## Revision History

Changes to the original manual are listed below:

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<tr>
<th>Change</th>
<th>Date</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>-01 Rev A</td>
<td>February 2006</td>
<td>Initial Release</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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Introduction
This User Guide describes how to install the ShowCase tool, and how to use the system to view an RFID reader.

Chapter Descriptions
Topics covered in this guide are as follows:

- **Chapter 1, Getting Started** provides a description of ShowCase and its features.
- **Chapter 2, Installation** describes the recommended requirements for ShowCase and how to install ShowCase on the host computer.
- **Chapter 3, ShowCase Set-Up** describes how to set up a reader on the ShowCase application.
- **Chapter 4, Using ShowCase** describes how to use ShowCase to manage tags, view tag activity, and log tag information.
- **Chapter 5, Repair / Remove / Update** describes how to repair, remove and update the ShowCase software.

Notational Conventions
Conventions used in this document:

- *Italics* are used to highlight the following:
  - Chapters and sections in this and related documents
  - Dialog box, window and screen names
  - Drop-down list and list box names
  - Check box and radio button names
  - Icons on a screen.
- **Bold** text is used to highlight the following:
  - 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 more information about the AR and XR RFID Readers refer to:

- *XR400/XR480 Series RFID Readers Quick Reference Guide, p/n 72-71466-xx*
- *XR Series Integrator Guide, p/n 72E-71773-xx*
- *XR Series Readers Interface Control Guide, p/n 72E-71803-xx*
- *XR400 Reader C API Programmer Reference Guide, p/n 72E-73028-xx*
- *DC600 Portal Integrator Guide, p/n 72E-71772-xx*
- AR400 Readers, refer to: [http://www.symbol.com/AR400](http://www.symbol.com/AR400).

For the latest version of this guide and related guides, go to: [http://www.symbol.com/manuals](http://www.symbol.com/manuals).
### Service Information

If an equipment problem occurs, contact the appropriate regional **Symbol Support Center.** Before calling, locate the product model number and serial number. Call the Support Center from a phone near the equipment so that the service person can try to talk through the problem.

If the Symbol product was purchased from a Symbol Business Partner, contact that Business Partner for service

### Symbol Support Center

For service information, warranty information or technical assistance contact or call the Symbol Support Center listed below. For the latest service information go to [http://www.symbol.com.](http://www.symbol.com/)

<table>
<thead>
<tr>
<th>Region</th>
<th>Address</th>
<th>Phone Numbers</th>
</tr>
</thead>
</table>
| **United States** | Symbol Technologies, Inc.  
One Symbol Plaza  
Holtsville, New York 11742-1300  
1-800-653-5350 |                                    |
| **Canada**  | Symbol Technologies Canada, Inc.  
2540 Matheson Boulevard East  
Mississauga, Ontario, Canada L4W 4Z2  
905-629-7226 |                                    |
| **United Kingdom** | Symbol Technologies  
Symbol Place  
Winnersh Triangle, Berkshire RG41 5TP  
United Kingdom  
0800 328 2424 (Inside UK)  
+44 118 945 7529 (Outside UK) |                                    |
| **Asia/Pacific** | Symbol Technologies Asia, Inc (Singapore Branch)  
230 Victoria Street #12-06/10  
Bugis Junction Office Tower  
Singapore 188024  
Tel: +65-6796-9600  
Fax: +65-6337-6488 |                                    |
| **Australia** | Symbol Technologies Pty, Ltd.  
432 St. Kilda Road  
Melbourne, Victoria 3004  
1-800-672-906 (Inside Australia)  
+61-3-9866-6044 (Outside Australia) |                                    |
| **Europe/Mid-East Distributor Operations** | Contact your local distributor or call  
+44 118 945 7360 |                                    |
| **Denmark/Danmark** | Symbol Technologies AS  
Dr. Neergaardsvej 3  
2970 Harsholm  
7020-1718 (Inside Denmark)  
+45-7020-1718 (Outside Denmark) |                                    |
| **France** | Symbol Technologies France  
Centre d’Affaire d’Antony  
3 Rue de la Renaissance  
92184 Antony Cedex, France  
01-40-98-52-21 (Inside France)  
+33-1-40-98-52-50 (Outside France) |                                    |
| **Germany/Deutschland** | Symbol Technologies GmbH  
Waldstrasse 66  
D-63128 Dietzenbach, Germany  
6074-49020 (Inside Germany)  
+49-6074-49020 (Outside Germany) |                                    |
| **Italy/Italia** | Symbol Technologies Italia S.R.L.  
Via Cristofo Columbo, 49  
20090 Trezzano S/N Naviglio  
Milano, Italy  
2-484441 (Inside Italy)  
+39-02-484441 (Outside Italy) |                                    |
| **Latin America Sales Support** | 2730 University Dr.  
Coral Springs, FL 33065 USA  
1-800-347-0178 (Inside United States)  
+1-954-255-2610 (Outside United States)  
954-340-9454 (Fax) |                                    |
| **Mexico/México** | Symbol Technologies Mexico Ltd.  
Torre Picasso  
Boulevard Manuel Avila Camacho No 88  
Lomas de Chapultepec CP 11000  
Mexico City, DF, Mexico  
5-520-1835 (Inside Mexico)  
+52-5-520-1835 (Outside Mexico) |                                    |
| **Netherlands/Nederland** | Symbol Technologies  
Kerkplein 2, 7051 CX  
Postbus 24 7050 AA  
Varssseveld, Netherlands  
315-271700 (Inside Netherlands)  
+31-315-271700 (Outside Netherlands) |                                    |
**Norway/Norge**
Symbol’s registered and mailing address:
Symbol Technologies Norway
Hoybratenveien 35 C
N-1055 OSLO, Norway

