INTEGRITI SALTO SHIP PLUGIN

INNER RANGE recommends that all Inner Range systems be installed & maintained by FACTORY CERTIFIED TECHNICIANS.

For a list of Accredited Dealers in your area refer to the Inner Range Website.
http://www.innerrange.com

Inner Range Pty Ltd
ABN 26 007 103 933

1 Millennium Court, Knoxfield, Victoria 3180, Australia
PO Box 9292, Scoresby, Victoria 3179, Australia
Telephone: +61 3 9780 4300 Facsimile: +61 3 9753 3499
Email: enquiries@innerrange.com Web: www.innerrange.com

Integriti Salto SHIP Integration Manual

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Overview

The purpose of this document is to provide information on the Integriti Integration to the SALTO ProAccess SPACE Software, via its SHIP Interface, which configures and manages SALTO's XS4 hardware. This guide should answer any questions about what the interface does, as well as assisting with basic configuration of the integration.

What does the Integration do?

Integration to the SALTO XS4 (SHIP Interface) allows the synchronisation of users and access permissions between the Integriti system and SALTO XS4 system. The Integriti server provides the head-end control for the entire system allowing a single point of administration for all events, users and doors, including traditional hardwired doors and SALTO offline/wireless locking devices located on the SALTO XS4 network. Locking devices within the SALTO XS4 System can be integrated with Integriti on a per door basis.

Features	Supported
Synchronize Users from Integriti to SALTO	Y
Synchronize Permission Groups from Integriti to SALTO	Y
Synchronize Card data from Integriti to SALTO (1 per User)	Y
Synchronize Door Lists from Integriti to SALTO	Y
Synchronize Time Periods from Integriti to SALTO	Y
Synchronize Doors from Integriti to SALTO	Y
Receive Live Door events from SALTO	Y
Salto User PIN assignment	Y
Apply Antipassback settings to Salto Doors	Y
Apply disability access time to Salto Users	Y
Control Salto Doors from Integriti Pro	N
Synchronize changes from Salto to Integriti	N

Prerequisites

- Integriti Pro v20 license or higher
- Integriti Pro Version 20.1 or Later
- Integriti Salto plugin version 1.6.0 or Later
- Integriti Pro Salto XS4 License 996941
- Salto ProAccess SPACE v2.6.3 (supports up to v6.3.3)
- When using Sifer Cards:
    - Sifer Enrolment Station for Sifer P, U or C Cards
    - Sifer, HID SE or Mifare Classic Cards currently supported
- When using 3rd Party Cards:
    - A Reader wired to a door controller that can read the CSN from the Card IE; HID ICLASS
    - A Concept Enrolment station 994500BlankAU with Compatible reader IE; HID ICLASS

- Pre-existing Salto Doors will need to be deleted/re-created and configured via Integriti

Note: Any cards other than Sifer will need to be learnt in using the Direct entry method on a Mifare compatible reader.

Warning: *The Black Sifer Fob part numbers 994616,994618 or 994620 should be avoided in jobs that use the RF Salto Escutcheon's due to an issue with read range caused by a combination of the Infrared sensor and the colour of the fobs.*
Inner Range may look at manufacturing different coloured fobs in the future.

Example:

Licensing

This integration is licensed on a per-SALTO Door basis under license 996941 (SALTO XS4 SHIP Integration P/Door). The number permitted by this license will determine the number of Doors that can be synchronised to the connected SALTO XS4 System.

In the case that the maximum number of doors has been reached, any new doors that attempt to synchronise to the SALTO XS4 System will not be synchronised. A message in the Integriti Log detailing the Door that could not be synchronised when this occurs; doors previously synchronised to SALTO before reaching the limit will still receive updates.

What does v1.6 do?

