

XPressEntry

XPressEntry / MaxPro Integration

Revision 03/20/2024

For use with the
XPressEntry Mobile Access Control
System

By



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Purpose

This document is intended to instruct users on how to synchronize an XPressEntry system with a **Honeywell MaxPro** system. XPressEntry has the capability of providing access control management from a handheld device. For XPressEntry setup information, see the document, “XPressEntry Installation and Upgrade” found at <https://telaeris.com/documentation>.

Pre-requisites/Requirements

1. XPressEntry 3.5+
2. MPC Version 6.4.25 or later
3. **Ports 30000, 30001** open for communication between XPressEntry Server and handhelds on machine where XPressEntry will be installed.
4. Windows 8.1+ or server type equivalent

Limitations

1. API does not allow subscribing to real time badge scans. Activities must be manually pulled from MaxPro.
2. API does not allow events for cardholder or card changes in MaxPro.
3. Changes to a cardholder or card in MaxPro can only be pulled into XPressEntry via a full sync.
4. API does not allow badge scans activities from XPressEntry handheld devices to sync to MaxPro.

Order of Operations

1. Setup System MaxPro Data and Settings
2. Enable XPressEntry Synchronization
3. Set up XPressEntry Data


Setting up MaxPro to Synchronize with XPressEntry

To install XPressEntry, you must have Administrator privileges on its respective machine. You must additionally be an Administrator or super user in the MaxPro System.

Enable XPressEntry Synchronization

XPressEntry uses a module called **Data Manager** to synchronize all data

The screenshot displays the 'My Company' interface for user management. On the left, a 'Users' section shows a list of users, with 'Kelly Lim' highlighted as the 'MASTER USER'. On the right, the 'User Details' for 'Lim Kelly' (Admin) are shown, including fields for 'First Name*' (Kelly) and 'Last Name*' (Lim).

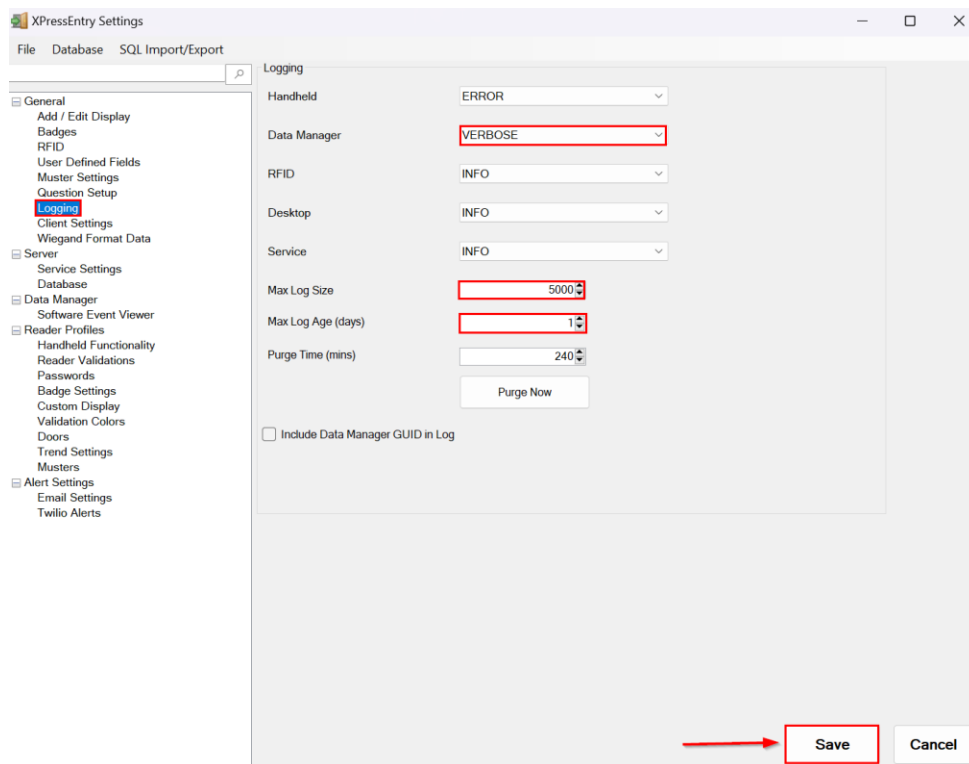
My Company	
Users	Lim Kelly Admin
1 User	
 Kelly Lim MASTER USER	
User Details	
First Name*	
Kelly	
Last Name*	
Lim	

with **MaxPro**. From the main page of XPressEntry, go to XPressEntry > Settings (**ALT+S** or **Tools > Settings**).



