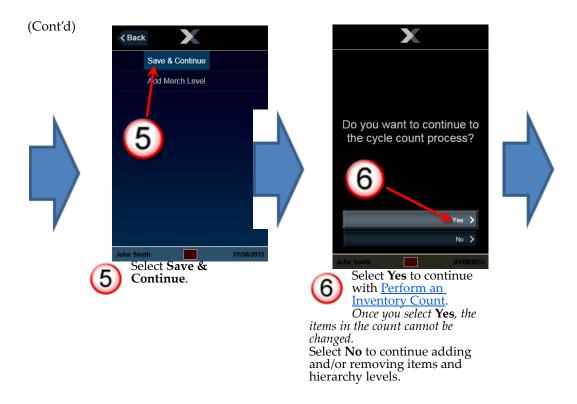
Select Process.

If you selected a Cycle Count as the count type, manage the items and hierarchy levels in the count:

- Add an Item to a Count
- Add a Hierarchy Level to a Count
- Remove an Item or Hierarchy Level from a Count

Continue when the correct items are added to the count.





Add an Item to a Count

To add an item to a count:

Scan an item.

-Or-

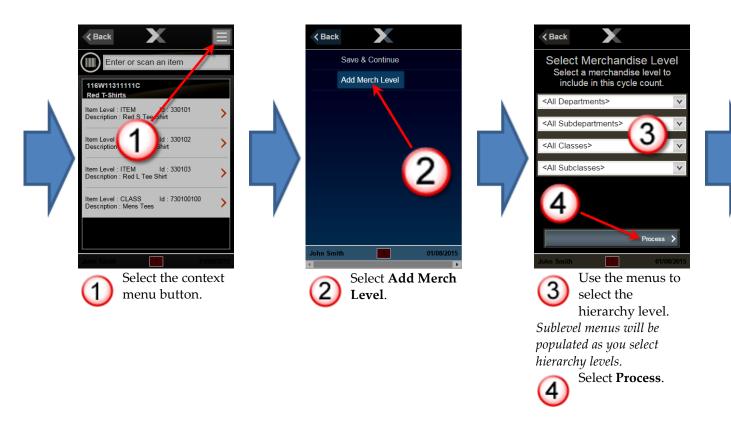


The item is added to the count.

Repeat for each item to add to the count.

Add a Hierarchy Level to a Count

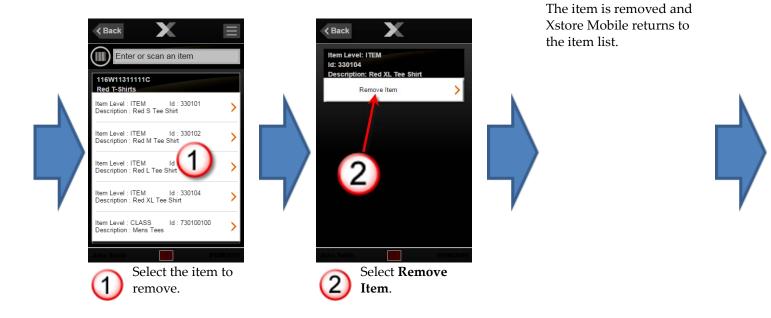
To add a hierarchy level to a count:



The hierarchy level is added to the count and Xstore Mobile returns to the item screen.
Repeat for each hierarchy level to add to the count.

Remove an Item or Hierarchy Level from a Count

To remove an item or hierarchy level from a count:



Perform an Inventory Count

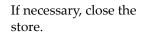
Important: The order in which you perform the actions below depends upon the policies in your store. For example, an actual count of items can be performed before initiating the count.

Important: See the *Xstore Shipping, Receiving, & Inventory Guide* for more information about these processes.

Initiate a Count

Important: When you initiate a count, Xstore Mobile takes a snapshot of the current inventory ledger. This step is usually performed on the day of count. This step can only be performed while the store is closed and online.

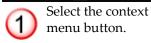
To initiate an inventory count:

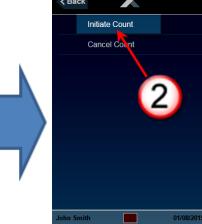


Important: A count can only be initiated while the store is closed.









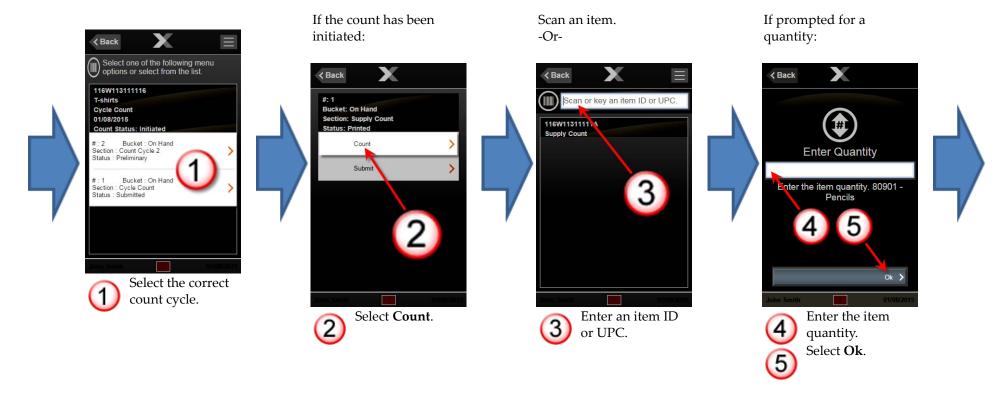


Continue with <u>Count</u> <u>Items</u>.



