

XPressEntry

XPressEntry / Elements Integration Guide

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By



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Purpose

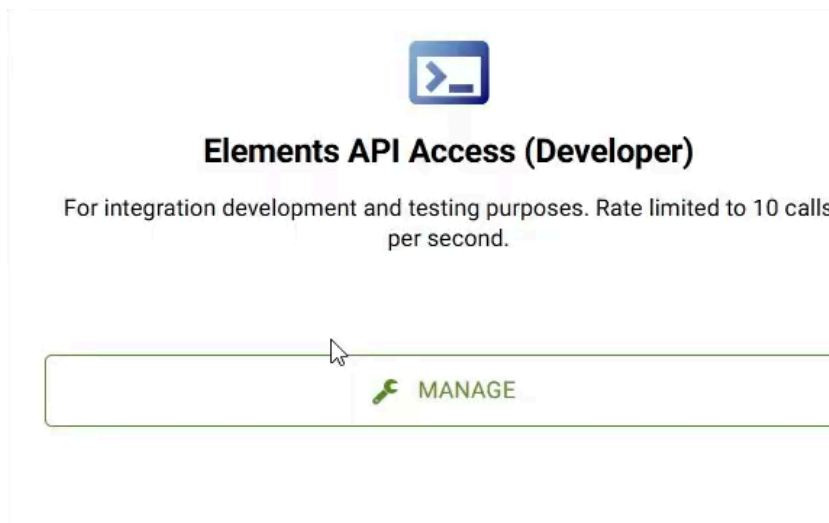
The **XPressEntry** integration with the **Elements** access control system serves as a middleware solution that facilitates communication between handheld devices and the Elements system. This integration enables seamless synchronization of access control data and real-time activity monitoring. It supports entry, exit, and mustering use cases. This document will serve as a guide to getting the integration completed.

Prerequisites

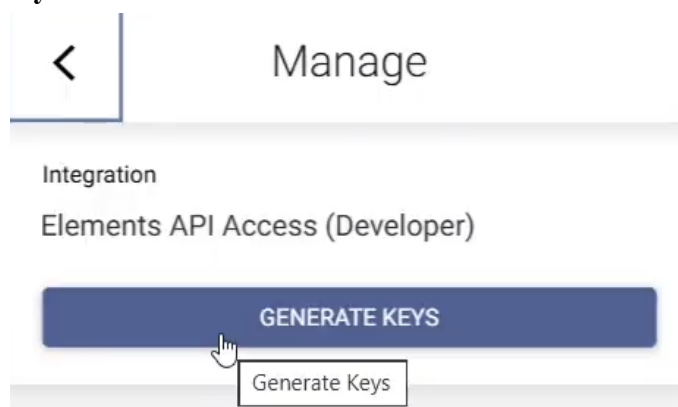
- Enable Elements API access in your Elements account
- API Key

Getting the API Key

1. In the Elements Marketplace, select **API Access**
2. Choose the **Developer Option** to increase rate limits



3. Click **Generate Keys**

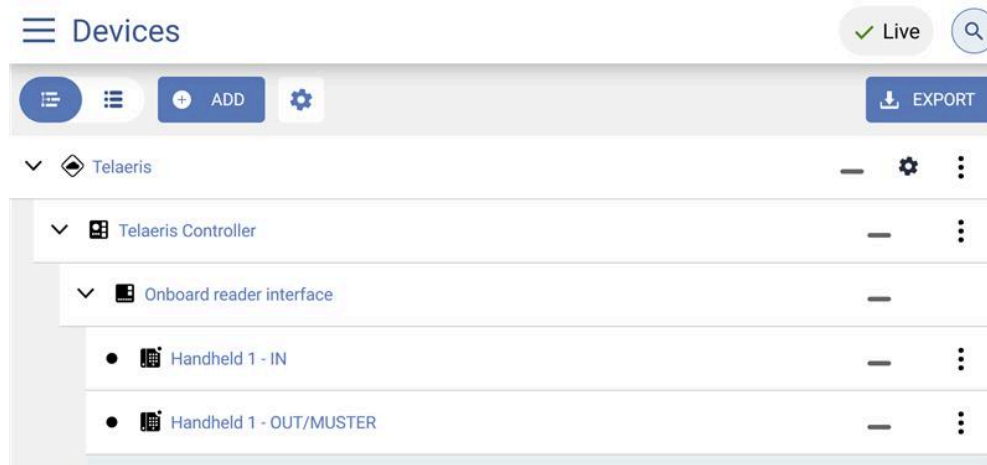


4. Copy the API Key and save it somewhere accessible

Configuring Devices in Elements

1. Navigate to the **Devices** section in Elements
2. Create a **Controller or Gateway**, then a **Controller**, then a **Reader Interface**.
3. For each XPressEntry handheld, create two readers under the reader interface:
 - a. **In Reader** – used for entry mode scans (e.g., Handheld 1 In)
 - b. **Out / Muster Reader** – used for exit and muster scans (e.g., Handheld 1 Out / Muster)

Note: You may be limited to a certain number of handhelds per reader interface. Create additional reader interfaces if needed.

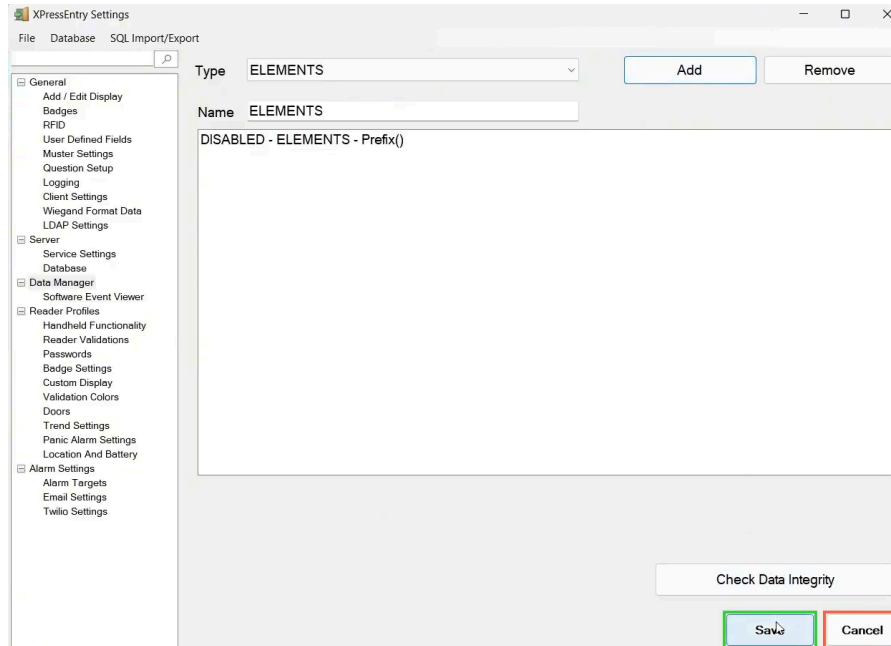


The two readers ensure that handheld scans appear in the Elements event log matched to the correct reader.