General Tab

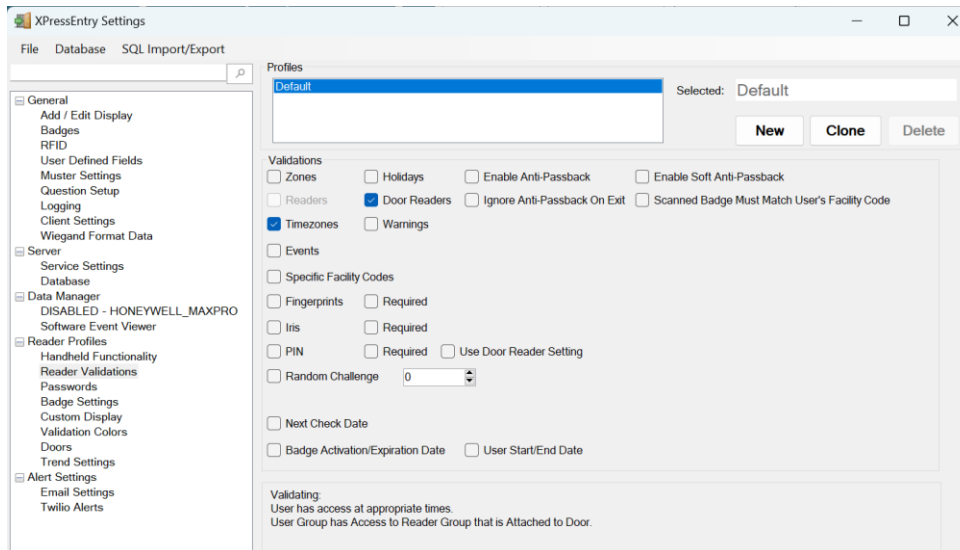
1. From the Settings page, select **General > Logging**.
2. Set the Data Manager Log level to **DEBUG** or **VERBOSE**
 - a. This will allow you to view log entries during the sync process.
3. Max Log Size – **5000** or higher
4. Max Log Age – **1** Day or higher



Once the integration is complete, set the log level to **ERROR** so only error messages will be tracked.

Reader Profile Tab

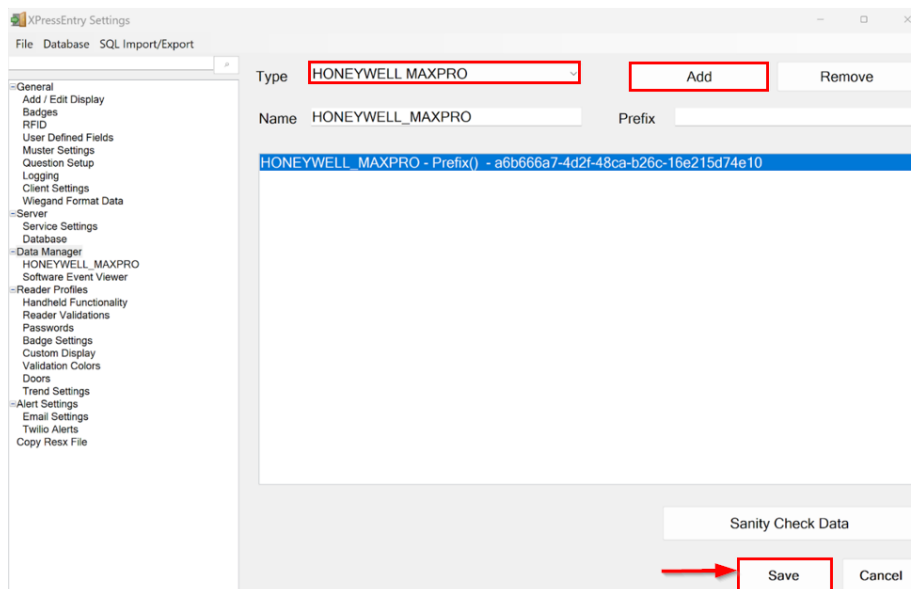
1. Go to **Reader Profiles > Reader Validations**. This is where you configure the handhelds.
2. Ensure that **Door Readers** and **Timezones** are the only mode checked under **Validations**.
3. Select **Save** at the bottom right when finished.



