

# ***XPressEntry***

## **XPressEntry / ACT Pro Integration**

**Revision 05/03/2024**

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 an **ACT Pro** 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. ACT Pro V 3.2.0.64+
3. Windows 8.1+ or server type equivalent

## Limitations

1. API does not allow pushing badge scan events from XPressEntry to ACT Pro as a normal event but rather as a **Manual Login/Manual Logout**.
2. API does not recognize **invalid** or **access denied** scans on XPressEntry readers in the ACT Pro system.
3. API does not allow for live events (such as user, card, or group updates) to sync to XPressEntry.

## Order of Operations

1. Set up ACT Pro Data and Settings
2. Enable XPressEntry Synchronization
3. Set up XPressEntry Data

## Set up ACT Pro Data and Settings

It is assumed that ACT Pro is installed on a server. XPressEntry has been tested on ACT Pro Version 3.2.0.64 and above. Please contact Telaeris to confirm compatibility with integrations into other versions of ACT Pro.

**Note:** The ACT Pro API key must be installed in the ACT Pro software. It comes at an additional cost and is purchased through normal channels.

Serial Key	Registered		
[Redacted]	True		
Key Type:	Master Serial Key - Pro		
Feature(s):	ACTpro Server, Milestone, Multi Tenancy, API, User Import Tool, Alarm Mapping, Kone, Mobile App, SPC Integration		
Status:	Registered		
Reg. Key:	[Redacted]		
Max. Clients:	Unlimited	Total Max. Clients	Unlimited
Max. Doors:	Unlimited	Total Max. Doors	Unlimited
Max. WLocks:	10	Total Max. WLocks	10

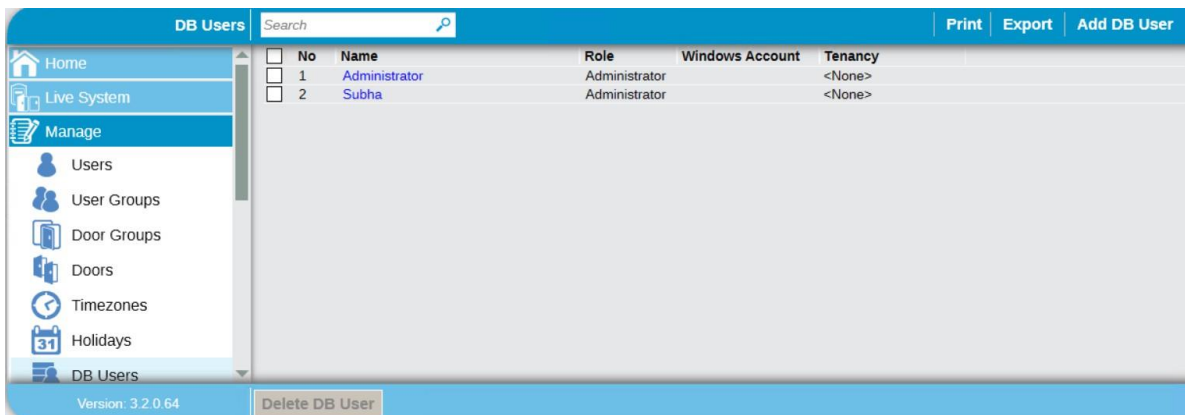
1. Ensure the ACT Pro server and client machines are registered on the **same domain**.
2. Update the **app.config.xml** file of the **XPressEntry** service and the **Vanderbilt data manager file** to reference the server address if the ACT Pro server is installed and running on a **different computer** from the development environment.
  - a. The default reference is 'localhost.'

```

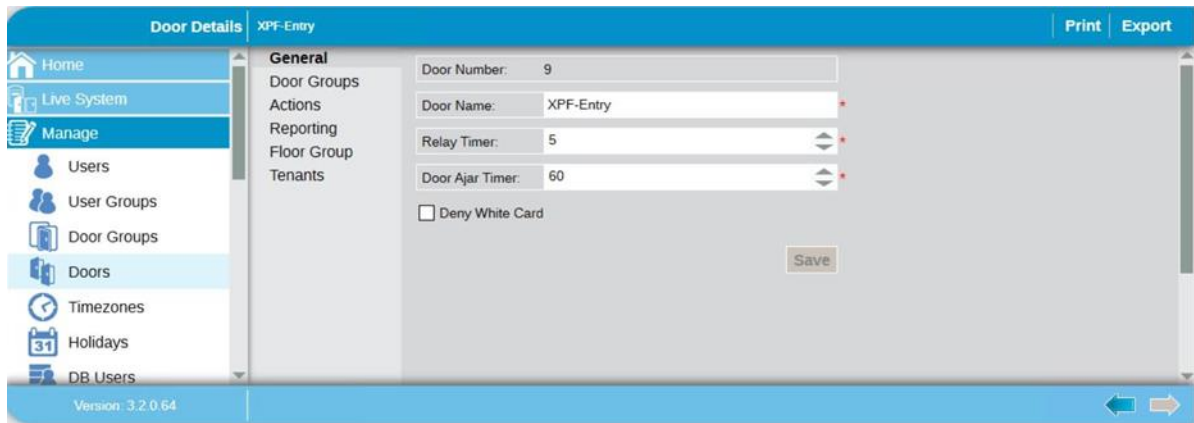
<system.serviceModel>
  <bindings>
    <netTcpBinding>
      <binding name="NetTcpBinding_IActEnterprisePublicAPI_Ext">
        <security>
          <transport sslProtocols="None" />
        </security>
      </binding>
    </netTcpBinding>
  </bindings>
  <client>
    <endpoint address="net.tcp://10.10.7.4:8004/ActEnterprisePublicUintAPI"
      binding="netTcpBinding" bindingConfiguration="NetTcpBinding_IActEnterprisePublicAPI_Ext"
      contract="ACTPublicAPI.IActEnterprisePublicAPI_Ext" name="NetTcpBinding_IActEnterprisePublicAPI_Ext">
      <identity>
        <servicePrincipalName value="host/ACT_PRO.ad.telaeris.com" />
      </identity>
    </endpoint>
  </client>
</system.serviceModel>
</configuration>

