

ZEBRA CARTSCAN



Setup and Usage Guide for Version 2.1



ZEBRA

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Revision History

Changes to the original guide are listed below:

Change	Date	Description
-01 Rev A	7/2017	Initial Version.
-02 Rev B	12/2017	Updates: - Removed Australian warranty information. - Using CartScan steps. - Engineering review changes. - Screen shots. - Icons. Added: - Best Practices/Troubleshooting - Session Timeout warning.
-03 REV A	6/2018	Update: - Include reference to thin clients.

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About This Guide

Introduction

This guide provides information about using Zebra CartScan.



NOTE: Screens and windows pictured in this guide are samples and can differ from actual screens.

Chapter Descriptions

Topics covered in this guide are as follows:

- [Introducing CartScan](#) describes the Zebra CartScan solution which includes an app for mobile devices (CartScan) and a Windows app for PCs (CartScanPCwedge).
- [Installing CartScan](#) provides system requirements and instructions for how to install and uninstall CartScan and CartScanPCwedge, as well as the post installation tasks, including how to associate the mobile device with the PC and pair the mobile device successfully.
- [Configuring CartScan](#) provides details about configuring the audio and vibrate options and configuring Profile settings.
- [Using CartScan](#) provides instructions for connecting the mobile device to the PC, performing a successful scan, transferring data to the PC and re-establishing a Bluetooth connection, if necessary.
- [Best Practices and Troubleshooting](#) provides suggested tips for Customer IT administrators, workflow managers, and users of CartScan.

Notational Conventions

The following conventions are used in this document:

- “device” and “mobile device” refer to a Zebra mobile device.
- **Bold** text is used to highlight the following:
 - Dialog box, window and screen names
 - Drop-down list and list box names
 - Check box and radio button names
 - Icons on a screen
 - Key names on a keypad
 - Button names on a screen.
- Bullets (•) indicate:
 - Action items
 - Lists of alternatives
 - Lists of required steps that are not necessarily sequential.
- Sequential lists (e.g., those that describe step-by-step procedures) appear as numbered lists.

Related Documents and Software

For the latest version of this guide and all guides, go to: zebra.com/support and techdocs.zebra.com.

Service Information

If you have a problem with your equipment, contact Zebra Global Customer Support for your region. Contact information is available at: zebra.com/support.

When contacting support, please have the following information available:

- Serial number of the Zebra mobile device
- Model number or product name
- Software type and version number.

Zebra responds to calls by email or telephone within the time limits set forth in support agreements.

If your problem cannot be solved by Zebra Customer Support, you may need to return your equipment for servicing and will be given specific directions. Zebra is not responsible for any damages incurred during shipment if the approved shipping container is not used. Shipping the units improperly can possibly void the warranty.

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Introducing CartScan

Overview

The Zebra CartScan solution includes an Android application (CartScan) and a PC application (CartScanPCWedge).

CartScan, for Zebra Android mobile devices, scans barcodes and delivers the data as keystrokes on a PC workstation. It enables users in healthcare and other industries to collect data wirelessly (via Bluetooth), thereby increasing productivity and workflow efficiency. CartScan communicates with the PC through CartScanPCWedge - an app for Windows that monitors a Bluetooth connection from a Zebra mobile device and receives the scanned data sent by mobile devices using the CartScan app.

By design, only one mobile device can be actively connected to CartScanPCwedge at a time.

Installing CartScan

Overview

This chapter provides system requirements, installation procedures, and post installation tasks for associating the mobile device to a PC.

System Requirements

Supported PC

- Microsoft® Windows 7, 8 or 10 (with built-in Bluetooth 4.0 or Bluetooth 4.0 dongle connected). Thin clients are not supported.
- Support for both 32-bit and 64-bit.

Supported Zebra Mobile Devices

Table 1 Zebra Mobile Device Configurations

Supported Mobile Devices	Operating System	Android Version
MC40 HC	KitKat	4.4.4
MC40 HC	Lollipop	5.1.1
TC51 HC	Marshmallow	6.0.1

Installation

Upon receipt and processing of a valid software order, Zebra Software Distribution Services sends an email to the provided customer contact with an entitlement activation ID and software download instructions for both CartScanPCWedge for the PC and CartScan for the mobile device.

Installation requires two steps:

1. Install CartScanPCWedge on a PC.
2. Install CartScan on a mobile device.

Installing CartScanPCWedge on a PC

To install CartScan PC Wedge on a PC:

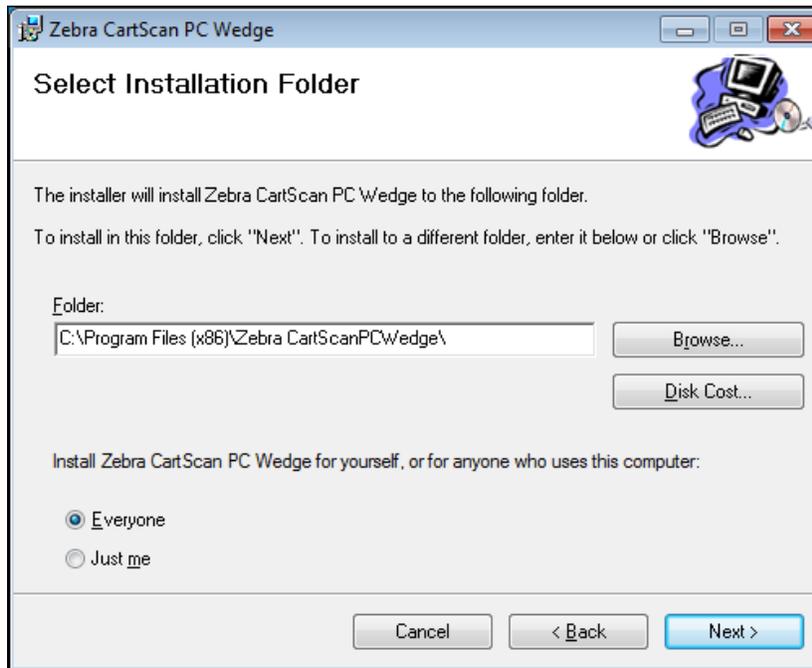
1. Upon receipt of an entitlement activation ID from Zebra Software Distribution Services, use the software download instructions to locate and unzip the download files.
2. Click the **setup.exe** to install CartScan PC Wedge on a supported PC (Thin clients are not supported). The **Welcome** screen displays.

