

AN-254

# **Configuring OSDP Readers in ProtegeGX**

## Application Note

**ICT**ProtegeGX<sup>®</sup>

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# Introduction

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Readers that communicate using OSDP (Open Supervised Device Protocol) function in a similar way to ICT's readers using RS-485. The setup within ProtegeGX is the same apart from the additional commands that are used to specify the port type and the smart reader record that is required for each OSDP reader connected to a controller.

As third party OSDP readers are only supported by the RS-485 network, you must ensure that the controller that you are connecting the readers to supports RS-485 reader connection. OSDP is not supported by the reader expanders.

Third party OSDP readers **MUST** have their address set to either 0 (exit) or 1 (entry) for them to be recognized on the ICT RS-485 network.

## Enabling the Reader Ports for OSDP Operation

In ProtegeGX, the **Port 1 Network Type** and/or **Port 2 Network Type** must be set to **ICT RS485** for OSDP operation.

The following parameters should be entered in the Commands field:

```
PortOne = 1
PortTwo = 1
OSDPbaudP1 = 19200
OSDPbaudP2 = 19200
```

Line	Parameter	Description
Line 1	PortOne	Command used to identify the OSDP reader on the RS-485 network when it is connected to reader port one on the controller.
Line 2	PortTwo	Command used to identify the OSDP reader on the RS-485 network when it is connected to reader port two on the controller.
Line 3	OSDPbaudP1	If the OSDP reader connected to reader port one does not use the default baud rate of 9600, then you can use this command to change the baud rate. The supported baud rates are 9600, 19200 and 38400. '19200' set the baud rate to 19200. '38400' sets the baud rate to 38400. If this command is not used, or if an unsupported baud rate is entered, the default 9600 will be used.
Line 4	OSDPbaudP2	If the OSDP reader connected to reader port two does not use the default baud rate of 9600, then you can use this command to change the baud rate. The supported baud rates are 9600, 19200 and 38400. '19200' set the baud rate to 19200. '38400' sets the baud rate to 38400. If this command is not used, or if an unsupported baud rate is entered, the default 9600 will be used.

## Adding a Smart Reader Record

Each OSDP reader connected requires its own smart reader record.

1. Navigate to **Expanders | Smart Readers** and click **Add**
2. Enter a **Name** for the OSDP reader
3. Set the **Expander Address** to the address assigned to the controller's onboard reader
4. Set the **Expander Port** that the OSDP reader is wired to
5. Enter the **Configured Address** of the OSDP reader. This is the address of the OSDP reader +1. If the reader has been addressed by the supplier as address 0, the configured address will be 1 and if the reader has been addressed by the supplier as address 1, the configured address will be 2
6. Select the **Reader** tab
7. Set the **Reader Format** of the OSDP reader
8. If there are two readers connected to the same physical port, set the **Reader Location** (Entry or Exit) for the reader. This field must be configured for the correct access direction to be reported and logged in ProtegeGX
9. Select the **Door** that the reader is associated with
10. Click **Save**

## Supported Functionality

The ICT implementation of OSDP conforms to a subset of the OSDP V 2.1.5 specification.

- A maximum of 2 readers per port are supported (addresses 0 and 1).
- Encryption is not supported.
- The control functions that are supported are Buzzer control (OSDP\_BUZZ) and LED control (OSDP\_LED). Control of outputs, text display, and date/time configuration are not supported.
- The input functions that are supported are wiegand card read (OSDP\_RAW), keypad entry (OSDP\_KPD) and tamper (OSDP\_LSTATR). Biometric read and digital inputs are not supported.
- Control of a readers buzzer is achieved automatically by the access granted or denied functions or can be manually achieved by activating Output 5 (for reader address 0) or Output 8 (for reader address 1) of the Controllers onboard reader programming.
- Control of a readers LED is handled automatically by the 'LED follows lock' function or can be overridden by activating the output 3 (for reader address 0) or output 6 (for reader address 1) of the Controllers onboard reader programming. The default colour is blue and the LED will change to green when activated.
- Card reads must contain the raw wiegand bit stream to be decoded by the ICT controller. Card and site codes decoded by the OSDP reader itself are not supported.
- If OSDP readers are used in conjunction with Function Codes the configured functions will be carried out but the multi-color LED feedback will not be displayed.
- Numeric key presses are processed after the hash (#) key is pressed i.e. the hash key is treated as an Enter key. Pressing the star (\*) key flushes the PIN buffer i.e. the star key is treated as a Cancel key.
- If the OSDP reader has a tamper switch then its state is mapped to trouble input #3 of the door associated with that reader. The power status of the reader is not mapped to a trouble input.

# Contact

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Integrated Control Technology welcomes all feedback.

Please visit our website (<http://www.ict.co>) or use the contact information below.

## Integrated Control Technology

P.O. Box 302-340  
North Harbour Post Centre  
Auckland  
New Zealand

4 John Glenn Ave  
Rosedale  
North Shore City 0632  
Auckland  
New Zealand

Phone: +64-9-476-7124

Toll Free Numbers:

0800 ICT 111 (0800 428 111) - New Zealand

1800 ICT 111 (1800 428 111) - Australia

1855 ICT 9111 (1855 428 9111) - USA/Canada

Email: [sales@ict.co](mailto:sales@ict.co) or [support@ict.co](mailto:support@ict.co)

Web: [www.ict.co](http://www.ict.co)



#### **APAC**

Integrated Control Technology Limited  
4 John Glenn Avenue, Rosedale, Auckland 0632  
PO Box 302-340, North Harbour, Auckland 0751, New Zealand  
Email: sales@ict.co Toll Free: (0800) 428 111 Phone: 64 (9) 476 7124

#### **AMERICAS**

Integrated Control Technology (USA) LLC  
5265 S Rio Grande Street, Suite 201, Littleton, CO 80120  
Email: ussales@ict.co Toll Free: (855) 428 9111 Phone: 720 442 0767

#### **EMEA**

Integrated Control Technology (Europe) Limited  
St Mary's Court, The Broadway, Amersham, HP7 0UT, UK  
Email: emeasales@ict.co Phone: 44 0 1494 590494

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