```

3. In **Act Pro > Manage > DB Users**, set up an Administrator user in ACT Pro. This login will be used to connect to XPressEntry.



- a. The default username for ACT Pro is **Administrator** with a blank password.
4. Go to **Manage > Doors** and create a logical door for your XPressEntry readers.
  - a. Not applicable for now since we cannot send activities with door info.



## Enable XPressEntry Synchronization

XPressEntry uses a module called **Data Manager** to synchronize all data with ACT Pro. From the main page of XPressEntry, go to XPressEntry > Settings (**ALT+S** or **Tools > Settings**).

The screenshot shows the XPressEntry application interface. The top menu includes File, Tools, View, Logout, Muster, and Help. The main area is divided into several sections:

- Zones / Doors:** A tree view on the left showing a hierarchy of zones and doors.
- All Zones (Occupancy: 17):** A grid of 17 user cards, each with a photo, name, and entry details (e.g., Mcgee, Adan; Mora, Juliana; Frazier, Emma).
- Activity Occurring in Last Day:** A table with columns: User, User Image, Time Stamp, Start Zone, End Zone, Door, Reader, and Entry Granted. It lists activities for users like Mcgee, Adan, Mora, Juliana, Frazier, Emma, and Benjamin, Cody.

At the bottom, there are status indicators: Activity | Occupancy | Partial | Full | Total Occupancy: 17 Inside 2 Zones | 0 Unread Messages | Service Running Locally.

## Data Manager Tab

From the Settings page select the Data Manager Tab.

The screenshot shows the 'XPressEntry Settings' window. The 'Database' section is expanded, and the 'Data Manager' tab is selected. The main area contains a form for adding a new data manager:

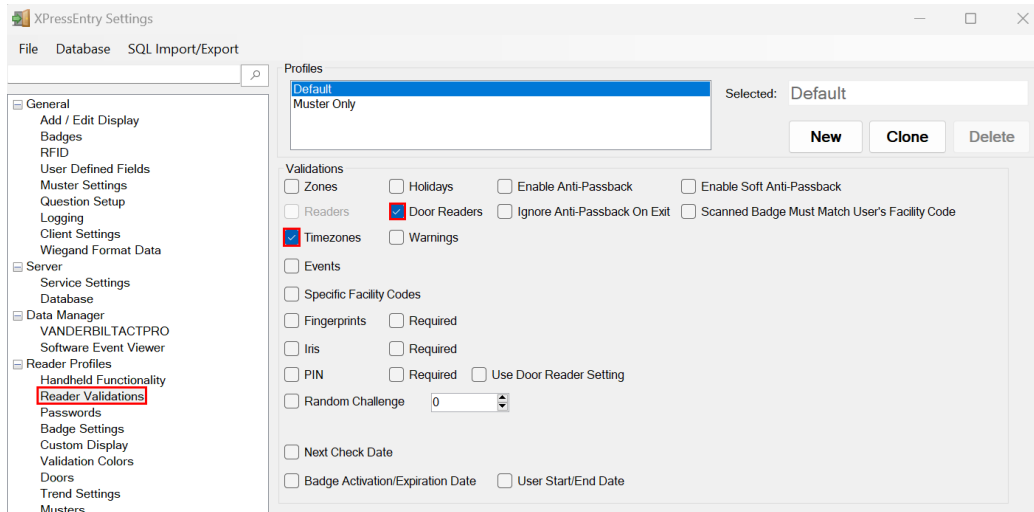
- Type:** A dropdown menu with 'VANDERBILTACTPRO' selected.
- Name:** A text field containing 'VANDERBILTACTPRO'.
- Prefix:** A text field containing 'VANDERBILTACTPRO - Prefix()'.
- Buttons:** 'Add', 'Remove', 'Sanity Check Data', 'Save', and 'Cancel' buttons.

A red arrow points to the 'Save' button.

