INTEGRITI VISIONLINE (VINGCARD) INTEGRATION MANUAL

Document created with reference to Integriti Professional software version v18.1.0.13171

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Integriti Visionline (VingCard) Integration Manual

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This document details the installation and setup processes to configure Visionline (VingCard) integration with Integriti. Please refer to Visionline documentation for help setting up the Visionline software.

Description

The Visionline Integration allows the Visionline software to be used as the head-end software for maintaining VingCard Users and Cards, with Integriti managing the base building users and cards as well as providing base building access control functionality to VingCard users.

The integration synchronises VingCard users and their Card Serial Number (CSN) with Integriti to provide base building access to Integriti doors, lifts, etc. for VingCard users.

Changes made to both Cards and Users in the Visionline software are sent in real time to Integriti, creating, modifying, and deleting VingCard Cards and Users in Integriti with access to selected Doors and Lifts.

As the VingCard users base building access utilises CSN it is important that any base building Readers that will be used by VingCard card holders, are capable of reading CSN data, such as the SIFER multi-format reader (994720MF).

Selected Alarms and Events occurring within the Visionline system can be automatically logged to Review in Integriti, where they can be used for automatic control of the access control and security system, and later forensic analysis.

Technical Functions

The integration supports the following functions:

Retrieval of User and Card Information from Visionline
- Integriti retrieves Visionline Users and Cards:
  - Name, User Group, User Details, Door Operation and Serial Number fields
  - Integriti automatically receives these additions and updates from Visionline on a change being made to a Card in the Visionline system or when the integration starts.

Receipt of Alarms and Events from Visionline
- Integriti receives live alarms and events from Visionline:
  - Visionline alarms and events are logged in Integriti's Review showing the message as well as details of the source of the alarm/event.
  - Filtering options restrict what types of alarms/events are sent to Integriti.
- Integriti receives live event messages of card changes from Visionline:
  - Visionline card change events are logged in Integriti's Review showing card change details.
  - Filtering options restrict what types of card changes are sent to Integriti.

Programming Visionline items through Integriti is not supported. Changes made to Users in Integriti are not written to Visionline.

Integriti Visionline Plugin Compatibility

The Integriti Visionline plugin was built and tested against Visionline v1.27.1. This integration will only work with Visionline v1.18 and newer.

Integriti Professional version 19.0.0 or later and the "VingCard" license (part number 996937) are required.

Installation/Updating The Plugin

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 "Integration_Visionline" plugin installer on the Integriti Integration Server.

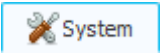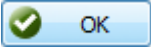Integration_Visionline_Plugin_*X.X*_(*XXXXX*).exe
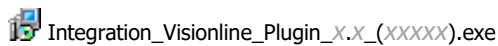
After the installation has completed, you will need to restart the Integration server service. On the Integriti server, start the Integriti System Designer as an administrator. Click the Integration service icon on the bottom left of the login dialog to stop and start the service. Alternatively, the Integration service can be controlled through the Windows Services management window.
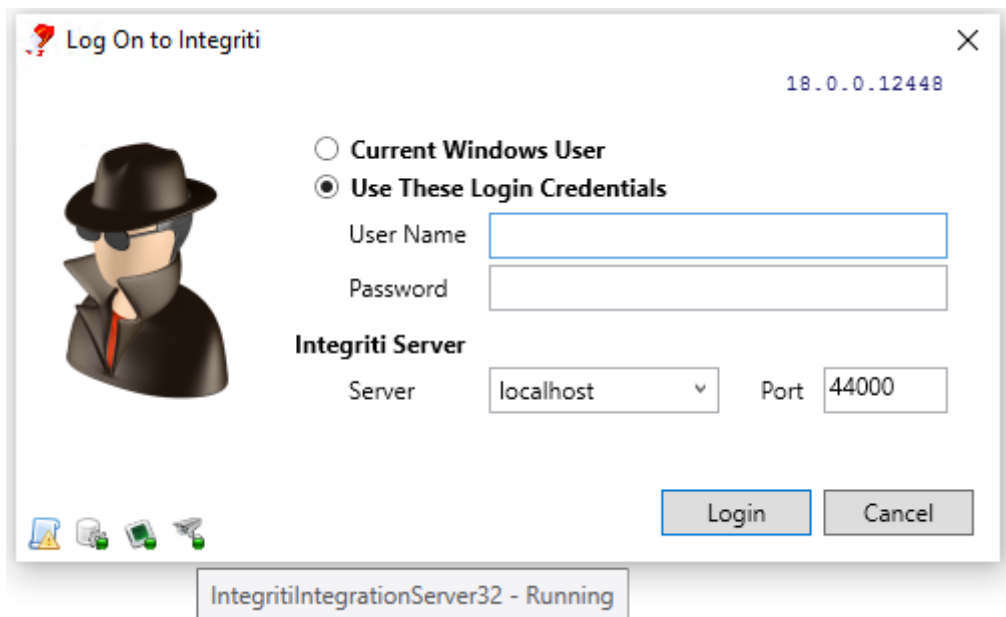
Enrolment