Figure 1 Welcome to the Zebra CartScan PC Wedge Setup Wizard Screen



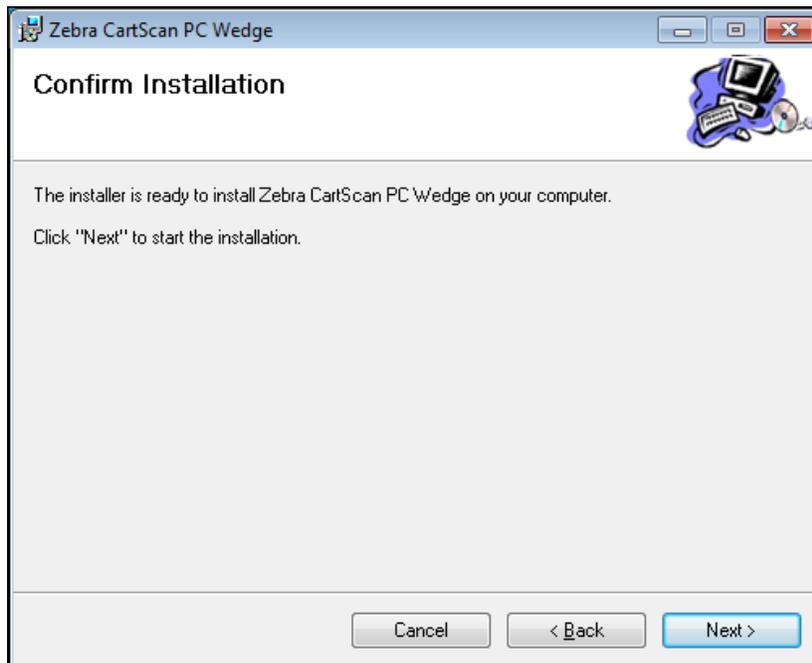
3. Click **Next**. The **Select Installation Folder** screen displays.

Figure 2 Select Installation Folder Screen



4. Specify the installation folder or click **Browse**.
5. (Optional) Click **Disk Cost** to view the drives to which you can install Zebra CartScan PC Wedge, along with available and required disk space on each drive. Click **OK** to exit.
6. To specify for whom to install Zebra CartScan PC Wedge, select **Everyone** or **Just me**.
7. Click **Next**.

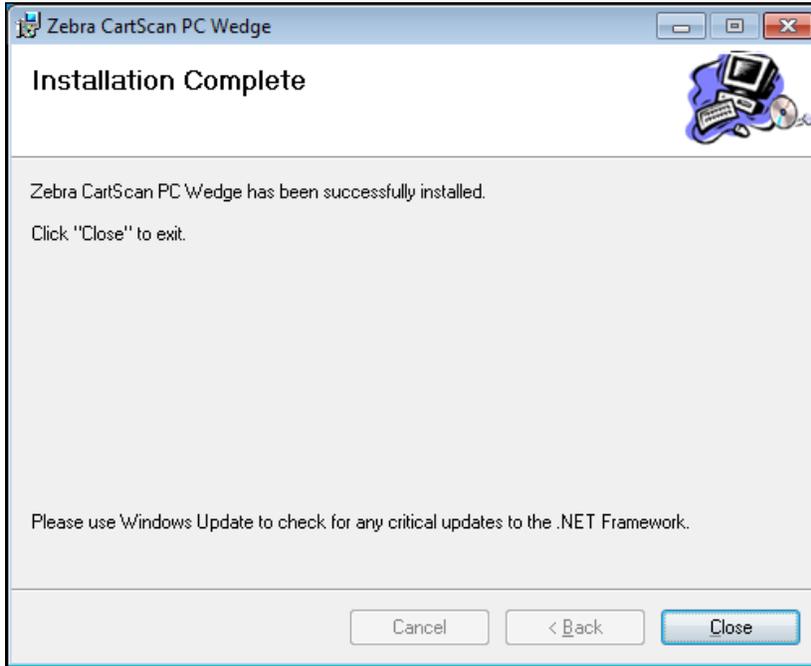
Figure 3 Confirm Installation Screen



8. Click **Next** to begin the installation.

9. The **Installation Complete** screen displays when the installation completes successfully.

Figure 4 Installation Complete Screen



10. Click **Close**.

Installing CartScan on a Mobile Device

Upon receipt of an entitlement activation ID from Zebra Software Distribution Services, follow the instructions in email to install the CartScan Mobile application.

Post Installation Tasks

After installing CartScanPCWedge on a PC and CartScan on a mobile device, the mobile device must be paired to the PC.



IMPORTANT: Multiple mobile devices can be paired to a single PC however, only one mobile device at a time can connect to CartScanPCWedge.

Associating the Mobile Device the PC



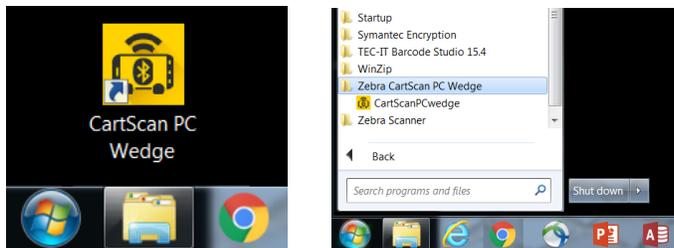
NOTE: The first time a mobile device is associated with a PC, it initiates a pairing request and tries to connect. This step can take a some time. Zebra recommends that an IT associate performs the pairing ahead of time.

On the PC

To associate the mobile device to the PC, perform the following steps on the PC:

1. In Windows Bluetooth settings, enable Bluetooth and allow Bluetooth mobile devices to connect to the computer. If the PC does not support Bluetooth, insert a Bluetooth dongle and follow the setup instructions.
2. Run the CartScanPCWedge application shortcut from the desktop or click **Start > All Programs > Zebra CartScan PC Wedge > CartScanPCwedge**.

Figure 5 Run CartScan PC Wedge from Desktop Shortcut or from Start Menu



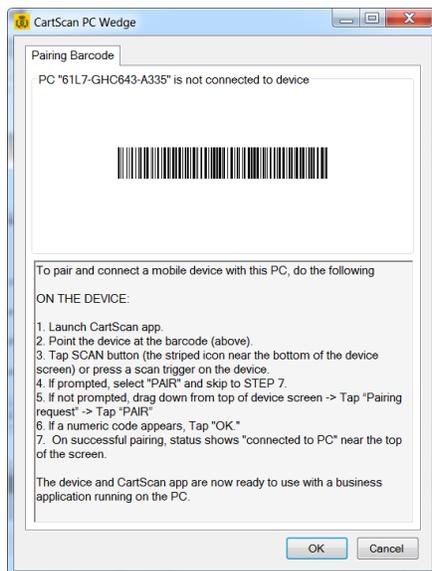
3. Instructions appear for connecting the mobile device, including a barcode to scan.



NOTE: For best scanning results, remove any privacy screens covering the monitor before scanning a barcode.

The pairing barcode contains the PC name and the last four digits of the PC BT MAC address. For example, TestPC-1234.