1. **Type** – This is the integration type. Select **VANDERBILTACTPRO** > **Add** > **Save**.
2. Go to **Data Manager** > **VANDERBILTACTPRO** in sidebar menu.

3. **Setup Data Manager** – This sends you to the setup form for ACT Pro’s data manager.

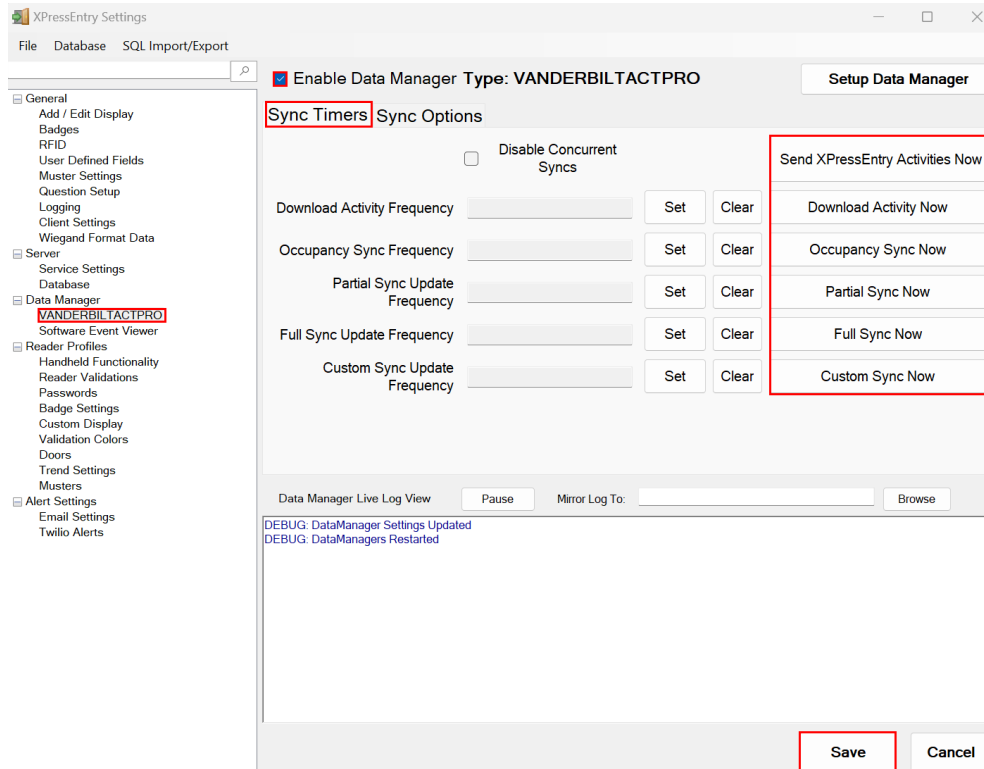
## Reader Profile Tab



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

## Sync Timers

XPressEntry uses Timers to pull ACT Pro 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. *Not available with ACT Pro integration.*
2. **Occupancy Sync Frequency** – Updates the zone occupancy without storing the activity records.
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 ACT Pro. 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

The screenshot shows the 'XPressEntry Settings' application window. The 'Data Manager' section is expanded, and 'VANDERBILTACTPRO' is selected. The 'Sync Options' tab is active, showing various checkboxes and dropdown menus for configuring data manager settings. A red box highlights the 'Setup Data Manager' button, and another red box highlights the 'Save' button at the bottom right.

1. **Pull Data Manager Occupancy** – Enables use of the Occupancy Sync.
2. **Pull Data Manager Activities into XPressEntry** – Enables use of the Activity Sync. *Not available with ACT Pro.*
3. **Push XPressEntry Activities to Data Manager** – Enables XPressEntry to push Scan data to ACT Pro.
4. **Send Activities Retry Count** – Number of times XPressEntry will attempt to resend an



activity if it fails.

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. **Muster Scanned Users** – Enables sync to convert scans from specific readers to be converted into Muster Scans which mark users as safe. Muster readers must be configured in the reader data. Please see *Mustering Documentation* for more details.
7. **Setup DataManager Button** – Opens ACT Pro specific settings.
8. **Clear DataManager Settings** – Resets all settings on the two above tabs, as well as the ACT Pro specific settings.
9. **Clear External Data** – Deletes all data synced from ACT Pro from the XPressEntry Database.