To configure the Visionline Integration settings in Integriti, log into System Designer and follow these steps:

1. Click on the [System] tab followed by [New Integrated Device]
2. Select "Visionline Import" from the list that appears and click [OK].
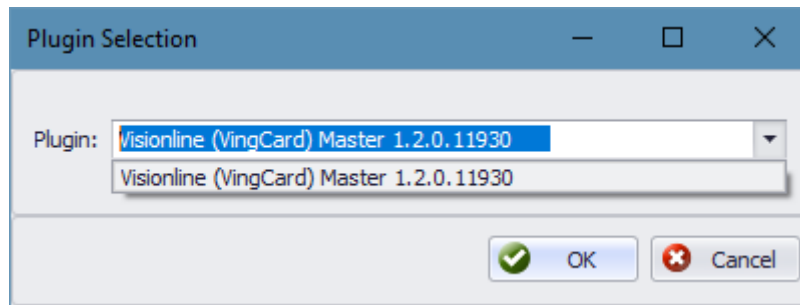
3. In the editor window that appears, give the new Integrated Device a name.
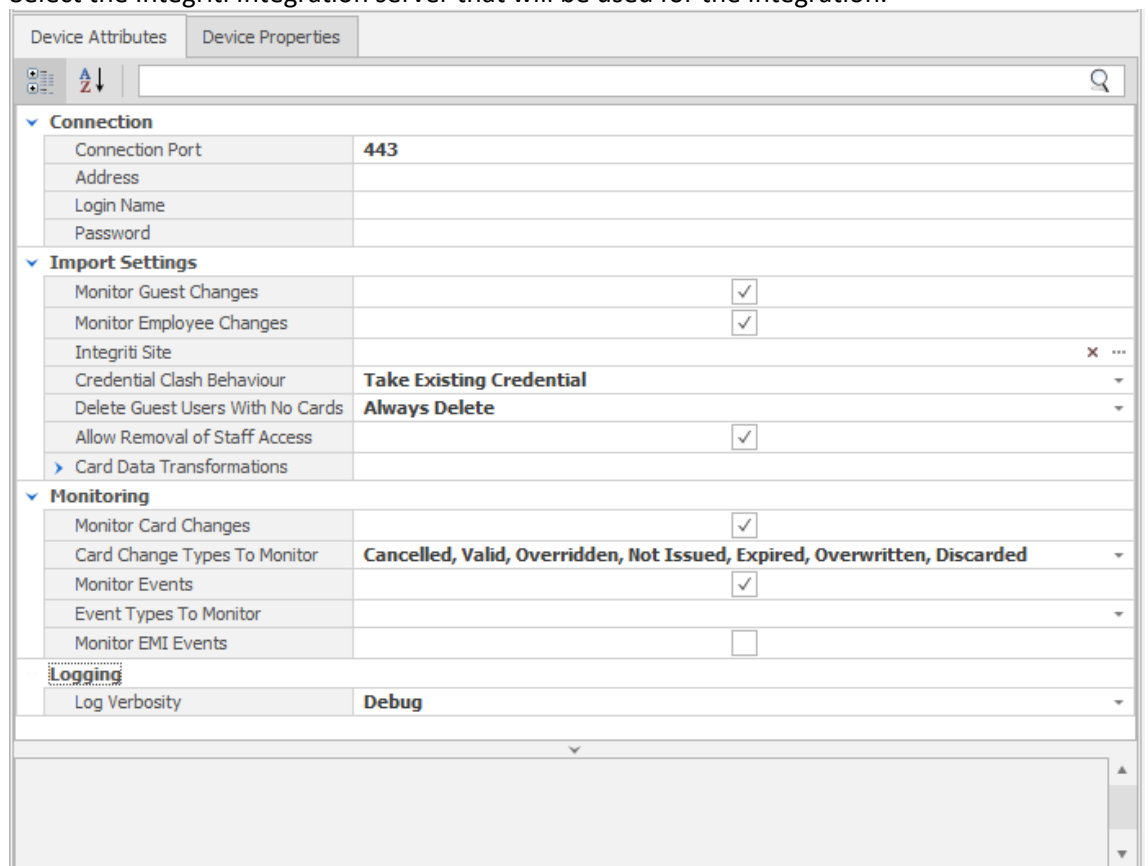4. Tick ☑ Maintain Persisted Connection above the Device Attributes tab. This must be ticked for the interface to work.
5. Select the Integriti Integration server that will be used for the integration.