Figure 6 Connect Mobile Device

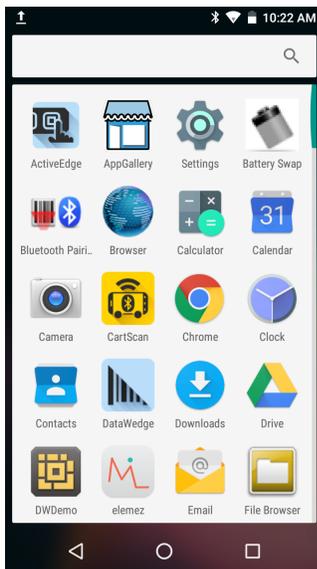


On the Mobile Device

To associate the mobile device to the PC, perform the following steps on the mobile device:

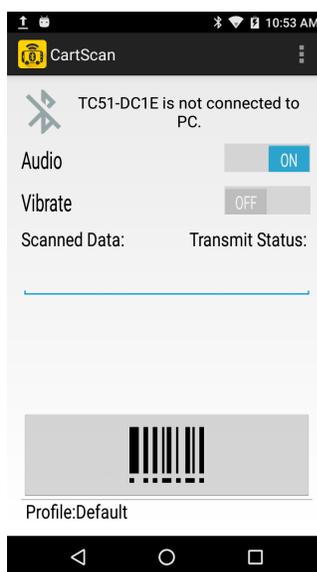
1. From the **Home** screen, tap  **Settings** >  **Bluetooth**.
2. Slide the Bluetooth switch to the **ON** position.
3. Tap the **Home** screen icon ().
4. Tap  **All Apps** > **CartScan**.

Figure 7 CartScan App



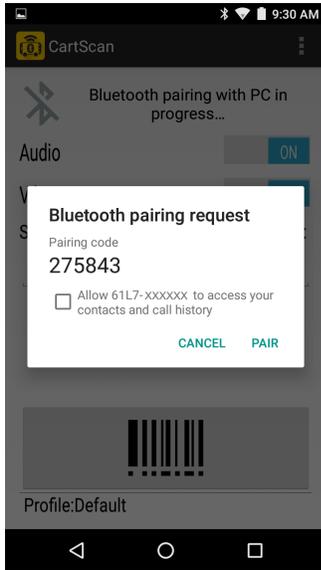
5. Scan the barcode displayed on the PC by pressing a scan trigger or the scan button on the mobile device.

Figure 8 Mobile Device is Not Connected to PC



6. Tap **PAIR** or follow the prompts for pairing the mobile device with the PC (if connecting for the first time, as shown below).

Figure 9 Pair Mobile Device to PC

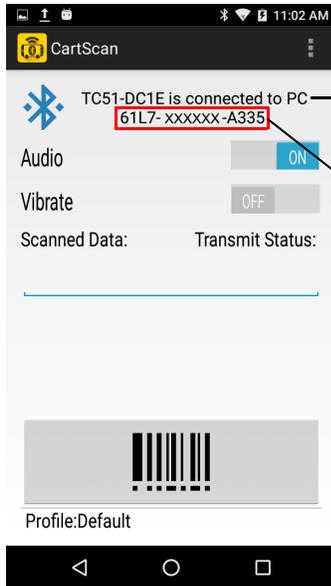


NOTE: The **Bluetooth pairing request** dialog displays only if the mobile device was not paired previously with the PC.

Allowing access to contacts and call history is not required for CartScan functionality. Tapping the check box is not required.

7. When successfully connected, a message displays on the mobile device, similar to the one below.

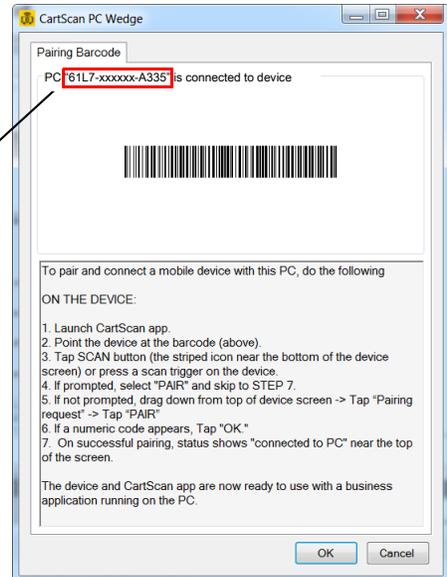
Figure 10 Mobile Device is Connected to PC



TC51-DC1E = mobile device model plus the last four digits of the MAC address.

61L7-xxxxxx-A335 = the PC name plus the last four digits of the MAC address.

Compare the PC names (outlined in red) on the PCWedge screen with the mobile device to ensure they are the same.



CartScan App (Mobile Device)

CartScan PC Wedge (PC)

8. CartScan is ready to use.

Uninstallation

Uninstallation requires two steps.

- Uninstall CartScanPCWedge on a PC
- Uninstall CartScan on a mobile device

Uninstalling CartScanPCWedge from a PC

To uninstall CartScanPCWedge from a PC:

1. Click **Start > Control Panel > Programs**.
2. On the **Uninstall or change a program** screen, locate **Zebra CartScan PC Wedge**.
3. Right-click **Zebra CartScan PC Wedge** and select **Uninstall**.

Uninstalling CartScan from a Mobile Device

To uninstall CartScan from a mobile device:

1. Tap  **Settings** >  **Apps**.
2. Tap **CartScan**.
3. Tap **UNINSTALL**.
4. Tap **OK** to confirm.
5. Tap the **Home** screen icon ().

Configuring CartScan

Overview

This chapter explains how to configure audio and vibrate options and Profile settings.

Configuring Audio and Vibrate Options

CartScan provides control over audio and tactile feedback to indicate a successful scan. Set these options as desired, for example to quiet a mobile device so as not to disturb patients. Scan beeps can be muted by setting the Audio option to **OFF**.

To configure the audio and vibrate options:

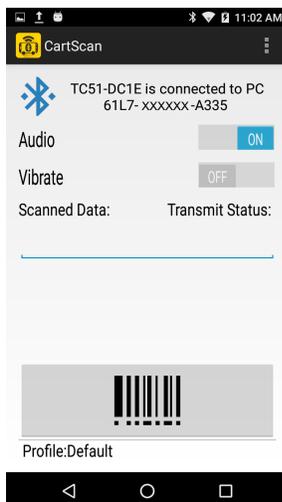
1. From the mobile device **Home** screen, tap  **All Apps > CartScan**.
2. When CartScan launches, the **Home** screen displays **ON/OFF** toggle switches to set audio and vibrate when scanning. Tap to toggle the switches to change the settings.



NOTE: These settings apply only to scanning barcodes using CartScan.

- a. **Audio** - default is **ON**.
- b. **Vibrate** - default is **OFF**.

Figure 11 Configure Audio and Vibrate Options



Configuring Profiles

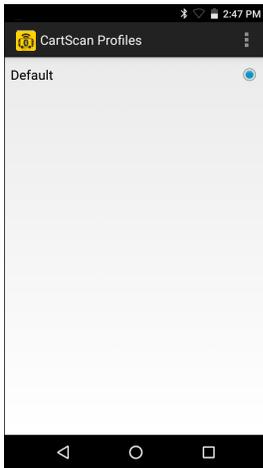
CartScan behavior is controlled by Profiles, which define how acquired data is processed and delivered to a line of business (LOB) application.

Viewing/Editing the Default Profile

To view/edit a Profile:

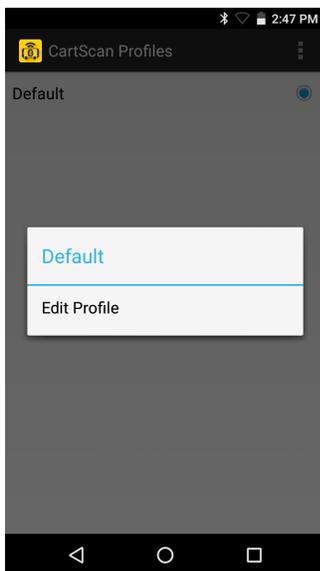
1. From the mobile device **Home** screen, tap  **All Apps** > **CartScan**.
2. Tap  > **Profiles**.