Symbol’s repair depot and shipping address:
Symbol Technologies Norway
Enebakkveien 123
N-0680 OSLO, Norway
+47 2232 4375

**South Africa**
Symbol Technologies Africa Inc.
Block B2
Rutherford Estate
1 Scott Street
Waverly 2090 Johannesburg
Republic of South Africa
11-809 5311 (Inside South Africa)
+27-11-809 5311 (Outside South Africa)

**Spain/España**
Symbol Technologies S.L.
Avenida de Bruselas, 22
Edificio Sauce
Alcobendas, Madrid 28108
Spain
91 324 40 00 (Inside Spain)
+34 91 324 40 00 (Outside Spain)
Fax: +34.91.324.4010

**Sweden/Sverige**
“Letter” address:
Symbol Technologies AB
Box 1354
S-171 26 SOLNA
Sweden

Visit/shipping address:
Symbol Technologies AB
Solna Strandväg 78
S-171 54 SOLNA
Sweden

Switchboard: 08 445 29 00 (domestic)
Call Center: +46 8 445 29 29 (international)
Support E-Mail: Sweden.Support@se.symbol.com
# Getting Started

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<th>Pages</th>
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</thead>
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<td>1-3</td>
</tr>
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Introduction
ShowCase is a tool which allows a host computer running the ShowCase application to connect to Symbol RFID readers. ShowCase uses the reader interface not only to read tags, but to monitor multiple readers. It also allows the reader software to be upgraded through the ShowCase interface.

ShowCase features:

- **Connection to Multiple Readers**: ShowCase allows monitoring multiple readers (connecting in multiple modes) in the environment from a single host.
- **Simplifies Software Upgrade**: ShowCase allows the reader(s) software to be upgraded using ShowCase.
- **Local Tag Naming**: ShowCase allows the tag to be re-named locally.
- **Ready to Use**: The ShowCase default configuration matches reader settings, so installation and configuration of the system and readers is quick and simple.

Screens and windows pictured in this guide are for illustration purposes and may differ from actual screens. The applications described in this guide are not available on (or applicable to) all devices. Procedures provided in this guide are not device specific and are intended to provide the application developers with an overview of how the application works.

System Requirements
The minimum recommended configuration for a host computer is:

- Microsoft® Windows XP/2000 operating system with a Pentium 200Mhz processor and 128 MB RAM
- Minimum resolution of 1024x768 on a 24bit color
- 20 MB free disk space
- .NET Framework 1.1
- Minimum resolution: Include 96 dpi (normal font size).
- ShowCase requires an external ftp server for firmware upgrades.

Prerequisites
The following items are required for ShowCase:

- XR or AR reader with power supply
- Laptop (or other host computer)
- If using the LAN Update procedure, a Cat5 ethernet cable is required
- If using the Direct-Connect update procedure a Cat5 Crossover cable is required
- Null modem serial cable (optional)
- An (optional) ftp server on the host computer

Supported Readers
The ShowCase software currently supports the four port XR400 readers. The following readers are not supported:

- AR400
- XR480 (8 port functionality is not supported)
Installation

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Introduction
The ShowCase InstallShield Wizard enables quick and easy installation on the host computer.

Download the ShowCase Software
The ShowCase software is available for download from RFID Products downloads on the Symbol Developer Zone.

1. Create a folder on a host computer and name it: ShowCaseInstall.
3. From the Developers Downloads page, select RFID Products and select the ShowCase Software download page. Download the software zip file onto the host computer (ShowCaseInstall directory) and unzip the file.

Installing ShowCase
The ShowCase software is included in the Symbol - ShowCase.exe file. Follow the steps to install the ShowCase software.

1. Double click the ShowCaseInstall.exe file to launch the setup wizard. The ShowCase InstallShield Wizard automatically launches the Preparing Setup window (see Figure 2-2).

   ![Figure 2-1. ShowCase InstallShield Startup Window](image)

2. The Preparing Setup window automatically launches the ShowCase Welcome window (see Figure 2-3).

   ![Figure 2-2. Preparing Setup Window](image)
If ShowCase was previously installed the ShowCase Modify, Repair or Remove window appears (see Figure 5-8 on page 5-7). Complete the Remove ShowCase on page 5-6, and re-start the installation procedure from the beginning.

3. Click **Next** on the **ShowCase Welcome** window and the **Licence Agreement** window appears (see Figure 2-4).
4. Click **Yes** to accept the licence agreement and continue, the *Destination* window appears (see Figure 2-5).

