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DataMan Integration Guide for Deutschmann UNIGATE CL PROFIBUS Gateway

1. Carefully read through available documentation, and notice all safety instructions.

2. The UNIGATE device is configured by default for 9600 Baud, 8-N-1, no flow control. Connect with the DataMan SetupTool to your DataMan reader and configure it on the *Serial* tab of the *Communication Settings* pane to these values.
   If you need a higher baud rate speed, you have to configure the UNIGATE device with the WinGate software. Please see the UNIGATE manual for how to accomplish this. In short - you have to set switch S4 and S5 to F and connect the X1 RS232 port of the device with your PC. In WinGate choose *File->Upload*, change the serial settings and use *File->Download* to write settings back to the gateway. Don't forget to also change the serial settings of your DataMan device and to set S4 and S5 back to 00.

3. Set the desired PROFIBUS ID with the ID High and Low switch on the front of the UNIGATE device (alternatively set it to 7E for configuration via PROFIBUS).

4. Connect the UNIGATE device with the PROFIBUS connector to your PLC.

5. Connect the DataMan's RX, TX and GND lines (of the RS232 connection) with the X1 port of the gateway. Please see the DataMan's Quick Reference Guide for a pinout of you're the reader.

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6. Power up UNIGATE device and DataMan reader.

7. Install the UNIGATE's GSD file (UGIC3218.GSD) to your PLC software.

8. The UNIGATE gateway will now show up in your catalogue under:
   PROFIBUS DP->Additional Field Devices->Gateway->UNIGATE IC – Profibus

9. Add the UNIGATE gateway to your DP master system.

10. Choose a module that suits your needs. In the below example screenshot, the 64 words I/O module is used.
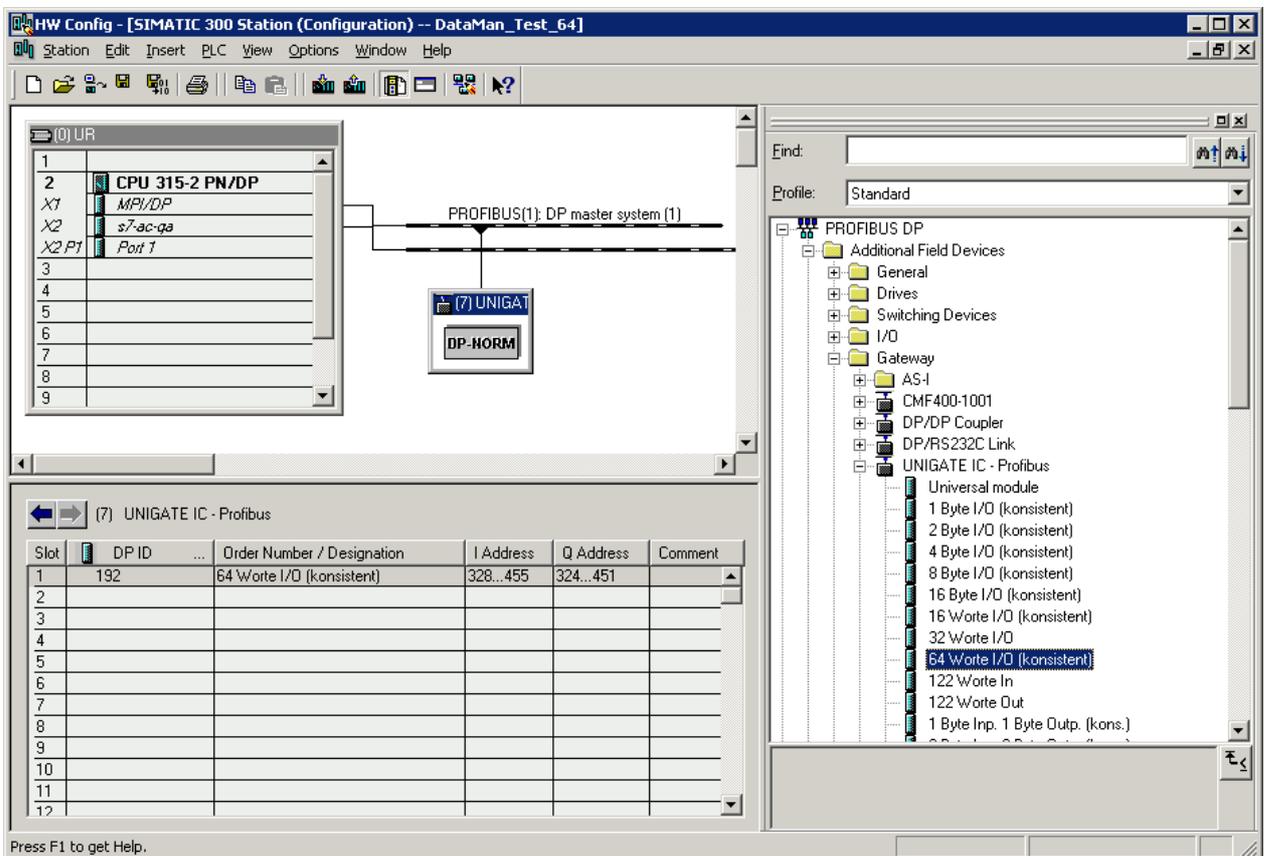
Scan a barcode with the DataMan reader, and see the decoded results (in this example) in IW328 and the following words.
You can now also write DataMan Control Commands (DMCC) to the configured Q addresses and will see that the DataMan executes them.

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Some additional notes:

1. The default "Transparent" protocol on the UNIGATE gateway treats a serial message as finished if there is an inter-character delay of 2ms. If your application should be reading faster and is violating that delay between two scanned codes, you would have to switch the UNIGATE gateway to "Universal 232" and define a Start and Stop character, that you have to add in the DataMan to your read codes via Data Formatting. Please note that the UNIGATE gateway adds those Start and Stop characters also in the other direction on the serial connection, so you will lose the ability to send DMCC commands to the reader via this connections (you could of course trick with a pipe as start character and a newline as stop character, if you are really sure that they are never contained in any of your read codes).

2. If you need to read a code multiple times, you can't see that the same code arrived another time in the PLC. But you can add for example the Trigger Index in DataMan's Data Formatting to have an incrementing number in front or after your code string. The UNIGATE gateway also provides such a functionality called Trigger Byte if that better suites your needs.

3. In the other direction (PLC to DataMan), data is only sent to the serial line if there is a change in the output words. So if you want to send the same DMCC command twice, for example if you want to repeatedly trigger the reader through DMCC, make sure to change the output words in between commands (all 0). Alternatively have a look at the UNIGATE gateway's Trigger Byte functionality, which has to be configured with the WinGate software.