Configuration in XPressEntry

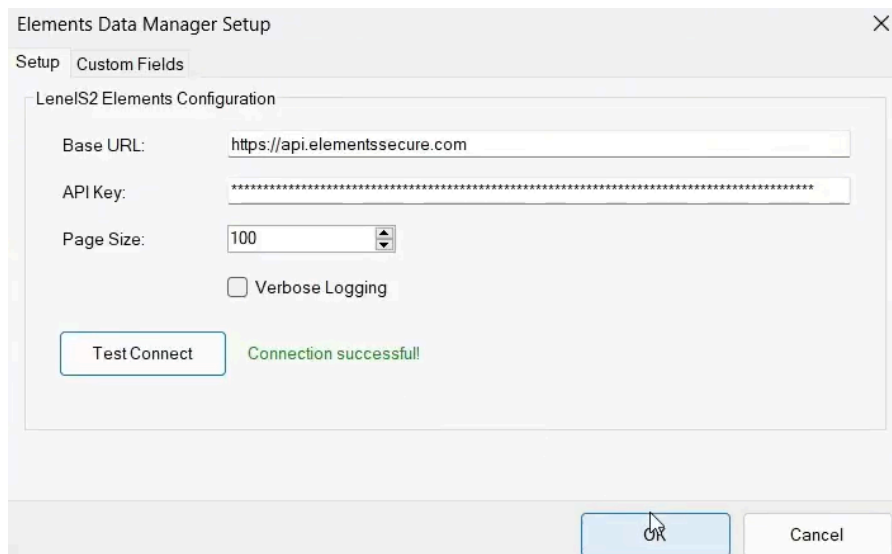
Step 1: Add the Data Manager

1. Go to **Tools > Settings > Data Manager**
2. Set **Type** to **Elements** and click **Add**
3. Click **Save**. A new Elements tab will appear in the side menu bar, “**DISABLED-Elements**”



Step 2: Connect to the API

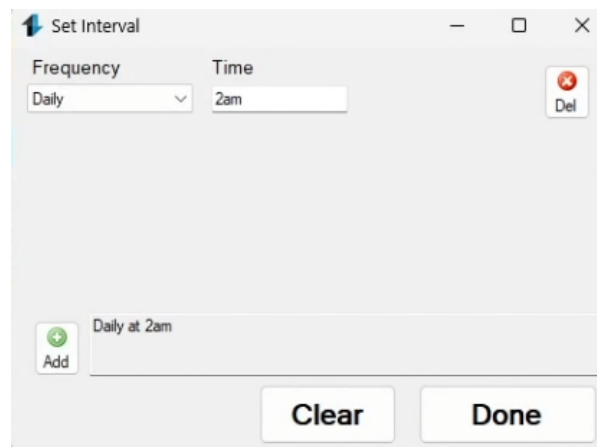
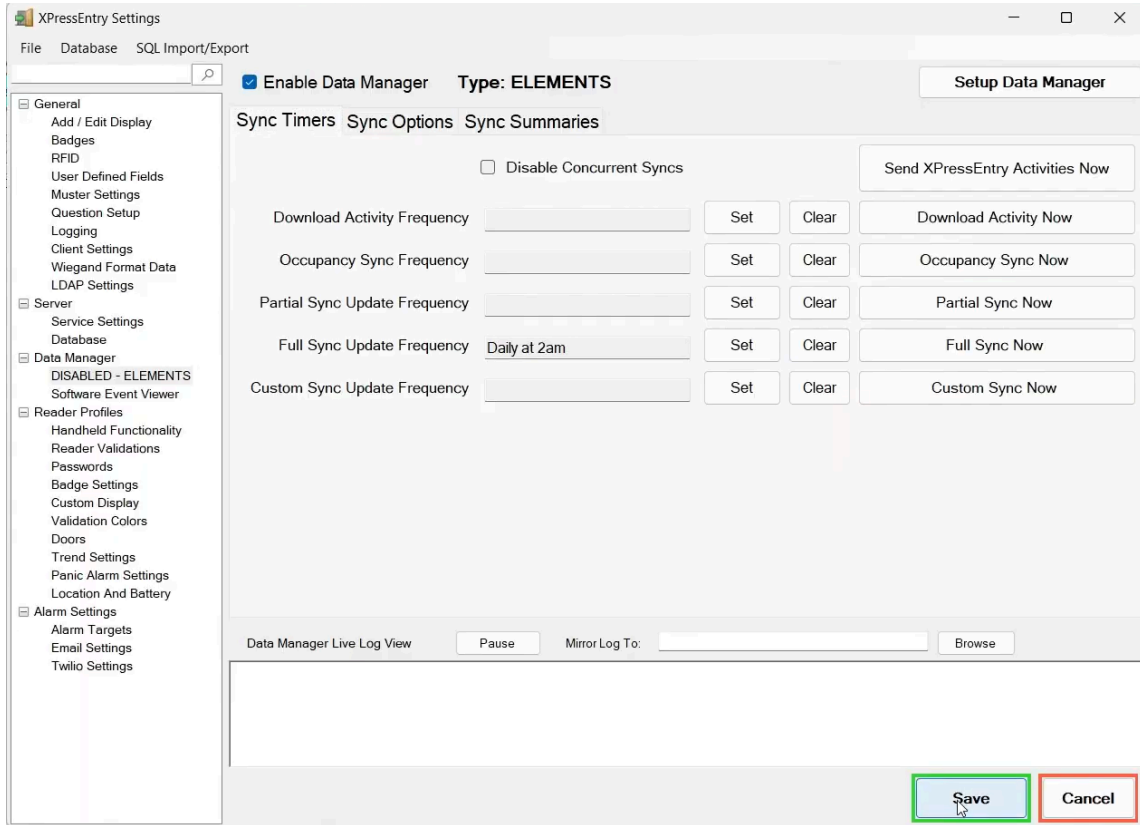
1. On the Elements tab, check **Enable Data Manager** and click **Setup Data Manager**
2. Paste your API key into the **API Key** field.
3. Leave the Base URL as-is. Set Page Size to **100**
4. Click **Test Connect** to verify, then click **OK**



Step 3: Configure Sync Schedule

Full Sync

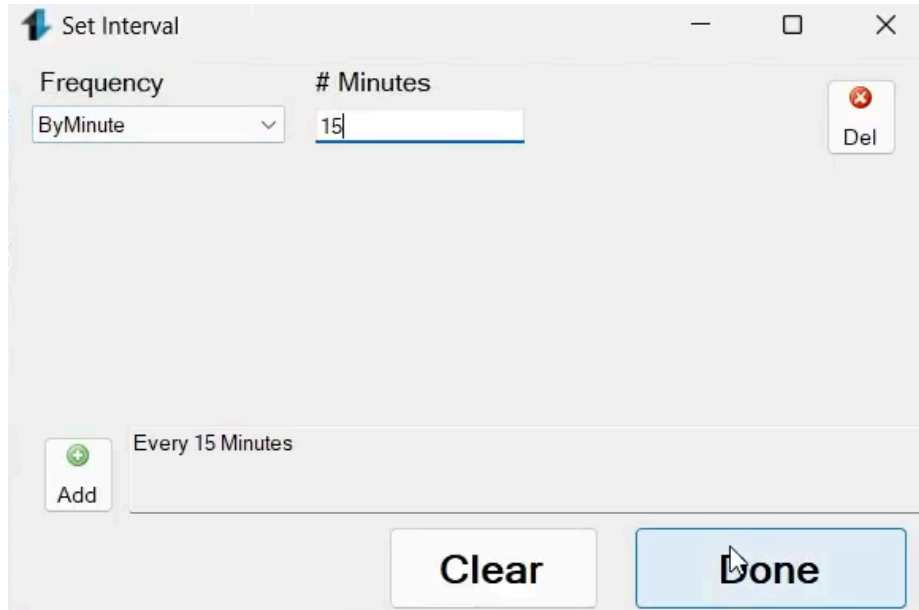
1. Click **Set** next to **Full Sync Update Frequency**
2. Select **Daily** and choose a low-usage time window



The full sync pulls all cardholder data, spaces, devices, and group assignments.

Partial Sync

1. Enable partial sync to run more frequently. This sync incrementally retrieves any newly added or updated cardholders, badges, or permissions.
2. Set the frequency based on how actively cardholder data is updated within your system.