Device Attributes

Connection
- *Address* – The IP address of the Visionline server to connect to.
- *Connection Port* – The port used to connect to the Visionline server. This is 443 by default. This port should be configured in the Integriti Integration Server's firewall to allow it to be used.
- *Login Name* – The Username of the Visionline User to connect to the Visionline server with. This User should have sufficient permissions configured in Visionline to allow all of the features of the plugin to be used.

- *Password* - The password of the Visionline User to connect to the Visionline server with.

Import Settings

- *Monitor Guest Changes* – Set to true to monitor changes made to Guest Users in the Visionline system. Changes will only be received when 'Maintain Persisted Connection' is selected.
- *Monitor Employee Changes* – Set to true to monitor changes made to Employee Users in the Visionline system. Changes will only be received when 'Maintain Persisted Connection' is selected.
- *Integriti Site* – Select the Integriti site to import Visionline Users to. The Card Template used when importing Cards from Visionline is also determined by the Default Card Template of the selected Site (see Site Properties in Integriti).
- *Credential Clash Behaviour* - Select the desired behaviour when a Credential Clash occurs importing a User or adding a Card to a User from Visionline.
- *Delete Guest Users With No Cards* – Select when to delete Guest Users that no longer have any Cards associated with them in Visionline from Integriti.
- *Allow Removal of Staff Access* – Set to true to remove all Cards and Permissions from staff Users in Integriti if no valid Cards are found in Visionline for the associated User when the Integration starts up. This only applies if no valid cards are found when the integration is starting up. If a Card Change Event is received notifying that the User's card is no longer valid, that card will be removed from the associated User. If set to false, Cards must be manually removed from staff Users if the Visionline cards become no longer valid while the integration is offline.

Card Data Transformations

Card Data Transformations	
Reverse Card Number	☐
Fixed Card Length	☐
Card Data Length (Bits)	56
Bit Shift	None
Bit Shift Number of Bits	0
Parity Bit	None
Parity Bit Location	Left
Apply Bit Mask	None
Bit Mask	

- *Reverse Card Number* - Select to reverse the Card serial numbers received from Visionline when creating Cards in Integriti. This should be set to true if the Integriti Card Readers are configured to read the CSN of the cards in the reverse direction to the Visionline card readers.
- *Fixed Card Length* - Set to true to pad the Card data of all cards imported from Visionline to the number of bits specified in 'Card Data Bits'.
- *Card Data Length (Bits)* - Select the number of bits to treat all cards imported from Visionline as. This will ensure that all cards imported from Visionline have the same number of bits. This can be used to allow Integriti Card Readers to read different sized cards that have been imported from Visionline. This property is only necessary if 'Pad Card Data' is set to true.
- *Bit Shift* - Select whether to shift the bits of card data read from Visionline, and which direction to shift the bits.
- *Bit Shift Number of Bits* - Select the number of bits to shift card data read from Visionline by. Bits will be shifted in the direction selected by 'Bit Shift'.
- *Parity Bit* - Select whether to add a parity bit to the data read from Visionline by.

- *Parity Bit Location* - Select where to add the parity bit to the data read from Visionline. This property is only necessary if 'Bit Shift Parity Bit' is set to anything other than 'None'.
- *Apply Bit Mask* - Select whether or not to apply a bit mask to the resultant card data, and whether to clear or set the selected bits.
- *Bit Mask* - If 'Apply Bit Mask' is enabled, enter a bit mask to apply to the resultant card data. This will be applied from the right-most bit in the card data. The bit mask should comprise of only 1's and 0's.