Count Items

To count actual items in the store inventory:

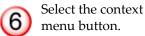


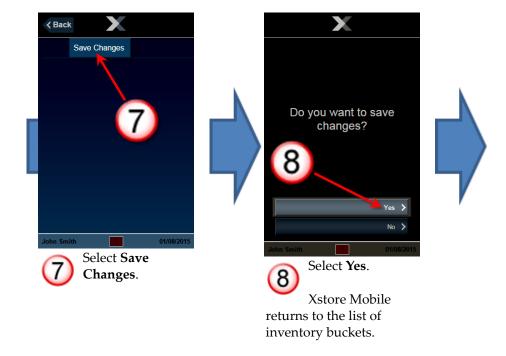
Scan or enter each item in the inventory count. If necessary, make changes to the item counts:



<u>Change Item</u> <u>Quantity</u> When the count is complete:

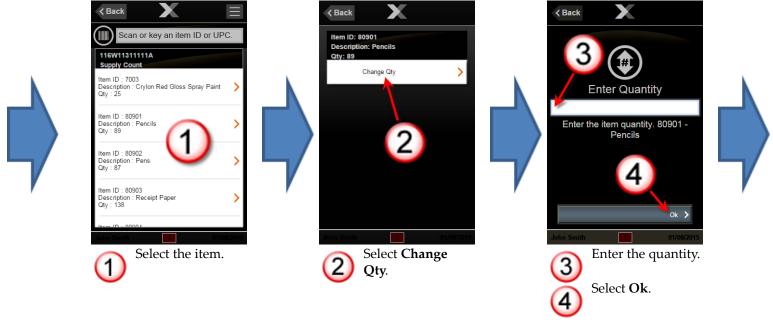






Change Item Quantity

To change the quantity of an item in the count:



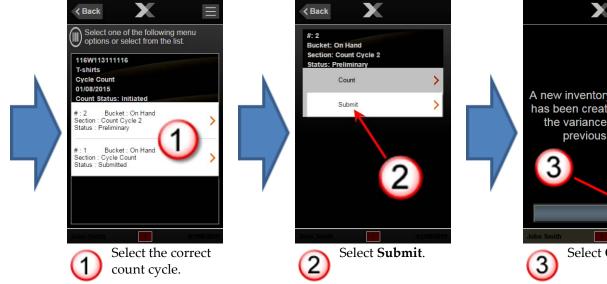
The item count is updated. Xstore Mobile returns to the item list.

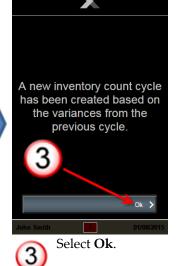
Submit a Count

Important: You can only submit a count that has been initiated. See Initiate a Count for more information.

Important: After submitting a count, the count cannot be changed or updated.

To submit a count:





Xstore Mobile submits the count and a new count cycle is listed.



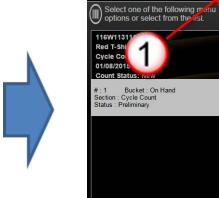
Perform a new count cycle, or select Back to return to the inventory count search screen.

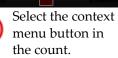
Cancel a Count

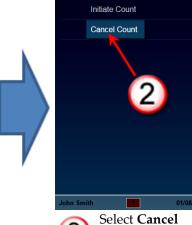
Important: Once a count is canceled, it cannot be accessed. Canceling a count is the same as deleting a count.

≺ Back

To cancel a count:











The count is canceled. Xstore Mobile returns to the inventory count search screen.



Inventory Adjustment



Inventory counts can be changed in Xstore Mobile using the inventory adjustment functionality. Inventory adjustments are performed through the Inventory menu item.

This chapter includes the following procedures:

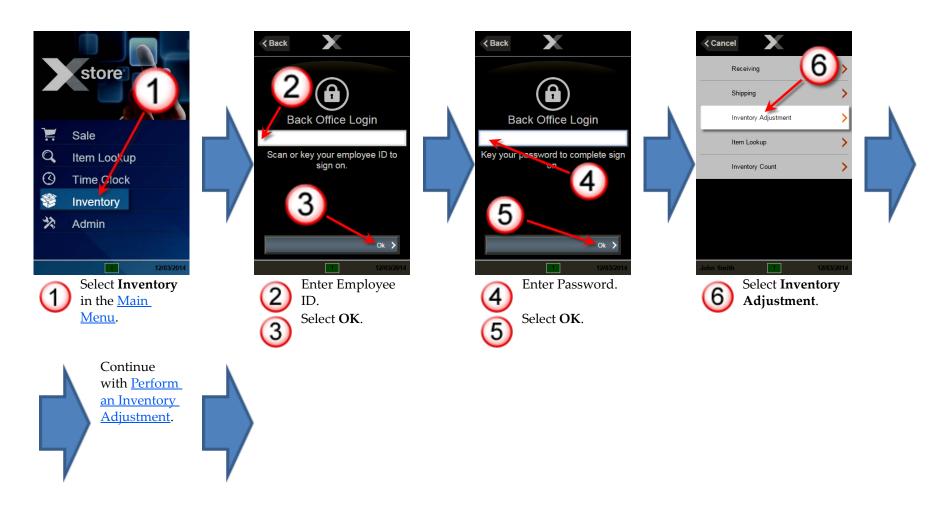
- Open Inventory Adjustment
- Perform an Inventory Adjustment

Open Inventory Adjustment

An inventory count process can be started through the Main Menu, or the Admin Menu.

Main Menu

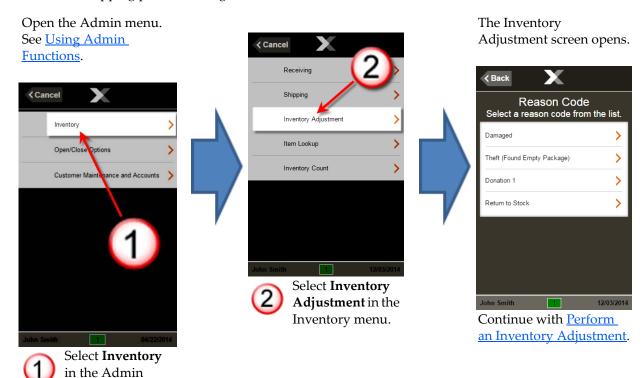
To start the receiving process through the Main Menu:



Menu.