Figure 12 Default Profile Screen



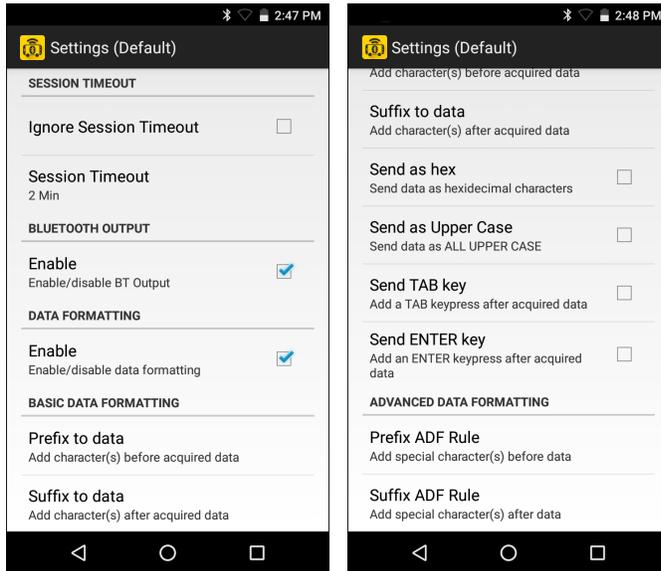
3. Tap and hold **Default**.

Figure 13 Edit Profile Screen



4. Tap **Edit Profile** to view and/or edit the Profile settings as needed.

Figure 14 Default Profile Settings Screen



Profile Settings

Session Timeout



WARNING: Disabling Session Timeout is strongly discouraged.

- **Ignore Session Timeout** - Select this option to maintain the connection indefinitely (or until the user exits the CartScan app or the mobile device moves out of range).
- **Session Timeout** - Enter a timeout period value from 1 to 60 minutes. The default is 2 minutes. This option enables the system administrator to configure the length of time to maintain the Bluetooth connection between the mobile device and the PC during periods of inactivity.

Bluetooth Output

- **Enable/disable BT Output** - This option provides a measure of security by restricting delivery of acquired data to the application running on a PC. If this setting is disabled, the scanned data is not delivered to the connected PC.

Data Formatting

Data formatting provides an easy way to append or prepend acquired data with custom values or keystrokes before passing it to the LOB application on the PC. This can be useful for adding application-specific characters to acquired data or for sending an ENTER and/or TAB character after submitting the data to advance the cursor to the next field.



NOTE: Do not use Data Formatting in Zebra DataWedge Profile settings for CartScan. Modifying the basic data formatting and/or the advanced data formatting results in conflicts with the Zebra CartScan application.

- **Enable/disable data formatting** - Enable Data Formatting to access Basic or Advanced Data Formatting functions. If Data Formatting is not enabled, scanned data is passed to the app without modification or extra keystrokes.

Basic Data Formatting

Basic Data Formatting provides an easy way to append or prepend acquired data with custom values or special keystrokes. The supported options are:

- **Prefix to data** - adds (prepends) the specified character(s) to the beginning of the acquired data before sending.
- **Suffix to data** - adds (appends) the specified character(s) to the end of the acquired data before sending.
- **Send as hex** - sends the data in hexadecimal format. For example, if the acquired barcode data is 012345, this option sends the hex equivalent of 303132333435.
- **Send as Upper Case** - sends the data in all caps. For example, if the acquired barcode data is abcde, this option sends the string of ABCDE. Any selected prefix and/or suffix data is also converted to upper case (if appropriate).
- **Send TAB key** - appends a TAB character to the processed data.
- **Send ENTER key** - appends an ENTER character to the processed data.

Advanced Data Formatting

Advanced Data Formatting can append or pre-pend acquired data with special characters and keystrokes such as functional keys, mouse clicks, spaces and num-lock characters.

- **Prefix ADF Rule** - Can be configured as displayed in the following table. Keys can be selected from the scrolling list without manually entering the details.
- **Suffix ADF Rule** - Can be configured as displayed in the following table. Keys can be selected from the scrolling list without manually entering the details.



NOTE: ADF keystrokes are visible only in the LOB application on the PC and not in the CartScan app.

Table 2 Supported ADF Keystrokes

ALT 2	LEFT ARROW Key	Browser Back Key
ALT [A-Z]	UP ARROW Key	Browser Refresh Key
ALT [RIGHT ARROW Key	Browser Stop Key
ALT]	DOWN ARROW Key	Browser Search Key
Control-break processing	PRINT SCREEN Key	Browser Favorites Key
BACKSPACE Key	INS Key	Browser Start and Home Key
TAB Key	DEL Key	Volume Mute Key
ENTER Key	HELP Key	Volume Down Key
SHIFT Key	Number Keys [0-9]	Volume Up Key
CTRL Key	Alphabet Keys [A-Z]	Next Track Key
ALT Key	Left Windows Key (Natural Keyboard)	Previous Track Key

Although the CartScan app lists additional Advanced Data Formatting options, only those listed in this table are supported.

Table 2 Supported ADF Keystrokes (Continued)

CAPS LOCK Key	Right Windows Key (Natural Keyboard)	Stop Media Key
ESC Key	Applications Key (Natural Keyboard)	Play/Pause Media Key
SPACEBAR	Computer Sleep Key	Start Mail Key
PAGE UP Key	Numeric Keypad [0-9]	Select Media Key
END Key	Add Key	; Key
HOME Key	NUM LOCK Key	, Key
Subtract Key	SCROLL LOCK Key	- Key
Decimal Key	Left SHIFT Key	. Key
Divide Key	Right SHIFT Key	/ Key
Functional Keys [F1-F24]	Left CONTROL Key	` Key
Single-quote Key	Right CONTROL Key	[Key
Separator Key	\ Key] Key

Although the CartScan app lists additional Advanced Data Formatting options, only those listed in this table are supported.

Table 3 Unsupported ADF Keystrokes

CTRL 2	SELECT Key	Left MENU Key
CTRL [A-Z]	PRINT Key	Right MENU Key
CTRL [EXECUTE Key	Browser Forward Key
CTRL]	Multiply Key	Start Application 1 Key
CTRL 6	CLEAR Key	Start Application 2 Key
CTRL -	PAUSE Key	+ Key
Middle mouse button (three button mouse)	Left mouse button	Right mouse button
X1 mouse button	X2 mouse button	

Exporting and Importing Profile Settings - IT Administrators Only

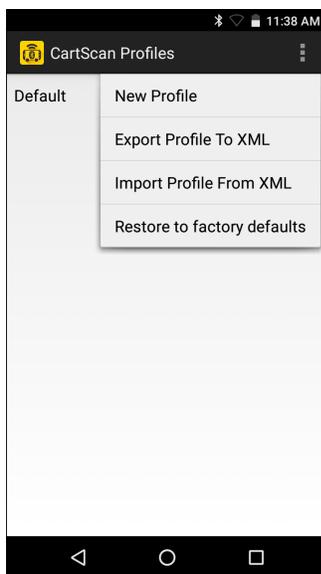
Exporting Profile Settings

The IT administrator configures and deploys Profiles. Once configured by the IT administrator, Profile settings can be exported (as an XML file) and deployed to other mobile devices.