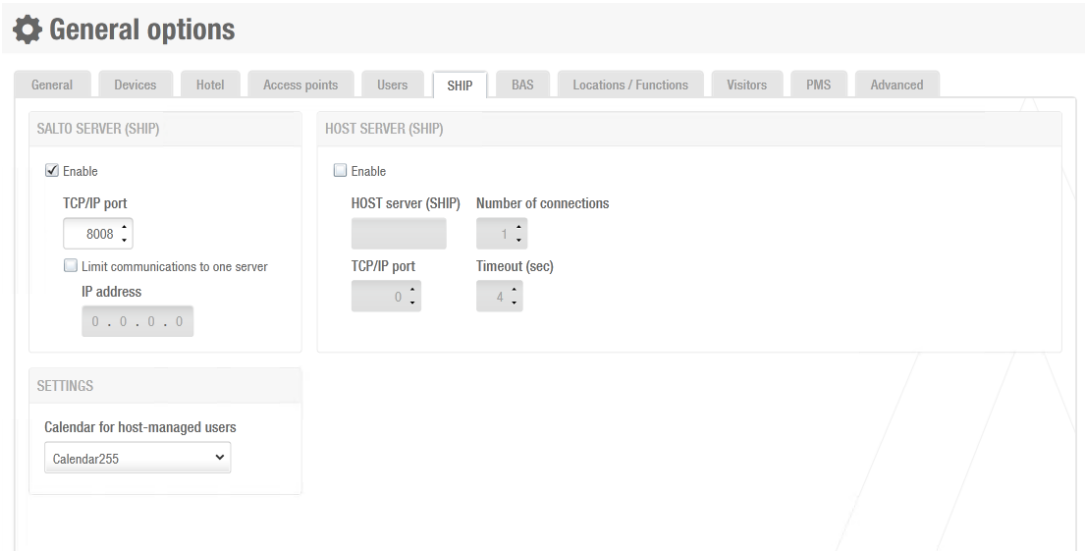
The Salto SHIP Integration v1.6 allows existing systems using the integration to update to Integriti v21.1 or higher without requiring the integration to be migrated to v2.0.

This version of the integration contains the same functionality as v1.5 and only allows the current integration to continue to be used after updating Integriti to v21.1 or higher. To take advantage of the Third Party Door features added in Integriti v21.1, the Salto SHIP Integration should be updated to v2.0.

SALTO Software SHIP Setup

Initial SALTO SHIP Integration setup

1. Navigate to general options
2. Click Ship
3. Enable SHIP and specify a Port IE: 8008 (default integration port)



SAM & Issuing options

(Assumes you have a Salto Encoder plugged in)

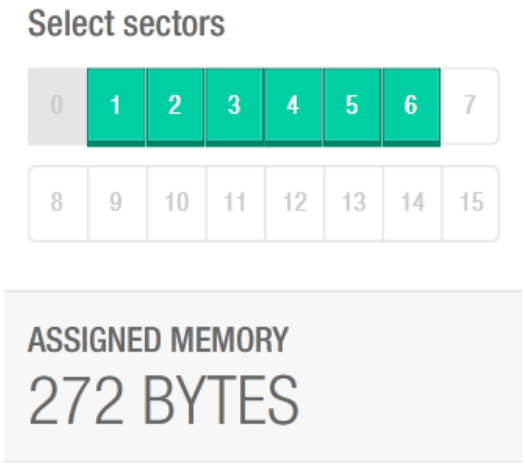
You should have been provided a SAM key card

1. Navigate to System- SAM & Issuing Options
2. Click Read SAM Card
3. Place SAM card on the SALTO Encoder
4. The new SAM data encryption should be now displayed at the top left corner

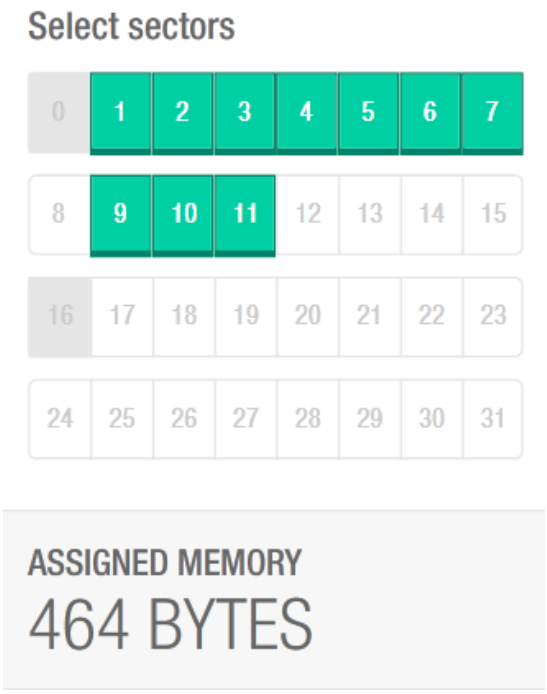
Configuring Sector data for SIFER C,P or U Cards

Configure the following settings for each Active Key:

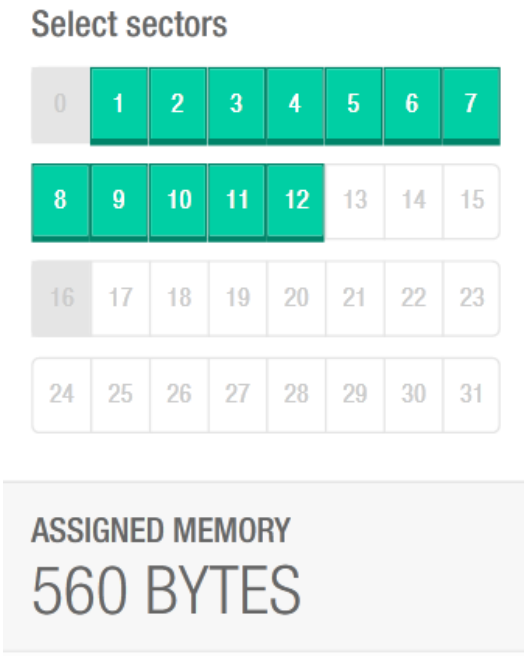
Mifare Classic 1K:



Mifare Classic 4K:



Mifare Plus 2K:



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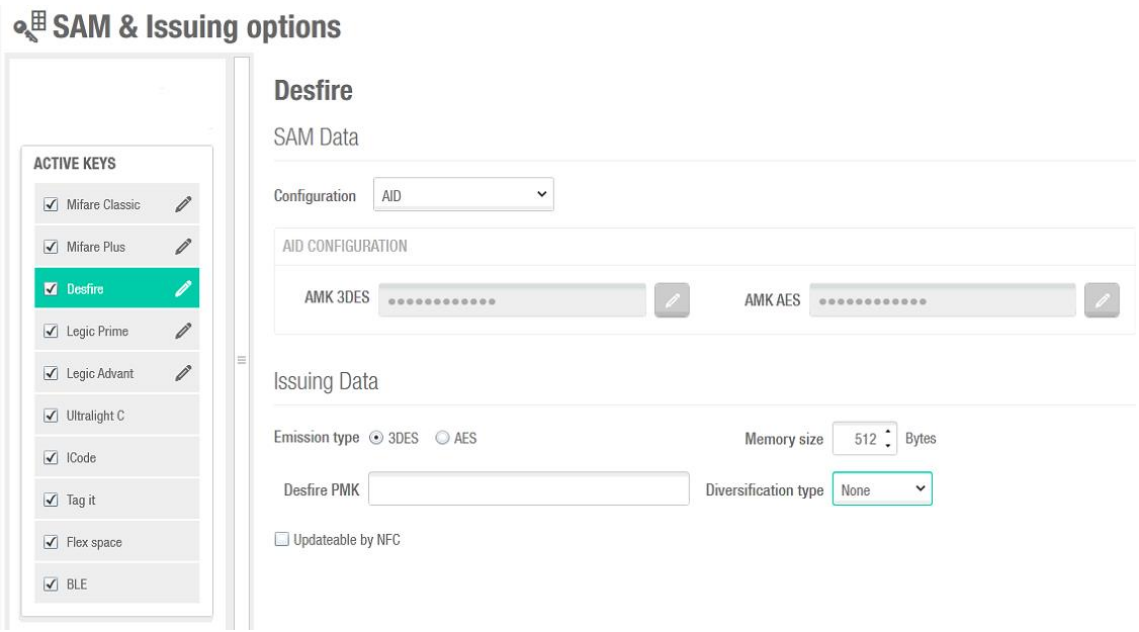
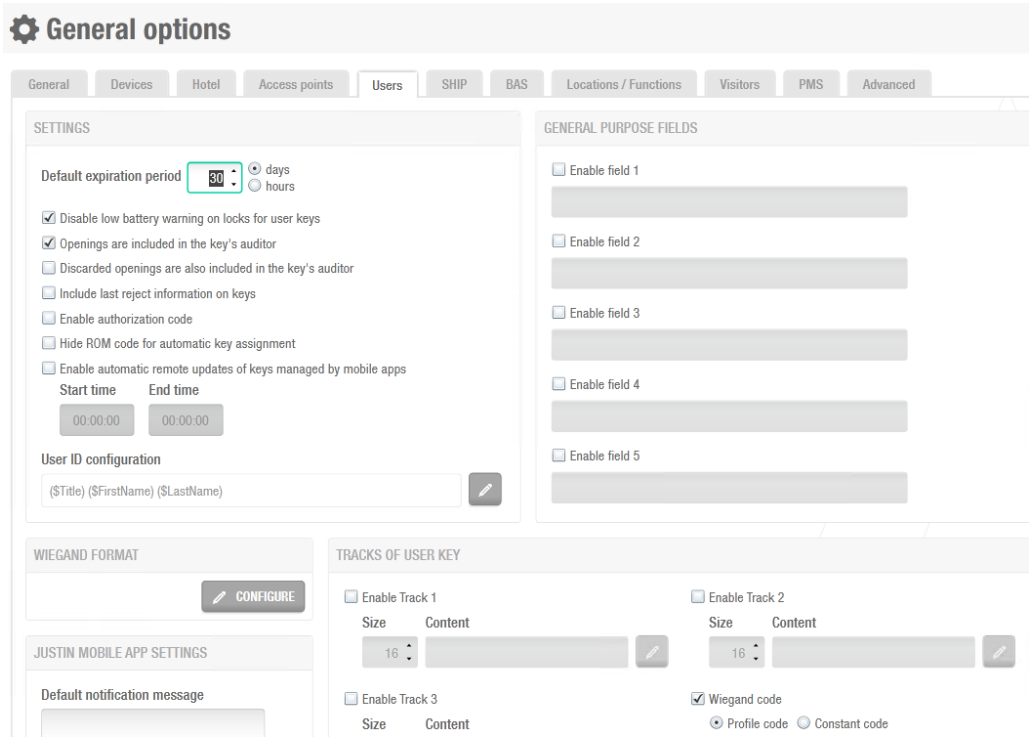
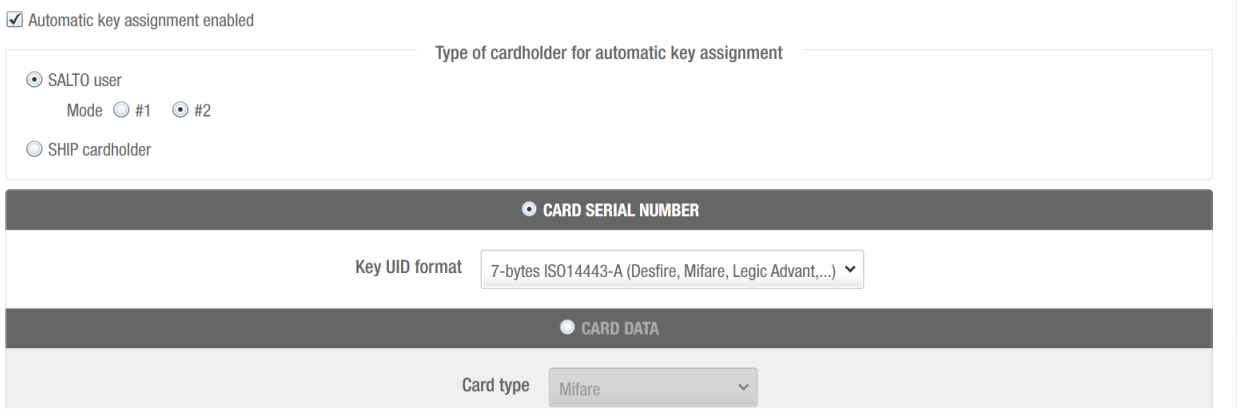