![Figure 2-4. Software License Agreement Window](image)

5. Click **Browse** to select a different installation folder, or click **Next** to accept the default location and continue with the installation, the *Setup Status* window appears (see Figure 2-6).

![Figure 2-5. Destination Window](image)
6. The Setup Status window automatically launches Installation Complete window (see Figure 2-7).

![Figure 2-6. Setup Status Window](image)

7. Click Finish to complete the installation.

![Figure 2-7. Installation Complete Window](image)

8. Double click the ShowCase icon (on the computer desktop) to launch the ShowCase software.
ShowCase Set-Up

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Introduction

This chapter describes how to set up the ShowCase application, how to add a reader, how to view zones, how to view templates. It also discusses how to view the readers. Table 3-1 provides the ShowCase icon descriptions and Table 3-2 on page 3-4 provides the ShowCase button descriptions.

When showcase is started the ShowCase Console View on page 3-5 appears.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Name</th>
<th>Function</th>
<th>Accessible By Right Mouse Click</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delete Item</td>
<td>This command deletes the selected reader.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Add New Item</td>
<td>This command adds a new item to the application, the item added is dependant on the location.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Edit/View</td>
<td>Edit/View reader properties.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Reboot Reader</td>
<td>Reboots reader, requires user to wait for some time while the reader reboots.</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Display Unique Tags</td>
<td>Displays unique tags, from all readers.</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Read Point On</td>
<td>On- Read-Point icons represent the Autonomous (XML Based) or OnCommand 1 mode antenna (read point) status.</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Read Point Off</td>
<td>Off- Read-Point icons represent the Autonomous (XML Based) or OnCommand 1 mode antenna (read point) status.</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Export</td>
<td>Export tags data to a file, ShowCase opens the window Select/Enter File Name to Export Data window and prompts the user to enter the file name and the location to save.</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Start</td>
<td>Starts the tag read in one of the following manners: Autonomous (XML) Notification: Uses notification from reader to report tags read to the user. Autonomous (XML) Continuous: It queries the readers database to get tags information. OnCommand (Byte Stream) Continuous: Sends ReadFull command to get the tags read OnCommand (Byte Stream) For Number of Read Cycles: Sends ReadFull command to get the tags read for the specified number of read cycles by the user. When the All Readers selection is highlighted. Starts all connected readers.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Stop</td>
<td>Stop reading from selected reader. When the All Readers selection is highlighted. Starts all connected readers.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Return to Console View</td>
<td>Home, return to main menu.</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Uninstall</td>
<td>Uninstalls the ShowCase software</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Disconnected</td>
<td>Red: Indicates that the reader is not connected.</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Connected</td>
<td>Green: Indicates that the reader is connected.</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>
Table 3-2. Button Functions

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connect</td>
<td>Can connect the selected reader in Autonomous (XML) / OnCommand (Byte Stream) mode. Once connected user can not modify the mode before disconnecting.</td>
</tr>
<tr>
<td>Connect All</td>
<td>Can connect all selected readers in Autonomous (XML) / OnCommand (Byte Stream) mode. Once connected user can not modify the mode before disconnecting.</td>
</tr>
<tr>
<td>Disconnect</td>
<td>Can disconnect in Autonomous (XML) / OnCommand (Byte Stream) mode.</td>
</tr>
<tr>
<td>Disconnect All</td>
<td>Can disconnect all in Autonomous (XML) / OnCommand (Byte Stream) mode.</td>
</tr>
<tr>
<td>Purge Tags</td>
<td>Purges the tag data from the screen.</td>
</tr>
<tr>
<td>Browse</td>
<td>Allows the host directories to be browsed.</td>
</tr>
<tr>
<td>Download</td>
<td>Downloads selected files.</td>
</tr>
<tr>
<td>Power Off</td>
<td>Turns off the specific read point power.</td>
</tr>
<tr>
<td>Power On</td>
<td>Turns on the specific read point power.</td>
</tr>
<tr>
<td>Save</td>
<td>Saves the ShowCase parameters.</td>
</tr>
<tr>
<td>Cancel</td>
<td>Cancels the ShowCase parameters inputs.</td>
</tr>
<tr>
<td>Fetch</td>
<td>Retrieves configuration information from the reader.</td>
</tr>
<tr>
<td>Advanced Configuration</td>
<td>View advanced configuration parameters.</td>
</tr>
<tr>
<td>Hide</td>
<td>Hides the advanced configuration parameters.</td>
</tr>
<tr>
<td>Apply</td>
<td>Applies the selected function.</td>
</tr>
<tr>
<td>Connect All</td>
<td>Available only when the All Readers selection is highlighted. Connects all defined readers.</td>
</tr>
<tr>
<td>Disconnect All</td>
<td>Available only when the All Readers selection is highlighted. Disconnects all defined readers.</td>
</tr>
</tbody>
</table>
ShowCase Console View

To Start ShowCase double click the ShowCase icon (on the computer desktop) or select Start - Programs - Symbol - Symbol RFID ShowCase - ShowCase. The ShowCase Console View window appears. The console view provides access to:

- Readers - Add/delete readers, and edit ShowCase options.
- Zones - View zones.
- Templates - View templates.
- Configuration Management - Used to update the reader firmware and software to the latest configuration.