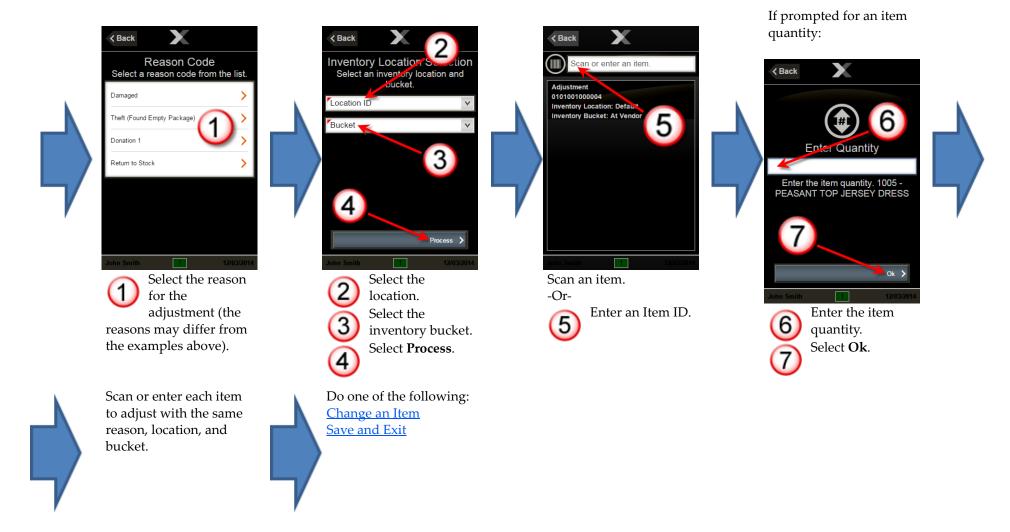
Admin Menu

To start the shipping process through the Admin menu:



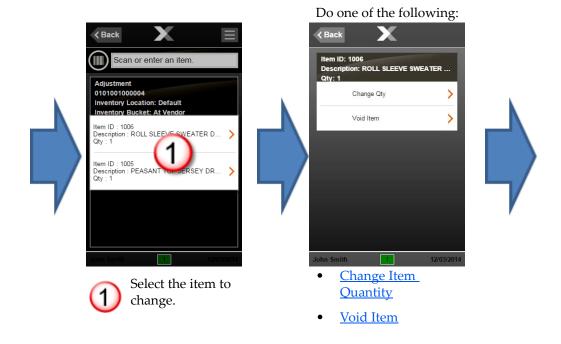
Perform an Inventory Adjustment

To perform an inventory adjustment:



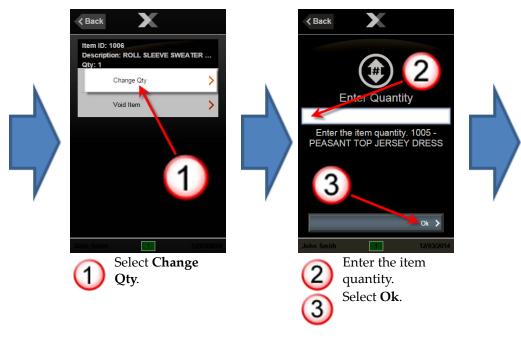
Change an Item

To make changes to an inventory item being adjusted:



Change Item Quantity

To change the quantity of an item:



Xstore Mobile returns to the item entry screen. The item quantity is updated.

Void Item

To void an item:



Xstore Mobile returns to the item entry screen. The item is removed.

Save and Exit

To save the inventory changes and exit:



The inventory changes are saved and Xstore Mobile returns to the inventory menu.

Item Transfer

This chapter describes the procedures for transferring items from one inventory bucket to another.

About This Chapter

This chapter contains the following procedures:

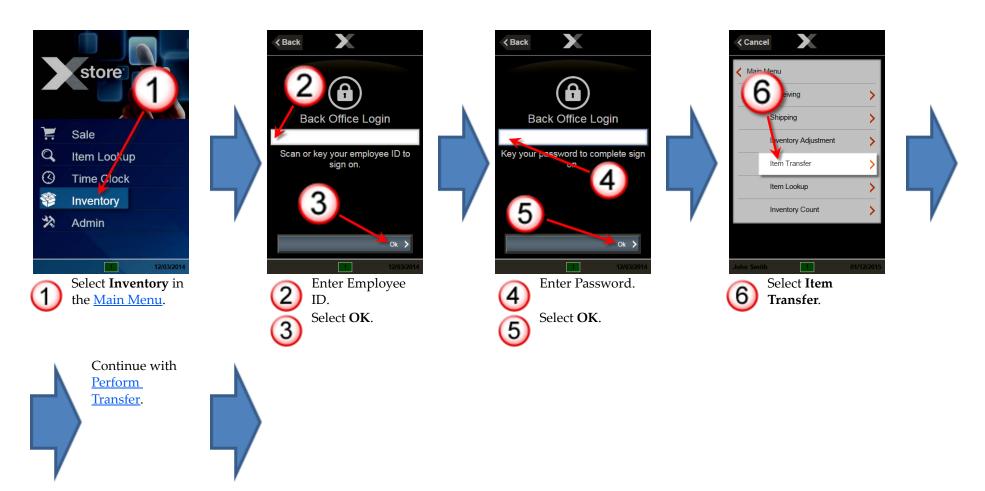
- <u>Start Item Transfer</u> Describes how to start an item transfer.
- <u>Perform Transfer</u> Describes the procedure for the item transfer.
- <u>Adjust Item</u> Describes procedures for adjusting items in the transfer.
- <u>Additional Options</u> Describes additional options available in the item transfer screen.

Start Item Transfer

An item transfer can be performed through the Main Menu, or the Admin Menu.

Main Menu

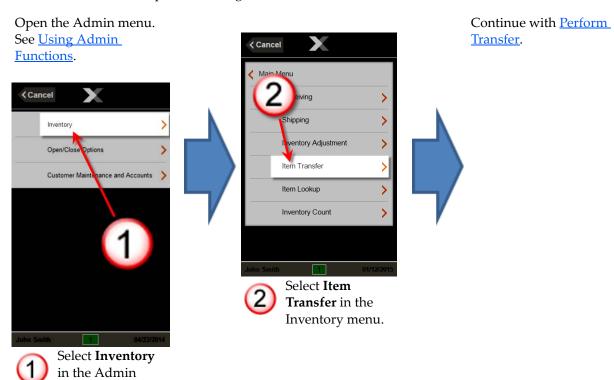
To start the item transfer process through the Main Menu:



Menu.