Configuring General Options (for SIFER)

Click the users tab and configure like so:





Once these settings have been saved within SALTO SPACE, the HLI is ready to be configured within Integriti.

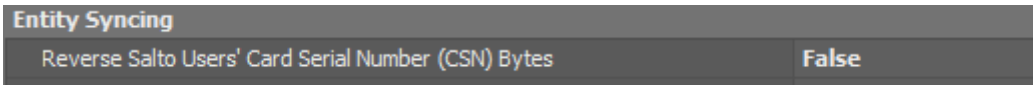
Configuring General Options (for 3rd Party Cards)

1. Change the KEY UID Format to:

2. Click Save

(The following steps should be performed after setting up the HLI)

3. Edit the Integriti SALTO SHIP HLI
4. Make Sure the Reverse Salto Users CSN is set to False



5. Click Save
6. Make sure there is a Direct Entry Card template with the Direct Entry card format present
7. Assign the Direct Entry format to a spare Reader on the LAN or plug in the Enrolment reader
8. Using the User's card acquire select either from Review for Reader on LAN or Wiegand Enrolment station when using the 994500BlankAU option.

Plugin Installation/Updating

NOTE: *When installing multiple Integriti Integration Plugins, the plugin with the highest build number should be installed last. The build number can be found in brackets in the file name of the installer for the plugin.*