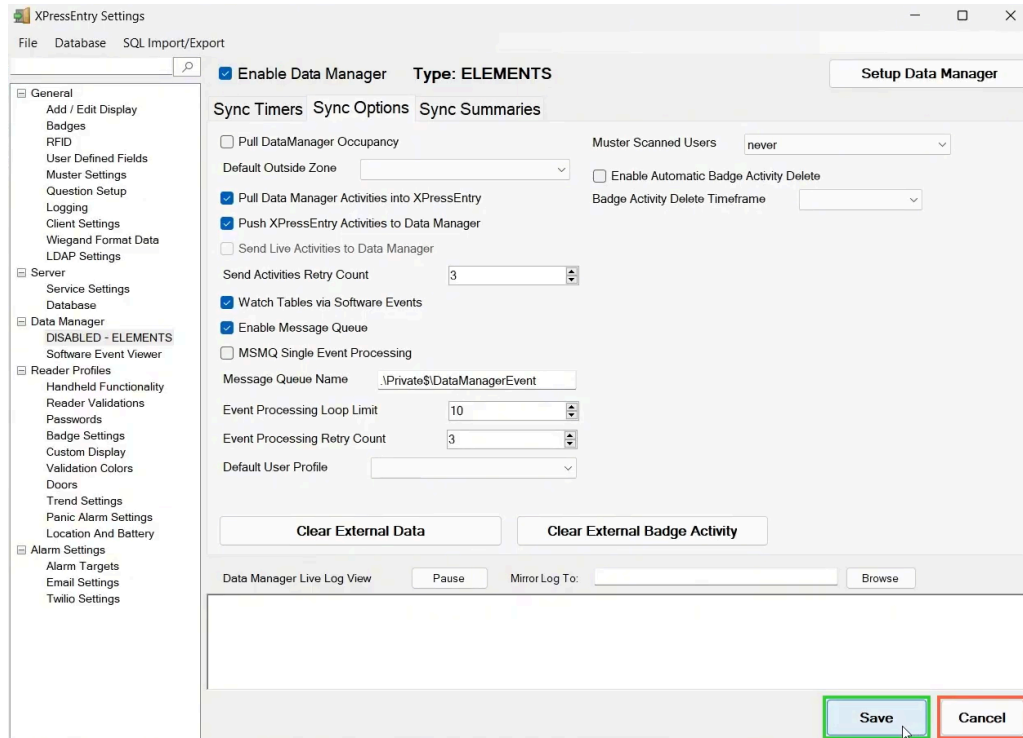


The screenshot shows a 'Set Interval' dialog box with the following elements:

- Frequency:** A dropdown menu currently set to 'ByMinute'.
- # Minutes:** A text input field containing the value '15'.
- Del:** A button with a red 'X' icon, located in the top right corner.
- Add:** A button with a green plus icon, located below the input fields.
- Every 15 Minutes:** A text entry in a list area below the 'Add' button.
- Clear:** A button at the bottom center.
- Done:** A button at the bottom right, highlighted in blue.

Step 4: Configure Sync Options

1. Go to **Sync Options**
2. Check:
 - a. **Pull Data Manager Activities into XPressEntry**
 - b. **Push XPressEntry Activities to Data Manager**
 - c. **Watch Tables via Software Events**
 - d. **Enable Message Queue**
3. Click **Save**



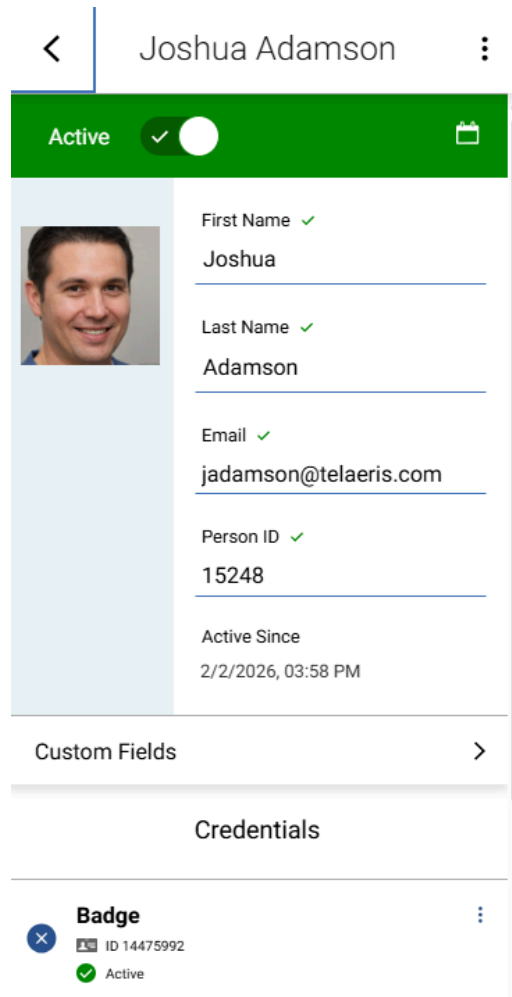
Reviewing Synchronized Data

This entire section is optional to ensure that the data has synchronized correctly.

Cardholder Data

1. Go to the **Add/Edit Info** tab to verify synced cardholders
2. Confirm that user pictures, employee IDs, badges, and access groups are populated

Example Cardholder in Elements:



Example Cardholder in XPressEntry:

The screenshot shows the XPressEntry Administrator interface. The main window displays the user profile for Joshua Adamson. The profile includes fields for First Name (Joshua), Last Name (Adamson), and MI. Below these are fields for Company, Emp ID (15248), Zone, Start Date, and End Date. There are checkboxes for Visitor and Host. A photo of the user is displayed on the right. Below the profile is a section for Badges (2), with a table listing badge details.

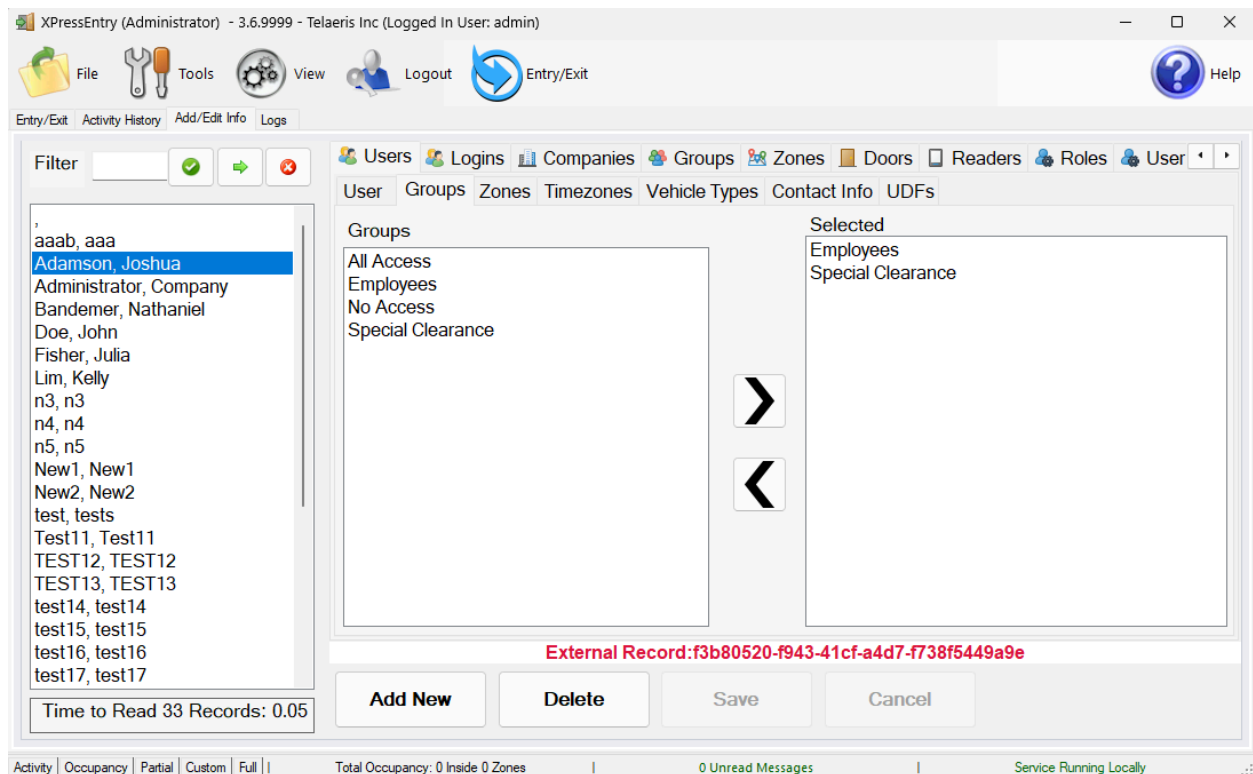
Badge	Activated Date	Expired Date	Invalid	Badge Type
14475992		04/24 12:00:00 AM		
377		04/30 12:00:00 AM		