Data Manager Tab

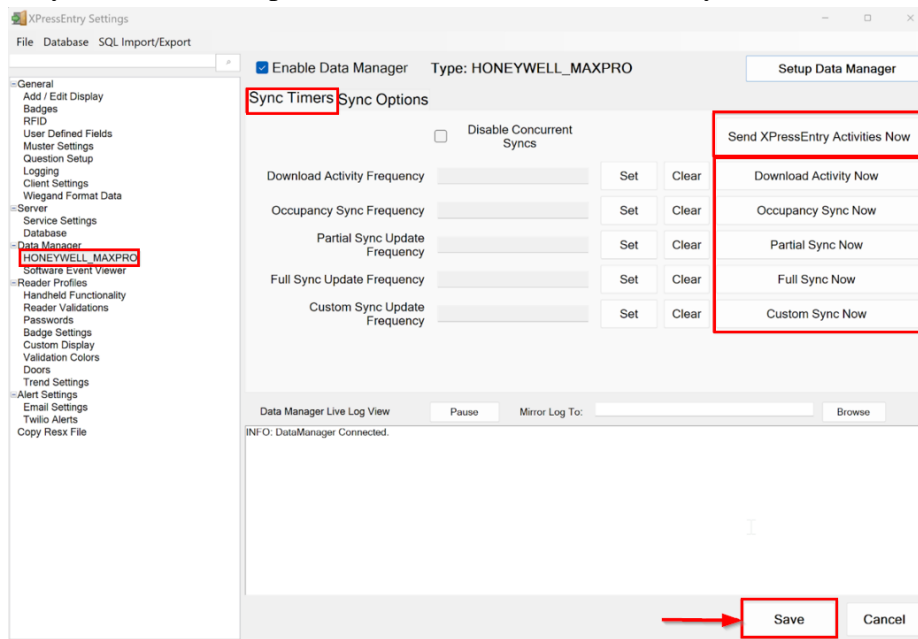
From the Settings page, select the Data Manager Tab.

1. **Type** – This is the integration type. Select **MaxPro** > **Add** > **Save**.
2. Go to **Data Manager > MaxPro** in sidebar menu.
3. **Setup Data Manager** – This sends you to the setup form for MaxPro data manager.

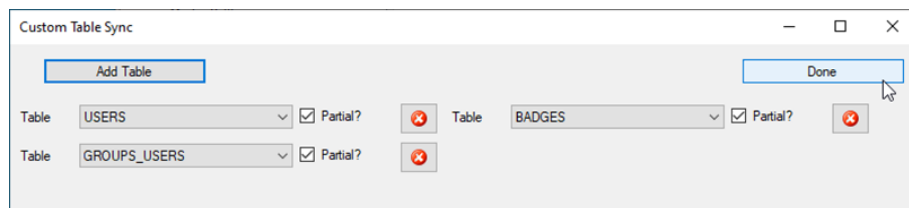


Sync Timers

XPressEntry uses Timers to pull MaxPro data into XPressEntry.



1. **Download Activity Frequency** – Pulls reader scan records into XPressEntry and stores them in XPressEntry’s activity table. This function also updates the zone occupancy.
2. **Occupancy Sync Frequency** – Updates the zone occupancy without storing the activity records. Not applicable currently with MaxPro.
3. **Partial Sync Frequency** – Pulls all data excluding cardholder data, including readers, areas, access levels.
4. **Full Sync Update Frequency** – Updates all tables by pulling all necessary records from MaxPro. This function may take some time.
 - a. It is recommended to run a full sync **once per day** in the middle of the night when the system is not busy.
5. **Custom Sync Frequency** – Updates a set of tables that the user configures.
 - a. To configure, right click **Custom Sync Now** and select **Edit Custom Sync**.



