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ACT Enterprise and ZK Teco Biometric Integration.

This document summarises how to implement the integration between selected ZK Teco Biometric Readers and ACT Enterprise 2.10.0.x onwards.

Notes

- Integration only supports MA300s and SF420s purchased via Vanderbilt, as they run a proprietary firmware variant.
- Only supported on ACT1500e/1520e, ACTpro-100 Door Stations and ACT 4000 controllers WITH memory card.
- ACT Enterprise supports one Biometric credential per user.
- Biometric Readers connect to ACT controllers/door stations as a normal Wiegand reader. They require in addition, a network connection.
- An SLK20R enrolment reader is required to enrol fingerprints into the system.
- Biometrics Integration is licensed on a per reader basis. So, your license must have the necessary number of Biometric readers enabled before you can add/configure them.



1. Reader Wiring

The connections required between reader and controller are as simple as Wiegand data lines, and power.

The reader also requires connection to the same IP network as the ACT Server.

Note: It is always recommended to power a reader from the reader terminal block as this is protected by a fuse, and as such any sabotage attempt at the reader (most exposed location) would have no detrimental effect on the controller.



Biometric Reader	ACT Controller
+12v	+12v
0v	0v
Wiegand D0	Data/D0
Wiegand D1	Clock/D1
Wiegand 0v	0v

2. Enable Biometrics in ACT Enterprise

ACT Enterprise>ACT Install>Settings>Biometrics

The first thing that must be done is enable Biometric functionality in the system.

Settings				
🕞 Live System	General			
	Biometrics	Admin Card	452624398	_
	Controller Settings	Manufacturer	ZKTeco	\mathbf{T}
Advanced Setup	OSDP Encryption	Comm Password	*****	
Tools	Installation			
Reports	Controller's Security			
**	Default Options - Door			
Ma Settings	Event Filter			
ACT Clients	Email Notification			
	Information			

Admin Card – Every reader is shipped with an admin card, only one admin card should be used per system.

Manufacturer – Only one option is available here at present – ZK Teco

Comm Password – This is essentially the encryption key defined between system and reader and should be noted and kept safe somewhere as it may be required in the future.

3. Adding the reader

ACT Enterprise>ACT Install>Advanced Setup>Biometric Readers

Enter the relevant settings for the reader:

- **Model –** Pick the supported models
- IP Address Enter default/relevant IP address as required.
- Port Leave as default.
- MAC Address Optional, but helps unique identification.
- Manufacturer Fixed field.
- **Door –** If selected, adds reader settings to doors section of s/w.
- **Direction –** Define as Entry/Exit reader on the system.

Biometrics	Biometric Reader - Des	sk	
Live System	Description	Biometric Reader - Desk	د د
Quick Setup	Model	MA300	•
Advanced Setup	IP address	192.168.1.222	
Controllers/Hub Groups	Port	4370	
Hub Groups		Set New IP Test Co	onnection
Uoors	You must ensure yo	u can connect to the reader befo	ore setting a new IP is enabled
OSDP Readers	MAC address		
I/O Modules	Manufacturer	ZKTeco	
DVRs	Door		-
Kone Lift Configuration	Direction	Entry	T
Card Configuration			
SPC Panels			
Biometric Readers			

Note – All IP configuration of the readers are done via the ACT Enterprise interface. It can be used to both test the connection to a specific reader, and also to set a new IP address. (Default IP 192.168.1.201 / 24)

4. Enrolment Reader Driver Installation

The SLK20R enrolment reader may require the driver to be installed separately. The driver for this is included on the software image in the 3rd Party folder.

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TR 7KTeco-SI K208-Driver.eve	25/09,	/2017 15:31 Win /2019 13:53 App	dows Installer lication	10 563 KB			
25 items							

5. Enrolment of Biometric data

ACT Manage>Manage>Users>*User*>General

Biometric data is added under the standard User screen If the user already has a Biometric credential, you will see a number against the Biometric ID. Otherwise, you will need to click the Fingerprint icon to open the enrollment options.

Izzy Left Index						
	General	User Number:		-	7	
	Bluetooth	First Name:		I	Izzy	*
	Options	Last Name:		l	Left Index	
	Door Plans	Email				
University Physics	Extra Rights	Mobile				
Upload Photo	View Doors	User Group:			Full Access Group	*
Save Photo	T&A Integration	V Enabled				
Clear Photo	Kone Lift Configuration	Cards and PIN				
	Audit Details	One-To-One Car	d:	1	Not Set	
		Card 3:		1	Not Set	
		Card 4:		1	Not Set	
		Biometric ID:		1	Not Set	<i>\$</i>
Load File		PIN:			>	Select om
IntegriSign		Validity Period				
Delete Signature		From:	30/09/2019	15	00 : 00 🚔	
Belete olgitatare		To:	30/09/2019	15	00 : 00 🚔	
Biometrics		User Notes				
User Number: 7 User Name: Izzy Left Index						

6. Enrolment

Click on the Enrol button, and then using the SLK20R, present your finger 3 times to ensure an accurate template is stored.

Biometrics	Chris Left Index			
Abome Home	ld: 0			
Live System	Preview:	Enrol		Press finger on reader 3 times until each box is checked and the
🗊 Manage	, icencent.			status is green.
Users				If biometric template creation fails, click through using the buttons
User Groups				below and replace smudged / low quality images until the status
Door Groups				tunis green
Doors				
Timezones				
Holidays				
DB Users				
Rules				
Rule Counters				
Elevator Manager	1	2	3	<
🚍 Inputs				
Outputs				
1 Tenants				

If a print is of good enough quality it will show a tick, if not, you will be prompted to follow the process again.



7. Reading ACT Mifare Encoded Cards – MA300 ONLY

The MA300 in addition to being a Biometric reader, can read ACT Encoded Mifare Cards - MF10C1 & MF10T1

In order to do this though, a custom card format must be defined in ACT Enterprise.

ACT Install>Advanced Setup>Card Configuration>Format

Wiegand Format			
Name:	ZK Teco Custo	om Format	
	Start	Len	gth
Overall:		34	
Site Code:	0	0	
Card Number:	2	32	
Issue Number:	0	0	
✓ Use this format			
ONO Reverse Reverse	Bits O Reverse Byte	s	

8. Syncing Readers

ACT Install>Advanced Setup>Biometric Readers

If comms is lost to the reader(s), and credentials are added or deleted during this time, then it is necessary to manually synchronise the reader with the Biometric Data database.

Select the relevant readers and click Sync. Dependent on the size of the DB this could take some time.

	DERBILT		
Biometric Readers			ACTEnterprise Install
Live System	D Name IP address	Port Model Manufacturer Door Name	
Quick Setup	2 MAGOO - V2 192-106-1-201	4370 MAGOU 2KTECO AGT PTO 2A DOOF 3	This will syncronise the reader of
Advanced Setup			
Controllers/Hub Groups			Yes
Hub Groups			
Doors/Aperio Locks			
OSDP Readers			
Aperio Hubs			
I/O Modules			
DVRs			
Kone Lift Configuration			
Card Configuration			ACTEnterprise Install
SPC Panels			Synchronisation in progress.
Biometric Readers			complete for a large number
Tools			
Reports			OK
Settings			
Clients			
Version: 210.050	Delete		

If you have any questions, please contact our Technical Competence Centre. Contact details can be found on our website.



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