To export Profile settings:

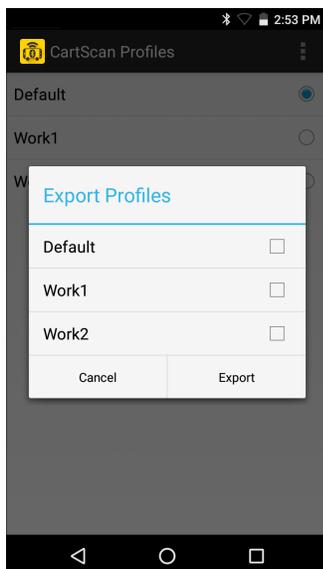
1. From the mobile device **Home** screen, tap  **All Apps > CartScan**.
2. Tap  **> Profiles**.
3. Tap  .

Figure 15 CartScan Profiles Settings Menu



4. Tap **Export Profile to XML**.

Figure 16 Export Profiles Screen



5. Select one or more Profiles to export, and tap **Export**.

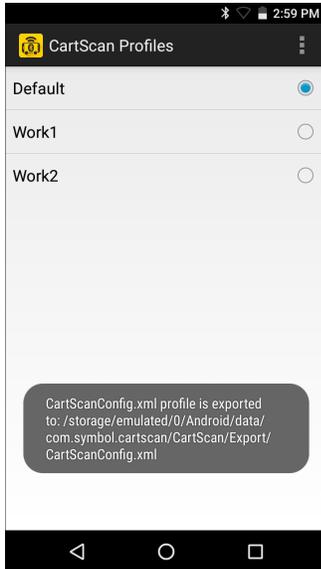
The Profile(s) selected for export are saved as a single XML file and each Profile has a set of features. If more than one Profile is exported, that same number of Profiles (along with their original Profile names) are available on the target mobile device after that file is imported.

A confirmation screen appears with the path to the Profile XML file:

```
/sdcard/Android/data/com.symbol.cartscan/CartScan/Export/CartScanConfig.xml
```

This file can be viewed in the File Browser on the mobile device.

Figure 17 Confirmation Screen



Information about the Profile active on the mobile device is not contained in the exported file; an imported Profile must be set as the active Profile either manually or with an intent (See [Importing a Profile Remotely on page 26](#)).

6. Tap the **Home** screen icon ().



NOTE: Exported Profiles contain the following settings by default, regardless of how they were configured on the mobile device when exported:

RestoreToDefault = false

AllowProfileEditing = true

Importing Profile Settings

Profile settings can be imported manually or remotely. Consider the following:

- **RestoreToDefault** = true in an imported XML file, erases all Profiles on the mobile device, and resets the default Profile to its default values without user confirmation.
- **AllowProfileEditing** = false in an imported XML file, and prevents modifications to any Profile settings by mobile device user.
- If a Profile of the same name exists on the mobile device as one being imported:
 - A user performing a manual import is prompted to replace or cancel.
 - An intent-based import replaces the existing Profile.
- An imported Profile is not automatically selected as the active Profile.

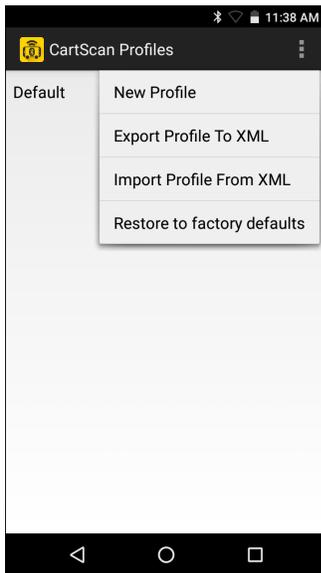
Importing a Profile Manually

The CartScan Profile XML exported from one mobile device can be imported onto other mobile devices automatically or manually after being pushed to the mobile device by an IT administrator or other means.

To import a Profile settings file that was already pushed to the mobile device:

1. From the mobile device **Home** screen, tap **All Apps > CartScan**.
2. Tap **> Profiles**.
3. Tap **>** again.

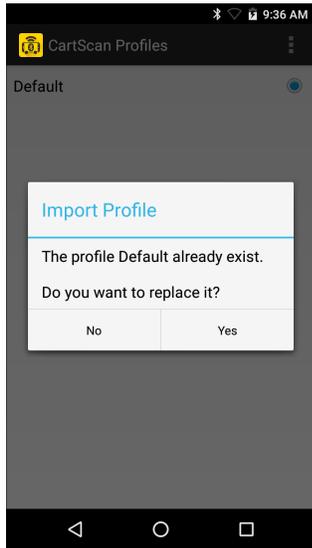
Figure 18 CartScan Profiles Settings Menu



4. Tap **Import Profile From XML**.
5. Navigate to the location of the file being imported and select it.
For example, `/storage/emulated/0/Android/data/com.symbol.cartscan/CartScan/Export/CartScanConfig.xml`

6. Tap **Yes** on the **Import Profile** confirmation screen.

Figure 19 Import Profile Confirmation Screen



7. Tap the **Home** screen icon ().

Importing a Profile Remotely

A Mobile Device Management (MDM) administrator can configure CartScan using intents. For example, the following commands push an XML file to the mobile device and start ConfigIntentService (using activity manager) with the extra value pair of SET_CONFIG_FILE and the config file:

- `adb push CartScanConfig.xml /sdcard/`
- `adb shell am startservice -a com.symbol.cartscan.ConfigIntentService -e SET_CONFIG_FILE "/sdcard/CartScanConfig.xml"`

CartScan Profile settings in an XML file can be configured after export from a mobile device by an administrator or by an MDM tool. Once settings are configured as desired, deploy the file using the following process:

1. Push the XML to /sdcard on the mobile device.
2. Send intent to com.symbol.cartscan.ConfigIntentService with the XML file path.
For more information about sending and receiving intents, see [Configuring Intents on page 30](#).
3. Close and restart CartScan.
Settings are applied the next time CartScan launches.



NOTE: When AllowProfileEditing is set to FALSE, some menu items are disabled. This can be undone only by deploying a new configuration file with AllowProfileEditing set to true.

Remote configuration and importing a Profile XML file locally do not change the current selected Profile unless the **RestoreToDefault** parameter is set to TRUE.

- If **RestoreToDefault** is set to TRUE, the selected Profile is set as the default Profile and replaces ALL existing Profiles.
- If **RestoreToDefault** is set to FALSE, new Profiles are added to the existing Profiles.