Figure 3-1. ShowCase Console View
Add a Reader
The readers must be added to the ShowCase tool.

To add a new reader to ShowCase:

1. From the ShowCase Console View (see Figure 3-1 on page 3-5) click Readers, the All Readers screen appears.
2. Click the Add New Reader icon (or right-click on All Readers), the Add/Edit Reader window appears.

Figure 3-2. All Readers Screen
3. Enter the required configuration information into the Add/Edit Readers window (see Table 3-3 for input descriptions).

![ShowCase Set-Up 3-7](Image)

**Figure 3-3. Add/Edit Readers Window**

**Table 3-3. Add/Edit Readers Window Inputs**

<table>
<thead>
<tr>
<th>Input Name</th>
<th>Input Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reader Name</td>
<td>Enter a unique reader name.</td>
</tr>
<tr>
<td>TCP/IP Address</td>
<td>Enter the Reader TCP/IP address.</td>
</tr>
<tr>
<td>User Name</td>
<td>Enter the user name that has been set in the reader.</td>
</tr>
<tr>
<td>Configuration Options</td>
<td>Select the method of adding the reader.</td>
</tr>
<tr>
<td>Add Manually</td>
<td>The user enters all the information manually.</td>
</tr>
<tr>
<td>Fetch Config From Reader</td>
<td>Select this option to retrieve the committed configuration from a reader and automatically populates the reader properties. Enter a valid reader TCP/IP address and select the Fetch Config from Reader radio button, the Fetch button appears. Click Fetch, ShowCase retrieves the configuration from the reader. ShowCase does not validate the TCP/IP address but it notifies user if its not able to retrieve the configuration.</td>
</tr>
<tr>
<td>Mode</td>
<td>Select the mode of operation.</td>
</tr>
<tr>
<td>OnCommand</td>
<td>Selects the ByteStream mode of operation and sends the command for performing the operation to the reader.</td>
</tr>
<tr>
<td>Autonomous</td>
<td>Selects the XML mode of operation and sends the command for performing the operation to the reader.</td>
</tr>
<tr>
<td>Enable Motion Detector</td>
<td>Displays the motion detector enable status.</td>
</tr>
<tr>
<td>Password</td>
<td>Enter the password for the reader.</td>
</tr>
<tr>
<td>Application Type</td>
<td>Displays the application type.</td>
</tr>
<tr>
<td>Add/Delete</td>
<td>Displays the status of the Add/Delete check box.</td>
</tr>
</tbody>
</table>
4. Click **Save** to save the ShowCase settings or click **Cancel** to exit the *Add/Edit Readers* window.

5. Click **Advanced Configuration** to view the advanced configuration options. The *Add/Edit Readers, Advanced Configuration* window appears (see Table 3-4 for advanced configuration descriptions).

<table>
<thead>
<tr>
<th>Input Name</th>
<th>Input Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenna Name</td>
<td>Displays the antenna name.</td>
</tr>
<tr>
<td>Zone</td>
<td>Displays the read point zone.</td>
</tr>
<tr>
<td>Template</td>
<td>Displays the template.</td>
</tr>
<tr>
<td>Antenna Enable</td>
<td>Displays the antenna enable status.</td>
</tr>
</tbody>
</table>

![Figure 3-4. Add/Edit Readers, Advanced Configuration Window, Event Notifications Tab](image-url)
Figure 3-5. Add/Edit Readers, Advanced Configuration Window, Antenna Check Tab
Table 3-4. Add/Edit Readers Advanced Configuration Window Inputs