Admin Menu

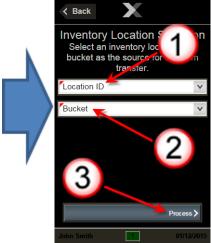
To start the item transfer process through the Admin menu:



Perform Transfer

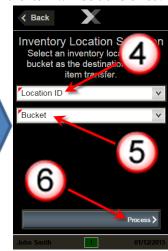
To perform an item transfer:

Select the location from which the item will be transferred:



Select the source location for the item.
Select the source bucket for the item.
Select **Process**.

Select the location to which the item will be transferred:



Select the destination location for the item.
Select the destination bucket for the item.
Select **Process**.



Select the reason for the transfer.

Scan an item.

-Or-



Enter an item ID.



Select an item to adjust. See Adjust Item.



Select the context menu for additional options.
See <u>Change Item</u>
Quantity



Repeat item entry and item adjustment for each item to include in the transfer.

The item transfer completes. Return to the inventory

menu.

Select the context menu when you are finished entering and adjusting items.

< Back

Item ID: 330102

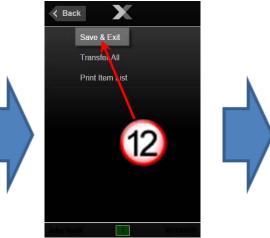
Description: Red M Tee Shirt Location Qty: 10 Transfer Qty: 4

Item ID: 330103 Description: Red L Tee Shirt Location Qty: 3 Transfer Qty: 0

Item ID: 330104 Description: Red XL Tee Shirt

Scan or enter an item.

Transfer From: Default On Haid Transfer To: Default On Hand



Select Save & Exit.



Select Yes.

Adjust Item

Change Item Quantity

To change the quantity of an item:

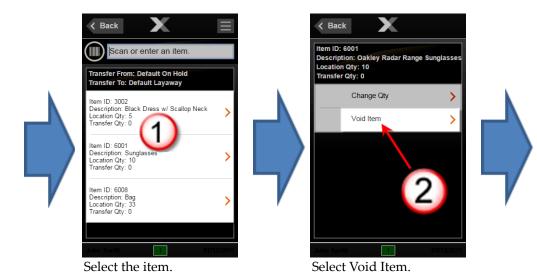


Select Ok.

The quantity is updated. Return to the transfer item list screen.

Void Item

To remove an item from an item transfer:



The quantity is set to zero.

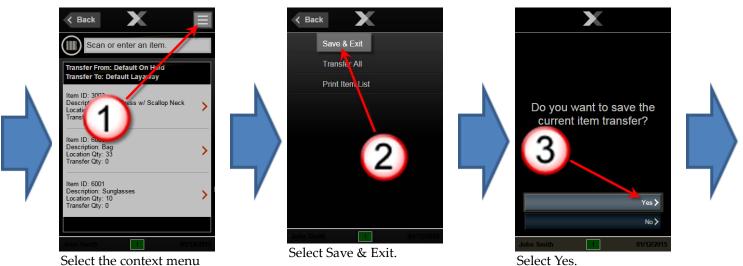
Note that the item is still listed, only the quantity is changed to zero.
Return to the transfer item list screen.

Additional Options

button.

Save & Exit

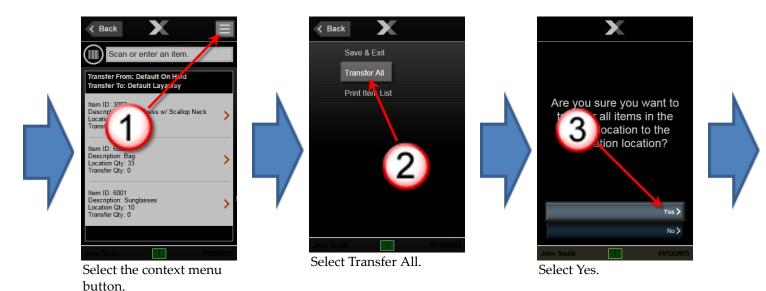
To save the transfer and return to the inventory screen:



The item transfer completes. Return to the inventory menu.

Transfer All

To include all the items in the list, setting each item to the maximum quantity:



The quantity of every item in the list is set to its maximum value.
Return to the item transfer list screen.

button.

Print Item List

To print a list of items in the transfer:



Follow the print procedure for your system.
The list of items prints.
Return to the item transfer list screen.

Item Adjustment

After items have been added to a sale transaction, adjustments can be made to the items through the sale screen.

About This Chapter

After selecting an item in the sale screen (see <u>Adjust an Item</u>), the following options are available:

- <u>Change Item Quantity</u> Change the quantity of an item in a transaction.
- <u>Change Item Price</u> Change the price of an item.
- <u>Discount an Item</u> Add a discount to an item.
- <u>Change Item Tax</u> Change the tax on an item.
- <u>Void Item</u> Remove an item from a transaction.
- <u>Modify Discount</u> Modify the discount on an item.
- Remove Discount Remove the discount on an item.
- <u>Change Commissioned Associate</u> Change the associate who receives the commission on an item.
- Add a Comment Add a comment to a line item.
- Remove Comment Remove a comment from a line item.

Change Item Quantity

To change the quantity of a selected item (see Adjust an Item):



Return to the transaction screen.

Change Item Price

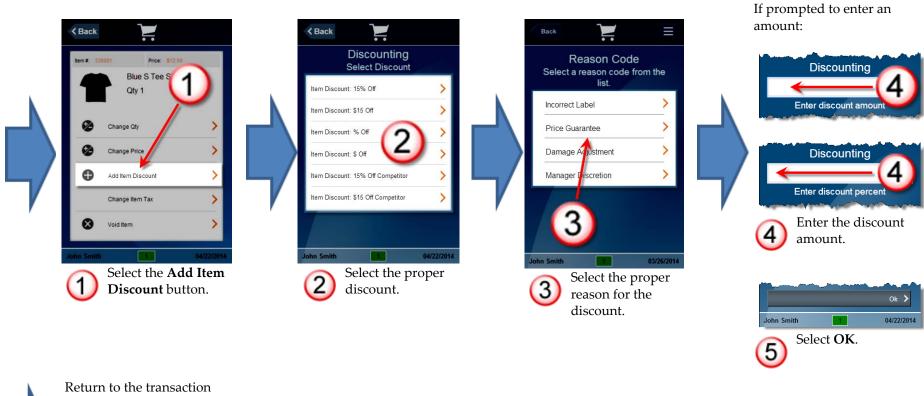
To change the price of a selected item (see Adjust an Item):



Return to the transaction screen.