Editing, Renaming, or Deleting a Profile

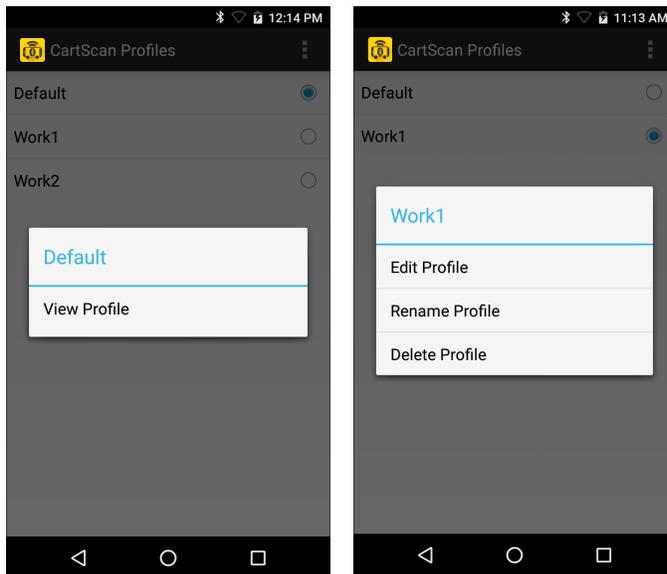
Profile Options

- If **AllowProfileEditing** is set to false, the user can View Profile settings but cannot make changes, and the Rename and Delete options are not available.
- If a Profile is renamed using a name that already exists, an error results.
- The **Default** Profile cannot be renamed or deleted.

To edit, rename or delete a Profile:

1. From the mobile device **Home** screen, tap  **All Apps > CartScan**.
2. Tap  **> Profiles**.
3. Tap and hold the Profile to be edited, renamed, or deleted.
4. Select one of the following options and follow the prompts as appropriate for the desired action.
 - View Profile
 - Edit Profile
 - Rename Profile
 - Delete Profile

Figure 20 Profile Options

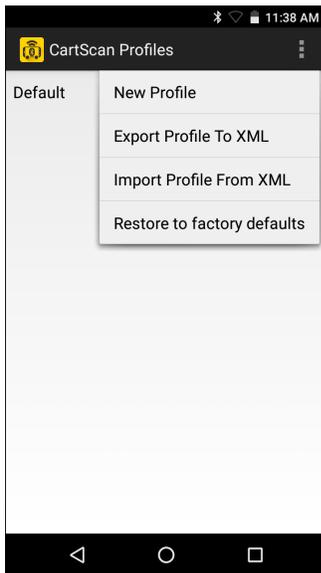


Restoring to Factory Default Settings

To restore CartScan to the factory default settings:

1. From the mobile device **Home** screen, tap  **All Apps** > **CartScan**.
2. Tap  > **Profiles**.
3. Tap  .

Figure 21 CartScan Profiles Settings Menu



4. Tap **Restore to factory defaults**.
5. Tap the **Home** screen icon ().

CartScanConfig.xml Example

The following screen shows the CartScanConfig.xml file which can be displayed on the mobile device or viewed on the PC using Notepad.

```
<wap-provisioningdoc>
  <characteristic type="CartScan" version="1.0">
    <parm name="AllowProfileEditing" value="true"/>
    <parm name="RestoreToDefault" value="false"/>
    <parm name="BTTimeOut" value="1000"/>
    <parm name="EnableLogging" value="true"/>
    <characteristic type="CartScanProfile">
      <parm name="ProfileName" value="Default"/>
      <parm name="AudioMode" value="2"/>
      <parm name="HapticMode" value="1"/>
      <parm name="IgnoreSessionTimeout" value="false"/>
      <parm name="TimeOut" value="2"/>
      <parm name="BTEnable" value="true"/>
      <parm name="DataFormattingEnable" value="true"/>
      <parm name="BdfPrefix" value=""/>
      <parm name="BdfSuffix" value=""/>
      <parm name="BdfSendHex" value="false"/>
      <parm name="BdfSendUpper" value="false"/>
      <parm name="BdfSendTab" value="false"/>
      <parm name="BdfSendEnter" value="false"/>
      <parm name="AdfPrefix" value=""/>
      <parm name="AdfSuffix" value=""/>
    </characteristic>
  </characteristic>
```



NOTE: Enable Logging, Audio Mode, and Haptic Mode settings are not configurable in the current release.

Configuring Intents

Sending an Intent

An administrator or MDM solution can deploy a new CartScan configuration by sending an Intent with the following values:

- **Intent Type** - StartService
- **Package Name** - com.symbol.cartscan
- **Class Name** - com.symbol.cartscan.ConfigIntentService
- **Extras:**
 - SET_CONFIG_FILE: Configuration XML string.

Example

```
Intent AdminStartServiceIntent = new Intent();
AdminStartServiceIntent.setComponent(new ComponentName("com.symbol.cartscan",
"com.symbol.cartscan.ConfigIntentService"));
AdminStartServiceIntent.putExtra("SET_CONFIG_FILE", "<YOUR CARTSCAN XML CONFIGURATION PATH
ON DEVICE>");
startService(AdminStartServiceIntent);
```

Receiving an Intent

When the processing completes (or if an error occurs during processing), a Broadcast Intent is sent to any MDM application that is registered for the com.symbol.cartscan.RESPONSE intent.

For example:

```
<intent-filter>
    <action android:name="com.symbol.cartscan.RESPONSE"/>
</intent-filter>
```

- **Intent Type** - Broadcast
 - **Action Name** - com.symbol.cartscan.RESPONSE.
 - **Extras:**
 - STATUS: Pass or Fail
 - ERROR_MESSAGE: Error Message
 - CONFIG_XML: Configuration XML string.

Example

```
public void onReceive(Context context, Intent intentReceived) {
    if (0 == intentReceived.getAction().compareToIgnoreCase("com.symbol.cartscan.RESPONSE")) {
        Log.d(TAG, "com.symbol.cartscan.RESPONSE: Status: " +
            intentReceived.getStringExtra("STATUS"));
        Log.d(TAG, "com.symbol.cartscan.RESPONSE: Error msg: " +
            intentReceived.getStringExtra("ERROR_MESSAGE"));
        ...
    }
}
```

Using CartScan

Overview

This chapter explains how to use CartScan and CartScanPCWedge. Topics include connecting the mobile device to the PC, performing a successful scan, transferring data to the PC, and re-establishing a Bluetooth connection.