Sync Options

XPressEntry Settings

File Database SQL Import/Export

☒ Enable Data Manager Type: HONEYWELL_MAXPRO Setup Data Manager

Sync Timers Sync Options

☒ Pull Data Manager Occupancy Message Queue Name .\Private\$\DataManagerEvent

Default Outside Zone Event Processing Loop Limit 10

☒ Pull Data Manager Activities into XPressEntry Event Processing Retry Count 3

☐ Push XPressEntry Activities to Data Manager Default Role

Send Activities Retry Count 3 DMPrefix

☐ Watch Tables via Software Events Master Scanned Users never

☐ Enable Message Queue

Clear Data Manager Settings Clear External Data

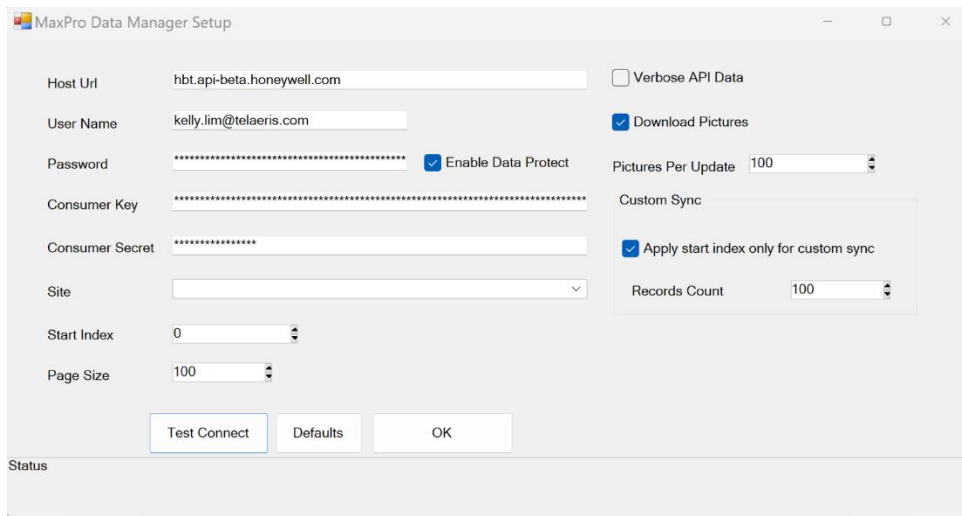
Data Manager Live Log View Pause Mirror Log To: Browse

Save Cancel

1. **Pull Data Manager Occupancy** – Enables use of the Occupancy Sync.
2. **Pull Data Manager Activities into XPressEntry** – Enables use of the Activity Sync.
3. **Push XPressEntry Activities to Data Manager** – Not available for MaxPro.
4. **Send Activities Retry Count** – Not applicable for MaxPro.
5. **Default Role** – The default XPressEntry Role that will be assigned to users if the integration does not otherwise assign a role. Entrants are recommended but not required.
6. **Master Scanned Users** – Enables sync to convert scans from specific readers to be converted into Master Scans which mark users as safe. Master readers must be configured in the reader data. Please see *Mustering Documentation* for more details.
7. **Setup DataManager Button** – Opens MaxPro specific settings.
8. **Clear DataManager Settings** – Resets all settings on the two above tabs, as well as the MaxPro specific settings.
9. **Clear External Data** – Deletes all data synced from MaxPro from the XPressEntry Database.

MaxPro Data Manager Setup Page

Press the **Setup Data Manager** button to get the MaxPro specific setup screen. In the new window, you will see the following:

The image shows a screenshot of the 'MaxPro Data Manager Setup' window. It contains several input fields and checkboxes. On the left, there are fields for 'Host Url' (hbt.api-beta.honeywell.com), 'User Name' (kelly.lim@telaeris.com), 'Password' (masked with asterisks), 'Consumer Key' (masked), 'Consumer Secret' (masked), 'Site' (a dropdown menu), 'Start Index' (0), and 'Page Size' (100). On the right, there are checkboxes for 'Verbose API Data' (unchecked), 'Download Pictures' (checked), and 'Enable Data Protect' (checked). Below these are 'Pictures Per Update' (100) and a 'Custom Sync' section with 'Apply start index only for custom sync' (checked) and 'Records Count' (100). At the bottom, there are three buttons: 'Test Connect', 'Defaults', and 'OK'. A 'Status' bar is at the very bottom.

1. **Host URL** – IP address of the system where MaxPro server is hosted.
2. **User Name** – MaxPro System username
3. **Password** – MaxPro System password
4. **Consumer Key** – API Key provided by MaxPro
5. **Site** – Select a site from which data needs to be synced with XPressEntry. Site names would be populated only after test connect.
6. **Start Index** – Index from which records need to be pulled. It is 0 by default.
7. **Page Size** – Number of records to be pulled in one request.

Click **Test Connect** after entering all the data correctly. This will connect to the MaxPro system using the given user's name and password.

The result will display **Connection Success!** if connected to MaxPro successfully. If there is any error in the connection it will show in the same result window.

Exit out of this form. On the Data Manager tab of the Settings form, select **Save**. It is now time to begin syncing data.

Enable XPressEntry Synchronization

XPressEntry Data

After setting up the data manager, run the initial **Full Sync** to pull data from MaxPro. Once the MaxPro system is set up and synchronizing, you will see this data represented in XPressEntry under the **Add/Edit Info** tab.