Discount an Item

To add a discount to a selected item (see Adjust an Item):





screen.

Change Item Tax

To change the tax on a selected item (see <u>Adjust an Item</u>):



Select the Change Item Tax button.

- Continue with the proper procedure:
- <u>Change Item Tax</u> <u>Location</u>
- Exempt an Item From Tax
- Change Item Tax
 Amount
- <u>Change Item Tax</u> <u>Percentage</u>

Change Item Tax Location

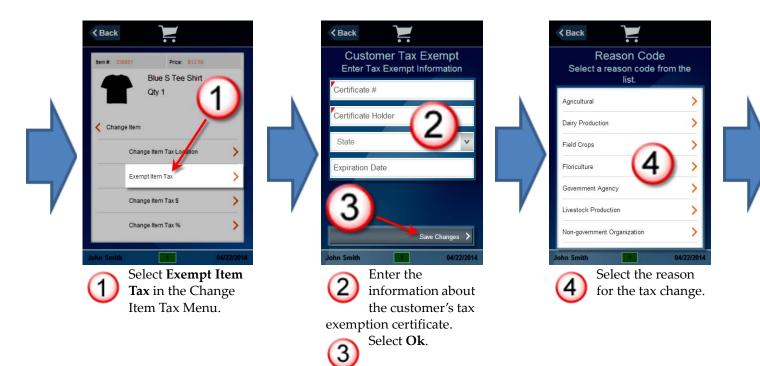
To change the location used to determine the tax on an item:



The tax location for the item is changed and Xstore Mobile returns to the item entry screen.

Exempt an Item From Tax

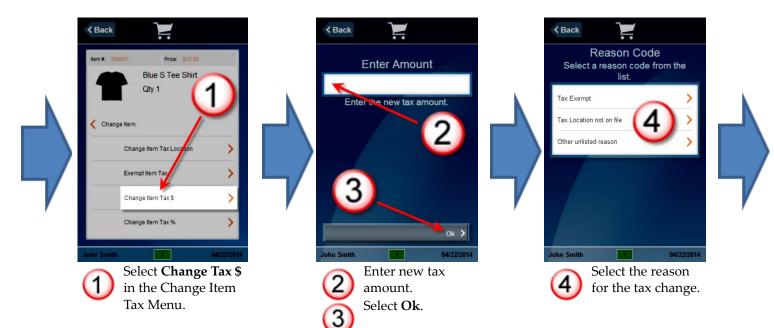
To exempt an item from tax:



The tax exemption is applied to the item and Xstore Mobile returns to the item entry screen.

Change Item Tax Amount

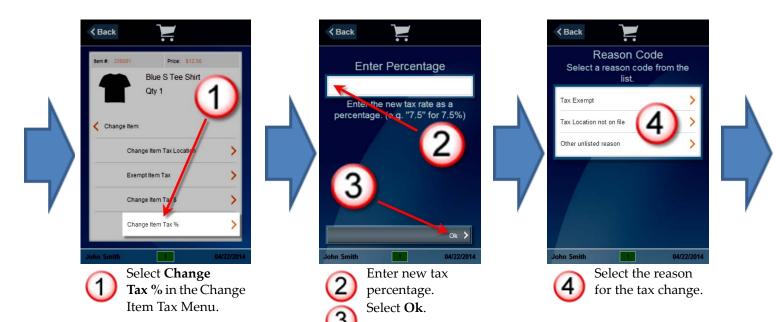
To change the amount of the item tax:



The amount of the tax for the item is changed to the new value and Xstore Mobile returns to the item entry screen.

Change Item Tax Percentage

To change the percentage of the item tax:



The percentage of the tax for the item is changed to the new value and Xstore Mobile returns to the item entry screen.

Void Item

To void a selected item (see Adjust an Item):



Return to the transaction screen.

Modify Discount

To change the discount on a selected item (see Adjust an Item):



Remove Discount

To remove a discount on a selected item (see <u>Adjust an Item</u>):



The discount is removed and Xstore Mobile returns to the sale screen.

Change Commissioned Associate

To change the associate receiving a commission on a selected item (see Adjust an Item), do one of the following:

- Select the Associate From a List
- Enter the ID for an Associate

Select the Associate From a List

To select the new commissioned associate from a list of associates:



Return to the transaction screen

Enter the ID for an Associate

To select the new commissioned associate by entering an associate ID, do the following:





Return to the transaction screen.

Add a Comment

Important: Multiple comments can be entered on one item.

To add a comment to a selected item (see <u>Adjust an Item</u>):



Return to the transaction screen.

Remove Comment

To remove a comment from a selected item (see <u>Adjust an Item</u>):



The comment is removed and Xstore Mobile returns to the transaction screen.

SSL and Certificates

Xstore Mobile requires SSL certificates to be installed on Xstore and Xstore Mobile to ensure secure communication over a network.

Important: For more information about SSL and certificates, see the *Xstore Suite Implementation and Security Guide*.

Certificates

Certificates can be used for a number of purposes:

- **1. Encryption** A piece of sensitive data can be encrypted with a public key. It can then only be decrypted using the private key.
- **2. Signing** To create a signature on a piece of data using your private key. Others can later use your private key to verify that the piece of data is identical to the data that you signed.
- **3. Authentication** You prove that you are who you say you are by encrypting a known piece of information using the private key. Another party can then decrypt the information using the public key and verify that the result is the same as what was requested to be encrypted. You can also prove that you are who you say you are by being able to decrypt and use a piece of data that was encrypted using the public key.