External Record: f3b80520-f943-41cf-a4d7-f738f5449a9e

Access Groups / Zones

1. Go to the **Access Groups** tab. Elements spaces are synchronized as zones in XPressEntry.
2. Configure zone types as appropriate:
 - a. **Is Hazard Area** – for areas where occupancy is tracked (e.g., hazard areas)
 - b. **Is Outside** – for offsite spaces
 - c. **Is Muster Point** – for any space used as a muster assembly area

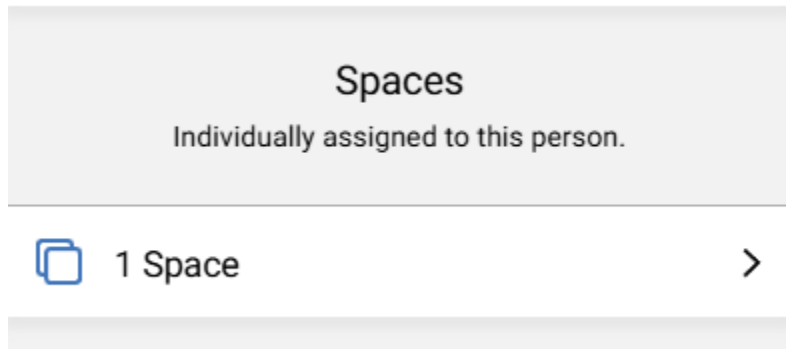
User Groups



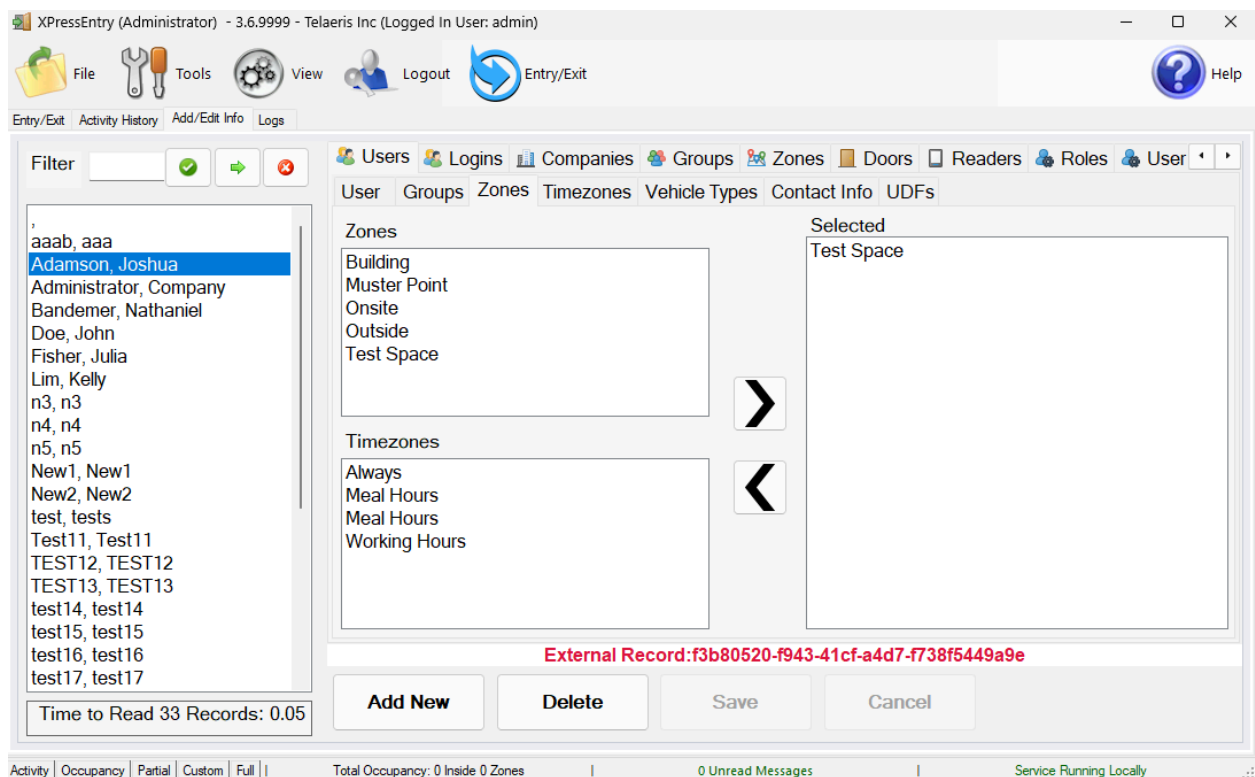
Groups Spaces / Groups Zones

Privileges to Spaces in Elements are synchronized as privileges to Zones in XPressEntry. These can either be directly (Cardholder assigned to space) or indirectly through a group.

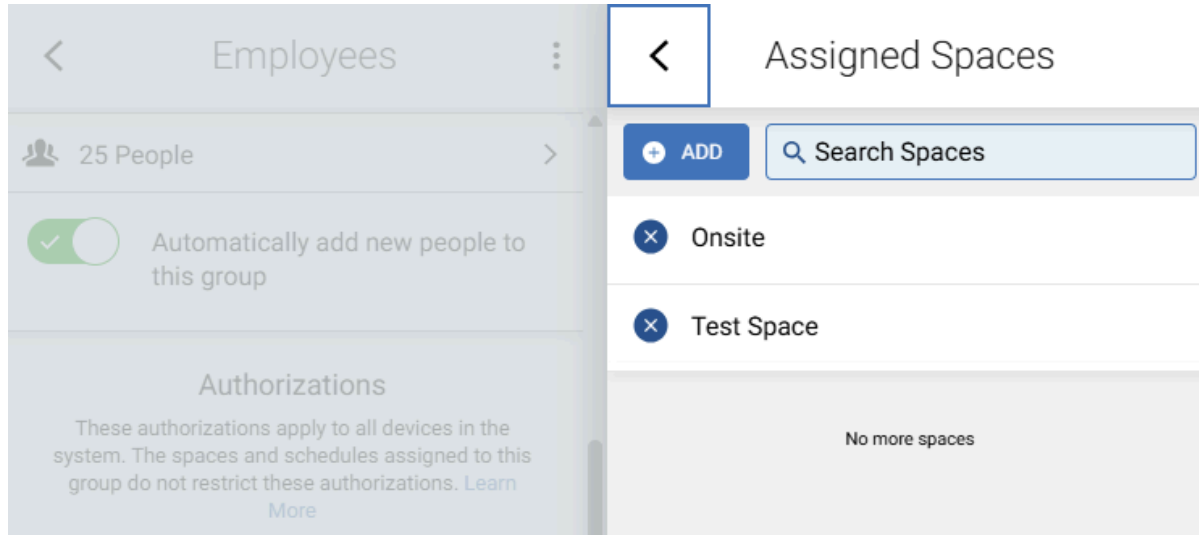
Example of Cardholder Direct Assignment:



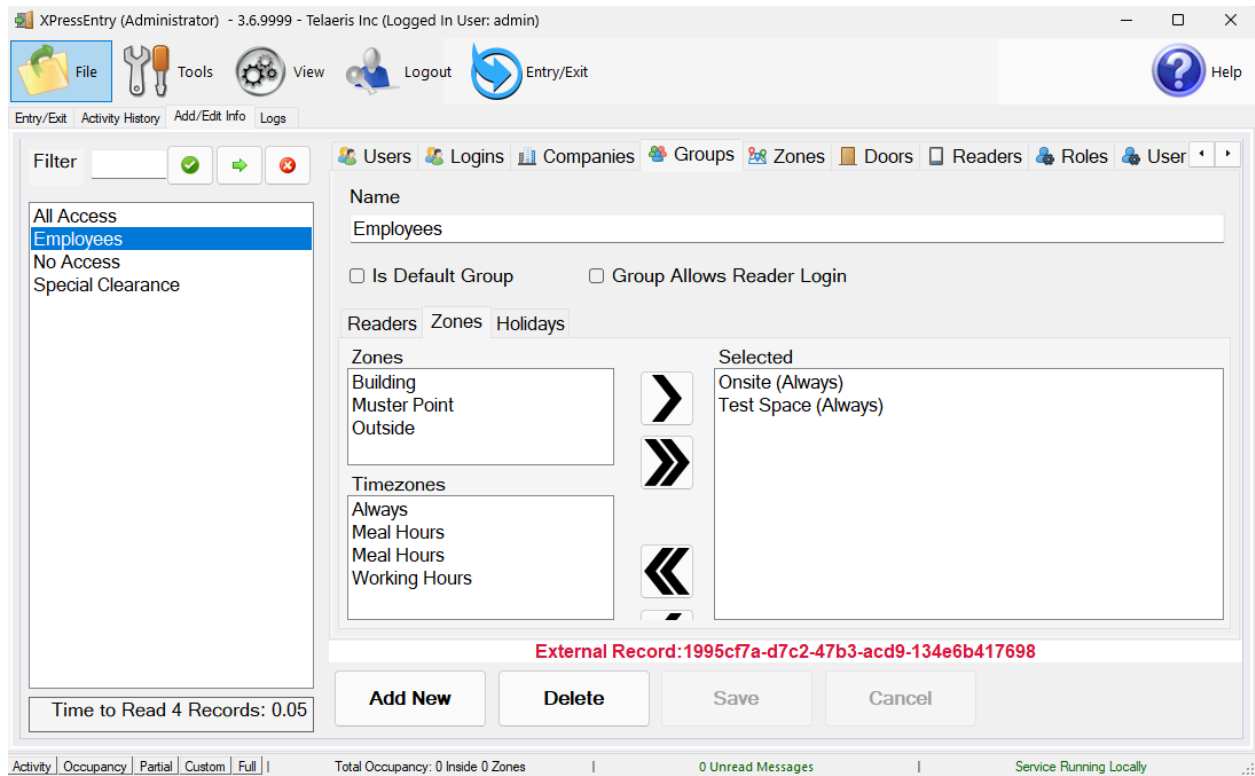
Example of Cardholder Assignments in XPressEntry:



Example of Group Space Assignments:



Example of Group Assignments in XPressEntry:



Spaces / Zones

Zones must be properly configured for accurate occupancy tracking and mustering.

Example Space in Elements:

TYPE	SPACE	CAMERAS	DEVICES	INPUTS	OUTPUTS	GROUPS
Building	Building	—	—	—	—	—
Area	Onsite	—	2	—	—	1
Area	Test Space	—	1	—	—	1

No more spaces

Example Zone in XPressEntry:

The screenshot shows the XPressEntry (Administrator) window. The 'Zones' tab is active, displaying a configuration form for a zone named 'Onsite'. The form includes fields for Name, Description, and Parent Zone. There are several checkboxes for zone properties: 'Zone is Outside', 'Zone is a Muster Point', 'Zone is a Hazard Area' (checked), and 'Zone is Global'. A 'Max Occupancy' field is set to 0. A red 'External Record' ID is displayed at the bottom of the form. The interface also shows a menu bar with 'File', 'Tools', 'View', 'Logout', and 'Entry/Exit', and a toolbar with 'Users', 'Logins', 'Companies', 'Groups', 'Zones', 'Doors', 'Readers', 'Roles', and 'User'. The status bar at the bottom indicates 'Total Occupancy: 0 Inside 0 Zones' and '0 Unread Messages'.

Tracked Hazard Area

- **Zone is a Hazard Area** – Checked
- **Zone is Outside** – Unchecked
- **Zone is a Muster Point** – Unchecked

Internal Muster Point

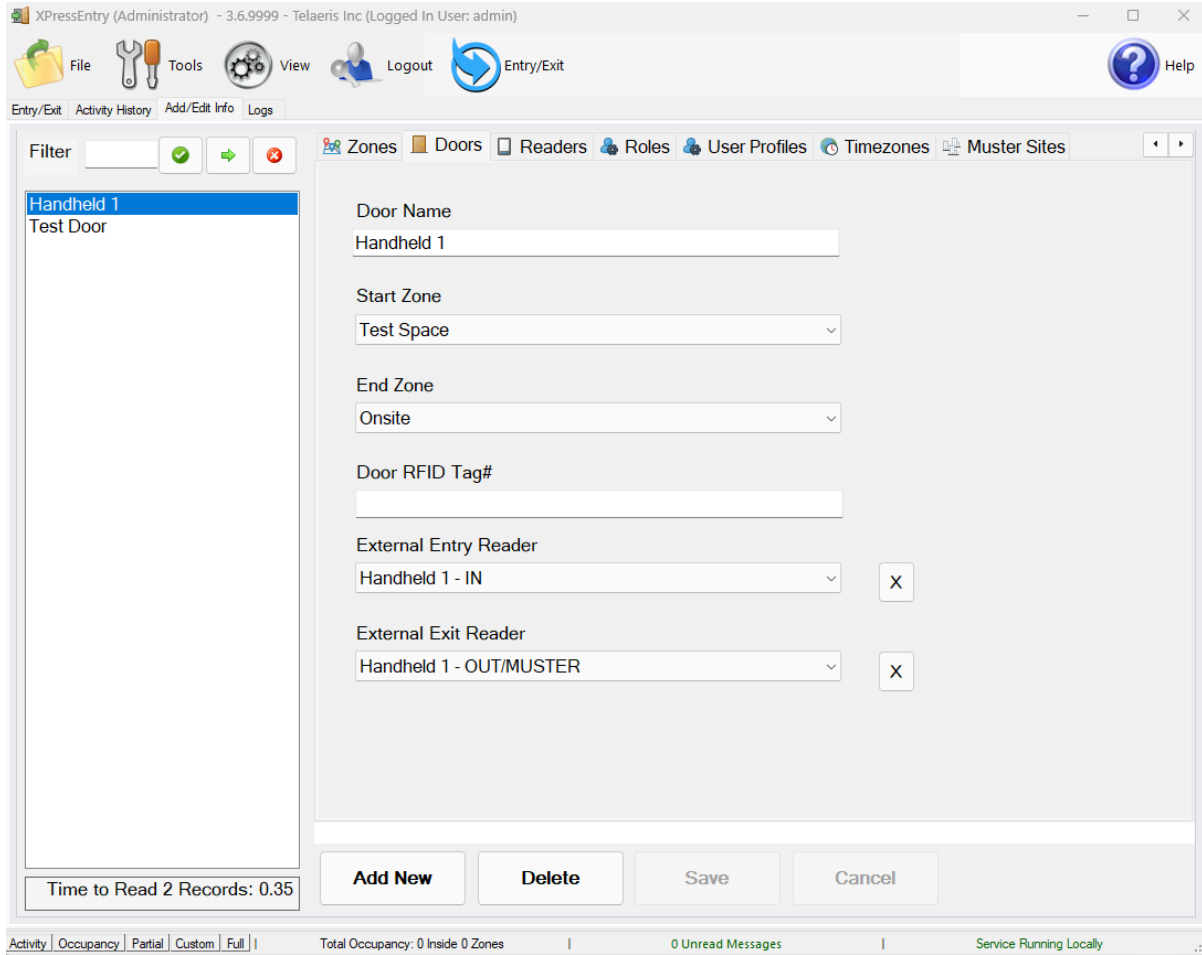
- **Zone is a Hazard Area** – Checked
- **Zone is a Muster Point** – Checked