<table>
<thead>
<tr>
<th>Input Name</th>
<th>Input Description</th>
</tr>
</thead>
</table>
| Event Types (display only) | Displays the reader generated events:  
  - Visibility and Threshold events report tag activity  
  - Network Status and Exception events report device/system activity. |
| Visibility Events | Changes in tag visibility can generate three types of visibility events:  
  - **New Tag Event** - A special case event generated when a new tag (not known by the reader) appears for the first time. Process this event promptly for best results. The default Notify option is Immediate for this event. To disable notification when this event occurs, set the Notify option to Never using the Administrator Console. The event is then promoted to a generic Visibility Changed Event. Note, that the Notify option must be set to Never (from the Administrator Console).  
  - **Tag Not Visible Event** - A special case event generated when a visible tag disappears from all read points. For example, if a tagged item is removed from a shelf, is out of RF range and is not visible to any read point. The event reports where the tag was located when last visible to the system. During normal operation, a tag can experience transient periods when it can not be read reliably in the system. To overcome this issue, set the Notify option for this event to Moderated. The system then generates an event only when the tag is not read for a period of time longer than the specified moderate time-out. The system remembers the tag, but it is not visible to any read point. To disable notification when this event occurs, set the Notify option to Never; the event is then promoted to a generic Visibility Changed Event.  
  - **Visibility Changed Event** - An event generated when the visibility of a tag changes, such as due to the change of the set, or the number of read points at which the RFID tag is visible. For example, a Visibility Changed Event occurs when a tagged item moves from a shelf on aisle 2 to another shelf on aisle 4 (visibility changes from one read point to another). Note, that if the Tag Not Visible Event is enabled, a previously visible tag that becomes not visible to any read points generates the more specific Tag Not Visible Event. A New Tag Event occurs for the first visibility change when applicable. Process this event promptly for best results. The default Notify option is immediate. |
| Threshold | A Threshold Event occurs when the number of visible tags satisfies the threshold rule for the tag group. The default Notify option setting for this event is Never. To activate the threshold condition, specify user-defined IDs and relevant threshold rules through an import tag list. Also Enable the Notify option to generate event notification for this event. During normal operation, a tag can experience transient periods when it is changing visibility in the system. To overcome this issue, set the Notify option for this event to Moderated, and generate an event only when the tag is not experiencing temporary invisibility. |
| Exception | Exception Events provide (via XML) the same type of information available via SNMP. An Exception Event provides information when a device goes off-line; polling is turned off, etc. Select this option if SNMP not being used but feedback is still required for changes in the device or program state. To enable XML, in the Event Notifications window, set the Notify option for Exception Events to Immediate in the Notify column. |
| Notify (display only) | To receive notification when particular events occur, choose (subscribe to) the events using the Notifications window. To receive event notifications, enter a valid link for the Host Notification Link. The system tests the validity using the Test option. To specify the event notifications to receive, select the appropriate Notify option for each event type. |
| Never | Event notifications are not sent. |
| Immediate | Event Notifications are sent immediately (providing they are not filtered out). |
6. Click Save to save the configuration inputs, the Configured Reader screen appears.
Figure 3-6. Configured Reader Screen
View a Zone

A zone (or a read point zone) is a virtual grouping of antenna(s) used to configure the expected antenna position within the specified area. This allows the user to track tags read in the particular area.

Zones are used to configure read point setup information the zones must be set up for all readers and antenna. The zones are defined to group tag data from multiple antennas (belonging to the same or different readers) together. This allows collective data across readers (that may be deployed in non-overlapping zones) to be viewed.

To view a zone:

1. From the ShowCase Console View (see Figure 3-1 on page 3-5) click Zones, the Zones screen appears.
2. Select All Zones, the tag data for all the zones is displayed.

Figure 3-7. Zones Screen
3. Click on the “+” to display the available Zones.
4. Select a zone to view the tag data for that zone.

Figure 3-8. New Zone Screen

5. Click on the “+” to display the available readers for the zone.
6. Select a reader to view the reader tag data for that zone.
View Templates

Antenna Templates are a set of reader independent configuration parameters that can be applied to various antennas on different or same readers. The template maps to Read Point Class in Admin Console and used to define antenna properties. ShowCase also allows the use of one template to configure multiple antennas from same and/or different readers.

Antenna template parameters include EPC type to be read (class-0, class-1, Gen-2, etc.) power levels of the antenna, read retry counts etc. Once the templates are defined and configured they can be applied to antennas in the Reader Properties feature.

To view a template:

1. From the ShowCase Console View (see Figure 3-1 on page 3-5) click Templates, the View Template screen appears.

Figure 3-9. Add Template Screen

When a configuration is fetched from reader the name of the fetched configuration is compared to the names of the already saved templates (in ShowCase). If the name of the fetched template matches the name of an already saved template, the new fetched template will automatically update the existing ShowCase template.

If the ShowCase is being used with multiple readers that have the same Read Point Class name but different properties, the template used by ShowCase is from the last reader connected.
Table 3-5. View Template Configuration Window Inputs