Of these uses, only encryption is required when Xstore Mobile communicates with external systems. Certificates are used at the beginning of an SSL session to create a secure channel for passing other information.

Certificate Signing

Certificates are signed by a Certificate Authority (CA), or they can be self-signed.

CA-Signed Certificates

Web browsers include a database of trusted public Certificate Authorities when they are distributed. Additional trusted certificates can typically be imported through a menu within the web browser. Java distributions have a similar database of trusted public Certificate Authorities, but any additional certificates must be managed by a program written in Java. These are typically stored in a truststore that a Java program can reference.

If you already have an internal CA set up with a certificate that was signed by a public CA (VeriSign, Entrust, etc.), any certificates issued by your CA can be used without distributing that public CA's trust information. Only the internal CA's information would need to be distributed.

Self-Signed Certificates

If you don't already have such a CA set up, you can save yourself the cost of a signed CA certificate without the extra management overhead of self-signed certificates by setting up an internal CA and publishing the trust information in the appropriate locations in your infrastructure. Such a CA is sometimes called a Root Certificate Authority or Root CA.

Once you add a Root CA's certificate to the various Certificate Trust Lists (CTLs), any certificates signed by this Root CA will work the same as those signed by a public CA like VeriSign, Entrust, and many others.

About this Chapter

This chapter contains the following information:

- OpenSSL & Keytool Utility Describes the installation and configuration of OpenSSL and the keytool utility.
- <u>Create a CA-Signed Certificate</u> Provides the procedure for creating a certificate signed by a Certificate Authority (CA).
- <u>Create and Deploy a Self-Signed Certificate</u> Provides the procedure for creating a self-signed certificate.
- <u>Create a Certificate Authority</u> Describes how to create a certificate authority.

OpenSSL & Keytool Utility

The steps in this guide assume that both OpenSSL and Sun's keytool utility have been installed and added to the system path. A JRE must exist on the secured system before you can create the SSL certificates.

Where To Find OpenSSL & Sun's Keytool Utility

OpenSSL can be obtained from:

http://www.slproweb.com/products/Win32OpenSSL.html

Use latest release version for your operating system.

The keytool utility comes with Java.

OpenSSL requires the 2008 SP1 Redistributable package of Microsoft Visual C++.

If needed, go to:

http://www.microsoft.com and perform a search for "Microsoft Visual C++ 2008 SP1 Redistributable".

How to Add OpenSSL & Keytool Utility to the System Path

Important: The example shown below assumes a 32-bit Operating System. If you have a 64-bit Operating System be sure to use the correct version!

1. Click Control Panel.

- **2.** Double-click the **System** icon in the Control Panel.
- **3.** Click the **Advanced** tab (or **Advanced system settings** on Windows Vista or Windows 7, or **Advanced System Settings** link using Windows Server 2008 R2 Std).
- 4. In the System properties window, click the Environment Variables button. (Within the properties screen, click the Advanced tab-->Find Environment Variables.)
- 5. In System variables, click the variable named Path, then click Edit.
- **6.** Add the target directory to the value of the variable (Variable value field), using a semicolon as a separator.

Examples

For example, if you want to add the path to OPENSSL/bin to your system, which is located at c:\OpenSSL-Win32\bin, you would enter the following at the end of the Path:

```
;c:\OpenSSL-Win32\bin
For a 64-bit OS, add:
;c:\OpenSSL-Win64\bin
```

Create a CA-Signed Certificate

What You Need to Know Before Creating Certificates

- The steps in this section assume that both OpenSSL and Sun's keytool utility
 have been installed <u>and added to the system path</u>. See <u>OpenSSL & Keytool</u>
 <u>Utility</u>.
- While following the steps outlined in this section, you will be prompted to enter information that will be embedded into the new certificate. Ensure that the information conforms to the requirements defined in each procedure.
- The provided commands include xstoremobile-YYYYMMDD, representing
 the alias of the key. This alias can be any unique value. Including the date in
 the alias allows you to more easily identify the key and track when the keys
 should be rotated.
- Be sure to replace "YYYYMMDD" with a current date string throughout this procedure.

Create And Deploy a CA-Signed Certificate

Perform the following procedure to create and deploy a CA-Signed Certificate for Xstore Mobile:

1. To create a directory structure for key creation, type the following commands:

```
C:\>md C:\cert\xstoremobile
C:\>cd C:\cert\xstoremobile
```

2. To create a Keystore, Key, and Certificate Signing Request, type the following command:

C:\cert\xstoremobile>keytool -genkey -keystore keystore -alias xstoremobile-YYYYMMDD -keyalg RSA -keysize 2048 - validity 395

Important: The number following the –validity switch in the keytool commands represents the validity timeframe for the key. PCI requirements mandate that encryption keys are rotated annually.

Important: Speak with your Oracle Product Representative for more information.

a. When prompted, enter and confirm the keystore password.

Important: The password will also need to be entered in later sections. When prompted for a *key* password, press [Enter] to use the same password as the keystore. Oracle recommends using the same password for both the keystore password and the key password.

b. Answer the questions when prompted.

Note: The questions may appear in a different order than shown in the table below. Answer each question appropriately using the table below as a guide.

Name Field	Explanation	Example
First and Last Name (aka Common Name)	The hostname or IP address that will be used to access the server.	10.0.1.1
Organizational Unit	Use this field to remind you what the certificate is used for. The OU must be different on each key. (One option is to add a date to make it unique).	xstoremobile- YYYYMMDD
Organization Name	The exact legal name of your organization.	Oracle
City or Locality	The city where your organization is located.	Cleveland

Name Field	Explanation	Example
State or Province Name	The state or province where your organization is located. Cannot be abbreviated.	Ohio
Two-letter country code	The two-letter ISO abbreviation for your country	US

- **c.** When prompted if the information is correct, type **y** or **yes**.
- **d.** When prompted, press [Enter] to use the same password as the keystore. [RECOMMENDED]
- **e.** Type the following command:

C:\cert\xstoremobile>keytool -certreq -keystore keystore
-alias xstoremobile-YYYYMMDD -file xstoremobileYYYYMMDD.req

- **f.** When prompted, enter the keystore password.
- **3.** Submit the resulting req file to the certificate assigning authority to be signed. Secure channels are not required for sending the request because no private key information is included in the request file.