Offsite Location

- **Zone is Outside** – Checked (prevents occupancy tracking)
- **Zone is a Muster Point** – Optional

Doors

1. Navigate to the **Doors** tab and configure each door to match the handheld readers created in Elements
2. Set the **Start Zone** and **End Zone** for each corresponding space the door separates
 - a. **Start Zone** – Where users begin before scanning
 - b. **End Zone** – Where users are placed after scanning in entry mode
 - c. In exit mode, users are transported from the end zone back to the start zone.
3. For entry/exit, the reader assignment follows the door configuration:
 - a. Entry mode > **Handheld 1 In**
 - b. Exit mode > **Handheld 1 Out Muster**
4. Confirm that the readers populated from Elements are selected

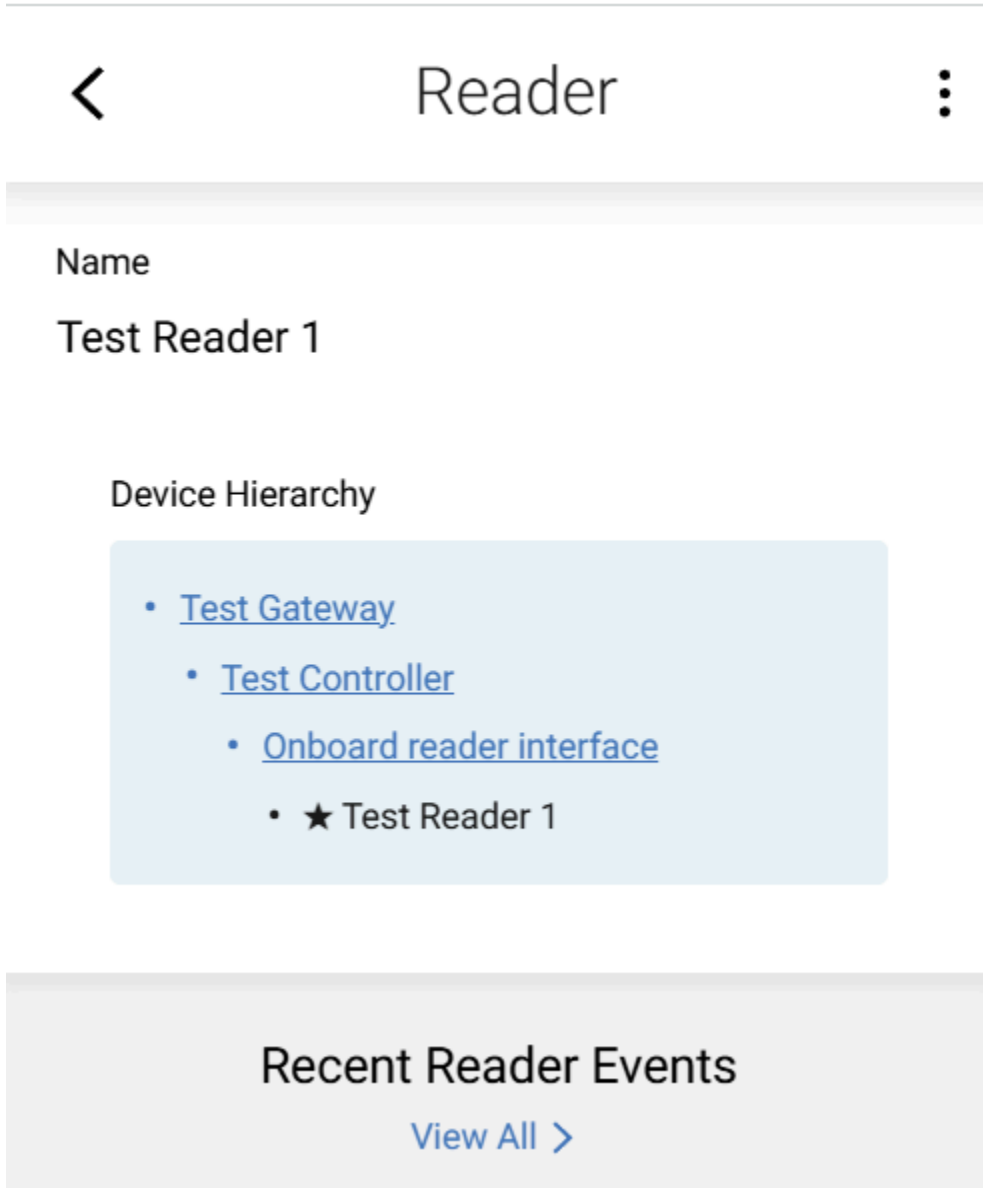


Elements Reader Doors

For occupancy tracking of physical readers in Elements:

1. Create a door for each Elements reader you want to track

a. Example: “*Test Reader 1*”