## ACT Pro Data Manager Setup Page

Press the **Setup Data Manager** button to get the ACT Pro specific setup screen. In the new

The screenshot shows the 'Vanderbilt Data Manager Setup' window. It is divided into several sections, each highlighted with a red box in the original image. The 'Domain Credentials' section includes fields for Domain (Telaeris), User Name (subha), and Password (masked). The 'Database Credentials' section includes fields for User Name (Administrator) and Password. The 'ACTPro Server IP' section includes fields for ACTPro Server IP (10.10.7.4), Port (8004), and Server Timezone (Pacific Standard Time). The 'Manual Login/Logout Zones' section includes dropdown menus for Login (Building) and Logout (Outside). The 'Hours for activity download' and 'Page Size' sections include dropdown menus for 24 and 100 respectively. At the bottom, there are buttons for 'Test Connect', 'Defaults', and 'OK', and a 'Status' label.

window, you will see the following:

### Domain Credentials

1. **Domain Name** – Windows Client Credentials domain name.
  - a. Even if ACT Pro Server and XPressEntry are installed on different machines, they should be on **same domain**.
2. **User Name (Domain)** – Windows Client Credentials username for the system where ACT Pro is installed.
3. **Password (Domain)** – Windows Client Credentials password

### Database Credentials

1. **Username** – ACT Pro DBUser username
2. **Password** – ACT Pro DBUser password
3. **ACTProServer IP** – IP address of the ACT Pro server. Use **localhost** if it is in the same system as XPressEntry.
4. **Port** – API Port for ACT Pro Server. **8004** is the default value.

5. **Server TimeZone** – TimeZone of the ACT Pro Server. This is required to process the activity time correctly. The default is PST.
6. **Manual Login Zone** – Zone into which a user is entered when a manual login is performed.
7. **Manual Logout Zone** – Zone into which a user is exited when a manual logout is performed.
8. **Hours for activity download** – Past hours for which we need to download the activities.
9. **Page Size** – Page size to fetch the records. Default is **100**.

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

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

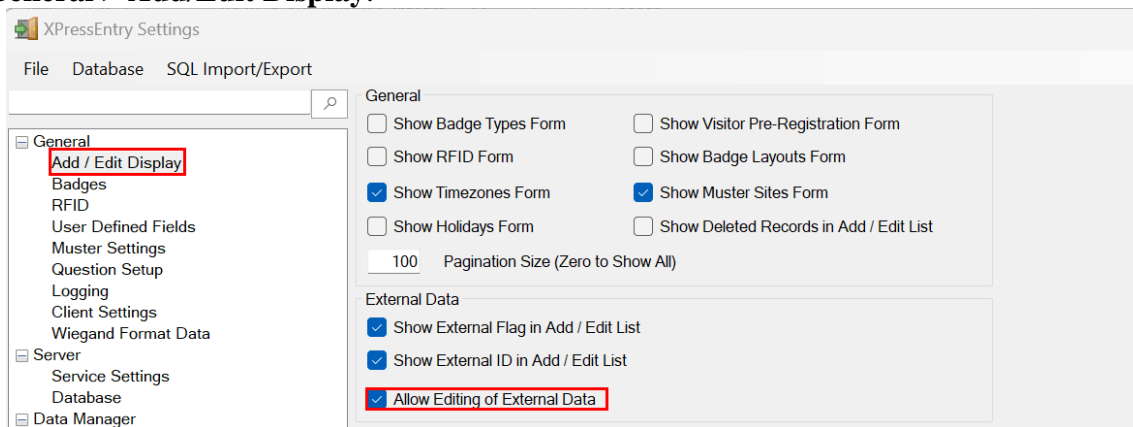
Exit out of this form. On the Data Manager tab of the Settings form, select **Save**. It is now time to begin syncing data.

## Set up XPressEntry Data

### XPressEntry Data

After setting up the data manager, run the initial **Full Sync** to pull data from ACT Pro. Once the ACT Pro 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 ACT Pro **cannot be changed** and is greyed out in XPressEntry without proper permissions. To allow for editing of data, please refer to **XPressEntry Settings > General > Add/Edit Display**.



### Sync Check

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

ACT Pro	XPressEntry
Doors	Doors
Doors	Readers
Users	Users
Cards	Badges
Time Zones	Time Zones
User Groups	Groups
Holidays	Holidays

Below are the Mapping details of each Data pulled from ACT Pro.

## Doors

All Doors should be available to view in the Doors tab under **Add/Edit Info**.

Here is a sample of a properly synchronized doors:

### *XPressEntry Doors*

The screenshot displays the XPressEntry Doors configuration window. At the top, there is a navigation bar with icons for File, Tools, View, Logout, Entry/Exit, Muster, and Help. Below this is a menu bar with options: Entry/Exit, Muster, Events, HealthCheck, Activity History, Messages, Add/Edit Info, and Server Activity. A red banner indicates 'External Record:1'. The main area is divided into two panes. The left pane shows a list of doors with a filter box above it. The right pane is a configuration form for a selected door, with the following fields:

- Door Name: Door 1 - 1
- Start Zone: Outside
- End Zone: Building
- Door RFID Tag #: (empty)
- External Entry Reader: Reader-Door 1 - 1
- External Exit Reader: Reader-Door 1 - 1

### *ACT Pro Door*

No.	Door Name	Controller Name	Controller	Local Addr.	Firmware	Status	Elevator	Enabled
<input type="checkbox"/>	1	Door 1 - 1	Controller 1	1	1			✓
<input type="checkbox"/>	2	Door 1 - 2	Controller 1	1	2			✓
<input type="checkbox"/>	3	Door 2 - 1	Controller 2	2	1			✓
<input type="checkbox"/>	4	Door 2 - 2	Controller 2	2	2			✓
<input type="checkbox"/>	5	Door 3 - 1	Controller 3	3	1			✓
<input type="checkbox"/>	6	Door 3 - 2	Controller 3	3	2			✓
<input type="checkbox"/>	7	Door 4 - 1	Controller 4	4	1			✓
<input type="checkbox"/>	8	Door 4 - 2	Controller 4	4	2			✓
<input type="checkbox"/>	9	XPF-Entry	TelaerisController	5	1			✓

## Readers

Since ACT Pro does not have separate readers, readers are created from each door in XPressEntry automatically.