Connecting the Mobile Device and PC

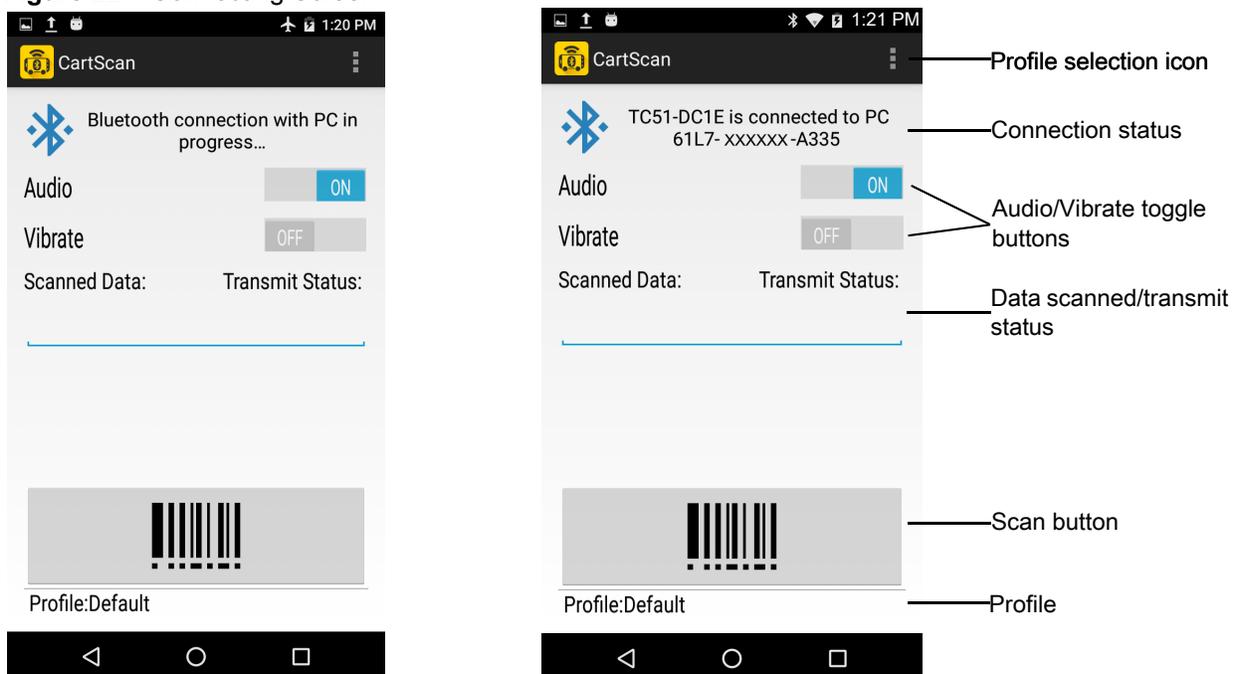


NOTE: If the mobile device was not previously paired to the PC before connecting, the user is prompted to pair the mobile device. For pairing instructions, see [Post Installation Tasks on page 13](#).

To connect the mobile device and target PC:

1. On the target PC, launch the CartScan PC Wedge application.
2. On the mobile device, launch the CartScan application.
3. Using the mobile device, scan the barcode displayed on the CartScanPCWedge screen. Once scanned, the mobile device attempts to establish the connection to the PC.

Figure 22 Connecting Screen

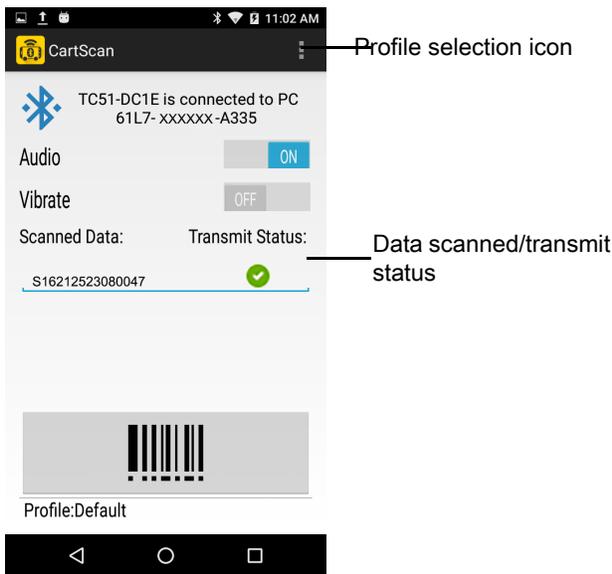


Using CartScan

To use CartScan:

1. Ensure the mobile device and target PC are connected.
2. Launch the LOB application to receive the intended scan data on the target PC.
3. Ensure the LOB application is in the foreground (i.e., visible and in front of any other open applications) on the PC monitor.
4. Place the cursor in the target input field of the LOB application to which scanned data should be deposited.
5. On the mobile device, select the Profile to be used for the scanning workflow.

Figure 23 Profile Selection



6. Scan the desired workflow barcode(s) using the mobile device. The data scanned by the mobile device displays in the scan data field.

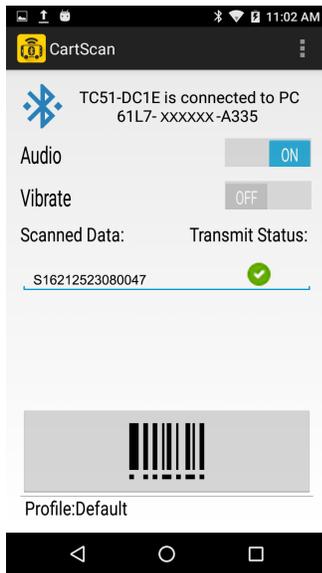


NOTE: When a barcode is successfully decoded by the mobile device, the scanner beeps or vibrates (if enabled). A beep does not reflect the status of the transmission of the scanned data to the PC.

7. When data is scanned by the mobile device and received by the PC, the CartScan application displays a green check box under Transmit Status (see [Figure 23](#)).
8. On the PC, the user should confirm that the data scanned was delivered properly into the target application. For example, if the cursor was moved, the PC was locked, or another application appeared in the foreground (i.e., visible and in front of any other open applications) of the PC, the data cannot populate into the intended input field.

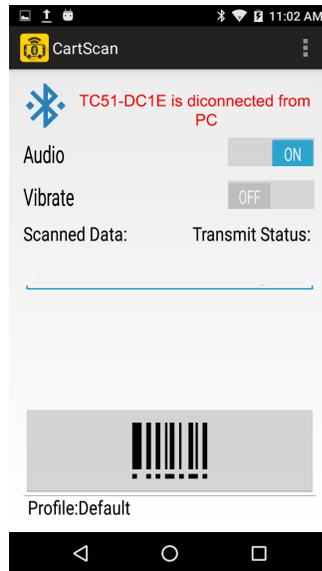
Acquired data is sent as keystrokes to the PC. The scanned data displays in the Scanned Data field of the application on the mobile device. A green check mark indicates successful transmission of the data to the PC.

Figure 24 Successful Scan



- To continue scanning data, repeat [Step 6](#) through [Step 8](#). Before scanning, confirm that the mobile device is still connected via Bluetooth to the target PC. If the mobile device goes out of range of the PC or loses connection due to a timeout, a message displays indicating that the mobile device is disconnected from the PC.

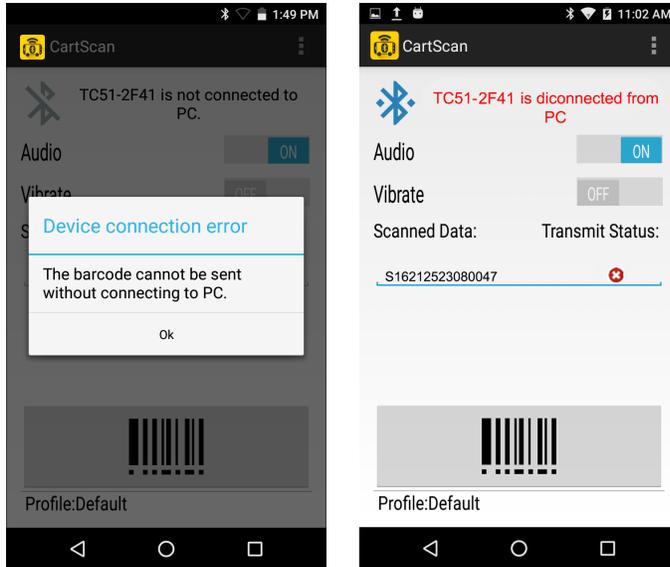
Figure 25 Mobile Device is Disconnected from PC



NOTE: The disconnect message may not appear immediately. To re-connect, see [Re-Establishing the Bluetooth Connection on page 35](#).