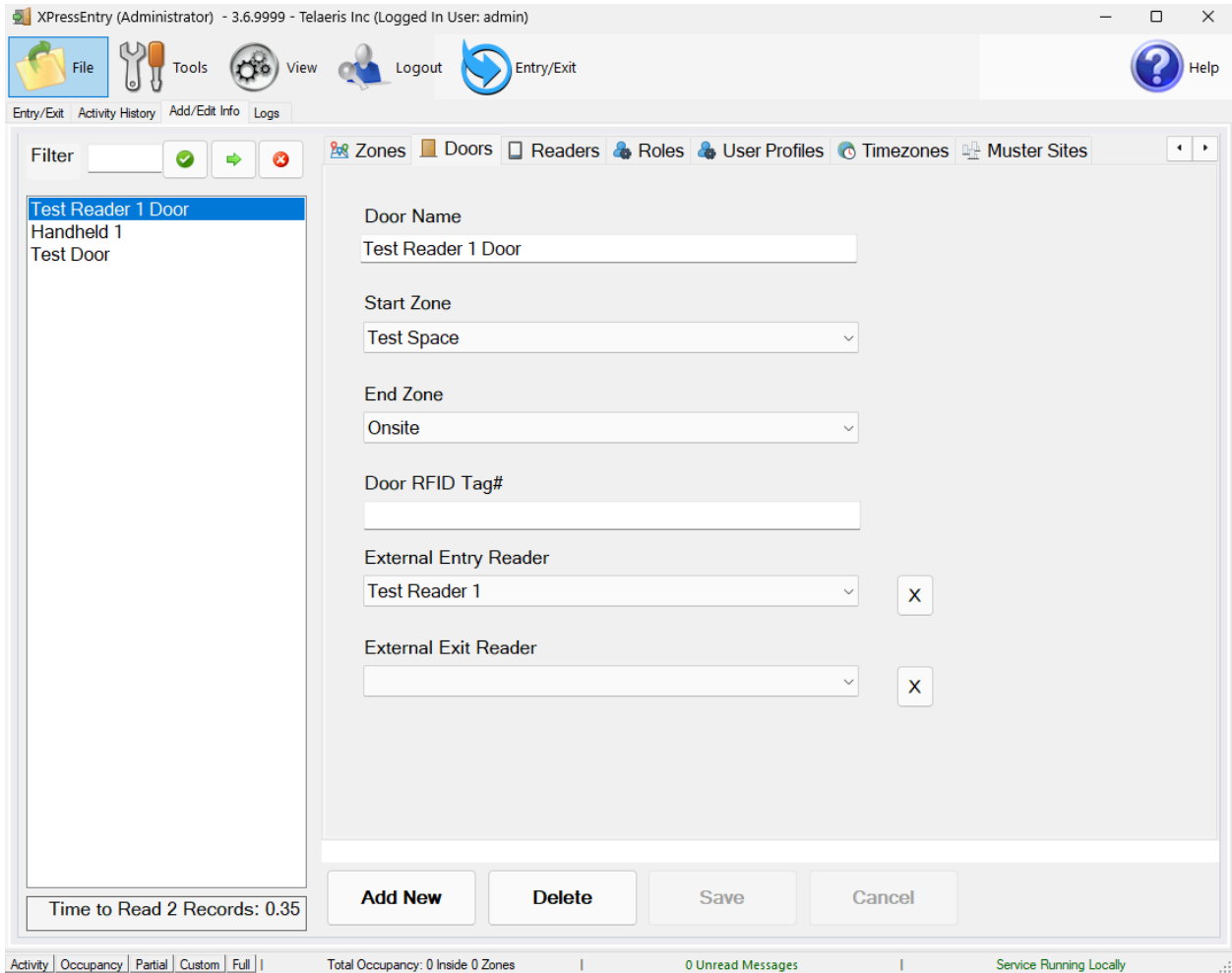


The screenshot shows a mobile application interface for configuring a reader. At the top, there is a navigation bar with a back arrow on the left, the title "Reader" in the center, and a three-dot menu icon on the right. Below the navigation bar is a horizontal separator line. The main content area is divided into several sections:

- Name:** A section with the label "Name" and the value "Test Reader 1".
- Device Hierarchy:** A section with the label "Device Hierarchy" containing a light blue rounded rectangle with a list of items:
 - [Test Gateway](#)
 - [Test Controller](#)
 - [Onboard reader interface](#)
 - ★ Test Reader 1

- Recent Reader Events:** A section with the label "Recent Reader Events" and a "View All >" link below it.

b. Example Door in XPressEntry:



2. Set the **End Zone** appropriately (e.g., “Onsite”)
3. Users scanning on that physical reader will be transported to the configured zone within XPressEntry.

Schedules / Timezones

Verify that schedules have synchronized into XPressEntry correctly as Timezones (e.g., *Meal Hours, Working Hours*)

Example Schedule in Elements:

<
Meal Hours
⋮

Enter details for this schedule.
* indicates required field.

Schedule Name ✓
Meal Hours

Schedule Color

▼

i Note: Some devices do not support more than a single interval.
[Learn More](#)

Days & Times

PREVIEW

Interval 1

Days ✓

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

x Time Interval ✓

- All Day

Start Time ✓	End Time ✓
12:00 PM ⌚	01:00 PM ⌚

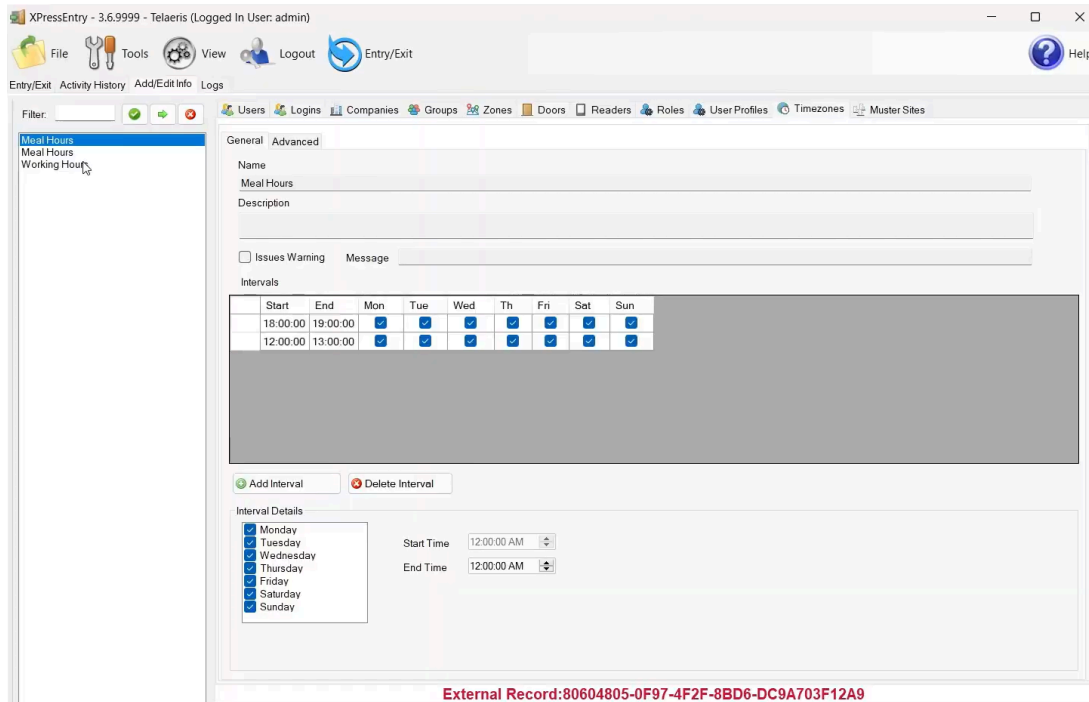
Duration: 1 hour

Interval 2

Days ✓

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

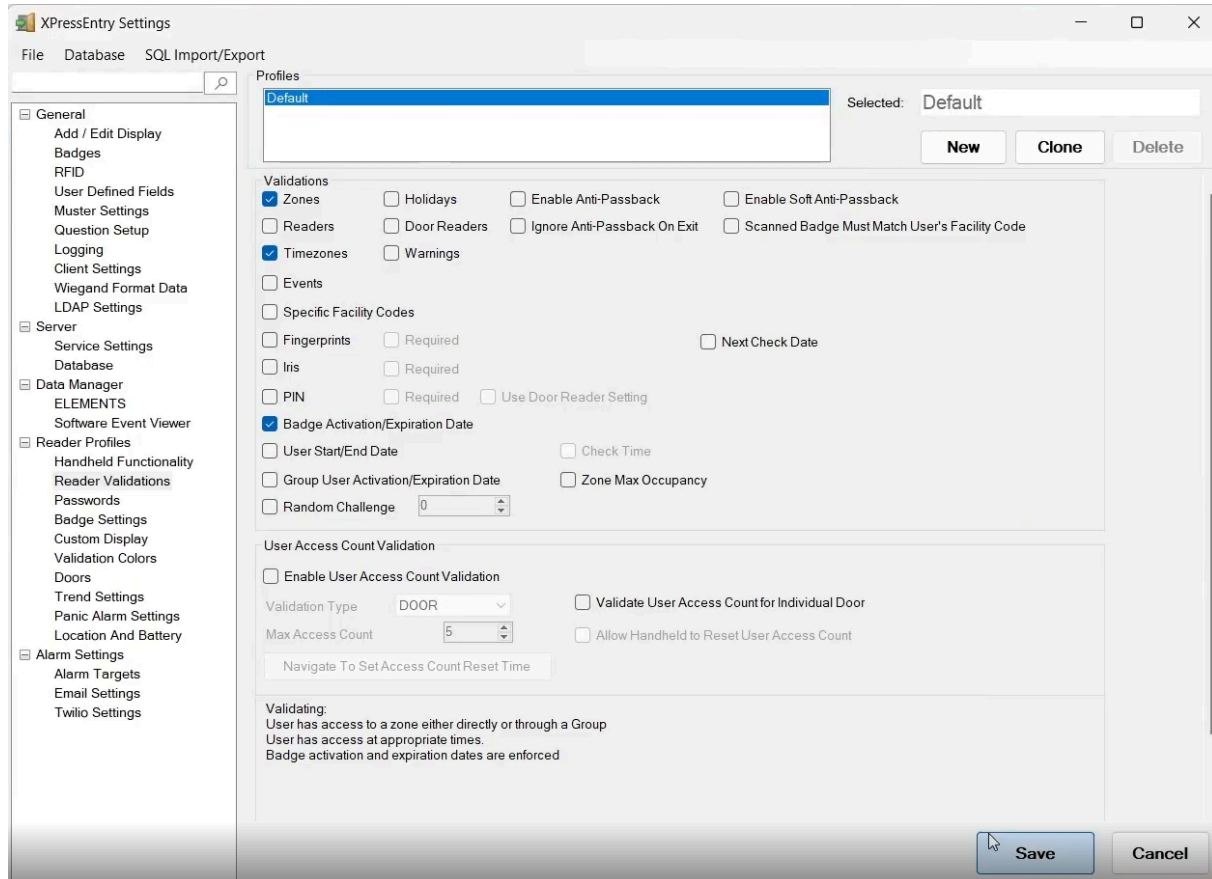
Example Timezone in XPressEntry:



Reader Validations

1. Go to **Tools > Settings > Reader Validations**
2. Enable the following validations:
 - a. **Zones**
 - b. **Timezones**
 - c. **Badge Activation / Expiration Dates**
3. Click **Save**.

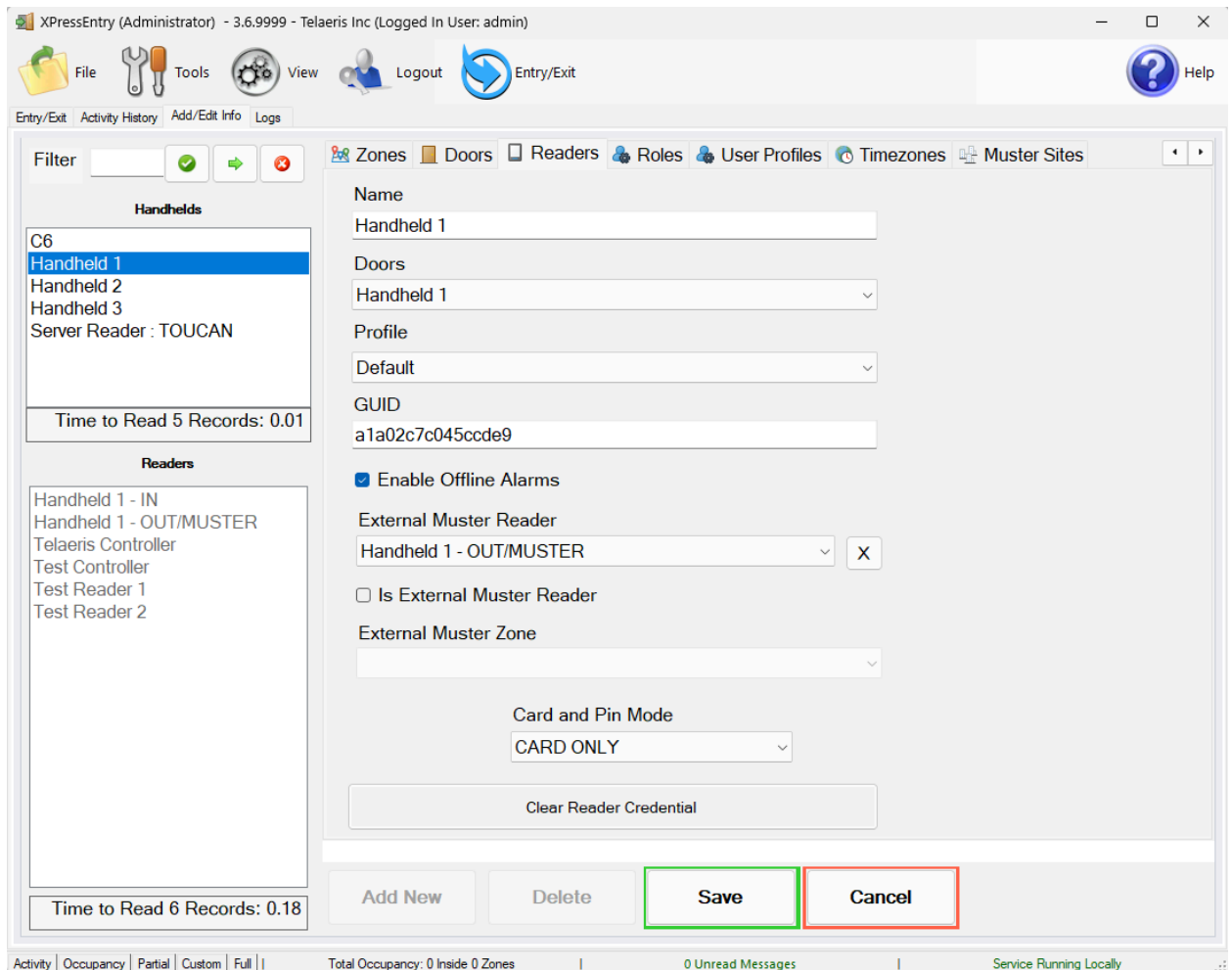
Note: Reader validations are profile specific. Repeat this for each reader profile if you have multiple.



Configuring Muster Mode Reader Settings

1. Go to **Add/Edit Info > Readers**
2. Find the handheld device (e.g., *Handheld 1*)

3. Set the **External Muster Reader** to the corresponding Out/Muster reader created in Elements



Best Practices

Some recommendations to ensure connection and success:

1. **Daily Full Sync** – Schedule a full sync daily (e.g., 2:00 AM) to ensure data consistency
2. **Virtual Readers** – Create 2 virtual readers per handheld device for accurate accountability, *unless strictly using entry mode*, in which case one is sufficient.
3. **Zone Configuration** – Properly configure hazard areas, muster points, and outside locations for accurate occupancy tracking
4. **API Logging** – Enable verbose API logging during initial setup and troubleshooting
5. **Connection Monitoring** – After saving settings, verify that both “**Data manager connected**” and “**Signal R connection established**” messages are logged
6. **Real-Time Updates** – Ensure **Enable Message Queue** and **Watch Tables via Software Events** are enabled for immediate data synchronization

Troubleshooting

Connectivity Issues

- Verify the API service is running on the configured port
- Confirm the API user has appropriate permissions
- Check that the API key is valid and correctly entered
- Enable verbose API logging to capture detailed error messages

Sync Problems

- Run a manual full sync to re-synchronize the XPressEntry system with Elements
- Verify the page size setting (maximum 100)
- Check network connectivity between XPressEntry and Elements servers

Real-Time Update Failures

- Confirm Signal R connection is established
- Ensure **Enable Message Queue** and **Watch Tables via Software Events** are enabled
- Check firewall rules allow bidirectional communication

Summary

This document outlines the process for integrating XPressEntry with the Elements access control system, enabling secure and efficient communication between handheld devices and the centralized platform. It covers the necessary prerequisites, including API access and key generation, as well as step-by-step instructions for configuring devices, readers, and synchronization settings in both systems. The integration supports operational use cases such as entry, exit, and mustering, while ensuring accurate data synchronization and proper mapping of users, zones, and events across the platform.