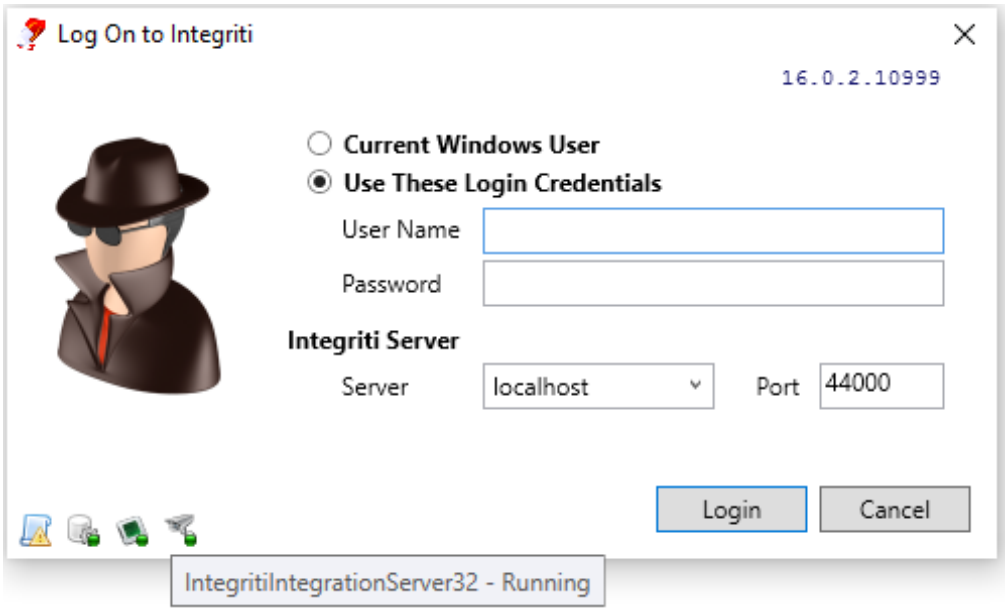
Close all instances of the Integriti software suite and stop the Integriti Integration Server service.

Download and run the plugin installer on the server and client workstations.

Integration_SaltoLegacy_Plugin_*X.X*_(*XXXXX*).exe

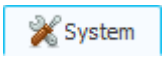
After the installation has completed, you will need to restart the Integration Server service.

On the Integriti server, start the Integriti System Designer as an administrator. Click Integration service icon on the bottom left of the login dialog to stop and start the service.

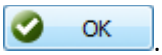


Enrolment

To enrol a Salto Plugin

1. Click on the 

tab followed by 

.
2. Select Salto from the list that appears and click 

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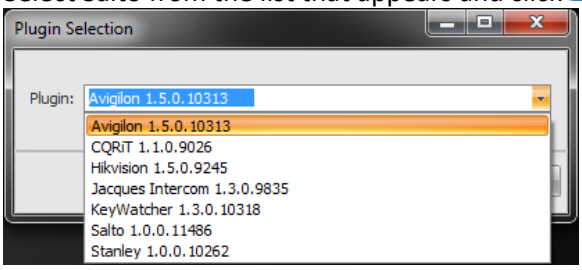
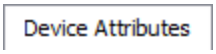
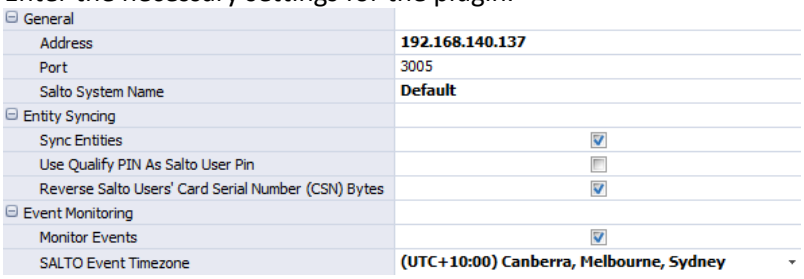


3. In the editor window that appears, give the new Integration a name.
4. Tick the 

above the 

tab.
5. Select the Integriti Integration server that will be used for the integration.
6. Enter the necessary settings for the plugin.



Device Attributes

General

- *Address* - The IP Address of the Server to connect to.
- *Port* - The port the Salto System is configured to listen on.
- *Salto System Name* - A unique name used to identify this plugin from other Salto plugins.

Entity Syncing

- *Reverse Salto Users' Card Serial Number (CSN) Bytes* – If set to 'True' the bytes of a given User's Card's Serial Number will be reversed.
- *Sync Entities* – If set to 'True', Users, Doors, Permission Groups, Door Lists and Time Periods can be synced from Integriti to Salto.
- *Use Qualify PIN as Salto User PIN* – If set to true, an Integriti User's 'Qualify PIN' will be used as their Salto User PIN.

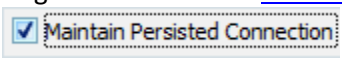
Event Monitoring

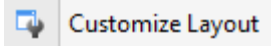
- *Monitor Events* – If set to 'True', events generated by synchronised Doors from the Salto System's Audit will be shown in Integriti Review.
- *SALTO Event Timezone* – The timezone of the SATLO system connected via this Integration. This will be applied to event timestamps from SALTO.