Data which is imported from MaxPro **cannot be changed** and is greyed out in XPressEntry without proper permissions.

Sync Check

The purpose of this section is to help the operator understand exactly what data XPressEntry is pulling from MaxPro. For a quick setup, please navigate to the next section – **Set up XPressEntry Data.**

MaxPro	XPressEntry
Devices	Doors
Devices	Readers
Cardholders	Users
Cards	Badges
Timezones	Time Zones
Access Levels	Groups
Access Levels	Reader Groups
Card Access Rights	User Permissions

Zones

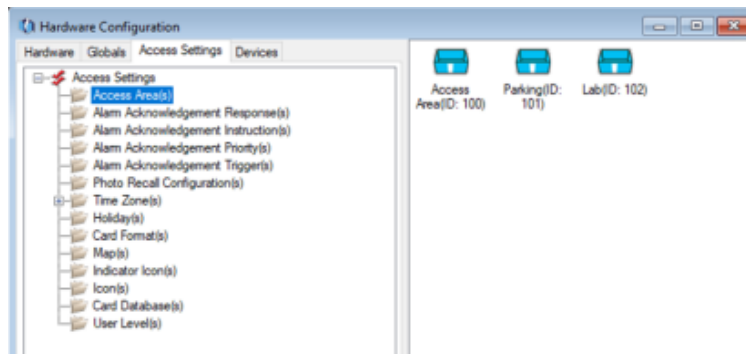
All **Access Areas** in MaxPro should be available to view in the **Zones** tab under **Add/Edit Info.** Here is an example of properly synchronized zones:

XPressEntry Zones

The screenshot displays the 'XPressEntry Zones' configuration window. The interface includes a menu bar at the top with options like File, Tools, View, Logout, and Entry/Exit. Below the menu bar, there's a status bar showing 'External Record: 100'. The main area is divided into two panes. The left pane, titled 'Filter', contains a list of zones: 'Access Area(ID: 100)', 'Building', 'Lab(ID: 102)', 'Outside', and 'Parking(ID: 101)'. The right pane, titled 'Add/Edit Info', shows the configuration for the selected 'Access Area(ID: 100)'. It includes fields for Name, Description, and Parent Zone. There are also checkboxes for 'Zone is Outside', 'Zone is a Master Point', and 'Zone is a Hazard Area'. At the bottom of the right pane, there's a table with columns: Door, Start Zone, End Zone, External Entry Reader, and External Exit Reader. The table contains two rows of data. At the bottom of the window, there are buttons for 'Add New', 'Delete', 'Save', and 'Cancel'. The status bar at the very bottom shows 'Activity | Occupancy | Partial | Full | Total Occupancy: 1 Inside 1 Zone | 0 Unread Messages | Service Running Locally'.

Door	Start Zone	End Zone	External Entry Reader	External Exit Reader
Onboard (V) Bo...	Access Area(ID: ...	Parking(ID: 101)	ntf_Onboard V...	
Onboard (V) Bo...	Parking(ID: 101)	Access Area(ID: ...	ntf_Onboard V...	