Monitoring
- *Monitor Card Changes* – Set to true to enable monitoring of Card Changes from the connected Visionline server. Only Card Changes of types selected in the 'Card Change Types To Monitor' property will be monitored. Card Changes will only be received when 'Maintain Persisted Connection' is selected.
- *Card Change Types To Monitor* – Allows the types of Card Changes received from the Visionline server to be filtered based on Card Change type. Possible Card Change Types are:
  - Cancelled
  - Discarded
  - Expired
  - Not Issued
  - Overridden
  - Overwritten
  - Valid
- *Monitor Events* – Set to true to enable monitoring of Events from the connected Visionline server. Only Events of types selected in the 'Event Types To Monitor' property will be monitored. Events will only be received when 'Maintain Persisted Connection' is selected.
- *Event Types To Monitor* **–** Allows the types of Events received from the Visionline server to be filtered based on event type. NOTE: Until a 'Refresh Device' has been performed only the default events will be selectable. Once a 'Refresh Device' has been performed, all Alarm and Event Types configured in Visionline will be selectable.
- *Monitor EMI Events* **–** Set to true to enable monitoring of EMI Events from the connected Server. EMI Events will only be received when 'Maintain Persisted Connection' is selected.

Logging
- *Log Verbosity* - Only logs of the specified level or higher will be logged. If Warning is selected, only Warning, Error and Fatal logs will be written to the log.

6. If Alarms are to be monitored, save the Integrated Device and select 'Refresh Device'. This will populate the 'Event Types To Monitor' property with the Alarm Types configured in the Visionline software.
7. Save and close the Integrated Device window.

Connection Monitoring

If the configuration settings are correct and there is successful communication with the Visionline Software, the Visionline Integrated Device status will appear Online and Review messages will be logged in Integriti. If the connection details are incorrect or if the connection between the Integriti Integration service and the Visionline software is no longer available, the

Visionline Integrated Device status will appear Offline and Review messages will be logged detailing the cause of the connection loss.

Card and User Import Functionality

Once the Visionline integration has been configured and has established a connection to Visionline, the integration will start to import Cards and Users from the Visionline system. There are two instances where Cards and Users will be imported from Visionline:

1. When the integration initially starts up, and
2. When a change is made to a Card in Visionline.

Associating Integriti Entities with Visionline objects

Entities in Integriti can be associated with objects in the Visionline system by setting the 'Visionline Id' property of the Entity in Integriti to the Id (or name in most cases) of the associated object in Visionline. The 'Visionline Id' property will be available after the first time the integration starts up.

For Users, the 'Visionline Id' property will automatically be set to the Id of the imported User in Visionline. Modifying or removing this property will result in the integration losing the association between this User and the associated Visionline User. To associate an existing Integriti User with a Visionline User, the 'Visionline Id' property of the Integriti User can be set to the Id of the Visionline User. This can be useful to associate an Integriti User with a staff User in Visionline, as these won't get deleted.

Doors, Permission Groups, Door Lists, and any other Integriti Entities that are able to be associated with Door Operations and User Groups in Visionline will automatically have their 'Visionline Id' property set to the name of the Entity. If the Entity should map to a Visionline object with a different Id, the 'Visionline Id' property of the Integriti Entity should be changed to the Id of the object in Visionline.

If the 'Visionline Id' property is not visible for the desired Integriti Entity, it may be necessary to manually add the property to the editor window. This can be done by selecting the Customize Layout button in the editor window, and dragging the 'Visionline Id' property into the desired location on the editor.
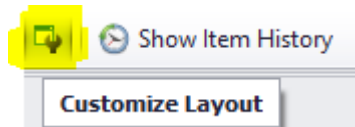
Import Functionality

When Users and Cards are imported from Visionline, the following properties will be set for the Integriti User:

- **Primary Permission Group -** The Visionline User Group property of the User in Visionline will map to the Integriti User's Primary Permission Group. The Primary Permission Group will be set to the Integriti Permission Group with its 'Visionline Id' property set to the Id of the Visionline User Group.
- **Notes -** The Visionline User's 'User Details 1' property will map to the Integriti User's Notes.
- **Permissions –** A new Permission will be added to the Integriti User for each Door or Door Group that the Visionline card has access to in its Door Operations. The 'What' of the new Permission will be set to the Integriti Entity with its 'Visionline Id' set to the Id of the Visionline Door/Door Group.
  If no Integriti Entity is found with a matching 'Visionline Id', no permission will be added for that Door/Door Group.
  For Guest Users, permissions will additionally be added for any Guest Entrances

and Elevator Reader Relay Doors that are associated with the Guest User's primary guest door.