Synchronising Entities

Set Up

In the Integriti System Designer software:

1. Create and configure a SALTO Plugin as described in Enrolment.
2. Ensure that 'Sync Entities' and 

is ticked.
3. Upon saving the SALTO Plugin, the Entity Manager will start up and several Custom Fields will be created by the Plugin. These Custom Fields will be the following:
    a. For Users:
        i. Checkbox fields "Is Salto User", "Salto User PIN Enabled", "Salto User Use Extended Opening Time", "Salto User Use Antipassback", "Salto User Expires" and "Salto User Key Expiry Different from User Expiry".
        ii. A text field "Salto User PIN".
        iii. Integer fields "Salto User Calendar ID" and "Salto User Key Update Period".
        iv. A DateTime field "Salto User Expiry Date".
        v. A Dropdown List field "Salto User Key Update Period Unit".
    b. For Doors:
        i. A Checkbox field "Salto Door Enable Antipassback"
        ii. Dropdown List fields "Salto System Door Synchronised To", "Salto Door Open Mode" and "Salto Door Antipassback Direction".
        iii. A Text field "Salto Door Keypad Code".
        iv. Integer Fields "Salto Door Timed Periods ID" and "Salto Door Automatic Changes Table ID".
    c. For Door Lists:
        i. A Checkbox field "Is Salto Zone".
    d. For Permission Groups:
        i. A Checkbox field "Is Salto Group".
    e. For Time Periods:
        i. Checkbox fields "Is Salto Cardholder Timetable" and "Is Salto Access Point Timed Period".
4. **Note**: Door Lists, Permission Groups and Time Periods do not display all their properties by default. In order to easily access their respective Custom Fields, you can use the "Customize Layout" feature while editing any of the above entities and adding the field to the UI. This can be found by right clicking anywhere on the editor and selecting 

or by clicking  at the top of the editor.
    a. For more information on how to customize layouts, please refer to the "Layout Manager" section of the document "Interface elements for Integriti" found in Integriti's documentation folder.

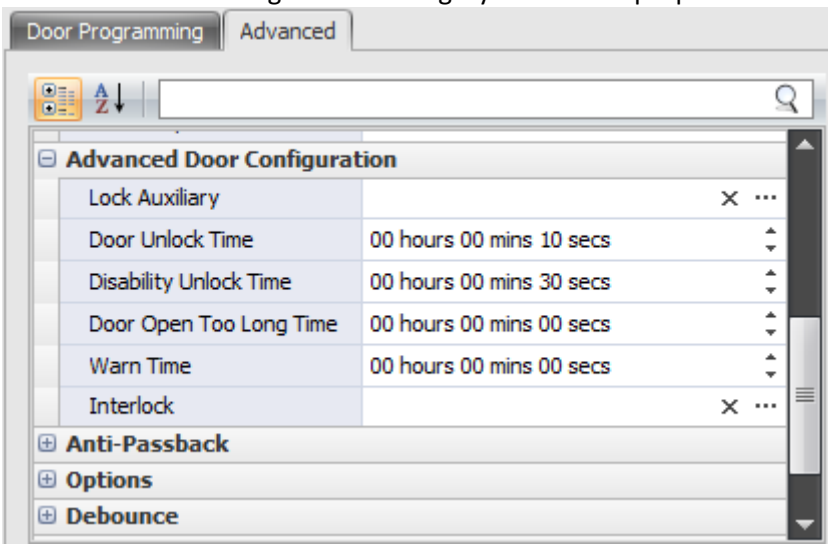
Marking Entities for Synchronisation

Once the setup has been completed, the Salto Plugin will be ready to synchronise entities to the connected SALTO System. This can be observed by viewing the "Status" and "Summary" property of the SALTO Plugin. Changes in the plugin's state can be seen in these fields whilst it is running.

...	Site	Name	Status	Summary
	Type here to se...	Salto	Type he...	Type here to search...
	Default Site	Melbourne Salto Integration	Online	Status: Online Entity Manager: Online Event Manager: Offline

Some Entities will have certain fields/Custom Fields validated before they are synchronised to Salto:

1. Users require:
    a. An empty PIN or a PIN that is at most 8 digits long.
    b. A Calendar ID between 0 and 255.
    c. A valid Date for the User Expiration Date field. This can also be filled by pressing the "Now" button in the field.
    d. A non-zero value for Key Update Period.
    e. Either "Days" or "Hours" selected for Key Update Period Unit.
2. Doors require:
    a. Non-zero "Door Unlock Time" and "Disability Unlock Time" values, found in "Advanced Door Configuartion" category of a Door's properties.



    b. A valid direction for "Antipassback Direction".
    c. A Keypad Code that is either empty or is no longer than 8 digits.
    d. Timed Period and Automatic Changes Table IDs that are either empty or between 0 and 1024.