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>View the unique template name.</td>
</tr>
<tr>
<td>Type AREA</td>
<td>Identifies an area template type.</td>
</tr>
<tr>
<td>Type SHELF</td>
<td>Identifies a shelf template type.</td>
</tr>
<tr>
<td>Type COMBINED1</td>
<td>Identifies a combined1 template type.</td>
</tr>
<tr>
<td>Type COMBINED2</td>
<td>Identifies a combined1 template type.</td>
</tr>
<tr>
<td>Scan Period</td>
<td>View the scan period.</td>
</tr>
<tr>
<td>Polled</td>
<td>Polled to issues read commands continuously, back-to-back.</td>
</tr>
<tr>
<td>OnDemand</td>
<td>The user to decide when to read tags.</td>
</tr>
<tr>
<td>5 Minutes</td>
<td>Issues a read command every five minutes.</td>
</tr>
<tr>
<td>10 Minutes</td>
<td>Issues a read command every ten minutes.</td>
</tr>
<tr>
<td>30 Minutes</td>
<td>Issues a read command every 30 minutes.</td>
</tr>
<tr>
<td>1 Hour</td>
<td>Issues a read command once every hour.</td>
</tr>
<tr>
<td>2 Hour</td>
<td>Issues a read command once every two hours.</td>
</tr>
<tr>
<td>8 Hour</td>
<td>Issues a read command once every eight hours.</td>
</tr>
<tr>
<td>12 Hour</td>
<td>Issues a read command once every 12 hours.</td>
</tr>
<tr>
<td>Gain (in %)</td>
<td>The read gain in % of full power.</td>
</tr>
<tr>
<td></td>
<td>The gain for the read/write operations are set as separate parameters. The read operations take less energy than write operations, to balance the gains to the point that the RF field is comparable reduce the read gain to match the effective write gain range. The read gain should typically be reduced to about 1/3 (depending on the tag type and environment).</td>
</tr>
<tr>
<td>Retry Count</td>
<td>The retry count (not applicable to Gen2 tags) between 1 and 25.</td>
</tr>
<tr>
<td></td>
<td>The value represents the number of additional frequencies to use, when traversing the tag tree. All the tags found, regardless of which pass they were found are reported as replies to the single read command.</td>
</tr>
<tr>
<td></td>
<td>To optimize the Retry Count setting for the application set the value to as low as possible (0 or AR or XR) if the tag is moving (to achieve the quickest results) and set the value higher (typically around 8) if the tag is stationary. The higher Retry Count increases both the individual read times and the number of tags harvested on each pass.</td>
</tr>
<tr>
<td>Air Protocol</td>
<td>The air protocol types to be read.</td>
</tr>
<tr>
<td>All</td>
<td>Read all air protocol read types.</td>
</tr>
<tr>
<td>Class 1, Class 0</td>
<td>Read only the class 1 and class 0 protocols.</td>
</tr>
<tr>
<td>Gen2</td>
<td>Read only the Gen2 protocol.</td>
</tr>
<tr>
<td>Gen2, Class 0</td>
<td>Read only the Gen2 and class 0 protocols.</td>
</tr>
<tr>
<td>Gen2, Class 1</td>
<td>Read only the Gen2 and class 1 protocols.</td>
</tr>
<tr>
<td>Tag Selection</td>
<td>ALL</td>
</tr>
<tr>
<td>Write Gain (in %)</td>
<td>Displays the write gain setting.</td>
</tr>
<tr>
<td></td>
<td>The gain for the read/write operations are set as separate parameters. The write operations take more energy than read operations, so to balance the gains to the point that the RF field is comparable reduce the read gain to match the effective write gain range. The read gain should typically be reduced to about 1/3 (depending on the tag type and environment).</td>
</tr>
</tbody>
</table>
Configuration Management

Configuration Management is used to update the firmware and software to the latest configuration using a valid Config.xml file.

Reader Firmware Management

Reader Firmware Management is used to update the firmware for the selected reader. Required ftp server information (where the firmware directory is located) includes the Directory Path, User Name and Password. To update the reader software using ShowCase:

1. Create a folder on a local ftp server and name it: \XR400UPDT\ReleaseXXX.
2. Download the firmware files from http://www.devzone.symbol.com into the local ftp server \XR400UPDT\ReleaseXXX directory and unzip the files if they are zipped.
3. Ensure that the readers can be pinged from the host computer. If they cannot, consult with the network administrator.
4. From the ShowCase Console View (see Figure 3-1 on page 3-5) click Configuration Management, the Configuration Management View appears.
5. Click the “+” to expand the Readers selection and select a reader to update.
6. Enter the ftp server IP address in the URL Directory text box and enter the user name and password in the appropriate text boxes.
7. Click Download to start the software update.

Figure 3-10. Configuration Management View
8. The green LED on the reader flashes while the update is in progress. The reader application software first downloads `osupxr400.exe`, `FlashUpdateUtility.dll`, and `Response.txt` files, starts running `Osupdate`, and shuts itself down. `Osupdate` then downloads all the files specified in the `Response.txt` file into RAM, and if the download is successful, starts writing the files to flash. If the ftp is not successful for any reason, none of the files will be written into flash.

9. The update can take up to 15 minutes. Do not remove power to the reader or reboot the reader while update is in progress.

10. The reader reboots itself when the update is complete.

11. If the reader had been set up with a static IP address, it restores the static IP address and reboots again.

   During the FPGA update, all the LEDs is turned OFF for about 90 seconds.

12. Verify that the new upgrade version is now running.
Using ShowCase

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Introduction
This chapter describes how to use ShowCase to manage readers, tags, view tag activity, and log tag information. Prior to using ShowCase perform the setup procedures listed in Chapter 3, ShowCase Set-Up.

Open ShowCase
To assign a name to a tag, open ShowCase the ShowCase Console View appears (see Figure 3-1 on page 3-5).

ToolBar Dropdown Menus
The File and the Help menus are used to exit the application or to view the About window.

File Menu
Use the File menu to exit the application. Tap File - Exit. To exit the application.

Help Menu
Use the Help menu to display the About window.

1. Tap Help - About. The application About window appears.
2. From the About window, tap OK to close the About window and return to the application.
Select A Reader

1. From the ShowCase Console View click Readers, the Configured Readers window appears (see Figure 3-6 on page 3-12).
2. Click a reader to select (the readers were entered during the ShowCase setup, in this example XR400-Reader-1) the reader is highlighted. Table 4-1 provides the reader settings selection descriptions.