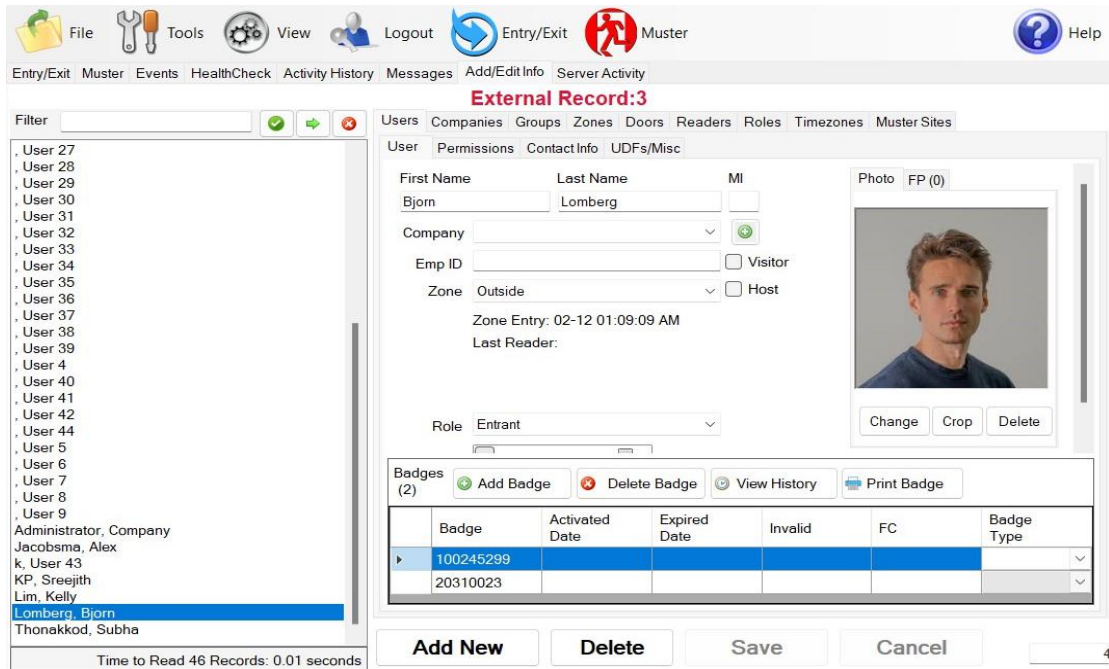
The screenshot shows the XPressEntry configuration interface for a reader. The interface is divided into several sections:

- Top Navigation:** Includes icons for File, Tools, View, Logout, Entry/Exit, Muster, and Help. Below these are menu items: Entry/Exit, Muster, Events, HealthCheck, Activity History, Messages, Add/Edit Info, and Server Activity.
- Filter:** A search bar with a filter icon and a list of actions (green check, green plus, red X).
- Handhelds:** A list containing "Handheld 1" with server reader information: "Server Reader : DESKTOP-MU40SF7". Below the list is a status bar: "Time to Read 3 Records: 0.00 seconds".
- Readers:** A list of readers: "Reader-Door 1 - 1", "Reader-Door 1 - 2", "Reader-Door 2 - 1", "Reader-Door 2 - 2", "Reader-Door 3 - 1", "Reader-Door 3 - 2", "Reader-Door 4 - 1", "Reader-Door 4 - 2", and "Reader-XPF-Entry". Below the list is a status bar: "Time to Read 9 Records: 0.01 seconds".
- Configuration Form:**
  - Name:** Handheld 1
  - Door:** Door 1 - 1
  - Profile:** Default
  - GUID:** ddc7f9cdd90d466
  - External Muster Reader:** Reader-XPF-Entry
  - Buttons: "Clear Reader Credential" and "Show Reader Setup QR"
- Settings Panels:**
  - XPressFreedom Settings (optional):**
    - Freedom Name: Freedom Board
    - IP Address: 10.10.3.255
    - TCPIP Port: 80
    - Success Value: LED, 2
    - Enable Freedom Debug:
    - Relay Sense:
    - Enqueue Requests:
    - Key: DEFAULT
  - RFID Settings (optional):**
    - RFID Reader: (dropdown)
    - Mode: (dropdown), Trend:
    - Antenna Port: 1, Same Zone:
    - Status: **No Associated Reader**
  - IDScan:**
    - Buttons: "Upload ID Scan License" and "Clear"
- Bottom Buttons:** "Add New", "Delete", "Save", "Cancel", and a page number "12".