To synchronise an entity, set its "Is Salto [Entity Name]" Custom Field to 'True' (or checked). In the case of Doors, set its "Salto System Door Synchronised To" to the SALTO System Name given to the desired Plugin. Once set, and the above validation passes where applicable, the entity will be synchronised to the connected Salto System. Review entries will be generated whether it passes or fails.

Permissionable Entities and Entities Containing Other Entities

Users and Groups can be synchronised with Doors and Zones (Door Lists in Integriti) as permissions in SALTO, with Users additionally being able to be assigned Groups as permissions. For a permission to be granted to a User/Group, the following must be satisfied by the permission in the User/Permission Group:

- What the permission gives is a Permission Group, Door or Door List that has already been synchronised to SALTO using the Integration.
- When the permission is given is either Always given, Never given, or is defined by a Time Period synchronised as a Cardholder Timetable to SALTO using the Integration.
    - Users can additionally be given permissions while a passing User Qualification is the permission's When. Groups cannot be assigned permissions using User Qualifications.
- If What this permission gives is a Door or Door List, it must give permission for both Entry and Exit.

Similarly, Zones (Door Lists in Integriti) can be assigned Doors to contain in SALTO. Unlike permissions, the only requirement for a Door to be included in a given Zone when synchronised to SALTO is that it has already been synchronised before the associated Door List.

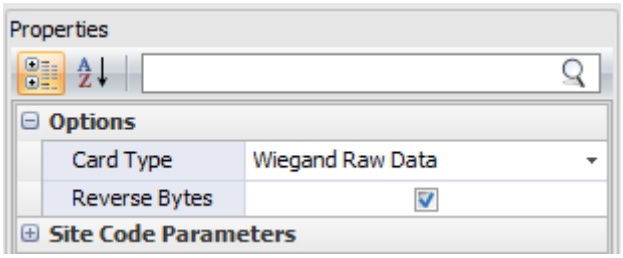
To ensure that a User, Group or Door Lists permissions or given entities are correctly given to them, it's recommended to synchronise these entities before the entity that uses them, including Time Periods used as Cardholder Timetable. When setting up and synchronising entities for the first time, synchronisation should be performed in the following order:
Time Periods, then Doors, then Door Lists, then Permission Groups and then Users.

User Card/Key Synchronisation

Note: *We recommend against using FOBs with Salto XS4 Escutcheon, as they have been known to have reader issues.*

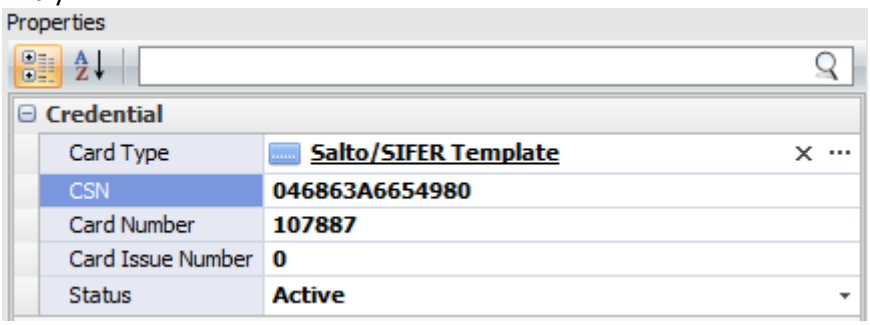
Users can be synchronised with an assigned Card's Serial Number (CSN) to utilise SALTO's Auto Key Assignment to allow SALTO to automatically assign a Card the User owns in Integriti to its associated User. This will work for a Card assigned to a User via Direct Entry or for any Card that has a correct CSN field (which may be assigned values manually or by some enrolment stations eg. SIFER Enrolment) and that is compatible with Salto Readers.

Before utilising this feature, ensure that you have set the "Reverse Salto Users' CSN Bytes" appropriately for the Cards being used. In the case that both Cards using CSN and Direct Entry are used on the same site with different byte orientations in Integriti, a custom Card Format should be created for the Direct Entry Cards used by synchronised Users with the "Reverse Bytes" property set as below.

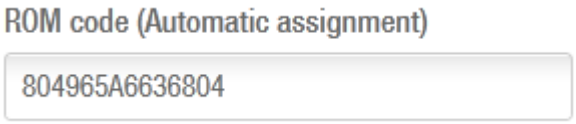


To assign a Card to its SALTO User:

1. Assign the Card to the Integriti User.
    a. Ensure that the CSN for the Card contains a value if not entered via Direct Entry.