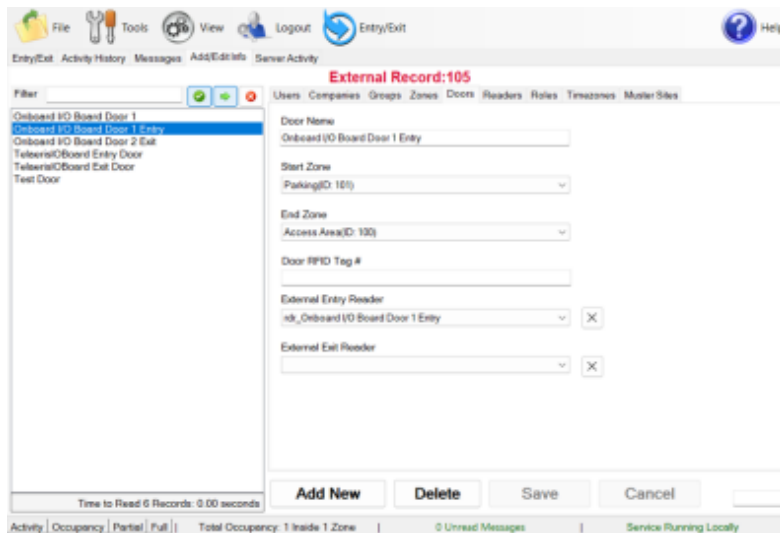
MaxPro Access Areas



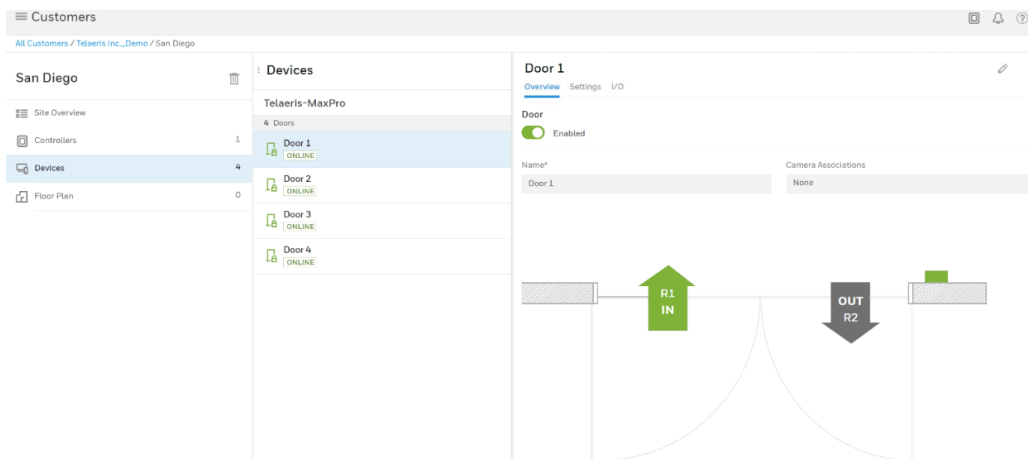
Doors

All doors from all sites are available to view in the **Doors** tab under **Add/Edit Info**. Here is an example of properly synchronized doors:

XPressEntry Doors



MaxPro Doors



Readers

Since MaxPro sends activities through doors, readers are created from each door in XPressEntry automatically.

XPressEntry Readers

The screenshot shows the 'External Record:104' configuration window for a reader. The left sidebar lists 'Handhelds' and 'Readers'. The 'Readers' list includes 'rdr_Onboard I/O Board Door 1' and several other entries. The main area contains fields for 'Name', 'Door', 'Profile', 'GUID', and 'External Master Reader'. The 'XPressFreedom Settings (optional)' section includes 'Freedom Name', 'IP Address', 'TCPIP Port', 'Success Value', and checkboxes for 'Enable Freedom Debug', 'Relay Sense', and 'Enqueue Requests'. The 'RFID Settings (optional)' section includes 'RFID Reader', 'Mode', 'Antenna Port', and 'Same Zone'. The 'IDScan' section has 'Upload ID Scan License' and 'Clear' buttons. At the bottom, there are 'Add New', 'Delete', 'Save', and 'Cancel' buttons. The status bar at the bottom shows 'Total Occupancy: 1 Inside 1 Zone' and '0 Unread Messages'.

Users

Here is an example of a properly synchronized user:

XPressEntry Users

The screenshot shows the 'XPressEntry - 3.5.6564 - Telaeris (Logged In User: Administrator, Company)' window. The left sidebar lists users, including 'Bright, Tilly'. The main area shows the user's details: 'First Name', 'Last Name', 'MI', 'Tilly', 'Company', 'Emp ID', 'Zone', 'Zone Entry', 'Last Reader', 'Role', 'Start Date', and 'End Date'. There is a 'Photo' field with a photo of a woman and buttons for 'Change', 'Crop', and 'Delete'. The 'Badges' section at the bottom shows a table with columns for 'Badge', 'Activated Date', 'Expired Date', 'Invalid', and 'Badge Type'. The table contains one row with '100' in the 'Badge' column and '10/4/2023' in the 'Activated Date' column. At the bottom, there are 'Add New', 'Delete', 'Save', and 'Cancel' buttons. The status bar at the bottom shows 'Total Occupancy: 18 Inside 2 Zones' and '0 Unread Messages'.

XPressEntry will pull the user's image and badge number from MaxPro. You can see the badge number at the bottom of the screen.

MaxPro Users

The screenshot shows the 'Customers' section of the MaxPro interface. On the left, a sidebar lists various customer management tools like 'Customer Overview', 'Sites', 'Site Operators', 'Schedules & Holidays', 'Permission Groups', 'Unassigned Cards', and 'People'. The 'People' section is selected, showing a list of 11 users. The user 'Tim MacDonald' is highlighted. On the right, a detailed profile for Tim MacDonald is displayed, including fields for 'User Details' (Last Name, First Name, Display Name, Email, User Status) and 'Additional Information' (User Type, User ID, Phone, Label One, Label Two, Notes).