![Figure 4-1. XR400-Reader-1 Window](image)

Table 4-1. Reader Settings

<table>
<thead>
<tr>
<th>Selection</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OnCommand - Continuous:</td>
<td>Selecting this mode sends ReadFull commands synchronously and updates the tags read. If a tag is read more than once, the tag count is incremented.</td>
</tr>
<tr>
<td>OnCommand - #of Read Cycles:</td>
<td>Selecting this mode sends ReadFull commands synchronously for specified number of read cycles and updates the tags read. If a tag is read more than once, the tag count is incremented.</td>
</tr>
<tr>
<td>Autonomous - Notification:</td>
<td>Selecting this mode sends QueryEvents commands and reads only the new tags seen by the reader for the first time. At the start of read operation, it purges all the tags inside reader database and reads the tags so that all tags flashed in front of antenna are seen as new tags.</td>
</tr>
<tr>
<td>Autonomous - Continuous:</td>
<td>Selecting this mode sends QueryTags commands and updates the tags read. If a tag is read more than once in this process the tag count is incriminated.</td>
</tr>
<tr>
<td>Purge Tags:</td>
<td>This operation clears the current tags for the selected items. If a reader is selected (out of ‘n’ configured readers) then execution of this command only deletes tags for the selected reader.</td>
</tr>
</tbody>
</table>
3. Click to select *OnCommand* or *Autonomous* from the first drop down menu (see Table 4-1 on page 4-4 for selection descriptions). For the *OnCommand* mode, click to select *Continuous* or *# of Read Cycles* from the second drop down menu. Enter the number of read cycles, if that option was selected.

4. Click **Connect** the reader connected window appears, click **OK**. The XR400-Reader-1 connection bullet turns to green to indicate that the reader is now connected and the **XR400-Reader-1 Connected** window appears.

5. Click **OK** when the reader has successfully connected, the **XR400-Reader-1 Connected** window appears (see Figure 4-3).

![Figure 4-2. Reader Specific Screen and Reader Connected Window](image-url)
Read Tags

1. Click the start icon to read tags, the XR400-Reader-1 Tag Data window appears (see Figure 4-4).

Figure 4-3. XR400-Reader-1 Connected Screen
2. Click **OK** on the read completed successfully window. The example shown is for the **OnCommand** mode, with the **# of Read Cycles** set to 8.

*Figure 4-4. XR400-Reader-1 Tag Data Screen*
3. Click the + on the XR400-Reader-1 entry to expand the read points.

4. Drag the Read Gain slide bar to adjust the read gain.

The Tag Type selections are only available in OnCommand mode of operation.

5. Click the Tag Type drop down menu and select the tag type(s) to read:
   - All ISO
   - Class 1 ISO, Class 0
   - Class 0 ISO, Class 1
   - Class 1, Class 0 ISO, Class 1, Class 0
   - Gen2 ISO, Gen2
   - Gen2, Class 0 ISO, Gen2, Class 0
   - Gen2, Class 1 ISO, Gen2, Class 1
   - Gen2, Class 1, Class 0

6. Click stop to stop the tag read.
**Unique Tags View**

1. Click the *Unique Tags View* icon to display the *Unique Tags View* window. The *Unique Tags View* window displays all of the unique tag information. The tag type totals are listed along the bottom of the window.

2. Click the "X" to exit the *Unique Tags View* window.

![Figure 4-6. Unique Tags View Window](Image)
Exporting Tag Data

To export the tag data:

1. From the Read Successfully Completed window (see Figure 4-4 on page 4-7), click the Export icon. The Select/Enter File Name to Export Data window appears.

2. Select a location, enter a file name and click OK.

3. A confirmation window appears confirming the filename and the location, click OK to proceed.

4. From the selected location, open the *.txt file to view the contents, the Tag Data Text window appears.
Name a Tag

To name a tag:

1. From the ShowCase Tags View, right click on a tag ID to display the Tag Properties window.

   Do not select the tag before the right click. Right clicking a selected tag provides a different dropdown menu.

2. Click in the Tag Properties window to launch the Tag Name Edit window (see Figure 4-10 on page 4-12).

![Figure 4-9. Tag Properties Window](image)
3. Enter the tag name in the Tag Properties window, Tag Name field (the example tag name used is TagName1).
4. Click Save Name to save the tag name.

![Figure 4-10. Tag Name Edit Window](image)

5. The example tag name (TagName1) appears in the Tag Name column on the Tag Named window.

![Figure 4-11. Tag Named Window](image)
Exit Read Tags View
1. Click **Purge Tags** to clear the tag read information from the selected view.
2. Click **Power Off** (if required) to turn off the read point power.
3. Click **Disconnect** (if required) to disconnect the reader.
4. Click the home icon to return to the ShowCase console screen.

Functions Dropdown Menu
To activate the functions dropdown menu:

1. From the **ShowCase Tags View**, select the tag and right click on a tag ID to display the **Functions Dropdown Menu window**.

   The tag must be selected before the right click. Right clicking a non-selected tag provides a different menu. Not all of the menu items are available for all field selections.