## Users

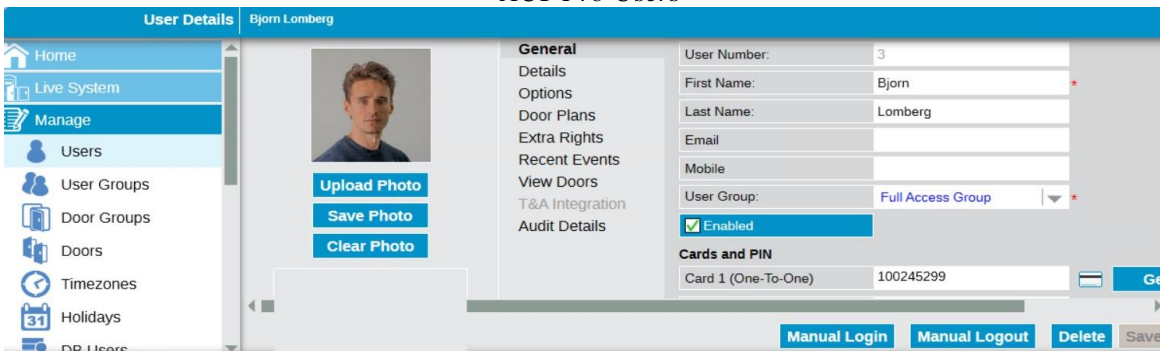
Here is a sample of a properly synchronized user:

## XPressEntry Users



XPressEntry will pull the user's image and badge number from ACT Pro. The badge number can be seen at the bottom of the screen.