User Permissions

Users in XPressEntry have the same permissions to each reader as they do in MaxPro.

XPressEntry User Permissions

The screenshot shows the 'XPressEntry - 3.5.6564 - Telaeris (Logged In User: Administrator, Company)' window. The 'Users' tab is selected, showing a list of users. The user 'Robles, Desann' is highlighted. On the right, a detailed permission configuration for Robles, Desann is displayed, including fields for 'Access Groups' (All Access, Group B), 'Direct Zone Permissions' (Zone Name), and 'Allowed Times' (Timezone Name, Start, EndTime, Mon, Tue). The interface also includes a sidebar with various system settings like 'File', 'Tools', 'View', 'Logout', 'Entry/Exit', 'Muster', 'Users', 'Companies', 'Groups', 'Zones', 'Doors', 'Readers', 'Roles', 'Timezones', and 'Muster Sites'.

Groups

MaxPro Card Access Rights

Customers
All Customers / Telaeris Inc._Demo

Telaeris Inc._Demo

People
11 People

Search

- ☐ David Carta
Regular Employee
1 Credential
- ☒ **Tim MacDonald**
1 Credential
- ☐ Elizabeth Warren
1 Credential
- ☐ Jasmine Lee
1 Credential
- ☐ Gerard Garrod
1 Credential
- ☐ Subha Thonakkod
Owner
1 Credential
- ☐ Sreejith Kalariparambath
Regular Employee
1 Credential
- ☐ Harriett Simpson
Regular Employee
1 Credential
- ☐ Amelia John
Regular Employee
1 Credential

Tim MacDonald
Profile Permissions

123345235
Card
Active

Permissions
Permission Group*

All Area+ 1 More

Search

- ☒ All Area
- ☒ All Door Access
- ☐ No Door Access
- ☐ Randolph

Employee

☐ No. of Uses
1 to 255

Activation Date* 02/28/2024 Expiry Date NEVER

Status
Active

XPressEntry Groups

XPressEntry - 3.5.6564 - Telaeris (Logged In User: Administrator, Company)

File Tools View Logout Entry/Exit Muster

Entry/Exit Muster Events Activity History Messages Add/Edit Info Logs

Filter

- All Access
- Bus Access
- Group A
- Group B
- No Access

Name
All Access

☒ Is Default Group ☐ Group Allows Reader Login

Readers Zones Holidays

Readers

- Handheld 1
- Handheld 2
- Server Reader : PELICAN

Timezones

Selected

- Handheld 1
- Handheld 2
- Server Reader : PELICAN

Add New Delete Save Cancel

Time to Read 5 Records: 0.04 seconds

0 Unread Messages Service Running Locally

Access Groups are mapped to Groups. Readers are included in each group according to the readers assigned for each Access Group.

MaxPro Access Levels

The screenshot displays the 'MaxPro Access Levels' interface. On the left, a sidebar shows a tree view of the system hierarchy: Customers, Sites, Site Operators, Schedules & Holidays, Permission Groups (selected), Unassigned Cards, and People. The main area is titled 'Telaeris Inc._Demo' and contains a 'Permission Group' section with a search bar and a list of groups. The 'All Door Access' group is selected, showing 5 people and 4 door(s). To the right, the 'All Door Access' configuration panel is visible, showing a table of access levels for various locations. The table has columns for 'Location', 'Enable', and 'Always On'. The locations listed are San Diego, Door 1, Door 2, Door 3, and Door 4. All locations are enabled and set to 'Always On'.

Location	Enable	Always On
San Diego	Enable	Always On
Door 1	<input checked="" type="checkbox"/> Enable	Always On
Door 2	<input checked="" type="checkbox"/> Enable	Always On
Door 3	<input checked="" type="checkbox"/> Enable	Always On
Door 4	<input checked="" type="checkbox"/> Enable	Always On

Configuring XPressEntry Using MaxPro Data

Now that XPressEntry has been synchronized with the MaxPro database, it needs to be configured to use this information. The tabs that need to be configured are the Doors, Readers, and Zones.

In the XPressEntry system, editing of any external data is **disabled by default**. To enable the settings, go to **XPressEntry Settings > General Tab > Add/Edit Display** then check the option **Allow Editing of External Data** in the External Data Section.