![Figure 4-12. Functions Dropdown Menu Window](image)
2. Click a menu item to perform the function, see Table 4-2 for function descriptions.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undo</td>
<td>Removes the last change to the selected field.</td>
</tr>
<tr>
<td>Cut</td>
<td>Deletes the selected item from the selected field and copies the item into computer memory.</td>
</tr>
<tr>
<td>Copy</td>
<td>Copies the selected text into computer memory.</td>
</tr>
<tr>
<td>Paste</td>
<td>Pastes text from computer memory into selected field. Note that the function is not enabled for fields that cannot accept inputs.</td>
</tr>
<tr>
<td>Delete</td>
<td>Deletes the selected item.</td>
</tr>
<tr>
<td>Select All</td>
<td>Function is not enabled</td>
</tr>
<tr>
<td>Right to Left Reading Order</td>
<td>Switches to right justify.</td>
</tr>
<tr>
<td>Show Unicode control characters</td>
<td>The show unicode control characters function is not enabled.</td>
</tr>
<tr>
<td>Insert Unicode control characters</td>
<td>The insert unicode control characters function is not enabled.</td>
</tr>
</tbody>
</table>
Repair / Remove / Update

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Repair ShowCase ................................................................. 5-3
Remove ShowCase ................................................................. 5-6
Update ShowCase ................................................................. 5-9
Introduction
The ShowCase InstallShield Wizard enables repair and/or removal of ShowCase. This chapter describes how to repair and/or remove ShowCase.

Download the ShowCase Software
The ShowCaseInstall.exe file is required for the Repair / Remove / Update procedures. If the original version is no longer available or for the latest update of the ShowCaseInstall.exe file, download the file from RFID downloads on the Symbol Developer Zone.

1. Create a folder on a host computer and name it: \ShowCaseInstall.
3. From the Developers Downloads page, select RFID Products and select the ShowCase Software download page. Download the software zip file onto the host computer (\ShowCaseInstall directory) and unzip the file.

Repair ShowCase
The ShowCase repair software is included in the Symbol - ShowCaseInstall.exe file. Download the ShowCaseInstall.exe file (see Figure on page 5-3) and follow the provided steps to repair the ShowCase software.

1. Launch the setup wizard: Symbol - ShowCaseInstall.exe. The ShowCase InstallShield Startup window appears and automatically launches the Preparing Setup window.

Figure 5-1. ShowCase InstallShield Startup Window

2. The Preparing Setup window automatically launches the ShowCase Modify, Repair or Remove window (see Figure 5-3 on page 5-4).
3. When the setup is complete the *ShowCase Modify, Repair or Remove* window appears.

![Figure 5-3. ShowCase Modify, Repair, or Remove Window](image)

4. To repair, select the Repair radio button and click **Next** the *ShowCase Repair* window appears.

![Figure 5-4. ShowCase Repair Window](image)
5. When the repair is complete the *ShowCase Maintenance Complete* window appears.

![ShowCase Maintenance Complete Window]

**Figure 5-5. ShowCase Maintenance Complete Window**

6. Click **Finish** to complete the repair.
Remove ShowCase

The ShowCase remove software is included in the Symbol - ShowCaseInstall.exe file. Download the ShowCaseInstall.exe file (see Download the ShowCase Software on page 5-3) and follow the provided steps to uninstall the ShowCase software.

1. Double click the ShowCaseInstall.exe file to launch the setup wizard. The ShowCase InstallShield Wizard automatically launches the Preparing Setup window.

   ![Figure 5-6. ShowCase InstallShield Startup Window](image)

2. The Preparing Setup window automatically launches the ShowCase Modify, Repair or Remove window (see Figure 5-8 on page 5-7).

   ![Figure 5-7. Preparing Setup Window](image)
3. When the setup is complete the *ShowCase Modify, Repair or Remove* window appears.

![Figure 5-8. ShowCase Modify, Repair, or Remove Window](image)

4. To remove, select the *Remove* radio button and click **Next** the *ShowCase Remove Confirmation* window appears.

![Figure 5-9. ShowCase Remove Confirmation Window](image)

5. Click **Yes** to continue. The ShowCase InstallSheild launches the uninstall application.
6. The *Uninstall* window appears.

![Uninstall Window](image1.png)

**Figure 5-10. Uninstall Window**

7. The *Uninstall* window automatically launches the *Uninstall Complete* window when the uninstall is completed.

![Uninstall Complete Window](image2.png)

**Figure 5-11. Uninstall Complete Window**

8. Click **Finish** to complete the removal.
Update ShowCase
To update ShowCase:

1. Download the new ShowCaseInstall.exe file (see Download the ShowCase Software on page 2-3).
2. Follow the provided steps to install the updated version of ShowCase software (see Installing ShowCase on page 2-3).
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Tell Us What You Think...

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Did this manual meet your needs? If not, please explain.
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__________________________________________________________________________________

What topics need to be added to the index, if applicable?
__________________________________________________________________________________
__________________________________________________________________________________

What topics do you feel need to be better discussed? Please be specific.
__________________________________________________________________________________
__________________________________________________________________________________

What can we do to further improve our manuals?
__________________________________________________________________________________
__________________________________________________________________________________

Thank you for your input—We value your comments.