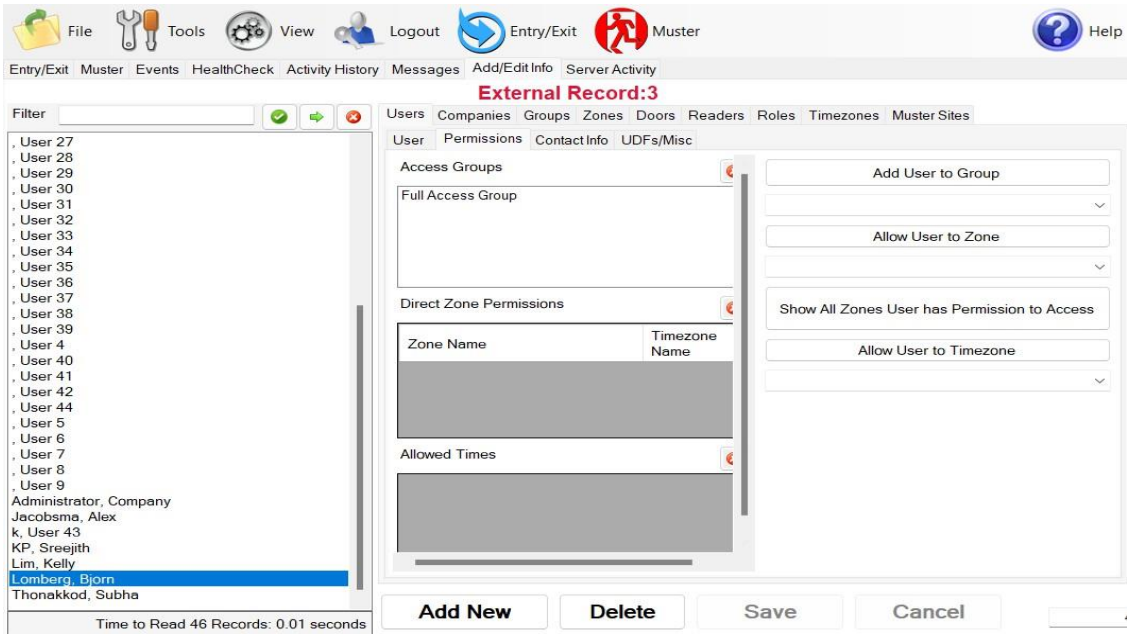
## ACT Pro Users



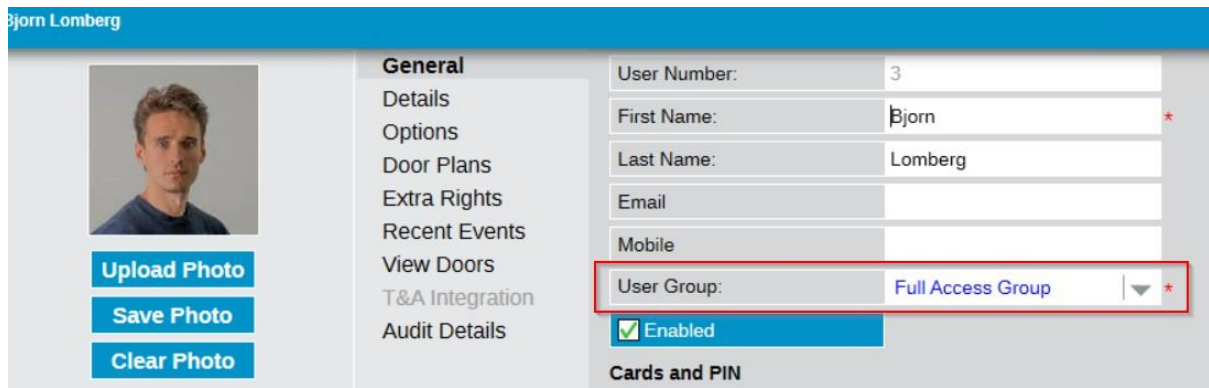
## User Permissions

Here is a sample of properly synchronized user permissions:

### *XPressEntry User Permissions*



ACT Pro User Group



## Groups

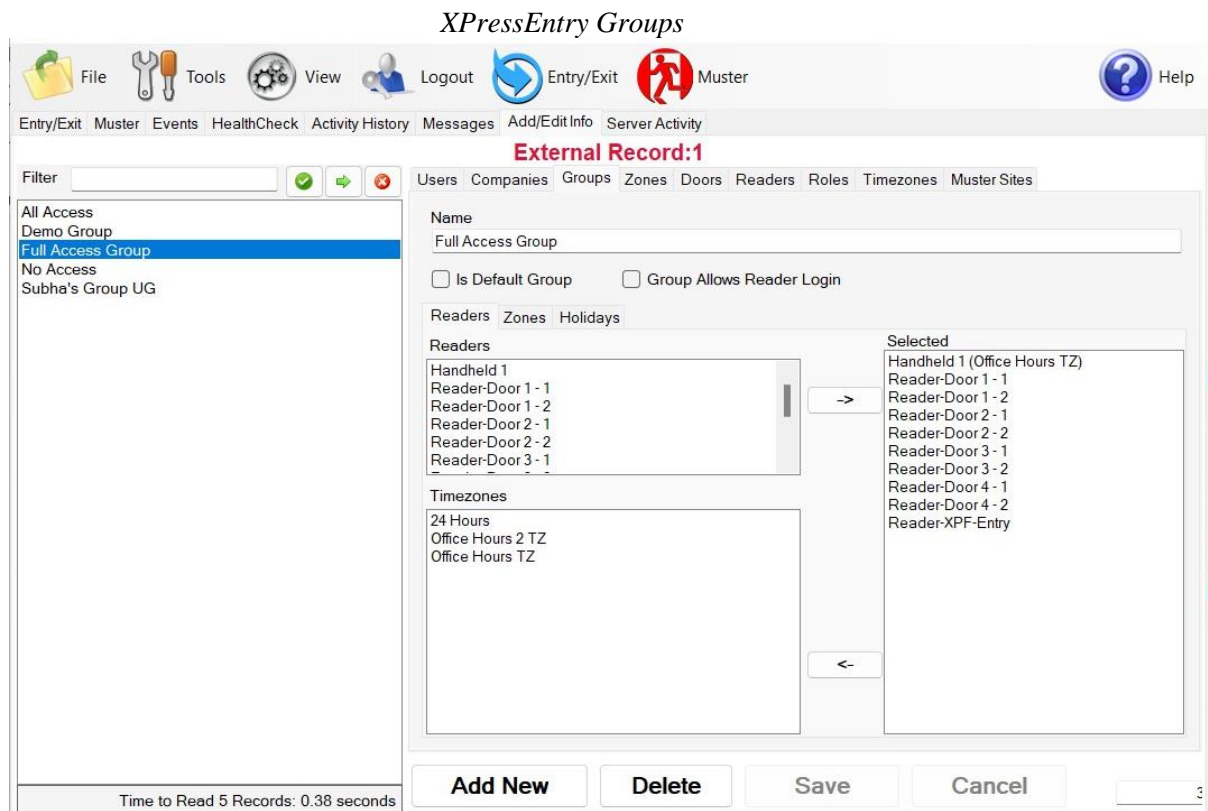
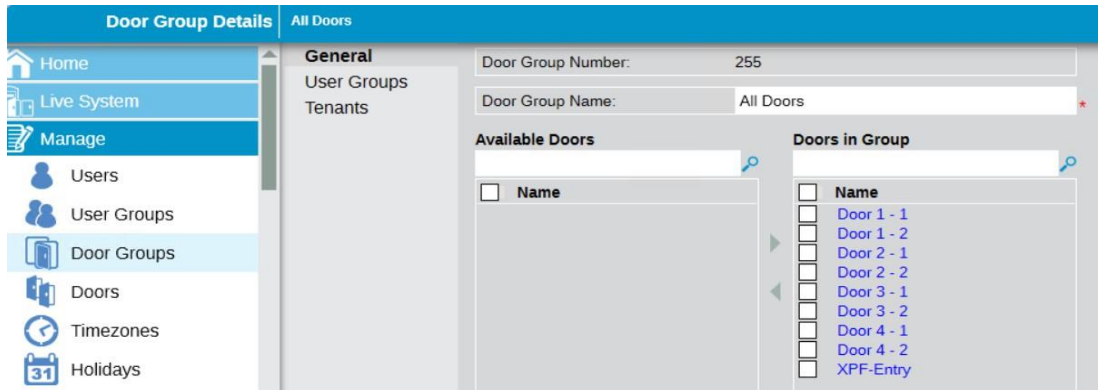
Since XPressEntry has no separate User Groups and Door Groups, User Groups has been mapped to Groups, and readers have been included in each group according to the door group.