2. Save the User, synchronising it to SALTO with the CSN of the Card.
    a. Ensure that the CSN has been placed in the “ROM Code” Field for that User in Salto.



3. Use the card with an Online Update Point. This will assign the card to the associated User if the card does not currently exist within Salto already.

Event Monitoring

Receiving Events

In the Integriti System Designer software:

1. In an existing SALTO Plugin, ensure that the Synchronising Entities feature is enabled as described in Synchronising Entities and that entities have been synchronised, and programmed in the case of Doors, to be used in the Salto XS4 system.
2. Ensure that 'Monitor Events' and 

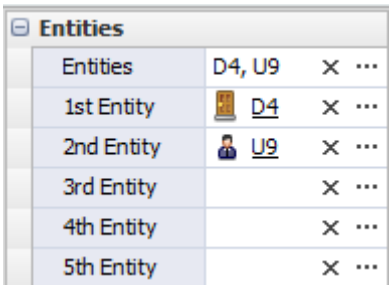
is ticked.
3. If desired, assign an Operator to "Integriti API Operator" to be used as the Source for Review generated from the Event Monitor.
4. Upon saving the SALTO Plugin, Review Messages will be generated for any events involving synchronised Doors, prepended with "[(Salto System Name) Salto Integration]"

Examples of event text received…

```
[Melbourne Salto Integration] Operation: Opened (inside handle), Door: R & D Entrance
[Melbourne Salto Integration] Operation: Updated key (online), Door: Site Entrance, Subject: Ann Citizen
[Melbourne Salto Integration] Operation: Opened (key), Door: Office, Subject: John Citizen
[Melbourne Salto Integration] Operation: DLO Ended (door left open), Door: Office, Subject: Automatic
```

Linked Entities in Review

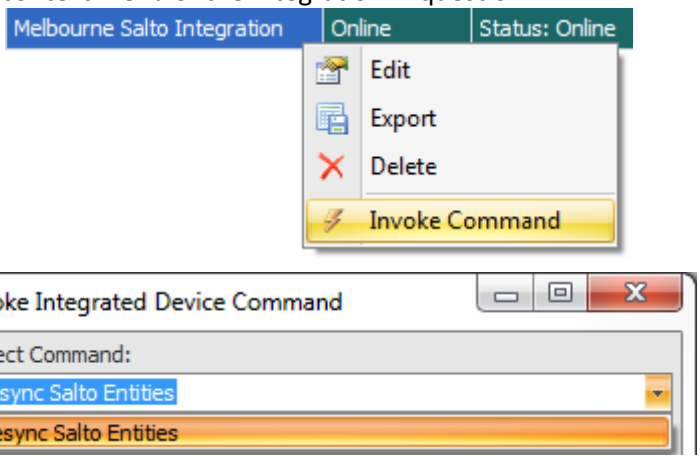
Review generated from Integration will also link Doors and Subjects (Users in Integriti) in the Review Record, which is viewed by double clicking the given Review or right clicking and selecting "Details…" The Review Record will link the Door from which the event was generated from and the Subject (User) involved in the event where available. In the case that the Subject is not a User synchronised from Integriti or that the event provides no Subject, there will be no User linked.



Invoking Commands

Invoking Commands on SALTO Plugin

To perform a command on the SALTO Plugin through the Integriti software select 'Invoke Command' from the context menu of the Integration in question.



From the Invoke Integrated Device Command window that appears, select the required command from the dropdown box:

Resync Salto Entities	The Plugin will attempt to resynchronise all changes to relevant entities in Integriti. This can potentially take a long time given the size of the Integriti database.

Troubleshooting

User's Super User/PIN Status not synchronised correctly	Depending on the version of SALTO SPACE, the Super User/PIN settings of a User may not line up correctly if a User has switched between 'Disabled', 'Enabled' or 'Super User' after an update to SALTO SPACE. Specifically, a User cannot have their PIN 'Disabled' unless they have never had a PIN, and they cannot be a 'Super User' unless they have been given a PIN at some point. This behaviour has been noted in versions as early as v6.3.2 A User can always be set to be a Super User by selecting 'Super User' and giving the User a PIN in the appropriate field. A User can always be set to have their PIN Enabled by selecting 'Enabled' and giving the User a PIN in the appropriate field. To Disable a User's PIN, select 'Disabled' and keep the appropriate PIN field empty. If this sets the User to 'Super User' in SALTO SPACE, this User will need to be deleted before it can be set to 'Disabled'.