- **Name –**
  - For Visionline 'Staff' Cards or for named Visionline 'Guest' Cards the name of the associated Integriti User will be set to the name of the Visionline User.
  - For unnamed Visionline 'Guest' Cards the name of the associated Integriti User will be set to "Guest:" + the Id of the Visionline Card.
- **Cards -** Each Visionline Card will be added to the associated Integriti User based on the Visionline Card's 'CardHolder' property.
  This Card will have a Card Number set to either the Serial Number or the reverse of the Serial Number of the Visionline Card, depending on the value of the 'Reverse Card Number' property in the Integriti Integrated Device setup.
  If a Card already exists in Integriti with a matching Card Number then the existing Card will be used rather than creating a new Card. If the existing Card is already associated with another Integriti User, it will lose this association on being assigned to the new User.
- **Is Visionline Guest –** Any newly added Users from Visionline will set the value of this Custom Field (added when the integration is first started) to specify whether or not the specified User is a guest in the Visionline system. To change a guest user to a staff user, or a staff user to a guest user, this value can be changed to suit.

Import on Integration Start Up

Once the integration has started and connected to Visionline, an initial import will be performed. This will undertake the following tasks:

- If 'Monitor Guest Changes' is set to true, any 'Guest' Cards that are present in Visionline but not in Integriti will have a new User and Card created in Integriti. If a Card with the same Card Number already exists in Integriti then this will be used instead of creating a new Card.
  NOTE: The initial import will not import 'Staff' Cards that do not already exist in Integriti. To add 'Staff' Cards to Integriti they must be manually added to Integriti. Alternatively they may be added to Visionline while the Visionline integration is monitoring user changes from Visionline.
- All Visionline Cards ('Guest' and/or 'Staff', depending on the values of 'Monitor Guest Changes' and 'Monitor Employee Changes') in the Visionline system that have an associated User in Integriti will update the associated Integriti User. This will involve updating all imported fields of the Integriti User (see 'Import Functionality' for more details on the imported properties) and setting the Integriti User's Cards and Permissions to only those present in Visionline.
- If 'Delete Guest User's With No Cards' is set to either 'Always Delete' or 'Only Delete at Startup', all Integriti Users associated with a 'Guest' Visionline card that no longer have an associated Card in Visionline will be deleted from Integriti.
- If 'Allow Removal of Staff Access' is set to true, all Integriti Users associated with a 'Staff' Visionline card that no longer have an associated Card in Visionline will have all of their Cards and Permissions removed, but will remain in Integriti.

Import on Visionline Card Change

On changes to Cards in Visionline the integration will update the associated User in Integriti depending on the status of the Card.

- When a Card in Visionline has a change that results in the Card's status being 'Valid', the Card will be added to the associated User in Integriti. If no associated User exists in Integriti one will be created.
  The Integriti User will also have its imported properties updated to the current values in Visionline (see 'Import Functionality' for more details on the imported properties).
- When a Card in Visionline has a change that results in the Card's status being anything but 'Valid', the Card will be removed from the associated User in Integriti. If no associated User exists in Integriti nothing will happen.
  If the associated Integriti User has no more cards after the Card has been removed and the Visionline Card is a 'Guest' Card, the Integriti User will be deleted.

Manually Adding Staff Users

To manually add staff Users to Integriti that will be updated with future changes made in Visionline the following steps must be followed:

1. Configure the Visionline integration and start a Persisted Connection as described in 'Installation', ensuring that 'Monitor Employee Changes' is set to true.
2. Add a User to Integriti for the selected staff member and configure as necessary (see Integriti Configuration Manual for more details on adding and configuring Users in Integriti).
3. Set the 'Visionline Id' property of the User to the Id of the Visionline User to map the Integriti User to.
4. Upon saving the changes to the User, any changes made to the associated User in Visionline will be reflected in the Integriti User.

Limitations

Currently the following functionality is not supported in the Visionline Integration:

- Adding Staff Cards – Staff Users must be manually added to Integriti for changes to be synchronised from Visionline. See 'Manually Adding Staff Users' for more details on manually adding staff Users.
- Cancelling Staff Cards from Visionline – Staff cards cancelled through Visionline will not be automatically removed from the associated User in Integriti. To cancel the card in Integriti, it must be manually removed from the associated User in Integriti.