XPressEntry External Data Settings

The screenshot shows the 'XPressEntry Settings' window. The 'General' tab is selected, and the 'Add / Edit Display' sub-tab is active. The 'External Data' section is highlighted with a red box, and the 'Allow Editing of External Data' checkbox is checked. Other settings in the 'General' tab include 'Show Badge Types Form', 'Show RFID Form', 'Show Timezones Form', 'Show Holidays Form', 'Show Visitor Pre-Registration Form', 'Show Badge Layouts Form', 'Show Muster Sites Form', and 'Show Deleted Records in Add / Edit List'. The 'Readers' section includes 'Allow Reader GUID Switching', 'Show Reader Merging', and 'Show Reader Timezones'. The 'Badges' section includes 'Show External ID in Badge Grid', 'Show PIN in Badge Grid', 'Show Facility Code Column in Badges', 'Show Badge Defined Field 1 in Add/Edit', 'Show Badge Defined Field 2 in Add/Edit', and 'Show Badge Defined Field 3 in Add/Edit'. The 'Users' section includes 'Enable User Watch Lists', 'Enforce Employee Badge # Uniqueness', and 'Enforce Strict Password'. The 'GPS' section includes 'Show GPS Coordinates in Doors' and 'Show GPS Column's in Activity History'. The 'Save' button is highlighted with a red box.

Configuring Doors

Entry/Exit permissions in XPressEntry are set by doors. Doors contain **two** readers – an **exit** and an **entry** reader. Door access is determined by the User's access to the door's reader.

- For **entry**, permission is based on the user's access to the door's **external entry reader**.
- For **exit**, permission is based on the user's access to the door's **external exit reader**.

Doors should be set by the user for each Handheld Reader in XPressEntry.

The XPressEntry Integration with MaxPro can use **AccessAreas** assigned in MaxPro as **zones**.

XPressEntry Doors

1. **Zones** – For each door, set the **start** zone and **end** zone in **MaxPro**. This will “enter” a user in the specified zone when they enter or exit (or scan at a MaxPro door).
2. **External Readers** – The External Entry Reader is automatically set to the **Reader** that is created from the **door**.

There should be a door in XPressEntry for **each** physical station that an employee will have a handheld.

Doors can also be added for each of the physical readers. If XPressEntry is set up to pull activities, it will move people in the system based on the reader they were scanned at and the zones attached to the door.

Configuring Readers

In XPressEntry's MaxPro integration, it is not necessary to associate any reader in the system with a handheld. This association can be done on the handheld when it comes time to scan.

A handheld unit can logically represent any reader in the building. When the handheld is issued to an employee at a specific door, the employee must first set the door on the handheld. The XPressEntry Reader that the handheld represents is based on whether the handheld is in entry mode or exit mode.

For example, let us say that you have handheld A stationed at door A. Door A has two readers associated with it: Reader A-Entry and Reader A-Exit. The employee holding the handheld sets the handheld's door to Reader A. When the employee sees a cardholder walking towards the building, he sets the handheld to Entry mode and scans the cardholder's badge. The handheld in entry mode identifies itself as reader A-Entry and sends an activity to the server.

Later, there is heavy volume exiting Door B. Door B has two readers associated with it: Reader B-Entry and Reader B-Exit. The employee from door A is called to help and brings handheld A. He sets the door on his handheld to Door B and the mode to Exit. When he begins scanning people walking out of the door, the handheld identifies itself as Reader B-Exit and sends each scan as an activity to the server.

Activities

XPressEntry will synchronize activities to MaxPro if that option has been set in the Data Manager.

1. If XPressEntry is configured to “push” activities, they will appear in the **MaxPro Software**.
2. If XPressEntry is configured to “pull” activities, the **occupancy** of the system will **change** each time a person scans at a reader that is mapped to a door in **XPressEntry**.

You may want to pull activities if:

1. You want to use XPressEntry to manage Emergency Evacuations.
 - a. XPressEntry uses MaxPro activities to determine who is on and who is off campus.
 - b. In the case of a mustering event, XPressEntry will have an up-to-date list of who is on site on this day.
 - c. Using this list, XPressEntry can be utilized to **muster** or mark people as safe to create a list of people who are still on site.
2. You want to use XPressEntry’s features to determine who is on site, and what areas people are in.

Note: We cannot receive live badge scans or user updates from MaxPro. We must set a **sync timer** for pulling badge scans from MaxPro, so XPressEntry can pull scans every 1 or 2 seconds. For user updates, we need to use **full sync** or single table sync.

For more information about the functionality of XPressEntry, please review the XPressEntry manual.