The instructions in steps 4 and 5 should be followed by the Certificate Authority.

- **4.** Perform the applicable step to create a Root Certificate Authority:
 - **If you have already created a certificate authority** while following this guide for another product, skip to step 5 below and use the certificate authority that was created at that time.
 - **If you have not created a certificate authority**, go to <u>Create a Certificate Authority</u> and follow the instructions to create a certificate authority. After creating a certificate authority, continue with step 5 below.

The instructions in this step should be followed by the Certificate Authority.

5. Sign the Certificate Signing Request with the Root Certificate.

Before proceeding with this step, you should have your certificate request file ready. For this example, we will assume that we were given xstoremobile-YYYYMMDD.req to work with.

Note: Details on creating certification requests are outlined in step 2.

a. Copy xstoremobile-YYYYMMDD.req to the c:\cert\sslcert folder on the Certificate Authority system. Secure channels are not required for receiving the request because no private key is included in the request file.

b. Type the following command:

```
C:\cert\sslcert>openssl ca -out xstoremobile-YYYYMMDD.cer
-config
./openssl.cnf -infiles xstoremobile-YYYYMMDD.req
```

- **c.** When prompted, enter the password for ./private/cakey.pem.
- **d.** When prompted to sign the certificate, type **y** or **yes**.
- **e.** When prompted to commit the certificate, type **y** or **yes**.
- **f.** Run the following lines to find the config file. This assumes you used the base path names.

```
C:\cert\sslcert>set
OPENSSL_CONF=c:\cert\sslcert\openssl.cnf
C:\cert\sslcert>openssl x509 -in xstoremobile-
YYYYMMDD.cer -out xstoremobile-YYYYMMDD.der.cer -outform
```

- **g.** Return the resulting .der.cer file to the party that submitted the request file along with the cacert.pem file. Secure channels are not required because the signed certificate file does not contain any private key information.
- **6.** Import the Root Certificate into the Keystore.

Important: Including the date in the aliases will help avoid someone removing an old CA certificate too soon when rolling out a new CA certificate. It is recommended that you have an overlapping period when certificates issued with both the old and the new CA certificates are acceptable.

For this example, we will assume that we were given a cacert.pem file.

- **a.** Copy the cacert.pem file to the c:\cert\xstoremobile folder. Secure channels are not required for receiving the root certificate because no private key information is included in the file.
- **b.** Type the following command:

```
C:\cert\xstoremobile>keytool -import -file cacert.pem -
keystore keystore -alias myrootca-YYYYMMDD
```

- **c.** When prompted, enter the keystore password.
- **d.** When prompted, type **y** or **yes** to trust the certificate.
- **7.** Import the Signed Request into the Keystore.

For this example, we will assume that we were given xstoremobile-YYYYMMDD.der.cer to work with.

a. Copy xstoremobile-YYYYMMDD.der.cer to the c:\cert\xstoremobile folder. Secure channels are not required for receiving the signed certificate request file because no private key is included in the file. **b.** Type the following command:

C:\cert\xstoremobile>keytool -import -trustcacerts -file
xstoremobile-YYYYMMDD.der.cer -keystore keystore -alias
xstoremobile-YYYYMMDD

- **c.** When prompted, enter the keystore password.
- **8.** Change the name of the keystore file to xstore_mobile.keystore.

Install the Certificate on Android

- 9. Copy the provided cacert.pem file to the storage of the Android device.
- **10.** Change the extension of the file from .pem to .cer.
- 11. Open the device's security menu.
- **12.** In the security menu of the Android device, enable a face unlock, pattern, PIN, or password lock screen.
- **13.** In security menu of the Android device, select the **Install from storage** option and, when prompted for the name, select the file that was copied to the device's storage.

Create and Deploy a Self-Signed Certificate

What You Need to Know Before Creating Certificates

- The steps in this section assume that both OpenSSL and Sun's keytool utility
 have been installed <u>and added to the system path</u>. See <u>OpenSSL & Keytool</u>
 <u>Utility</u>.
- While following the steps outlined in this section, you will be prompted to enter information that will be embedded into the new certificate. Ensure that the information conforms to the requirements defined in each procedure.
- The provided commands include xstoremobile-YYYYMMDD, representing
 the alias of the key. This alias can be any unique value. Including the date in
 the alias allows you to more easily identify the key and track when the keys
 should be rotated.
- Be sure to replace "YYYYMMDD" with a current date string throughout this procedure.

Suggested Certificate Rotation Strategy

With self-signed certificates you should be sure to create and distribute a new key for your servers before the old one expires. If you rotate annually, consider a validity of 1 year+30 days to allow for a rollout period.

- **a.** Create a new key.
- **b.** Modify the Xstore Mobile server to use the new key by delivering a new keystore that no longer includes the previous key.

Perform the following procedure to create and deploy a Self-Signed Certificate for Xstore Mobile.

1. To create a directory structure for key creation, type the following commands:

```
C:\>md C:\cert\xstoremobile
C:\>cd C:\cert\xstoremobile
```

2. To create a Keystore and Key, type the following command:

```
C:\cert\xstoremobile>keytool -genkey -keystore keystore -
alias xstoremobile-YYYYMMDD -keyalg RSA -keysize 2048 -
validity 395
```

Important: The number following the –validity switch in the keytool commands represents the validity timeframe for the key. PCI requirements mandate that encryption keys are rotated annually.

Important: Speak with your Oracle Product Representative for more information.

a. When prompted, enter and confirm the keystore password.

Important: The password will also need to be entered in later sections. When prompted for a *key* password, press [Enter] to use the same password as the keystore. Oracle recommends using the same password for both the keystore password and the key password.

b. Answer the questions when prompted. (**NOTE:** The questions may appear in a different order than shown in the table below. Answer each question appropriately using the table below as a guide).