- If a barcode is scanned without an active connection to the PC, an alert dialog displays and data is not transmitted to the PC. A red "x" indicates the failure. The scanner still beeps or vibrates (if enabled) and the scan data appears in the **Mobile Device Scanned Data** field only, but not on the PC.

Figure 26 Device Connection Error



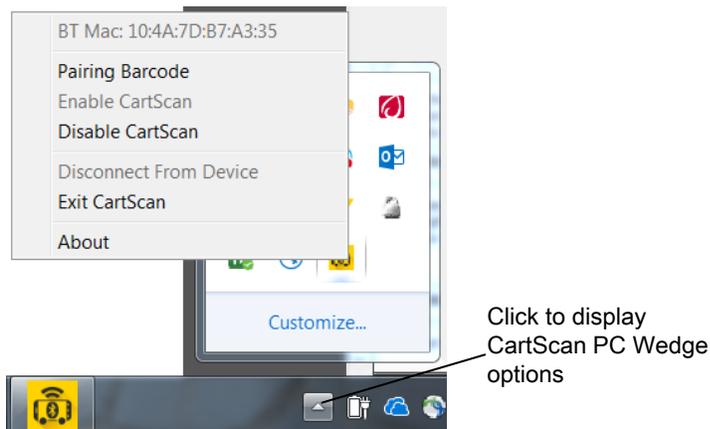
IMPORTANT: When workflow scanning is complete, close the CartScan application on the mobile device.

Using CartScan PC Wedge

When CartScanPCWedge launches, the UI screen only displays the Bluetooth connection barcode, the status of the connection, and instructions to pair and connect a mobile device with the PC. When CartScanPCWedge is minimized the UI is no longer visible, even though the application is still running. To restore the UI, click the CartScan icon from the system tray.

The system administrator can enable and disable CartScan (disconnecting the mobile device from the PC), display the pairing barcode to connect (or reconnect) with a mobile device, view the app version and Bluetooth MAC address, and exit the app (and stop the service).

Figure 27 CartScan PC Wedge System Tray



BT MAC:	Displays the Bluetooth MAC address of the PC.
Pairing Barcode:	Displays the CartScan UI and instructions for pairing and/or connection.
Enable/Disable CartScan:	Starts/stops the CartScan PC Wedge service. When disabled, the CartScan icon turns red.
Disconnect From Device:	Drops the Bluetooth connection with the mobile device.
Exit CartScan:	Exits the CartScan PC Wedge application. To re-launch, double-click the CartScanPCwedge.exe icon on the desktop or Start menu.
About:	Shows CartScan PC Wedge version information.

Re-Establishing the Bluetooth Connection

To re-establish the Bluetooth connection:

1. On the PC, select the **CartScan PC Wedge** icon on the system tray (see [Figure 27](#)).
2. Select **Pairing Barcode** to display the barcode and pairing instructions.
3. Follow the instructions to connect the mobile device, displayed below the barcode.

Best Practices and Troubleshooting

Overview

This chapter provides best practices and troubleshooting for the Zebra CartScan and CartScan PC Wedge applications.

Best Practices

Zebra strongly recommends that IT administrators, workflow managers (when applicable), and end users follow these suggested best practices.

Best Practices for IT Administrators and Workflow Managers



NOTE: DO NOT MODIFY CARTSCAN PROFILES FROM WITHIN DATAWEDGE ON THE MOBILE DEVICE.

- Create the necessary CartScan Profile(s) required for the end user scanning workflow(s). See [Configuring Profiles on page 19](#).
- Use CartScan Profile(s) to test scanning into the target PC-based workflow applications to ensure compatibility and desired behavior.
- Create the proper training materials and guidelines for end users on the proper use of CartScan, its features, and functionality. This minimizes errors when scanning with CartScan.
- Deploy the CartScan application along with the required end user workflow Profiles to the target mobile devices.
- Prior to deploying the mobile devices to the end user, pair each mobile device to each of the targeted end user workstations.

Best Practices for the End User

End users should have the proper training material and guidelines to understand how CartScan operates. Below is a list of suggested end user best practices.

- Always check the status of the connection before scanning workflow based data as the connection may be dropped due to a variety of reasons such as:
 - CartScan session timeout expired.
 - Bluetooth connection issue (for example, the mobile device is out of range to PC, interference, etc.).
 - Another user disconnected CartScan from the target PC. If the connection dropped, it is necessary to re-scan the Bluetooth Connectivity barcode displayed on the CartScanPCWedge to re-connect to the PC.
- The end user should start the CartScan PC Wedge application on the target PC and place the cursor in the target input field where scanned data is deposited. Scanned data is populated into the target field selected so it is important for the end user to ensure that the selection is made properly.
- A Bluetooth-connected mobile device can travel about 25 feet from the PC to which it is connected before the connection drops. The end user should confirm:
 - That they are still connected before they begin to scan
 - That the scan was transmitted when the scan is complete.
- After a scanning operation is conducted using CartScan, the end user should confirm that the scan data was correctly populated into the target input field before moving on.
- After connecting CartScan to a PC, the end user should be mindful that no other users interact with the PC. For example, the end user should ensure the cursor is not moved to another input location until the scanning task is complete or the CartScan connection was severed by the CartScan user.

Troubleshooting

Table 4 Troubleshooting CartScan

Problem	Possible Causes	Possible Solutions
Mobile Device		
Unable to scan a barcode symbology.	Invalid barcode.	Check the barcode.
After scanning a barcode there are unexpected characters in the input field on the PC.	A prefix and/or suffix was possibly added.	Check the Profile on the mobile device to confirm it contains the intended prefix/suffix data.
After scanning a barcode no data appears in the input field on the PC.	Bluetooth connection may be severed. Mobile device is out of range of the PC.	Check the Bluetooth connection. Confirm the mobile device is within range of the PC.
Barcodes are not transmitted to the PC.	Bluetooth connection may be severed.	The end user must scan the Pairing and Connectivity barcode again to re-connect to the PC.

Table 4 Troubleshooting CartScan (Continued)

Problem	Possible Causes	Possible Solutions
Target PC		
<p>The connection to the mobile device is severed.</p>	<p>There is a built in (and IT configurable) timeout in the connection between the mobile device and the PC. Once the mobile device is connected to the PC (by scanning the Pairing and Connectivity barcode), the timer starts. When the timer expires, the connection to the mobile device is severed.</p>	<p>IT should ensure the configurable timeout in the connection between the mobile device and the PC is long enough to prevent severing the connection.</p>

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