ACT Pro User Group

No	Name	Enabled	Number Of Users	Access Rights	Elevator Gr
<input type="checkbox"/>	1 Full Access Group	✓	14	All Doors-24 Hours	
<input type="checkbox"/>	2 Subha's Group UG	✓	30	Subha's Doors DG-Office Hours TZ	
<input type="checkbox"/>	3 Demo Group	✓	1	All Doors-24 Hours	

ACT Pro Door Groups





## Configuring XPressEntry Using ACT Pro Data

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

### 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.

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

The XPressEntry Integration with ACT Pro could use default zones created by XPressEntry or could create more zones manually in XPressEntry, since ACT Pro does not have zones. A reader is created in XPressEntry with respect to each door pulled from ACT Pro as shown in the below image.

### *XPressEntry Doors*

The screenshot displays the XPressEntry software interface. At the top, there is a menu bar with icons for File, Tools, View, Logout, Entry/Exit, and Muster. Below this is a secondary menu bar with options like Entry/Exit, Muster, Events, HealthCheck, Activity History, Messages, Add/Edit Info, and Server Activity. The main window title is "External Record:1". A sub-menu is open, showing "Users", "Companies", "Groups", "Zones", "Doors", "Readers", "Roles", "Timezones", and "Muster Sites". The "Doors" sub-menu is selected, showing a list of doors on the left and a configuration form on the right. The list includes "Door 1 - 1", "Door 1 - 2", "Door 2 - 1", "Door 2 - 2", "Door 3 - 1", "Door 3 - 2", "Door 4 - 1", "Door 4 - 2", and "XPF-Entry". The configuration form for "Door 1 - 1" includes fields for "Door Name", "Start Zone", "End Zone", "Door RFID Tag #", "External Entry Reader", and "External Exit Reader". The "Start Zone" is set to "Outside" and the "End Zone" is set to "Building". The "External Entry Reader" and "External Exit Reader" are both set to "Reader-Door 1 - 1". At the bottom of the window are buttons for "Add New", "Delete", "Save", and "Cancel". A status bar at the bottom left shows "Time to Read 9 Records: 0.00 seconds" and a page number "16" at the bottom right.

There should be a **door** in XPressEntry for **each** physical station that an employee will have a **handheld**. Select “Outside” for Start Zone and “Building” for End Zone.

Doors can also be added for each of the physical door 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.

## Readers

In XPressEntry’s ACT Pro 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 ACT Pro if that option has been set by Data Manager.

If XPressEntry is configured to "push" activities, they will appear in the Alarm Mode Software.

You can also track the user location in **the Alarm Mode > Commands > Cardholder location > Select user**.

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 ACT Pro 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.

In addition to this, when ACT Pro is configured to "Watch Table via Software Events" in Sync options, the live event changes in ACT Pro will be pulled into XPressEntry immediately. This includes: Live Activity updates, Cardholder, Badges, Access Level and Time Zones updates.

## Watch ACT Pro Live Events

The screenshot displays the XPressEntry Settings application window. The title bar reads "XPressEntry Settings" and the menu bar includes "File", "Database", and "SQL Import/Export". The left sidebar contains a tree view with categories: General, Server, Data Manager, Reader Profiles, and Alert Settings. The "Data Manager" category is selected and expanded, showing sub-items like "Software Event Viewer" and "Reader Profiles".

The main configuration area is titled "Sync Timers Sync Options" and includes the following settings:

- Enable Data Manager (Type: VANDERBILTACTPRO)
- Trigger Data Manager Activities (Message Queue Name: \Private\$\DataManagerEvent)
- Pull Data Manager Occupancy (Event Processing Loop Limit: 10)
- Default Outside Zone: Outside (Event Processing Retry Count: 3)
- Pull Data Manager Activities into XPressEntry (Default Role: Entrant)
- Push XPressEntry Activities to Data Manager (DMPrefix: )
- Send Activities Retry Count: 3
- Watch Tables via Software Events (highlighted with a red box)
- Enable Message Queue

Buttons for "Clear Data Manager Settings" and "Clear External Data" are located below the settings. At the bottom, there is a "Data Manager Live Log View" section with "Pause" and "Mirror Log To:" (with a "Browse" button) options. The "Save" and "Cancel" buttons are at the bottom right.

For more information on XPressEntry functionality, please review the XPressEntry manual.