Name Field	Explanation	Example
First and Last Name (aka Common Name)	The hostname or IP address that will be used to access the server.	10.0.1.1
Organizational Unit	Use this field to remind you what the certificate is used for. The OU must be different on each key. (One option is to add a date to make it unique).	xstoremobile- YYYYMMDD
Organization Name	The exact legal name of your organization.	Oracle
City or Locality	The city where your organization is located.	Cleveland

Name Field	Explanation	Example
State or Province Name	The state or province where your organization is located. Cannot be abbreviated.	Ohio
Two-letter country code	The two-letter ISO abbreviation for your country	US

- **c.** When prompted, type **y** or **yes** to confirm your entries.
- **d.** When prompted, press [Enter] to use the same password as the keystore. [RECOMMENDED]
- **3.** To self-sign the Certificate, type the following command:

```
C:\cert\xstoremobile> keytool -selfcert -alias
xstoremobile-YYYYMMDD
-keystore keystore -validity 395
```

- **4.** When prompted, enter the keystore password.
- **5.** Change the name of the keystore file to xstore_mobile.keystore.

Installing the Certificate on Android

1. Export the certificate from the keystore file by typing the following command:

```
C:\cert\xstoremobile> keytool -export -alias
xstoremobile-YYYYMMDD
-keystore xstoremobile.keystore -rfc -file xstoremobile-
YYYYMMDD.cer
```

- 2. Copy the xstoremobile-YYYYMMDD.cer file that was exported to the storage of the Android device.
- **3.** Open the device's security menu.
- **4.** In the security menu of the Android device, enable a face unlock, pattern, PIN, or password lock screen.
- **5.** In security menu of the Android device, select the **Install from storage** option and, when prompted for the name, select the file that was copied to the device's storage.

Create a Certificate Authority

Perform these steps to create a Certificate Authority <u>only when instructed to do so</u> in a specific CA-Signed Certificate procedure. *This is not a stand-alone procedure.*

1. Type the following commands:

```
C:\>md C:\cert\sslcert
C:\>cd C:\cert\sslcert
C:\cert\sslcert>md certs private
C:\cert\sslcert>echo 100001>serial
```

```
***Using a text editor such as Notepad, create an empty
file named certindex.txt in C:\cert\sslcert. (This file
must be empty, carriage returns are not allowed).
C:\cert\sslcert>notepad openssl.cnf
```

Important: If prompted the openssl.cnf cannot be found, answer **yes** to create one.

2. Paste the following text into the document that is being created (adjusting the highlighted entries where necessary), then **save** the file:

```
# OpenSSL configuration file.
# Establish working directory.
dir
                            = .
[ ca ]
default_ca
                            = CA_default
[ CA_default ]
serial
                            = $dir/serial
database
                            = $dir/certindex.txt
new_certs_dir
                            = $dir/certs
certificate
                            = $dir/cacert.pem
private_key
                            = $dir/private/cakey.pem
default_days
                            = 395
default_md
                            = sha1
preserve
                            = no
email_in_dn
                            = no
nameopt
                            = default_ca
certopt
                            = default_ca
policy
                            = policy_match
[ policy_match ]
countryName
                            = match
stateOrProvinceName
                           = match
organizationName
                           = match
organizationalUnitName
                          = optional
commonName
                            = supplied
emailAddress
                            = optional
[req]
                            = 2048  # Size of keys
default_bits
default_keyfile
                           = key.pem # name of generated keys
default_md
                           = sha1  # message digest algorithm
                           = nombstr # permitted characters
string_mask
distinguished_name
                           = req_distinguished_name
req_extensions
                            = v3\_req
```

```
[ req_distinguished_name ]
# Variable name Prompt string #-----
(department, division)
emailAddress
                 = Email Address
countryName min
                 = 2
                 = 2
countryName_max
            = Common Name (hostname, IP, or your
commonName
name)
commonName max
                = 64
# Default values for the above, for consistency and less typing.
# Variable name Value
#-----
0.organizationName_default = My Company
stateOrProvinceName_default = State or Province
countryName_default
                 = US
[ v3 ca ]
                = CA:TRUE
basicConstraints
subjectKeyIdentifier
                = hash
[ v3_req ]
basicConstraints
                 = CA:FALSE
subjectKeyIdentifier
                 = hash
```

Important: For maximum encryption, two key settings above have been changed from the defaults seen in most OpenSSL distributions:

- default_bits is set to 2048 instead of 512 or 1024
- default_md is set to sha1 instead of md5

3. Type the following command:

```
C:\cert\sslcert>openssl req -new -x509 -extensions v3_ca
-keyout private/cakey.pem -out cacert.pem -days 3653 -
config ./openssl.cnf
```

Important: -days 3653 option - This value (ten years until expiration) would typically only be used on a root certificate so that you do not have to reissue it so often. At eight or nine years, you could generate an additional root certificate and distribute both for one-two years.

- **a.** When prompted enter and confirm the PEM password.
- **b.** Answer the questions when prompted. This information will be incorporated into the certificate request. (**NOTE:** The questions may appear in a different order than shown in the table below. Answer each question appropriately using the table below as a guide).

Name Field	Explanation	Example
Organization Name (Must match name entered previously for Organization Name).	The exact legal name of your organization. Do not abbreviate.	Oracle
Organizational Unit Name	Optional for additional organization information. The OU must be different on each key. (One option is to add a date to make it unique).	Operations- YYYYMMDD
Email Address	The email address of the person to be contacted about this certificate.	myname@company.co m
Locality Name	The city or district where your organization is located.	Cleveland
State or Province Name (Must match name entered previously for State or Province Name).	The state or province where your organization is located. Cannot be abbreviated.	Ohio
Country Name (Must match code entered previously for Country Name).	The two-letter ISO abbreviation for your country.	US
Common Name	The name of your root certificate.	Company_Name Certificate Authority

c. Back up the two files that are created: cacert.pem located in the **sslcert** directory and cakey.pem located in the sslcert/private directory.

- The cacert.pem in the sslcert directory is the file containing the "public" information on this new root certificate authority. You will import this public certificate to the various Java truststores as well as the server's keystore.
- The cakey.pem file in the sslcert/private directory will be used to sign the certificates that will be used.
- **4.** Complete the rest of the steps in the procedure.